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AZ CORP COMMISSION
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Transcript Exhibit(s)

Docket#(s): W-02450A-06-0626

SW-20422A-06-0566

Exhibit # : A1-A28, S1-S53.

Arizona Corporation Commission
DOCKETED
JAN 7 2008
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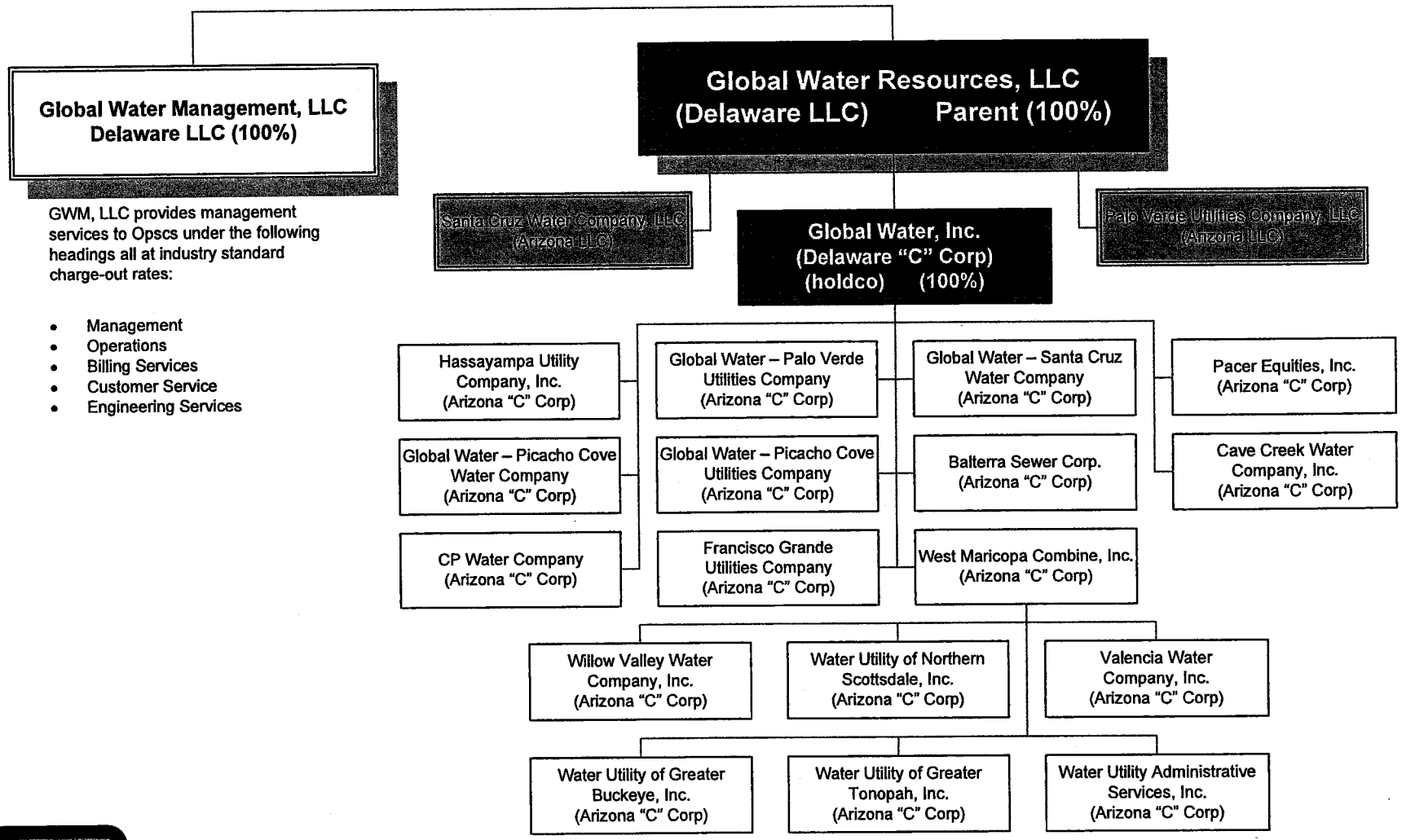
Exhibit List
06-0626 and 06-0566
Hearing, December 17, 2007 9:30 am

Exhibit No.	Description	Witness	Admitted?
A-1	Global Water Corporate Structure	Hill	
A-2	Map of Extension Area	Hill	
A-3	Memorandum of Understanding with Town of Buckeye	Hill	
A-4	State Land Department Letter dated September 11, 2007	Hill	
A-5	MAG Approvals of HUC 208 Applications	Hill	
A-6	Recycled Water White Paper	Hill	
A-7	Water System Map	Symmonds	
A-8	Wastewater System Map	Symmonds	
A-9	Recycled Water System Map	Symmonds	
A-10	WUGT Water Master Plan	Symmonds	
A-11	HUC Wastewater Master Plan	Symmonds	
A-12	HUC Application	Symmonds	
A-13	HUC Revised Legal Description and Maps	Symmonds	
A-14	WUGT Application	Symmonds	
A-15	WUGT Revised Legal Description and Maps	Symmonds	
A-16	WUGT Response to First Insufficiency Letter	Symmonds	
A-17	WUGT Response to Second Insufficiency Letter	Symmonds	
A-18	WUGT Response to Third Insufficiency Letter	Symmonds	
A-19	WUGT Compliance Status Report from MCESD	Symmonds	
A-20	WUGT Storage Calculations	Symmonds	
A-21	Affidavits of Mailing and Publication	Symmonds	
A-22	Franchises (HUC and WUGT)	Symmonds	
A-23	WUGT Response to Staff Report	Symmonds	
A-24	HUC Response to Staff Report	Symmonds	
A-25	HUC Revised Response to Staff Report	Symmonds	
A-26	Decision No. 68922	Official Notice	
A-27	Procedural Order dated June 18, 2007	Official Notice	
A-28	McBride Engineering Memorandum regarding Dixie system storage issues	Symmonds	

EXHIBIT A-1

GLOBAL WATER

Global Water Corporate Structure



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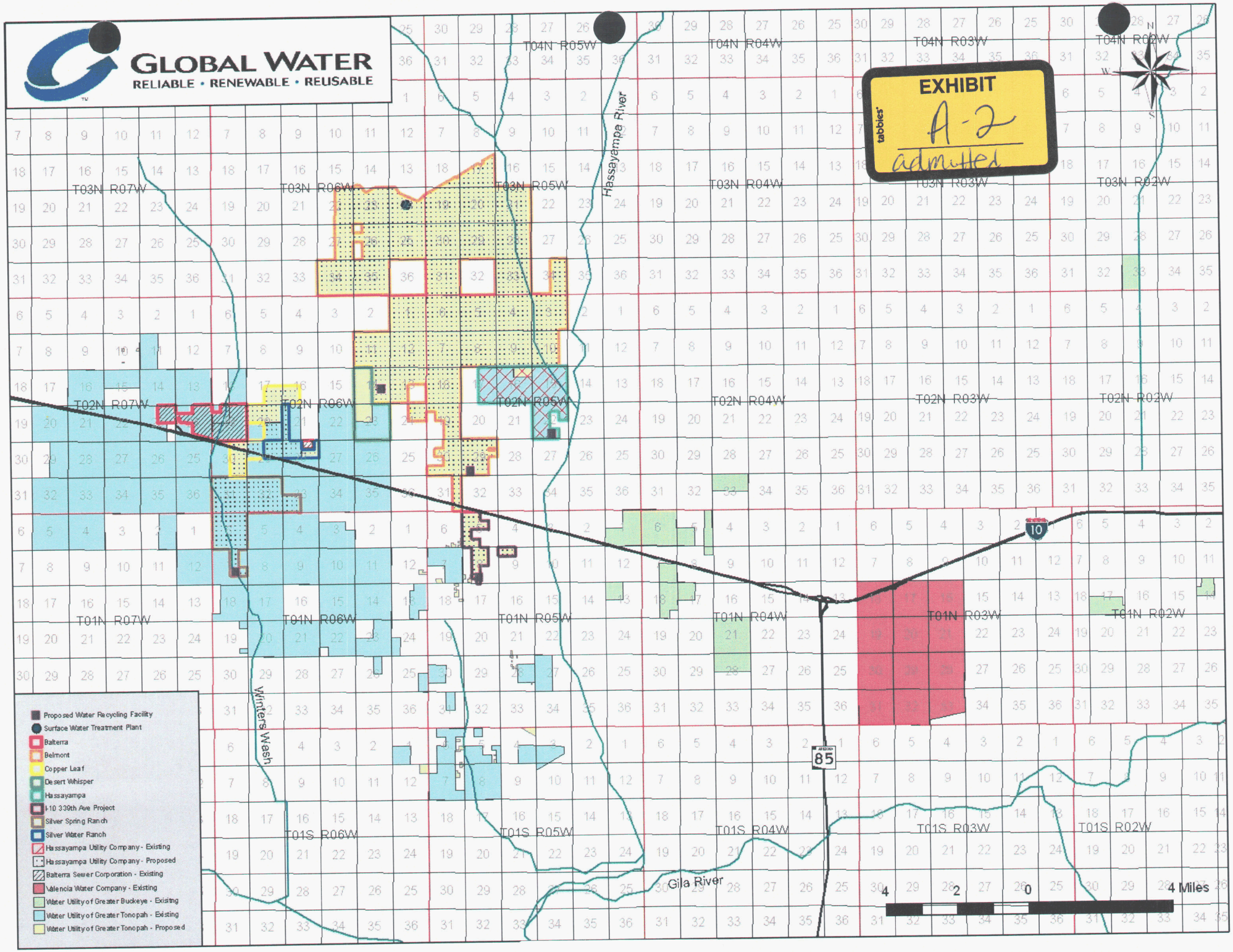
GLOBAL WATER
RELIABLE • RENEWABLE • REUSABLE
EXHIBIT
A-2
admitted
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Hassayampa River
Winters Wash
Gila River
85
10
Proposed Water Recycling Facility
Surface Water Treatment Plant
Balterra
Belmont
Copper Leaf
Desert Whisper
Hassayampa
I-10 339th Ave Project
Silver Spring Ranch
Silver Water Ranch
Hassayampa Utility Company - Existing
Hassayampa Utility Company - Proposed
Balterra Sewer Corporation - Existing
Valencia Water Company - Existing
Water Utility of Greater Buckeye - Existing
Water Utility of Greater Tonopah - Existing
Water Utility of Greater Tonopah - Proposed
4 2 0 4 Miles

EXHIBIT A-2

EXHIBIT A-3

MEMORANDUM OF UNDERSTANDING

THIS MEMORANDUM OF UNDERSTANDING ("MOU") is entered into as of October 2, 2007 between Global Water Resources, LLC, a Delaware limited liability company ("Global"), and the Town of Buckeye, an Arizona municipal corporation (the "Town"). Collectively, Global and the Town are sometimes referred to as the "Parties" and each is referred to as a "Party".

RECITALS

WHEREAS, Global, through its subsidiaries, has made application for an Amendment to the Maricopa Association of Governments ("MAG") Clean Water Act Section 208 Areawide Water Quality Management Plan for Hassayampa Utility Company, Incorporated ("HUC") in a planning area known as the HUC Northeast Service Area (for convenience, may collectively be referred to as the "HUC Proposed MAG 208 Amendment"); and

WHEREAS, the HUC Northeast Service Area is adjacent to the Town's municipal planning area boundary ("MPA"); and

WHEREAS, the Town, through a joint effort with developers in the Town's MPA and with developers outside of the Town's MPA, retained an engineering consultant, Brown and Caldwell, to conduct a hydrologic study of the Lower Hassayampa Sub-Basin ("Sub-Basin") and the results of that study, which were submitted to the Arizona Department of Water Resources in November 2006, indicate that planned development within the Town's MPA can be sustained through proper management of the Sub-Basin which includes recharge of reclaimed water in strategic areas of the Sub-Basin; and

WHEREAS, the Parties acknowledge that Sub-Basin management through conservation, recharge, and reuse of reclaimed water will be a part of any long term total water management strategy; and.

WHEREAS, water demands within the HUC Northeast Service Area will also be served from the Sub-Basin and therefore dependent upon proper management of the Sub-Basin; and

WHEREAS, the Town has lodged its opposition to the HUC Proposed MAG 208 Amendment due to the Town's concerns that the development in the HUC Northeast Service Area will result in recharge of reclaimed water in a manner that may not properly sustain the viability of the Sub-Basin and, based upon the Sub-Basin study conducted by Brown and Caldwell, a regional approach to proper management of the Sub-Basin is critical in order to achieve sustainability of the Sub-Basin and to support planned development in the region; and

EXHIBIT
A-3
admitted

WHEREAS, the Parties have had initial discussions regarding their desire to work cooperatively on water resource planning and management of the Sub-Basin with the ultimate goal of working towards achieving an enforceable agreement between the Parties regarding Sub-Basin management; and

Consequently, incorporating the above Recitals as the basis for this MOU, the Parties agree:

1. That the Town and Global will undertake meaningful discussions over the next 35 days as it relates to Sub-Basin management and the discussions will include, but not be limited to, the following issues:

    A. whether the recharge sites in the HUC Proposed MAG 208 Amendment are strategically located to allow efficient and effective recharge and positive impact on the Sub-Basin;

    B. whether alternative recharge sites that provide positive recharge impact on the Sub-Basin are feasible;

    C. proposed locations of well and recovery well sites;

    D. minimum recharge and reuse levels for the region;

    E. conservation requirements, education and community outreach;

    F. reducing the impacts of development on the Sub-Basin from a gallons per capita per day basis.

2. That the Town and Global will attempt to make every practical reasonable effort within the next thirty-five (35) days to reach agreement on an approach to proper management of the Sub-Basin as to the issues in paragraph 1 above and the Parties will explore the option of using a facilitator to discuss the matters in this MOU in an effort to achieve the agreement contemplated herein.

3. That Global will request Regional Council consideration of the HUC Proposed MAG 208 Amendment at the October 24, 2007 Regional Council meeting so that the Parties will have time to conduct the discussions contemplated by this MOU;

4. That the Town, in return for Global's commitment to the Town to work cooperatively to achieve an agreement between the Parties as described in paragraph 2 of this MOU, the Town will not oppose the HUC Proposed MAG 208 Amendment at the MAG Management Committee October 3, 2007 meeting.

5. That the Town will provide Global with a copy of the November 2006 Brown and Caldwell report of the hydrologic study of the Sub-Basin so that Global will have the benefit of the Sub-Basin information set forth in such report.

6. That Global will participate with the Town in Sub-Basin modeling updates so that the groundwater status of the Sub-Basin may be kept as current as possible for proper management.

This MOU is intended to establish a framework for good faith cooperation between the Parties to achieve the results outlined herein. It is acknowledged and agreed by the Parties that this MOU is not a binding agreement and it is not enforceable against either Party.

DATED this 2nd day of October 2007.

Town of Buckeye, an Arizona municipal corporation

By: Bobby Bryant
Its Mayor

Attest:

Linda Hansen
Town Clerk

Global Water Resources, LLC

By
Title: President & CEO

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EXHIBIT A-4

ARIZONA STATE LAND DEPARTMENT

Janet Napolitano
Governor

Mark Winkleman
State Land
Commissioner

September 11, 2007

Lindy Bauer, Environmental Director
Maricopa Association of Governments
302 North 1st Avenue, Suite 300
Phoenix, AZ 85003

Re: 208 Amendment in Tonopah

Dear Ms. Bauer:

The Arizona State Land Department (ASLD) was recently notified of Hassayampa Utility Company's 208 amendment request for a 65.6 square mile area in eastern Tonopah ("NE 208 Plan"). There is a significant amount of State Trust land contained within the proposed 208 amendment area and the ASLD believes that it is in the best interest of the State Trust land that it be included within the 208 amendment.

Whenever possible, the ASLD encourages the integration of water and waste water services on State Trust lands. Much of the Trust land contained within the proposed NE 208 Plan is within the existing service territory of a private water provider or is currently being considered as part of a CC&N extension request. The information provided to the ASLD indicates that the NE 208 Plan will facilitate integrated water/waste water service on State Trust lands. Thus, the ASLD supports the inclusion of the State Trust land within the NE 208 Plan.

If you have any additional questions, please feel free to contact me at 602-542-4621.

Sincerely,

Jamie L Hogue

Jamie Hogue
Deputy Commissioner
Arizona State Land Department

EXHIBIT
A-4
admitted

EXHIBIT A-5

MARICOPA ASSOCIATION of GOVERNMENTS

302 North 1st Avenue, Suite 300 ▲ Phoenix, Arizona 85003
Phone (602) 254-6300 ▲ FAX (602) 254-6490
E-mail: mag@mag.maricopa.gov ▲ Web site: www.mag.maricopa.gov

December 7, 2007

Ms. Edwina Vogan
Arizona Department of Environmental Quality
208 Water Quality Management Planning
5th Floor Hydrology Unit
1110 West Washington Street
Phoenix, Arizona 85007

EXHIBIT A-5 admitted

Dear Ms. Vogan:

As the designated Regional Water Quality Management Planning Agency, the Maricopa Association of Governments (MAG) Regional Council approved the MAG 208 Water Quality Management Plan Amendment for the Hassayampa Utility Company (HUC) Northeast Service Area on October 24, 2007. The State Water Quality Management Working Group then recommended approval of the amendment to the Arizona Department of Environmental Quality (ADEQ) on December 3, 2007. It is now requested that the ADEQ Director approve the Hassayampa Utility Company Northeast Service Area 208 Plan Amendment, certify that it is consistent with the MAG 208 Water Quality Management Plan, and submit the amendment to the U.S. Environmental Protection Agency for approval.

The Hassayampa Utility Company Northeast Service Area would include four water reclamation facilities (WRFs) in unincorporated Maricopa County. The Campus 1 WRF would have an ultimate capacity of 9 million gallons per day (mgd) and reclaimed water would be disposed of through reuse, recharge, and an Arizona Pollutant Discharge Elimination System (AZPDES) Permit discharge to the Hassayampa River. The Campus 2 WRF would have an ultimate capacity of 10 mgd and reclaimed water would be disposed of through reuse, recharge, and AZPDES Permit discharge points to the Dickey Wash and/or Hassayampa River. The Campus 3 WRF would have an ultimate capacity of 12 mgd and reclaimed water would be disposed of through reuse, recharge, and AZPDES Permit discharge points to the Dickey Wash and/or Phillips Wash. The Campus 4 WRF would have an ultimate capacity of 14 mgd and reclaimed water would be disposed of through reuse, recharge, and an AZPDES Permit discharge to the Phillips Wash. The Dickey Wash and Phillips Wash are tributaries to the Luke Wash. The project is within three miles of the Town of Buckeye. Initially, Buckeye had expressed concern about the amendment, but has since indicated it no longer objects.

On June 6, 2007, the MAG Water Quality Advisory Committee (WQAC) authorized a public hearing on the Draft MAG 208 Plan Amendment for the HUC Northeast Service Area. The notice of public hearing was advertised in *The Arizona Republic* on June 20, 2007 and the hearing was held on August 7, 2007. Following the hearing, the WQAC recommended approval of the Draft MAG 208 Plan Amendment.

On September 12, 2007, the MAG Management Committee continued the Draft 208 Plan Amendment for 30 days until the October meeting of the MAG Management Committee. At the October 3, 2007 MAG Management Committee meeting, the Town of Buckeye reported that the

Town adopted a Memorandum of Understanding outlining that the Town and Global Water would work to address its concerns and continue discussions. Buckeye indicated that it would not oppose the amendment at the MAG Management Committee meeting based on those good faith discussions; however, the Town's position at the MAG Regional Council meeting would also be determined by those good faith efforts. The MAG Management Committee recommended approval of the Draft 208 Plan Amendment.

At the October 24, 2007 MAG Regional Council meeting, the Town of Buckeye indicated that the Town Council approved an agreement between the Town and Global Water regarding the shared use of the Hassayampa Sub-basin and other matters related to the 208 Plan Amendment and will no longer object. The MAG Regional Council took action to approve the MAG 208 Plan Amendment for the HUC Northeast Service Area.

The amendment document, public hearing documentation, written comments received outside the public hearing comment period, and the agreement between the Town of Buckeye and Global Water and joint press release were provided to the State Water Quality Management Working Group for the December 3, 2007 meeting. Following discussion, the State Water Quality Management Working Group recommended approval of the MAG 208 Plan Amendment for the Hassayampa Utility Company Northeast Service Area to ADEQ.

At the request of the Arizona Department of Environmental Quality, the meeting minutes from the MAG Water Quality Advisory Committee, MAG Management Committee, and MAG Regional Council detailing committee recommendations on the HUC Northeast Service Area 208 Plan Amendment are included in Attachment A. Please note that the excerpt from the October 24, 2007 MAG Regional Council meeting minutes which is marked as draft and subject to final approval. Three copies of the amendment document; the letter of official request to initiate the process; the letter from the jurisdiction within a three mile radius; the public hearing documentation; written comments received outside the public hearing comment period; and the agreement between the Town of Buckeye and Global Water and joint press release are provided in Attachment B.

Thank you in advance for your assistance. If you have any questions, please contact me at (602) 254-6300.

Sincerely,

Julie A. Hoffman
Environmental Planner III

cc: Kevin Chadwick, Maricopa County Environmental Services Department
Dale Bodiya, Maricopa County Environmental Services Department
Ken James, Maricopa County Environmental Services Department
Robin Bain, Global Water Resources
Paul Gilbert, Beus Gilbert
Neil Pascoe, Beus Gilbert

MARICOPA ASSOCIATION of GOVERNMENTS

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E-mail: mag@mag.maricopa.gov ▲ Web site: www.mag.maricopa.gov

October 17, 2007

Ms. Edwina Vogan
Arizona Department of Environmental Quality
208 Water Quality Management Planning
5th Floor Hydrology Unit
1110 West Washington Street
Phoenix, Arizona 85007

Dear Ms. Vogan:

As the designated Regional Water Quality Management Planning Agency, the Maricopa Association of Governments (MAG) Regional Council approved the MAG 208 Water Quality Management Plan Amendment for the Hassayampa Utility Company (HUC) Southwest Service Area on September 26, 2007. The State Water Quality Management Working Group then recommended approval of the amendment to the Arizona Department of Environmental Quality (ADEQ) on October 9, 2007. It is now requested that the ADEQ Director approve the Hassayampa Utility Company Southwest Service Area 208 Plan Amendment, certify that it is consistent with the MAG 208 Water Quality Management Plan, and submit the amendment to the U.S. Environmental Protection Agency for approval.

The Campus 1 Water Reclamation Facility for the HUC Southwest Service Area would have an ultimate capacity of 32 million gallons per day. The facility would be located in unincorporated Maricopa County within the southeast quarter of Section 7 of Township 1 North, Range 6 West. Reclaimed water would be disposed of through reuse, recharge, and Arizona Pollutant Discharge Elimination System Permit discharge points to the Delaney Wash, Four Mile Wash, Old Camp Wash, and/or a discharge point 12,000 feet northeast of the facility in an unnamed wash. The Delaney Wash, Old Camp Wash, and the unnamed wash are tributaries to the Four Mile Wash.

On June 6, 2007, the MAG Water Quality Advisory Committee (WQAC) authorized a public hearing on the Draft MAG 208 Plan Amendment for the HUC Southwest Service Area. The notice of public hearing was advertised in *The Arizona Republic* on June 20, 2007 and the hearing was held on August 7, 2007. Following the hearing, the WQAC recommended approval of the Draft MAG 208 Plan Amendment. On September 12, 2007, the MAG Management Committee concurred with the recommendation of the WQAC. On September 26, 2007, the MAG Regional Council reviewed the MAG Management Committee recommendation and took action to approve the MAG 208 Plan Amendment for the Hassayampa Utility Company Southwest Service Area.

The amendment document, public hearing documentation, and written comments received outside the public hearing comment period were provided to the State Water Quality Management Working Group for the October 9, 2007 meeting. In addition, a member of the public requested that her written comments be distributed at the meeting. Following discussion, the State Water Quality Management Working Group recommended approval of the MAG 208 Plan Amendment for the Hassayampa Utility Company Southwest Service Area to ADEQ.

At the request of the Arizona Department of Environmental Quality, the meeting minutes from the MAG Water Quality Advisory Committee, MAG Management Committee, and MAG Regional Council detailing committee recommendations on the HUC Southwest Service Area 208 Plan Amendment are included in Attachment A. Please note that minutes marked as draft are subject to final approval by the appropriate committees. Three copies of the amendment document; the letter of official request to initiate the process; the public hearing documentation; and written comments received outside the public hearing comment period are provided in Attachment B. The written comments distributed at the October 9, 2007 State Water Quality Management Working Group are contained in Attachment C.

Thank you in advance for your assistance. If you have any questions, please contact me at (602) 254-6300.

Sincerely,

Julie A. Hoffman

Julie A. Hoffman
Environmental Planner III

cc: Kevin Chadwick, Maricopa County Environmental Services Department
Dale Bodiya, Maricopa County Environmental Services Department
Ken James, Maricopa County Environmental Services Department
Robin Bain, Global Water Resources
Paul Gilbert, Beus Gilbert

EXHIBIT A-6

TOTAL WATER MANAGEMENT:

RESOURCE CONSERVATION IN THE FACE OF POPULATION GROWTH AND WATER SCARCITY

EXHIBIT
A-6
admitted

TOTAL WATER MANAGEMENT: RESOURCE CONSERVATION IN THE FACE OF POPULATION GROWTH AND WATER SCARCITY

INTEGRATED SYSTEMS, REGIONAL PLANNING, AND THE ECONOMICS OF WATER RECLAMATION AND BENEFICIAL REUSE

By Trevor Hill, Graham Symmonds, and Wesley Smith

INTRODUCTION

Water management in Arizona and the arid southwestern United States is being influenced by two increasingly synchronous and alarming trends: explosive growth and water scarcity.

The intersection of these factors – a future certainty – will drive water policy to extreme measures. In the absence of action now, those measures will both arrive sooner and be significantly more expensive. Sustainability in the future will depend solely on what action is taken today to preserve and extend the region's limited and increasingly valuable water resources.

The State of Arizona is in the crosshairs of the collision between growth and supply. In the absence of action today, as a landlocked state, Arizona must rely on non-renewable groundwater supplies and limited surface water supplies in order to meet the needs of its current and future populations. Exacerbating the issue is the fact that the state is entering its 13th year of drought, whilst leading the nation in growth. Arizona must take the initiative now to establish regional conservation practices, develop and deploy regional infrastructure, and develop alternate water resources in order to meet the needs of today's – and tomorrow's – customers. In the absence of such planning, Arizona residents will be subjected to continuous scarcity concerns, and ultimately will face materially increased costs for an essential commodity.

With the uncertainty of surface water resources and dwindling groundwater aquifers, recycled water exists as the only water source experiencing an increase in availability.[1] While broad based water recycling programs have become sound public policy and have been widely adopted around the globe in regions facing water scarcity, the State of Arizona has taken relatively minor steps to promote this renewable resource.

[1] Under Arizona's Groundwater Management Act, there are three sources of water: Surface Water - from local rivers and lakes or Central Arizona Project Water ("CAP") from the canal system connected to the Colorado River and its reservoirs, Groundwater from underground aquifers, and Recycled water, which the Act calls 'Reclaimed water' - wastewater that has been highly treated and made safe for numerous non-potable uses. Global calls its "treated and reclaimed wastewater" "recycled water."

This paper discusses water scarcity and compares current policy in the State of Arizona with examples from other regions. It also identifies factors that hamper broad utilization of recycling and focuses on the drivers for alternate water sources in the State. Water recycling applications throughout the world are discussed, as are the benefits of direct reuse over recharge.[2] Finally the paper evaluates and analyzes the economics of recycled water infrastructure deployment. In doing so it presents theoretical and empirical data supporting both the concept and reality of deploying and using recycled water to the greatest extent possible.

ADDRESSING SCARCITY – THE ROLE OF RECYCLED WATER

Despite being one of the driest states in the country, the impetus for full development of recycled water resources have not occurred in Arizona. By contrast, the State of California has been in the vanguard of water reclamation. California took the lead in advancing water recycling some years ago with the creation of Title 22, Division 4 in the California Code of Regulations. It was Title 22 that defined the standards for recycled water and allowed its use to irrigate food crops, parks and playgrounds, school yards, residential landscaping, and unrestricted access golf courses.

The California Constitution, Article X, Section 2 addresses water use by establishing a "beneficial use" policy:

> It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the *waste or unreasonable use* or unreasonable method of use of water be prevented, and that the conservation of such water is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare [emphasis added].

[2] The US Geological Survey defines recharge as "The process involved in the absorption and addition of water to the zone of saturation." Reuse is defined by the US Environmental Protection Agency as "The use of wastewater or reclaimed water."

California Water Code[3], Section 13500 further clarifies the State's water policy by directly support water recycling:

> The Legislature hereby finds and declares that *the use of potable domestic water for nonpotable uses,* including, but not limited to, cemeteries, golf courses, parks, highway landscaped areas, and industrial uses, *is a waste or an unreasonable use of the water* within the meaning of Section 2 of Article X of the California Constitution *if recycled water is available* [emphasis added].

In 2001 the California State Assembly established a mission to evaluate the water policy framework of the State and its ability to increase the use of recycled water.[4] The result was a June 2003 report titled "Water Recycling 2030 – Recommendations of California's Recycled Water Taskforce" that concluded "recycled water could free up enough fresh water to meet the household water demands of *30 to 50 percent* of the additional 17 million Californians"[5] expected to populate the State by 2030 [emphasis added].

Examples of water scarcity and the drastic impact that it has on society are dramatically evident in Australia. Prolonged drought has brought severe water shortages to this "First World" Nation. In Brisbane, Queensland, as water reserves dropped to under 20% capacity, the government imposed Level 5 water restrictions on April 10, 2007. In addition to mandatory bans on outdoor uses, residents are being asked to make significant indoor water use savings to lower residential use from 180 liters per person per day (47 gallons per person per day) to 140 liters per person per day (40 gallons per person per day).[6] Similar scenarios are found throughout Australia where recognition of the impending crisis has been accompanied by policy shifts towards maximizing of use of recycled water.

[3] California Law consists of the State Constitution, Statutes, and 29 Codes covering various subject areas, one of which is the Water Code
[4] Assembly Bill 331, Chapter 590, Statues of 2001
[5] "Water Recycling 2030 – Recommendations of California's Recycled Water Taskforce", June 2003
[6] "No Rain, No Water, Big Problem – Water reuse should ease water supply strain in Brisbane, Australia", Water Environment & Technology, August 2007, p 60-63

In Sydney, the Government of New South Wales has included in their 2006 Metropolitan Water Plan a fourfold increase in reuse to 70 billion liters per year (over 50 million gallons per day) by the year 2015.[7] In October of 2006, the New South Wales government cut agricultural irrigation from the River Murray by 20%, an additional 32% cut came weeks later, most recently, regional agriculture receives a zero allocation from the River.[8]

The Government of Western Australia initiated the development of a water plan in 2007, stating that "the State Government has given water and the management of water resources strategic priority. This will continue into the future given climate change and variability, resource scarcity and continued increases in demand."[9] Within the report the Government announced plans to recycle 20% of its water by 2012 and 30% by 2030[10] when population is expected to increase by 40%. It is interesting to note that, also within the report, under the heading "Priority Actions 2007-2011", the Government listed "Use and recycle water wisely" as number one.[11]

Whether by progressive thought or a crisis response to extreme scarcity, the water recycling programs in California and Australia serve as examples of sound water policy. Despite similarities in population growth and resource scarcity, the State of Arizona lags amazingly far behind. While political leaders and regulators have established lofty goals in other regions, Arizona remains passive in its approach to water recycling.

In the Arizona Drought Preparedness Plan, drafted in 2004 by the Governor's Drought Task Force, water recycling is barely mentioned:

> "Effluent, or treated wastewater, can be treated to a quality that can be used for purposes such as agricultural irrigation, turf grass watering, industrial

[7] "2006 Metropolitan Water Plan Executive Summary", NSW Government, April 2006.
[8] "A River Ran Through It", Claire Scoby, The Observer, August 5, 2007.
[9] "State Water Plan 2007 Summary", Government of Western Australia.
[10] Ibid
[11] Ibid

cooling, or maintenance of riparian areas. Effluent has the potential to replace a potable water supply when potable water quality is not necessary for the use."[12]

"Effluent has the potential to replace a potable water supply..." is a far cry from "the use of potable domestic water for non-potable uses...is a waste or an unreasonable use of the water... if recycled water is available" (California Code) or "30% recycled water by 2030" (Western Australia).

FACTORS HAMPERING BROAD UTILIZATION OF RECYCLED WATER

While the regulatory environment in Arizona has adopted stringent standards for Class A+ Reclaimed Water and provides the framework for reuse[13], water providers have not embraced this resource. There are three factors that hamper broad utilization of recycled water in the State:

- A lack of policy direction from elected officials and state agencies
- A lack of integrated service suppliers[14] which are capable of providing the service
- Need for Regional Planning: To address the economic reality that recycled water use can only be achieved on a regional scale

Policy

Given the critical nature of water scarcity in Arizona, the current regulatory framework for water conservation is surprisingly weak. Utilities have limited obligations to conserve and there are no requirements to use recycled water. With rapid growth, finite water resources, and the reality of sustained drought, the State must do more.

[12] "Arizona Drought Preparedness Plan – Background & Impact Assessment Section", Governor's Drought Task Force, October 8, 2004.
[13] Arizona Administrative Code (AAC) R18-11-303 defines Class A+ Reclaimed Water and references a number of approved uses including irrigation of food crops, recreational impoundments, residential landscape irrigation, school ground landscape irrigation, open access landscape irrigation, toilet and urinal flushing, fire protection systems, vehicle and equipment washing, and snowmaking.
[14] Integrated Service Suppliers are those defined as providing water, wastewater and recycled water services.

Recent initiatives by the Arizona Corporation Commission (ACC) indicate that some progress is being made. For example, in certain cases the ACC has banned the use of groundwater to serve golf courses and similar amenities. More importantly, the ACC has made conservation-focused rate designs a priority. The Arizona Department of Water Resources (ADWR) is currently developing "Best Management Practices" (BMP's) for water conservation. While some of the draft BMP's appear to be useful, recycled water is not even mentioned. Glossy brochures and "Water – Use It Wisely" advertisements will only go so far. Long term sustainability requires moving toward regional water reclamation and reuse.

Reliance on the individual consumer for conservation will not ultimately serve to address water scarcity in the State. While individual efforts are helpful on the margins, radical reduction in water use must be initiated by the Utility. It is the Utility that can impact the individual, and the Utility that should bear the burden of long-term resource management.

Integration

Integrated service suppliers provide both water and wastewater services within a region. In situations where an integrated supplier does not exist, opportunities to make use of recycled water are difficult. Obviously, it is the wastewater utility that collects wastewater, treats it to regulatory standards, and distributes recycled water – often to the economic detriment of the water utility.[15] In some cases, water utilities have litigated over the right to distribute recycled water claiming they have such a 'right'[16],

[15] The use of recycled water in lieu of potable water means a diminished demand for the potable water produced by local water companies – reduced water sales diminish the water company's revenues.
[16] See Arizona Water Co. v. City of Casa Grande, No. CV2000-022448 (Superior Court, Maricopa County), Minute Entry dated March 27, 2002. AWC claimed a 'right' to sell City effluent to the Reliant Power Plant. AWC lost and appealed. The Court of Appeals, in an unpublished opinion, upheld the ruling against AWC. Arizona Water Co. v. City of Casa Grande, No. 1 CA-CV 02-0671 and 1 CA-CV 02-0724 (Arizona Court of Appeals), Memorandum Opinion filed October 14, 2003. AWC also lost a related case in federal court. See Arizona Water Co. v. City of Casa Grande, 33 Fed. Appx. 309 (9th Cir 2002)(unpublished opinion).

despite not owning the resource. This litigation further stifles recycled water's potential application. When water and wastewater utilities are placed at odds, neither party advances the use of this valuable resource.

Reducing the volume of water for potable uses directly reduces the costs of treatment to meet the National Primary Drinking Water Standards (obviously, the fewer gallons delivered, the fewer gallons treated, and the lower the costs of treatment). Considering the ever tightening regulatory environment for safe drinking water, reducing the overall capacity requirement of treatment systems means fewer such systems are required, and those that are required, because they treat less water, have lower operating and maintenance costs. The result is a partial sheltering of the consumer from the adverse financial impacts meeting future regulatory requirements of the Safe Drinking Water Act. Saving $0.50 to $2.00 per thousand gallons[18] is a very significant benefit to the consumer, and these funds can then be used for financing large-scale water recycling initiatives.

In addition to the technical aspects of integration, there are policy and financial benefits from integration. A joint Swedish-Polish research study viewed integration of water, wastewater and waste handling as part of a "municipal ecology". The study points out that the advantages of integration include "combinations with the energy sector...improved technical functions, possibilities in a large organization to employ qualified staff, simplification of fee collection system, and less environmental emissions and resources depletion."[17]

Regional Planning

Integration of water and wastewater service providers is a key element of planning for

[17] Current operation and maintenance costs associated with Arsenic treatment within a regional system range from $0.50 to $2.00 per 1,000 gallons of treated water. Treatment costs are likely to increase as other regulated contaminants are identified and must be addressed in the future.
[18] Integration of Water and Sanitation – A Challenge to Reach Sustainability Goals, B. Hultman, E. Plaza and T. Stypka.

total water management. Large-scale planning allows for the realization of a more diverse customer spectrum for recycled water and ensures that the benefits of recycled water are felt regionally. One can imagine that a single development may choose to deploy a significant recycled water scheme to reduce groundwater use, only to have those savings squandered by a neighboring development built solely on the basis of groundwater.

The concepts of total water management - "highest and best use for recycled water" and "the right source for the right use" are pillars of the new paradigm in the water industry. These foundations cannot be constructed without integrated and regional planning. Ultimately this will drive the deployment of dual water mains and maximize the use of recycled water regardless of scarcity. But in the face of scarcity, these tenets become paramount.

THE IMPETUS FOR ALTERNATIVE WATER SOURCES

There are certain realities that must be collectively addressed in order to ensure long term water sustainability in the State of Arizona and that must form the backbone of any sustainable water policy for the state:

- Growth will continue.
- As growth continues, underground aquifers will ultimately reach a rate of withdrawal that will exceed rates of natural recharge.
- Surface water in the region is over-allocated and has been impacted by sustained drought, legal disputes over available supplies, and environmental policies regarding required stream flows.
- Treatment costs are soaring and are unquantifiable in the future.
- Public opinion will evolve as resource availability scenarios change.

Growth

Arizona and the southwestern United States continue to experience unprecedented growth. Climate, cost of living, economic opportunity, and other considerations draw hundreds of thousands of people to the region every year.[19] This influx of new residents have served to enhance the state's quality of life. Entrepreneurs bring new business and opportunities. Recreational and cultural activities continue to evolve and develop. The region has become more attractive as it grows. Despite the recent adjustments in the housing market, all economic indicators point to prolonged growth in the Arizona and the southwest United States. In fact, RL Brown in his July 26, 2007 publication The Phoenix Housing Market Letter states "the metro Phoenix new-housing market remains on the best spots on the planet for new home builders, developers, and the trades."[20]

Limits on Groundwater Supplies (Aquifers)

The situation in Pinal County, Arizona serves to effectively illustrate the limits of groundwater and the impracticality of relying on it as a sole source to support growth. According to the U.S. Census Bureau, the County (located south of Maricopa County) has grown by 51% since the 2000 Census - largely as an exurb of Maricopa County. The aquifer in the Pinal Active Management Area (AMA) is naturally recharged at an average rate of 82,500 acre-feet a year.[21] This means that 82,500 acre-feet per year (the equivalent of roughly 26,883 million gallons) is available in perpetuity. Current regulation requires that each equivalent dwelling unit (EDU) be supported by a demonstrated perpetual availability of 0.5 acre-feet per year.[22] Calculations based on

[19] U.S. Census Bureau, 'Arizona's Maricopa Leads Counties in Population Growth Since Census 2000', http://www.census.gov/Press-Release/www/releases/archives/population/009756.html - which states, in part, "Maricopa County Arizona gained 696,000 residents between 2000 and 2006, the largest numerical increase of the nation's 3,141 counties...Arizona became the nation's fastest growing state between 2005 and 2006."
[20] "The Phoenix Housing Market Letter", RL Brown Housing Reports, Volume 272, July 26, 2007.
[21] Hydrologic studies completed in December 2004 as part of an evaluation of the Pinal AMA's groundwater budget determined that the AMA's renewable groundwater supplies total 82,500 acre feet on a long-term average annual basis.
[22] Arizona Department of Water Resources internal protocol.

this data indicate that 165,000 EDU's can be developed in the Pinal AMA given groundwater as the only water resource. Yet, entitlements currently within the County exceed 650,000 EDU's – threefold discrepancy between water supplies and projected water demand.[23] It is a fact that conservation and alternatives to groundwater utilization will be required to support the anticipated growth.

Over-allocation of Surface Water

The Colorado River provides a large percentage of the southwestern United States with the necessary water resources to promote growth and opportunity. Great engineering accomplishments throughout the twentieth century have tamed the river and diverted its flows to the population centers of the region. Arizona's claim to Colorado River water emanates from the original 1922 Colorado River Compact, and the state's share of the river was determined by the U.S. Supreme Court in Arizona v. California, 376 U.S. 340 (1964) – however recent studies have shown that the supply data the Court relied upon was from an abnormally high flow period – and the Colorado River's 16.5 million acre-feet per year allocation likely overstates its actual production, by two to five million acre-feet per year.[24] Flow measurements conducted from 1906 to 1995 recorded an average annual flow of 15.2 million acre-feet and recent studies indicate that average annual flow in the Colorado River Basin may be 13.5 million to 14.6 million acre-feet.[25]

[23] The Morrison Institute for Public Policy, in their July 2007 report "The Future at Pinal", identified 653,277 units, mostly single-family homes, that have been entitled on private land within Pinal County.
[24] See, e.g., Colorado River Basin Water Management, 'Evaluating and Adjusting to Hydroclimatic Variability', National Research Council of the National Academies, 2007; and 'The Tree-Ring Record of Severe Sustained Drought' by David Meko, Charles W. Stockton, and W.R. Boggess, published in American Water Resources Association's Water Resources Bulletin, Vol. 31, No. 5, October 1995; and 'Two Perspectives on Drought: Paleoclimate and Climate Change' as presented by Gregg M. Garfin for the University of Arizona at the New Mexico Rural Water Association Annual Conference, March 21, 2005.
[25] An original landmark Colorado River tree-ring-based reconstruction study was completed at the University of Arizona in 1976 and estimated a long-term average flow of 13.5 million acre-feet per year. A 2006 collaboration between the University of Arizona's Laboratory of Tree-Ring Research, the National Oceanic and Atmospheric Administration, the U.S. Geological Survey, and the University of Colorado estimates the average water flow at 14.6 million acre-feet per year.

Periodic droughts, extending over a number of years also impact the actual amount of surface water available. Prudent water management must take into account these emerging realities.

Cost of Treatment

The provision of potable water in Arizona is governed by AAC R18-4 *et seq* which embodies the requirements of the Safe Drinking Water Act into the Arizona regulatory environment. The United States Environmental Protection Agency (USEPA) is required by statute to maintain a Contaminant Candidate List (CCL) and evaluate a minimum of five contaminants on the CCL during each review period for possible regulation, based on the potential for human health impacts. Technology's ability to detect constituents down to part-per-trillion levels and the ever increasing scrutiny of the effect of the environment on human health demand that regulatory parameters become inevitably more stringent. Regardless of the identity of the next regulated contaminant, there can be no doubt that there will be a treatment requirement for all but the most pristine water sources.

Wise water resource management must account for both quality and quantity of the resource, yet also must take into account the cost to the consumer. By establishing dual water main systems – one potable and one non-potable – the costs of treatment can be dramatically reduced, and as water treatment is essentially a process of contaminant removal and concentration, the production of concentrated residuals can be significantly curtailed. In the case where dual water mains supply recycled water, a significant reduction in the overall potable water demand can be realized – reducing the volume of water required to be treated meet the National Primary Drinking Water standards.

Evolution of Public Opinion

As water becomes increasingly scarce, public perception of alternative water

sources tends to shift, and changes in public perception enable modifications to water policy. Utilization of alternate water sources in the safest, most practical applications become the best available solutions. Throughout the world, public policy has evolved as the realities of scarcity begin to be addressed. Drastic turnabout in public opinion can be documented in communities where water resources became less abundant and alternative sources were required to maintain quality of life.

In Arizona, and throughout the southwestern United States, water utilities must make the investment in public education and community involvement to address the realities of growth and scarcity and foster support for inevitable changes in water policy. The communities examined later in this paper provide robust evidence of the evolution in public opinion and openness to water recycling.

WATER RECYCLING APPLICATIONS

The concept of water reclamation and recycling is not new. Indeed society has been recycling water in some form or another for hundreds of years – the most common approach has been to treat wastewater and return it to rivers, streams and washes. Global Water's utilization of highly treated recycled water in and around the City of Maricopa, is neither unique nor is it on the cutting edge of technology, but it does differ in that Global's recycled water is reused (for uses not requiring potable water) instead of being returned to rivers. The advances of the past 150 years in wastewater treatment have allowed the production of recycled water to be more consistent and achieved with a higher degree of reliability – Global Water's focus is to use that increased reliability and safety to increase the use of recycled water.

The WateReuse Association estimates there are 1,500 water reuse utilities throughout the United States delivering recycled water for a myriad of end uses, more than half of which were established in part due to water scarcity or preservation and protection of available resources. From the WateReuse Association's National Database of Water Reuse Facilities and other sources, a compendium of eleven water utilities in the United States and Australia has been developed

and is included as **Appendix A**. These utilities are providing recycled water for a full spectrum of end uses.

Five of the reclamation applications are located in arid environments with limited availability of renewable water supplies and make use of dual distribution systems supplying homes and businesses for irrigation and toilet flushing, see Table 1.

Utility Name and Location	Year Implemented	Number of Current Connections
Irvine Ranch Water District, California	1967	3,812
El Dorado Irrigation District, California	1999	3,437
Tucson Water, Arizona	1984	900
Mawson Lakes, Australia	2005	4,300
Rouse Hill, Australia	1995	16,500

Table 1

Irvine Ranch Water District

Located in Orange County, California, the Irvine Ranch Water District (IRWD) services a 133 square mile area that includes the City of Irvine and portions of Costa Mesa, Lake Forest, Newport Beach, Orange, and Tustin. IRWD makes use of imported surface water to accommodate 35% of the service area's domestic supply.[26] The remaining 65% comes from local wells. IRWD currently makes use of reclaimed water to offset 20% of their total water needs. Situated in a semi-arid region with an annual rainfall of 12 to 13 inches, water scarcity issues initiated the water recycling program forty years ago. Design and construction of reclaimed water infrastructure was completed as the community developed. As agricultural fields converted to rooftops, businessmen and planners, along with the water supplier, made a sound decision to utilize recycled water within the community.

[26] According to the IRWD Fact Sheet, dated July 2005, approximately 35 percent of IRWD's drinking water is purchased from the Metropolitan Water District of Southern California. Imported water comes from the Colorado River via the Colorado River Aqueduct and from Northern California via the State Water Project.

IRWD operates under the philosophy that water is too valuable to be used just once. "Every gallon of recycled water used...means a gallon of drinking water that can be saved for potable uses. Recycled water...reduce[es] the need to import expensive water and help[s] to keep water rates low."[27] The primary recycled water uses include landscape irrigation for parks, school grounds, golf courses, freeway landscaping, and irrigation of common areas managed by homeowners associations (HOAs). A majority of residences in Irvine have front yards that are owned by the HOA's and are thus irrigated with recycled water.

Utilization of recycled water was expanded in 1990 when the District, with support of the State of California, developed a policy requiring all new buildings over fifty- five feet high to install a dual distribution system for flushing toilets and urinals in areas where reclaimed water is available. In 1991, IRWD became the first water district in the nation to obtain health department permits for the interior use of reclaimed water from a community system. Reclaimed water currently makes use of dual-plumbing for toilet flushing in IRWD's facilities as well as in several high rise office buildings constructed with dual piping systems. Potable water demands in these buildings have dropped by as much as 80 percent due to reclaimed water use.[28]

The IRWD recycled water program is supervised by the California Department of Health Service and the Orange County Health Agency and the IRWD works in conjunction with these agencies to protect the public health while making the best use of reclaimed water. IRWD has established procedural guidelines and general design requirements for recycled water facilities that include construction specifications regarding pipe spacing and identification, guidelines for use, backflow prevention, and cross connection testing.[29]

[27] Taken from the IRWD Fact Sheet, dated July 2005.
[28] The IRWD website (www.irdw.com) represents that "in a typical office setting, approximately 80 percent of the water is used for toilet flushing. By using reclaimed water instead of drinking water to flush toilets, major savings can be realized."
[29] "Procedural Guidelines and General Design Requirements", Irvine Ranch Water District, Revised April, 2005 indicates in Section 5.1 that "all on-site facilities using recycled water will have an annual cross connection test unless otherwise approved by the state and county health agencies based on a case by case basis."

El Dorado Irrigation District

The Serrano development, located in the Sierra foothills community of El Dorado Hills, California near Sacramento, is serviced by the El Dorado Irrigation District (EID). In 1999 EID obtained approval from the State of California[30] to use recycled water to irrigate the front and backyards of residential units constructed in Serrano. Prior to the implementation of residential use, the community made use of reclaimed water on its golf course, parks and greenbelts and was recognized by the California WateReuse Association as the "Project of the Year" in 1998. With the application of advanced water reclamation, homes are equipped with dual plumbing (potable water for interior use and reclaimed water for landscape irrigation). The recycled water is delivered through a dedicated pressurized "purple pipe" system.[31] This system "puts Serrano in the forefront of the trend toward environmental sensitive development and greatly improves the community's ability to remain lush and green during normal drought cycles."[32] In 2005 Serrano received the National WateReuse Award of Merit, recognizing the community for its innovative and concerted efforts in using recycled water.

In managing the recycled system EID has developed an extensive set of policies and procedures to best serve the public. EID has established guidelines for water reuse and has created design and construction standards for both non-residential sites and residential dual plumbed homes. The standards included backflow prevention, trench details, and information regarding automatic controllers for onsite irrigation. They also included material standards and requirements for identifying above ground infrastructure.

[30] The California Code of Regulations, Title 22, Chapter 3, Division 4 defines the standards for recycled water used for surface irrigation and allows for its use to irrigate food crops, parks and playgrounds, school yards, residential landscaping, unrestricted access golf courses, and any other irrigation use not prohibited by other sections of the Code.
[31] Plumbing codes require that pipes containing reclaimed water be purple to prevent accidental cross-connection with potable water systems.
[32] Taken from the Serrano website (www.serranoeldorado.com). It should be noted that the community uses water recycling and reuse as a market differentiator, promoting its sensitivity to environmental issues.

Inspection procedures are in place during installation and the system is checked periodically to ensure continued compliance with all regulatory agencies.[33] All designers and contractors working with dual-plumbed communities are required to attend an EID workshop explaining the uses and regulations of recycled water before any design or installation begins. Refresher trainng is conducted every eighteen months.

EID promotes a public education program to continually inform their customers about the value of recycled water and how it can be safely utilized to supplement the water inventory. Monthly recycled water workshops for homeowners and publications periodically address different reuse issues. EID advocates reuse not only as good public policy in times of population growth and resource scarcity but promotes the fact that its dual-plumbed household customers use 20% less water than single-plumbed household customers.[34]

The success of advanced reclamation and dual-plumbing in Serrano has prompted the El Dorado Irrigation District to expand the program to all new communities within their service area that can feasibly connect to the backbone recycled water infrastructure. In addition to the 3,500 homes in Serrano, roughly 600 residences outside of the development make use of recycled water for front and backyard irrigation and another 1,400 in development.

Tucson Water

Development in Tucson, Arizona historically relied on groundwater to meet its water supply needs. Over time, withdrawals from the regional aquifer system surpassed the

[33] "Recycled Water Use Guidelines for Residential Dual Plumbed Homes", El Dorado Irrigation District, June 2003, Section 2.2.C.

[34] Taken from the El Dorado Irrigation District brochure titled "This Community Uses Recycled Water for Landscape Irrigation."

natural recharge and caused groundwater levels to fall. Despite aggressive demand management programs and a populace with a strong environmental ethic, Tucson began to see the declining water levels resulting in measurable land subsidence, increases in pumping costs, and the gradual loss of riparian habitats.

In order to address these issues the City of Tucson Water Department (Tucson Water) recognized that renewable water supplies, including recycled water would be needed to satisfy projected water demand.[35] Tucson Water constructed Arizona's first community reclaimed water system in the early 1980's consisting of one filtration plant, ten miles of pipeline, and two customers. In subsequent years, the system has grown to 160 miles of pipeline and delivers almost 13,000 acre-feet to more than 900 irrigation customers annually. Functions of the reclaimed water system are governed by an institutional framework of effluent entitlement[36] and use is regulated by the Arizona Department of Environmental Quality (ADEQ) and the Arizona Department of Water Resources (ADWR) through a series of permits. Current (2007) sources of reclaimed water are capable of supplying 15,750 acre-feet per year and are projected to increase by 22,250 acre-feet per year by 2015.[37]

Reclaimed Water System Design Standards have been developed by Tucson Water that address pipeline conveyances, private plumbing requirements, backflow prevention, on-site storage, water meters, utility separation, identification marking, and air gaps. Inspection protocols and procedures are established that include application for service and a formal user agreement, a backflow permit, site inspection, and dye testing[38] to ensure that there is no cross connection with the potable system.

[35] Tucson Water addressed renewable water supplies in their "Water Plan: 2000-2050" dated November 22, 2004 which was presented to the Mayor and Council of Tucson.
[36] Effluent ownership is governed by a series of inter-governmental agreements (IGA's). The basic framework was established in 1979 in an IGA between the City of Tucson and Pima County and has expanded to include the Bureau of Reclamation, the Metropolitan Domestic Water Improvement District, and the Town of Oro Valley.
[37] "Reclaimed Water System Status Report – 2007", Tucson Water Department, p. 6.

Mawson Lakes

Mawson Lakes is a community in suburban Adelaide, South Australia that is currently home to 10,000 residents. Australia is enduring a prolonged drought and reservoirs are at critically low levels. Conditions have deteriorated to a point that recently the South Australian Government suspended domestic outdoor watering for the months of July and August 2007 to help conserve water.[39] The restrictions ban the use of household sprinklers, hoses, and irrigation systems for those months. These restrictions are in addition to previous limitations on nurseries, car washing, pools, spas, fountains, and ponds.

In the face of water scarcity, Mawson Lakes and South Australia Water (SA Water), which provides service to the community, implemented advanced water reclamation to extend utilization of a valuable resource. Home construction began in 2005 and the development features a dual water supply system, supplying drinking water and recycled water to homes via completely separate mains. The community employs advanced reclamation, where not only are lawns irrigated, but toilets are flushed with reclaimed water. As a result, Mawson Lakes has demonstrated a 50% reduction in water use, saving 800 megaliters (211 million gallons) annually.[40] The use of recycled water is not mandatory but residents of the community are required to accept the terms and conditions of a Recycled Water Supply Agreement. Within the Agreement, any customer that elects not to use recycled water must pay for the internal alterations required to irrigate and flush toilets with drinking water.[41]

[38] A dye test is conducted after the reclaimed meter and backflow prevention assembly are installed. Dye is added to the irrigation system on the customer's side of the new reclaimed water meter. At the time of testing, the irrigation system is not connected to the reclaimed water meter. Potable water is used to conduct the test. The inspector turns on each drinking water faucet and the presence of dye indicates a cross- connection. All cross-connections must be eliminated prior to the initiation of recycle water service.
[39] "News Release", Government of South Australia, June 17, 2007 (announcing July 2007 restrictions) and "News Release", Government of South Australia, July 24, 2007 (announcing the extension of the restrictions into August 2007).
[40] From South Australia Water website (www.sawater.com.au) What's New – News Room – "$16 million recycle system saves water."
[41] Mawson Lakes Recycled Water Supply Agreement, Terms and Conditions of Supply.

In April 2006 SA Water and the Government of South Australia published a Recycled Water Plumbing Guide with the intent to "ensure proper installation of the recycled water service and provide a clear guide for safe use of recycled water."[42] The document provides guidelines for use and installation and includes information on water mains, meter assemblies, approved products, and details on commissioning the system. An extensive public education program continues to inform and update customers on issues that range from how a recycled water system works to the proper use of the resource.

Rouse Hill

Australia's largest residential recycled water scheme is the Rouse Hill area located in northwestern Sydney. Since commencement in 2001, over 16,500 homes are using 1.9 billion liters (roughly 500 million gallons) each year to flush toilets, irrigate landscapes, and wash cars. On average the Rouse Hill scheme has reduced demand for drinking water by 35 percent. Eventually 35,000 homes will be served. Water reclamation and recycling have been staples of Sydney Water's resource policy for the last decade. In fact, across greater Sydney more than 20 recycled water systems recycle 22 billion liters (almost 6 billion gallons or roughly 18,000 acre-feet) each year[43]. This renewable resource has proven valuable during the drought conditions that are currently impacting the region.

Periodic droughts are a feature of Sydney's climate and have shaped water policy in the area. Over the past 120 years, the region has experienced three prolonged droughts – one in the 1890's, a second in the 1940's, and is currently in the midst of the third. Questions regarding climate change and uncertainties about rainfall patterns only complicate planning for water in the future. The New South Wales (NSW) Government, which wholly owns Sydney Water, has advocated extensive reuse as policy and has included water recycling as a major component of their Metropolitan Water Plan. NSW states in an

[42] "Recycled Water Plumbing Guide", Government of South Australia, SA Water, April 2006, p. 3.
[43] From Sydney Water website (www.sydneywater.com.au).

executive summary of their 2006 Plan that "wastewater can be safely recycled and used in industry, agriculture and in new homes for garden watering, toilet flushing and other non-drinking uses. Recycling can...diversify the system with a supply source not relying on rainfall."[44]

DIRECT REUSE VERSUS RECHARGE

Direct reuse of recycled water is relatively straightforward. Wastewater is treated to a high level at a reclamation facility for reuse and, rather than discharging the product unused into the environment, purple pipe (plumbing code requires that the pipe color be purple to reflect its recycled status) moves the water from the treatment facility to its point of use. While recharging recycled water into the underlying water table is an important aspect of resource management, it is inferior to direct reuse. Recharge is a method of achieving seasonal resource equalization (i.e., storing recycled water in winter months for withdrawal and use in summer months), but it falls short in the "highest-and-best-use" category. There are a number of benefits that direct reuse has over recharge.

- Water is pumped once and then used repeatedly, reducing pumping and SDWA treatment costs
- Recharge facilities are complicated by local geology, wildlife and cultural concerns
- Recharge has the potential to increase salinity in the aquifer
- Contaminants of emerging concern may be better addressed by direct reuse
- Recharge is often conducted in areas remote from the use of the water resource

Water is Pumped Once

Groundwater requires a substantial amount of energy to lift it from the aquifer to the surface. The cost of groundwater extraction is in the order of $0.80 per 1000

[44] "2006 Metropolitan Water Plan Executive Summary", NSW Government, April 2006.

gallons. Once on the surface, it can be distributed and redeployed for $0.10 per 1,000 gallons. Recharge requires that the water be removed once from the aquifer, distributed to homes, treated, pumped back into the aquifer (if using vadose zone wells or Aquifer Storage Recovery (ASR) wells), then recovered (pumped out again) from the aquifer, and treated again for SDWA compliance (as noted at a cost ranging from $0.50 to $2.00 per 1,000 gallons). The result is a three-fold increase in energy costs.

Recharge Facilities are Complicated

Recharge basins and wells are notoriously difficult to operate and maintain. Often soils (particularly in Arizona) do not percolate well, and they can be compromised by fines or bacteriological growth. Vadose zone and ASR wells require routine maintenance and have a useful life of 5 to 7 years. Furthermore, wildlife and cultural concerns greatly diminish the areas available for recharge and discharge.

Recharge and Salinity in the Aquifer

When a direct reuse scenario is implemented, the amount of water withdrawn from the underlying aquifer is less than that required when recharge is utilized (water already on the surface is recycled, supplementing the need for additional groundwater). As a result a direct reuse scenario has much less impact on the aquifer. Operating under a recharge scenario, more water is extracted from the aquifer and is replaced with water of a potentially significantly higher total dissolved solids (TDS) level. The result is increased salinity in the aquifer. This concept is more fully discussed in **Appendix B.**

Contaminants of Emerging Concern

Much research is ongoing to evaluate contaminants of emerging concern (CEC) in municipal effluents and recycled water. CEC's include endocrine disrupting compounds (EDC), pharmaceuticals and personal care products (PPCP). By creating a continuous loop of non-potable water on the surface, direct reuse minimizes exposure of CEC's

to the underlying aquifer. More information on EDC's and how they relate to direct reuse and recharge are presented in **Appendix C.**

Remote Recharge

Recharge is often conducted in areas remote from the water resource use. Because of land requirements needed for recharge and recovery, recharge areas are often well outside impacted areas. Direct reuse allows the water resource to be employed where it is required. Decentralized water reclamation and direct reuse allow for the minimization of material and resource flux – a key concept of sustainability.[45]

THE ECONOMICS OF WATER RECYCLING

The introduction of water reclamation and reuse into a region has substantial impact on water conservation and long term sustainability. The front end financial outlay required to execute a regional water reclamation plan is a sound investment and is good public policy when analyzed in the broader contexts of growth, resource scarcity issues, and resource quality issues.

As growth continues in Arizona and scarcity issues become paramount, the price to acquire water rights will continue to escalate. Pricing for surface water rights within the southwestern United States has surged upward; this trend will continue. In addition to acquisition considerations, the ever tightening regulatory environment presents a future laden with ever more stringent treatment requirements. Recent regulatory changes governing the maximum contaminant level (MCL) of arsenic have added significant costs to the operation of water utilities, both in capital investment for new infrastructure and in increased operating expenses. When the costs associated with reclamation are analyzed within the emerging water acquisition andtreatment realities, the economics further shift in favor of reuse.

[45] Water Recycling and Decentralized Management: The Policy and Organizational Challenges for Innovative Approaches – Daniel J. Livingston, Nyree Stenekes, Hal K. Colebatch, Nicholas J. Ashbolt and T. David Waite.

Water reuse activities also allow for the maintenance of greenspace in the urban/suburban environment. This has a significant impact on overall temperatures in the region, and can significantly reduce overall power costs. Demand for electricity in United States cities increases by 3 to 4 percent for every one degree Celsius increase in ambient temperature.[46] Urbanization has increased the overall temperatures 0.1° to 1° C per decade in the past 50 years.[47] The maintenance of greenspace "measurably affects the thermal behavior of different sites within a city. Maximum temperatures within the greenspace of individual building sites may be 3° C cooler than outside the greenspace."[48] Significant power savings can be achieved by ensuring that water resources are available for greenspace activities.

Global Water, through its regulated utilities, Santa Cruz Water Company and Palo Verde Utilities Company, has made significant investment in water reclamation treatment and transmission infrastructure throughout developing communities in and around the Cities of Casa Grande and Maricopa, Arizona. This investment lays the foundation for long term total water management opportunities in the area, supporting growth while addressing scarcity and obviating treatment to meet the Safe Drinking Water Act (SDWA) for a significant volume of water. An analysis of the systems in the Maricopa/Casa Grande Region (MCSR) provides an opportunity to examine the economics of recycling.

MODELING AND ECONOMIC ANALYSIS

Modeling was developed to analyze capital investment for infrastructure, system operations and maintenance costs, and the rate requirements associated with various water resource scenarios. This model was calibrated from field experience and data accumulated from Santa Cruz Water Company and Palo Verde Utilities Company. The model is a quantitative analysis. The qualitative impacts of implementing a regional reclamation program (community amenities, recreational opportunities, power savings by employing greenspace etc.), while warranting consideration, were not included.

[46] Quantifying the Impact of Trees: The Chicago Urban Forest Climate Project – D.J. Nowak and E.G. McPherson.
[47] Ibid
[48] Ibid

The analysis was structured as follows:

- Parameters such as underlying regional conditions, population density, consumptive demand, and availability of recycled water were defined.
- Quantifiable assessments were developed for relevant parameters (capital expenditures and Advances In Aid of Construction "AIAC", operations and maintenance, capital structure, and profit and loss).
- Three water resource scenarios were identified for evaluation:

    - o Groundwater Only/No Treatment – Assumes complete reliance on groundwater within the region. In this scenario, the underlying water source is assumed to meet compliance with all regulatory mandates without a requirement for significant treatment facilities.

    - o Surface Water – Assumes that surface water is acquired and delivered to the region for use in lieu of groundwater.

    - o Groundwater with Arsenic Treatment – Assumes that groundwater must be treated for compliance with one of the 90 regulated contaminants of the SDWA to meet changes in the Maximum Contaminent Levels (MCL).

- Each water resource scenario was evaluated in the context of no reclamation, basic reclamation, and advanced reclamation:

    - o No Reclamation is defined as employing groundwater for all water uses in a single-plumbed community.

    - o Basic Reclamation is defined as reusing water produced by a water reclamation facility for irrigation of common areas, Homeowners Association ("HOA") open spaces, community amenities and schoolyards.

o Advanced Reclamation is defined as a dual-plumbed, highly distributed network of delivery of recycled water for the best and highest uses possible.

Detailed discussion of baseline parameters is included as **Appendix D**.

ANALYSIS OF RESULTS

Modeling allowed for analysis of many different areas including:

- Water savings
- Baseline Costs (both capital costs and cost to the customer)
- The impact of surface water acquisition
- The impact of treatment.

Results depicting front-end capital expenditures (infrastructure) and cost to the consumer (monthly billing) are summarized in the following Table 2 (calculation sheets are included as **Appendix E**) and analysis is made in the pages that follow.

Water Resource Scenario	Level of Reclamation	Infrastructure Total (per EDU)	Monthly Billing (per EDU/Mo)
Groundwater/No Treatment	None	$6,494	$83.19
Groundwater/No Treatment	Basic	$6,694	$80.99
Groundwater/No Treatment	Advanced	$8,214	$85.94
Surface Water	None	$12,428	$164.26
Surface Water	Basic	$10,533	$133.45
Surface Water	Advanced	$11,610	$132.33
Arsenic Treatment	None	$6,945	$104.03
Arsenic Treatment	Basic	$6,985	$94.48
Arsenic Treatment	Advanced	$8,472	$97.87

EDU - Equivalent Dwelling Unit • EDU/Mo - Equivalent Dwelling Unit Monthly

Table 2

Water Savings in Groundwater Only/No Treatment

Water recycling results in substantial water savings, reducing demand by 35% (basic recycling) to 43% (advanced recycling).

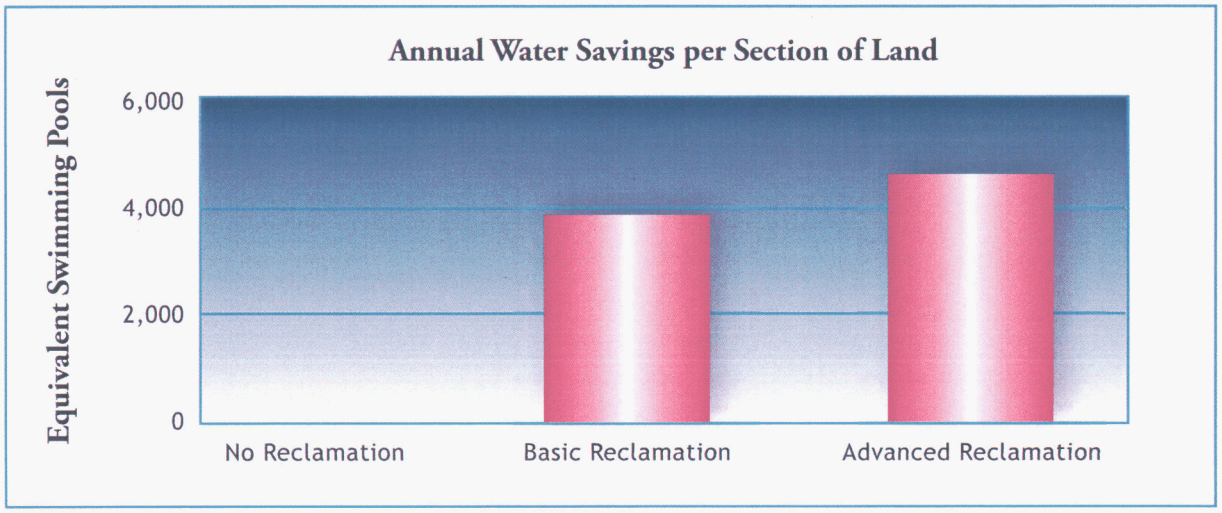


Table 3

The water savings associated with basic and advanced reclamation is tremendous, see Table 3. Without reclamation, groundwater consumed on an annual basis within a section of developed land is approximately 273 million gallons (the equivalent of 10,919 swimming pools). The incorporation of basic reclamation to the section reduces consumption to 177 million gallons annually (7,065 swimming pools), a savings of 35%. [49] Advanced reclamation reduces the consumption to 156 million gallons (6,248 swimming pools), representing a 43% savings.[50]

As a result of these water savings, more growth may be sustained within the same volume of potable water. An additional 1,222 units may be serviced through the introduction of Basic reclamation. Advanced reclamation increases that number to 1,481 units, this increase in

[49] (10,919-7,065)/10,919 = 3,854/10,919 = 0.35 (35%)
[50] (10,919-6,248)/10,919 = 4,671/10,919 = 0.43 (43%)

housing density yields other environmental benefits ranging from reduced transportation demand, increased community coherence, and increased local business development opportunities.[51]

Baseline Costs (Groundwater Only/No Treatment Scenario)

When analyzed in the Groundwater Only/No Treatment scenario it is apparent that the front-end capital costs associated with Basic reclamation are only slightly higher (+3%) than those associated with the provision of No reclamation. Capital cost for Advanced reclamation are higher than that of Basic reclamation (it should be noted that, while capital cost are higher, costs to the consumer are lower – as discussed below).

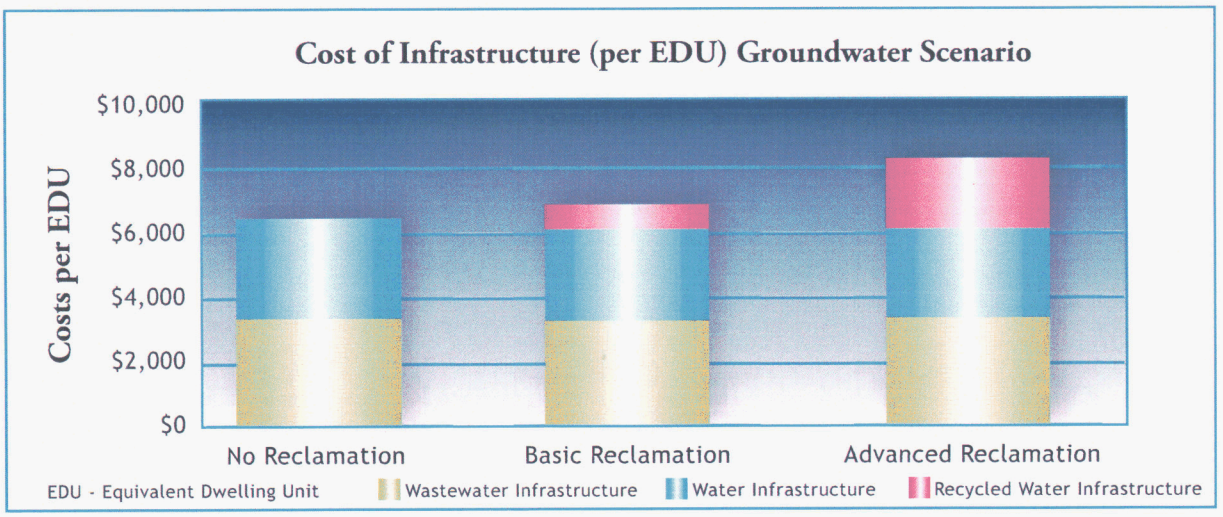


Table 4

Basic reclamation requires the installation of pipes and infrastructure to distribute recycled water from the water reclamation facility to its point of use, see Table 4. This is a non-pressurized system, where water is delivered at atmospheric pressure to Recycled Water Retention Structures (typically lake-type facilities). The point of use, from the perspective of the utility, is the onsite retention structure from which the development draws to irrigate common areas,

[51] See work of Urban Land Institute, generally, and Urban Land Institute/National Multi-Housing Council/American Institute of Architects' "Joint Forum on Housing Density", Feb. 7, 2002.

parks, ball fields, school grounds, etc. The cost of the pipeline is offset by a downsizing of facilities that treat and distribute potable water. These include well sites and distribution centers (storage & pumping). Total cost per EDU without reclamation is calculated to be $6,494. Cost per EDU with Basic reclamation calculates to $6,694 (an increase of 3.1%).

Advanced reclamation includes all aspects of Basic reclamation but adds infrastructure to distribute recycled water directly to each residence for irrigation purposes rather than simply delivering to centrally located retention structures. Under this scenario, each individual property has two meters, one for potable water and one for recycled water. Distribution must be pressurized, requiring construction of recycled water distribution centers for storage and pumping (typically large water tanks in excess of 1,000,000 to 2,000,000 gallons). Advanced reclamation also requires construction of in-parcel distribution pipelines. Cost per EDU is $8,214 (an increase of 26.5% when compared to no reclamation).

Operating under the Groundwater-only Scenario, cost to the consumer can be reduced by 2.6% when employing Basic direct reuse. When Advanced reclamation is utilized, the cost increases slightly (+ 3.3%).

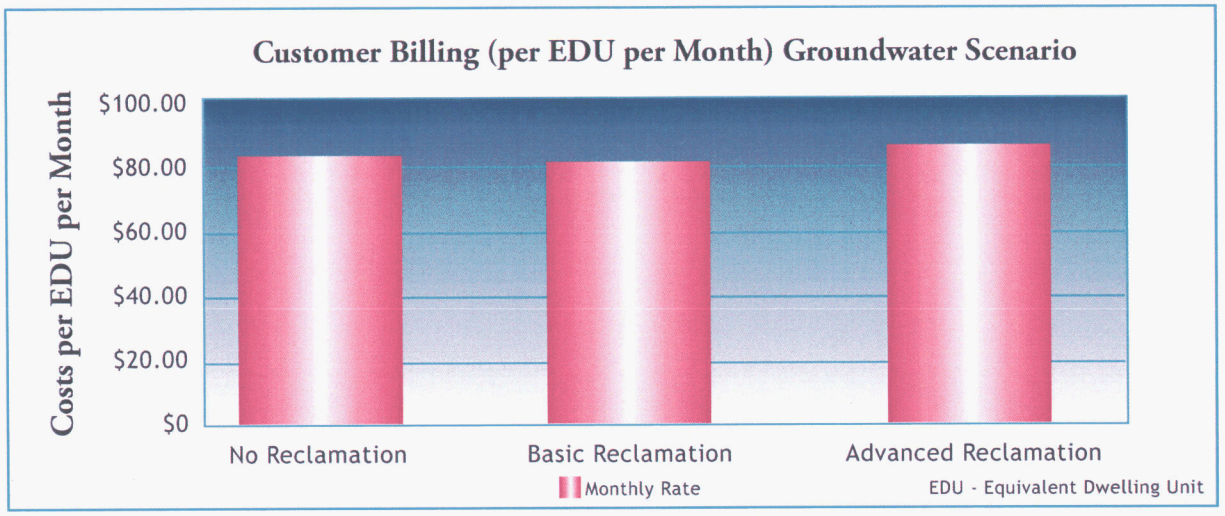


Table 5

While capital costs are slightly more expensive, implementation of Basic water reclamation creates a scenario where the consumer recognizes a cost savings on monthly billing, see Table 5.

Without water reclamation, rates associated with the Groundwater-only scenario are in the order of $83.19 per EDU per month. Reuse creates a decrease in treatment of potable water, reducing costs to the consumer. Consumer billing with Basic reclamation will decrease to $80.99 per EDU per month (-2.6%). Advanced reclamation utilizes a pressurized distribution system, including storage and pumping. As a result, monthly cost to the consumer increases to $85.94 per EDU per month (+3.3%) when compared with the No reclamation scenario.

A comparison of water savings to capital cost and consumer billings in Table 6 illustrates that significant opportunities can be achieved through minimal front end capital investment.

Water Resource Scenario	No Reclamation	Basic Reclamation	Advanced Reclamation
Water Savings in Gallons/Year/Section	0	96,347,624 35% Savings	116,784,998 43% Savings
Additional EDU's Liberated @ 216 Gallons/EDU	0	1,222	1,481
Capital Cost per EDU	$6,494	$6,694 +3.1%	$8,214 +26.5%
Consumer Billing per EDU/Month	$83.19	$80.99	$85.94

EDU - Equivalent Dwelling Unit • EDU/Mo - Equivalent Dwelling Unit Monthly

Table 6

Impact of Surface Water

Introduction of surface water has substantial impact on the economics of water reclamation. When the cost associated with a perpetual water right is added to the equation, cost per EDU increases by over 90% (from $6,494 to $12,428). In this scenario, water reclamation offers substantial savings in front end capital cost. When factoring in surface water, a

savings of over 15% can be realized with Basic reclamation ($12,428 per EDU drops to $10,533 per EDU). Advanced reclamation recognizes a cost savings of almost 7%.

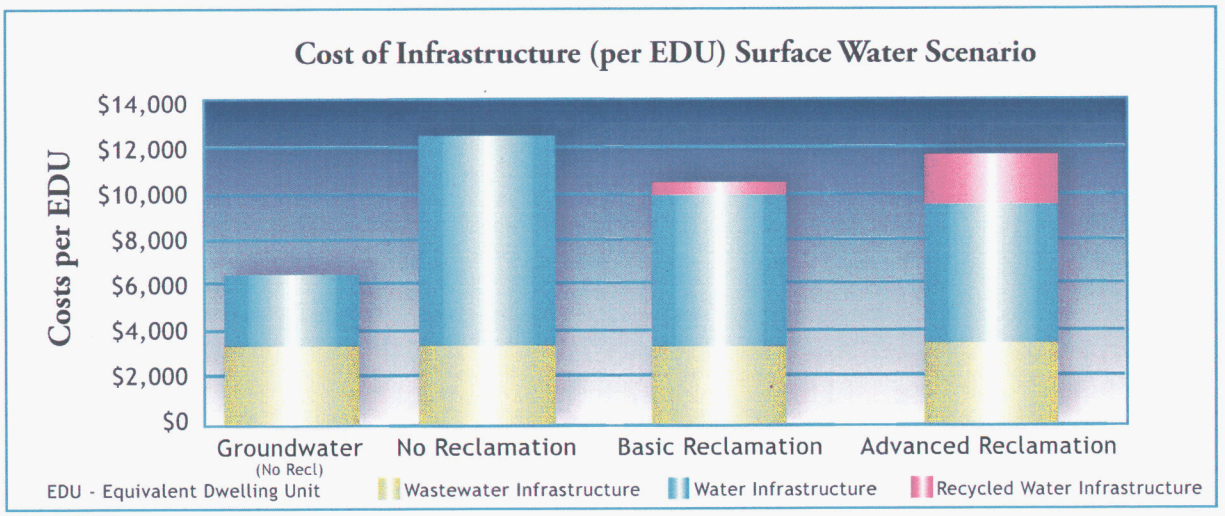


Table 7

The emerging reality of groundwater scarcity necessitates acquisition of renewable surface water as a supplemental resource. Research into the water rights market in the southwestern United States indicates an ongoing upward surge in prices. It is anticipated that this price surge will continue as growth and scarcity issues become increasingly polarized, see Table 7. For purposes of analysis a baseline value for acquisition of surface water rights was established at $11,000 per acre foot.[52] The impact on front end capital requirements and cost to the consumer is staggering. Total front end capital cost per EDU increases from $6,494 per EDU (utilizing groundwater) to $12,428 per EDU when the cost of surface water acquisition is included (an increase of 91.4%). This value can be decreased substantially by utilizing water reclamation in the regional plan. By recycling water, the need for incremental surface water supplies is diminished. With Basic reuse the cost drops to $10,533 per EDU (a decrease of 15.3% of the surface water scenario with no reclamation). Advanced reclamation in the surface water scenario calculates to $11,610 per EDU (a decrease of 6.6%).

[52] Discussion of $11,000 price per acre foot is included in Appendix D

In the surface water scenario, the cost of treatment has a great impact on the cost to the consumer -- monthly billings nearly double ($83.19 per EDU per Month with groundwater, $164.26 per EDU per Month with surface water). By utilizing recycled water in lieu of surface water, consumer cost can be reduced by 18% to 20%.

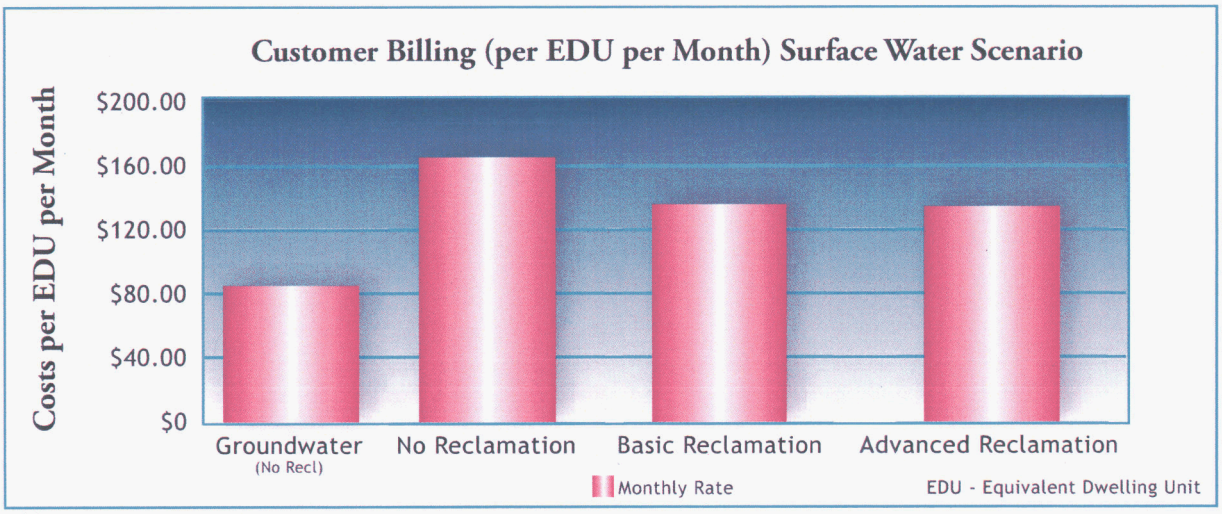


Table 8

In the surface water scenario, monthly billings calculated to $164.26 per EDU, see Table 8. Basic reclamation reduces that number to $133.45 per EDU (-18.8%) while advanced reclamation reduces the monthly billing even more to $132.33 per EDU (-19.4%).

Impact of Treatment

Treatment considerations have impacts on capital costs. When the cost associated with arsenic removal equipment is added to the model, cost per EDU increases by over 7%. When treatment is factored in, a slight savings of 0.6% can be realized with Basic reclamation. In-parcel distribution pipelines increase the cost of Advanced reclamation by 18% when compared to the no reclamation-groundwater only/no treatment scenario. Note that the model conservatively assumes that treatment is required for only one contaminant. In the event that the next regulated contaminant requires a separate and distinct treatment system, the effect on cost is compounded.

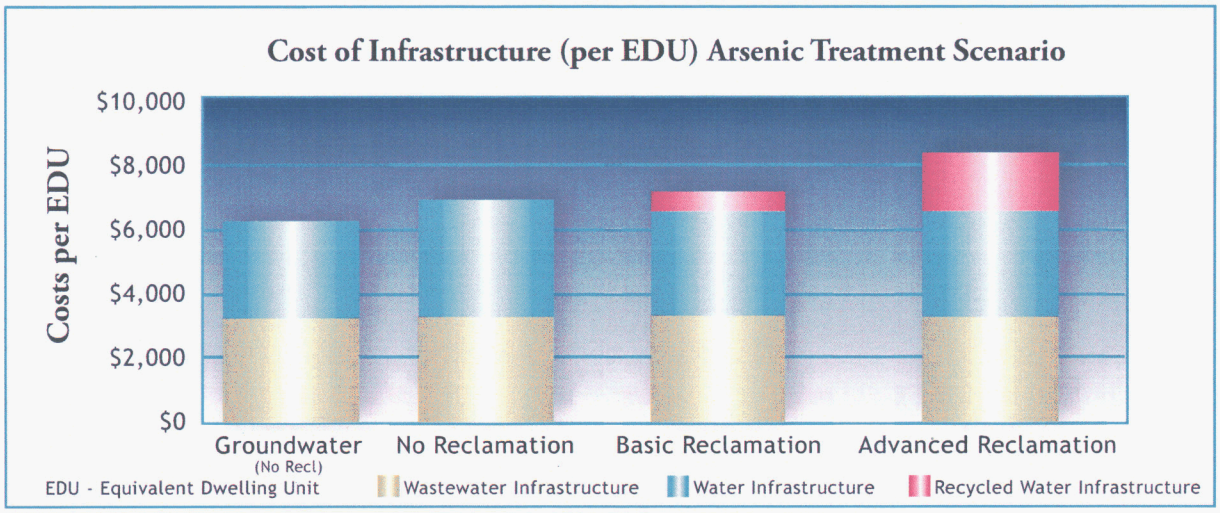


Table 9

The cost per EDU increases from $6,494 per EDU (utilizing groundwater that does not require treatment) to $6,945 per EDU when the cost of treatment is included (an increase of 11.1%), see Table 9. With basic reuse the cost drops to $6,985 per EDU (a decrease of 0.6% of the treatment scenario with No reclamation). Advanced reclamation in the treatment scenario calculates to $8,472 per EDU (an increase of 18.0%).

When treatment is required, monthly billing to the consumer will increase by over 25%. Water reclamation in this scenario offers a savings to the consumer.

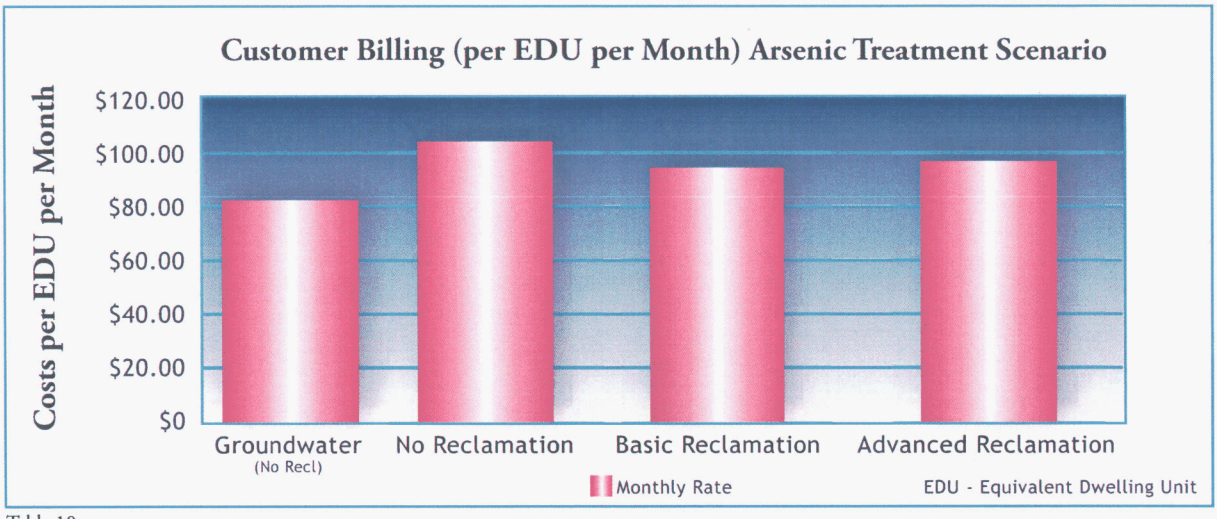


Table 10

Monthly billings within the treatment scenario calculated to $104.03 per EDU (an increase of 25.1% when compared to the scenario where groundwater does not require treatment), see Table 10. Basic reclamation reduces that number to $94.48 per EDU (-9.2%). Advanced reclamation reduces the monthly billing under treatment scenarios to $97.87 per EDU (-5.9%).

CONCLUSIONS

According to a 2006 Arizona Department of Water Resources presentation on Arizona water issues, the State is dependent upon three sources of water as listed in Table 11 below[52]:

Water Source	Available Annual Water Supply in Arizona Million Acre-Feet (MAF)	% of Total
Surface Water		
Colorado River	2.8	35.6%
In-State Rivers	1.4	17.8%
		53.4%
Ground Water	2.9	36.8%
Reclaimed Water	**0.77**	**9.8%**

Table 11

Based on these figures, over-allocated rivers and extended periods of drought have the potential to impact 53.4% of the State's water supply while another 36.8% of its reserve relies on depleting underground aquifers. Reclaimed water exists as the only water source experiencing an increase in availability (9.8% and growing). The State must move aggressively to support, and mandate water recycling as a long term solution to water scarcity.

An effective recycling program can only be deployed by an integrated services provider with the ability to plan regionally and construct infrastructure – early, in advance of development

[52] "Arizona Water Issues" presentation of ADWR, at Valley Forward Association meeting, March 16, 2006.

– of the appropriate size and capacity. The benefits of recycling can also be exploited by an integrated utility through common-trench construction, consistency of recycling objectives, commonality of standards and economies of scale for labor.

Global Water is not on the vanguard of successful water reuse programs. In fact there are thousands of applications throughout the world. Much can be learned and emulated from utilities that have been implementing water recycling for some time.

- From examining the Irvine Ranch Water District it is apparent that much can be accomplished if the benefits of reclamation are recognized early and if recycled water is a part of the planning process from the beginning. Arizona has a unique opportunity in this regard – growth is driving the development of new communities. Deploying recycled water infrastructure while these communities sit on the drawing table is far superior to attempting a retrofit later, when the scarcity reality is more pronounced.
- The El Dorado Irrigation District has demonstrated that implementation of advanced water recycling serves to lower the customer's monthly water bill.
- Tucson Water determined that, despite a populace with a strong environmental ethic, aggressive demand management alone cannot necessarily curtail depletion of underlying aquifers.
- The Australian community of Mawson Lakes shows that recycled water can be safely and dependably used to flush toilets in private residences.
- Rouse Park in suburban Sydney, Australia is an example where large scale water reclamation planning has been of significant benefit during times of prolonged drought. These are but five examples of dual-plumbed applications that were driven by scarcity.

Recycled water has been safely utilized throughout the world for several decades. In preparation for a March 2007 referendum on recycled water use, the Local Government Association of Queensland, Australia commissioned a study by the University of NSW. The report by Stuart Khan and David Roser, of the UNSW Centre for Water and Waste Technology, reviewed recycled drinking water schemes in the US and Singapore. "Despite more than 40 years' experience,

no clear deleterious health effects...have been observed," the authors wrote.[54] Recycled drinking water in the schemes was of equal quality to that from traditional sources – or better.[55]

Direct reuse, ultimately using dual piping networks (one for potable water and one for pressurized recycled water), offers the most practical and inexpensive way to make use of reclaimed water. While recharge remains a method of achieving seasonal resource equalization, direct reuse is preferable as a mechanism to reduce pumping costs, reduces the mass loading of residual contaminants on the receiving environment and reduces the volume of water treated to National Primary Drinking Water Standards and used by customers.

Deployment of recycled water infrastructure offers substantial water savings, ranging from 35% to 43%. This savings allows for increased housing density with numerous environmental benefits. In the context of residential density, this increase in unit serviceability allows population cores to be developed with existing resources. Accordingly, growth need not seek out new sources of water thereby increasing consumption of raw, native or otherwise desirable open space.

From an economic standpoint, analysis shows that while the implementation of dual water mains and water recycling may be more expensive (up front), they are less costly (to the consumer). Under the likeliest scenarios, i.e., groundwater must be treated to SDWA standards and surface water must be purchased and delivered to customers, the practice of water recycling has an immediate and profound impact on water scarcity management.

With the emerging concerns of groundwater scarcity and impending treatment considerations, the economics of reclamation have shifted sharply in favor of water recycling. Regions across the globe are vigorously changing their water policy, and emplacing billions of dollars in infrastructure to achieve water savings up to 50%.

The introduction of water reuse provides substantial benefits in the arid southwestern United

[54] From the article "All-clear for recycled water." The Courier Mail, January 22, 2007.
[55] Ibid

States. The pressures of drought, growth and aquifer overdraft are conspiring to limit the availability of water resources in the area. Significantly, these impacts can have a dramatic impact on the quality of life in Arizona. Consequently, it is in the public interest to maximize the availability of alternative water resources, and to minimize the consumption of limited groundwater and surface water resources. It is therefore critical that water recycling form a pillar of water policy in Arizona. Policy in Arizona lags surprisingly behind other areas. The emerging realities of population growth and water scarcity have already impacted the region's future. Failing to act now will accelerate that impact.

Arizona is now at a crossroads – its growth is incessant and historic, its water supplies diminished by 13 years of drought, its CAP water system has been thrice proven to be over- allocated – the time for decisive, progressive action is now.

By making the safest and best use of reclaimed water, the demand for expensive surface water and the requisite substantial drinking water treatment will be greatly reduced, saving up front capital and acquisition costs and forever reducing operating and treatment costs for Arizona residents – all while ensuring that the State's water resources are used for their highest and best use.

It is widely accepted that a culture of conservation is in the public interest, and that utilizing less water per capita is also in the public interest. It is interesting to note that the very capital intensive advanced water recycling model provides long term rate protection to ratepayers – another key element of sound water policy. The only remaining question is whether the State's leaders will act now to protect the public interest for the next generations of Arizonans.

APPENDIX A – COMPENDIUM OF UTILITIES

Utility Name and Location	Number of Years Practicing Water Reuse	List of End Use Types	Driver for Water Reuse	Rate Information	Total Annual Volume of Water Reused (ac-ft/yr)	Miles of Water Reuse Distribution System
Irvine Ranch Water District, CA (IRWD)	40 (since 1967) (dual plumbing since 1991)	Residential landscape irrigation 3742, commercial 13, industrial 2, and agricultural 55 (total 3812 reclaimed water connections) in 2005	Scarcity	$1.18/1000 gallons for non-agricultural landscape irrigation base rate; $0.79/1000 gallons for commercial and industrial	22,434	245 miles of pipelines, 8 storage reservoirs, and 12 pumping stations
Notes Service area of 133 mi2. Reclaimed water makes up over 20% of the water used in the IRWD service area. Water scarcity initiated water recycling program - semiarid region (an annual rainfall of 12 to 13 in). **An ordinance was enacted in 1990** requiring all new buildings over 55 ft high to install a dual distribution system for flushing toilets and urinals in areas where reclaimed water is available. In 1991, IRWD became the first water district in the nation to obtain health department permits for the interior use of reclaimed water from a community system. Reclaimed water is currently used for **toilet flushing** in IRWD's facilities as well as in several high rise office buildings constructed with **dual piping systems.** Potable, or drinking water demands in these buildings have dropped by as much as 75 percent due to the reclaimed water use.						
Serrano, CA	8 (since 1999)	3437 active accounts in 2006 (3277 dual recycled residentials, 139 commercials/industrials (irrigation), 8 construction meters, 13 recreational turf)	Scarcity	$1.096/1000 gallons for Residential (plus $106 basic charge for Commercial/ Industrial)	2,782	N/A
Notes Serrano is one of the first master-planned communities to use recycled water to irrigate the front and backyards of residential units. Homes are equipped with **dual plumbing** (potable water for interior use and reclaimed water for landscape irrigation). A dual plumbed home pays 50% of the normal (all potable) connection charge for delivery system capacity (i.e., $2,323 rather than $4,646). The Serrano El Dorado **Owners Association** made an agreement with the El Dorado Irrigation District to supply reclaimed water from the districts' WWTPs for irrigation purposes.						
Tucson Water, AZ	23 (since 1984)	Residential front yard irrigation - 900 sites (14 golf courses, 35 parks, 47 schools, > 700 single family homes)	Scarcity	$2.14/1000 gallons (usage charge) + service charge	11,350	160 miles
Notes The use of reclaimed water is regulated by the ADEQ and the ADWR through a series of permits. Water scarcity initiated water recycling program. In 2005, reclaimed customers saved 4.2 billion gallons of drinking water, enough for 39,000 families for a year.						

WWTP - WasteWater Treatment Plant • ac-ft/yr - Acre Feet per Year • ADEQ - AZ Dept. of Environmental Quality • ADWR - Arizona Department of Water Resources

Utility Name and Location	Number of Years Practicing Water Reuse	List of End Use Types	Driver for Water Reuse	Rate Information	Total Annual Volume of Water Reused (ac-ft/yr)	Miles of Water Reuse Distribution System
Mawson Lakes, Australia	2 (since 2005)	Toilet flushing, residential yard irrigation (4300 homes by 2010)	Scarcity	Set at 75% of the price of mains drinking water (AUD $2.91/1000 gallons for 2004/05 financial year, 1 AUD = 0.884 USD)	N/A	N/A
Notes Mawson Lakes is a fully planned 620 hectare (2.4 mi2) community. **All homes and businesses are dual plumbed and use recycled water for front yard irrigation and toilet flushing.** This reduce usage of drinking water by 50% as compared to the Adelaide average. Recycled water from two sources - SA Water's Bolivar WWTP and the City of Salisbury's wetlands (treated stormwater). An anticipated saving on the use of surface water by about 210 MG per year by the Mawson Lakes community. An average household in Mawson Lakes could save approximately AUD $30 each year.						
Rouse Hill, Australia	12 (since 1995)	Toilets flushing, residential yard irrigation, car washing (more than 16,500 homes)	Scarcity	AUD $2.70/1000 gallons plus quarterly service charge AUD $4.69 (in 2007)	1,540	N/A
Notes Rouse Hill, a suburb of Sydney, has Australia's largest residential recycled water scheme. Rouse Hill put an initial dual system in operation in 1995. **All customers are dual plumbed with both potable and reclaimed water lines inside for toilet flushing.** The reclaimed water system also provide water for fire protection, not as a water conservation measure, but to reduce the size of the potable water pipelines. On average the Rouse Hill scheme has reduced demand for drinking water by 35 percent.						
St. Petersburg, FL	30 (since 1977)	Irrigation for 9,992 residential lawns, 61 schools, 111 parks, and 6 golf courses (total 10,284 active customers) in 2006	Discharge limit	Unmetered service: $14.36/mo. for first acre + $8.22/mo. for each additional acre; Metered service $0.42/1000 gal. ($14.36 min.); plus 10% tax within City limits, rates outside City limits are 125% of City rates (Nov `06)	40,700 (four WRFs)	291 miles, 3909 valves, 316 fire hydrants
Notes One of the oldest **dual distribution systems** in the U.S. The dual distribution system has reduced potable water usage by 50%. In response to a state legislative act that required either advanced treatment or zero discharge to Tampa Bay, the City Council adopted the concept of zero discharge through wastewater reuse. A treated wastewater main ties all four plants together in a complete loop.						

AUD - Australian Dollar to U.S. Dollar Exchange Rate • USD - United States Dollar • WWTP - Watse Water Treatment Plant • ac-ft/yr - Acre Feet per Year

Utility Name and Location	Number of Years Practicing Water Reuse	List of End Use Types	Driver for Water Reuse	Rate Information	Total Annual Volume of Water Reused (ac-ft/yr)	Miles of Water Reuse Distribution System
Marin Municipal Water District, CA (MMWD)	16 (since 1991)	Residential yard irrigation, toilet flushing, car washes, industrial cooling, commercial laundries (over 250 customers)	Conservation	$2.18/1000 gal. (70% of potable water, $3.07/1000 gal.) plus service charge	2,200	25 miles
Notes MMWD was the first water supplier in California to use recycled water for car washes, air conditioning cooling towers, and commercial laundries. First dual-plumbed new office building was built in San Rafael in the mid-1990s.						
Orange County Water District, CA	16 (since 1991)	Urban irrigation, Industrial (cooling)	Scarcity	N/A	7,700	N/A
Notes Green Acres Project; distribute tertiary treated wastewater for uses in Fountain Valley, Huntington Beach, Costa Mesa, Newport Beach, and Santa Ana.						
West Basin Municipal Water District, CA	12 (since 1995)	Landscape irrigation, cooling towers, refineries, street sweeping, toilet flushing	Scarcity	N/A	33,000	75 miles
Notes West Basin Water Recycling Facility is the largest recycled water plant of its type in the United States, and produce six different qualities of recycled water.						
City of San Jose, CA	10 (since 1997)	Residential/ commercial toilet flushing, industrial cooling and process water, landscape irrigation	Conservation	$1.68/1000 gal. (71% of potable water) for irrigation, $1.09/1000 gal. (46% of potable water) for agricultural irrigation	27,800	105 miles
Notes In 1989 the cities of San Jose, Santa Clara and Milpitas in California launched the South Bay Water Recycling (SBWR) program to bring a reliable and sustainable water supply to the South Bay area. Most of the final treated water from the San Jose/Santa Clara Water Pollution Control Plant (167 MGD) is discharged as fresh water through Artesian Slough and into South San Francisco Bay. About 10% is recycled through SBWR pipelines around the South Bay where it is ultimately used for residential/commercial irrigation and toilet flushing.						
El Paso Water Utilities, TX (EPWU)	44 (since 1963)	Residential/ commercial yard irrigation, industrial cooling, irrigation - golf courses, schools, parks, recharge	Scarcity	$1.14/1000 gal. (70% of potable Block 1 rate, $1.63/1000 gal.)	6,850	40 miles
Notes EPWU delivered recycled water since the 1960s realizing scarcity of water resources. EPWU is operating the first wastewater treatment plant in the world to meet drinking water standards for its reclaimed water, and the other three plants meet the highest possible quality rating of Type I reclaimed water. Four facilities - Northwest WRF, Fred Hervey WRP, Haskell Street WWTP, Roberto Bustamante WWTP.						

WWTP - Watse Water Treatment Plant • ac-ft/yr - Acre Feet per Year • MGD - Million Gallons/Day

APPENDIX B – DETERMINATION OF ENVIRONMENTAL IMPACT RECHARGE VERSUS REUSE

In order to assess the relative merits of recharge versus re-use on the environment, in particular the underlying aquifer, a model has been developed to represent the following conditions:

1. *Water-only*
   Under this scenario, it is assumed that a non-integrated water-only solution has been deployed. There are no water demand reductions and hence all water for all uses must be treated from the aquifer.

2. *Recharge of Reclaimed Water*
   This scenario assumes that all reclaimed water treated from a water reclamation facility is directly recharged to the aquifer via vadose zone or ASR wells. No water is re-used in this scenario.

3. *Basic Re-Use of Recycled Water*
   This scenario provides recycled water for common area irrigation. Excess recycled water is recharged to the aquifer by vadose zone or ASR wells.

4. *Advanced Re-Use of Recycled Water*
   Under this case, recycled water is deployed for use as flush water in residential toilets, for use in residential irrigation, and for the uses included in the Basic Re-Use scenario. Shortfalls of this non-potable source to meet demand are made up with untreated surface water.

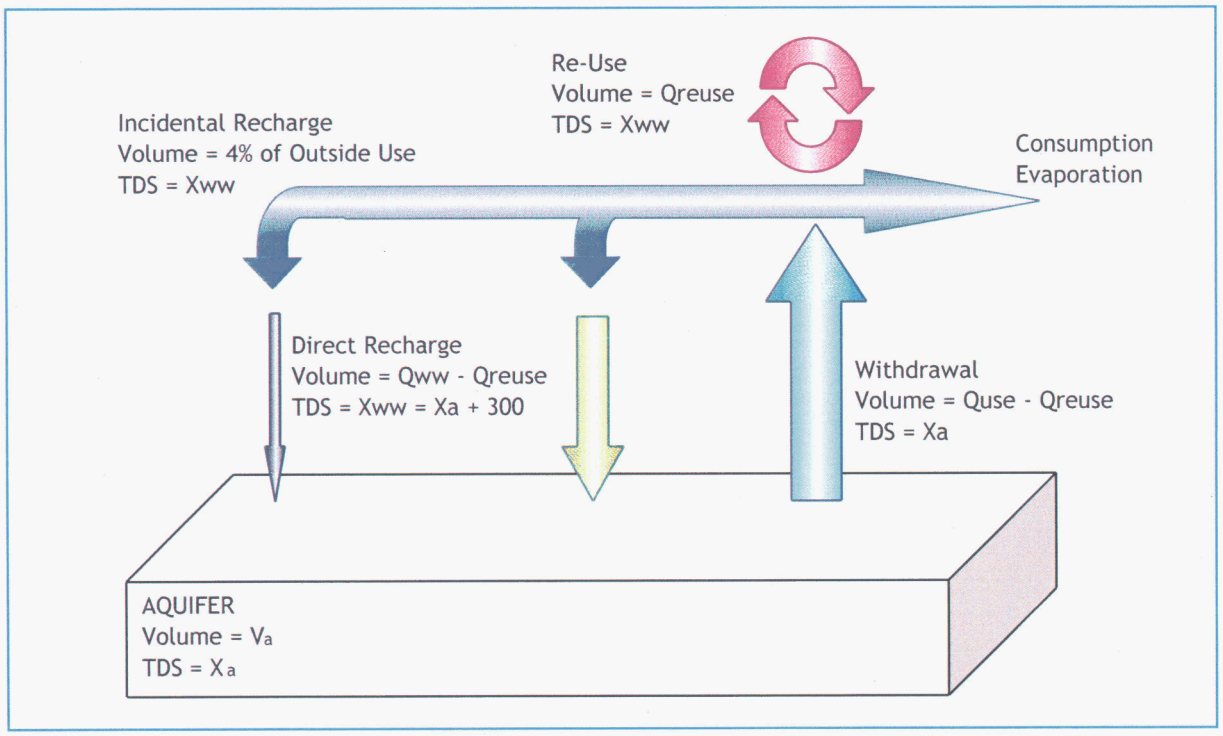
The model evaluates the impact of the above scenarios on total dissolved solids (TDS) in the aquifer and the impact on the overall available volume of the aquifer. This analysis is based on mass balance and volumetric considerations. The output of the model is termed the Impact

Factor, which represents the sum of the absolute values of the TDS and volume impacts. The model is run in a time sequence of EDU-days.[1]

The model employs volumetric consumptions derived from empirical data collected from Global Water's Santa Cruz Water Company system located in Maricopa, Az. This system is presently operating in the "Basic Re-Use" mode.

Model Architecture

The model architecture is for the four scenarios is shown in the accompanying figures. The control volume for the model is depicted below:



[1] The impact experienced over 1 EDU-day is equal to the effect of one EDU operating for one day. 1000 EDU-days is equivalent to one EDU operating for 1000 days, or 1000 EDUs operating for 1 day.

Model Results

The model shows that the water resources management plan that has the least impact on aquifer water levels and TDS is that of advanced re-use. This can be explained simplistically by examining the impact of recharge versus re-use. Under the recharge model, the volume removed from the aquifer is larger than under the re-use model. All of the water in the recharge case is consumed or produced reclaimed water of a higher TDS than the original supplied water (in the case of the model, 300 mg/L higher). This high TDS water is injected directly into the aquifer, with the resultant increase in aquifer TDS.

The various total impacts on the water resources can be combined to develop an Impact Factor. This factor is simply the change in percentage of TDS in the aquifer, combined with the absolute value of the reduction in aquifer volume. When plotted against time, it is apparent that the recharge model results in a greater overall impact. The least impact is determined to be that of Advanced Re-Use where smaller volumes are removed from the aquifer, correspondingly smaller volumes are recharged, with the concomitant reduction in mass loading of TDS on the aquifer.

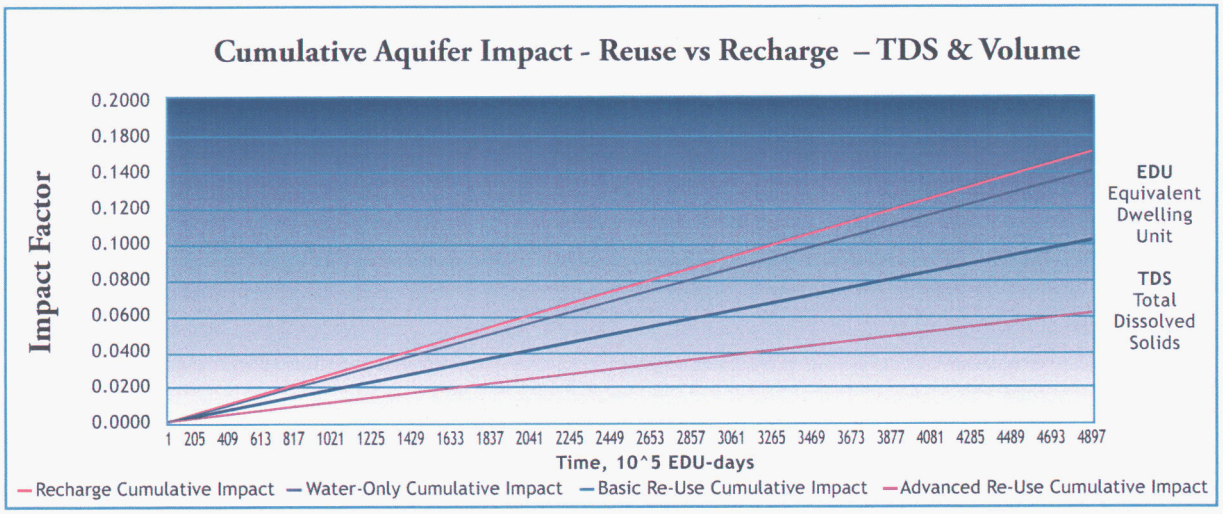


Table 1

Specifically:

1. The volume of high TDS water recharged directly to the aquifer under the Recharge scenario is significantly higher than under the Basic or Advanced Re-use scenarios. This increases the mass loading on the aquifer.
2. The volume of water required to be withdrawn from the aquifer under the Recharge scenario versus the Advanced Re-use scenario is significantly higher. This effectively removes low TDS-water from the aquifer at a greater rate and replaces it with a higher TDS water.

Direct Impact on Aquifer TDS

The following graph shows the impact of the four scenarios on the TDS concentrations in the Aquifer:

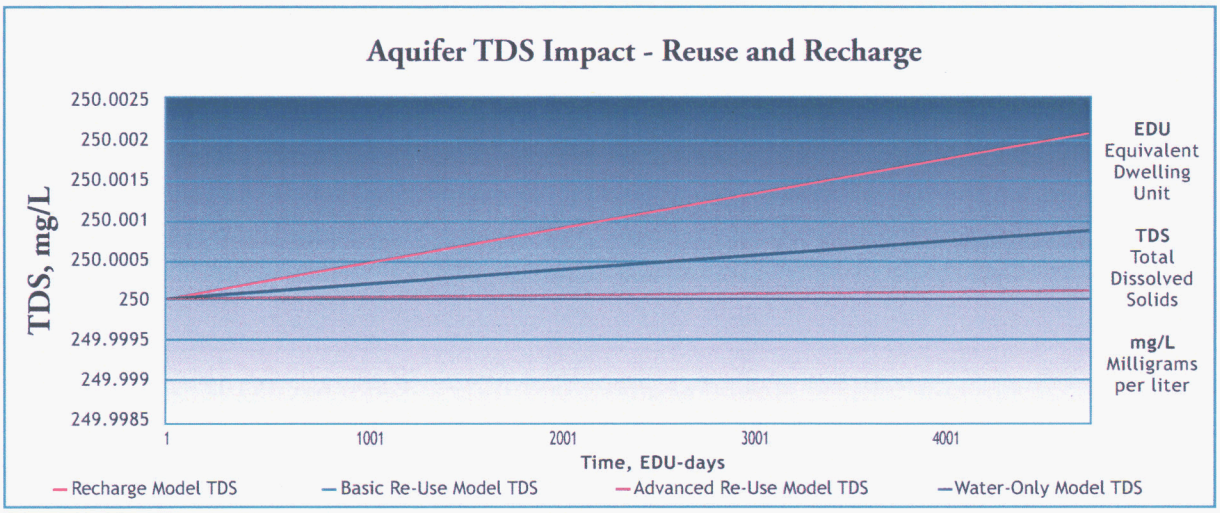


Table 2

Direct Impact on Aquifer Levels

The following graph shows the impact of the four scenarios on the water volume in the Aquifer[2]:

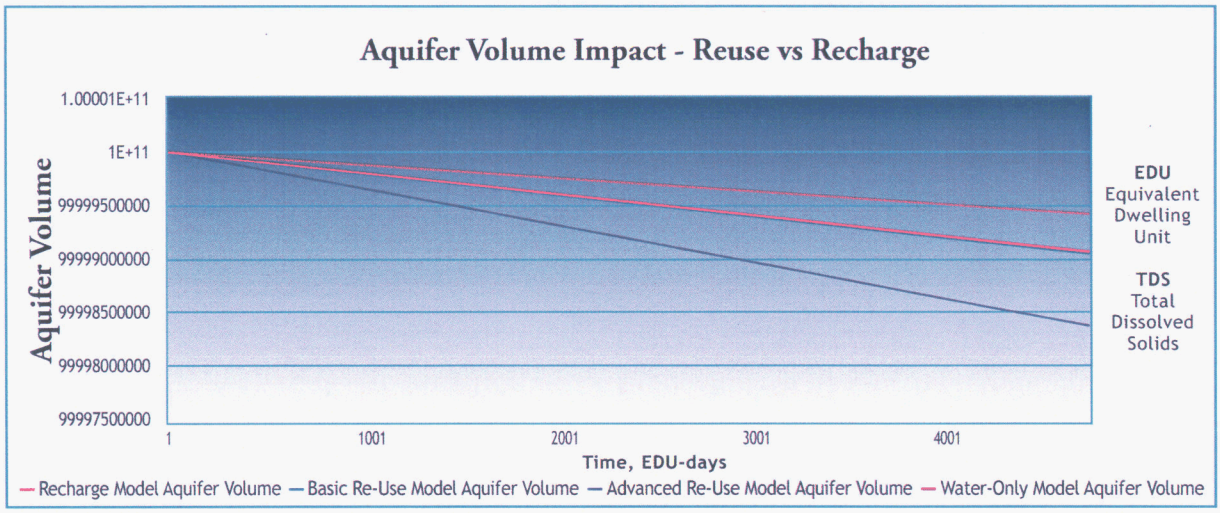
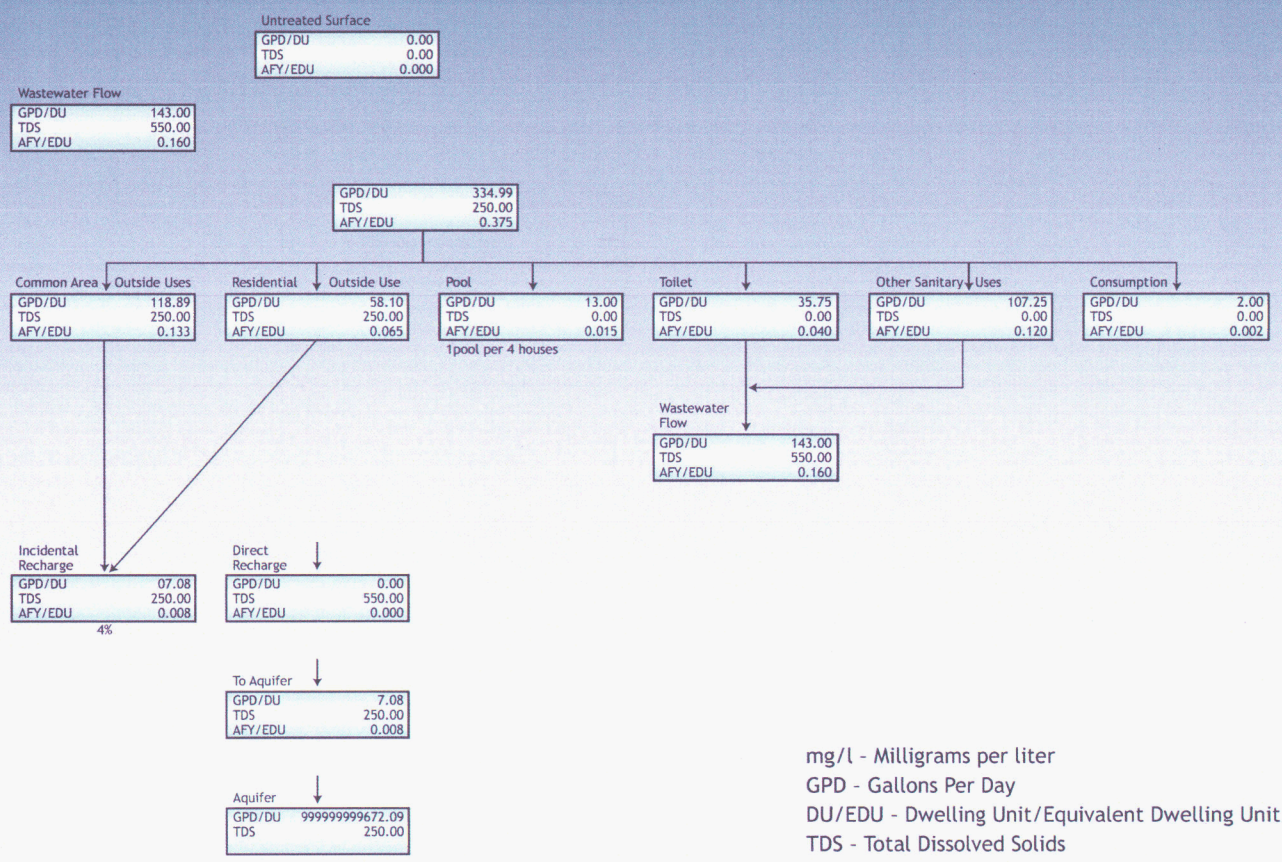


Table 3

[2] In the case of Recharge and Basic Re-Use, the aquifer volume impact is the same – only one line can be seen on the graph, but he results are coincindent.

Aquifer Impact Model - Water Only

Aquifer Volume	1,000,000,000,000	gallons
Aquifer TDS	250	mg/l
Human Contribution	300	mg/l
EDUs	100,000	



mg/l - Milligrams per liter
GPD - Gallons Per Day
DU/EDU - Dwelling Unit/Equivalent Dwelling Unit
TDS - Total Dissolved Solids
AFY - Acre Feet Per Year

Table 4

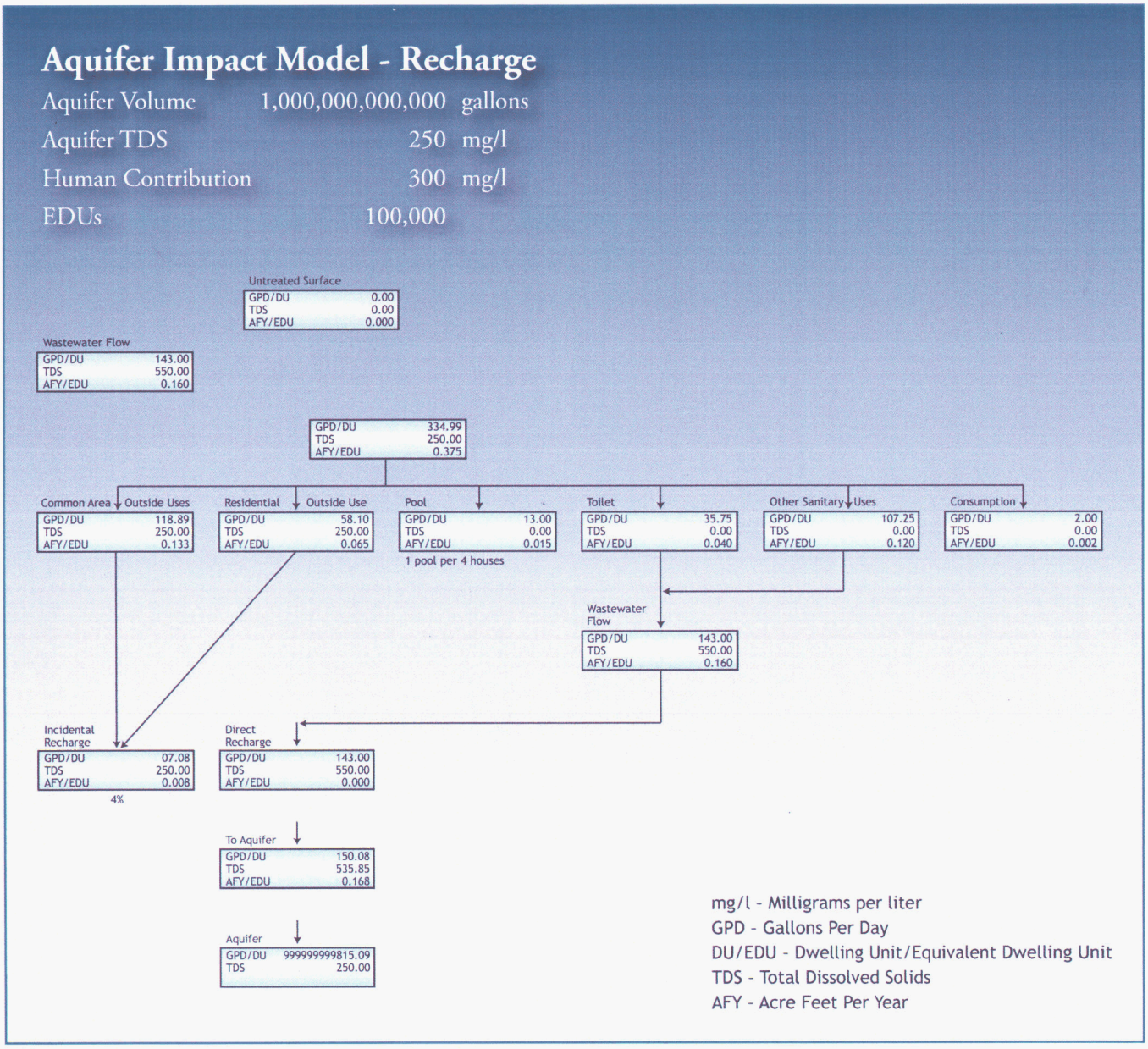
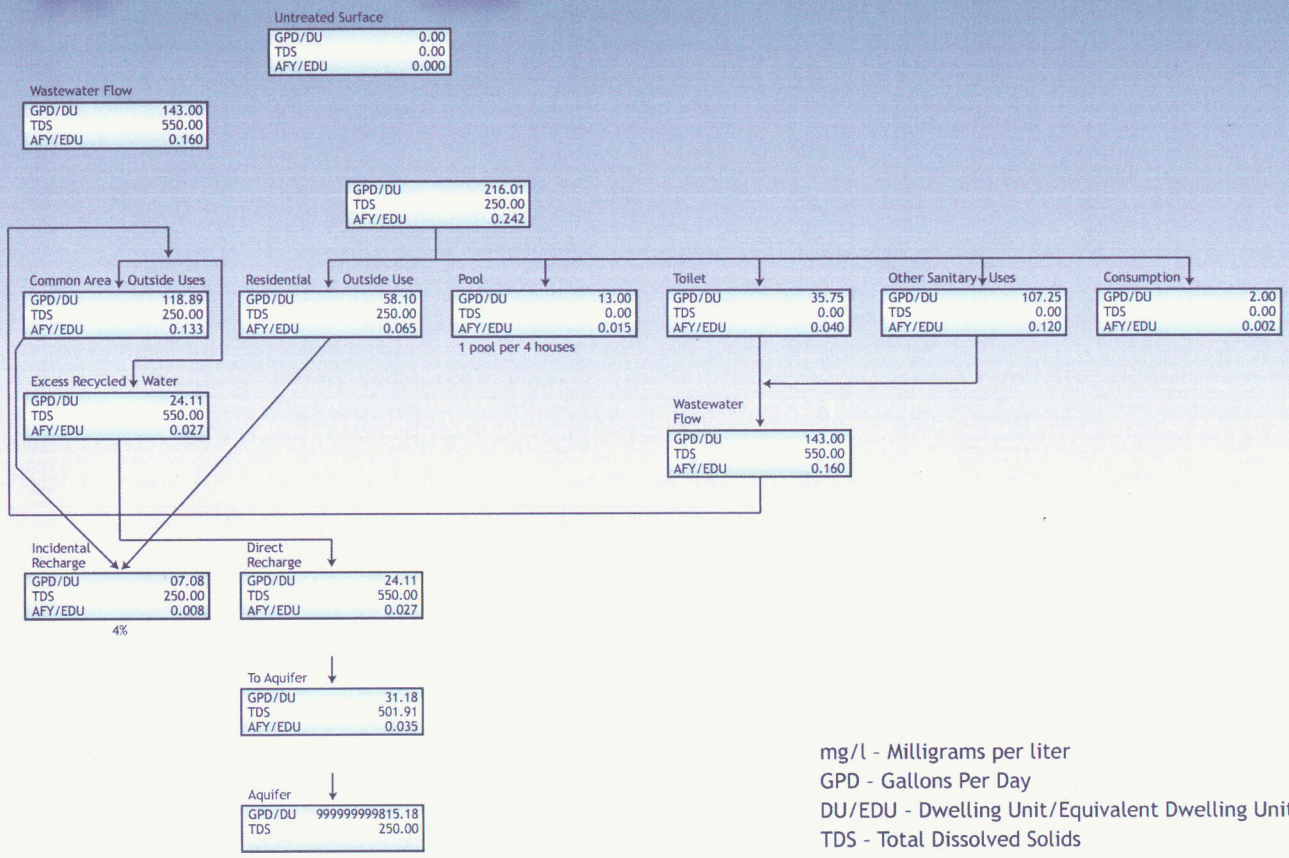

Aquifer Impact Model - Recharge
Aquifer Volume 1,000,000,000,000 gallons
Aquifer TDS 250 mg/l
Human Contribution 300 mg/l
EDUs 100,000
Untreated Surface
GPD/DU 0.00
TDS 0.00
AFY/EDU 0.000
Wastewater Flow
GPD/DU 143.00
TDS 550.00
AFY/EDU 0.160
GPD/DU 334.99
TDS 250.00
AFY/EDU 0.375
Common Area Outside Uses
GPD/DU 118.89
TDS 250.00
AFY/EDU 0.133
Residential Outside Use
GPD/DU 58.10
TDS 250.00
AFY/EDU 0.065
Pool
GPD/DU 13.00
TDS 0.00
AFY/EDU 0.015
1 pool per 4 houses
Toilet
GPD/DU 35.75
TDS 0.00
AFY/EDU 0.040
Other Sanitary Uses
GPD/DU 107.25
TDS 0.00
AFY/EDU 0.120
Consumption
GPD/DU 2.00
TDS 0.00
AFY/EDU 0.002
Wastewater Flow
GPD/DU 143.00
TDS 550.00
AFY/EDU 0.160
Incidental Recharge
GPD/DU 07.08
TDS 250.00
AFY/EDU 0.008
4%
Direct Recharge
GPD/DU 143.00
TDS 550.00
AFY/EDU 0.000
To Aquifer
GPD/DU 150.08
TDS 535.85
AFY/EDU 0.168
Aquifer
GPD/DU 999999999815.09
TDS 250.00
mg/l - Milligrams per liter
GPD - Gallons Per Day
DU/EDU - Dwelling Unit/Equivalent Dwelling Unit
TDS - Total Dissolved Solids
AFY - Acre Feet Per Year

Table 5

Aquifer Impact Model - Basic Re-Use

Aquifer Volume	1,000,000,000,000	gallons
Aquifer TDS	250	mg/l
Surface Water TDS	650	mg/l
Human Contribution	300	mg/l
EDUs	100,000	

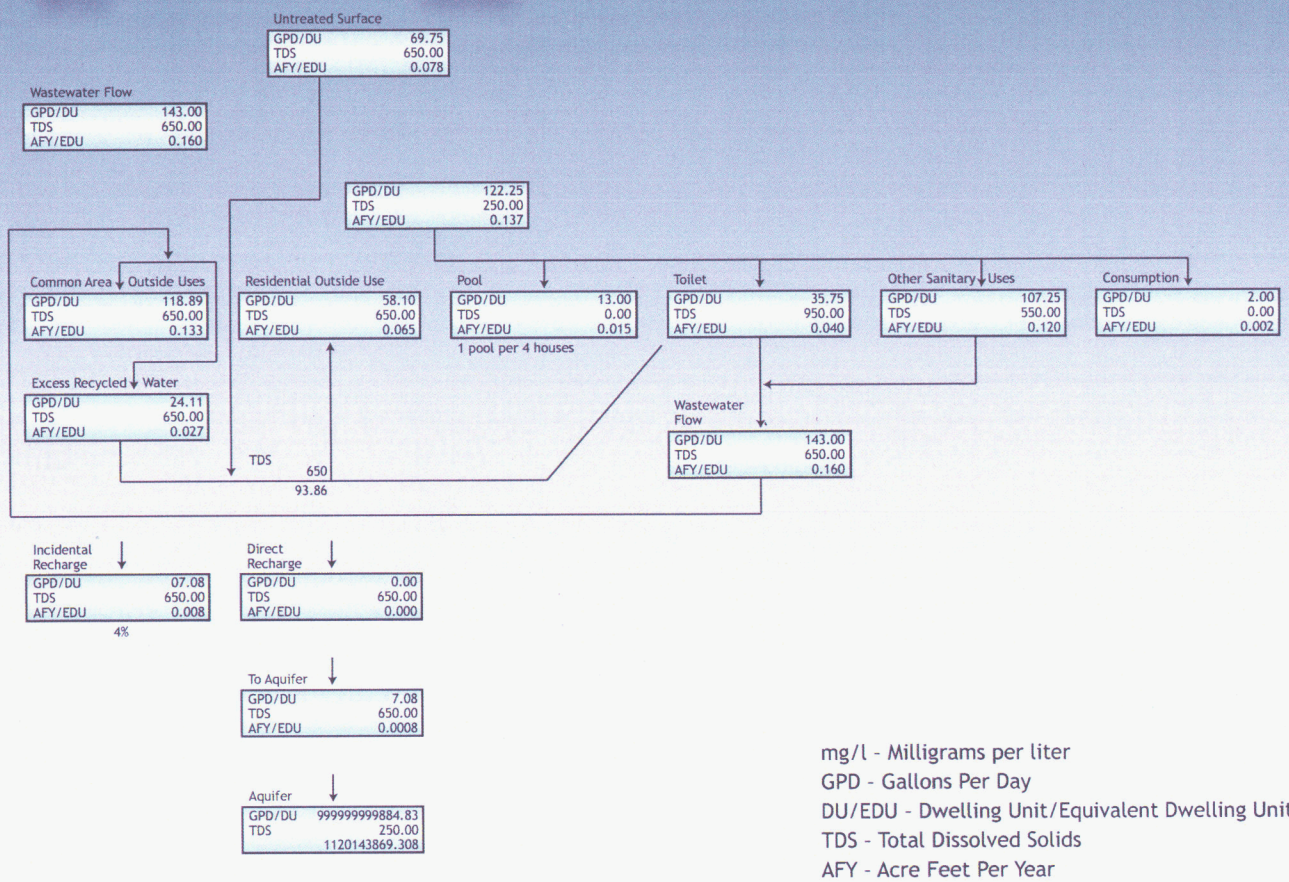


mg/l - Milligrams per liter
GPD - Gallons Per Day
DU/EDU - Dwelling Unit/Equivalent Dwelling Unit
TDS - Total Dissolved Solids
AFY - Acre Feet Per Year

Table 6

Aquifer Impact Model - Advanced Re-Use

Aquifer Volume	1,000,000,000,000	gallons	3,068,887.31
Aquifer TDS	250	mg/l	
Surface Water TDS	650	mg/l	
Human Contribution	300	mg/l	
EDUs	100,000		



mg/l - Milligrams per liter
GPD - Gallons Per Day
DU/EDU - Dwelling Unit/Equivalent Dwelling Unit
TDS - Total Dissolved Solids
AFY - Acre Feet Per Year

Table 7

APPENDIX C – CONTAMINANTS OF EMERGING CONCERN

There is a significant volume of work focused on contaminants of emerging concern (CEC), including endocrine disrupting compounds (EDC) and pharmaceuticals and personal care products (PPCP) in municipal effluents and recycled water. While the direct health effects of these constituents remains uncertain, there is no doubt that they exist in wastewater, see Table 8.

Environmental EDCs have varying routes of exposure depending on their inherent physicochemical properties, as well as external conditions such as their specific use, and environmental conditions such as temperature, UV-radiation, and microbial content.[1]

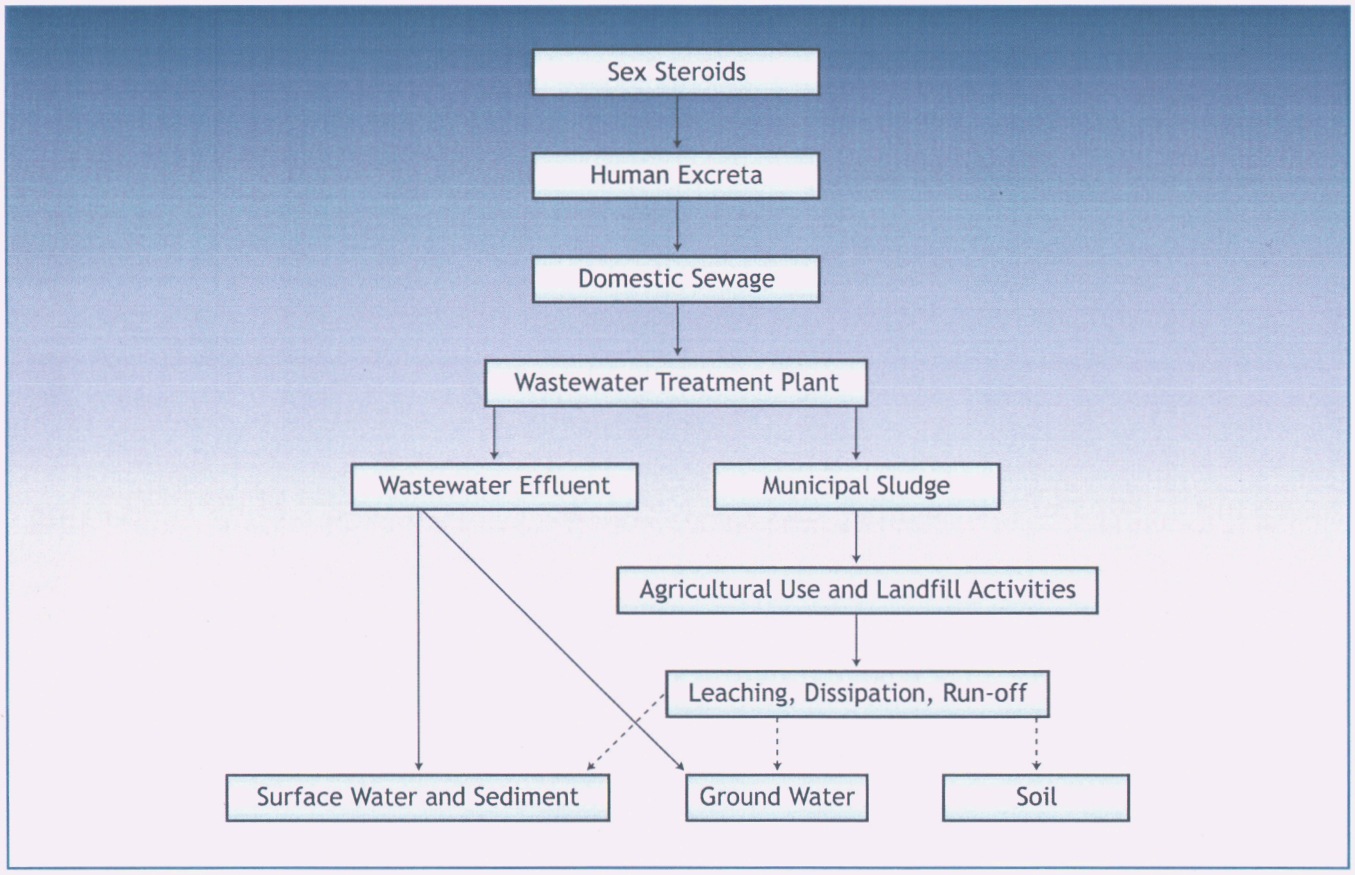


Table 8

EDC & PPCP REDUCTION STRATEGIES

Water reclamation facilities can be effective at achieving some removal of these CECs, but without specific targeted treatment will likely not be capable of removing 100%. There is some evidence that these compounds may be deactivated under normal irrigation uses through a combination of solar UV and upper soil layer metabolic effects.

Biological Treatment Processes

The extent of removal of EDCs in activated sludge sewage treatment has been reviewed studied extensively with emphasis given to the fate of alkylphenol polyethoxylates (APEs) and steroid estrogens. While APEs such as nonylphenol polyethoxylates (NPEs) could represent a significant fraction (up to 10%) of the DOC (dissolved organic carbon) entering sewage treatment plants, these compounds are successfully eliminated in an activated sludge environment by biodegradation.[2]

Soil-Aquifer Treatment

In a study at Lawrence Livermore National Laboratories, the impact of the vadose zone and saturated zone on attenuating EDCs was significant[3]:

> NP[4] [4-nonylphenol] was not detected in LPGC [Las Positas Golf Course] groundwater (detection limit, 11 ng/L) despite average concentrations of 3000 ng/L in the irrigation water (i.e., LWRP [Livermore Water Reclamation Plant] tertiary-treated effluent)...

[1] ENDOCRINE DISRUPTORS IN THE ENVIRONMENT (IUPAC Technical Report) Prepared for publication by J. LINTELMANN, A. KATAYAMA, N. KURIHARA, L. SHORE, AND A. WENZEL.
[2] Endocrine Disrupting Chemicals (EDCs) and Pharmaceuticals and Personal Care Products (PPCPs) in Reclaimed Water in Australia. Guang-Guo Ying, Rai Kookana1 and TD Waite.
[3] Environmental transport and fate of endocrine disruptors from non-potable reuse of municipal wastewater B. Hudson, H. Beller, C. M. Bartel, S. Kane, C.Campbell, A. Grayson, N. Liu, S. Burastero, November 16, 2005.
[4] The hormonal and toxicological properties of NP have resulted in the banning of NPEOs for domestic and industrial use in many parts of Europe. Ibid.

> Maximum concentrations of the APEO[5] [Alkylphenol ethoxylates] metabolites AP1EC and AP2EC in LPGC groundwater were from 130- to 360-fold lower than in irrigation water. Since hydrological modeling indicates that irrigation water was diluted only 33 to 73% with local precipitation in the aquifer, attenuation of these compounds during transport through the vadose zone and saturated zone (e.g., by sorption of the APEO metabolites) must have been very substantial. High sorptive attenuation of NP is consistent with laboratory column studies and modeling conducted for this project.

As similar study performed in Germany found when soils were loaded with double deionised water, digested sludge, EDC spiked digested sludge, or solely a mixed EDC solution containing 4-nonylphenol, 4-tert-octylphenol (OP), bisphenol A, 17â-estradiol, and 17á-ethynylestradiol, in most cases, EDC concentrations decreased with increasing soil depths.

It was concluded that "adsorption to the soil matrix and/or biodegradation prevented a direct EDC transport to groundwater."[6]

Direct Photolysis

Direct exposure to sunlight has been found to be effective in EDC degradation in some instances with almost complete degradation within 100 hours.[7]

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[5] Alkylphenol ethoxylates (APEOs), a class of nonionic surfactants, and their metabolites are the most prominent group of EDCs identified in wastewater and treated wastewater. In particular, nonylphenol ethoxylates (NPEOs) constitute the largest subgroup of the APEOs (encompassing more than 80% of the world market). Municipal wastewater treatment (including biological treatment) tends to result in efficient elimination of the parent APEOs but formation of biologically refractory metabolites including the following: alkylphenol mono- and diethoxylates, alkylphenol carboxylic acids (e.g., NP1EC and NP2EC; Figure 1), and 4-nonylphenol (NP). NP is a metabolite and representative of the APEO (and specifically, NPEO) class of endocrine disruptors that has recently been reported to have a wide distribution in surface waters and is well documented to be present in effluents of wastewater treatment plants (WWTP) at mg/L concentrations. Ibid.

[6] Mobility and fate of endocrine disrupting compounds (EDCS) in soil after application of sewage sludge to agricultural land. Dipl.-Ing. Dirk Vogel, Dr.-Ing. Martin Gehring, Dr.-Ing. Lars Tennhardt, Dr.-Ing. Diethelm Weltin, Prof. Dr.-Ing. habil. Bernd Bilitewski.

[7] Endocrine Disrupting Chemicals (EDCs) and Pharmaceuticals and Personal Care Products (PPCPs) in Reclaimed Water in Australia. Guang-Guo Ying, Rai Kookana1 and TD Waite.

SUMMARY

The beneficial reduction of EDCs in the soil matrix means that fewer EDCs and PPCPs reach the aquifer under direct re-use than would be found under direct recharge. Accordingly, it is a better management strategy to keep CECs from the aquifer by encouraging the use of recycled water as a continuous loop of non-potable water, or as an irrigation source.

APPENDIX D – BASELINE PARAMETERS

Underlying Regional Conditions

Analysis was based on the regional planning developed and currently being implemented by Global Water and its utilities within the Maricopa/Casa Grande Region (MCGR) in Pinal County, Arizona. The planning area represented by the region is roughly 300 square miles and will be serviced by multiple facilities. A far reaching network of collection and distribution pipelines will extend throughout. The region is on the fringes of the Phoenix metropolitan area so development, for the most part, is new. Installation of infrastructure has and will continue to be completed without the impediments traditionally encountered in built-up urban areas.

Global Water has constructed, or has plans to construct, standardized facilities within the region. Each well site, water distribution center, treatment plant, etc. is similar in design and functionality and is modified only to accommodate conditions related to a particular location. All planning is regional so pipelines are sized to service the area at full build out.

Population Density

A population density of **3.5 Equivalent Development Units (EDU) per acre** was used. That factor applied to a section of land (640 acres) results in 2,240 EDU to be constructed and serviced.

Consumptive Demands

Consumptive data from Santa Cruz Water Company provided an indication of total water resource demand within the service area and its distribution, see Table 9. The following parameters were been developed based on four years of operation within the Maricopa/Casa Grande Region (MCGR):

Description	Consumption (Gal/Day/EDU)
Residential/Commercial Potable Water Demand	216
Wastewater Production (Equates to Inside Uses of Potable Water)	143
Outside Uses of Potable Water	73 (34% of Potable Water Demand)
Common Area Irrigation Requirements	118

EDU - Equivalent Dwelling Unit

Table 9

It should be noted that the original development for Rancho El Dorado did not contemplate the provision of recycled water for some of the developments – as a result, some of the developments in the test area use potable water for irrigation. Since 2004, Global has required all new development common areas to be irrigated by recycled water exclusively.

Overall, Santa Cruz Water Company exhibits one of the lowest per unit water consumptions in the state. The Potable Water Portion of the Common Area Irrigation decreases as a function of EDU's over time because this mode of operation is no longer supported in the MCGR.

Availability of Recycled Water

Empirical data derived from treatment operations in the Maricopa/Casa Grande Region (from Palo Verde Utilities Company) indicates wastewater flow averages **143 gallons per EDU per day**. This quantity converts to 0.160 ac-ft/EDU/year and, once treated, can be distributed as A+ Reclaimed Water throughout the region.

Capital Expenditures & AIAC

Unit costs for capital expenditure items were derived from standard industry norms and from actual project costs. Costs are based on a Global-typical facility or installation similar to infrastructure

designed and constructed within the Maricopa/Casa Grande Region, see Table 10. The following cost categories have been included:

- Permitting Costs – Front end permitting activities such as 208, CC&N, APP, AZPDES, USF, AWS, and IUP. It includes costs for hydrologic studies, well testing, etc. For purposes of this analysis it is anticipated that roughly $1,000,000 of cost will be expended in developing and obtaining the necessary permits for a region. The size of the region will vary but, in this analysis, the region is set at ten sections. Roughly 20,000 EDU's will be developed in the ten sections. $1,000,000/20,000 EDU's calculates to **$50 per EDU**.

- Groundwater Rights Acquisition – Acquirement of water rights from the market to support a perpetual supply. Global Water currently works with developers to obtain associated groundwater rights at no expense to the Utility. For purposes of this analysis, acquisition costs are set at **$0 per EDU**.

- Well Sites – Conversion of existing agricultural wells to domestic use facilities including new casings, seals, equipment, and electrical upgrades. Includes raw water pipelines to deliver well water to water distribution centers. Unit cost is based on costs associated with a standard well conversion in MCGR, along with an estimate for pipeline installation (one mile for purposes of this analysis) to convey well water from the Well Site to a Water Distribution Center (WDC).

	Capitol Cost	Well Capacity (GPM)	Average Daily Flow (GPM)	Average Daily Flow (MGD)	Cost per Gallon
Standard Well Site	$500,000	2,000	1,000	1.440	$0.35
Pipeline	$250,000				
Total	$750,000				$0.52
Use					**$0.55**

GPM - Gallons Per Minutes • MGD - Million Gallons/Day

Table 10

• Surface Water Rights Acquisition – Acquisition of water rights from the market to support a perpetual supply. From the Water Strategist, January 2007, a snapshot of recent surface water transactions in the southwestern United States revealed the following Table 11:

System	Location	Cost of Water Right / ac-ft 2006	Cost of Water Right / ac-ft 2001	5 Year Increase
Colorado-Big Thompson	Northern Colorado	$10,554	$5,000	190%
Truckee River	Reno, Nevada	$27,867	$3,500	696%
Middle Rio Grande	Albuquerque, New Mexico	$7,500	$4,000	88%

ac-ft - Acre Foot

Table 11

It must be noted that water markets are still in their infancy and lack any centralized exchange. The value of water is dependent on a number of factors including reliability of the underlying water right, quantity, quality, uses, and availability of competing sources of supply. With the future water market in Arizona filled with uncertainty, an acquisition price was set at **$11,000 per acre-foot** for purposes of this analysis.

• Surface Water Treatment – Design, permitting, and construction of surface water treatment facilities including all civil, structural, mechanical, process equipment, and electrical components. Santa Cruz Water Company has designed and permitted a surface water treatment facility in MCGR, see Table 12.

Facility	Capitol Cost	Treatment Capacity (MGD)	Cost per Gallon
Maricopa Groves WTF	$15,000,000 (budget)	2.5	$6.00
Use			$6.00

WTF - Water Treatment Facility • MGD - Million Gallons/Day

Table 12

- Arsenic Treatment – Design, permitting, and construction of facilities to remove arsenic. Includes all civil, structural, mechanical, process equipment, and electrical components. Valencia Water Company (a Global Water company located in Buckeye, Arizona) is constructing a regional arsenic treatment facility and unit costs are based on budget for that project divided by average daily treatment capacity permitted at the facility. In this case treatment capacity is equal to the facility's designated peak hour flow (to accommodate fire flow).

Facility	Capitol Cost	Treatment Capacity (GPM)	Calculated Average Daily Flow (GPM)	Calculated Average Daily Flow (MGD)	Cost per Gallon
Sonoran Vista WDC	$2,000,000 (Budget)	3,500	1,029	1.482	$1.35
Use					**$1.35**

GPM - Gallons Per Minute • MGD - Million Gallons/Day

Table 13

- Water Distribution (Storage & Pumping) – Design, permitting, and construction of treated water storage reservoirs and distribution pumping stations. Includes all civil, structural, mechanical, and electrical components. Unit cost is based on the current budget to design, permit, and construct two Water Distribution Centers (WDC's) currently being completed in the MCGR divide by the WDC's average daily flow, see Table 13 & 14. In this case daily capacity is equal to the facilities' designated peak hour flow (to accommodate fire flow).

Facility	Capitol Cost	Booster Capacity (GPM)	Calculated Average Daily Flow (GPM)	Calculated Average Daily Flow (MGD)	Cost per Gallon
Rancho Mirage WDC	$5,800,000 (Budget)	6,500	1,912	2.753	$2.11
Terrazo WDC	$6,000,000 (Budget)	8,000	2,358	3.388	$1.77
Use					**$2.00**

GPM - Gallons Per Minute • MGD - Million Gallons/Day

Table 14

- Water Backbone Pipeline – Water transmission mains typically 12" to 16" in diameter installed between the water distribution center and the development. Within the MCGR, backbone pipelines are installed along section lines. At build-out, two miles of pipeline will be installed to service each section of land. In determining an appropriate value, $100 per linear foot was used for water backbone. $100 per linear foot x 5,280 feet per mile x 2 miles of pipeline per section totals $1,056,000 per section of land. Assuming 2,240 EDU's per section, cost calculates to $471 per EDU. This value was modified to **$500 per EDU**.

- Onsite Water Pipelines – Water transmission pipelines installed from the point of connection with the Water Backbone Pipeline to the EDU's and includes the cost of a meter. Typically installed by the developer. Cost of construction escalated quickly during the period extending over 2003 to 2006 but, beginning in 2006, prices began to flatten and even decreased in some instances. The following Table 15 illustrates in-parcel water infrastructure cost for developments in the MCGR.

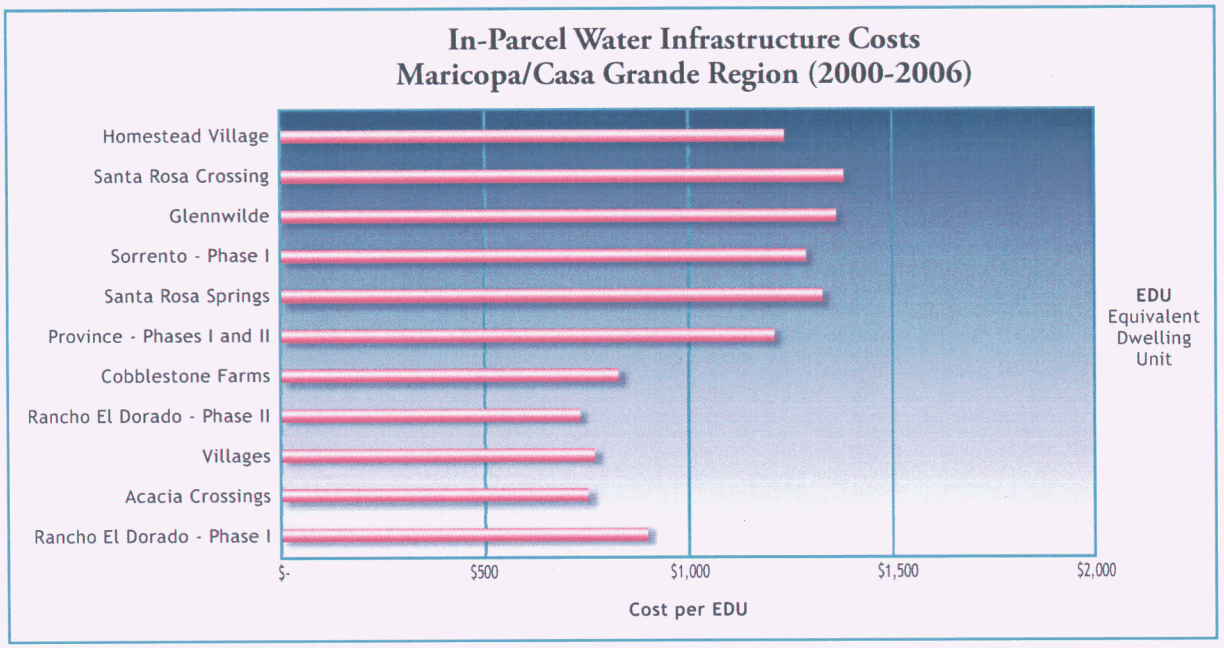

Table 15

A value of $1,400 per EDU was used for pipelines, valves and services. An additional $400 per EDU was added to account for the cost of a meter. Total calculates to **$1,800 per EDU**.

- Onsite Wastewater Pipeline – Wastewater collection pipelines installed from the EDU's to the point of connection with the Wastewater Backbone Pipeline. Typically installed by the developer. Cost of construction escalated quickly during the period extending over 2003 to 2006 but, beginning in 2006, prices began to flatten and even decreased in some instances. The following Table 16 illustrates in-parcel wastewater infrastructure cost for developments in the MCGR.

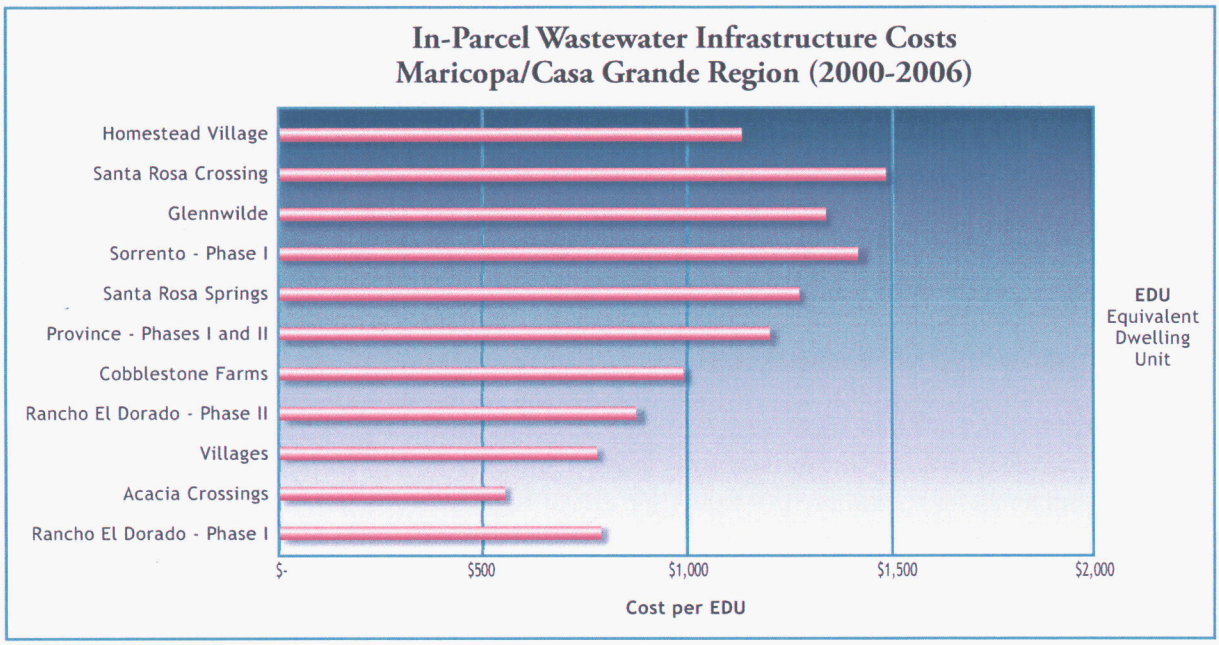

Table 16

For purposes of analysis, a value of **$1,400 per EDU** was used for in- parcel wastewater infrastructure.

- Wastewater Backbone Pipeline – Wastewater collection pipelines typically 18" to 48" in diameter installed between the development and the water reclamation center. Within the MCGR, backbone pipelines are installed along section lines. At build-out, two miles of pipeline will be installed to service each section of land. In determining an appropriate value, $150 per linear foot was used for wastewater backbone. $150 per linear foot x 5,280 feet per mile x 2 miles of pipeline per section totals $1,584,000 per section of land. Assuming 2,240 EDU's per section, cost calculates to $707 per EDU.

This value was modified to **$750 per EDU**.

- Water Reclamation – Treatment – Design, permitting, and construction of water reclamation facilities including all civil, structural, mechanical, process equipment, and electrical components. Includes influent pump station and post treatment storage and pumping (to discharge, reuse, etc.). Unit cost for analysis was developed using actual and estimated costs of current treatment infrastructure in MCGR adjusted to reflect a 3 MGD facility, see Table 17.

Project	Capacity (MGD)	Capitol Cost Total	Capitol Cost Adjusted to 3 MGD	Cost per Gallon
Campus No. 2 - Phase 1 (Excluding Headworks)	1	$10,318,945 (Budget)	$10,318,945	
Campus No. 1 - Phase 2 Expansion	+2	$11,303,675	$11,303,675	
Campus No. 2 - Headworks	6	$1,587,000 (Budget)	$1,126,070	
Campus No. 1 - Influent Pump Station	12	$2,007,000	$1,229,000	
Total	3		$23,978,440	$7.99
Use				**$8.00**
				MGD - Million Gallons/Day

Table 17

- Recycled Water Backbone Pipelines – Pipelines typically 12" to 24" in diameter installed between the water reclamation center and recycled water retention structures (lakes) within the development. These pipelines run parallel with wastewater lines in MCGR. At build-out, two miles of pipeline will be installed to service each section of land. In determining an appropriate value, $100 per linear foot was used for recycled water backbone. $100 per linear foot x 5,280 feet per mile x 2 miles of pipeline per section totals $1,056,000 per section of land. Assuming 2,240 EDU's per section, cost calculates to $471 per EDU. This value was modified to **$500 per EDU**.

- Reclaimed Water Storage & Pressurization – Design, permitting, and construction of recycled water storage reservoirs and distribution pumping stations. Includes all civil, structural, mechanical, and electrical components. Although not identical to potable Water Distribution Center (WDC), unit cost is based on the current budget to design, permit, and construct two WDC's currently being completed in the MCGR divided by the WDC's average daily flow. In this case, because the reclaimed water distribution center will not accommodate fire flow, daily capacity is equal to the facilities' designated maximum daily flow, see Table 18.

Facility	Capitol Cost	Booster Capacity (GPM)	Calculated Average Day (GPM)	Calculated Average Day (MGD)	Cost per Gallon
Rancho Mirage WDC	$5,800,000 (Budget)	6,500	3,250	4.680	$1.24
Terrazo WDC	$6,000,000 (Budget)	8,000	4,000	5.760	$1.04
Use					$1.15
WDC - Water Distribution Center • GPM - Gallons Per Minute • MGD - Million Gallons/Day					

Table 18

- Onsite Recycled Water Pipelines – Pressurized recycled water transmission pipelines installed from the reclaimed water storage & pressurization facilities to the EDU's. Installed by the developer during construction of onsite infrastructure. For purpose of this analysis, installation of onsite recycled pipelines is anticipated to make use of a trench common to the wastewater pipeline. It is estimated that 80% of the cost covers materials and miscellaneous labor to install while the remaining 20% covers trenching. Because recycled water piping is similar to potable water piping, $1,400 per EDU is used as a base (determined above for onsite potable pipelines) and is multiplied by 80%, equaling $1,120 per EDU. Because the recycled water pipelines will distribute less capacity than the potable pipelines, they will be of a smaller diameter and the value has been decreased slightly to $1,100 per EDU. An additional $400 per EDU was added to account for the cost of a meter. The total calculates to **$1,500 per EDU**.

Operations & Maintenance

Unit costs for operations & maintenance were derived from industry norms or are based on values calculated from the Santa Cruz Water Company and Palo Verde Utilities Company financial statements. The following categories have been included:

- Well Sites – All rents, utility payments (power), labor, supplies, taxes, and miscellaneous expenses. Includes monitoring and compliance (sampling, testing, & lab work), Table 19.

2006 O&M Expenses Apportioned to Category	Quantity Pumped (x 1,000 Gallons)	Cost per 1,000 Gallons
$413,453	1,690,346	$0.24
Use		**$0.25**

Table 19

- Surface Water Treatment – All rents, utility payments (power), taxes, and miscellaneous expenses. Labor and supplies for oil changes, lubrications, and replacement of consumable components (belts, air filters, media, etc). Includes mechanical and electrical repairs, outside rentals (cranes, pumps, etc) and procurement of chemicals. Also includes monitoring and compliance (sampling, testing, and laboratory work). Budget O&M cost were developed for the Maricopa Groves 2.5 MGD Facility, see Table 20.

Category	Estimated Annual O&M Cost	Cost per 1,000 Gallons
Power Consumption	$64,987	$0.07
Chemical Cost	$290,776	$0.32
Other Cost (Disposal, Module Replacement, Etc.)	$60,311	$0.07
Labor, Maintenance Materials, Testing	$100,000	$0.11
MSIDD Wheeling Charge		$0.13
Total		$0.70
Use		**$0.70**

MSIDD - Maricopa-Stanfield Irrigation and Drainage District

Table 20

- Arsenic Treatment – All rents, utility payments (power), labor, supplies, taxes, and miscellaneous expenses. Includes monitoring and compliance (sampling, testing, and laboratory work). Depending on size and technology, O&M cost associated with Arsenic treatment within a regional system range from $0.50 to $2.00 per 1,000 gallons of treated water. For this analysis a value of **$1.50 per 1,000 Gallons** was used.

- Water Distribution (Storage & Pumping) – All rents, utility payments (power), labor, supplies, taxes, and miscellaneous expenses. Includes monitoring and compliance (sampling, testing, and laboratory work), see Table 21.

2006 O&M Expenses Apportioned to Category	Quantity Pumped (x 1,000 Gallons)	Cost per 1,000 Gallons
$1,229,387	1,286,414	$0.96
Use		$1.00

Table 21

- Water Backbone Pipeline – Valve and hydrant programs. Maintenance of PRV's. System flushing as required, see Table 22.

2006 O&M Expenses Apportioned to Category	Quantity Pumped (x 1,000 Gallons)	Cost per 1,000 Gallons
$122,117	1,286,414	$0.09
Use		$0.10

Table 22

- Onsite Water Pipelines – Valve and hydrant programs. Maintenance of PRV's. System flushing as required, see Table 23.

2006 O&M Expenses Apportioned to Category	Quantity Pumped (x 1,000 Gallons)	Cost per 1,000 Gallons
$122,117	1,286,414	$0.09
Use		$0.10

Table 23

- Onsite Wastewater Pipeline – Flushing and cleaning of collection system, see Table 24.

2006 O&M Expenses Apportioned to Category	Quantity Pumped (x 1,000 Gallons)	Cost per 1,000 Gallons
$38,096	447,979	$0.09
Use		**$0.10**

Table 24

- Wastewater Backbone Pipeline – Flushing and cleaning of collection system, see Table 25.

2006 O&M Expenses Apportioned to Category	Quantity Pumped (x 1,000 Gallons)	Cost per 1,000 Gallons
$38,096	447,979	$0.09
Use		**$0.10**

Table 25

- Water Reclamation (Treatment) – All rents, utility payments (water and power), taxes, and miscellaneous expenses. All labor and supplies for cleanings, oil changes, lubrications, replacement of consumable components (belts, air filters, media, etc). Includes mechanical and electrical repairs, outside rentals (cranes, pumps, etc), sludge hauling, and procurement of chemicals. Also includes monitoring and compliance (sampling, testing, & lab work) Table 26.

2006 O&M Expenses Apportioned to Category	Quantity Pumped (x 1,000 Gallons)	Cost per 1,000 Gallons
$1,949,554	447,979	$4.35
Use		**$4.35**

Table 26

- Recycled Water Backbone Pipelines – Valve program. Maintenance of PRV's. Since the recycled pipelines are similar to the potable water pipelines, a similar O&M unit cost of **$0.10 per 1,000 Gallons** is used.

- Reclaimed Water Storage & Pressurization – All rents, utility payments (power), labor, supplies, taxes, and miscellaneous expenses. Includes monitoring and compliance

(sampling, testing, and laboratory work). For purpose of this analysis it is anticipated that an economics of scale will be recognized within the labor component of O&M expenses. With a support structure in place to operate and maintain water and wastewater systems, the addition of a third, recycled water, system can be facilitated by expanding the labor force incrementally. The incremental labor component of recycled water O&M is estimated at 33% of the value calculated for potable water, see Table 27.

Category	Potable O&M Cost	Adjusted Recycled O&M Cost	Quantity Pumped (x 1,000 Gallons)	Cost per 1,000 Gallons
Utilities	$90,952	$90,952		
Supplies	$93,328	$93,328		
Labor	$915,877	**$302,239**		
Other	$129,230	$129,230		
Total	$1,229,387	$615,749	1,286,414	$0.48
Use				**$0.50**

Table 27

- Onsite Recycled Water Pipelines – Valve program. Maintenance of PRV's. Since the recycled pipelines are similar to the potable water pipelines, a similar O&M unit cost of **$0.10 per 1,000 Gallons** is used.

Financial Parameters

Relevant financial parameters were assigned for purposes of this analysis (capital structure, profit & loss expectations, etc).

Table of Values

The following Table 28 indicates the parameter values entered into the model for analysis.

Table of Values		Input
Consumption Information	Water to Residential Customers (Total)	0.242 ac-ft/EDU/year
	Water to Commercial Customers (Total)	- ac-ft/EDU/year
	Water to Res & Comm Customers for Irrigation	34% as a % of Total ac-ft/EDU/year
	Water to HOA's for Irrigation	0.132 ac-ft/EDU/year
	Water to Miscellaneous Irrigation	- ac-ft/EDU/year
Wastewater Available for Treatment		0.160 ac-ft/EDU/year
Population Density		3.50 per Acre
Rate Base Information (Capital Expenditures)	Permitting Costs	$ 50.00 per EDU
	Groundwater Rights Acquisition	$ - per Ac-Ft
	Well Sites	$ 0.55 per Gallon
	Surface Water Rights Acquisition	$ 11,000 per Ac-Ft
	Surface Water Treatment	$ 6.00 per Gallon
	Arsenic Treatment	$ 1.35 per Gallon
	Water Distribution (Storage & Pumping)	$ 2.00 per Gallon
	Water Backbone Pipelines	$ 500.00 per EDU
	Wastewater Backbone Pipelines	$ 750.00 per EDU
	Water Reclamation - Treatment	$ 8.00 per Gallon
	Recycled Water Backbone Pipelines	$ 500.00 per EDU
	Reclaimed Water Storage & Pressurization	$ 1.15 per Gallon
AIAC Components	Onsite Water Pipelines	$ 1,800.00 per EDU
	Onsite Wastewater Pipelines	$ 1,400.00 per EDU
	Onsite Recycled Water Pipelines	$ 1,500.00 per EDU
Operational Expenses	Well Sites	$ 0.25 per 1000 Gallons
	Surface Water Treatment	$ 0.70 per 1000 Gallons
	Arsenic Treatment	$ 1.50 per 1000 Gallons
	Water Distribution (Storage & Pumping)	$ 1.00 per 1000 Gallons
	Water Backbone Pipelines	$ 0.10 per 1000 Gallons
	Wastewater Backbone Pipelines	$ 0.10 per 1000 Gallons
	Water Reclamation - Treatment	$ 4.35 per 1000 Gallons
	Recycled Water Backbone Pipelines	$ 0.10 per 1000 Gallons
	Reclaimed Water Storage & Pressurization	$ 0.50 per 1000 Gallons
	Onsite Water Pipelines	$ 0.10 per 1000 Gallons
	Onsite Wastewater Pipelines	$ 0.10 per 1000 Gallons
	Onsite Recycled Water Pipelines	$ 0.10 per 1000 Gallons
Rate Base Breakdown	Equity	50.00%
	Debt	50.00%
Monthly Wastewater Rate		$ 35.00 per Month
Cost of Recycled Water (as a % of Potable)		85.00%
Depreciation		2.50%
Interest		7.00%
Tax Rate		42.00%
Return on Equity		11.00%

EDU - Equivalent Dwelling Unit • Ac-Ft - Acre Foot • HOA - Home Owners Association • AIAC - Advances In Aid of Construction

Table 28

APPENDIX E – CALCULATION SHEETS

THE ECONOMICS OF RECLAMATION

SCENARIO	Groundwater	Yes	Surface	No	Arsenic	No
LEVEL OF RECLAMATION	Basic	No	+ Advanced	No		

Consumption

Water to Residential Customers	216	Gallons/day	0.242	ac-ft/EDU/year
Water to Commercial Customers	-	Gallons/day	-	ac-ft/EDU/year
SUBTOTAL - HOMES	216	Gallons/day	0.242	ac-ft/EDU/year
Water to HOA's for Irrigation	118	Gallons/day	0.132	ac-ft/EDU/year
Water to Miscellaneous Irrigation	-	Gallons/day	-	ac-ft/EDU/year
SUBTOTAL - COMMON AREAS	118	Gallons/day	0.132	ac-ft/EDU/year
TOTAL	334	Gallons/day	0.374	ac-ft/EDU/year

Recycled Water

Wastewater Available for Treatment	143	Gallons/day	0.160	ac-ft/EDU/year

Population Density 3.5 per Acre 2,240 EDU/Section

Supply (factoring in utilization of recycled water)

	Water to Customers (Inside)	143	Gallons/day	0.160	ac-ft/EDU/year
34%	Water to Customers (Outside)	73	Gallons/day	0.082	ac-ft/EDU/year
	Total Water to Customers	216	Gallons/day	0.242	ac-ft/EDU/year
	Water to Common Areas	118	Gallons/day	0.132	ac-ft/EDU/year
	Total Water Use	334	Gallons/day	0.374	ac-ft/EDU/year

Recycled Water to Common Areas	-	Gallons/day	-	ac-ft/EDU/year
Recycled Water to Customers	-	Gallons/day	-	ac-ft/EDU/year
Re. Water To Discharge/Recharge	143	Gallons/day	0.160	ac-ft/EDU/year

	Unit Cost ($ per Gal)	Unit Cost ($ per Ac-ft)	Unit Cost ($ per EDU)	Total per Section ($)
Rate Base				
Permitting Costs			$ 50.00	$ 112,000
Groundwater Rights Acquisition		$ -	$ -	$ -
Well Sites	$ 0.55		$ 183.64	$ 411,347
Surface Water Rights Acquisition		$ 11,000.00	$ -	$ -
Surface Water Treatment	$ 6.00		$ -	$ -
Arsenic Treatment	$ 1.35		$ -	$ -
Water Distribution (Storage & Pumping)	$ 2.00		$ 668	$ 1,495,808
Water Backbone Pipelines			$ 500.00	$ 1,120,000
Wastewater Backbone Pipelines			$ 750.00	$ 1,680,000
Water Reclamation - Treatment	$ 8.00		$ 1,143	$ 2,559,671
Recycled Water Backbone Pipelines			$ 500.00	$ -
Reclaimed Water Storage & Pressurization	$ 1.15		$ -	$ -
AIAC				
Onsite Water Pipelines			$ 1,800.00	$ 4,032,000
Onsite Wastewater Pipelines			$ 1,400.00	$ 3,136,000
Onsite Recycled Water Pipelines			$ 1,500.00	$ -
TOTAL			$ 6,494	$ 14,546,826

	Total Operating Costs (Water) ($/1000)	Total Operating Costs (WW) ($/1000)	Total Operating Costs (Recycled) ($/1000)
Operational Expenses			
Well Sites	$ 0.25		
Surface Water Treatment	$ -		
Arsenic Treatment	$ -		
Water Distribution (Storage & Pumping)	$ 1.00		
Water Backbone Pipelines	$ 0.10		
Wastewater Backbone Pipelines		$ 0.10	
Water Reclamation - Treatment		$ 4.35	
Recycled Water Backbone Pipelines			$ -
Reclaimed Water Storage & Pressurization			$ -
Onsite Water Pipelines	$ 0.10		
Onsite Wastewater Pipelins		$ 0.10	
Onsite Recycled Water Pipelines			$ -
	$ 1.45	$ 4.55	$ -

Breakdown of Capital Costs	Water	Wastewater	Recycled	Total
Costs per Section	$ 7,171,155	$ 7,375,671	$ -	$ 14,546,826
Costs per EDU	$ 3,201	$ 3,293	$ -	$ 6,494
	49.30%	50.70%	0.00%	100.00%

Breakdown of Operational Expenses	Water	Wastewater	Recycled	Total
Average Monthly quantities per EDU	10,017	4,285	-	
Monthly Ops Expense per EDU	$ 14.52	$ 19.50	$ -	$ 34.02

Capital Structure	Rate Base	AIAC	Total
Costs per Section	$ 7,378,826	$ 7,168,000	$ 14,546,826
Costs per EDU	$ 3,294	3,200	$ 6,494
	50.72%	49.28%	100.00%

Annual Volumes	Water	Wastewater	Recycled
Per Section	272,984,934	116,784,998	-
	100.00%		0.00%

Equivalent Swimming Pools 10,919 of Potable Water Use Each Year

Rate Base Breakdown		Total	
Equity	$	3,689,413	50.00%
Debt	$	3,689,413	50.00%

Hypothetical Profit & Loss			
Total Revenue	$	2,236,144	
Expenses	$	(914,499)	
EBITDA	$	1,321,646	
Depreciation	$	(363,671)	2.50%
Interest	$	(258,259)	7.00%
Taxable Income	$	699,716	
Tax	$	(293,881)	42.00%
Net Income	$	405,835	
Return on Equity		11.00%	

	Annual Volume		$/1000 Gallons	Annual Total	$/EDU/Month
Water to Homes	116,580,625		$ 6.08	$ 709,216	$ 26.38
Wastewater	116,784,998		Monthly Rate	$ 940,800	$ 35.00
Water to HOA and Com Areas	96,347,624	RATE @:	$ 6.08	$ 586,129	$ 21.81
Recycled Water to Com Areas	-	85.00%	$ 5.17	$ -	$ -
Recycled Water to Homes	-		$ 5.17	$ -	$ -
Total Revenue				$ 2,236,144	$ 83.19

Revenue from Water Sales	57.93%	$ 1,295,344
Revenue from Wastewater Sales	42.07%	$ 940,800
Rev from Recycled Water Sales	0.00%	$ -

GLOBAL WATER
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Table 29

THE ECONOMICS OF RECLAMATION

SCENARIO	Groundwater	Yes	Surface	No	Arsenic	No
LEVEL OF RECLAMATION	Basic	Yes	+ Advanced	No		

Consumption				
Water to Residential Customers	216	Gallons/day	0.242	ac-ft/EDU/year
Water to Commercial Customers	-	Gallons/day	-	ac-ft/EDU/year
SUBTOTAL - HOMES	216	Gallons/day	0.242	ac-ft/EDU/year
Water to HOA's for Irrigation	118	Gallons/day	0.132	ac-ft/EDU/year
Water to Miscellaneous Irrigation	-	Gallons/day	-	ac-ft/EDU/year
SUBTOTAL - COMMON AREAS	118	Gallons/day	0.132	ac-ft/EDU/year
TOTAL	334	Gallons/day	0.374	ac-ft/EDU/year
Recycled Water				
Wastewater Available for Treatment	143	Gallons/day	0.160	ac-ft/EDU/year
Population Density	3.5	per Acre	2,240	EDU/Section

Supply (factoring in utilization of recycled water)					
	Water to Customers (Inside)	143	Gallons/day	0.160	ac-ft/EDU/year
34%	Water to Customers (Outside)	73	Gallons/day	0.082	ac-ft/EDU/year
	Total Water to Customers	216	Gallons/day	0.242	ac-ft/EDU/year
	Water to Common Areas	-	Gallons/day	-	ac-ft/EDU/year
	Total Water Use	216	Gallons/day	0.242	ac-ft/EDU/year
	Recycled Water to Common Areas	118	Gallons/day	0.132	ac-ft/EDU/year
	Recycled Water to Customers	-	Gallons/day	-	ac-ft/EDU/year
	Re. Water To Discharge/Recharge	25	Gallons/day	0.028	ac-ft/EDU/year

	Unit Cost ($ per Gal)	Unit Cost ($ per Ac-ft)	Unit Cost ($ per EDU)	Total per Section ($)
Rate Base				
Permitting Costs			$ 50.00	$ 112,000
Groundwater Rights Acquisition		$ -	$ -	$ -
Well Sites	$ 0.55		$ 118.82	$ 266,166
Surface Water Rights Acquisition		$ 11,000.00	$ -	$ -
Surface Water Treatment	$ 8.00		$ -	$ -
Arsenic Treatment	$ 1.35		$ -	$ -
Water Distribution (Storage & Pumping)	$ 2.00		$ 432	$ 967,876
Water Backbone Pipelines			$ 500.00	$ 1,120,000
Wastewater Backbone Pipelines			$ 750.00	$ 1,680,000
Water Reclamation - Treatment	$ 8.00		$ 1,143	$ 2,559,671
Recycled Water Backbone Pipelines			$ 500.00	$ 1,120,000
Reclaimed Water Storage & Pressurization	$ 1.15		$ -	$ -
AIAC				
Onsite Water Pipelines			$ 1,800.00	$ 4,032,000
Onsite Wastewater Pipelines			$ 1,400.00	$ 3,136,000
Onsite Recycled Water Pipelines			$ 1,500.00	$ -
TOTAL			$ 6,694	$ 14,993,713

	Total Operating Costs (Water) ($/1000)	Total Operating Costs (WW) ($/1000)	Total Operating Costs (Recycled) ($/1000)
Operational Expenses			
Well Sites	$ 0.25		
Surface Water Treatment	$ -		
Arsenic Treatment	$ -		
Water Distribution (Storage & Pumping)	$ 1.00		
Water Backbone Pipelines	$ 0.10		
Wastewater Backbone Pipelines		$ 0.10	
Water Reclamation - Treatment		$ 4.35	
Recycled Water Backbone Pipelines			$ 0.10
Reclaimed Water Storage & Pressurization			$ -
Onsite Water Pipelines	$ 0.10		
Onsite Wastewater Pipelins		$ 0.10	
Onsite Recycled Water Pipelines			$ -
	$ 1.45	$ 4.55	$ 0.10

Breakdown of Capital Costs	Water	Wastewater	Recycled	Total
Costs per Section	$ 6,498,041	$ 7,375,671	$ 1,120,000	$ 14,993,713
Costs per EDU	$ 2,901	$ 3,293	$ 500.00	$ 6,694
	43.34%	49.19%	7.47%	100.00%

Breakdown of Operational Expenses	Water	Wastewater	Recycled	Total
Average Monthly quantities per EDU	6,481	4,285	3,535	
Monthly Ops Expense per EDU	$ 9.40	$ 19.50	$ 0.35	$ 29.25

Capital Structure	Rate Base	AIAC	Total
Costs per Section	$ 7,825,713	$ 7,168,000	$ 14,993,713
Costs per EDU	$ 3,494	3,200	$ 6,694
	52.19%	47.81%	100.00%

Annual Volumes	Water	Wastewater	Recycled
Per Section	178,637,310	116,784,998	96,347,624
	64.71%		35.29%

Equivalent Swimming Pools 7,065 of Potable Water Use Each Year

Rate Base Breakdown		Total	
Equity	$	3,912,856	50.00%
Debt	$	3,912,856	50.00%

Hypothetical Profit & Loss			
Total Revenue	$	2,177,047	
Expenses	$	(786,211)	
EBITDA	$	1,390,836	
Depreciation	$	(374,843)	2.50%
Interest	$	(273,900)	7.00%
Taxable Income	$	742,093	
Tax	$	(311,679)	42.00%
Net Income	$	430,414	
Return on Equity		11.00%	

	Annual Volume		$/1000 Gallons	Annual Total	$/EDU/Month
Water to Homes	116,580,625		$ 6.23	$ 726,145	$ 27.01
Wastewater	116,784,998		Monthly Rate	$ 940,800	$ 35.00
Water to HOA and Com Areas	-	RATE @:	$ 6.23	$ -	$ -
Recycled Water to Com Areas	96,347,624	85.00%	$ 5.29	$ 510,102	$ 18.98
Recycled Water to Homes	-		$ 5.29	$ -	$ -
Total Revenue				$ 2,177,047	$ 80.99
Revenue from Water Sales		33.35%		$ 726,145	
Revenue from Wastewater Sales		43.21%		$ 940,800	
Rev from Recycled Water Sales		23.43%		$ 510,102	

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Table 30

THE ECONOMICS OF RECLAMATION

SCENARIO	Groundwater	Yes	Surface	No	Arsenic	No
LEVEL OF RECLAMATION	Basic	Yes	+ Advanced	Yes		

Consumption

Water to Residential Customers	216	Gallons/day	0.242	ac-ft/EDU/year
Water to Commercial Customers	-	Gallons/day	-	ac-ft/EDU/year
SUBTOTAL - HOMES	216	Gallons/day	0.242	ac-ft/EDU/year
Water to HOA's for Irrigation	118	Gallons/day	0.132	ac-ft/EDU/year
Water to Miscellaneous Irrigation	-	Gallons/day	-	ac-ft/EDU/year
SUBTOTAL - COMMON AREAS	118	Gallons/day	0.132	ac-ft/EDU/year
TOTAL	334	Gallons/day	0.374	ac-ft/EDU/year

Recycled Water

Wastewater Available for Treatment	143	Gallons/day	0.160	ac-ft/EDU/year

Population Density 3.5 per Acre 2,240 EDU/Section

Supply (factoring in utilization of recycled water)

	Water to Customers (Inside)	143	Gallons/day	0.160	ac-ft/EDU/year
34%	Water to Customers (Outside)	-	Gallons/day	-	ac-ft/EDU/year
	Total Water to Customers	143	Gallons/day	0.160	ac-ft/EDU/year
	Water to Common Areas	48	Gallons/day	0.054	ac-ft/EDU/year
	Total Water Use	191	Gallons/day	0.214	ac-ft/EDU/year
	Recycled Water to Common Areas	69	Gallons/day	0.078	ac-ft/EDU/year
	Recycled Water to Customers	73	Gallons/day	0.082	ac-ft/EDU/year
	Rtn. Water To Discharge/Recharge	-	Gallons/day	-	ac-ft/EDU/year

	Unit Cost ($ per Gal)	Unit Cost ($ per Ac-ft)	Unit Cost ($ per EDU)	Total per Section ($)
Rate Base				
Permitting Costs			$ 50.00	$ 112,000
Groundwater Rights Acquisition		$ -	$ -	$ -
Well Sites	$ 0.55		$ 105.08	$ 235,370
Surface Water Rights Acquisition		$ 11,000.00	$ -	$ -
Surface Water Treatment	$ 6.00		$ -	$ -
Arsenic Treatment	$ 1.35		$ -	$ -
Water Distribution (Storage & Pumping)	$ 2.00		$ 382	$ 855,890
Water Backbone Pipelines			$ 500.00	$ 1,120,000
Wastewater Backbone Pipelines			$ 750.00	$ 1,680,000
Water Reclamation - Treatment	$ 8.00		$ 1,143	$ 2,559,671
Recycled Water Backbone Pipelines			$ 500.00	$ 1,120,000
Reclaimed Water Storage & Pressurization	$ 1.15		$ 84.47	$ 189,220
AIAC				
Onsite Water Pipelines			$ 1,800.00	$ 4,032,000
Onsite Wastewater Pipelines			$ 1,400.00	$ 3,136,000
Onsite Recycled Water Pipelines			$ 1,500.00	$ 3,360,000
TOTAL			$ 8,214	$ 18,400,151

	Total Operating Costs (Water) ($/1000)	Total Operating Costs (WW) ($/1000)	Total Operating Costs (Recycled) ($/1000)
Operational Expenses			
Well Sites	$ 0.25		
Surface Water Treatment	$ -		
Arsenic Treatment	$ -		
Water Distribution (Storage & Pumping)	$ 1.00		
Water Backbone Pipelines	$ 0.10		
Wastewater Backbone Pipelines		$ 0.10	
Water Reclamation - Treatment		$ 4.35	
Recycled Water Backbone Pipelines			$ 0.10
Reclaimed Water Storage & Pressurization			$ 0.50
Onsite Water Pipelines	$ 0.10		
Onsite Wastewater Pipelins		$ 0.10	
Onsite Recycled Water Pipelines			$ 0.10
	$ 1.45	$ 4.55	$ 0.70

Breakdown of Capital Costs	Water	Wastewater	Recycled	Total
Costs per Section	$ 6,355,260	$ 7,375,671	$ 4,669,220	$ 18,400,151
Costs per EDU	$ 2,837	$ 3,293	$ 2,084.47	$ 8,214
	34.54%	40.08%	25.38%	100.00%

Breakdown of Operational Expenses	Water	Wastewater	Recycled	Total
Average Monthly quantities per EDU	5,731	4,285	4,285	
Monthly Ops Expense per EDU	$ 8.31	$ 19.50	$ 3.00	$ 30.81

Capital Structure	Rate Base	AIAC	Total
Costs per Section	$ 7,872,151	$ 10,528,000	$ 18,400,151
Costs per EDU	$ 3,514	4,700	$ 8,214
	42.78%	57.22%	100.00%

Annual Volumes	Water	Wastewater	Recycled
Per Section	156,199,935	116,784,998	116,784,998
	57.22%		42.78%

Equivalent Swimming Pools 6,248 of Potable Water Use Each Year

Rate Base Breakdown		Total	
Equity	$	3,936,075	50.00%
Debt	$	3,936,075	50.00%

Hypothetical Profit & Loss			
Total Revenue	$	2,310,136	
Expenses	$	(828,110)	
EBITDA	$	1,482,026	
Depreciation	$	(460,004)	2.50%
Interest	$	(275,525)	7.00%
Taxable Income	$	746,497	
Tax	$	(313,529)	42.00%
Net Income	$	432,968	
Return on Equity		11.00%	

	Annual Volume		$/1000 Gallons	Annual Total	$/EDU/Month
Water to Homes	116,580,625		$ 5.36	$ 624,887	$ 23.25
Wastewater	116,784,998		Monthly Rate	$ 940,800	$ 35.00
Water to HOA and Com Areas	39,619,311	RATE @	$ 5.36	$ 212,364	$ 7.90
Recycled Water to Com Areas	56,728,313	85.00%	$ 4.56	$ 258,460	$ 9.62
Recycled Water to Homes	60,056,685		$ 4.56	$ 273,625	$ 10.18
Total Revenue				$ 2,310,136	$ 85.94
Revenue from Water Sales		36.24%		$ 837,251	
Revenue from Wastewater Sales		40.72%		$ 940,800	
Rev from Recycled Water Sales		23.03%		$ 532,085	

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Table 31

THE ECONOMICS OF RECLAMATION

SCENARIO	Groundwater	No	Surface	Yes	Arsenic	No
LEVEL OF RECLAMATION	Basic	No	+ Advanced	No		

Consumption

Water to Residential Customers	216	Gallons/day	0.242	ac-ft/EDU/year
Water to Commercial Customers	-	Gallons/day	-	ac-ft/EDU/year
SUBTOTAL - HOMES	216	Gallons/day	0.242	ac-ft/EDU/year
Water to HOA's for Irrigation	118	Gallons/day	0.132	ac-ft/EDU/year
Water to Miscellaneous Irrigation	-	Gallons/day	-	ac-ft/EDU/year
SUBTOTAL - COMMON AREAS	118	Gallons/day	0.132	ac-ft/EDU/year
TOTAL	334	Gallons/day	0.374	ac-ft/EDU/year

Recycled Water

Wastewater Available for Treatment	143	Gallons/day	0.160	ac-ft/EDU/year

Supply (factoring in utilization of recycled water)

	Water to Customers (Inside)	143	Gallons/day	0.160	ac-ft/EDU/year
34%	Water to Customers (Outside)	73	Gallons/day	0.082	ac-ft/EDU/year
	Total Water to Customers	216	Gallons/day	0.242	ac-ft/EDU/year
	Water to Common Areas	118	Gallons/day	0.132	ac-ft/EDU/year
	Total Water Use	334	Gallons/day	0.374	ac-ft/EDU/year
	Recycled Water to Common Areas	-	Gallons/day	-	ac-ft/EDU/year
	Recycled Water to Customers	-	Gallons/day	-	ac-ft/EDU/year
	Re. Water To Discharge/Recharge	143	Gallons/day	0.160	ac-ft/EDU/year

Population Density 3.5 per Acre 2,240 EDU/Section

	Unit Cost ($ per Gal)	Unit Cost ($ per Ac-ft)	Unit Cost ($ per EDU)	Total per Section ($)
Rate Base				
Permitting Costs			$ 50.00	$ 112,000
Groundwater Rights Acquisition		$ -	$ -	$ -
Well Sites	$ 0.55		$ -	$ -
Surface Water Rights Acquisition		$ 11,000.00	$ 4,114.00	$ 9,215,360
Surface Water Treatment	$ 6.00		$ 2,003.31	$ 4,487,424
Arsenic Treatment	$ 1.35		$ -	$ -
Water Distribution (Storage & Pumping)	$ 2.00		$ 668	$ 1,495,808
Water Backbone Pipelines			$ 500.00	$ 1,120,000
Wastewater Backbone Pipelines			$ 750.00	$ 1,680,000
Water Reclamation - Treatment	$ 8.00		$ 1,143	$ 2,559,671
Recycled Water Backbone Pipelines			$ 500.00	$ -
Reclaimed Water Storage & Pressurization	$ 1.15		$ -	$ -
AIAC				
Onsite Water Pipelines			$ 1,800.00	$ 4,032,000
Onsite Wastewater Pipelines			$ 1,400.00	$ 3,136,000
Onsite Recycled Water Pipelines			$ 1,500.00	$ -
TOTAL			$ 12,428	$ 27,838,263

	Total Operating Costs (Water) ($/1000)	Total Operating Costs (WW) ($/1000)	Total Operating Costs (Recycled) ($/1000)
Operational Expenses			
Well Sites	$ -		
Surface Water Treatment	$ 0.70		
Arsenic Treatment	$ -		
Water Distribution (Storage & Pumping)	$ 1.00		
Water Backbone Pipelines	$ 0.10		
Wastewater Backbone Pipelines		$ 0.10	
Water Reclamation - Treatment		$ 4.35	
Recycled Water Backbone Pipelines			$ -
Reclaimed Water Storage & Pressurization			$ -
Onsite Water Pipelines	$ 0.10		
Onsite Wastewater Pipelins		$ 0.10	
Onsite Recycled Water Pipelines			$ -
	$ 1.90	$ 4.55	$ -

Breakdown of Capital Costs	Water	Wastewater	Recycled	Total
Costs per Section	$ 20,462,591	$ 7,375,671	$ -	$ 27,838,263
Costs per EDU	$ 9,135	$ 3,293	$ -	$ 12,428
	73.51%	26.49%	0.00%	100.00%

Breakdown of Operational Expenses	Water	Wastewater	Recycled	Total
Average Monthly quantities per EDU	10,017	4,285	-	
Monthly Ops Expense per EDU	$ 19.03	$ 19.50	$ -	$ 38.53

Capital Structure	Rate Base	AIAC	Total
Costs per Section	$ 20,670,263	$ 7,168,000	$ 27,838,263
Costs per EDU	$ 9,228	3,200	$ 12,428
	74.25%	25.75%	100.00%

Annual Volumes	Water	Wastewater	Recycled
Per Section	272,984,934	116,784,998	-
	100.00%		0.00%

Equivalent Swimming Pools 10,919 of Potable Water Use Each Year

Rate Base Breakdown		Total	
Equity	$	10,335,131	50.00%
Debt	$	10,335,131	50.00%

Annual Volume			$/1000 Gallons	Annual Total	$/EDU/Month
Water to Homes	116,580,625		$ 16.32	$ 1,902,266	$ 70.77
Wastewater	116,784,998		Monthly Rate	$ 940,800	$ 35.00
Water to HOA and Com Areas	96,347,624	RATE @	$ 16.32	$ 1,572,120	$ 58.49
Recycled Water to Com Areas	-	85.00%	$ 13.87	$ -	$ -
Recycled Water to Homes	-		$ 13.87	$ -	$ -
Total Revenue				$ 4,415,186	$ 164.26

Hypothetical Profit & Loss			
Total Revenue	$	4,415,186	
Expenses	$	(1,035,659)	
EBITDA	$	3,379,527	
Depreciation	$	(695,957)	2.50%
Interest	$	(723,459)	7.00%
Taxable Income	$	1,960,111	
Tax	$	(823,247)	42.00%
Net Income	$	1,136,864	
Return on Equity		11.00%	

Revenue from Water Sales	78.69%	$ 3,474,386
Revenue from Wastewater Sales	21.31%	$ 940,800
Rev from Recycled Water Sales	0.00%	$ -

GLOBAL WATER
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Table 32

THE ECONOMICS OF RECLAMATION

SCENARIO	Groundwater	No	Surface	Yes	Arsenic	No
LEVEL OF RECLAMATION	Basic	Yes	+ Advanced	No		

Consumption				
Water to Residential Customers	216	Gallons/day	0.242	ac-ft/EDU/year
Water to Commercial Customers	-	Gallons/day	-	ac-ft/EDU/year
SUBTOTAL - HOMES	216	Gallons/day	0.242	ac-ft/EDU/year
Water to HOA's for Irrigation	118	Gallons/day	0.132	ac-ft/EDU/year
Water to Miscellaneous Irrigation	-	Gallons/day	-	ac-ft/EDU/year
SUBTOTAL - COMMON AREAS	118	Gallons/day	0.132	ac-ft/EDU/year
TOTAL	334	Gallons/day	0.374	ac-ft/EDU/year
Recycled Water				
Wastewater Available for Treatment	143	Gallons/day	0.160	ac-ft/EDU/year
Population Density	3.5	per Acre	2,240	EDU/Section

Supply (factoring in utilization of recycled water)

	Water to Customers (Inside)	143	Gallons/day	0.160	ac-ft/EDU/year
34%	Water to Customers (Outside)	73	Gallons/day	0.082	ac-ft/EDU/year
	Total Water to Customers	216	Gallons/day	0.242	ac-ft/EDU/year
	Water to Common Areas	-	Gallons/day	-	ac-ft/EDU/year
	Total Water Use	216	Gallons/day	0.242	ac-ft/EDU/year
	Recycled Water to Common Areas	118	Gallons/day	0.132	ac-ft/EDU/year
	Recycled Water to Customers	-	Gallons/day	-	ac-ft/EDU/year
	Re. Water To Discharge/Recharge	25	Gallons/day	0.028	ac-ft/EDU/year

	Unit Cost ($ per Gal)	Unit Cost ($ per Ac-ft)	Unit Cost ($ per EDU)	Total per Section ($)
Rate Base				
Permitting Costs			$ 50.00	$ 112,000
Groundwater Rights Acquisition		$ -	$ -	$ -
Well Sites	$ 0.55		$ -	$ -
Surface Water Rights Acquisition		$ 11,000.00	$ 2,662.00	$ 5,962,880
Surface Water Treatment	$ 6.00		$ 1,296.26	$ 2,903,627
Arsenic Treatment	$ 1.35		$ -	$ -
Water Distribution (Storage & Pumping)	$ 2.00		$ 432	$ 967,876
Water Backbone Pipelines			$ 500.00	$ 1,120,000
Wastewater Backbone Pipelines			$ 750.00	$ 1,680,000
Water Reclamation - Treatment	$ 8.00		$ 1,143	$ 2,559,671
Recycled Water Backbone Pipelines			$ 500.00	$ 1,120,000
Reclaimed Water Storage & Pressurization	$ 1.15		$ -	$ -
AIAC				
Onsite Water Pipelines			$ 1,800.00	$ 4,032,000
Onsite Wastewater Pipelines			$ 1,400.00	$ 3,136,000
Onsite Recycled Water Pipelines			$ 1,500.00	$ -
TOTAL			$ 10,533	$ 23,594,054

	Total Operating Costs (Water) ($/1000)	Total Operating Costs (WW) ($/1000)	Total Operating Costs (Recycled) ($/1000)
Operational Expenses			
Well Sites	$ -		
Surface Water Treatment	$ 0.70		
Arsenic Treatment	$ -		
Water Distribution (Storage & Pumping)	$ 1.00		
Water Backbone Pipelines	$ 0.10		
Wastewater Backbone Pipelines		$ 0.10	
Water Reclamation - Treatment		$ 4.35	
Recycled Water Backbone Pipelines			$ 0.10
Reclaimed Water Storage & Pressurization			$ -
Onsite Water Pipelines	$ 0.10		
Onsite Wastewater Pipelins		$ 0.10	
Onsite Recycled Water Pipelines			$ -
	$ 1.90	$ 4.55	$ 0.10

Breakdown of Capital Costs	Water	Wastewater	Recycled	Total
Costs per Section	$ 15,098,383	$ 7,375,671	$ 1,120,000	$ 23,594,054
Costs per EDU	$ 6,740	$ 3,293	$ 500.00	$ 10,533
	63.99%	31.26%	4.75%	100.00%

Breakdown of Operational Expenses	Water	Wastewater	Recycled	Total
Average Monthly quantities per EDU	6,481	4,285	3,535	
Monthly Ops Expense per EDU	$ 12.31	$ 19.50	$ 0.35	$ 32.17

Capital Structure	Rate Base	AIAC	Total
Costs per Section	$ 16,426,054	$ 7,168,000	$ 23,594,054
Costs per EDU	$ 7,333	3,200	$ 10,533
	69.62%	30.38%	100.00%

Annual Volumes	Water	Wastewater	Recycled
Per Section	176,837,310	116,784,998	96,347,624
	64.71%		35.29%
Equivalent Swimming Pools	7,065	of Potable Water Use Each Year	

Rate Base Breakdown		Total	
Equity	$	8,213,027	50.00%
Debt	$	8,213,027	50.00%

Hypothetical Profit & Loss			
Total Revenue	$	3,587,015	
Expenses	$	(864,609)	
EBITDA	$	2,722,406	
Depreciation	$	(589,851)	2.50%
Interest	$	(574,912)	7.00%
Taxable Income	$	1,557,643	
Tax	$	(654,210)	42.00%
Net Income	$	903,433	
Return on Equity		11.00%	

	Annual Volume		$/1000 Gallons	Annual Total	$/EDU/Month
Water to Homes	116,580,625		$ 13.33	$ 1,554,330	$ 57.82
Wastewater	116,784,998		Monthly Rate	$ 940,800	$ 35.00
Water to HOA and Com Areas	-	RATE @	$ 13.33	$ -	$ -
Recycled Water to Com Areas	96,347,624	85.00%	$ 11.33	$ 1,091,885	$ 40.62
Recycled Water to Homes	-		$ 11.33	$ -	$ -
Total Revenue				$ 3,587,015	$ 133.45
Revenue from Water Sales		43.33%		$ 1,554,330	
Revenue from Wastewater Sales		26.23%		$ 940,800	
Rev from Recycled Water Sales		30.44%		$ 1,091,885	

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Table 33

THE ECONOMICS OF RECLAMATION

SCENARIO	Groundwater	No	Surface	Yes	Arsenic	No
LEVEL OF RECLAMATION	Basic	Yes	+ Advanced	Yes		

Consumption

Water to Residential Customers	216	Gallons/day	0.242	ac-ft/EDU/year
Water to Commercial Customers	-	Gallons/day	-	ac-ft/EDU/year
SUBTOTAL - HOMES	216	Gallons/day	0.242	ac-ft/EDU/year
Water to HOA's for Irrigation	118	Gallons/day	0.132	ac-ft/EDU/year
Water to Miscellaneous Irrigation	-	Gallons/day	-	ac-ft/EDU/year
SUBTOTAL - COMMON AREAS	118	Gallons/day	0.132	ac-ft/EDU/year
TOTAL	334	Gallons/day	0.374	ac-ft/EDU/year

Recycled Water

Wastewater Available for Treatment	143	Gallons/day	0.160	ac-ft/EDU/year

Population Density 3.5 per Acre 2,240 EDU/Section

Supply (factoring in utilization of recycled water)

	Water to Customers (Inside)	143	Gallons/day	0.160	ac-ft/EDU/year
34%	Water to Customers (Outside)	-	Gallons/day	-	ac-ft/EDU/year
	Total Water to Customers	143	Gallons/day	0.160	ac-ft/EDU/year
	Water to Common Areas	48	Gallons/day	0.054	ac-ft/EDU/year
	Total Water Use	191	Gallons/day	0.214	ac-ft/EDU/year
	Recycled Water to Common Areas	69	Gallons/day	0.078	ac-ft/EDU/year
	Recycled Water to Customers	73	Gallons/day	0.082	ac-ft/EDU/year
	Re. Water To Discharge/Recharge	-	Gallons/day	-	ac-ft/EDU/year

	Unit Cost ($ per Gal)	Unit Cost ($ per Ac-ft)	Unit Cost ($ per EDU)	Total per Section ($)
Rate Base				
Permitting Costs			$ 50.00	$ 112,000
Groundwater Rights Acquisition		$ -	$ -	$ -
Well Sites	$ 0.55		$ -	$ -
Surface Water Rights Acquisition		$ 11,000.00	$ 2,354.00	$ 5,272,960
Surface Water Treatment	$ 6.00		$ 1,146.28	$ 2,567,670
Arsenic Treatment	$ 1.35		$ -	$ -
Water Distribution (Storage & Pumping)	$ 2.00		$ 382	$ 855,890
Water Backbone Pipelines			$ 500.00	$ 1,120,000
Wastewater Backbone Pipelines			$ 750.00	$ 1,680,000
Water Reclamation - Treatment	$ 8.00		$ 1,143	$ 2,559,671
Recycled Water Backbone Pipelines			$ 500.00	$ 1,120,000
Reclaimed Water Storage & Pressurization	$ 1.15		$ 84.47	$ 189,220
AIAC				
Onsite Water Pipelines			$ 1,800.00	$ 4,032,000
Onsite Wastewater Pipelines			$ 1,400.00	$ 3,136,000
Onsite Recycled Water Pipelines			$ 1,500.00	$ 3,360,000
TOTAL			$ 11,610	$ 26,005,411

	Total Operating Costs (Water) ($/1000)	Total Operating Costs (WW) ($/1000)	Total Operating Costs (Recycled) ($/1000)
Operational Expenses			
Well Sites	$ -		
Surface Water Treatment	$ 0.70		
Arsenic Treatment	$ -		
Water Distribution (Storage & Pumping)	$ 1.00		
Water Backbone Pipelines	$ 0.10		
Wastewater Backbone Pipelines		$ 0.10	
Water Reclamation - Treatment		$ 4.35	
Recycled Water Backbone Pipelines			$ 0.10
Reclaimed Water Storage & Pressurization			$ 0.50
Onsite Water Pipelines	$ 0.10		
Onsite Wastewater Pipelins		$ 0.10	
Onsite Recycled Water Pipelines			$ 0.10
	$ 1.90	$ 4.55	$ 0.70

Breakdown of Capital Costs	Water	Wastewater	Recycled	Total
Costs per Section	$ 13,960,520	$ 7,375,671	$ 4,669,220	$ 26,005,411
Costs per EDU	$ 6,232	$ 3,293	$ 2,084.47	$ 11,610
	53.68%	28.36%	17.96%	100.00%

Breakdown of Operational Expenses	Water	Wastewater	Recycled	Total
Average Monthly quantities per EDU	5,731	4,285	4,285	
Monthly Ops Expense per EDU	$ 10.89	$ 19.50	$ 3.00	$ 33.39

Capital Structure	Rate Base	AIAC	Total
Costs per Section	$ 15,477,411	$ 10,528,000	$ 26,005,411
Costs per EDU	$ 6,910	4,700	$ 11,610
	59.52%	40.48%	100.00%

Annual Volumes	Water	Wastewater	Recycled
Per Section	156,199,935	116,784,998	116,784,998
	57.22%		42.78%
Equivalent Swimming Pools	6,248	of Potable Water Use Each Year	

Rate Base Breakdown		Total	
Equity	$	7,738,706	50.00%
Debt	$	7,738,706	50.00%

Hypothetical Profit & Loss			
Total Revenue	$	3,556,967	
Expenses	$	(897,437)	
EBITDA	$	2,659,530	
Depreciation	$	(650,135)	2.50%
Interest	$	(541,709)	7.00%
Taxable Income	$	1,467,686	
Tax	$	(616,428)	42.00%
Net Income	$	851,258	
Return on Equity		11.00%	

	Annual Volume		$/1000 Gallons	Annual Total	$/EDU/Month
Water to Homes	116,580,625		$ 10.24	$ 1,193,869	$ 44.41
Wastewater	116,784,998		Monthly Rate	$ 940,800	$ 35.00
Water to HOA and Com Areas	39,619,311	RATE @	$ 10.24	$ 405,730	$ 15.09
Recycled Water to Com Areas	56,728,313	85.00%	$ 8.70	$ 493,798	$ 18.37
Recycled Water to Homes	60,056,685		$ 8.70	$ 522,770	$ 19.45
Total Revenue				$ 3,556,967	$ 132.33
Revenue from Water Sales		44.97%		$ 1,599,599	
Revenue from Wastewater Sales		26.45%		$ 940,800	
Rev from Recycled Water Sales		28.58%		$ 1,016,568	

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Table 34

THE ECONOMICS OF RECLAMATION

SCENARIO	Groundwater	Yes	Surface	No	Arsenic	Yes
LEVEL OF RECLAMATION	Basic	No	+ Advanced	No		

Consumption				
Water to Residential Customers	216	Gallons/day	0.242	ac-ft/EDU/year
Water to Commercial Customers	-	Gallons/day	-	ac-ft/EDU/year
SUBTOTAL - HOMES	216	Gallons/day	0.242	ac-ft/EDU/year
Water to HOA's for Irrigation	118	Gallons/day	0.132	ac-ft/EDU/year
Water to Miscellaneous Irrigation	-	Gallons/day	-	ac-ft/EDU/year
SUBTOTAL - COMMON AREAS	118	Gallons/day	0.132	ac-ft/EDU/year
TOTAL	334	Gallons/day	0.374	ac-ft/EDU/year
Recycled Water				
Wastewater Available for Treatment	143	Gallons/day	0.160	ac-ft/EDU/year
Population Density	3.5	per Acre	2,240	EDU/Section

Supply (factoring in utilization of recycled water)

	Water to Customers (Inside)	143	Gallons/day	0.160	ac-ft/EDU/year
34%	Water to Customers (Outside)	73	Gallons/day	0.082	ac-ft/EDU/year
	Total Water to Customers	216	Gallons/day	0.242	ac-ft/EDU/year
	Water to Common Areas	118	Gallons/day	0.132	ac-ft/EDU/year
	Total Water Use	334	Gallons/day	0.374	ac-ft/EDU/year
	Recycled Water to Common Areas	-	Gallons/day	-	ac-ft/EDU/year
	Recycled Water to Customers	-	Gallons/day	-	ac-ft/EDU/year
	Re. Water To Discharge/Recharge	143	Gallons/day	0.160	ac-ft/EDU/year

	Unit Cost ($ per Gal)	Unit Cost ($ per Ac-ft)	Unit Cost ($ per EDU)	Total per Section ($)
Rate Base				
Permitting Costs			$ 50.00	$ 112,000
Groundwater Rights Acquisition		$ -	$ -	$ -
Well Sites	$ 0.55		$ 183.64	$ 411,347
Surface Water Rights Acquisition		$ 11,500.00	$ -	$ -
Surface Water Treatment	$ 6.00		$ -	$ -
Arsenic Treatment	$ 1.35		$ 450.75	$ 1,009,670
Water Distribution (Storage & Pumping)	$ 2.00		$ 668	$ 1,495,808
Water Backbone Pipelines			$ 500.00	$ 1,120,000
Wastewater Backbone Pipelines			$ 750.00	$ 1,680,000
Water Reclamation - Treatment	$ 8.00		$ 1,143	$ 2,559,671
Recycled Water Backbone Pipelines			$ 500.00	$ -
Reclaimed Water Storage & Pressurization	$ 1.15		$ -	$ -
AIAC				
Onsite Water Pipelines			$ 1,800.00	$ 4,032,000
Onsite Wastewater Pipelines			$ 1,400.00	$ 3,136,000
Onsite Recycled Water Pipelines			$ 1,500.00	$ -
TOTAL			$ 6,945	$ 15,556,497

	Total Operating Costs (Water) ($/1000)	Total Operating Costs (WW) ($/1000)	Total Operating Costs (Recycled) ($/1000)
Operational Expenses			
Well Sites	$ 0.25		
Surface Water Treatment	$ -		
Arsenic Treatment	$ 1.50		
Water Distribution (Storage & Pumping)	$ 1.00		
Water Backbone Pipelines	$ 0.10		
Wastewater Backbone Pipelines		$ 0.10	
Water Reclamation - Treatment		$ 4.35	
Recycled Water Backbone Pipelines			$ -
Reclaimed Water Storage & Pressurization			$ -
Onsite Water Pipelines	$ 0.10		
Onsite Wastewater Pipelins		$ 0.10	
Onsite Recycled Water Pipelines			$ -
	$ 2.95	$ 4.55	$ -

Breakdown of Capital Costs	Water	Wastewater	Recycled	Total
Costs per Section	$ 8,180,825	$ 7,375,671	$ -	$ 15,556,497
Costs per EDU	$ 3,652	$ 3,293	$ -	$ 6,945
	52.59%	47.41%	0.00%	100.00%

Breakdown of Operational Expenses	Water	Wastewater	Recycled	Total
Average Monthly quantities per EDU	10,017	4,285	-	
Monthly Ops Expense per EDU	$ 29.55	$ 19.50	$ -	$ 49.05

Capital Structure	Rate Base	AIAC	Total
Costs per Section	$ 8,388,497	$ 7,168,000	$ 15,556,497
Costs per EDU	$ 3,745	3,200	$ 6,945
	53.92%	46.08%	100.00%

Annual Volumes	Water	Wastewater	Recycled
Per Section	272,984,934	116,784,998	-
	100.00%		0.00%
Equivalent Swimming Pools	10,919	of Potable Water Use Each Year	

Rate Base Breakdown		Total	
Equity	$	4,194,248	50.00%
Debt	$	4,194,248	50.00%

Hypothetical Profit & Loss			
Total Revenue	$	2,796,337	
Expenses	$	(1,318,367)	
EBITDA	$	1,477,971	
Depreciation	$	(388,912)	2.50%
Interest	$	(293,597)	7.00%
Taxable Income	$	795,461	
Tax	$	(334,094)	42.00%
Net Income	$	461,367	
Return on Equity		11.00%	

Annual Volume			$/1000 Gallons	Annual Total	$/EDU/Month
Water to Homes	116,580,625		$ 8.71	$ 1,015,928	$ 37.79
Wastewater	116,784,998		Monthly Rate	$ 940,800	$ 35.00
Water to HOA and Com Areas	96,347,624	RATE @	$ 8.71	$ 839,610	$ 31.24
Recycled Water to Com Areas	-	85.00%	$ 7.41	$ -	$ -
Recycled Water to Homes	-		$ 7.41	$ -	$ -
Total Revenue				$ 2,796,337	$ 104.03
Revenue from Water Sales		66.36%		$ 1,855,537	
Revenue from Wastewater Sales		33.64%		$ 940,800	
Rev from Recycled Water Sales		0.00%		$ -	

GLOBAL WATER
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Table 35

THE ECONOMICS OF RECLAMATION

SCENARIO	Groundwater	Yes	Surface	No	Arsenic	Yes
LEVEL OF RECLAMATION	Basic	Yes	+ Advanced	No		

Consumption

Water to Residential Customers	216	Gallons/day	0.242	ac-ft/EDU/year
Water to Commercial Customers	-	Gallons/day	-	ac-ft/EDU/year
SUBTOTAL - HOMES	216	Gallons/day	0.242	ac-ft/EDU/year
Water to HOA's for Irrigation	118	Gallons/day	0.132	ac-ft/EDU/year
Water to Miscellaneous Irrigation	-	Gallons/day	-	ac-ft/EDU/year
SUBTOTAL - COMMON AREAS	118	Gallons/day	0.132	ac-ft/EDU/year
TOTAL	334	Gallons/day	0.374	ac-ft/EDU/year

Recycled Water

Wastewater Available for Treatment	143	Gallons/day	0.160	ac-ft/EDU/year

Population Density	3.5	per Acre	2,240	EDU/Section

Supply (factoring in utilization of recycled water)

	Water to Customers (Inside)	143	Gallons/day	0.160	ac-ft/EDU/year
34%	Water to Customers (Outside)	73	Gallons/day	0.082	ac-ft/EDU/year
	Total Water to Customers	216	Gallons/day	0.242	ac-ft/EDU/year
	Water to Common Areas	-	Gallons/day	-	ac-ft/EDU/year
	Total Water Use	216	Gallons/day	0.242	ac-ft/EDU/year
	Recycled Water to Common Areas	118	Gallons/day	0.132	ac-ft/EDU/year
	Recycled Water to Customers	-	Gallons/day	-	ac-ft/EDU/year
	Rec. Water To Discharge/Recharge	25	Gallons/day	0.028	ac-ft/EDU/year

	Unit Cost ($ per Gal)	Unit Cost ($ per Ac-ft)	Unit Cost ($ per EDU)	Total per Section ($)
Rate Base				
Permitting Costs			$ 50.00	$ 112,000
Groundwater Rights Acquisition		$ -	$ -	$ -
Well Sites	$ 0.55		$ 118.82	$ 266,166
Surface Water Rights Acquisition		$ 11,000.00	$ -	$ -
Surface Water Treatment	$ 6.00		$ -	$ -
Arsenic Treatment	$ 1.35		$ 291.66	$ 653,316
Water Distribution (Storage & Pumping)	$ 2.00		$ 432	$ 967,876
Water Backbone Pipelines			$ 500.00	$ 1,120,000
Wastewater Backbone Pipelines			$ 750.00	$ 1,680,000
Water Reclamation - Treatment	$ 8.00		$ 1,143	$ 2,559,671
Recycled Water Backbone Pipelines			$ 500.00	$ 1,120,000
Reclaimed Water Storage & Pressurization	$ 1.15		$ -	$ -
AIAC				
Onsite Water Pipelines			$ 1,800.00	$ 4,032,000
Onsite Wastewater Pipelines			$ 1,400.00	$ 3,136,000
Onsite Recycled Water Pipelines			$ 1,500.00	$ -
TOTAL			$ 6,985	$ 15,647,029

	Total Operating Costs (Water) ($/1000)	Total Operating Costs (WW) ($/1000)	Total Operating Costs (Recycled) ($/1000)
Operational Expenses			
Well Sites	$ 0.25		
Surface Water Treatment	$ -		
Arsenic Treatment	$ 1.50		
Water Distribution (Storage & Pumping)	$ 1.00		
Water Backbone Pipelines	$ 0.10		
Wastewater Backbone Pipelines		$ 0.10	
Water Reclamation - Treatment		$ 4.35	
Recycled Water Backbone Pipelines			$ 0.10
Reclaimed Water Storage & Pressurization			$ -
Onsite Water Pipelines	$ 0.10		
Onsite Wastewater Pipelins		$ 0.10	
Onsite Recycled Water Pipelines			$ -
	$ 2.95	$ 4.55	$ 0.10

Breakdown of Capital Costs	Water	Wastewater	Recycled	Total
Costs per Section	$ 7,151,358	$ 7,375,671	$ 1,120,000	$ 15,647,029
Costs per EDU	$ 3,193	$ 3,293	$ 500.00	$ 6,985
	45.70%	47.14%	7.16%	100.00%

Breakdown of Operational Expenses	Water	Wastewater	Recycled	Total
Average Monthly quantities per EDU	6,481	4,285	3,535	
Monthly Ops Expense per EDU	$ 19.12	$ 19.50	$ 0.35	$ 38.97

Capital Structure	Rate Base	AIAC	Total
Costs per Section	$ 8,479,029	$ 7,168,000	$ 15,647,029
Costs per EDU	$ 3,785	3,200	$ 6,985
	54.19%	45.81%	100.00%

Annual Volumes	Water	Wastewater	Recycled
Per Section	176,637,310	116,784,998	96,347,624
	64.71%		35.29%

Equivalent Swimming Pools 7,065 of Potable Water Use Each Year

Rate Base Breakdown		Total	
Equity	$	4,239,514	50.00%
Debt	$	4,239,514	50.00%

Hypothetical Profit & Loss			
Total Revenue	$	2,539,525	
Expenses	$	(1,047,537)	
EBITDA	$	1,491,988	
Depreciation	$	(391,176)	2.50%
Interest	$	(296,766)	7.00%
Taxable Income	$	804,046	
Tax	$	(337,699)	42.00%
Net Income	$	466,347	
Return on Equity		11.00%	

	Annual Volume			$/1000 Gallons	Annual Total	$/EDU/Month
Water to Homes	116,580,625			$ 8.05	$ 939,057	$ 34.94
Wastewater	116,784,998			Monthly Rate	$ 940,800	$ 35.00
Water to HOA and Com Areas	-	RATE @		$ 8.05	$ -	$ -
Recycled Water to Com Areas	96,347,624	85.00%		$ 6.85	$ 659,668	$ 24.54
Recycled Water to Homes	-			$ 6.85	$ -	$ -
Total Revenue				$	$ 2,539,525	$ 94.48
Revenue from Water Sales		36.98%			$ 939,057	
Revenue from Wastewater Sales		37.05%			$ 940,800	
Rev from Recycled Water Sales		25.98%			$ 659,668	

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Table 36

THE ECONOMICS OF RECLAMATION

SCENARIO	Groundwater	Yes	Surface	No	Arsenic	Yes
LEVEL OF RECLAMATION	Basic	Yes	+ Advanced	Yes		

Consumption				
Water to Residential Customers	216	Gallons/day	0.242	ac-ft/EDU/year
Water to Commercial Customers	-	Gallons/day	-	ac-ft/EDU/year
SUBTOTAL - HOMES	216	Gallons/day	0.242	ac-ft/EDU/year
Water to HOA's for Irrigation	118	Gallons/day	0.132	ac-ft/EDU/year
Water to Miscellaneous Irrigation	-	Gallons/day	-	ac-ft/EDU/year
SUBTOTAL - COMMON AREAS	118	Gallons/day	0.132	ac-ft/EDU/year
TOTAL	334	Gallons/day	0.374	ac-ft/EDU/year
Recycled Water				
Wastewater Available for Treatment	143	Gallons/day	0.160	ac-ft/EDU/year
Population Density	3.5	per Acre	2,240	EDU/Section

Supply (factoring in utilization of recycled water)					
	Water to Customers (Inside)	143	Gallons/day	0.160	ac-ft/EDU/year
34%	Water to Customers (Outside)	-	Gallons/day	-	ac-ft/EDU/year
	Total Water to Customers	143	Gallons/day	0.160	ac-ft/EDU/year
	Water to Common Areas	48	Gallons/day	0.054	ac-ft/EDU/year
	Total Water Use	191	Gallons/day	0.214	ac-ft/EDU/year
	Recycled Water to Common Areas	69	Gallons/day	0.078	ac-ft/EDU/year
	Recycled Water to Customers	73	Gallons/day	0.082	ac-ft/EDU/year
	Rs. Water To Discharge/Recharge	-	Gallons/day	-	ac-ft/EDU/year

	Unit Cost ($ per Gal)	Unit Cost ($ per Ac-ft)	Unit Cost ($ per EDU)	Total per Section ($)
Rate Base				
Permitting Costs			$ 50.00	$ 112,000
Groundwater Rights Acquisition		$ -	$ -	$ -
Well Sites	$ 0.55		$ 105.08	$ 235,370
Surface Water Rights Acquisition		$ 11,000.00	$ -	$ -
Surface Water Treatment	$ 6.00		$ -	$ -
Arsenic Treatment	$ 1.35		$ 257.91	$ 577,726
Water Distribution (Storage & Pumping)	$ 2.00		$ 382	$ 855,890
Water Backbone Pipelines			$ 500.00	$ 1,120,000
Wastewater Backbone Pipelines			$ 750.00	$ 1,680,000
Water Reclamation - Treatment	$ 8.00		$ 1,143	$ 2,559,671
Recycled Water Backbone Pipelines			$ 500.00	$ 1,120,000
Reclaimed Water Storage & Pressurization	$ 1.15		$ 84.47	$ 189,220
AIAC				
Onsite Water Pipelines			$ 1,800.00	$ 4,032,000
Onsite Wastewater Pipelines			$ 1,400.00	$ 3,136,000
Onsite Recycled Water Pipelines			$ 1,500.00	$ 3,360,000
TOTAL			$ 8,472	$ 18,977,877

	Total Operating Costs (Water) ($/1000)	Total Operating Costs (WW) ($/1000)	Total Operating Costs (Recycled) ($/1000)
Operational Expenses			
Well Sites	$ 0.25		
Surface Water Treatment	$ -		
Arsenic Treatment	$ 1.50		
Water Distribution (Storage & Pumping)	$ 1.00		
Water Backbone Pipelines	$ 0.10		
Wastewater Backbone Pipelines		$ 0.10	
Water Reclamation - Treatment		$ 4.35	
Recycled Water Backbone Pipelines			$ 0.10
Reclaimed Water Storage & Pressurization			$ 0.50
Onsite Water Pipelines	$ 0.10		
Onsite Wastewater Pipelins		$ 0.10	
Onsite Recycled Water Pipelines			$ 0.10
	$ 2.95	$ 4.55	$ 0.70

Breakdown of Capital Costs	Water	Wastewater	Recycled	Total
Costs per Section	$ 6,932,986	$ 7,375,671	$ 4,669,220	$ 18,977,877
Costs per EDU	$ 3,095	$ 3,293	$ 2,084.47	$ 8,472
	36.53%	38.86%	24.60%	100.00%

Breakdown of Operational Expenses	Water	Wastewater	Recycled	Total
Average Monthly quantities per EDU	5,731	4,285	4,285	
Monthly Ops Expense per EDU	$ 16.91	$ 19.50	$ 3.00	$ 39.40

Capital Structure	Rate Base	AIAC	Total
Costs per Section	$ 8,449,877	$ 10,528,000	$ 18,977,877
Costs per EDU	$ 3,772	4,700	$ 8,472
	44.52%	55.48%	100.00%

Annual Volumes	Water	Wastewater	Recycled
Per Section	156,199,935	116,784,998	116,784,998
	57.22%		42.78%

Equivalent Swimming Pools 6,248 of Potable Water Use Each Year

Rate Base Breakdown		Total	
Equity	$	4,224,938	50.00%
Debt	$	4,224,938	50.00%

Hypothetical Profit & Loss			
Total Revenue	$	2,630,674	
Expenses	$	(1,059,200)	
EBITDA	$	1,571,474	
Depreciation	$	(474,447)	2.50%
Interest	$	(295,746)	7.00%
Taxable Income	$	801,281	
Tax	$	(336,538)	42.00%
Net Income	$	464,743	
Return on Equity		11.00%	

	Annual Volume		$/1000 Gallons	Annual Total	$/EDU/Month
Water to Homes	116,580,625		$ 6.61	$ 771,162	$ 28.69
Wastewater	116,784,998		Monthly Rate	$ 940,800	$ 35.00
Water to HOA and Com Areas	39,619,311	RATE @:	$ 6.61	$ 262,075	$ 9.75
Recycled Water to Com Areas	56,728,313	85.00%	$ 5.62	$ 318,961	$ 11.87
Recycled Water to Homes	60,056,665		$ 5.62	$ 337,675	$ 12.56
Total Revenue				$ 2,630,674	$ 97.87
Revenue from Water Sales		39.28%		$ 1,033,237	
Revenue from Wastewater Sales		35.76%		$ 940,800	
Rev from Recycled Water Sales		24.96%		$ 656,637	

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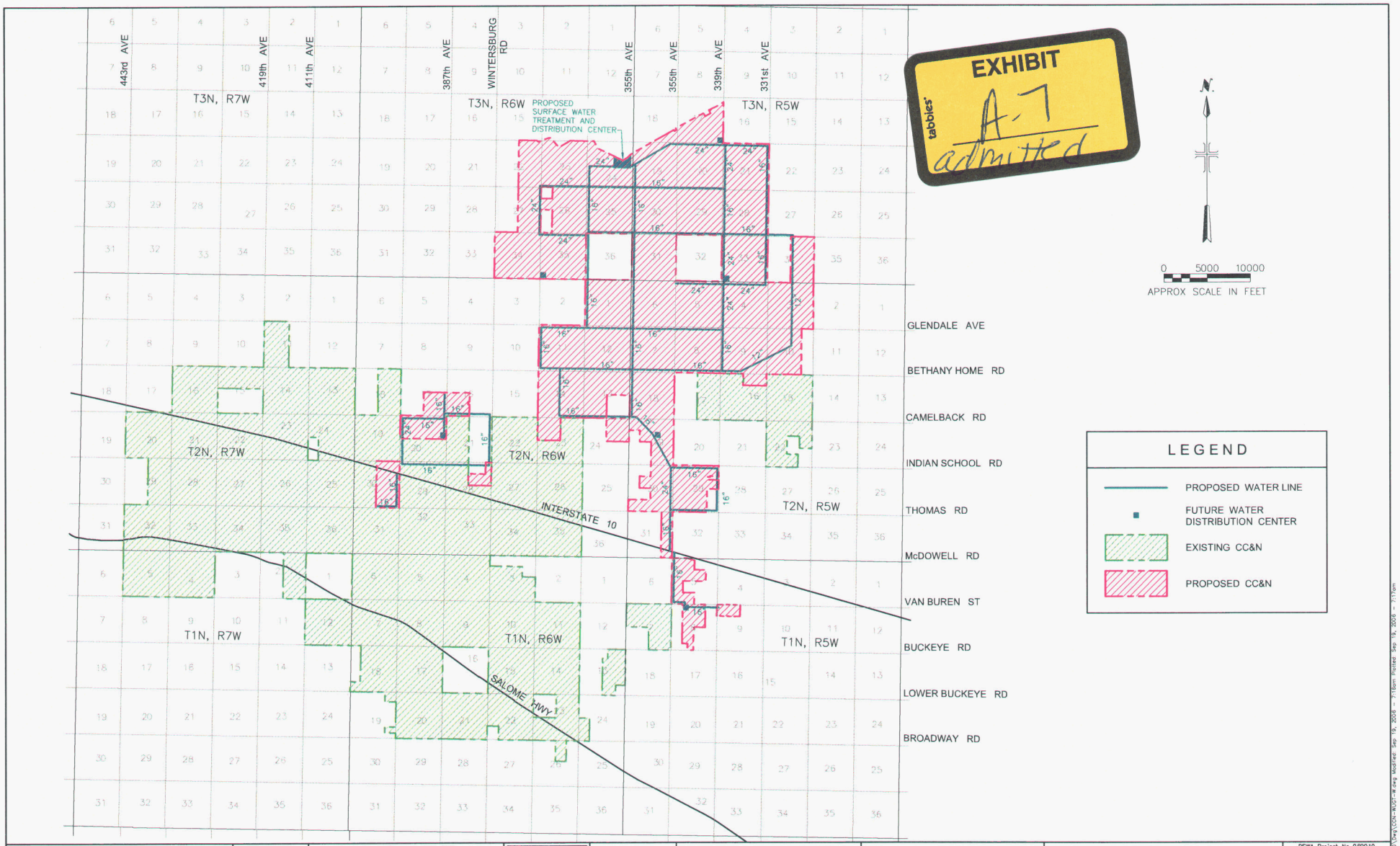
Table 37

EXHIBIT A-7



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Designed By CHC
Drawn By CDH
Checked By CHC

DSWA
DAMON S. WILLIAMS ASSOCIATES, LLC

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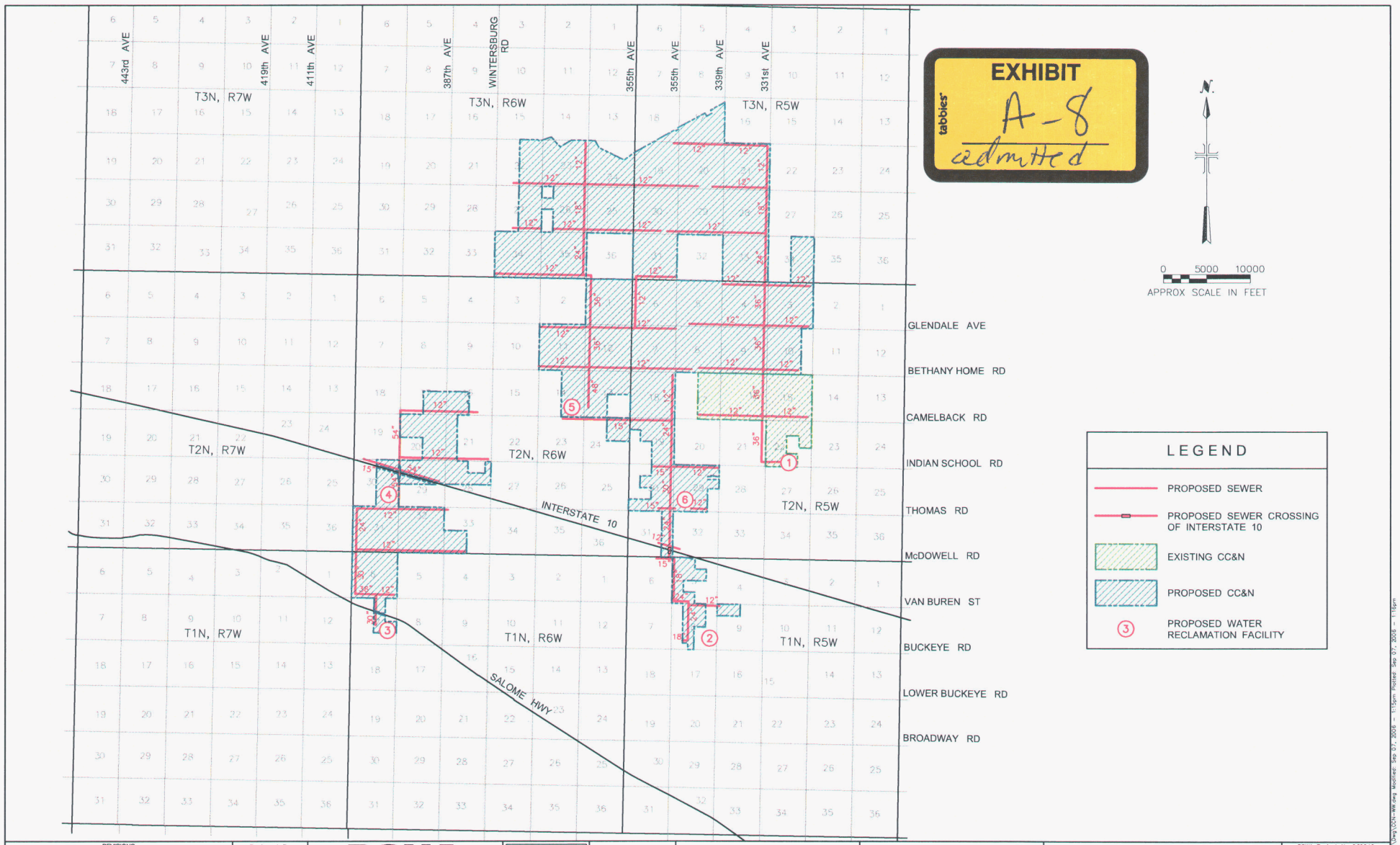
GLOBAL WATER
WATER UTILITY OF GREATER TONOPAH

CC&N EXTENSION
WATER SYSTEM

DSWA Project No 080010
Date SEPTEMBER 2006
Dwg No
Sht No of

Dwg File: U:\CADD\080010\Dwg\CCN-WUGT-W.dwg Modified: Sep 19, 2006 - 7:15am Plotted: Sep 19, 2006 - 7:15am

EXHIBIT A-8



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NO	DATE	BY	DESCRIPTION
File Name: CCN-WW.dwg			

Designed By CHC
Drawn By CDH
Checked By CHC

DSWA
DAMON S. WILLIAMS ASSOCIATES, LLC

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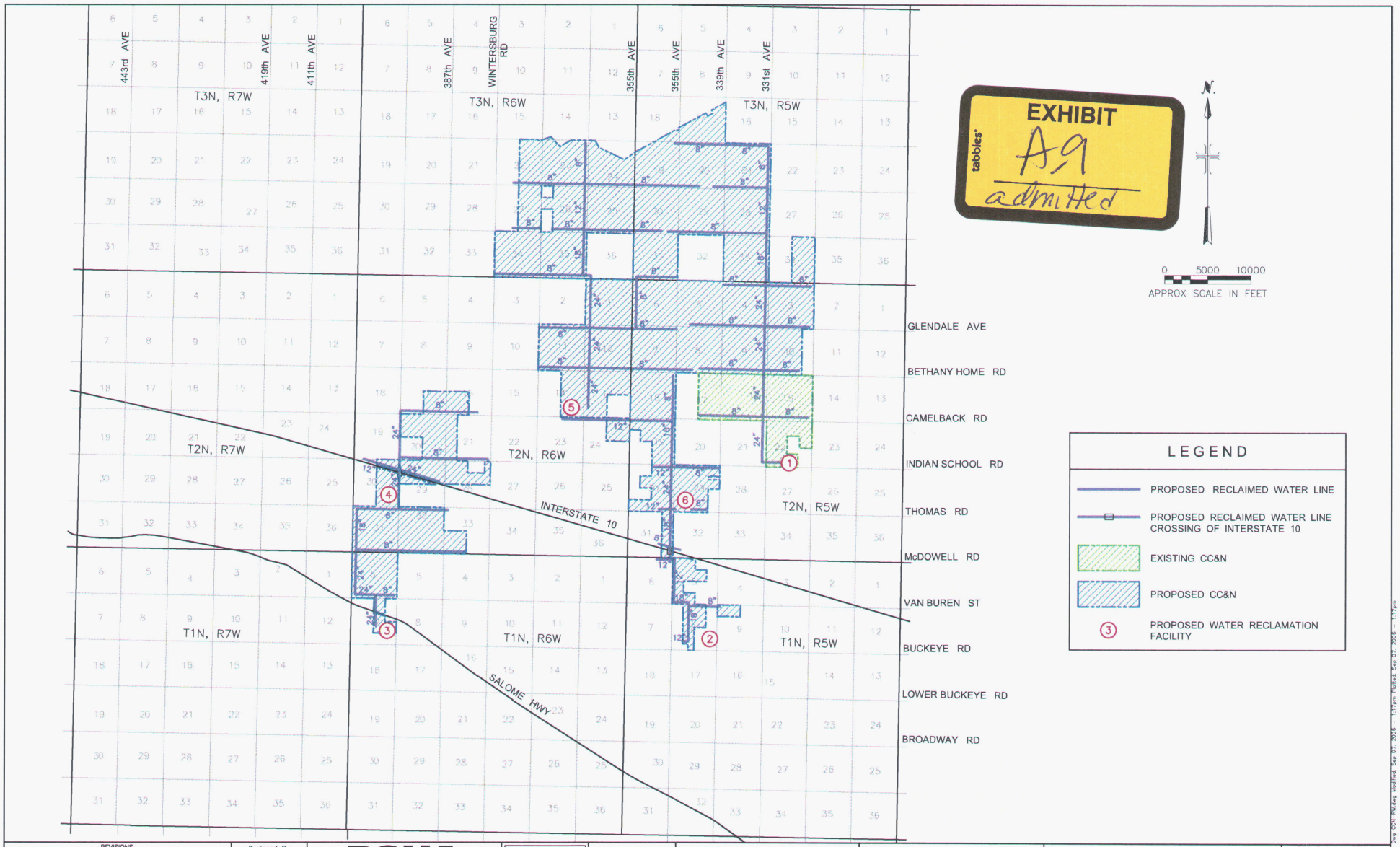
GLOBAL WATER
HASSAYAMPA UTILITY CO.

CC&N EXTENSION
SEWER COLLECTION
AND TREATMENT SYSTEM

DSWA Project No 080010
Date SEPTEMBER 2008
Dwg No
Sht No of

Dwg File: U:\CADD\080010\Dwg\CCN-WW.dwg Modified: Sep 07, 2008 - 1:15pm Plotted: Sep 07, 2008 - 1:16pm

EXHIBIT A-9



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NO	DATE	BY	DESCRIPTION
File Name: CCN-RW.dwg			

Designed By CHC
Drawn By CDH
Checked By CHC

DSWA
DAMON S. WILLIAMS ASSOCIATES, LLC

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GLOBAL WATER
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GLOBAL WATER
HASSAYAMPA UTILITY CO.

CC&N EXTENSION
RECLAIMED WATER SYSTEM

DSWA Project No 080010
Date SEPTEMBER 2006
Dwg No
Sht No of

EXHIBIT A-10

GLOBAL WATER

Water Utility of Greater Tonopah Water Master Plan

EXHIBIT
A-10
admitted

DSWA
DAMON S. WILLIAMS ASSOCIATES, LLC

Table of Contents

Page

1.0 INTRODUCTION 1-1
1.1 SCOPE OF WORK 1-2
1.2 SERVICE AREA 1-3
1.3 TOPOGRAPHY 1-3
1.4 EXISTING CONDITIONS 1-3
1.4.1 Existing Water Systems 1-4
1.4.2 Geohydrology 1-4
1.5 EXISTING MASTER PLANS 1-5

2.0 MASTER PLAN 2-1
2.1 ANALYTICAL METHODOLOGY 2-1
2.2 CRITERIA AND ASSUMPTIONS 2-1
2.3 PHASING 2-2
2.4 DEMANDS 2-3
2.5 PRESSURE ZONES 2-5
2.6 MODELING RESULTS 2-6
2.6.1 Pipelines 2-7
2.6.2 Storage and Booster Pumping 2-7
2.6.3 Cost Estimates 2-9

3.0 WATER RESOURCES 3-1
3.1 GROUNDWATER QUALITY 3-1
3.2 WELLS 3-2

4.0 RECOMMENDATIONS 4-1

5.0 REFERENCES 5-1

Registered Professional Engineer (Civil)
CERTIFICATE NO. 34572
Christine H. Close
Date Signed 6-20-07
ARIZONA, U.S.A.

List of Tables

Page

Table 1-1 Existing WUGT Water Systems and Customers 1-4
Table 2-1 Water Demand Criteria 2-2
Table 2-2 Water Demands 2-3
Table 2-3 Water Demand Projections at Build-out 2-4
Table 2-4 Pressure Zones 2-5
Table 2-5 Pressure Ranges 2-6
Table 2-6 Pipeline Quantities (Ultimate Build-out) 2-7
Table 2-7 Booster Station Set Pressures 2-8

List of Exhibits

		Follows Page
Exhibit 1-1	Proposed Service Area Location Map	5-1
Exhibit 2-1	Proposed Phase 1 Water Distribution System	
Exhibit 2-2	Proposed Ultimate Build-out Water Distribution System	
Exhibit 3-1	WUGT Existing Water Systems Location Map	
Exhibit 3-2	Well Location Map	

List of Appendices

Appendix A Water CAD Results
Appendix B Typical Water Distribution Center Layout

1.0 Introduction

Global Water recently acquired the Water Utility of Greater Tonopah (WUGT) as a new subsidiary. The WUGT is the major water provider in the area of Maricopa County to the west of the Hassayampa River. As such, they are responsible for providing water services to the existing and proposed communities in this area. Global Water and WUGT recognize the need to provide a regional planning document that will aid them in implementing future capital improvement projects. The purpose of this document is to provide a regional water master plan for WUGT's existing and proposed service area in western Maricopa County, focusing on eight (8) developments which are in relatively advanced stages of planning and have requested service from WUGT.

The WUGT is currently in the process of extending their Certificate of Convenience and Necessity (CC&N) to cover various subdivisions or portions thereof that are not included in their existing CC&N.

The area to be regionally planned for the WUGT is located in western Maricopa County and in total comprises approximately one hundred and sixty-four (164) square miles. The proposed service area is bounded by the Central Arizona Project canal on the north, 443rd Avenue on the west, Van Buren Street, Broadway Road and Buckeye Road on the south,, and the Town of Buckeye Municipal Planning area on the east. Exhibit 1.1 provides a vicinity map of the area. WUGT's current service area covers approximately 61 square miles, or close to 39,000 acres. For this master plan, approximately 66,000-acres were planned.

Global Water filed an application for an extension of CC&N with the Arizona Corporation Commission (ACC) for water (Docket No. W-02450A-06-0626). The proposed extension area is approximately 22,000 acres and includes the Belmont and 339th Avenue developments, and a portion of Copperleaf, Desert Willow, Silver Water Ranch and Hassayampa Ranch (the balance is already in the existing CC&N), currently in development master planning with Maricopa County. All of these developments have requested service from WUGT or its parent company, Global Water.

This master plan will focus on serving the developments included in this CC&N extension area, as well as those portions already in the existing CC&N area, for an approximate total of 66,000 acres. None of

the developments have existing potable water service as they are all in the planning stages and have not reached final plat.

Water for the region will be provided by groundwater and Central Arizona Project (CAP) water. Groundwater will be chlorinated prior to distribution and other treatment including blending for arsenic, fluoride or nitrate removal will be provided if required to meet drinking water quality standards. CAP water cannot be utilized until capacity is secured, and is not expected to serve earlier phases of the development. Treatment technologies for the CAP water will consist of conventional sedimentation and filtration or membrane filtration. The CAP water will be treated to drinking water quality as prescribed by the Arizona Administrative Code (A.A.C.)

1.1 Scope of Work

Global has contracted DSWA to provide a comprehensive water master plan for the western Maricopa County region. A hydraulic model that incorporates existing master plans provided by developers is required along with cost estimates for the proposed infrastructure. Two phases were modeled. The first phase (Phase 1) consists of Villages 1, 2, 3 and 4 of the Belmont subdivision with all other developments completely built out. The second phase is full build-out of all developments in the modeled area including Belmont. The piping network typically modeled 1-mile grid pipelines only, unless the developer had a water master plan for the development.

This plan shows approximate locations of proposed water distribution centers required to provide the service area with adequate quantity and pressure of potable water. Conceptual water line sizes and locations are also provided with this plan. Since the majority of the area included in the distribution system model is in the early stages of development, it is anticipated that pipe and facility locations will be adjusted to better suit the needs of the developments. It is recognized that final pipeline alignments will most likely not follow the 1-mile grid that is used for a majority of the model, but the alignments and sizes provided by the model should provide development planners some idea of the size of pipelines that will be required to meet the water demands of the home owners in their developments. It is also recognized that some facility locations as shown in the model may not be in ideal locations for planning purposes. These locations provide good hydraulic connectivity and support for the distribution and can

be viewed as preferred "feed points" so that if a facility were to be located in the general locale of one of the modeled facilities, then the flow from the facility could be conveyed to a more ideal "feed point" with a dedicated pipeline.

1.2 Service Area

The service area and the proposed developments modeled are shown in Exhibit 1.1. The area modeled to support this report does not coincide with the entire planning service area for Global Water in the region. A future master planning effort will incorporate the entire area as well as provide an update to this plan. Approximately 66,000 acres were modeled in this master plan.

1.3 Topography

For purposes of this study, the ultimate Global Water service area covers approximately 66,000 acres. The region generally slopes from northwest to southeast. The lowest elevation served in this plan is approximately 1,000-feet above mean sea level (AMSL). The highest elevation served is approximately 1,370-feet AMSL. The lowest elevation is located approximately one mile east of Wintersburg Road at Lower Buckeye Road in the south and the highest elevations are located along the CAP canal in the north. For the Belmont area, contour data was provided by CMX in the report for their water model. CMX obtained the topography from MapMart. For the remainder of the service area, United States Geographical Survey (USGS) contour mapping (10-20-foot intervals) was used as a basis for ground elevations.

1.4 Existing Conditions

Currently, several small water systems owned by WUGT serve the planning area. WUGT's current service area covers approximately 61 square miles, or close to 39,000 acres. Table 1-1 shows the existing water system names and number of customers.

Table 1-1 Existing WUGT Water Systems and Customers

Water System	Existing Customers
Buckeye Ranch System - PWS #07-618	94
Dixie System - PWS #07-030	27
WPE #6 - PWS #07-733	23
Tufte WPE #7 System - PWS #07-617	6
Garden City/Big Horn System - PWS #07-037	16
Rose View System - PWS #07-082	16
WPE #1 System - PWS # N/A	2
Sunshine System - PWS #07-071	121
Total	**305**

1.4.1 Existing Water Systems

As indicated in Table 1-1, the existing water delivery system for WUGT serves approximately 300 customers. These customers are spread out over several miles. Exhibit 3-1 shows the approximate locations of the existing customers. Typically, these existing systems are characterized by small diameter (2" to 3") pipelines and small exempt wells. Of the eight systems within the WUGT, three of them provide fire hydrants. In general, these systems will not support new development and this infrastructure has not been included in the hydraulic model. Global expects to upgrade and replace this existing infrastructure as development occurs nearby.

1.4.2 Geohydrology

The proposed service area is located in the western portion of the Phoenix Active Management Area and the Hassayampa Subbasin. The Hassayampa Subbasin comprises approximately 1,200 square miles. The basin is bounded by the Vulture Mountains to the north, by the White Tank Mountains to the east, by the Gila Bend Mountains and Buckeye Hills to the south, and by the Palo Verde Hills, Belmont Mountains, and Big Horn Mountains to the west. The Hassayampa Subbasin is drained by the Hassayampa River, which converges with the Gila River to the east.

Two cones of depression have developed in this subbasin due to extensive groundwater pumping for agricultural use. These depressions have created a decline in water levels of between 70 and 90 feet in the Tonopah Desert and Centennial Wash areas, respectively. The depth to water ranges from

approximately 20 feet below land surface near the Gila River to over 700 feet below land surface toward the north portion of the subbasin.

The Arizona Department of Water Resources (ADWR) Groundwater Site Inventory (GWSI) and Well Registry databases indicate that there are up to 357 wells located within the proposed service area. GWSI indicates that the wells located within the proposed service area are used for drinking water, irrigation, stock, and monitoring purposes.

The specific conductance across the proposed service, as reported by ADWR, ranged from 400 to 4,650 micro-Siemens per centimeter (uS/cm) with the higher values recorded in the southeast where agricultural use is high. This results in calculated total dissolved solids (TDS) concentration from 240 to 2,790 mg/L. The TDS concentration was calculated by multiplying the specific conductance by 0.6 to obtain milligrams per liter (mg/L) of dissolved solids. The fluoride and arsenic concentrations exceed Aquifer Water Quality Standards (AWQS) generally on the south side of proposed service area.

Presently, all water services for the proposed service area are provided by groundwater wells. Exhibit 3.2 provides a well location map showing existing wells throughout the proposed service area.

1.5 Existing Master Plans

CMX created both water and wastewater master plans for the proposed Belmont development[1]. These plans have been approved by Maricopa County. These master plans were incorporated into this master plan with minor changes. Several pipe sizes were changed and pressure zone breaks were modified. In general, the recommended revisions to the Belmont Master Plan include:

- Increased pipeline size from 16" to 24" along the main collector roads that traverse north to south.
- Increased pipeline size from 16" to 24" along the main collector roads that traverse east to west.
- Added a Water Campus in Village 18 of the new Zone 4.
- Added a Water Campuses in Villages 12 and 7 of the new Zone 3.
- Removed a Water Campus in Village 25 of the new Zone 2.

- Minimum line size modeled equal to 12".
- Number of PRV stations reduced, pressure zone breaks redefined.
- 12" looping lines added where necessary.
- Number of Interstate 10 freeway crossings reduced.

The increase in pipeline sizes and facilities allows for a better distribution of water across the new service area and aids in meeting the demands imposed by the criteria of this report.

In addition, the Hassayampa Ranch, 339th Avenue, Silver Water Ranch, Silver Springs Ranch and Copper Leaf developments have water and wastewater master plans that have not been approved by Maricopa County. Only proposed development boundaries and development densities, and in some cases roadway alignments, from these plans were used in this master plan.

2.0 Master Plan

Two (2) models were created for this master plan including Phase 1 and Ultimate Build-out models. In each model, three scenarios were run. Average Day, Maximum Day with fire flow, and Peak Hour scenarios were modeled with Bentley's (Haestad Methods) WaterCAD v8 XM.[2]

2.1 Analytical Methodology

WaterCAD takes user inputs for pipe diameters, pipe locations, ground elevations, and storage/booster pumping constraints and computes pressure and flows for the piping network. Pipes are connected to each other via junction nodes. WaterCAD's calculation engine is based on the Gradient Algorithm approach.[2] Pressure and flow results are presented graphically as well as in table formats. The Ultimate Build-out hydraulic model created for this master plan includes 550 pipes. Only steady state analysis scenarios were made.

2.2 Criteria and Assumptions

For this project, only 12" and larger mains were used in the model. Twelve inch pipelines were sometimes used on a half-mile grid, other times 16" pipes were used. The majority of the pipelines were at least 16" in diameter. A Hazen-Williams Roughness Coefficient of 130 was used throughout the modeling effort. Minor losses due to valves and fittings were not considered.

Global Water System Design standards were adhered to when not in conflict with Maricopa County Environmental Services Department (MCESD) requirements for the creation of the models and assigning demands to the junction nodes. Typical water usage in other Global Water service areas averages 250 gallons per day per dwelling unit with 2.6 persons per dwelling unit. The water demand in these service areas results from Global Water's strict water conservation efforts and reclaimed water use requirements. MCESD requires that more conservative values be used for master planning efforts. These values are shown in Table 2-1.

Table 2-1 Water Demand Criteria

Criteria	Value	Units
Per Capita Usage	150	Gal/capita/day
Persons/DU	3.2	Persons
DU Consumption	480	Gal/DU/day
Development Density	3	DU/acre
Maximum Day peak factor	1.98	Multiply ADD
Peak Hour Peak Factor	3.36	Multiply ADD
Fire Flow	1,500	Gal/min

ADD = Average Day Demand

With regard to their water conservation policies, Global has incorporated Codes of Practice for water conservation to minimize landscape irrigation with potable water and maximize reclaimed water use. Specifically, Global Code of Practice, GWR-CP-01-007 dictates that land developers in the WUGT service area must incorporate lakes for reclaimed water storage areas in their plans so that six (6) days of storage is available with no irrigation demand. These lakes will store reclaimed water in the winter when irrigation demand is low and will provide extra water in the summer when demand is higher. This Code of Practice states that landscaping will include 22% turf, 75% xeriscape and 3% lakes.

For all unplanned areas within the hydraulic model extents, demands for residential development at 3 DU/acre or 480 gallon/DU/day were used. Peaking factors were multiplied with the Average Day Demand (ADD) to estimate the Maximum Day (MDD) and Peak Hour demands (PHD).

The entire Global Water planning service area was not modeled. The modeled area was limited to the area that encompassed the planned developments and nearby land totaling approximately 66,000 acres. The area modeled is shown in Exhibit 1.1.

2.3 Phasing

Pursuant to Global Water's direction, a Phase 1 model and an Ultimate Build-out model were created. The Phase 1 model included a portion of Belmont, Villages 1, 2, 3 and 4, along with all other areas within the model boundary. The Ultimate Build-out model included the entire model boundary shown in Exhibit 2.2. The demands for these models are shown in Table 2-2. Based on the modeling results, several water distribution centers are required to support Phase 1 development.

2.4 Demands

Water demands were estimated for each scenario based on the criteria shown above. The following overall demand estimates were used in the models.

Table 2-2 Water Demands

Model	Value	Units
Phase 1- ADD	43,542	Gal/min
Phase 1 - MDD	86,213	Gal/min
Phase 1 - PHD	146,301	Gal/min
Ultimate Build-out- ADD	73,804	Gal/min
Ultimate Build-out- MDD	146,132	Gal/min
Ultimate Build-out- PHD	247,981	Gal/min

More specifically, projected demands were allocated to specific planned developments and unplanned areas according to Table 2-3. These demands were allocated to junction nodes adjacent to the area of development.

Table 2-3 Water Demand Projections at Build-out

Development	Area of Existing CC&N (acres)	Area of Proposed Future Development (acres)	[1]Dwelling Units at Build-out	Projected Water Demand, gpm	Projected Water Demand, mgd
Belmont	-	19,893	78,423	34,399	49.5
Copperleaf	302	914	4,000	1,333	1.92
Silver Water Ranch	433	96	1,877	626	0.901
Silver Springs Ranch	2,229	-	8,219	2,740	3.95
339th Avenue	-	1,273	2,127	709	1.02
Desert Whisper	474	474	2,900	967	1.39
Hassayampa Ranch	1,989	474	7,376	2,248	3.24
Balterra	1,256	-	3,610	1,203	1.73
Unplanned areas	14,080	17,981	88,106[2]	29,369	42.3
Totals	**20,426**	**41,442**	**196,638**	**73,594**	**106.0**

1. Dwelling units and acreages taken from development master plans prepared by others.
2. Dwelling units estimated from 635 acres per section and 3 DU/ac.

The projected water demand for the service area modeled is 62.7 mgd for Phase 1. Global Water intends to meet the initial water demands of Phase 1 through twelve (12) water distribution centers and future treatment facilities for CAP water. The initial water distribution centers will be supplied by groundwater from nearby wells. The exact locations of the wells are not known at this time. The following descriptions of feed point locations are based upon how the Phase 1 model was set up. One water distribution center feed point is located near 403rd Avenue and Camelback Road in the Balterra development. Three (3) water distribution centers are located in Belmont, one in each of the three Belmont Pressure Zones. One water distribution center is located in the 339th Avenue development, one is located in Silver Springs Ranch, one is located in Silver Water Ranch, two (2) are located in unplanned areas of Pressure Zone 2, and three (3) are located in unplanned areas of Pressure Zone 3. The specific locations of proposed feed points from the water distribution centers for Phase 1 are shown in Exhibit 2.1.

The projected water demand for the service area modeled is 106.0 mgd to serve 196,638 dwelling units at Ultimate Build-out. An additional five (5) water distribution centers are needed in Belmont. A total of eight (8) water distribution centers will be located in the Belmont development. This is an increase of one more in the Belmont area than the approved master plan due to increased projected demands. The additional water distribution center will be located in Belmont, within Village 18 to serve Pressure Zone 4, for a total of three (3) water distribution centers in Pressure Zone 4.

Based on the results of the Ultimate Build-out modeling, seventeen (17) water distribution centers are required to serve the proposed development. In the modeled Ultimate Build-out service area, there are three (3) water distribution centers in Pressure Zone 4, six (6) water distribution centers in Pressure Zone 3, five (5) water distribution centers in Pressure Zone 2, and three (3) water distribution centers in Pressure Zone 1. Section 2.6.2 describes the requirements of these facilities in more detail.

2.5 Pressure Zones

Global Water's modeled Ultimate Build-out service area is divided into four distinct pressure zones. Each zone has a change in elevation of 100-feet above mean sea level. The CAP canal is the northern most boundary of Pressure Zone 4. The elevation range of the pressure zones are shown in Table 2-4. Exhibit 1.1 shows the service area and pressure zones.

Table 2-4 Pressure Zones

Pressure Zone	Lower Elevation	Upper Elevation
Zone 0	1000	1,002
Zone 1	1,022	1,092
Zone 2	1,085	1,170
Zone 3	1,170	1,270
Zone 4	1,269	1,371

All of the Pressure zones will be separated from each other by Pressure Reducing Valve (PRV) stations and/or normally closed valves. Pressure Zone 0 is a small area south of Pressure Zone 1 and was separated from Pressure Zone 1 in order to resolve issues with high pressures in the area. Pressure Zone 0 will be completely fed via a PRV station and normally closed valves and hence will not have any water distribution centers. DSWA tried to limit the number of PRVs required for proper operation of the

overall water system. For this model, thirteen (13) PRVs were used to connect the five (5) zones. Additional zone crossings were modeled as normally closed valves that do not allow flow to pass.

Typical PRV stations will include a large PRV and a smaller bypass PRV with pressure gages and isolation valves. These stations will be in underground vaults or in above ground fenced enclosures as determined by Global.

2.6 Modeling Results

Exhibits 2.1 and 2.2 shows the piping network required to meet the projected demands of the system. Typically, peak hour conditions dictated the pipeline sizes for each phase. The WaterCAD network and output are located in Appendix A. The junction node and pipe labels are included and the output from each run of each phase is provided.

The modeled pipe sizes were optimized so that the minimum pressures during the peak hour scenario were 40 psi or greater, with a maximum pressure limited to about 90 psi for the average day scenario and about 87 psi for the maximum day scenario both located at the low end of Pressure Zones 3 and 4. The pressure ranges for each scenario are shown in Table 2-5. It is anticipated that these pressures will be refined when detailed hydraulic models are created for portions of the service area in the future.

As part of the maximum day scenario, a fire flow of 1,500 gpm was independently applied to each node and the results show that each node can support 1,500 gpm fire flow with a minimum pressure residual in the system of 20 psi.

Table 2-5 Pressure Ranges

Phase	Scenario	Min. Pressure (psi)	Max. Pressure (psi)
Phase1	ADD	44	91
	MDD	43	88
	PHD	41	84
Build-out	ADD	41	90
	MDD	40	87
	PHD	40	84

2.6.1 Pipelines

Table 2-6 shows the required length and size for the pipelines modeled. In most cases, the smaller diameter looping pipelines internal to a main square mile loop were not modeled and are not accounted for herein.

Table 2-6 Pipeline Quantities (Ultimate Build-out)

Pipe Diameter (inches)	Length (miles)
12	51
16	177
24	57
36	1

2.6.2 Storage and Booster Pumping

The booster stations were modeled as constant pressure sources to simulate multiple pump facilities with Variable Frequency Drive (VFD) motors. The set pressures used in the models ranged from 54 to 74 psi and are shown below in Table 2-7. Global typically requires that a water distribution center meets the following requirements:

- Two welded steel reservoirs, totaling 5.0 million-gallons
- Split-case centrifugal pumps capable of producing 15,000 gpm with the largest pump out of service
- Hydropneumatic tank
- Disinfection system housed in building
- Standby generator

The set pressures did not change between scenarios.

Table 2-7 Booster Station Set Pressures

Location	Pressure Zone	Outlet HGL (ft)	Set Pressure (psi)	Design Flow rate (gpm)[1]	Design Flow Rate (MGD)[1]	No. of Water Distribution Centers[2]
339th Avenue	1	1,240	75.5	16,004	23.1	1
Silver Springs Ranch	1	1,231	66.7	11,679	16.8	1
Belmont -Village 25	1	1,208	50.2	16,685	24.0	1
Balterra	2	1,288	66.2	13,187	19.0	1
Belmont - Village 2	2	1,281	60.6	16,810	24.2	1
Silver Water Ranch	2	1,288	78.4	11,151	16.1	1
Unplanned Area – 339th Ave and Indian School Rd	2	1,285	67.1	17,061	24.6	1
Unplanned Area – 395th Ave and Bethany Home Rd	2	1,320	64.9	15,183	21.9	1
Belmont - Village 15	3	1,365	51.1	15,047	21.7	1
Belmont - Village 13	3	1,390	64.9	15,856	22.8	1
Belmont - Village 7	3	1,380	69.3	15,371	22.1	1
Unplanned Area – 371st Ave and Glendale Rd	3	1,390	77.9	13,619	19.6	1
Unplanned Area - 435th Avenue & Bethany Home Rd	3	1,372	44.1	16,320	23.5	1
Unplanned Area - 411th Avenue and Glendale Ave	3	1,370	69.2	7,743	11.2	1
Belmont - Village 18	4	1,487	53.7	15,314	22.1	1
Belmont - Village 18	4	1,498	70.6	14,698	21.2	1
Belmont - Village 19	4	1,470	54.6	15,471	22.3	1

1. Ultimate Peak hour flowrates
2. Based on each pump station delivering 15,000 gpm. In some cases, additional pumps will be required to increase the flowrate.

The required storage volume was calculated from the estimated demands within the model area by calculating 30% of maximum day demand plus fire flow requirements. Fire flow is estimated at 1,500 gpm for a two (2) hour duration with fire flow available in each of the four main pressure zones. Based on this criteria, the required storage volume for the entire service area is 63.7 million gallons. A typical

water distribution center layout is shown in Appendix B. To meet the total storage volume, approximately twenty-six (26) 2.5 million gallon reservoirs are required.

2.6.3 Cost Estimates

Cost estimates for the infrastructure proposed in this master plan are presented below. These estimates are preliminary in nature and based on the quantities derived from the hydraulic model. These estimates include backbone infrastructure only.

Phase 1 – Estimate of Probable Cost

Description	Quantity		Unit Cost	Total
PIPELINES				
12" DIP	98,322	LF	$ 81	$ 7,964,082
16" DIP	638,643	LF	$ 100	$ 63,864,300
24" DIP	209,849	LF	$ 120	$ 25,181,880
36" DIP	4,975	LF	$ 155	$ 771,125
Pipeline Subtotal				**$ 97,781,387**
WATER DISTRIBUTION CENTERS				
Total Required	12	EA	$12,615,575	151,386,895
WDC Subtotal				**$ 151,386,895**
			Total Estimated Construction Cost:	**$249,168,282**

Ultimate Build-out – Estimate of Probable Cost

Description	Quantity		Unit Cost	Total
PIPELINES				
12" DIP	268,035	LF	$ 81	$ 21,710,835
16" DIP	932,155	LF	$ 100	$ 93,215,500
24" DIP	300,778	LF	$ 120	$ 36,093,360
36" DIP	4,975	LF	$ 155	$ 771,125
Pipeline Subtotal				**$ 151,790,820**
WATER DISTRIBUTION CENTERS				
Total Required	17	EA	$12,615,575	214,464,769
WDC Subtotal				**$ 214,464,769**
CAP Water Treatment Plant	47	MGD	$ 2,800,000	**$ 132,020,000**
			Total Estimated Construction Cost:	**$498,275,589**

Water Distribution Center Detail – Estimate of Probable Cost

Description	Quantity		Material		Labor		Total Cost
			Unit Cost	Total	Unit Cost	Total	2007
Water Distribution Center Detail							
A. Concrete	1	LS	$ 95,000	$ 95,000	incl		$95,000
B. Electrical Building	800	sq. ft.	$ 150	$ 120,000	incl		$120,000
C. Equipment							
2.5 MG Steel Reservoir	2	EA	$ 2,100,000	$ 4,200,000	incl		$4,200,000
Horizontal Split Case Pumps (3000 gpm ea.)	6	EA	$ 19,500	$ 117,000	20% of Material	$ 23,400	$140,400
Hydro Pnuematic Tank	2	EA	$ 26,000	$ 52,000	incl		$52,000
Disinfection System	1	LS	$ 40,000	$ 40,000	incl		$40,000
D. Mechanical/HVAC/Plumbing/Piping	1	LS					$664,860
E. Site Work - 10% of A+B+C+D	1	LS					$521,726
F. Electrical - 15% of B+C+D	1	LS					$782,589
G. Instrumentation and Control - 15% of B+C+D	1	LS					$782,589
Subtotal							$7,399,164
H. General Conditions – 10% of sum of A thru G							$739,916
Subtotal							$8,139,080
I. Contractor Overhead and Profit – 15% of sum of A thru H							$1,220,862
J. Contingency – 40% of sum of A thru H							$3,255,632
Grand Total							$12,615,575

3.0 Water Resources

3.1 Groundwater Quality

Global Water maintains the following strategies with respect to groundwater quality:

1. Identify and rehabilitate high quality wells in the proposed service area.
2. Develop blending mechanisms and control strategies to blend high quality water with poorer quality groundwater to ensure compliance with the Safe Drinking Water Act and AAC R18-4.
3. Modify existing wells to isolate areas of high concentrations or access higher quality water.
4. Provide slipstream treatment processes which in conjunction with an effective blending plan will meet the requirements.
5. Provide full scale treatment of groundwater.

A three phased approach to the evaluation of wells is employed by Global:

1. Phase 1 – Review available ADWR and ADEQ data, and physical assessment of wells;
2. Phase 2 – Analytical sampling of flow rates and quality (depth specific sampling, spinner logs);
3. Phase 3 – Rehabilitation. Installation of sanitary seal, re-screening, renewal of electrical control system, installation of SCADA control system, and obtain New Source Approval.

If after careful evaluation it is determined the existing well is not adequate, a new replacement well will be drilled.

During Phase 2 of the evaluation program, a full suite of analytical data is taken from the groundwater including:

- Metals
- Inorganics
- Synthetic Organic Compounds
- Volatile Organic Compounds
- Nutrients
- Bacteriological Analyses
- Radiochemical constituents

The results of these analyses will determine any groundwater treatment requirements. The selection of wells for potable water production will take into account the water quality data, so investment into the

conversion is made prudently. Global is prepared to install, operate and maintain any treatment processes that may be required. Global is considering three (3) alternative types of treatment methods for removal of Arsenic and Fluoride from the groundwater. These facilities will be located at the water distribution centers.

3.2 Wells

Global Water prefers to utilize existing high production capacity wells suitable for rehabilitation and outfitting as domestic supply wells. If suitable wells are not available, new groundwater production wells will be drilled near the water distribution centers. Raw water will be conveyed to the distribution centers for disinfection and treatment via raw water pipe networks. Specific well locations will be selected by qualified hydrogeologists. The new wells will be sited and screened to maximize groundwater quality.

4.0 Recommendations

Global Water's Standards for the Planning, Design and Construction of Water and Wastewater Systems along with this master plan provide the necessary guidance and requirements for development in the WUGT service area. Global Water System Design standards were adhered to when not in conflict with MCESD requirements for the creation of the models and assigning demands to the junction nodes.

Global Water has experienced an average use of 250 gallons per day per dwelling unit with 2.6 persons per dwelling unit in their other service areas. The water demand in these service areas results from Global Water's strict water conservation efforts and reclaimed water use requirements. MCESD requires that more conservative values be used for master planning efforts.

The proposed pipelines, reservoirs and booster stations should be constructed as development occurs in the area. In general, each development should provide wells and water storage to meet the water demands of their development. Although this plan calls for specific pipe sizes along certain roadway/section line alignments, detailed hydraulic models of each development's planned area are needed to accurately estimate internal pipeline sizes and locations.

In addition, the existing water infrastructure will be interconnected as development occurs nearby.

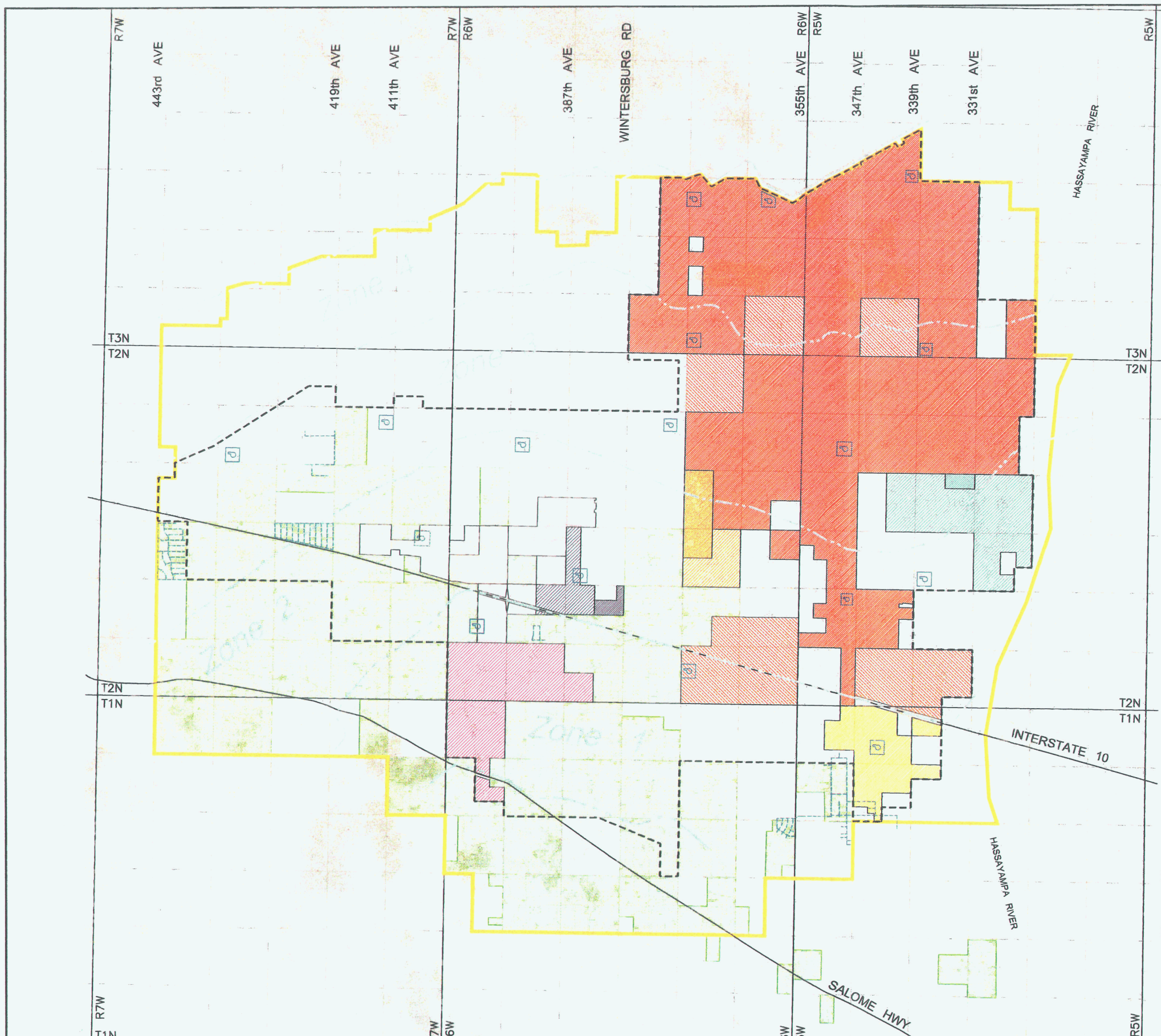
5.0 References

1- *Master Water Plan for Belmont*, by CMX LLC, Phoenix, Arizona, August 2006

2- Bentley Systems, Inc. Haestad Methods Solution Center, Watertown, CT, WaterCAD V8 XM Edition.

EXHIBIT 1-1

Proposed Service Area Location Map



LEGEND

- SERVICE AREA BOUNDARY
- EXISTING WUGT WATER LINE
- PRESSURE ZONE BOUNDARY
- HYDRAULIC MODEL EXTENTS
- WATER DISTRIBUTION CENTER
- BELMONT (Proposed WUGT CC&N*)
- ASLD INCLUDED IN BELMONT MODEL
- COPPER LEAF (Existing WUGT CC&N)
- COPPER LEAF (Proposed WUGT CC&N*)
- BALTERRA (Existing WUGT CC&N)
- BALTERRA (Proposed WUGT CC&N**)
- SILVER WATER RANCH (Existing WUGT CC&N)
- SILVER WATER RANCH (Proposed WUGT CC&N*)
- 339th AVENUE PROJECT (Proposed WUGT CC&N*)
- DESERT WHISPER (Existing WUGT CC&N)
- DESERT WHISPER (Proposed WUGT CC&N*)
- HASSAYAMPA RANCH (Existing WUGT CC&N)
- HASSAYAMPA RANCH (Proposed WUGT CC&N*)
- SILVER SPRINGS RANCH (Existing WUGT CC&N*)
- WUGT (Existing CC&N)

NOTES:
* W-02450A-06-0626
** W-02450A-06-0253

REVISIONS			
NO	DATE	BY	DESCRIPTION

File Name: WUGTWG01.dwg

Designed By GB, VJL
Drawn By CDH
Checked By CHC

DSWA
DAMON S. WILLIAMS ASSOCIATES, LLC

GLOBAL WATER
RELIABLE RENEWABLE REPLENISHABLE

GLOBAL WATER
WATER UTILITY
OF GREATER TONOPAH

PROPOSED SERVICE AREAS
LOCATION MAP
SHOWING PRESSURE ZONES

DSWA Project No 060260
Date JUNE 2007

EXHIBIT 1.1

Dwg File: U:\CADD\060260-260\Dwg\060260-WWUGTWG01.dwg Modified: Jun 25, 2007 - 1:29pm Plotted: Jun 25, 2007 - 2:17pm

EXHIBIT 2-1

Proposed Phase 1 Water Distribution System

N

0 5000 10000

APPROX SCALE IN FEET

LEGEND

- SERVICE AREA BOUNDARY
- PRESSURE ZONE BOUNDARY
- HYDRAULIC MODEL EXTENTS
- 12" WATER MAIN
- 16" WATER MAIN
- 24" WATER MAIN
- 36" WATER MAIN
- WATER DISTRIBUTION CENTER
- PRV STATION
- NORMALLY CLOSED VALVE
- BELMONT (Proposed WUGT CC&N*)
- ASLD INCLUDED IN BELMONT MODEL
- COPPER LEAF (Existing WUGT CC&N)
- COPPER LEAF (Proposed WUGT CC&N*)
- BALTERRA (Existing WUGT CC&N)
- BALTERRA (Proposed WUGT CC&N**)
- SILVER WATER RANCH (Existing WUGT CC&N)
- SILVER WATER RANCH (Proposed WUGT CC&N*)
- 339th AVENUE PROJECT (Proposed WUGT CC&N*)
- DESERT WHISPER (Existing WUGT CC&N)
- DESERT WHISPER (Proposed WUGT CC&N*)
- HASSAYAMPA RANCH (Existing WUGT CC&N)
- HASSAYAMPA RANCH (Proposed WUGT CC&N*)
- SILVER SPRINGS RANCH (Existing WUGT CC&N*)
- WUGT (Existing CC&N)

NOTES:

* W-02450A-06-0626

** W-02450A-06-0253

REVISIONS			
NO	DATE	BY	DESCRIPTION

File Name: WUGTWGO 1.dwg

Designed By GB, VJL

Drawn By CDH

Checked By CHC

DSWA
DAMON S. WILLIAMS ASSOCIATES, LLC

GLOBAL WATER
RELIABLE RENEWABLE REUSABLE

GLOBAL WATER
WATER UTILITY
OF GREATER TONOPAH

PROPOSED
PHASE 1
WATER DISTRIBUTION SYSTEM

DSWA Project No 060260

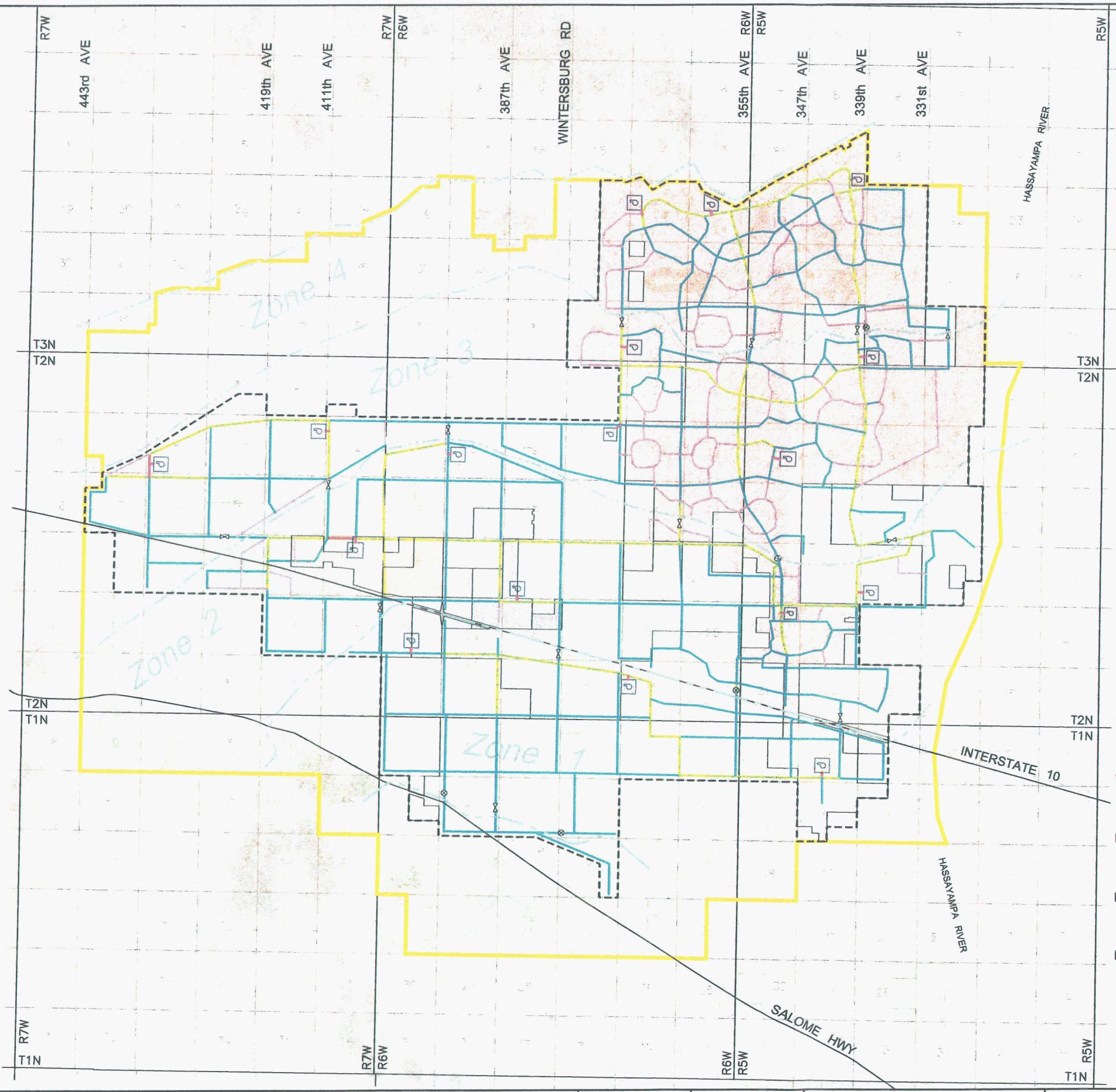
Date JUNE 2007

EXHIBIT 2.1

Dwg File: U:\CADD\060260\Dwg\060260-W\WUGTWGO1.dwg Modified: Jun 25, 2007 - 1:39pm Plotted: Jun 25, 2007 - 2:20pm

EXHIBIT 2-2

Proposed Ultimate Build-out Water Distribution System



LEGEND

- SERVICE AREA BOUNDARY
- PRESSURE ZONE BOUNDARY
- HYDRAULIC MODEL EXTENTS
- 12" WATER MAIN
- 16" WATER MAIN
- 24" WATER MAIN
- 36" WATER MAIN
- WATER DISTRIBUTION CENTER
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- NORMALLY CLOSED VALVE
- BELMONT (Proposed WUGT CC&N*)
- ASLD INCLUDED IN BELMONT MODEL
- COPPER LEAF (Existing WUGT CC&N)
- COPPER LEAF (Proposed WUGT CC&N*)
- BALTERRA (Existing WUGT CC&N)
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- DESERT WHISPER (Proposed WUGT CC&N*)
- HASSAYAMPA RANCH (Existing WUGT CC&N)
- HASSAYAMPA RANCH (Proposed WUGT CC&N*)
- SILVER SPRINGS RANCH (Existing WUGT CC&N*)
- WUGT (Existing CC&N)

NOTES:
* W-02450A-06-0626
** W-02450A-06-0253

REVISIONS			
NO	DATE	BY	DESCRIPTION

File Name: WUGTWGO1.dwg

Designed By GB, VJL
Drawn By CDH
Checked By CHC

DSWA
DAMON S. WILLIAMS ASSOCIATES, LLC

GLOBAL WATER
RELIABLE RENEWABLE REUSABLE

GLOBAL WATER
WATER UTILITY
OF GREATER TONOPAH

PROPOSED
ULTIMATE BUILDOUT
WATER DISTRIBUTION SYSTEM

DSWA Project No 060260
Date JUNE 2007

EXHIBIT 2.2

Dwg File: U:\CADD\060260-260\Dwg\060260-WWUGTWG01.dwg Modified: Jun 25, 2007 - 1:29pm Plotted: Jun 25, 2007 - 2:23pm

EXHIBIT 3-1

WUGT Existing Water Systems Location Map

GLOBAL WATER

WUGT Developments in CC&N Extension

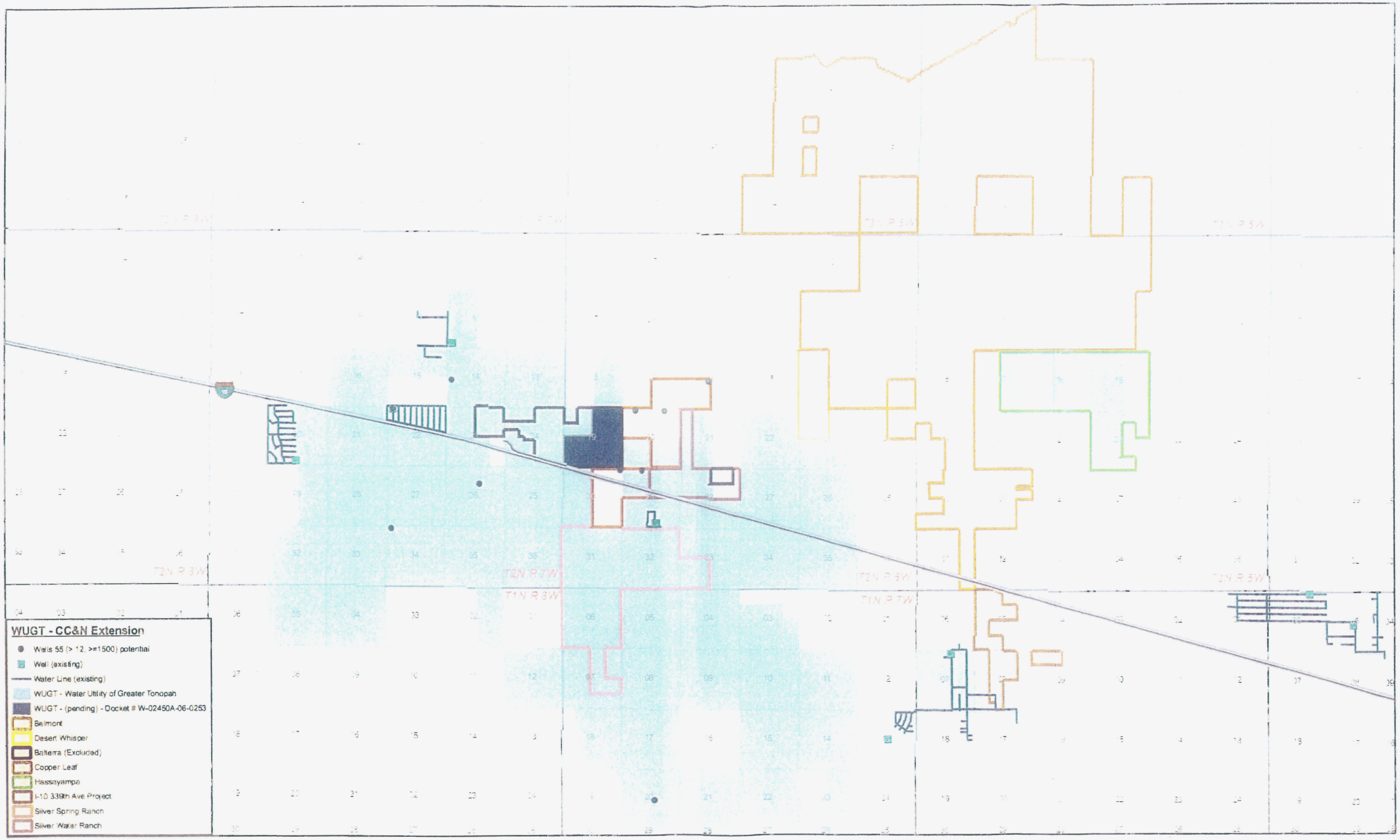

EXHIBIT 3.1 WUGT EXISTING WATER SYSTEMS LOCATION MAP

EXHIBIT 3-2

Well Location Map

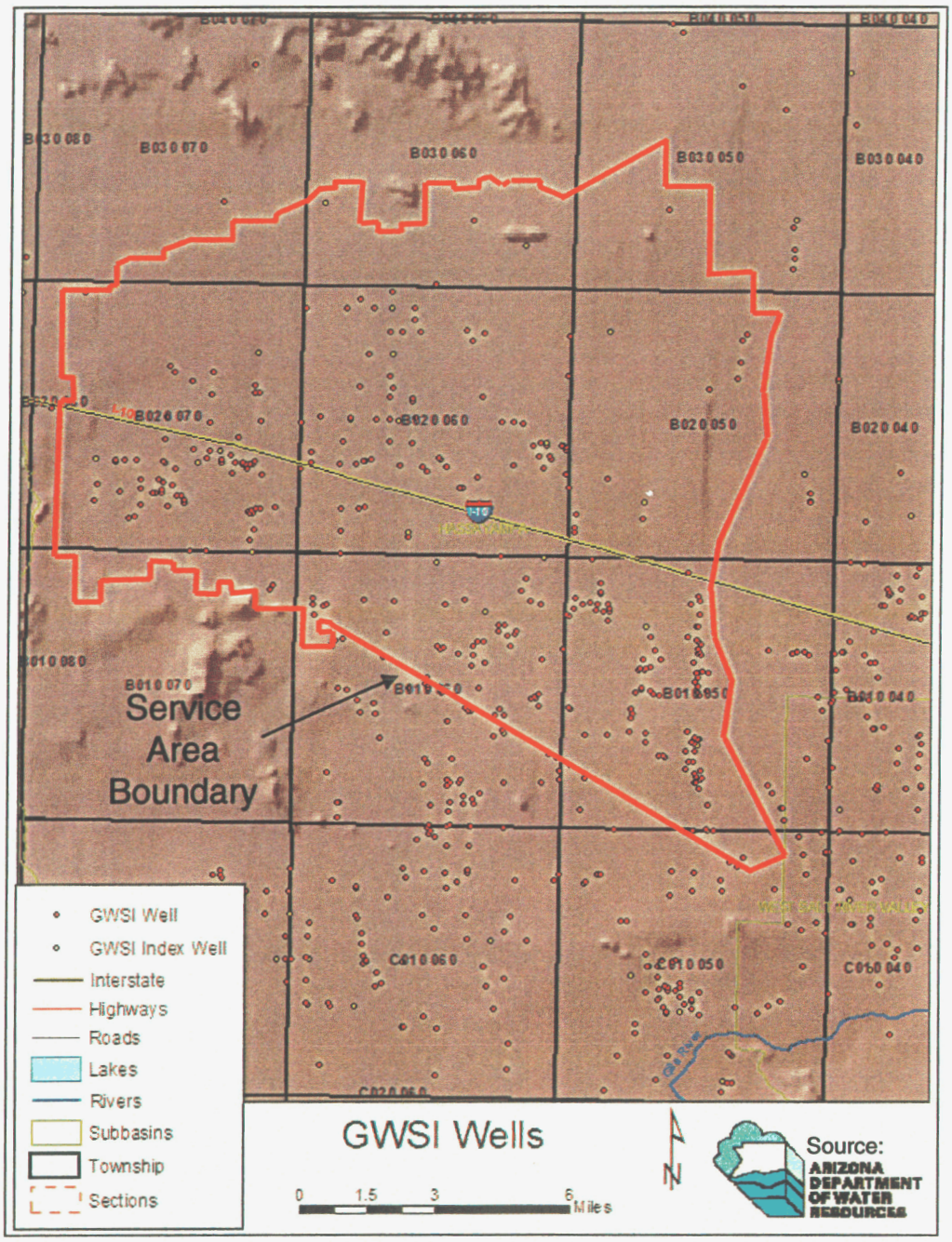

Exhibit 3.2 Well Location Map

APPENDIX A

Water CAD Results

Phase 1

Reservoir Report

Id	Label	Elevation (ft)	Zone	Outflow (gpm)	Hydraulic Grade (ft)
1276	R-29	1,208.00	116: Zone - 1	13,721.06	1,208.00
1274	R-28	1,231.00	116: Zone - 1	11,466.22	1,231.00
1248	R-21	1,240.00	116: Zone - 1	14,881.10	1,240.00
1299	R-31	1,285.00	117: Zone - 2	12,671.29	1,285.00
1267	R-25	1,320.00	117: Zone - 2	15,066.80	1,320.00
1265	Silver	1,288.00	117: Zone - 2	10,513.25	1,288.00
1258	Belmont-ISR	1,281.00	117: Zone - 2	13,642.61	1,281.00
689	Balterra-Res	1,288.00	117: Zone - 2	12,951	1,288.00
1302	R-30	1,390.00	118: Zone - 3	7,202.91	1,390.00
1270	R-26	1,370.00	118: Zone - 3	7,550.30	1,370.00
1260	R-23	1,380.00	118: Zone - 3	10,108.80	1,380.00
1093	R-10	1,372.00	118: Zone - 3	16,508.47	1,372.00

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
1103	J-342	1,270.00	18: Zone -	<Collection: 1 item>	318	1,370.70	43.6
769	J-255	1,270.00	18: Zone -	<Collection: 1 item>	636	1,371.00	43.7
1100	J-341	1,270.00	18: Zone -	<Collection: 0 items>	0	1,372.00	44.1
875	J-285	1,170.00	17: Zone -	<Collection: 0 items>	0	1,281.10	48
869	J-283	1,170.00	17: Zone -	<Collection: 0 items>	0	1,282.20	48.6
285	J-171	1,170.00	17: Zone -	<Collection: 1 item>	159	1,282.30	48.6
811	J-271	1,002.00	15: Zone -	<Collection: 1 item>	318	1,114.30	48.6
978	J-317	1,170.00	17: Zone -	<Collection: 1 item>	450	1,282.40	48.6
1295	J-378	1,168.00	17: Zone -	<Collection: 0 items>	0	1,282.10	49.4
732	J-241	1,000.00	15: Zone -	<Collection: 1 item>	479	1,114.30	49.4
1233	J-368	1,000.00	15: Zone -	<Collection: 0 items>	0	1,114.50	49.5
981	J-318	1,168.00	17: Zone -	<Collection: 1 item>	636	1,282.80	49.7
746	J-246	1,000.00	15: Zone -	<Collection: 1 item>	318	1,115.10	49.8
767	J-254	1,256.00	18: Zone -	<Collection: 1 item>	636	1,371.60	50
777	J-259	1,170.00	17: Zone -	<Collection: 1 item>	331	1,286.00	50.2
965	J-313	1,092.00	16: Zone -	<Collection: 1 item>	318	1,208.00	50.2
1127	J-346	1,166.00	17: Zone -	<Collection: 0 items>	0	1,282.60	50.4
241	J-V4-I-Z1	1,165.00	17: Zone -	<Collection: 1 item>	323	1,281.80	50.5
282	J-168	1,165.00	17: Zone -	<Collection: 1 item>	318	1,282.30	50.8
237	J-120	1,164.00	17: Zone -	<Collection: 0 items>	0	1,282.30	51.2
245	J-129	1,163.00	17: Zone -	<Collection: 0 items>	0	1,281.50	51.2
239	J-123	1,164.00	17: Zone -	<Collection: 1 item>	318	1,283.20	51.6
1198	J-361	1,090.00	16: Zone -	<Collection: 0 items>	0	1,209.70	51.8
246	J-V2-I	1,161.00	17: Zone -	<Collection: 1 item>	319	1,281.20	52
288	J-174	1,160.00	17: Zone -	<Collection: 1 item>	159	1,281.10	52.4
214	J-V2-II	1,160.00	17: Zone -	<Collection: 1 item>	319	1,281.10	52.4
289	J-175	1,160.00	17: Zone -	<Collection: 0 items>	0	1,281.10	52.4
1180	J-358	1,090.00	16: Zone -	<Collection: 0 items>	0	1,211.60	52.6
900	J-293	1,170.00	17: Zone -	<Collection: 1 item>	159	1,292.10	52.8
1208	J-363	1,086.00	16: Zone -	<Collection: 0 items>	0	1,209.10	53.2
830	J-279	1,162.00	17: Zone -	<Collection: 1 item>	100	1,285.10	53.3
240	J-124	1,160.00	17: Zone -	<Collection: 1 item>	242	1,283.20	53.3
751	J-247	1,085.00	16: Zone -	<Collection: 1 item>	159	1,208.40	53.4
279	J-165	1,087.00	16: Zone -	<Collection: 1 item>	318	1,211.10	53.7
754	J-248	1,085.00	16: Zone -	<Collection: 1 item>	322	1,209.10	53.7
1067	J-334	1,160.00	17: Zone -	<Collection: 1 item>	172	1,285.70	54.4
958	J-311	1,158.00	17: Zone -	<Collection: 1 item>	242	1,284.30	54.6
908	J-295	1,170.00	17: Zone -	<Collection: 1 item>	159	1,296.90	54.9
257	J-V25-II	1,086.00	16: Zone -	<Collection: 1 item>	0	1,214.60	55.6
771	J-256	1,240.00	18: Zone -	<Collection: 1 item>	159	1,369.80	56.1
826	J-278	1,164.00	17: Zone -	<Collection: 1 item>	159	1,294.30	56.4
1291	J-377	1,150.00	17: Zone -	<Collection: 0 items>	0	1,281.40	56.9
254	J-138	1,090.00	16: Zone -	<Collection: 1 item>	318	1,221.50	56.9
658	J-216	1,079.00	16: Zone -	<Collection: 1 item>	322	1,211.60	57.4
951	J-310	1,148.00	17: Zone -	<Collection: 0 items>	0	1,281.00	57.5
1163	J-355	1,152.00	17: Zone -	<Collection: 0 items>	0	1,285.30	57.7
929	J-301	1,078.00	16: Zone -	<Collection: 1 item>	318	1,211.50	57.7
1218	J-365	1,088.00	16: Zone -	<Collection: 0 items>	0	1,221.50	57.8
761	J-251	1,236.00	18: Zone -	<Collection: 1 item>	159	1,370.20	58.1
906	J-294	1,170.00	17: Zone -	<Collection: 1 item>	159	1,304.30	58.1
898	J-292	1,160.00	17: Zone -	<Collection: 1 item>	318	1,294.60	58.2
710	DZ-South	1,145.00	17: Zone -	<Collection: 0 items>	0	1,281.20	58.9
220	J-103	1,091.00	16: Zone -	<Collection: 1 item>	318	1,227.90	59.2
962	J-312	1,072.00	16: Zone -	<Collection: 1 item>	318	1,208.90	59.2
312	J-199	1,145.00	17: Zone -	<Collection: 1 item>	159	1,282.10	59.3
738	J-244	1,071.00	16: Zone -	<Collection: 1 item>	318	1,208.20	59.4

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
1156	J-353	1,149.00	17: Zone -	<Collection: 0 items>	0	1,286.80	59.6
809	J-270	1,160.00	17: Zone -	<Collection: 1 item>	318	1,298.40	59.9
258	J-143	1,083.00	16: Zone -	<Collection: 1 item>	318	1,221.60	60
1286	J-376	1,143.00	17: Zone -	<Collection: 0 items>	0	1,281.60	60
215	J-98	1,141.00	17: Zone -	<Collection: 0 items>	0	1,281.00	60.6
264	J-149	1,092.00	16: Zone -	<Collection: 1 item>	101	1,232.60	60.8
311	J-198	1,140.00	17: Zone -	<Collection: 0 items>	0	1,281.20	61.1
932	J-302	1,075.00	16: Zone -	<Collection: 1 item>	318	1,216.40	61.2
1153	J-352	1,145.00	17: Zone -	<Collection: 0 items>	0	1,286.70	61.3
1213	J-364	1,090.00	16: Zone -	<Collection: 0 items>	0	1,231.80	61.3
765	J-253	1,228.00	18: Zone -	<Collection: 1 item>	636	1,370.60	61.7
683	J-228	1,144.00	17: Zone -	<Collection: 1 item>	318	1,287.10	61.9
794	J-265	1,142.00	17: Zone -	<Collection: 1 item>	318	1,285.30	62
818	J-275	1,090.00	16: Zone -	<Collection: 1 item>	101	1,234.40	62.5
949	J-309	1,136.00	17: Zone -	<Collection: 1 item>	318	1,281.00	62.7
307	J-194	1,135.00	17: Zone -	<Collection: 0 items>	0	1,281.20	63.3
896	J-291	1,152.00	17: Zone -	<Collection: 1 item>	318	1,299.00	63.6
1160	J-354	1,138.00	17: Zone -	<Collection: 1 item>	218	1,285.10	63.6
1250	J-370	1,085.00	16: Zone -	<Collection: 0 items>	0	1,232.80	63.9
216	J-99	1,133.00	17: Zone -	<Collection: 0 items>	0	1,281.00	64
934	J-303	1,074.00	16: Zone -	<Collection: 1 item>	318	1,222.00	64
249	J-V1-II	1,133.00	17: Zone -	<Collection: 1 item>	606	1,281.10	64.1
287	J-173	1,133.00	17: Zone -	<Collection: 0 items>	0	1,281.10	64.1
664	J-219	1,059.00	16: Zone -	<Collection: 1 item>	322	1,208.60	64.7
1053	J-330	1,170.00	17: Zone -	<Collection: 0 items>	0	1,319.80	64.8
697	J-232	1,132.00	17: Zone -	<Collection: 1 item>	450	1,282.30	65
1253	J-371	1,078.00	16: Zone -	<Collection: 0 items>	0	1,228.60	65.2
937	J-304	1,060.00	16: Zone -	<Collection: 1 item>	636	1,210.70	65.2
315	J-202	1,130.00	17: Zone -	<Collection: 0 items>	0	1,280.90	65.3
662	J-218	1,058.00	16: Zone -	<Collection: 1 item>	322	1,209.30	65.4
725	J-238	1,070.00	16: Zone -	<Collection: 1 item>	636	1,221.50	65.5
677	J-225	1,135.00	17: Zone -	<Collection: 1 item>	331	1,287.70	66.1
773	J-257	1,216.00	18: Zone -	<Collection: 1 item>	318	1,368.80	66.1
675	Balterra	1,135.00	17: Zone -	<Collection: 1 item>	172	1,288.00	66.2
1281	J-374	1,128.00	17: Zone -	<Collection: 0 items>	0	1,281.60	66.5
308	J-195	1,130.00	17: Zone -	<Collection: 1 item>	477	1,283.70	66.5
1189	J-359	1,055.00	16: Zone -	<Collection: 0 items>	0	1,208.90	66.6
660	J-217	1,077.00	16: Zone -	<Collection: 1 item>	222	1,231.00	66.6
310	J-197	1,126.00	17: Zone -	<Collection: 0 items>	0	1,281.70	67.4
922	J-299	1,050.00	16: Zone -	<Collection: 1 item>	318	1,206.70	67.8
797	J-266	1,128.00	17: Zone -	<Collection: 1 item>	636	1,285.00	67.9
650	J-212	1,131.00	17: Zone -	<Collection: 1 item>	540	1,288.20	68
217	J-100	1,123.00	17: Zone -	<Collection: 0 items>	0	1,280.90	68.3
1065	J-333	1,129.00	17: Zone -	<Collection: 1 item>	172	1,287.10	68.4
727	J-239	1,052.00	16: Zone -	<Collection: 1 item>	481	1,210.50	68.6
940	J-305	1,059.00	16: Zone -	<Collection: 1 item>	636	1,217.80	68.7
670	J-222	1,130.00	17: Zone -	<Collection: 1 item>	172	1,289.30	68.9
210	J-V7-II	1,220.00	18: Zone -	<Collection: 1 item>	339.5	1,379.40	69
294	J-V7-III	1,220.00	18: Zone -	<Collection: 1 item>	339.5	1,380.00	69.2
759	J-250	1,210.00	18: Zone -	<Collection: 1 item>	318	1,370.00	69.2
652	J-213	1,128.00	17: Zone -	<Collection: 1 item>	222	1,288.60	69.5
313	J-200	1,120.00	17: Zone -	<Collection: 0 items>	0	1,280.90	69.6
1194	J-360	1,062.00	16: Zone -	<Collection: 0 items>	0	1,223.50	69.9
947	J-308	1,120.00	17: Zone -	<Collection: 1 item>	242	1,282.30	70.2
654	J-214	1,126.00	17: Zone -	<Collection: 1 item>	394	1,289.10	70.5
820	J-276	1,072.00	16: Zone -	<Collection: 1 item>	101	1,236.40	71.1

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
1167	J-356	1,119.00	17: Zone -	<Collection: 0 items>	0	1,285.00	71.8
250	J-V1-I	1,114.00	17: Zone -	<Collection: 1 item>	606	1,280.60	72.1
816	J-274	1,070.00	16: Zone -	<Collection: 1 item>	101	1,238.80	73
309	J-196	1,112.00	16: Zone -	<Collection: 1 item>	318	1,280.90	73.1
763	J-252	1,200.00	18: Zone -	<Collection: 1 item>	636	1,369.80	73.5
787	J-262	1,196.00	18: Zone -	<Collection: 1 item>	318	1,365.90	73.5
252	J-136	1,110.00	17: Zone -	<Collection: 1 item>	318	1,280.20	73.7
218	J-101	1,110.00	17: Zone -	<Collection: 0 items>	0	1,280.80	73.9
681	J-227	1,116.00	17: Zone -	<Collection: 1 item>	410	1,287.10	74
260	J-V24-I	1,109.00	17: Zone -	<Collection: 1 item>	159	1,280.70	74.3
945	J-307	1,112.00	17: Zone -	<Collection: 1 item>	242	1,284.30	74.5
742	J-245	1,034.00	16: Zone -	<Collection: 1 item>	318	1,206.60	74.7
729	J-240	1,035.00	16: Zone -	<Collection: 1 item>	481	1,208.20	74.9
925	J-300	1,058.00	16: Zone -	<Collection: 1 item>	260	1,231.30	75
799	J-267	1,110.00	17: Zone -	<Collection: 1 item>	477	1,283.80	75.2
691	J-229	1,066.00	16: Zone -	<Collection: 1 item>	101	1,239.90	75.2
278	J-164	1,110.00	17: Zone -	<Collection: 0 items>	0	1,284.30	75.4
804	J-269	1,110.00	17: Zone -	<Collection: 1 item>	795	1,284.80	75.6
251	J-135	1,105.00	17: Zone -	<Collection: 0 items>	0	1,280.50	75.9
259	J-144	1,105.00	17: Zone -	<Collection: 0 items>	0	1,280.50	75.9
887	J-287	1,193.00	18: Zone -	<Collection: 1 item>	318	1,370.30	76.7
666	J-220	1,030.00	16: Zone -	<Collection: 1 item>	481	1,207.70	76.9
208	J-91	1,201.00	18: Zone -	<Collection: 0 items>	0	1,379.10	77.1
314	J-201	1,200.00	18: Zone -	<Collection: 0 items>	0	1,378.70	77.3
207	J-90	1,200.00	18: Zone -	<Collection: 0 items>	0	1,378.90	77.4
775	J-258	1,190.00	18: Zone -	<Collection: 1 item>	477	1,369.20	77.5
265	J-V24-II	1,100.00	17: Zone -	<Collection: 1 item>	318	1,279.30	77.6
305	J-192	1,210.00	18: Zone -	<Collection: 1 item>	159	1,389.70	77.8
253	J-137	1,100.00	17: Zone -	<Collection: 1 item>	318	1,279.80	77.8
679	J-226	1,107.00	17: Zone -	<Collection: 1 item>	431	1,288.00	78.3
893	J-290	1,199.00	18: Zone -	<Collection: 1 item>	318	1,380.10	78.4
219	J-V23-I	1,098.00	17: Zone -	<Collection: 1 item>	318	1,279.60	78.6
891	J-289	1,195.00	18: Zone -	<Collection: 1 item>	318	1,376.90	78.7
813	J-272	1,023.00	16: Zone -	<Collection: 1 item>	318	1,205.20	78.8
734	J-242	1,023.00	16: Zone -	<Collection: 1 item>	318.00	1,205.40	78.9
1130	J-347	1,100.00	17: Zone -	<Collection: 0 items>	0	1,282.50	79
206	J-89	1,196.00	18: Zone -	<Collection: 0 items>	0	1,378.80	79.1
656	J-215	1,105.00	17: Zone -	<Collection: 1 item>	394	1,288.10	79.2
701	J-234	1,098.00	17: Zone -	<Collection: 1 item>	350	1,281.90	79.6
236	J-119	1,195.00	18: Zone -	<Collection: 0 items>	0	1,379.00	79.6
968	J-314	1,100.00	17: Zone -	<Collection: 0 items>	0	1,284.30	79.7
974	J-316	1,100.00	17: Zone -	<Collection: 0 items>	0	1,284.30	79.7
736	J-243	1,022.00	16: Zone -	<Collection: 1 item>	636	1,206.60	79.9
199	J-82	1,192.00	18: Zone -	<Collection: 0 items>	0	1,378.50	80.7
832	J-280	1,093.00	17: Zone -	<Collection: 1 item>	318	1,279.50	80.7
783	J-260	1,178.00	18: Zone -	<Collection: 1 item>	636	1,365.20	81
943	J-306	1,100.00	17: Zone -	<Collection: 1 item>	209	1,287.70	81.2
205	J-88	1,191.00	18: Zone -	<Collection: 0 items>	0	1,378.80	81.2
668	J-221	1,100.00	17: Zone -	<Collection: 1 item>	649	1,288.10	81.4
248	J-V3-I-Z2	1,190.00	18: Zone -	<Collection: 1 item>	606	1,378.40	81.5
318	J-205	1,196.00	18: Zone -	<Collection: 1 item>	159	1,384.90	81.7
228	J-111	1,190.00	18: Zone -	<Collection: 0 items>	0	1,379.00	81.8
757	J-249	1,180.00	18: Zone -	<Collection: 1 item>	318	1,369.90	82.1
699	J-233	1,092.00	17: Zone -	<Collection: 1 item>	409	1,282.50	82.4
889	J-288	1,182.00	18: Zone -	<Collection: 1 item>	318	1,372.60	82.5
244	J-V4-II-Z2	1,186.00	18: Zone -	<Collection: 1 item>	646	1,378.20	83.2

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
243	J-127	1,184.00	18: Zone -	<Collection: 0 items>	0	1,378.20	84
1201	J-362	1,090.00	17: Zone -	<Collection: 0 items>	0	1,284.30	84
232	J-115	1,185.00	18: Zone -	<Collection: 0 items>	0	1,379.40	84.1
211	J-94	1,184.00	18: Zone -	<Collection: 0 items>	0	1,378.60	84.2
823	J-277	1,045.00	16: Zone -	<Collection: 1 item>	101	1,239.90	84.3
785	J-261	1,170.00	18: Zone -	<Collection: 1 item>	477	1,365.00	84.4
801	J-268	1,088.00	17: Zone -	<Collection: 1 item>	636	1,283.80	84.7
306	J-193	1,184.00	18: Zone -	<Collection: 1 item>	159	1,380.90	85.2
970	J-315	1,090.00	17: Zone -	<Collection: 0 items>	0	1,287.10	85.3
275	J-161	1,181.00	18: Zone -	<Collection: 0 items>	0	1,378.50	85.5
1177	J-357	1,090.00	17: Zone -	<Collection: 0 items>	0	1,288.10	85.7
1139	J-348	1,180.00	18: Zone -	<Collection: 1 item>	200	1,378.50	85.9
238	J-V4-I-Z2	1,180.00	18: Zone -	<Collection: 1 item>	646	1,378.50	85.9
242	J-126	1,179.00	18: Zone -	<Collection: 0 items>	0	1,378.20	86.2
1071	J-335	1,170.00	18: Zone -	<Collection: 0 items>	0	1,369.20	86.2
212	J-95	1,179.00	18: Zone -	<Collection: 0 items>	0	1,378.50	86.3
1074	J-336	1,170.00	18: Zone -	<Collection: 1 item>	318	1,369.50	86.3
283	J-169	1,179.00	18: Zone -	<Collection: 0 items>	0	1,378.80	86.5
912	J-297	1,170.00	18: Zone -	<Collection: 1 item>	159	1,369.90	86.5
284	J-170	1,179.00	18: Zone -	<Collection: 0 items>	0	1,378.90	86.5
693	J-230	1,177.00	18: Zone -	<Collection: 1 item>	250	1,378.40	87.1
1142	J-349	1,175.00	18: Zone -	<Collection: 0 items>	0	1,378.40	88
1144	J-350	1,172.00	18: Zone -	<Collection: 1 item>	300	1,378.40	89.3
910	J-296	1,170.00	18: Zone -	<Collection: 1 item>	318	1,377.20	89.6
213	J-V3-I-Z1	1,171.00	18: Zone -	<Collection: 1 item>	67	1,378.50	89.8
713	DZ-North	1,170.00	18: Zone -	<Collection: 0 items>	0	1,378.50	90.2
872	J-284	1,170.00	18: Zone -	<Collection: 0 items>	0	1,378.50	90.2
1262	J-372	1,170.00	18: Zone -	<Collection: 0 items>	0	1,378.50	90.2
918	J-298	1,170.00	18: Zone -	<Collection: 1 item>	318	1,379.40	90.6

Junction Nodes- MDD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
769	J-255	1,270.00	118: Zone - 3	<Collection: 1 item>	1,259.28	1,368.90	42.8
1103	J-342	1,270.00	118: Zone - 3	<Collection: 1 item>	629.64	1,369.80	43.2
1100	J-341	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,371.90	44.1
978	J-317	1,170.00	117: Zone - 2	<Collection: 1 item>	891	1,277.90	46.7
811	J-271	1,002.00	115: Zone - 0	<Collection: 1 item>	629.64	1,111.00	47.1
869	J-283	1,170.00	117: Zone - 2	<Collection: 0 items>	0	1,280.40	47.8
285	J-171	1,170.00	117: Zone - 2	<Collection: 1 item>	314.82	1,280.40	47.8
875	J-285	1,170.00	117: Zone - 2	<Collection: 0 items>	0	1,280.40	47.8
777	J-259	1,170.00	117: Zone - 2	<Collection: 1 item>	655.38	1,280.50	47.8
732	J-241	1,000.00	115: Zone - 0	<Collection: 1 item>	948.42	1,110.90	48
981	J-318	1,168.00	117: Zone - 2	<Collection: 1 item>	1,259.28	1,279.50	48.3
1233	J-368	1,000.00	115: Zone - 0	<Collection: 0 items>	0	1,111.60	48.3
1295	J-378	1,168.00	117: Zone - 2	<Collection: 0 items>	0	1,280.40	48.6
1127	J-346	1,166.00	117: Zone - 2	<Collection: 0 items>	0	1,278.70	48.8
746	J-246	1,000.00	115: Zone - 0	<Collection: 1 item>	629.64	1,113.80	49.2
767	J-254	1,256.00	118: Zone - 3	<Collection: 1 item>	1,259.28	1,370.70	49.6
830	J-279	1,162.00	117: Zone - 2	<Collection: 1 item>	198	1,277.20	49.9
241	J-V4-I-Z1	1,165.00	117: Zone - 2	<Collection: 1 item>	639.54	1,280.40	49.9
282	J-168	1,165.00	117: Zone - 2	<Collection: 1 item>	629.64	1,280.40	49.9
1180	J-358	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,205.90	50.1
965	J-313	1,092.00	116: Zone - 1	<Collection: 1 item>	629.64	1,208.00	50.2
237	J-120	1,164.00	117: Zone - 2	<Collection: 0 items>	0	1,280.50	50.4
239	J-123	1,164.00	117: Zone - 2	<Collection: 1 item>	629.64	1,280.80	50.5
245	J-129	1,163.00	117: Zone - 2	<Collection: 0 items>	0	1,280.40	50.8
1208	J-363	1,086.00	116: Zone - 1	<Collection: 0 items>	0	1,204.00	51.1
1198	J-361	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,208.10	51.1
754	J-248	1,085.00	116: Zone - 1	<Collection: 1 item>	637.56	1,204.00	51.5
246	J-V2-I	1,161.00	117: Zone - 2	<Collection: 1 item>	631.62	1,280.40	51.7
1067	J-334	1,160.00	117: Zone - 2	<Collection: 1 item>	340.56	1,279.40	51.7
900	J-293	1,170.00	117: Zone - 2	<Collection: 1 item>	314.82	1,289.50	51.7
751	J-247	1,085.00	116: Zone - 1	<Collection: 1 item>	314.82	1,204.80	51.8
288	J-174	1,160.00	117: Zone - 2	<Collection: 1 item>	314.82	1,280.40	52.1
214	J-V2-II	1,160.00	117: Zone - 2	<Collection: 1 item>	631.62	1,280.40	52.1
289	J-175	1,160.00	117: Zone - 2	<Collection: 0 items>	0	1,280.50	52.1
240	J-124	1,160.00	117: Zone - 2	<Collection: 1 item>	479.16	1,281.10	52.4
279	J-165	1,087.00	116: Zone - 1	<Collection: 1 item>	629.64	1,208.20	52.4
958	J-311	1,158.00	117: Zone - 2	<Collection: 1 item>	479.16	1,282.20	53.7
908	J-295	1,170.00	117: Zone - 2	<Collection: 1 item>	314.82	1,294.30	53.8
257	J-V25-II	1,086.00	116: Zone - 1	<Collection: 1 item>	0	1,210.60	53.9
771	J-256	1,240.00	118: Zone - 3	<Collection: 1 item>	314.82	1,364.80	54
254	J-138	1,090.00	116: Zone - 1	<Collection: 1 item>	629.64	1,215.00	54.1
1163	J-355	1,152.00	117: Zone - 2	<Collection: 0 items>	0	1,277.70	54.4
1218	J-365	1,088.00	116: Zone - 1	<Collection: 0 items>	0	1,214.10	54.5
658	J-216	1,079.00	116: Zone - 1	<Collection: 1 item>	637.56	1,205.90	54.9
826	J-278	1,164.00	117: Zone - 2	<Collection: 1 item>	314.82	1,292.70	55.7
738	J-244	1,071.00	116: Zone - 1	<Collection: 1 item>	629.64	1,200.80	56.2
929	J-301	1,078.00	116: Zone - 1	<Collection: 1 item>	629.64	1,208.20	56.3
1291	J-377	1,150.00	117: Zone - 2	<Collection: 0 items>	0	1,280.40	56.4
220	J-103	1,091.00	116: Zone - 1	<Collection: 1 item>	629.64	1,222.80	57
898	J-292	1,160.00	117: Zone - 2	<Collection: 1 item>	629.64	1,292.00	57.1
962	J-312	1,072.00	116: Zone - 1	<Collection: 1 item>	629.64	1,204.20	57.2
258	J-143	1,083.00	116: Zone - 1	<Collection: 1 item>	629.64	1,215.30	57.2
951	J-310	1,148.00	117: Zone - 2	<Collection: 0 items>	0.00	1,280.70	57.4
906	J-294	1,170.00	117: Zone - 2	<Collection: 1 item>	314.82	1,302.80	57.4
761	J-251	1,236.00	118: Zone - 3	<Collection: 1 item>	314.82	1,369.50	57.7
1156	J-353	1,149.00	117: Zone - 2	<Collection: 0 items>	0	1,283.50	58.2

710	DZ-South	1,145.00	117: Zone - 2	<Collection: 0 items>	0	1,280.40	58.6
794	J-265	1,142.00	117: Zone - 2	<Collection: 1 item>	629.64	1,277.80	58.8
932	J-302	1,075.00	116: Zone - 1	<Collection: 1 item>	629.64	1,210.90	58.8
312	J-199	1,145.00	117: Zone - 2	<Collection: 1 item>	314.82	1,281.50	59.1
809	J-270	1,160.00	117: Zone - 2	<Collection: 1 item>	629.64	1,296.60	59.1
264	J-149	1,092.00	116: Zone - 1	<Collection: 1 item>	199.98	1,229.10	59.3
1286	J-376	1,143.00	117: Zone - 2	<Collection: 0 items>	0	1,280.30	59.4
1153	J-352	1,145.00	117: Zone - 2	<Collection: 0 items>	0	1,282.90	59.6
1213	J-364	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,228.00	59.7
1160	J-354	1,138.00	117: Zone - 2	<Collection: 1 item>	431.64	1,276.90	60.1
215	J-98	1,141.00	117: Zone - 2	<Collection: 0 items>	0	1,281.00	60.6
311	J-198	1,140.00	117: Zone - 2	<Collection: 0 items>	0	1,280.20	60.7
765	J-253	1,228.00	118: Zone - 3	<Collection: 1 item>	1,259.28	1,368.40	60.7
937	J-304	1,060.00	116: Zone - 1	<Collection: 1 item>	1,259.28	1,201.00	61
818	J-275	1,090.00	116: Zone - 1	<Collection: 1 item>	199.98	1,231.30	61.1
662	J-218	1,058.00	116: Zone - 1	<Collection: 1 item>	637.56	1,199.50	61.2
683	J-228	1,144.00	117: Zone - 2	<Collection: 1 item>	629.64	1,285.50	61.2
664	J-219	1,059.00	116: Zone - 1	<Collection: 1 item>	637.56	1,200.80	61.3
934	J-303	1,074.00	116: Zone - 1	<Collection: 1 item>	629.64	1,216.00	61.4
922	J-299	1,050.00	116: Zone - 1	<Collection: 1 item>	629.64	1,192.60	61.7
949	J-309	1,136.00	117: Zone - 2	<Collection: 1 item>	629.64	1,279.40	62
725	J-238	1,070.00	116: Zone - 1	<Collection: 1 item>	1,259.28	1,214.10	62.3
1250	J-370	1,085.00	116: Zone - 1	<Collection: 0 items>	0	1,229.50	62.5
1189	J-359	1,055.00	116: Zone - 1	<Collection: 0 items>	0	1,199.80	62.7
896	J-291	1,152.00	117: Zone - 2	<Collection: 1 item>	629.64	1,296.90	62.7
697	J-232	1,132.00	117: Zone - 2	<Collection: 1 item>	891	1,277.60	63
773	J-257	1,216.00	118: Zone - 3	<Collection: 1 item>	629.64	1,361.60	63
307	J-194	1,135.00	117: Zone - 2	<Collection: 0 items>	0	1,281.00	63.2
1253	J-371	1,078.00	116: Zone - 1	<Collection: 0 items>	0	1,224.10	63.2
249	J-V1-II	1,133.00	117: Zone - 2	<Collection: 1 item>	1,199.88	1,279.30	63.3
216	J-99	1,133.00	117: Zone - 2	<Collection: 0 items>	0	1,280.40	63.8
287	J-173	1,133.00	117: Zone - 2	<Collection: 0 items>	0	1,280.40	63.8
727	J-239	1,052.00	116: Zone - 1	<Collection: 1 item>	952.38	1,199.50	63.8
797	J-266	1,128.00	117: Zone - 2	<Collection: 1 item>	1,259.28	1,276.80	64.4
1053	J-330	1,170.00	117: Zone - 2	<Collection: 0 items>	0	1,319.80	64.8
315	J-202	1,130.00	117: Zone - 2	<Collection: 0 items>	0	1,280.30	65
677	J-225	1,135.00	117: Zone - 2	<Collection: 1 item>	655.38	1,286.90	65.7
1281	J-374	1,128.00	117: Zone - 2	<Collection: 0 items>	0	1,280.20	65.8
940	J-305	1,059.00	116: Zone - 1	<Collection: 1 item>	1,259.28	1,211.60	66
308	J-195	1,130.00	117: Zone - 2	<Collection: 1 item>	944.46	1,282.70	66.1
675	Balterra	1,135.00	117: Zone - 2	<Collection: 1 item>	340.56	1,287.90	66.2
310	J-197	1,126.00	117: Zone - 2	<Collection: 0 items>	0	1,279.90	66.6
660	J-217	1,077.00	116: Zone - 1	<Collection: 1 item>	439.56	1,230.90	66.6
787	J-262	1,196.00	118: Zone - 3	<Collection: 1 item>	629.64	1,351.30	67.2
1065	J-333	1,129.00	117: Zone - 2	<Collection: 1 item>	340.56	1,284.70	67.4
650	J-212	1,131.00	117: Zone - 2	<Collection: 1 item>	1,069.20	1,287.30	67.6
1194	J-360	1,062.00	116: Zone - 1	<Collection: 0 items>	0	1,218.40	67.7
217	J-100	1,123.00	117: Zone - 2	<Collection: 0 items>	0	1,279.70	67.8
210	J-V7-II	1,220.00	118: Zone - 3	<Collection: 1 item>	672.21	1,377.10	68
1167	J-356	1,119.00	117: Zone - 2	<Collection: 0 items>	0	1,276.40	68.1
742	J-245	1,034.00	116: Zone - 1	<Collection: 1 item>	629.64	1,191.80	68.3
670	J-222	1,130.00	117: Zone - 2	<Collection: 1 item>	340.56	1,288.20	68.4
313	J-200	1,120.00	117: Zone - 2	<Collection: 0 items>	0	1,279.10	68.8
729	J-240	1,035.00	116: Zone - 1	<Collection: 1 item>	952.38	1,194.30	68.9
652	J-213	1,128.00	117: Zone - 2	<Collection: 1 item>	439.56	1,287.50	69
759	J-250	1,210.00	118: Zone - 3	<Collection: 1 item>	629.64	1,369.50	69
294	J-V7-III	1,220.00	118: Zone - 3	<Collection: 1 item>	672.21	1,380.00	69.2
947	J-308	1,120.00	117: Zone - 2	<Collection: 1 item>	479.16	1,280.40	69.4
654	J-214	1,126.00	117: Zone - 2	<Collection: 1 item>	780.12	1,287.80	70
820	J-276	1,072.00	116: Zone - 1	<Collection: 1 item>	199.98	1,234.20	70.2

799	J-267	1,110.00	117: Zone - 2	<Collection: 1 item>	944.46	1,272.30	70.2
666	J-220	1,030.00	116: Zone - 1	<Collection: 1 item>	952.38	1,193.90	70.9
250	J-V1-I	1,114.00	117: Zone - 2	<Collection: 1 item>	1,199.88	1,278.40	71.1
813	J-272	1,023.00	116: Zone - 1	<Collection: 1 item>	629.64	1,187.40	71.1
734	J-242	1,023.00	116: Zone - 1	<Collection: 1 item>	629.64	1,188.10	71.4
804	J-269	1,110.00	117: Zone - 2	<Collection: 1 item>	1,574.10	1,275.40	71.6
309	J-196	1,112.00	116: Zone - 1	<Collection: 1 item>	629.64	1,278.50	72
252	J-136	1,110.00	117: Zone - 2	<Collection: 1 item>	629.64	1,277.00	72.3
763	J-252	1,200.00	118: Zone - 3	<Collection: 1 item>	1,259.28	1,367.20	72.4
816	J-274	1,070.00	116: Zone - 1	<Collection: 1 item>	199.98	1,238.20	72.8
218	J-101	1,110.00	117: Zone - 2	<Collection: 0 items>	0	1,279.10	73.2
260	J-V24-I	1,109.00	117: Zone - 2	<Collection: 1 item>	314.82	1,278.40	73.3
681	J-227	1,116.00	117: Zone - 2	<Collection: 1 item>	811.8	1,285.90	73.5
925	J-300	1,058.00	116: Zone - 1	<Collection: 1 item>	514.8	1,228.10	73.6
945	J-307	1,112.00	117: Zone - 2	<Collection: 1 item>	479.16	1,282.10	73.6
736	J-243	1,022.00	116: Zone - 1	<Collection: 1 item>	1,259.28	1,192.60	73.8
783	J-260	1,178.00	118: Zone - 3	<Collection: 1 item>	1,259.28	1,348.90	73.9
278	J-164	1,110.00	117: Zone - 2	<Collection: 0 items>	0	1,282.10	74.5
251	J-135	1,105.00	117: Zone - 2	<Collection: 0 items>	0	1,278.10	74.9
259	J-144	1,105.00	117: Zone - 2	<Collection: 0 items>	0	1,278.10	74.9
775	J-258	1,190.00	118: Zone - 3	<Collection: 1 item>	944.46	1,363.50	75.1
265	J-V24-II	1,100.00	117: Zone - 2	<Collection: 1 item>	629.64	1,273.70	75.1
691	J-229	1,066.00	116: Zone - 1	<Collection: 1 item>	199.98	1,239.90	75.2
314	J-201	1,200.00	118: Zone - 3	<Collection: 0 items>	0	1,374.20	75.4
208	J-91	1,201.00	118: Zone - 3	<Collection: 0 items>	0	1,375.40	75.5
893	J-290	1,199.00	118: Zone - 3	<Collection: 1 item>	629.64	1,373.60	75.5
891	J-289	1,195.00	118: Zone - 3	<Collection: 1 item>	629.64	1,369.70	75.6
207	J-90	1,200.00	118: Zone - 3	<Collection: 0 items>	0	1,375.10	75.7
887	J-287	1,193.00	118: Zone - 3	<Collection: 1 item>	629.64	1,368.10	75.7
253	J-137	1,100.00	117: Zone - 2	<Collection: 1 item>	629.64	1,275.50	75.9
219	J-V23-I	1,098.00	117: Zone - 2	<Collection: 1 item>	629.64	1,275.00	76.6
701	J-234	1,098.00	117: Zone - 2	<Collection: 1 item>	693	1,276.20	77.1
236	J-119	1,195.00	118: Zone - 3	<Collection: 0 items>	0	1,373.30	77.1
785	J-261	1,170.00	118: Zone - 3	<Collection: 1 item>	944.46	1,348.30	77.1
1130	J-347	1,100.00	117: Zone - 2	<Collection: 0 items>	0	1,278.30	77.1
206	J-89	1,196.00	118: Zone - 3	<Collection: 0 items>	0	1,374.60	77.3
305	J-192	1,210.00	118: Zone - 3	<Collection: 1 item>	314.82	1,389.50	77.7
679	J-226	1,107.00	117: Zone - 2	<Collection: 1 item>	853.38	1,288.00	78.3
656	J-215	1,105.00	117: Zone - 2	<Collection: 1 item>	780.12	1,286.40	78.5
832	J-280	1,093.00	117: Zone - 2	<Collection: 1 item>	629.64	1,274.60	78.6
199	J-82	1,192.00	118: Zone - 3	<Collection: 0 items>	0	1,373.70	78.6
968	J-314	1,100.00	117: Zone - 2	<Collection: 0 items>	0	1,282.10	78.8
974	J-316	1,100.00	117: Zone - 2	<Collection: 0 items>	0	1,282.10	78.8
248	J-V3-I-Z2	1,190.00	118: Zone - 3	<Collection: 1 item>	1,199.88	1,372.80	79.1
228	J-111	1,190.00	118: Zone - 3	<Collection: 0 items>	0	1,373.00	79.2
205	J-88	1,191.00	118: Zone - 3	<Collection: 0 items>	0	1,374.50	79.4
801	J-268	1,088.00	117: Zone - 2	<Collection: 1 item>	1,259.28	1,272.10	79.7
318	J-205	1,196.00	118: Zone - 3	<Collection: 1 item>	314.82	1,381.20	80.1
244	J-V4-II-Z2	1,186.00	118: Zone - 3	<Collection: 1 item>	1,279.08	1,371.20	80.1
668	J-221	1,100.00	117: Zone - 2	<Collection: 1 item>	1,285.02	1,285.50	80.2
889	J-288	1,182.00	118: Zone - 3	<Collection: 1 item>	629.64	1,368.10	80.5
699	J-233	1,092.00	117: Zone - 2	<Collection: 1 item>	809.82	1,278.40	80.7
943	J-306	1,100.00	117: Zone - 2	<Collection: 1 item>	413.82	1,286.80	80.8
243	J-127	1,184.00	118: Zone - 3	<Collection: 0 items>	0	1,371.20	81
232	J-115	1,185.00	118: Zone - 3	<Collection: 0 items>	0	1,373.10	81.4
757	J-249	1,180.00	118: Zone - 3	<Collection: 1 item>	629.64	1,368.30	81.5
211	J-94	1,184.00	118: Zone - 3	<Collection: 0 items>	0	1,373.40	82
238	J-V4-I-Z2	1,180.00	118: Zone - 3	<Collection: 1 item>	1,279.08	1,370.70	82.5
306	J-193	1,184.00	118: Zone - 3	<Collection: 1 item>	314.82	1,374.90	82.6
275	J-161	1,181.00	118: Zone - 3	<Collection: 0 items>	0	1,373.00	83.1

1201	J-362	1,090.00	117: Zone - 2	<Collection: 0 items>	0	1,282.10	83.1
242	J-126	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,371.20	83.2
283	J-169	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,372.00	83.5
284	J-170	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,372.50	83.7
1139	J-348	1,180.00	118: Zone - 3	<Collection: 1 item>	396	1,373.50	83.7
1071	J-335	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,363.90	83.9
212	J-95	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,373.10	84
823	J-277	1,045.00	116: Zone - 1	<Collection: 1 item>	199.98	1,239.80	84.3
970	J-315	1,090.00	117: Zone - 2	<Collection: 0 items>	0	1,285.90	84.8
1074	J-336	1,170.00	118: Zone - 3	<Collection: 1 item>	629.64	1,366.20	84.9
693	J-230	1,177.00	118: Zone - 3	<Collection: 1 item>	495	1,373.20	84.9
1177	J-357	1,090.00	117: Zone - 2	<Collection: 0 items>	0	1,286.40	85
912	J-297	1,170.00	118: Zone - 3	<Collection: 1 item>	314.82	1,368.00	85.7
1142	J-349	1,175.00	118: Zone - 3	<Collection: 0 items>	0	1,373.40	85.8
910	J-296	1,170.00	118: Zone - 3	<Collection: 1 item>	629.64	1,369.80	86.5
1144	J-350	1,172.00	118: Zone - 3	<Collection: 1 item>	594	1,373.20	87.1
213	J-V3-I-Z1	1,171.00	118: Zone - 3	<Collection: 1 item>	132.66	1,373.10	87.4
918	J-298	1,170.00	118: Zone - 3	<Collection: 1 item>	629.64	1,372.40	87.6
713	DZ-North	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,373.10	87.9
872	J-284	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,373.10	87.9
1262	J-372	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,373.10	87.9

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
769	J-255	1,270.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,363.80	40.6
830	J-279	1,162.00	117: Zone - 2	<Collection: 1 item>	336.4	1,258.50	41.8
777	J-259	1,170.00	117: Zone - 2	<Collection: 1 item>	1,113.48	1,267.30	42.1
1103	J-342	1,270.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,367.50	42.2
978	J-317	1,170.00	117: Zone - 2	<Collection: 1 item>	1,513.80	1,268.20	42.5
1180	J-358	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,189.30	43
811	J-271	1,002.00	115: Zone - 0	<Collection: 1 item>	1,069.75	1,103.20	43.8
1208	J-363	1,086.00	116: Zone - 1	<Collection: 0 items>	0	1,187.70	44
1100	J-341	1,270.00	118: Zone - 3	<Collection: 0 items>	0.00	1,371.80	44
754	J-248	1,085.00	116: Zone - 1	<Collection: 1 item>	1,083.21	1,187.70	44.4
732	J-241	1,000.00	115: Zone - 0	<Collection: 1 item>	1,611.36	1,102.90	44.5
1127	J-346	1,166.00	117: Zone - 2	<Collection: 0 items>	0	1,270.40	45.2
1067	J-334	1,160.00	117: Zone - 2	<Collection: 1 item>	578.61	1,264.50	45.2
981	J-318	1,168.00	117: Zone - 2	<Collection: 1 item>	2,139.50	1,272.50	45.2
1233	J-368	1,000.00	115: Zone - 0	<Collection: 0 items>	0.00	1,104.80	45.3
285	J-171	1,170.00	117: Zone - 2	<Collection: 1 item>	534.88	1,275.10	45.5
869	J-283	1,170.00	117: Zone - 2	<Collection: 0 items>	0.00	1,275.10	45.5
922	J-299	1,050.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,156.10	45.9
1295	J-378	1,168.00	117: Zone - 2	<Collection: 0 items>	0	1,275.20	46.4
875	J-285	1,170.00	117: Zone - 2	<Collection: 0 items>	0	1,277.70	46.6
1163	J-355	1,152.00	117: Zone - 2	<Collection: 0 items>	0.00	1,259.70	46.6
1218	J-365	1,088.00	116: Zone - 1	<Collection: 0 items>	0.00	1,195.90	46.7
738	J-244	1,071.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,179.50	47
751	J-247	1,085.00	116: Zone - 1	<Collection: 1 item>	534.88	1,193.90	47.1
282	J-168	1,165.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,275.10	47.6
658	J-216	1,079.00	116: Zone - 1	<Collection: 1 item>	1,083.21	1,189.30	47.7
241	J-V4-I-Z1	1,165.00	117: Zone - 2	<Collection: 1 item>	1,086.57	1,275.40	47.8
746	J-246	1,000.00	115: Zone - 0	<Collection: 1 item>	1,069.75	1,110.70	47.9
239	J-123	1,164.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,274.90	48
237	J-120	1,164.00	117: Zone - 2	<Collection: 0 items>	0	1,275.30	48.2
767	J-254	1,256.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,368.60	48.7
771	J-256	1,240.00	118: Zone - 3	<Collection: 1 item>	534.88	1,352.90	48.9
245	J-129	1,163.00	117: Zone - 2	<Collection: 0 items>	0	1,276.10	48.9
662	J-218	1,058.00	116: Zone - 1	<Collection: 1 item>	1,083.21	1,171.80	49.2
900	J-293	1,170.00	117: Zone - 2	<Collection: 1 item>	534.88	1,284.30	49.5
254	J-138	1,090.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,204.80	49.7
1198	J-361	1,090.00	116: Zone - 1	<Collection: 0 items>	0.00	1,205.20	49.8
246	J-V2-I	1,161.00	117: Zone - 2	<Collection: 1 item>	1,073.12	1,276.50	50
240	J-124	1,160.00	117: Zone - 2	<Collection: 1 item>	814.09	1,275.70	50.1
965	J-313	1,092.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,207.80	50.1
279	J-165	1,087.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,203.10	50.2
214	J-V2-II	1,160.00	117: Zone - 2	<Collection: 1 item>	1,073.12	1,277.70	50.9
289	J-175	1,160.00	117: Zone - 2	<Collection: 0 items>	0.00	1,277.70	50.9
288	J-174	1,160.00	117: Zone - 2	<Collection: 1 item>	534.88	1,277.70	50.9
937	J-304	1,060.00	116: Zone - 1	<Collection: 1 item>	2,139.50	1,177.80	51
257	J-V25-II	1,086.00	116: Zone - 1	<Collection: 1 item>	0.00	1,203.90	51
727	J-239	1,052.00	116: Zone - 1	<Collection: 1 item>	1,618.08	1,170.20	51.1
794	J-265	1,142.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,260.20	51.1
958	J-311	1,158.00	117: Zone - 2	<Collection: 1 item>	814.09	1,276.80	51.4
962	J-312	1,072.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,191.30	51.6
813	J-272	1,023.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,142.30	51.6
908	J-295	1,170.00	117: Zone - 2	<Collection: 1 item>	534.88	1,289.50	51.7
742	J-245	1,034.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,153.50	51.7
1160	J-354	1,138.00	117: Zone - 2	<Collection: 1 item>	733.35	1,257.70	51.8
664	J-219	1,059.00	116: Zone - 1	<Collection: 1 item>	1,083.21	1,178.70	51.8

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
1189	J-359	1,055.00	116: Zone - 1	<Collection: 0 items>	0.00	1,175.60	52.2
787	J-262	1,196.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,317.20	52.4
734	J-242	1,023.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,144.20	52.4
258	J-143	1,083.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,205.50	53
729	J-240	1,035.00	116: Zone - 1	<Collection: 1 item>	1,618.08	1,158.00	53.2
220	J-103	1,091.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,214.60	53.5
929	J-301	1,078.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,201.80	53.6
725	J-238	1,070.00	116: Zone - 1	<Collection: 1 item>	2,139.50	1,195.90	54.5
826	J-278	1,164.00	117: Zone - 2	<Collection: 1 item>	534.88	1,290.20	54.6
1291	J-377	1,150.00	117: Zone - 2	<Collection: 0 items>	0.00	1,276.30	54.7
1156	J-353	1,149.00	117: Zone - 2	<Collection: 0 items>	0.00	1,275.50	54.7
932	J-302	1,075.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,201.90	54.9
898	J-292	1,160.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,287.10	55
666	J-220	1,030.00	116: Zone - 1	<Collection: 1 item>	1,618.08	1,157.40	55.1
773	J-257	1,216.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,344.60	55.6
1153	J-352	1,145.00	117: Zone - 2	<Collection: 0 items>	0.00	1,273.70	55.7
797	J-266	1,128.00	117: Zone - 2	<Collection: 1 item>	2,139.50	1,257.20	55.9
906	J-294	1,170.00	117: Zone - 2	<Collection: 1 item>	534.88	1,300.30	56.4
761	J-251	1,236.00	118: Zone - 3	<Collection: 1 item>	534.88	1,367.20	56.7
951	J-310	1,148.00	117: Zone - 2	<Collection: 0 items>	0.00	1,279.20	56.7
264	J-149	1,092.00	116: Zone - 1	<Collection: 1 item>	339.76	1,223.30	56.8
1213	J-364	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,221.80	57
710	DZ-South	1,145.00	117: Zone - 2	<Collection: 0 items>	0.00	1,277.10	57.2
1286	J-376	1,143.00	117: Zone - 2	<Collection: 0 items>	0	1,275.40	57.3
934	J-303	1,074.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,206.60	57.4
783	J-260	1,178.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,310.70	57.4
809	J-270	1,160.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,293.60	57.8
736	J-243	1,022.00	116: Zone - 1	<Collection: 1 item>	2,139.50	1,156.10	58
765	J-253	1,228.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,363.00	58.4
799	J-267	1,110.00	117: Zone - 2	<Collection: 1 item>	1,604.63	1,245.30	58.5
697	J-232	1,132.00	117: Zone - 2	<Collection: 1 item>	1,513.80	1,267.30	58.5
312	J-199	1,145.00	117: Zone - 2	<Collection: 1 item>	534.88	1,280.60	58.7
818	J-275	1,090.00	116: Zone - 1	<Collection: 1 item>	339.76	1,226.10	58.9
683	J-228	1,144.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,281.10	59.3
1167	J-356	1,119.00	117: Zone - 2	<Collection: 0 items>	0	1,256.20	59.4
311	J-198	1,140.00	117: Zone - 2	<Collection: 0 items>	0	1,277.80	59.6
949	J-309	1,136.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,274.10	59.7
1253	J-371	1,078.00	116: Zone - 1	<Collection: 0 items>	0.00	1,216.80	60.1
1250	J-370	1,085.00	116: Zone - 1	<Collection: 0 items>	0.00	1,224.00	60.1
785	J-261	1,170.00	118: Zone - 3	<Collection: 1 item>	1,604.63	1,309.00	60.2
215	J-98	1,141.00	117: Zone - 2	<Collection: 0 items>	0	1,280.80	60.5
896	J-291	1,152.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,293.60	61.3
249	J-V1-II	1,133.00	117: Zone - 2	<Collection: 1 item>	2,038.58	1,274.90	61.4
940	J-305	1,059.00	116: Zone - 1	<Collection: 1 item>	2,139.50	1,201.90	61.8
804	J-269	1,110.00	117: Zone - 2	<Collection: 1 item>	2,674.38	1,253.50	62.1
307	J-194	1,135.00	117: Zone - 2	<Collection: 0 items>	0.00	1,280.60	63
216	J-99	1,133.00	117: Zone - 2	<Collection: 0 items>	0.00	1,278.70	63
287	J-173	1,133.00	117: Zone - 2	<Collection: 0 items>	0.00	1,278.70	63
1281	J-374	1,128.00	117: Zone - 2	<Collection: 0 items>	0	1,275.00	63.6
315	J-202	1,130.00	117: Zone - 2	<Collection: 0 items>	0	1,278.40	64.2
1194	J-360	1,062.00	116: Zone - 1	<Collection: 0 items>	0	1,210.40	64.2
1065	J-333	1,129.00	117: Zone - 2	<Collection: 1 item>	578.61	1,278.70	64.8
677	J-225	1,135.00	117: Zone - 2	<Collection: 1 item>	1,113.48	1,284.70	64.8
1053	J-330	1,170.00	117: Zone - 2	<Collection: 0 items>	0.00	1,319.80	64.8
310	J-197	1,126.00	117: Zone - 2	<Collection: 0 items>	0.00	1,275.80	64.8

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
308	J-195	1,130.00	117: Zone - 2	<Collection: 1 item>	1,604.63	1,281.00	65.3
210	J-V7-II	1,220.00	118: Zone - 3	<Collection: 1 item>	1,142.08	1,371.70	65.6
675	Balterra	1,135.00	117: Zone - 2	<Collection: 1 item>	578.61	1,287.30	65.9
650	J-212	1,131.00	117: Zone - 2	<Collection: 1 item>	1,816.56	1,284.30	66.3
217	J-100	1,123.00	117: Zone - 2	<Collection: 0 items>	0.00	1,276.70	66.5
660	J-217	1,077.00	116: Zone - 1	<Collection: 1 item>	746.81	1,230.90	66.6
313	J-200	1,120.00	117: Zone - 2	<Collection: 0 items>	0	1,274.60	66.9
947	J-308	1,120.00	117: Zone - 2	<Collection: 1 item>	814.09	1,275.00	67.1
670	J-222	1,130.00	117: Zone - 2	<Collection: 1 item>	578.61	1,286.30	67.6
652	J-213	1,128.00	117: Zone - 2	<Collection: 1 item>	746.81	1,284.40	67.7
801	J-268	1,088.00	117: Zone - 2	<Collection: 1 item>	2,139.50	1,244.70	67.8
759	J-250	1,210.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,367.80	68.3
820	J-276	1,072.00	116: Zone - 1	<Collection: 1 item>	339.76	1,230.50	68.6
252	J-136	1,110.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,268.70	68.7
654	J-214	1,126.00	117: Zone - 2	<Collection: 1 item>	1,325.42	1,284.80	68.7
250	J-V1-I	1,114.00	117: Zone - 2	<Collection: 1 item>	2,038.58	1,272.80	68.7
294	J-V7-III	1,220.00	118: Zone - 3	<Collection: 1 item>	1,142.08	1,379.90	69.2
265	J-V24-II	1,100.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,259.90	69.2
775	J-258	1,190.00	118: Zone - 3	<Collection: 1 item>	1,604.63	1,350.00	69.2
763	J-252	1,200.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,360.40	69.4
891	J-289	1,195.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,355.50	69.4
309	J-196	1,112.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,272.50	69.5
893	J-290	1,199.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,360.50	69.9
260	J-V24-I	1,109.00	117: Zone - 2	<Collection: 1 item>	534.88	1,272.40	70.7
314	J-201	1,200.00	118: Zone - 3	<Collection: 0 items>	0	1,363.80	70.9
945	J-307	1,112.00	117: Zone - 2	<Collection: 1 item>	814.09	1,276.70	71.2
218	J-101	1,110.00	117: Zone - 2	<Collection: 0 items>	0	1,274.80	71.3
253	J-137	1,100.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,264.80	71.3
236	J-119	1,195.00	118: Zone - 3	<Collection: 0 items>	0.00	1,359.80	71.3
925	J-300	1,058.00	116: Zone - 1	<Collection: 1 item>	874.64	1,223.10	71.4
219	J-V23-I	1,098.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,263.40	71.6
701	J-234	1,098.00	117: Zone - 2	<Collection: 1 item>	1,177.40	1,263.70	71.7
208	J-91	1,201.00	118: Zone - 3	<Collection: 0 items>	0.00	1,366.90	71.8
887	J-287	1,193.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,359.00	71.8
207	J-90	1,200.00	118: Zone - 3	<Collection: 0 items>	0	1,366.10	71.9
681	J-227	1,116.00	117: Zone - 2	<Collection: 1 item>	1,379.24	1,282.20	71.9
278	J-164	1,110.00	117: Zone - 2	<Collection: 0 items>	0.00	1,276.70	72.1
251	J-135	1,105.00	117: Zone - 2	<Collection: 0 items>	0	1,271.80	72.2
259	J-144	1,105.00	117: Zone - 2	<Collection: 0 items>	0	1,271.90	72.2
816	J-274	1,070.00	116: Zone - 1	<Collection: 1 item>	339.76	1,237.10	72.3
228	J-111	1,190.00	118: Zone - 3	<Collection: 0 items>	0	1,358.60	72.9
244	J-V4-II-Z2	1,186.00	118: Zone - 3	<Collection: 1 item>	2,173.14	1,354.80	73
206	J-89	1,196.00	118: Zone - 3	<Collection: 0 items>	0	1,365.00	73.1
1130	J-347	1,100.00	117: Zone - 2	<Collection: 0 items>	0	1,269.30	73.2
832	J-280	1,093.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,262.50	73.3
248	J-V3-I-Z2	1,190.00	118: Zone - 3	<Collection: 1 item>	2,038.58	1,359.70	73.4
199	J-82	1,192.00	118: Zone - 3	<Collection: 0 items>	0	1,362.40	73.7
243	J-127	1,184.00	118: Zone - 3	<Collection: 0 items>	0	1,354.80	73.9
238	J-V4-I-Z2	1,180.00	118: Zone - 3	<Collection: 1 item>	2,173.14	1,352.20	74.5
889	J-288	1,182.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,355.50	75.1
232	J-115	1,185.00	118: Zone - 3	<Collection: 0 items>	0	1,358.60	75.1
205	J-88	1,191.00	118: Zone - 3	<Collection: 0 items>	0	1,364.70	75.1
691	J-229	1,066.00	116: Zone - 1	<Collection: 1 item>	339.76	1,239.80	75.2
242	J-126	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,354.80	76.1
968	J-314	1,100.00	117: Zone - 2	<Collection: 0 items>	0	1,276.70	76.4

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
974	J-316	1,100.00	117: Zone - 2	<Collection: 0 items>	0	1,276.70	76.4
283	J-169	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,355.70	76.4
318	J-205	1,196.00	118: Zone - 3	<Collection: 1 item>	534.88	1,373.20	76.7
656	J-215	1,105.00	117: Zone - 2	<Collection: 1 item>	1,325.42	1,282.30	76.7
211	J-94	1,184.00	118: Zone - 3	<Collection: 0 items>	0	1,361.50	76.8
699	J-233	1,092.00	117: Zone - 2	<Collection: 1 item>	1,375.88	1,269.60	76.8
306	J-193	1,184.00	118: Zone - 3	<Collection: 1 item>	534.88	1,361.80	76.9
284	J-170	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,357.10	77.1
305	J-192	1,210.00	118: Zone - 3	<Collection: 1 item>	534.88	1,389.10	77.5
275	J-161	1,181.00	118: Zone - 3	<Collection: 0 items>	0	1,360.30	77.6
668	J-221	1,100.00	117: Zone - 2	<Collection: 1 item>	2,183.24	1,279.40	77.6
679	J-226	1,107.00	117: Zone - 2	<Collection: 1 item>	1,449.88	1,287.90	78.3
1071	J-335	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,351.10	78.4
212	J-95	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,360.60	78.6
1139	J-348	1,180.00	118: Zone - 3	<Collection: 1 item>	672.8	1,362.00	78.7
757	J-249	1,180.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,363.20	79.3
693	J-230	1,177.00	118: Zone - 3	<Collection: 1 item>	841	1,361.20	79.7
943	J-306	1,100.00	117: Zone - 2	<Collection: 1 item>	703.08	1,284.80	80
910	J-296	1,170.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,355.40	80.2
1142	J-349	1,175.00	118: Zone - 3	<Collection: 0 items>	0	1,361.60	80.7
1201	J-362	1,090.00	117: Zone - 2	<Collection: 0 items>	0	1,276.70	80.8
1074	J-336	1,170.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,357.50	81.1
918	J-298	1,170.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,358.20	81.4
1144	J-350	1,172.00	118: Zone - 3	<Collection: 1 item>	1,009.20	1,361.10	81.8
213	J-V3-I-Z1	1,171.00	118: Zone - 3	<Collection: 1 item>	225.39	1,360.50	82
912	J-297	1,170.00	118: Zone - 3	<Collection: 1 item>	534.88	1,360.00	82.2
713	DZ-North	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,360.50	82.4
872	J-284	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,360.50	82.4
1262	J-372	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,360.50	82.4
970	J-315	1,090.00	117: Zone - 2	<Collection: 0 items>	0	1,281.30	82.8
1177	J-357	1,090.00	117: Zone - 2	<Collection: 0 items>	0	1,282.30	83.2
823	J-277	1,045.00	116: Zone - 1	<Collection: 1 item>	339.76	1,239.60	84.2

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
850	P-509	158	12	130	FALSE	0	0.00	0	0	0
851	P-510	243	12	130	FALSE	0	0.00	0	0	0
878	P-527	451	12	130	FALSE	0	-115.81	0	0	0.33
871	P-522	811	12	130	FALSE	0	111.74	0	0	0.32
877	P-526	1,269	12	130	FALSE	0	0	0	0	0
613	P-359	1,326	12	130	FALSE	0	907.73	0.002	1,326	2.58
1297	P-800	1,432	12	130	FALSE	0	-219.04	0	0	0.62
616	P-362	1,484	12	130	FALSE	0	747.55	0.001	1,484	2.12
1159	P-709	1,762	12	130	FALSE	0	-596.72	0.001	0	1.69
1166	P-714	1,805	12	130	FALSE	0	-639.89	0.001	0	1.82
1296	P-799	2,015	12	130	FALSE	0	111.74	0	0	0.32
913	P-546	2,112	12	130	FALSE	0	-400.46	0	0	1.14
944	P-568	2,317	12	130	FALSE	0	703.08	0.001	0	1.99
1162	P-711	2,402	12	130	FALSE	0	-334.91	0	0	0.95
1294	P-798	2,513	12	130	FALSE	0	175.60	0	0	0.5
1161	P-710	2,586	12	130	FALSE	0	-241.45	0	0	0.68
1298	P-801	2,615	12	130	FALSE	0	-107.30	0	0	0.3
1075	P-657	4,087	12	130	FALSE	0	-767.89	0.002	0	2.18
1170	P-717	4,225	12	130	FALSE	0	-587.75	0.001	0	1.67
1171	P-718	4,601	12	130	FALSE	0	-791.85	0.002	0	2.25
1076	P-658	5,050	12	130	FALSE	0	-650.42	0.001	0	1.85
1133	P-692	5,511	12	130	FALSE	0	253.06	0	0	0.72
1107	P-676	5,983	12	130	FALSE	0	709.54	0.001	0	2.01
1290	P-795	8,450	12	130	FALSE	0	640.89	0.001	0	1.82
1264	P-780	553	12	130	FALSE	0	0.00	0	1,097	0
522	P-249	583	12	130	FALSE	0	-969.87	0.002	583	2.75
502	P-223	909	12	130	FALSE	0	-707.32	0.001	909	2.01
456	P-159	1,101	12	130	FALSE	0	0.00	0	1,239	0
602	P-346	1,106	12	130	FALSE	0	822.64	0.002	1,106	2.33
458	P-161	1,227	12	130	FALSE	0	-1,297.10	0.004	1,227	3.68
520	P-246	1,478	12	130	FALSE	0	-969.87	0.002	1,478	2.75
457	P-160	1,805	12	130	FALSE	0	0.00	0	1,800	0
452	P-152	1,809	12	130	FALSE	0	1,203.28	0.004	1,705	3.41
464	P-167	1,865	12	130	FALSE	0	1,179.70	0.003	1,865	3.35
598	P-342	1,871	12	130	FALSE	0	-591.47	0.001	1,871	1.68
601	P-345	2,573	12	130	FALSE	0	-650.68	0.001	2,573	1.85
453	P-155	2,705	12	130	FALSE	0	-307.64	0	1,307	0.87
501	P-222	2,758	12	130	FALSE	0	-876.04	0.002	2,758	2.49
519	P-245	3,085	12	130	FALSE	0	-121.22	0	3,085	0.34
599	P-343	3,544	12	130	FALSE	0	168.73	0	3,544	0.48
465	P-168	4,142	12	130	FALSE	0	-267.42	0	3,112	0.76
715	P-427	239	16	130	FALSE	0	0	0	0	0
1206	P-742	306	16	130	FALSE	0	0	0	2,609	0
714	P-426	473	16	130	FALSE	0	0	0	0	0
1073	P-656	532	16	130	FALSE	0	0	0	0	0
625	P-372	604	16	130	FALSE	0	803.19	0	604	1.28
1146	P-700	669	16	130	FALSE	0	0.00	0	0	0
1232	P-759	675	16	130	FALSE	0	3,750.86	0.007	0	5.99
1202	P-740	686	16	130	FALSE	0	0.00	0	0	0
1186	P-728	806	16	130	FALSE	0	-599.02	0	0	0.96
1215	P-748	868	16	130	FALSE	0	-1,746.70	0.002	4,990	2.79
477	P-186	938	16	130	FALSE	0	2,345.40	0.003	938	3.74
476	P-185	961	16	130	FALSE	0	1,069.75	0.001	961	1.71
868	P-520	966	16	130	FALSE	0	0	0	0	0
975	P-589	1,076	16	130	FALSE	0	0	0	0	0

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
542	P-279	1,085	16	130	FALSE	0	-143.98	0	1,085	0.23
1251	P-771	1,099	16	130	FALSE	0	-997.46	0.001	0	1.59
539	P-271	1,156	16	130	FALSE	0	-16.75	0	908	0.03
467	P-173	1,159	16	130	FALSE	0	1,224.17	0.001	1,159	1.95
833	P-497	1,306	16	130	FALSE	0	1,069.75	0.001	0	1.71
1178	P-722	1,337	16	130	FALSE	0	0.00	0	0	0
466	P-172	1,370	16	130	FALSE	0	-1,563.64	0.001	1,370	2.5
1209	P-744	1,375	16	130	FALSE	0	0.00	0	0	0
1174	P-720	1,431	16	130	FALSE	0	0	0	0	0
952	P-572	1,463	16	130	FALSE	0	-895.93	0.001	0	1.43
865	P-518	1,641	16	130	FALSE	0	0.00	0	0	0
709	P-423	1,662	16	130	FALSE	0	225.39	0	0	0.36
610	P-356	1,687	16	130	FALSE	0	1,713.62	0.002	1,687	2.73
1132	P-691	1,743	16	130	FALSE	0	-484.06	0	0	0.77
470	P-176	1,756	16	130	FALSE	0	0.00	0	1,756	0
1066	P-651	1,770	16	130	FALSE	0	2,497.90	0.003	0	3.99
924	P-555	1,811	16	130	FALSE	0	223.06	0	0	0.36
909	P-544	1,871	16	130	FALSE	0	-1,464.51	0.001	0	2.34
712	P-425	1,900	16	130	FALSE	0	-641.66	0	0	1.02
905	P-542	1,931	16	130	FALSE	0	0.00	0	0	0
614	P-360	1,954	16	130	FALSE	0	489.41	0	1,954	0.78
608	P-354	2,014	16	130	FALSE	0	-814.37	0	2,014	1.3
911	P-545	2,052	16	130	FALSE	0	181.22	0	0	0.29
606	P-352	2,065	16	130	FALSE	0	2,114.92	0.002	2,065	3.37
609	P-355	2,077	16	130	FALSE	0	805.89	0	2,077	1.29
469	P-175	2,180	16	130	FALSE	0	1,775.80	0.002	2,180	2.83
1288	P-793	2,184	16	130	FALSE	0	570.85	0	0	0.91
936	P-563	2,228	16	130	FALSE	0	861.56	0	0	1.37
1237	P-763	2,261	16	130	FALSE	0	1,069.75	0.001	0	1.71
468	P-174	2,271	16	130	FALSE	0	1,509.83	0.001	2,271	2.41
1207	P-743	2,303	16	130	FALSE	0	0.00	0	2,609	0
1254	P-773	2,336	16	130	FALSE	0	-1,273.20	0.001	0	2.03
445	P-144	2,349	16	130	FALSE	0	105.35	0	2,349	0.17
1154	P-705	2,374	16	130	FALSE	0	1,919.29	0.002	0	3.06
788	P-470	2,393	16	130	FALSE	0	4,813.88	0.011	0	7.68
977	P-591	2,403	16	130	FALSE	0	0.00	0	0	0
824	P-491	2,415	16	130	FALSE	0	339.76	0	0	0.54
1191	P-732	2,432	16	130	FALSE	0	-1,215.46	0.001	0	1.94
1168	P-715	2,489	16	130	FALSE	0	-1,343.66	0.001	0	2.14
424	P-119	2,499	16	130	FALSE	0	1,960.32	0.002	2,499	3.13
478	P-187	2,506	16	130	FALSE	0	2,503.21	0.003	2,506	3.99
427	P-123	2,523	16	130	FALSE	0	-1,454.98	0.001	2,523	2.32
1283	P-790	2,530	16	130	FALSE	0	734.26	0	0	1.17
789	P-471	2,537	16	130	FALSE	0	2,139.50	0.003	0	3.41
521	P-247	2,544	16	130	FALSE	0	969.87	0.001	2,544	1.55
1282	P-789	2,552	16	130	FALSE	0	163.41	0	0	0.26
637	P-384	2,560	16	130	FALSE	0	2,890.09	0.004	2,560	4.61
449	P-148	2,592	16	130	FALSE	0	-864.52	0	2,592	1.38
636	P-383	2,599	16	130	FALSE	0	3,424.96	0.006	2,599	5.47
964	P-582	2,600	16	130	FALSE	0	-2,733.65	0.004	0	4.36
814	P-486	2,604	16	130	FALSE	0	1,069.75	0.001	0	1.71
605	P-351	2,630	16	130	FALSE	0	230.79	0	2,630	0.37
1164	P-712	2,657	16	130	FALSE	0	519.34	0	0	0.83
419	P-113	2,673	16	130	FALSE	0	-672.17	0	2,642	1.07
1155	P-706	2,691	16	130	FALSE	0	2,516.00	0.003	0	4.01

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
808	P-483	2,712	16	130	FALSE	0	-5,130.83	0.013	0	8.19
508	P-231	2,716	16	130	FALSE	0	-672.20	0	2,692	1.07
450	P-149	2,719	16	130	FALSE	0	-2,161.63	0.003	2,719	3.45
828	P-494	2,728	16	130	FALSE	0	-1,470.11	0.001	0	2.35
661	P-396	2,752	16	130	FALSE	0	-5,588.58	0.015	0	8.92
600	P-344	2,775	16	130	FALSE	0	-285.66	0	2,775	0.46
1169	P-716	2,788	16	130	FALSE	0	-755.91	0	0	1.21
873	P-523	2,794	16	130	FALSE	0	0.00	0	0	0
1293	P-797	2,810	16	130	FALSE	0	-863.18	0	0	1.38
1072	P-655	2,827	16	130	FALSE	0	-767.89	0	0	1.23
556	P-297	2,835	16	130	FALSE	0	3,030.53	0.005	2,835	4.84
1287	P-792	2,840	16	130	FALSE	0	-116.73	0	0	0.19
1292	P-796	2,920	16	130	FALSE	0	-687.58	0	0	1.1
1054	P-643	3,010	16	130	FALSE	0	-4,146.42	0.009	0	6.62
425	P-120	3,032	16	130	FALSE	0	661.53	0	3,032	1.06
596	P-340	3,134	16	130	FALSE	0	1,308.62	0.001	3,134	2.09
954	P-574	3,160	16	130	FALSE	0	-1,671.21	0.002	0	2.67
1190	P-731	3,182	16	130	FALSE	0	-3,432.32	0.006	0	5.48
615	P-361	3,214	16	130	FALSE	0	-258.14	0	3,214	0.41
607	P-353	3,220	16	130	FALSE	0	1,300.55	0.001	3,220	2.08
626	P-373	3,356	16	130	FALSE	0	1,699.11	0.002	3,356	2.71
1247	P-769	3,456	16	130	FALSE	0	-1,187.22	0.001	0	1.89
479	P-188	3,476	16	130	FALSE	0	-443.47	0	3,476	0.71
1255	P-774	3,558	16	130	FALSE	0	-1,744.12	0.002	0	2.78
1143	P-698	3,566	16	130	FALSE	0	383.28	0	0	0.61
1182	P-725	3,571	16	130	FALSE	0	0.00	0	0	0
1252	P-772	3,576	16	130	FALSE	0	-2,596.29	0.004	0	4.14
821	P-489	3,589	16	130	FALSE	0	-1,428.76	0.001	0	2.28
1175	P-721	3,637	16	130	FALSE	0	0.00	0	0	0
822	P-490	3,659	16	130	FALSE	0	-1,768.53	0.002	0	2.82
972	P-587	3,847	16	130	FALSE	0	-599.02	0	0	0.96
1220	P-751	3,888	16	130	FALSE	0	0.00	0	0	0
819	P-488	3,891	16	130	FALSE	0	-1,089.00	0.001	0	1.74
935	P-562	3,923	16	130	FALSE	0	-1,414.52	0.001	0	2.26
1197	P-737	3,953	16	130	FALSE	0	-1,276.08	0.001	0	2.04
1165	P-713	4,016	16	130	FALSE	0	671.31	0	0	1.07
772	P-460	4,081	16	130	FALSE	0	2,183.45	0.003	0	3.48
941	P-566	4,104	16	130	FALSE	0	-3,354.96	0.006	0	5.35
1214	P-747	4,123	16	130	FALSE	0	-1,746.70	0.002	4,990	2.79
482	P-193	4,209	16	130	FALSE	0	1,950.14	0.002	4,209	3.11
919	P-551	4,225	16	130	FALSE	0	911.69	0.001	0	1.45
1231	P-758	4,265	16	130	FALSE	0	3,750.86	0.007	0	5.99
1257	P-776	4,280	16	130	FALSE	0	2,069.75	0.002	0	3.3
702	P-418	4,280	16	130	FALSE	0	1,177.40	0.001	0	1.88
1006	P-607	4,289	16	130	FALSE	0	-706.04	0	0	1.13
1147	P-701	4,301	16	130	FALSE	0	383.28	0	0	0.61
966	P-583	4,354	16	130	FALSE	0	-2,646.52	0.004	0	4.22
1104	P-673	4,374	16	130	FALSE	0	-1,308.27	0.001	0	2.09
867	P-519	4,447	16	130	FALSE	0	0	0	0	0
923	P-554	4,680	16	130	FALSE	0	-2,139.50	0.003	0	3.41
963	P-581	4,804	16	130	FALSE	0	-2,093.55	0.002	0	3.34
1256	P-775	4,806	16	130	FALSE	0	1,598.82	0.001	0	2.55
485	P-196	4,867	16	130	FALSE	0	-1,069.75	0.001	4,848	1.71
956	P-576	4,989	16	130	FALSE	0	-1,335.72	0.001	0	2.13
657	P-394	4,990	16	130	FALSE	0	890.04	0.001	0	1.42

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
764	P-456	4,997	16	130	FALSE	0	1,515.30	0.001	0	2.42
957	P-577	4,999	16	130	FALSE	0	-294.14	0	0	0.47
802	P-478	5,066	16	130	FALSE	0	412.95	0	0	0.66
766	P-457	5,066	16	130	FALSE	0	-894.47	0.001	0	1.43
890	P-533	5,070	16	130	FALSE	0	1,059.10	0.001	0	1.69
901	P-539	5,075	16	130	FALSE	0	931.78	0.001	0	1.49
686	P-410	5,092	16	130	FALSE	0	574.97	0	0	0.92
665	P-398	5,092	16	130	FALSE	0	-1,528.18	0.001	0	2.44
680	P-406	5,093	16	130	FALSE	0	-1,362.11	0.001	0	2.17
961	P-580	5,093	16	130	FALSE	0	-169.96	0	0	0.27
667	P-399	5,096	16	130	FALSE	0	2,259.59	0.003	0	3.61
827	P-493	5,116	16	130	FALSE	0	-935.23	0.001	0	1.49
888	P-532	5,117	16	130	FALSE	0	1,728.39	0.002	0	2.76
780	P-465	5,136	16	130	FALSE	0	2,126.91	0.003	0	3.39
805	P-480	5,138	16	130	FALSE	0	-1,726.56	0.002	0	2.76
902	P-540	5,150	16	130	FALSE	0	1,001.33	0.001	0	1.6
969	P-585	5,150	16	130	FALSE	0	0.00	0	0	0
730	P-434	5,172	16	130	FALSE	0	2,045.22	0.002	0	3.26
747	P-445	5,172	16	130	FALSE	0	-1,611.36	0.002	0	2.57
895	P-536	5,191	16	130	FALSE	0	-3,243.07	0.006	0	5.17
899	P-538	5,192	16	130	FALSE	0	1,457.64	0.001	0	2.33
892	P-534	5,192	16	130	FALSE	0	-10.65	0	0	0.02
894	P-535	5,194	16	130	FALSE	0	-1,261.63	0.001	0	2.01
669	P-400	5,194	16	130	FALSE	0	926.73	0.001	0	1.48
663	P-397	5,195	16	130	FALSE	0	2,486.60	0.003	0	3.97
781	P-466	5,207	16	130	FALSE	0	2,944.89	0.005	0	4.7
800	P-477	5,207	16	130	FALSE	0	2,017.57	0.002	0	3.22
733	P-436	5,216	16	130	FALSE	0	0.00	0	0	0
807	P-482	5,242	16	130	FALSE	0	-3,057.28	0.005	0	4.88
750	P-448	5,246	16	130	FALSE	0	-671.98	0	0	1.07
897	P-537	5,250	16	130	FALSE	0	63.18	0	0	0.1
731	P-435	5,263	16	130	FALSE	0	427.14	0	0	0.68
782	P-467	5,279	16	130	FALSE	0	916.95	0.001	0	1.46
921	P-553	5,283	16	130	FALSE	0	1,046.59	0.001	0	1.67
946	P-569	5,287	16	130	FALSE	0	1,327.48	0.001	0	2.12
917	P-550	5,287	16	130	FALSE	0	920.62	0.001	0	1.47
774	P-461	5,290	16	130	FALSE	0	1,648.58	0.002	0	2.63
475	P-184	5,308	16	130	FALSE	0	-672.20	0	5,295	1.07
948	P-570	5,350	16	130	FALSE	0	683.35	0	0	1.09
752	P-449	5,375	16	130	FALSE	0	-2,187.83	0.003	0	3.49
916	P-549	5,408	16	130	FALSE	0	1,682.21	0.002	0	2.68
1172	P-719	5,410	16	130	FALSE	0	-2,991.33	0.005	0	4.77
790	P-472	5,418	16	130	FALSE	0	-1,604.63	0.001	0	2.56
776	P-462	5,419	16	130	FALSE	0	-1,290.17	0.001	0	2.06
744	P-443	5,490	16	130	FALSE	0	-1,068.65	0.001	0	1.71
1056	P-645	5,491	16	130	FALSE	0	3,244.71	0.006	0	5.18
1057	P-646	5,492	16	130	FALSE	0	1,245.32	0.001	0	1.99
1131	P-690	5,496	16	130	FALSE	0	-737.12	0	0	1.18
745	P-444	5,594	16	130	FALSE	0	2,909.78	0.005	0	4.64
920	P-552	5,619	16	130	FALSE	0	888.53	0.001	0	1.42
743	P-442	5,664	16	130	FALSE	0	842.18	0	0	1.34
1183	P-726	5,714	16	130	FALSE	0	453.01	0	0	0.72
1188	P-730	5,747	16	130	FALSE	0	2,758.62	0.004	0	4.4
1192	P-733	5,761	16	130	FALSE	0	2,216.86	0.003	0	3.54
829	P-495	5,795	16	130	FALSE	0	1,859.94	0.002	0	2.97

Pipe Table Report

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914	P-547	5,879	16	130	FALSE	0	-935.34	0.001	0	1.49
748	P-446	7,695	16	130	FALSE	0	0.00	0	0	0
1236	P-762	8,386	16	130	FALSE	0	1,069.75	0.001	0	1.71
1055	P-644	250	24	130	FALSE	0	0.00	0	0	0
1187	P-729	446	24	130	FALSE	0	-599.02	0	0	0.42
417	P-111	639	24	130	FALSE	0	-2,523.00	0	639	1.79
1005	P-606	797	24	130	FALSE	0	5,549.43	0.002	0	3.94
603	P-347	837	24	130	FALSE	0	1,684.57	0	837	1.19
979	P-592	905	24	130	FALSE	0	0	0	0	0
1140	P-696	977	24	130	FALSE	0	2,523.00	0	0	1.79
848	P-508	988	24	130	FALSE	0	423.14	0	0	0.3
1098	P-670	1,257	24	130	FALSE	0	2,616.79	0.001	0	1.86
428	P-124	1,278	24	130	FALSE	0	4,953.63	0.002	1,278	3.51
518	P-244	1,365	24	130	FALSE	0	-1,506.81	0	1,365	1.07
1068	P-652	1,397	24	130	FALSE	0	-6,848.39	0.003	0	4.86
430	P-126	1,581	24	130	FALSE	0	4,167.19	0.001	1,581	2.96
429	P-125	1,610	24	130	FALSE	0	4,167.19	0.001	1,610	2.96
931	P-560	1,621	24	130	FALSE	0	-3,350.94	0.001	0	2.38
1069	P-653	1,701	24	130	FALSE	0	-4,910.99	0.002	0	3.48
1097	P-669	1,768	24	130	FALSE	0	-1,975.13	0	0	1.4
618	P-364	1,786	24	130	FALSE	0	-2,523.00	0	1,786	1.79
825	P-492	1,792	24	130	FALSE	0	-4,704.58	0.002	0	3.34
798	P-476	1,971	24	130	FALSE	0	4,671.54	0.002	0	3.31
907	P-543	2,028	24	130	FALSE	0	-7,140.80	0.003	0	5.06
460	P-163	2,082	24	130	FALSE	0	-1,543.67	0	2,082	1.09
1200	P-739	2,095	24	130	FALSE	0	3,748.50	0.001	0	2.66
1145	P-699	2,203	24	130	FALSE	0	625.92	0	0	0.44
1128	P-688	2,207	24	130	FALSE	0	3,720.94	0.001	0	2.64
953	P-573	2,267	24	130	FALSE	0	2,982.29	0.001	0	2.12
418	P-112	2,333	24	130	FALSE	0	-2,523.00	0	2,333	1.79
655	P-393	2,444	24	130	FALSE	0	-1,395.07	0	0	0.99
959	P-578	2,487	24	130	FALSE	0	-2,392.29	0	0	1.7
1129	P-689	2,518	24	130	FALSE	0	3,467.88	0.001	0	2.46
676	P-404	2,546	24	130	FALSE	0	-2,282.95	0	0	1.62
1221	P-752	2,614	24	130	FALSE	0	3,748.50	0.001	0	2.66
1158	P-708	2,617	24	130	FALSE	0	-7,413.05	0.004	0	5.26
611	P-357	2,623	24	130	FALSE	0	211.25	0	2,623	0.15
455	P-157	2,673	24	130	FALSE	0	-530.39	0	1,397	0.38
454	P-156	2,689	24	130	FALSE	0	1,270.56	0	1,239	0.9
1157	P-707	2,702	24	130	FALSE	0	-6,816.33	0.003	0	4.83
653	P-392	2,750	24	130	FALSE	0	-648.26	0	0	0.46
612	P-358	2,791	24	130	FALSE	0	-1,231.36	0	2,791	0.87
617	P-363	2,871	24	130	FALSE	0	-2,523.00	0	2,871	1.79
980	P-593	2,886	24	130	FALSE	0	1,954.08	0	0	1.39
459	P-162	2,919	24	130	FALSE	0	-1,719.27	0	4,198	1.22
927	P-557	2,988	24	130	FALSE	0	-9,497.00	0.006	0	6.74
423	P-118	3,032	24	130	FALSE	0	4,794.11	0.002	3,032	3.4
555	P-296	3,500	24	130	FALSE	0	5,936.19	0.002	3,500	4.21
982	P-594	3,679	24	130	FALSE	0	5,860.44	0.002	0	4.16
1193	P-734	3,927	24	130	FALSE	0	-107.69	0	0	0.08
1195	P-735	4,047	24	130	FALSE	0	-5,602.16	0.002	0	3.97
1196	P-736	4,098	24	130	FALSE	0	-6,878.23	0.003	0	4.88
1141	P-697	4,266	24	130	FALSE	0	1,466.92	0	0	1.04
1105	P-674	4,900	24	130	FALSE	0	870.48	0	0	0.62
760	P-454	4,996	24	130	FALSE	0	-3,572.47	0.001	0	2.53

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
703	P-419	5,093	24	130	FALSE	0	-3,117.47	0.001	0	2.21
756	P-452	5,097	24	130	FALSE	0	-2,018.77	0	0	1.43
1184	P-727	5,103	24	130	FALSE	0	5,068.17	0.002	0	3.59
810	P-484	5,130	24	130	FALSE	0	4,537.75	0.001	0	3.22
1269	P-783	5,155	24	130	FALSE	0	7,675.67	0.004	0	5.44
755	P-451	5,168	24	130	FALSE	0	4,132.60	0.001	0	2.93
685	P-409	5,195	24	130	FALSE	0	-2,869.79	0.001	0	2.04
770	P-459	5,208	24	130	FALSE	0	3,613.42	0.001	0	2.56
960	P-579	5,235	24	130	FALSE	0	-3,376.33	0.001	0	2.39
671	P-401	5,297	24	130	FALSE	0	-4,313.78	0.001	0	3.06
682	P-407	5,297	24	130	FALSE	0	3,880.71	0.001	0	2.75
672	P-402	5,305	24	130	FALSE	0	1,928.31	0	0	1.37
768	P-458	5,348	24	130	FALSE	0	-3,852.61	0.001	0	2.73
967	P-584	5,402	24	130	FALSE	0	6,256.29	0.003	0	4.44
762	P-455	5,490	24	130	FALSE	0	1,179.69	0	0	0.84
1106	P-675	5,604	24	130	FALSE	0	-3,248.50	0.001	0	2.3
933	P-561	5,978	24	130	FALSE	0	-452.46	0	0	0.32
1259	P-777	577	30	130	FALSE	0	-13,642.61	0.004	50	6.19
1249	P-770	715	30	130	FALSE	0	-14,881.10	0.004	50	6.75
1303	P-803	796	30	130	FALSE	0	7,202.91	0.001	0	3.27
1275	P-786	907	30	130	FALSE	0	-11,466.22	0.003	50	5.2
1261	P-778	1,030	30	130	FALSE	0	-10,108.80	0.002	50	4.59
1277	P-787	1,066	30	130	FALSE	0	13,721.06	0.004	50	6.23
1268	P-782	1,077	30	130	FALSE	0	-15,066.80	0.004	50	6.84
1266	P-781	1,249	30	130	FALSE	0	-10,513.25	0.002	50	4.77
1300	P-802	1,252	30	130	FALSE	0	12,671.29	0.003	0	5.75
983	P-595	1,593	30	130	FALSE	0	12,950.75	0.003	200	5.88
1271	P-784	1,783	30	130	FALSE	0	-7,550.30	0.001	0	3.43
1134	P-693	1,977	36	130	FALSE	0	-16,508.47	0.002	100	5.2
1102	P-672	2,429	36	130	FALSE	0	12,550.43	0.001	0	3.96
678	P-405	2,546	36	130	FALSE	0	11,024.43	0.001	0	3.47

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System)	Is Fire Flow Run Balanced?
J-82	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	74.1	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-88	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	76.3	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-89	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	74.4	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-90	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	73.6	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-91	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	74	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-V7-II	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,172.21	2,672.21	20	66.9	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-94	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	78.5	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-95	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79.6	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-V3-I-Z1	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,632.66	2,132.66	20	81.3	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-V2-II	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,131.62	2,631.62	20	51.7	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-98	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	60.7	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-99	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	63.6	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-100	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	67.3	20	46.7	978: J-317	20	42.9	769: J-255	TRUE
J-101	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	72.5	20	46.7	978: J-317	20	42.9	769: J-255	TRUE
J-V23-I	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	72.7	20	46.7	978: J-317	20	42.9	769: J-255	TRUE
J-103	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	53.7	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-111	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	75	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-115	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	77.3	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-119	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	73.8	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-120	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	49.8	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-V4-I-Z2	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,779.08	3,279.08	20	73.6	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-123	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	47.3	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-124	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,979.16	2,479.16	20	51.6	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-V4-I-Z1	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,139.54	2,639.54	20	49.3	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-126	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	65.1	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-127	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	67.3	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-V4-II-Z2	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,779.08	3,279.08	20	73.6	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-129	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	50.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-V2-I	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,131.62	2,631.62	20	51.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-V3-I-Z2	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,699.88	3,199.88	20	74.2	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-V1-II	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,699.88	3,199.88	20	62.3	20	46.7	978: J-317	20	42.9	769: J-255	TRUE
J-V1-I	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,699.88	3,199.88	20	70	20	46.7	978: J-317	20	42.9	769: J-255	TRUE
J-135	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	73.5	20	46.7	978: J-317	20	42.9	769: J-255	TRUE
J-136	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	70	20	46.7	978: J-317	20	42.9	769: J-255	TRUE
J-137	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	72.5	20	46.7	978: J-317	20	42.9	769: J-255	TRUE
J-138	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	50.1	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-V25-II	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	52.5	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-143	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	54.7	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-144	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	73.7	20	46.7	978: J-317	20	42.9	769: J-255	TRUE
J-V24-I	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	71.7	20	46.7	978: J-317	20	42.9	769: J-255	TRUE
J-149	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,699.98	2,199.98	20	56	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-V24-II	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	64	20	46.7	978: J-317	20	42.9	769: J-255	TRUE
J-161	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	78.7	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-164	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	64.6	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-165	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	52.2	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-168	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	49.1	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-169	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	76	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-170	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	77.3	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-171	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	46.8	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-173	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	63.3	20	46.7	978: J-317	20	42.9	769: J-255	TRUE
J-174	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	50.7	20	46.3	875: J-285	20	42.9	769: J-255	TRUE
J-175	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	51.8	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-V7-III	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,172.21	2,672.21	20	69.3	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-192	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	77.7	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-193	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	79.5	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-194	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	63.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-195	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,444.46	2,944.46	20	65.9	20	46.5	978: J-317	20	42.9	769: J-255	TRUE
J-196	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	70	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-197	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	65.6	20	46.7	978: J-317	20	42.9	769: J-255	TRUE
J-198	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	59.8	20	46.7	978: J-317	20	42.9	769: J-255	TRUE

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System)	Is Fire Flow Run Balanced?
J-199	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	58.9	20	46.7	978: J-317	20	42.9	769: J-255	TRUE
J-200	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	67.7	20	46.7	978: J-317	20	42.9	769: J-255	TRUE
J-201	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	71.8	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-202	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	64.6	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-205	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	76.5	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-212	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,569.20	3,069.20	20	67.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-213	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,939.56	2,439.56	20	68.6	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-214	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,280.12	2,780.12	20	69.6	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-215	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,280.12	2,780.12	20	77.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-216	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,137.56	2,637.56	20	52.7	20	48	1180: J-358	20	42.9	769: J-255	TRUE
J-217	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,939.56	2,439.56	20	66.7	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-218	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,137.56	2,637.56	20	57.8	20	48.8	1180: J-358	20	42.9	769: J-255	TRUE
J-219	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,137.56	2,637.56	20	59.2	20	48.9	1180: J-358	20	42.9	769: J-255	TRUE
J-220	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,452.38	2,952.38	20	66.3	20	49	1180: J-358	20	42.9	769: J-255	TRUE
J-221	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,785.02	3,285.02	20	78.9	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-222	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,840.56	2,340.56	20	68.4	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
Balterra	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,840.56	2,340.56	20	66.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-225	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,155.38	2,655.38	20	65.6	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-226	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,353.38	2,853.38	20	78.4	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-227	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,311.80	2,811.80	20	72.8	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-228	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	60.4	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-229	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,699.98	2,199.98	20	75.3	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-230	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,995.00	2,495.00	20	79.4	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-232	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,391.00	2,891.00	20	59.8	20	43.9	978: J-317	20	42.9	769: J-255	TRUE
J-233	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,309.82	2,809.82	20	77.3	20	44.7	978: J-317	20	42.9	769: J-255	TRUE
J-234	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,193.00	2,693.00	20	67.3	20	43.9	978: J-317	20	42.9	769: J-255	TRUE
DZ-South	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	58.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
DZ-North	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	81.2	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-238	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	56.9	20	49.1	1218: J-365	20	42.9	769: J-255	TRUE
J-239	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,452.38	2,952.38	20	59.4	20	49	1180: J-358	20	42.9	769: J-255	TRUE
J-240	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,452.38	2,952.38	20	63.3	20	49	1180: J-358	20	42.9	769: J-255	TRUE
J-241	115: Zone - 0	2	TRUE	1,500.00	2,000.00	2,448.42	2,948.42	20	37.1	20	45.4	811: J-271	20	42.9	769: J-255	TRUE
J-242	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	57.7	20	49.3	1180: J-358	20	42.9	769: J-255	TRUE
J-243	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	69.8	20	49.2	1180: J-358	20	42.9	769: J-255	TRUE
J-244	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	53.7	20	49.2	1180: J-358	20	42.9	769: J-255	TRUE
J-245	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	63.5	20	49.1	1180: J-358	20	42.9	769: J-255	TRUE
J-246	115: Zone - 0	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	47.5	20	45.4	811: J-271	20	42.9	769: J-255	TRUE
J-247	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	50.5	20	49.2	1180: J-358	20	42.9	769: J-255	TRUE
J-248	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,137.56	2,637.56	20	49.7	20	48.7	1180: J-358	20	42.9	769: J-255	TRUE
J-249	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	80.6	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-250	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	68.9	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-251	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	57.3	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-252	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	70.8	20	42.7	769: J-255	20	42.7	769: J-255	TRUE
J-253	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	59.8	20	42.7	769: J-255	20	42.7	769: J-255	TRUE
J-254	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	49.4	20	42.6	769: J-255	20	42.6	769: J-255	TRUE
J-255	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	41.2	20	43.2	1103: J-342	20	43.2	1103: J-342	TRUE
J-256	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	50	20	42	769: J-255	20	42	769: J-255	TRUE
J-257	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	59.1	20	42.3	769: J-255	20	42.3	769: J-255	TRUE
J-258	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,444.46	2,944.46	20	71.8	20	42.4	769: J-255	20	42.4	769: J-255	TRUE
J-259	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,155.38	2,655.38	20	45.7	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-260	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	57.5	20	42.3	769: J-255	20	42.3	769: J-255	TRUE
J-261	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,444.46	2,944.46	20	56.3	20	42.3	769: J-255	20	42.3	769: J-255	TRUE
J-262	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	55.8	20	42.3	769: J-255	20	42.3	769: J-255	TRUE
J-265	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	56.1	20	46	777: J-259	20	42.9	769: J-255	TRUE
J-266	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	61.4	20	46.1	777: J-259	20	42.9	769: J-255	TRUE
J-267	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,444.46	2,944.46	20	63	20	46.2	777: J-259	20	42.9	769: J-255	TRUE
J-268	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	72	20	46.3	777: J-259	20	42.9	769: J-255	TRUE
J-269	117: Zone - 2	2	TRUE	1,500.00	2,000.00	3,074.10	3,574.10	20	67.2	20	46.4	777: J-259	20	42.9	769: J-255	TRUE
J-270	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	58	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-271	115: Zone - 0	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	29.4	20	33.9	1233: J-368	20	33.9	1233: J-368	TRUE

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System)	Is Fire Flow Run Balanced?
J-272	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	53.5	20	49.3	1180: J-358	20	42.9	769: J-255	TRUE
J-274	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,699.98	2,199.98	20	72	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-275	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,699.98	2,199.98	20	57.1	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-276	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,699.98	2,199.98	20	66.1	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-277	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,699.98	2,199.98	20	81.6	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-278	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	53.7	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-279	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,698.00	2,198.00	20	44.3	20	46	777: J-259	20	42.9	769: J-255	TRUE
J-280	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	72.8	20	46.7	978: J-317	20	42.9	769: J-255	TRUE
J-283	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	45.5	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-284	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-285	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	41.3	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-287	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	73.1	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-288	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	76.3	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-289	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	71.7	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-290	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	71.9	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-291	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	61.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-292	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	55.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-293	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	49.5	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-294	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	55.8	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-295	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	51.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-296	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	82.1	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-297	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	82.2	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-298	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	83.8	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-299	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	57.3	20	49.3	1180: J-358	20	42.9	769: J-255	TRUE
J-300	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,014.80	2,514.80	20	72.2	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-301	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	56	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-302	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	57.7	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-303	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	59.4	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-304	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	57	20	49.7	1180: J-358	20	42.9	769: J-255	TRUE
J-305	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	64.7	20	50.1	1180: J-358	20	42.9	769: J-255	TRUE
J-306	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,913.82	2,413.82	20	68.5	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-307	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,979.16	2,479.16	20	72.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-308	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,979.16	2,479.16	20	68.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-309	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	60.6	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-310	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	57.3	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-311	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,979.16	2,479.16	20	52.8	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-312	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	55.5	20	49.8	1180: J-358	20	42.9	769: J-255	TRUE
J-313	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	50.3	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-314	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	72.4	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-315	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	80.3	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-316	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	70	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-317	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,391.00	2,891.00	20	43.8	20	46.6	1127: J-346	20	42.9	769: J-255	TRUE
J-318	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	46.6	20	45.1	978: J-317	20	42.9	769: J-255	TRUE
J-330	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	64.9	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-333	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,840.56	2,340.56	20	65.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-334	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,840.56	2,340.56	20	49.4	20	45.9	777: J-259	20	42.9	769: J-255	TRUE
J-335	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79.9	20	42.5	769: J-255	20	42.5	769: J-255	TRUE
J-336	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	82.1	20	42.7	769: J-255	20	42.7	769: J-255	TRUE
J-341	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	44.2	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-342	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	42.7	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-346	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	46.6	20	44.5	978: J-317	20	42.9	769: J-255	TRUE
J-347	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	73.9	20	44.5	978: J-317	20	42.9	769: J-255	TRUE
J-348	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,896.00	2,396.00	20	79	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-349	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79.7	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-350	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,094.00	2,594.00	20	81.4	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-352	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	57.3	20	46.5	777: J-259	20	42.9	769: J-255	TRUE
J-353	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	56.9	20	46.6	777: J-259	20	42.9	769: J-255	TRUE
J-354	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,931.64	2,431.64	20	55.3	20	46	830: J-279	20	42.9	769: J-255	TRUE
J-355	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	50.6	20	46	777: J-259	20	42.9	769: J-255	TRUE
J-356	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	64.3	20	46.2	777: J-259	20	42.9	769: J-255	TRUE

Fire Flow Report

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System)	Is Fire Flow Run Balanced?
J-357	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	82.4	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-358	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	44.5	20	49.5	1208: J-363	20	42.9	769: J-255	TRUE
J-359	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	58.8	20	49.6	1180: J-358	20	42.9	769: J-255	TRUE
J-360	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	66	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-361	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	51	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-362	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	73.7	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-363	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	47.9	20	48.7	1180: J-358	20	42.9	769: J-255	TRUE
J-364	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	55.8	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-365	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	45.3	20	49.6	1180: J-358	20	42.9	769: J-255	TRUE
J-368	115: Zone - 0	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	33.9	20	32.8	811: J-271	20	32.8	811: J-271	TRUE
J-370	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	59.5	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-371	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	60.6	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-372	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79.5	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-374	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	64.7	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-376	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	58.5	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-377	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	55.5	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-378	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	46.9	20	46.7	869: J-283	20	42.9	769: J-255	TRUE

Ultimate Build-out

OVERSIZED MAP

-Watercad Model Ultimate Buildout

TO REVIEW SEE DOCKET SUPERVISOR

DOCKET
W-02450A-06-0626
SW-20422A-06-0566

Reservoir Report

Id	Label	Elevation (ft)	Zone	Outflow (gpm)	Hydraulic Grade (ft)
1276	R-29	1,208.00	116: Zone - 1	16,685.21	1,208.00
1274	R-28	1,231.00	116: Zone - 1	11,678.58	1,231.00
1248	R-21	1,240.00	116: Zone - 1	16,004.01	1,240.00
1265	Silver	1,288.00	117: Zone - 2	11,151.34	1,288.00
689	Balterra-Res	1,288.00	117: Zone - 2	13,186.61	1,288.00
1258	Belmont-ISR	1,281.00	117: Zone - 2	16,810.49	1,281.00
1299	R-31	1,285.00	117: Zone - 2	17,060.66	1,285.00
1267	R-25	1,320.00	117: Zone - 2	15,183	1,320.00
1270	R-26	1,370.00	118: Zone - 3	7,743.04	1,370.00
1093	R-10	1,372.00	118: Zone - 3	16,320.13	1,372.00
1089	R-8	1,365.00	118: Zone - 3	15,046.51	1,365.00
1086	R-7	1,390.00	118: Zone - 3	15,856.26	1,390.00
1278	R-30	1,390.00	118: Zone - 3	13,619.12	1,390.00
1260	R-23	1,380.00	118: Zone - 3	15,370.78	1,380.00
319	Belm-Vill-18	1,487.00	1115: Zone - 4	15,314.37	1,487.00
1272	R-27	1,498.00	1115: Zone - 4	14,697.88	1,498.00
1095	R-11	1,470.00	1115: Zone - 4	15,471.47	1,470.00

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
675	Balterra	1,135.00	<None>	<Collection: 1 item>	172	1,290.00	67.1
120	CAP-Belmont	1,363.00	18: Zone -	<Collection: 1 item>	0	1,514.00	65.4
1058	CAP-west	1,370.00	<None>	<Collection: 0 items>	0	1,484.70	49.6
713	DZ-North	1,170.00	<None>	<Collection: 0 items>	0	1,355.00	80.1
710	DZ-South	1,145.00	<None>	<Collection: 0 items>	0	1,309.90	71.3
121	J-2	1,354.00	18: Zone -	<Collection: 0 items>	0	1,506.60	66
122	J-3	1,335.00	18: Zone -	<Collection: 0 items>	0	1,502.80	72.6
124	J-5	1,341.00	18: Zone -	<Collection: 0 items>	0	1,500.40	69
125	J-6	1,343.00	18: Zone -	<Collection: 0 items>	0	1,498.40	67.2
126	J-7	1,325.00	18: Zone -	<Collection: 0 items>	0	1,496.70	74.3
127	J-8	1,318.00	18: Zone -	<Collection: 0 items>	0	1,492.70	75.6
128	J-9	1,301.00	18: Zone -	<Collection: 0 items>	0	1,489.60	81.6
129	J-10	1,281.00	18: Zone -	<Collection: 0 items>	0	1,484.80	88.2
131	J-12	1,335.00	18: Zone -	<Collection: 0 items>	0	1,498.40	70.7
132	J-13	1,314.00	18: Zone -	<Collection: 0 items>	0	1,495.50	78.5
134	J-15	1,320.00	18: Zone -	<Collection: 0 items>	0	1,495.90	76.1
136	J-17	1,330.00	18: Zone -	<Collection: 0 items>	0	1,496.60	72.1
137	J-18	1,323.00	18: Zone -	<Collection: 0 items>	0	1,497.00	75.3
139	J-20	1,311.00	18: Zone -	<Collection: 0 items>	0	1,497.10	80.5
140	J-21	1,330.00	18: Zone -	<Collection: 0 items>	0	1,503.30	75
141	J-22	1,350.00	18: Zone -	<Collection: 0 items>	0	1,504.30	66.8
142	J-23	1,346.00	18: Zone -	<Collection: 0 items>	0	1,500.50	66.8
143	J-24	1,346.00	18: Zone -	<Collection: 0 items>	0	1,499.30	66.3
144	J-25	1,345.00	18: Zone -	<Collection: 0 items>	0	1,496.70	65.6
145	J-26	1,344.00	18: Zone -	<Collection: 0 items>	0	1,496.30	65.9
153	J-34	1,355.00	18: Zone -	<Collection: 0 items>	0	1,497.70	61.7
155	J-36	1,340.00	18: Zone -	<Collection: 0 items>	0	1,494.80	67
156	J-37	1,330.00	18: Zone -	<Collection: 0 items>	0	1,496.50	72
158	J-39	1,354.00	18: Zone -	<Collection: 0 items>	0	1,501.90	64
160	J-41	1,355.00	18: Zone -	<Collection: 0 items>	0	1,499.40	62.5
163	J-44	1,280.00	18: Zone -	<Collection: 0 items>	0	1,485.10	88.8
166	J-47	1,300.00	18: Zone -	<Collection: 0 items>	0	1,492.90	83.4
167	J-48	1,303.00	18: Zone -	<Collection: 0 items>	0	1,493.60	82.4
169	J-50	1,260.00	17: Zone -	<Collection: 0 items>	0	1,405.20	62.8
171	J-52	1,240.00	17: Zone -	<Collection: 0 items>	0	1,403.10	70.6
172	J-53	1,255.00	17: Zone -	<Collection: 0 items>	0	1,398.10	61.9
174	J-55	1,255.00	17: Zone -	<Collection: 0 items>	0	1,396.10	61
177	J-58	1,265.00	17: Zone -	<Collection: 0 items>	0	1,402.20	59.4
178	J-59	1,282.00	18: Zone -	<Collection: 0 items>	0	1,491.10	90.5
179	J-60	1,295.00	18: Zone -	<Collection: 0 items>	0	1,491.00	84.8
181	J-62	1,281.00	18: Zone -	<Collection: 0 items>	0	1,487.20	89.2
183	J-64	1,290.00	18: Zone -	<Collection: 0 items>	0	1,489.40	86.3
184	J-65	1,290.00	18: Zone -	<Collection: 0 items>	0	1,487.60	85.5
186	J-67	1,310.00	18: Zone -	<Collection: 0 items>	0	1,482.70	74.7
188	J-70	1,255.00	17: Zone -	<Collection: 0 items>	0	1,400.80	63.1
189	J-71	1,243.00	17: Zone -	<Collection: 0 items>	0	1,398.20	67.1
194	J-76	1,243.00	17: Zone -	<Collection: 0 items>	0	1,405.30	70.2
196	J-79	1,245.00	17: Zone -	<Collection: 0 items>	0	1,406.30	69.8
199	J-82	1,192.00	17: Zone -	<Collection: 0 items>	0	1,394.00	87.4
200	J-83	1,197.00	17: Zone -	<Collection: 0 items>	0	1,394.70	85.5
201	J-84	1,240.00	17: Zone -	<Collection: 0 items>	0	1,399.10	68.8
203	J-86	1,210.00	17: Zone -	<Collection: 0 items>	0	1,391.40	78.5
204	J-87	1,235.00	17: Zone -	<Collection: 0 items>	0	1,393.60	68.6
205	J-88	1,191.00	17: Zone -	<Collection: 0 items>	0	1,384.80	83.9
206	J-89	1,196.00	17: Zone -	<Collection: 0 items>	0	1,382.90	80.9
207	J-90	1,200.00	17: Zone -	<Collection: 0 items>	0	1,375.80	76

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
208	J-91	1,201.00	17: Zone -	<Collection: 0 items>	0	1,372.50	74.2
209	J-92	1,227.00	17: Zone -	<Collection: 0 items>	0	1,380.60	66.4
211	J-94	1,184.00	17: Zone -	<Collection: 0 items>	0	1,367.00	79.2
212	J-95	1,179.00	17: Zone -	<Collection: 0 items>	0	1,360.50	78.5
215	J-98	1,141.00	16: Zone -	<Collection: 0 items>	0	1,304.90	70.9
216	J-99	1,133.00	16: Zone -	<Collection: 0 items>	0	1,303.40	73.7
217	J-100	1,123.00	16: Zone -	<Collection: 0 items>	0	1,301.40	77.2
218	J-101	1,110.00	16: Zone -	<Collection: 0 items>	0	1,299.50	82
220	J-103	1,091.00	16: Zone -	<Collection: 1 item>	318	1,288.10	85.3
221	J-104	1,245.00	17: Zone -	<Collection: 0 items>	0	1,394.80	64.8
223	J-106	1,225.00	17: Zone -	<Collection: 0 items>	0	1,389.80	71.3
225	J-108	1,225.00	17: Zone -	<Collection: 0 items>	0	1,382.00	67.9
227	J-110	1,208.00	17: Zone -	<Collection: 0 items>	0	1,379.40	74.2
228	J-111	1,190.00	17: Zone -	<Collection: 0 items>	0	1,377.10	81
229	J-112	1,208.00	17: Zone -	<Collection: 0 items>	0	1,381.20	74.9
230	J-113	1,200.00	17: Zone -	<Collection: 0 items>	0	1,380.60	78.1
232	J-115	1,185.00	17: Zone -	<Collection: 0 items>	0	1,377.80	83.4
233	J-116	1,221.00	17: Zone -	<Collection: 0 items>	0	1,378.70	68.2
234	J-117	1,210.00	17: Zone -	<Collection: 0 items>	0	1,378.60	72.9
236	J-119	1,195.00	17: Zone -	<Collection: 0 items>	0	1,374.40	77.6
237	J-120	1,164.00	16: Zone -	<Collection: 0 items>	0	1,295.70	57
239	J-123	1,164.00	16: Zone -	<Collection: 1 item>	318	1,294.30	56.4
240	J-124	1,160.00	16: Zone -	<Collection: 1 item>	242	1,294.30	58.1
242	J-126	1,179.00	17: Zone -	<Collection: 0 items>	0	1,369.40	82.4
243	J-127	1,184.00	17: Zone -	<Collection: 0 items>	0	1,369.40	80.2
245	J-129	1,163.00	16: Zone -	<Collection: 0 items>	0	1,296.90	57.9
247	J-131	1,245.00	17: Zone -	<Collection: 0 items>	0	1,397.00	65.8
251	J-135	1,105.00	16: Zone -	<Collection: 0 items>	0	1,298.60	83.8
252	J-136	1,110.00	16: Zone -	<Collection: 1 item>	318	1,297.40	81.1
253	J-137	1,100.00	16: Zone -	<Collection: 1 item>	318	1,293.40	83.7
254	J-138	1,090.00	16: Zone -	<Collection: 1 item>	318	1,290.10	86.6
256	J-140	1,110.00	16: Zone -	<Collection: 0 items>	0	1,292.30	78.9
258	J-143	1,083.00	16: Zone -	<Collection: 1 item>	318	1,288.80	89.1
259	J-144	1,105.00	16: Zone -	<Collection: 0 items>	0	1,298.60	83.7
261	J-146	1,085.00	16: Zone -	<Collection: 1 item>	318	1,294.50	90.6
262	J-147	1,085.00	16: Zone -	<Collection: 1 item>	159	1,292.20	89.6
263	J-148	1,100.00	16: Zone -	<Collection: 1 item>	260	1,291.30	82.8
264	J-149	1,092.00	16: Zone -	<Collection: 1 item>	101	1,289.30	85.4
275	J-161	1,181.00	17: Zone -	<Collection: 0 items>	0	1,366.80	80.4
276	J-162	1,256.00	17: Zone -	<Collection: 0 items>	0	1,404.20	64.1
278	J-164	1,110.00	16: Zone -	<Collection: 0 items>	0	1,291.50	78.5
279	J-165	1,087.00	16: Zone -	<Collection: 1 item>	318	1,289.60	87.7
280	J-166	1,285.00	18: Zone -	<Collection: 0 items>	0	1,490.80	89
281	J-167	1,283.00	18: Zone -	<Collection: 0 items>	0	1,482.20	86.2
282	J-168	1,165.00	16: Zone -	<Collection: 1 item>	318	1,295.30	56.4
283	J-169	1,179.00	17: Zone -	<Collection: 0 items>	0	1,376.70	85.5
284	J-170	1,179.00	17: Zone -	<Collection: 0 items>	0	1,376.80	85.6
285	J-171	1,170.00	17: Zone -	<Collection: 1 item>	159	1,295.20	54.2
286	J-172	1,230.00	17: Zone -	<Collection: 0 items>	0	1,405.40	75.9
287	J-173	1,133.00	16: Zone -	<Collection: 0 items>	0	1,303.20	73.6
288	J-174	1,160.00	16: Zone -	<Collection: 1 item>	159	1,306.90	63.6
289	J-175	1,160.00	16: Zone -	<Collection: 0 items>	0	1,306.30	63.3
290	J-176	1,320.00	18: Zone -	<Collection: 0 items>	0	1,493.00	74.9
291	J-177	1,245.00	17: Zone -	<Collection: 0 items>	0	1,392.60	63.9
292	J-178	1,241.00	17: Zone -	<Collection: 0 items>	0	1,393.30	65.9
293	J-180	1,221.00	17: Zone -	<Collection: 0 items>	0	1,391.50	73.8

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
295	J-182	1,218.00	17: Zone -	<Collection: 0 items>	0	1,376.90	68.8
296	J-183	1,205.00	17: Zone -	<Collection: 0 items>	0	1,379.50	75.5
297	J-184	1,225.00	17: Zone -	<Collection: 0 items>	0	1,396.50	74.2
298	J-185	1,247.00	17: Zone -	<Collection: 0 items>	0	1,404.70	68.2
299	J-186	1,240.00	17: Zone -	<Collection: 0 items>	0	1,396.10	67.5
300	J-187	1,360.00	18: Zone -	<Collection: 0 items>	0	1,508.70	64.3
301	J-188	1,260.00	17: Zone -	<Collection: 0 items>	0	1,402.20	61.5
302	J-189	1,282.00	18: Zone -	<Collection: 0 items>	0	1,479.30	85.4
303	J-190	1,335.00	18: Zone -	<Collection: 0 items>	0	1,495.10	69.2
304	J-191	1,270.00	17: Zone -	<Collection: 0 items>	0	1,464.40	84.1
305	J-192	1,210.00	17: Zone -	<Collection: 1 item>	159	1,384.20	75.4
306	J-193	1,184.00	17: Zone -	<Collection: 1 item>	159	1,378.80	84.3
307	J-194	1,135.00	16: Zone -	<Collection: 0 items>	0	1,304.20	73.2
308	J-195	1,130.00	16: Zone -	<Collection: 1 item>	159	1,300.00	73.5
309	J-196	1,112.00	16: Zone -	<Collection: 1 item>	159	1,297.30	80.2
310	J-197	1,126.00	16: Zone -	<Collection: 0 items>	0	1,299.30	75
311	J-198	1,140.00	16: Zone -	<Collection: 0 items>	0	1,301.50	69.9
312	J-199	1,145.00	16: Zone -	<Collection: 1 item>	159	1,301.90	67.9
313	J-200	1,120.00	16: Zone -	<Collection: 0 items>	0	1,299.30	77.6
314	J-201	1,200.00	17: Zone -	<Collection: 0 items>	0	1,390.30	82.3
315	J-202	1,130.00	16: Zone -	<Collection: 0 items>	0	1,303.50	75.1
316	J-203	1,225.00	17: Zone -	<Collection: 0 items>	0	1,393.40	72.9
317	J-204	1,268.00	17: Zone -	<Collection: 0 items>	0	1,399.40	56.8
318	J-205	1,196.00	17: Zone -	<Collection: 1 item>	159	1,380.80	79.9
650	J-212	1,131.00	<None>	<Collection: 1 item>	222	1,290.60	69.1
652	J-213	1,128.00	<None>	<Collection: 1 item>	222	1,290.40	70.3
654	J-214	1,126.00	<None>	<Collection: 1 item>	394	1,290.30	71.1
656	J-215	1,105.00	<None>	<Collection: 1 item>	394	1,287.90	79.1
658	J-216	1,079.00	<None>	<Collection: 1 item>	322	1,286.70	89.9
660	J-217	1,077.00	<None>	<Collection: 1 item>	222	1,285.80	90.3
662	J-218	1,058.00	<None>	<Collection: 1 item>	322	1,195.50	59.5
664	J-219	1,059.00	<None>	<Collection: 1 item>	322	1,194.60	58.7
666	J-220	1,030.00	<None>	<Collection: 1 item>	322	1,194.90	71.4
668	J-221	1,100.00	<None>	<Collection: 1 item>	331	1,287.30	81
670	J-222	1,130.00	<None>	<Collection: 1 item>	172	1,290.00	69.2
677	J-225	1,135.00	<None>	<Collection: 1 item>	331	1,289.90	67
679	J-226	1,107.00	<None>	<Collection: 1 item>	431	1,289.10	78.8
681	J-227	1,116.00	<None>	<Collection: 1 item>	209	1,290.20	75.4
683	J-228	1,144.00	<None>	<Collection: 1 item>	318	1,291.10	63.6
691	J-229	1,066.00	<None>	<Collection: 1 item>	101	1,194.30	55.5
693	J-230	1,177.00	<None>	<Collection: 1 item>	450	1,392.20	93.1
697	J-232	1,132.00	<None>	<Collection: 1 item>	450	1,299.10	72.3
699	J-233	1,092.00	<None>	<Collection: 1 item>	609	1,299.30	89.7
701	J-234	1,098.00	<None>	<Collection: 1 item>	450	1,298.30	86.7
704	J-235	1,264.00	<None>	<Collection: 0 items>	0	1,407.50	62.1
725	J-238	1,070.00	<None>	<Collection: 1 item>	318	1,285.40	93.2
727	J-239	1,052.00	<None>	<Collection: 1 item>	322	1,200.40	64.2
729	J-240	1,035.00	<None>	<Collection: 1 item>	322	1,196.70	70
732	J-241	1,000.00	<None>	<Collection: 1 item>	161.2	1,194.20	84
734	J-242	1,023.00	<None>	<Collection: 1 item>	318	1,193.10	73.6
736	J-243	1,022.00	<None>	<Collection: 1 item>	318	1,194.90	74.8
738	J-244	1,071.00	<None>	<Collection: 1 item>	318	1,289.00	94.3
742	J-245	1,034.00	<None>	<Collection: 1 item>	318	1,194.50	69.5
746	J-246	1,000.00	<None>	<Collection: 1 item>	318	1,193.90	83.9
751	J-247	1,085.00	<None>	<Collection: 1 item>	159	1,289.40	88.5
754	J-248	1,085.00	<None>	<Collection: 1 item>	322	1,287.40	87.6

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
757	J-249	1,180.00	<None>	<Collection: 1 item>	318	1,383.60	88.1
759	J-250	1,210.00	<None>	<Collection: 1 item>	318	1,379.70	73.4
761	J-251	1,236.00	<None>	<Collection: 1 item>	159	1,386.40	65.1
763	J-252	1,200.00	<None>	<Collection: 1 item>	318	1,388.20	81.4
765	J-253	1,228.00	<None>	<Collection: 1 item>	318	1,390.70	70.4
767	J-254	1,256.00	<None>	<Collection: 1 item>	318	1,395.50	60.3
769	J-255	1,270.00	<None>	<Collection: 1 item>	159	1,393.20	53.3
771	J-256	1,240.00	<None>	<Collection: 1 item>	159	1,392.00	65.8
773	J-257	1,216.00	<None>	<Collection: 1 item>	318	1,391.20	75.8
775	J-258	1,190.00	<None>	<Collection: 1 item>	477	1,389.80	86.4
777	J-259	1,170.00	<None>	<Collection: 1 item>	331	1,288.40	51.2
783	J-260	1,178.00	<None>	<Collection: 1 item>	159	1,390.40	91.9
785	J-261	1,170.00	<None>	<Collection: 1 item>	318	1,389.90	95.2
787	J-262	1,196.00	<None>	<Collection: 1 item>	159	1,390.40	84.1
794	J-265	1,142.00	<None>	<Collection: 1 item>	318	1,287.70	63
797	J-266	1,128.00	<None>	<Collection: 1 item>	318	1,286.80	68.7
799	J-267	1,110.00	<None>	<Collection: 1 item>	159	1,286.10	76.2
801	J-268	1,088.00	<None>	<Collection: 1 item>	318	1,285.90	85.6
804	J-269	1,110.00	<None>	<Collection: 1 item>	159	1,286.60	76.4
809	J-270	1,160.00	<None>	<Collection: 1 item>	318	1,290.20	56.3
811	J-271	1,002.00	<None>	<Collection: 1 item>	318	1,192.60	82.5
813	J-272	1,023.00	<None>	<Collection: 1 item>	318	1,192.90	73.5
816	J-274	1,070.00	<None>	<Collection: 1 item>	101	1,289.20	94.8
818	J-275	1,061.00	<None>	<Collection: 1 item>	101	1,289.20	98.7
820	J-276	1,072.00	<None>	<Collection: 1 item>	101	1,289.20	94
823	J-277	1,045.00	<None>	<Collection: 1 item>	101	1,194.30	64.6
826	J-278	1,164.00	<None>	<Collection: 1 item>	159	1,290.00	54.5
830	J-279	1,162.00	<None>	<Collection: 1 item>	318	1,286.90	54
832	J-280	1,093.00	<None>	<Collection: 1 item>	318	1,296.60	88.1
835	J-281	1,270.00	<None>	<Collection: 0 items>	0	1,407.70	59.6
838	J-282	1,270.00	<None>	<Collection: 0 items>	0	1,474.20	88.4
869	J-283	1,170.00	<None>	<Collection: 0 items>	0	1,295.20	54.2
872	J-284	1,170.00	<None>	<Collection: 0 items>	0	1,356.20	80.6
875	J-285	1,170.00	<None>	<Collection: 0 items>	0	1,306.90	59.2
882	J-286	1,270.00	<None>	<Collection: 0 items>	0	1,406.60	59.1
887	J-287	1,193.00	<None>	<Collection: 1 item>	318	1,377.70	79.9
889	J-288	1,182.00	<None>	<Collection: 1 item>	318	1,375.10	83.5
891	J-289	1,195.00	<None>	<Collection: 1 item>	318	1,377.30	78.9
893	J-290	1,199.00	<None>	<Collection: 1 item>	318	1,379.70	78.2
896	J-291	1,152.00	<None>	<Collection: 1 item>	318	1,293.60	61.3
898	J-292	1,160.00	<None>	<Collection: 1 item>	318	1,292.90	57.5
900	J-293	1,170.00	<None>	<Collection: 1 item>	159	1,292.90	53.2
906	J-294	1,170.00	<None>	<Collection: 1 item>	159	1,290.10	52
908	J-295	1,170.00	<None>	<Collection: 1 item>	159	1,295.70	54.4
910	J-296	1,170.00	<None>	<Collection: 1 item>	318	1,377.30	89.7
912	J-297	1,170.00	<None>	<Collection: 1 item>	159	1,380.60	91.1
918	J-298	1,170.00	<None>	<Collection: 1 item>	318	1,378.50	90.2
922	J-299	1,050.00	<None>	<Collection: 1 item>	318	1,194.40	62.5
925	J-300	1,058.00	<None>	<Collection: 1 item>	260	1,194.40	59
929	J-301	1,078.00	<None>	<Collection: 1 item>	318	1,289.40	91.5
932	J-302	1,075.00	<None>	<Collection: 1 item>	318	1,288.70	92.5
934	J-303	1,074.00	<None>	<Collection: 1 item>	318	1,288.70	92.9
937	J-304	1,060.00	<None>	<Collection: 1 item>	318	1,194.30	58.1
940	J-305	1,059.00	<None>	<Collection: 1 item>	318	1,194.30	58.5
943	J-306	1,100.00	<None>	<Collection: 1 item>	209	1,288.70	81.6
945	J-307	1,112.00	<None>	<Collection: 1 item>	242	1,292.00	77.9

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
947	J-308	1,120.00	<None>	<Collection: 1 item>	242	1,294.30	75.4
949	J-309	1,136.00	<None>	<Collection: 1 item>	318	1,301.80	71.7
951	J-310	1,148.00	<None>	<Collection: 0 items>	0	1,304.00	67.5
958	J-311	1,158.00	<None>	<Collection: 1 item>	242	1,293.10	58.5
962	J-312	1,072.00	<None>	<Collection: 1 item>	318	1,289.10	93.9
965	J-313	1,108.00	<None>	<Collection: 1 item>	318	1,289.10	78.3
968	J-314	1,100.00	<None>	<Collection: 0 items>	0	1,291.40	82.8
970	J-315	1,090.00	<None>	<Collection: 0 items>	0	1,289.60	86.4
974	J-316	1,100.00	<None>	<Collection: 0 items>	0	1,291.10	82.7
978	J-317	1,170.00	<None>	<Collection: 1 item>	450	1,299.40	56
981	J-318	1,170.00	<None>	<Collection: 1 item>	318	1,299.60	56.1
992	J-319	1,270.00	<None>	<Collection: 0 items>	0	1,477.60	89.8
1019	J-322	1,270.00	<None>	<Collection: 0 items>	0	1,412.80	61.8
1023	J-323	1,270.00	<None>	<Collection: 0 items>	0	1,409.60	60.4
1030	J-324	1,270.00	<None>	<Collection: 0 items>	0	1,408.90	60.1
1033	J-325	1,258.00	<None>	<Collection: 0 items>	0	1,408.00	64.9
1042	J-327	1,270.00	<None>	<Collection: 0 items>	0	1,408.50	59.9
1046	J-328	1,311.00	<None>	<Collection: 0 items>	0	1,491.60	78.1
1049	J-329	1,308.00	<None>	<Collection: 0 items>	0	1,488.70	78.2
1053	J-330	1,170.00	<None>	<Collection: 0 items>	0	1,306.10	58.9
1062	J-332	1,072.00	<None>	<Collection: 1 item>	322	1,287.40	93.2
1065	J-333	1,129.00	<None>	<Collection: 1 item>	172	1,289.00	69.2
1067	J-334	1,160.00	<None>	<Collection: 1 item>	172	1,288.00	55.4
1071	J-335	1,170.00	<None>	<Collection: 0 items>	0	1,389.10	94.8
1074	J-336	1,170.00	<None>	<Collection: 1 item>	318	1,384.80	92.9
1077	J-337	1,270.00	<None>	<Collection: 0 items>	0	1,472.60	87.7
1081	J-338	1,300.00	<None>	<Collection: 0 items>	0	1,490.50	82.4
250	J-V1-I	1,114.00	16: Zone -	<Collection: 1 item>	606	1,299.40	80.2
249	J-V1-II	1,133.00	16: Zone -	<Collection: 1 item>	606	1,299.50	72.1
246	J-V2-I	1,161.00	16: Zone -	<Collection: 1 item>	319	1,296.10	58.5
214	J-V2-II	1,160.00	16: Zone -	<Collection: 1 item>	319	1,307.70	63.9
213	J-V3-I-Z1	1,163.00	16: Zone -	<Collection: 1 item>	67	1,356.20	83.6
248	J-V3-I-Z2	1,190.00	17: Zone -	<Collection: 1 item>	606	1,367.00	76.6
244	J-V4-II-Z2	1,186.00	17: Zone -	<Collection: 1 item>	646	1,369.40	79.4
241	J-V4-I-Z1	1,165.00	16: Zone -	<Collection: 1 item>	323	1,297.90	57.5
238	J-V4-I-Z2	1,180.00	17: Zone -	<Collection: 1 item>	646	1,376.50	85
224	J-V5-I	1,217.00	17: Zone -	<Collection: 1 item>	472	1,383.40	72
231	J-V5-II	1,195.00	17: Zone -	<Collection: 1 item>	472	1,378.70	79.5
226	J-V6-I	1,227.00	18: Zone -	<Collection: 1 item>	446	1,380.70	66.5
235	J-V6-II	1,203.00	17: Zone -	<Collection: 1 item>	446	1,375.80	74.8
268	J-V7-I	1,231.00	17: Zone -	<Collection: 1 item>	679	1,390.50	69
210	J-V7-II	1,220.00	17: Zone -	<Collection: 1 item>	339.5	1,376.20	67.6
294	J-V7-III	1,220.00	17: Zone -	<Collection: 1 item>	339.5	1,377.70	68.2
190	J-V8-I	1,245.00	17: Zone -	<Collection: 1 item>	564	1,401.00	67.5
202	J-V8-II	1,223.00	17: Zone -	<Collection: 1 item>	564	1,393.40	73.7
192	J-V9-I	1,240.00	17: Zone -	<Collection: 1 item>	651	1,398.90	68.8
269	J-V9-II	1,225.00	17: Zone -	<Collection: 1 item>	651	1,394.70	73.4
271	J-V10-I-Z2	1,258.00	17: Zone -	<Collection: 1 item>	756	1,401.20	62
187	J-V10-I-Z3	1,282.00	18: Zone -	<Collection: 1 item>	84	1,486.00	88.2
267	J-V11-III-Z2	1,240.00	17: Zone -	<Collection: 1 item>	670	1,388.70	64.3
175	J-V11-II-Z2	1,247.00	17: Zone -	<Collection: 1 item>	335	1,396.00	64.5
182	J-V11-IV-Z2	1,264.00	17: Zone -	<Collection: 1 item>	335	1,406.00	61.4
266	J-V11-I-Z2	1,237.00	17: Zone -	<Collection: 1 item>	670	1,382.90	63.1
168	J-V11-I-Z3	1,300.00	18: Zone -	<Collection: 1 item>	223	1,494.10	84
173	J-V12-I	1,261.00	17: Zone -	<Collection: 1 item>	435	1,396.50	58.6
222	J-V12-II	1,227.00	17: Zone -	<Collection: 1 item>	435	1,393.30	71.9

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
273	J-V13-III-Z2	1,263.00	17: Zone -	<Collection: 1 item>	557	1,399.30	59
176	J-V13-II-Z2	1,260.00	17: Zone -	<Collection: 1 item>	557	1,406.50	63.4
170	J-V13-I-Z2	1,237.00	17: Zone -	<Collection: 1 item>	557	1,402.80	71.8
162	J-V13-I-Z3	1,285.00	18: Zone -	<Collection: 1 item>	418	1,485.50	86.7
180	J-V14-II-Z3	1,282.00	18: Zone -	<Collection: 1 item>	367	1,485.90	88.2
272	J-V14-I-Z2	1,264.00	17: Zone -	<Collection: 1 item>	82	1,402.40	59.9
165	J-V14-I-Z3	1,289.00	18: Zone -	<Collection: 1 item>	367	1,491.30	87.5
277	J-V15-III-Z2	1,260.00	17: Zone -	<Collection: 1 item>	532	1,408.90	64.4
193	J-V15-III-Z3	1,271.00	18: Zone -	<Collection: 1 item>	532	1,462.70	83
191	J-V15-II-Z2	1,245.00	17: Zone -	<Collection: 1 item>	532	1,402.90	68.3
152	J-V15-II-Z3	1,290.00	18: Zone -	<Collection: 1 item>	532	1,481.00	82.7
270	J-V15-I-Z2	1,269.00	17: Zone -	<Collection: 1 item>	532	1,471.30	87.5
185	J-V15-I-Z3	1,300.00	18: Zone -	<Collection: 1 item>	532	1,484.70	79.9
161	J-V16-I	1,319.00	18: Zone -	<Collection: 1 item>	572	1,495.90	76.6
159	J-V16-II	1,341.00	18: Zone -	<Collection: 1 item>	572	1,497.60	67.7
151	J-V16-III	1,310.00	18: Zone -	<Collection: 1 item>	572	1,491.80	78.6
135	J-V17-I	1,320.00	18: Zone -	<Collection: 1 item>	613	1,495.90	76.1
138	J-V17-II	1,315.00	18: Zone -	<Collection: 1 item>	613	1,496.50	78.5
164	J-V17-III	1,280.00	18: Zone -	<Collection: 1 item>	613	1,487.80	89.9
123	J-V18-I	1,340.00	18: Zone -	<Collection: 1 item>	472	1,500.90	69.6
130	J-V18-II	1,352.00	18: Zone -	<Collection: 1 item>	472	1,505.30	66.3
133	J-V18-III	1,300.00	18: Zone -	<Collection: 1 item>	472	1,492.80	83.4
157	J-V19-I	1,371.00	18: Zone -	<Collection: 1 item>	672	1,504.70	57.8
154	J-V19-II	1,360.00	18: Zone -	<Collection: 1 item>	672	1,499.90	60.5
150	J-V20-II-Z3	1,320.00	18: Zone -	<Collection: 1 item>	600	1,493.90	75.3
274	J-V20-I-Z2	1,256.00	17: Zone -	<Collection: 1 item>	300	1,408.40	65.9
146	J-V20-I-Z3	1,329.00	18: Zone -	<Collection: 1 item>	600	1,495.80	72.2
148	J-V21-II-Z3	1,318.00	18: Zone -	<Collection: 1 item>	439	1,491.30	75
149	J-V21-I-Z2	1,270.00	17: Zone -	<Collection: 1 item>	219	1,475.60	88.9
147	J-V21-I-Z3	1,335.00	18: Zone -	<Collection: 1 item>	439	1,492.60	68.2
197	J-V22-I	1,269.00	17: Zone -	<Collection: 1 item>	549	1,473.00	88.3
195	J-V22-II	1,255.00	17: Zone -	<Collection: 1 item>	549	1,405.40	65.1
198	J-V22-III	1,193.00	17: Zone -	<Collection: 1 item>	549	1,394.80	87.3
219	J-V23-I	1,098.00	16: Zone -	<Collection: 1 item>	276	1,296.70	86
260	J-V24-I	1,109.00	16: Zone -	<Collection: 1 item>	780	1,297.60	81.6
265	J-V24-II	1,100.00	16: Zone -	<Collection: 1 item>	780	1,291.10	82.7
255	J-V25-I	1,110.00	16: Zone -	<Collection: 1 item>	1,100.00	1,292.00	78.7
257	J-V25-II	1,086.00	16: Zone -	<Collection: 1 item>	1,100.00	1,288.40	87.6

Junction Nodes- MDD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
1042	J-327	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,364.30	40.8
835	J-281	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,364.60	40.9
1023	J-323	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,364.90	41.1
1019	J-322	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,365.00	41.1
1030	J-324	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,365.40	41.3
882	J-286	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,365.60	41.4
1103	J-342	1,270.00	118: Zone - 3	<Collection: 1 item>	318.00	1,370.70	43.6
769	J-255	1,270.00	118: Zone - 3	<Collection: 1 item>	636	1,371.00	43.7
1100	J-341	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,372.00	44.1
277	J-V15-III-Z2	1,260.00	118: Zone - 3	<Collection: 1 item>	532.00	1,365.00	45.4
157	J-V19-I	1,371.00	1115: Zone - 4	<Collection: 1 item>	672.00	1,476.90	45.8
1033	J-325	1,258.00	118: Zone - 3	<Collection: 0 items>	0	1,365.40	46.5
274	J-V20-I-Z2	1,256.00	118: Zone - 3	<Collection: 1 item>	300.00	1,364.90	47.1
271	J-V10-I-Z2	1,258.00	118: Zone - 3	<Collection: 1 item>	756	1,367.00	47.2
195	J-V22-II	1,255.00	118: Zone - 3	<Collection: 1 item>	549	1,364.10	47.2
276	J-162	1,256.00	118: Zone - 3	<Collection: 0 items>	0	1,365.90	47.6
875	J-285	1,170.00	117: Zone - 2	<Collection: 0 items>	0.00	1,281.00	48
317	J-204	1,268.00	118: Zone - 3	<Collection: 0 items>	0	1,379.30	48.2
182	J-V11-IV-Z2	1,264.00	118: Zone - 3	<Collection: 1 item>	335	1,375.40	48.2
704	J-235	1,264.00	118: Zone - 3	<Collection: 0 items>	0	1,375.40	48.2
869	J-283	1,170.00	117: Zone - 2	<Collection: 0 items>	0	1,281.70	48.3
285	J-171	1,170.00	117: Zone - 2	<Collection: 1 item>	159	1,281.70	48.3
154	J-V19-II	1,360.00	1115: Zone - 4	<Collection: 1 item>	672	1,472.20	48.5
811	J-271	1,002.00	115: Zone - 0	<Collection: 1 item>	318	1,114.30	48.6
301	J-188	1,260.00	118: Zone - 3	<Collection: 0 items>	0	1,372.50	48.7
272	J-V14-I-Z2	1,264.00	118: Zone - 3	<Collection: 1 item>	82	1,377.20	49
978	J-317	1,170.00	117: Zone - 2	<Collection: 1 item>	450	1,283.60	49.1
1295	J-378	1,168.00	117: Zone - 2	<Collection: 0 items>	0.00	1,281.60	49.1
732	J-241	1,000.00	115: Zone - 0	<Collection: 1 item>	479	1,114.30	49.4
1233	J-368	1,000.00	115: Zone - 0	<Collection: 0 items>	0	1,114.50	49.5
188	J-70	1,255.00	118: Zone - 3	<Collection: 0 items>	0	1,369.80	49.7
746	J-246	1,000.00	115: Zone - 0	<Collection: 1 item>	318	1,115.10	49.8
767	J-254	1,256.00	118: Zone - 3	<Collection: 1 item>	636.00	1,371.60	50
153	J-34	1,355.00	1115: Zone - 4	<Collection: 0 items>	0	1,470.90	50.1
777	J-259	1,170.00	117: Zone - 2	<Collection: 1 item>	331	1,286.00	50.2
965	J-313	1,092.00	116: Zone - 1	<Collection: 1 item>	318	1,208.00	50.2
981	J-318	1,168.00	117: Zone - 2	<Collection: 1 item>	636.00	1,284.00	50.2
241	J-V4-I-Z1	1,165.00	117: Zone - 2	<Collection: 1 item>	323	1,281.40	50.3
282	J-168	1,165.00	117: Zone - 2	<Collection: 1 item>	318	1,281.70	50.5
237	J-120	1,164.00	117: Zone - 2	<Collection: 0 items>	0	1,281.70	50.9
1127	J-346	1,166.00	117: Zone - 2	<Collection: 0 items>	0	1,283.80	51
298	J-185	1,247.00	118: Zone - 3	<Collection: 0 items>	0	1,365.00	51.1
245	J-129	1,163.00	117: Zone - 2	<Collection: 0 items>	0	1,281.20	51.1
239	J-123	1,164.00	117: Zone - 2	<Collection: 1 item>	318	1,282.60	51.3
1198	J-361	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,209.10	51.5
196	J-79	1,245.00	118: Zone - 3	<Collection: 0 items>	0	1,364.20	51.6
246	J-V2-I	1,161.00	117: Zone - 2	<Collection: 1 item>	319.00	1,281.10	51.9
191	J-V15-II-Z2	1,245.00	118: Zone - 3	<Collection: 1 item>	532	1,365.90	52.3
214	J-V2-II	1,160.00	117: Zone - 2	<Collection: 1 item>	319	1,281.00	52.4
288	J-174	1,160.00	117: Zone - 2	<Collection: 1 item>	159	1,281.00	52.4
289	J-175	1,160.00	117: Zone - 2	<Collection: 0 items>	0	1,281.00	52.4
273	J-V13-III-Z2	1,263.00	118: Zone - 3	<Collection: 1 item>	875	1,384.10	52.4
177	J-58	1,265.00	118: Zone - 3	<Collection: 0 items>	0	1,386.20	52.4
173	J-V12-I	1,261.00	118: Zone - 3	<Collection: 1 item>	435	1,382.40	52.5
160	J-41	1,355.00	1115: Zone - 4	<Collection: 0 items>	0	1,476.40	52.5
1180	J-358	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,211.50	52.6

Junction Nodes- MDD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
194	J-76	1,243.00	118: Zone - 3	<Collection: 0 items>	0	1,364.90	52.7
900	J-293	1,170.00	117: Zone - 2	<Collection: 1 item>	159	1,291.90	52.8
190	J-V8-I	1,245.00	118: Zone - 3	<Collection: 1 item>	564	1,367.10	52.8
240	J-124	1,160.00	117: Zone - 2	<Collection: 1 item>	242	1,282.60	53
1208	J-363	1,086.00	116: Zone - 1	<Collection: 0 items>	0	1,209.00	53.2
279	J-165	1,087.00	116: Zone - 1	<Collection: 1 item>	318	1,210.00	53.2
158	J-39	1,354.00	1115: Zone - 4	<Collection: 0 items>	0	1,477.00	53.2
830	J-279	1,162.00	117: Zone - 2	<Collection: 1 item>	100	1,285.10	53.3
174	J-55	1,255.00	118: Zone - 3	<Collection: 0 items>	0.00	1,378.20	53.3
751	J-247	1,085.00	116: Zone - 1	<Collection: 1 item>	159.00	1,208.30	53.4
754	J-248	1,085.00	116: Zone - 1	<Collection: 1 item>	322	1,209.00	53.6
120	CAP-Belmont	1,363.00	1115: Zone - 4	<Collection: 1 item>	0.00	1,487.00	53.6
257	J-V25-II	1,086.00	116: Zone - 1	<Collection: 1 item>	1,100.00	1,210.80	54
192	J-V9-I	1,240.00	118: Zone - 3	<Collection: 1 item>	651	1,364.90	54
201	J-84	1,240.00	118: Zone - 3	<Collection: 0 items>	0.00	1,365.50	54.3
144	J-25	1,345.00	1115: Zone - 4	<Collection: 0 items>	0	1,470.50	54.3
958	J-311	1,158.00	117: Zone - 2	<Collection: 1 item>	242	1,283.50	54.3
1067	J-334	1,160.00	117: Zone - 2	<Collection: 1 item>	172	1,285.70	54.4
145	J-26	1,344.00	1115: Zone - 4	<Collection: 0 items>	0	1,470.00	54.5
908	J-295	1,170.00	117: Zone - 2	<Collection: 1 item>	159	1,296.70	54.8
189	J-71	1,243.00	118: Zone - 3	<Collection: 0 items>	0	1,369.90	54.9
247	J-131	1,245.00	118: Zone - 3	<Collection: 0 items>	0	1,372.20	55
299	J-186	1,240.00	118: Zone - 3	<Collection: 0 items>	0	1,367.50	55.2
143	J-24	1,346.00	1115: Zone - 4	<Collection: 0 items>	0	1,474.20	55.5
175	J-V11-II-Z2	1,247.00	118: Zone - 3	<Collection: 1 item>	335	1,375.80	55.7
169	J-50	1,260.00	118: Zone - 3	<Collection: 0 items>	0	1,388.90	55.8
300	J-187	1,360.00	1115: Zone - 4	<Collection: 0 items>	0	1,488.90	55.8
176	J-V13-II-Z2	1,260.00	118: Zone - 3	<Collection: 1 item>	557	1,389.10	55.9
142	J-23	1,346.00	1115: Zone - 4	<Collection: 0 items>	0	1,475.50	56
172	J-53	1,255.00	118: Zone - 3	<Collection: 0 items>	0	1,384.70	56.1
771	J-256	1,240.00	118: Zone - 3	<Collection: 1 item>	159	1,369.80	56.1
141	J-22	1,350.00	1115: Zone - 4	<Collection: 0 items>	0	1,480.00	56.3
254	J-138	1,090.00	116: Zone - 1	<Collection: 1 item>	318	1,220.10	56.3
121	J-2	1,354.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,484.20	56.3
826	J-278	1,164.00	117: Zone - 2	<Collection: 1 item>	159	1,294.30	56.4
1291	J-377	1,150.00	117: Zone - 2	<Collection: 0 items>	0	1,281.10	56.7
267	J-V11-III-Z2	1,240.00	118: Zone - 3	<Collection: 1 item>	670.00	1,371.80	57
658	J-216	1,079.00	116: Zone - 1	<Collection: 1 item>	322	1,211.50	57.3
929	J-301	1,078.00	116: Zone - 1	<Collection: 1 item>	318	1,210.50	57.3
159	J-V16-II	1,341.00	1115: Zone - 4	<Collection: 1 item>	572.00	1,473.80	57.5
951	J-310	1,148.00	117: Zone - 2	<Collection: 0 items>	0	1,281.00	57.5
155	J-36	1,340.00	1115: Zone - 4	<Collection: 0 items>	0	1,473.10	57.6
1163	J-355	1,152.00	117: Zone - 2	<Collection: 0 items>	0	1,285.30	57.7
1218	J-365	1,088.00	116: Zone - 1	<Collection: 0 items>	0	1,221.50	57.7
761	J-251	1,236.00	118: Zone - 3	<Collection: 1 item>	159	1,370.20	58.1
906	J-294	1,170.00	117: Zone - 2	<Collection: 1 item>	159	1,304.20	58.1
898	J-292	1,160.00	117: Zone - 2	<Collection: 1 item>	318	1,294.50	58.2
147	J-V21-I-Z3	1,335.00	1115: Zone - 4	<Collection: 1 item>	439	1,469.50	58.2
286	J-172	1,230.00	118: Zone - 3	<Collection: 0 items>	0	1,364.60	58.2
204	J-87	1,235.00	118: Zone - 3	<Collection: 0 items>	0	1,369.80	58.3
710	DZ-South	1,145.00	117: Zone - 2	<Collection: 0 items>	0	1,281.00	58.9
220	J-103	1,091.00	116: Zone - 1	<Collection: 1 item>	318	1,227.10	58.9
962	J-312	1,072.00	116: Zone - 1	<Collection: 1 item>	318	1,208.60	59.1
738	J-244	1,071.00	116: Zone - 1	<Collection: 1 item>	318.00	1,208.10	59.3
258	J-143	1,083.00	116: Zone - 1	<Collection: 1 item>	318	1,220.20	59.3
291	J-177	1,245.00	118: Zone - 3	<Collection: 0 items>	0	1,382.50	59.5

Junction Nodes- MDD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
312	J-199	1,145.00	117: Zone - 2	<Collection: 1 item>	159.00	1,282.60	59.5
1156	J-353	1,149.00	117: Zone - 2	<Collection: 0 items>	0	1,286.80	59.6
1286	J-376	1,143.00	117: Zone - 2	<Collection: 0 items>	0	1,281.10	59.8
809	J-270	1,160.00	117: Zone - 2	<Collection: 1 item>	318.00	1,298.40	59.9
268	J-V7-I	1,231.00	118: Zone - 3	<Collection: 1 item>	679	1,370.10	60.2
269	J-V9-II	1,225.00	118: Zone - 3	<Collection: 1 item>	651	1,364.20	60.2
130	J-V18-II	1,352.00	1115: Zone - 4	<Collection: 1 item>	472	1,491.30	60.3
221	J-104	1,245.00	118: Zone - 3	<Collection: 0 items>	0	1,384.80	60.5
215	J-98	1,141.00	117: Zone - 2	<Collection: 0 items>	0	1,281.00	60.6
264	J-149	1,092.00	116: Zone - 1	<Collection: 1 item>	101	1,232.20	60.6
266	J-V11-I-Z2	1,237.00	118: Zone - 3	<Collection: 1 item>	670	1,377.20	60.7
303	J-190	1,335.00	1115: Zone - 4	<Collection: 0 items>	0	1,475.30	60.7
932	J-302	1,075.00	116: Zone - 1	<Collection: 1 item>	318	1,215.50	60.8
146	J-V20-I-Z3	1,329.00	1115: Zone - 4	<Collection: 1 item>	600	1,469.90	61
311	J-198	1,140.00	117: Zone - 2	<Collection: 0 items>	0	1,281.00	61
297	J-184	1,225.00	118: Zone - 3	<Collection: 0 items>	0	1,366.20	61.1
1213	J-364	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,231.30	61.1
1153	J-352	1,145.00	117: Zone - 2	<Collection: 0 items>	0	1,286.70	61.3
765	J-253	1,228.00	118: Zone - 3	<Collection: 1 item>	636	1,370.60	61.7
683	J-228	1,144.00	117: Zone - 2	<Collection: 1 item>	318	1,286.80	61.8
292	J-178	1,241.00	118: Zone - 3	<Collection: 0 items>	0	1,384.10	61.9
794	J-265	1,142.00	117: Zone - 2	<Collection: 1 item>	318	1,285.30	62
156	J-37	1,330.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,473.60	62.1
818	J-275	1,090.00	116: Zone - 1	<Collection: 1 item>	101.00	1,234.00	62.3
123	J-V18-I	1,340.00	1115: Zone - 4	<Collection: 1 item>	472.00	1,484.20	62.4
949	J-309	1,136.00	117: Zone - 2	<Collection: 1 item>	318	1,280.60	62.6
202	J-V8-II	1,223.00	118: Zone - 3	<Collection: 1 item>	564	1,369.20	63.3
307	J-194	1,135.00	117: Zone - 2	<Collection: 0 items>	0	1,281.30	63.3
124	J-5	1,341.00	1115: Zone - 4	<Collection: 0 items>	0	1,487.70	63.5
934	J-303	1,074.00	116: Zone - 1	<Collection: 1 item>	318	1,220.90	63.6
896	J-291	1,152.00	117: Zone - 2	<Collection: 1 item>	318	1,298.90	63.6
1160	J-354	1,138.00	117: Zone - 2	<Collection: 1 item>	218	1,285.10	63.6
1250	J-370	1,085.00	116: Zone - 1	<Collection: 0 items>	0.00	1,232.40	63.8
249	J-V1-II	1,133.00	117: Zone - 2	<Collection: 1 item>	606	1,280.80	63.9
216	J-99	1,133.00	117: Zone - 2	<Collection: 0 items>	0	1,280.80	64
122	J-3	1,335.00	1115: Zone - 4	<Collection: 0 items>	0	1,483.00	64
287	J-173	1,133.00	117: Zone - 2	<Collection: 0 items>	0.00	1,281.00	64
125	J-6	1,343.00	1115: Zone - 4	<Collection: 0 items>	0	1,492.20	64.5
209	J-92	1,227.00	118: Zone - 3	<Collection: 0 items>	0.00	1,376.50	64.7
664	J-219	1,059.00	116: Zone - 1	<Collection: 1 item>	322	1,208.50	64.7
1053	J-330	1,170.00	117: Zone - 2	<Collection: 0 items>	0	1,319.80	64.8
290	J-176	1,320.00	1115: Zone - 4	<Collection: 0 items>	0	1,469.90	64.9
1253	J-371	1,078.00	116: Zone - 1	<Collection: 0 items>	0.00	1,227.90	64.9
171	J-52	1,240.00	118: Zone - 3	<Collection: 0 items>	0	1,389.90	64.9
150	J-V20-II-Z3	1,320.00	1115: Zone - 4	<Collection: 1 item>	600	1,470.00	64.9
293	J-180	1,221.00	118: Zone - 3	<Collection: 0 items>	0	1,371.10	64.9
937	J-304	1,060.00	116: Zone - 1	<Collection: 1 item>	636	1,210.20	65
226	J-V6-I	1,227.00	118: Zone - 3	<Collection: 1 item>	446	1,377.60	65.2
315	J-202	1,130.00	117: Zone - 2	<Collection: 0 items>	0	1,280.80	65.2
662	J-218	1,058.00	116: Zone - 1	<Collection: 1 item>	322	1,209.10	65.4
725	J-238	1,070.00	116: Zone - 1	<Collection: 1 item>	636.00	1,221.50	65.5
170	J-V13-I-Z2	1,237.00	118: Zone - 3	<Collection: 1 item>	557	1,388.50	65.5
697	J-232	1,132.00	117: Zone - 2	<Collection: 1 item>	450	1,283.50	65.5
148	J-V21-II-Z3	1,318.00	1115: Zone - 4	<Collection: 1 item>	439	1,469.60	65.6
140	J-21	1,330.00	1115: Zone - 4	<Collection: 0 items>	0	1,481.90	65.7
677	J-225	1,135.00	117: Zone - 2	<Collection: 1 item>	331.00	1,287.70	66.1

Junction Nodes- MDD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
773	J-257	1,216.00	118: Zone - 3	<Collection: 1 item>	318.00	1,368.80	66.1
675	Balterra	1,135.00	117: Zone - 2	<Collection: 1 item>	172	1,288.00	66.2
1281	J-374	1,128.00	117: Zone - 2	<Collection: 0 items>	0	1,281.10	66.2
1189	J-359	1,055.00	116: Zone - 1	<Collection: 0 items>	0	1,208.60	66.4
660	J-217	1,077.00	116: Zone - 1	<Collection: 1 item>	222	1,231.00	66.6
308	J-195	1,130.00	117: Zone - 2	<Collection: 1 item>	477	1,284.90	67
310	J-197	1,126.00	117: Zone - 2	<Collection: 0 items>	0	1,281.40	67.2
225	J-108	1,225.00	118: Zone - 3	<Collection: 0 items>	0.00	1,380.70	67.3
922	J-299	1,050.00	116: Zone - 1	<Collection: 1 item>	318	1,206.40	67.7
233	J-116	1,221.00	118: Zone - 3	<Collection: 0 items>	0	1,377.70	67.8
797	J-266	1,128.00	117: Zone - 2	<Collection: 1 item>	636.00	1,285.00	67.9
650	J-212	1,131.00	117: Zone - 2	<Collection: 1 item>	540	1,288.10	68
136	J-17	1,330.00	1115: Zone - 4	<Collection: 0 items>	0	1,487.20	68
210	J-V7-II	1,220.00	118: Zone - 3	<Collection: 1 item>	339.5	1,377.30	68
217	J-100	1,123.00	117: Zone - 2	<Collection: 0 items>	0	1,280.50	68.2
161	J-V16-I	1,319.00	1115: Zone - 4	<Collection: 1 item>	572	1,476.90	68.3
940	J-305	1,059.00	116: Zone - 1	<Collection: 1 item>	636	1,217.00	68.4
1065	J-333	1,129.00	117: Zone - 2	<Collection: 1 item>	172	1,287.10	68.4
727	J-239	1,052.00	116: Zone - 1	<Collection: 1 item>	481	1,210.30	68.5
1046	J-328	1,311.00	1115: Zone - 4	<Collection: 0 items>	0	1,469.90	68.8
670	J-222	1,130.00	117: Zone - 2	<Collection: 1 item>	172	1,289.30	68.9
295	J-182	1,218.00	118: Zone - 3	<Collection: 0 items>	0	1,377.50	69
223	J-106	1,225.00	118: Zone - 3	<Collection: 0 items>	0	1,384.90	69.2
294	J-V7-III	1,220.00	118: Zone - 3	<Collection: 1 item>	339.5	1,379.90	69.2
759	J-250	1,210.00	118: Zone - 3	<Collection: 1 item>	318.00	1,370.00	69.2
151	J-V16-III	1,310.00	1115: Zone - 4	<Collection: 1 item>	572.00	1,470.00	69.2
203	J-86	1,210.00	118: Zone - 3	<Collection: 0 items>	0	1,370.20	69.3
313	J-200	1,120.00	117: Zone - 2	<Collection: 0 items>	0	1,280.30	69.3
222	J-V12-II	1,227.00	118: Zone - 3	<Collection: 1 item>	435	1,387.40	69.4
652	J-213	1,128.00	117: Zone - 2	<Collection: 1 item>	222	1,288.50	69.4
1194	J-360	1,062.00	116: Zone - 1	<Collection: 0 items>	0	1,222.80	69.6
137	J-18	1,323.00	1115: Zone - 4	<Collection: 0 items>	0	1,484.10	69.7
947	J-308	1,120.00	117: Zone - 2	<Collection: 1 item>	242	1,281.30	69.8
186	J-67	1,310.00	1115: Zone - 4	<Collection: 0 items>	0	1,471.40	69.8
1049	J-329	1,308.00	1115: Zone - 4	<Collection: 0 items>	0	1,469.60	69.9
131	J-12	1,335.00	1115: Zone - 4	<Collection: 0 items>	0	1,497.90	70.5
654	J-214	1,126.00	117: Zone - 2	<Collection: 1 item>	394	1,289.00	70.5
820	J-276	1,072.00	116: Zone - 1	<Collection: 1 item>	101.00	1,236.20	71
316	J-203	1,225.00	118: Zone - 3	<Collection: 0 items>	0	1,389.70	71.2
250	J-V1-I	1,114.00	117: Zone - 2	<Collection: 1 item>	606	1,279.90	71.8
1167	J-356	1,119.00	117: Zone - 2	<Collection: 0 items>	0.00	1,285.00	71.8
138	J-V17-II	1,315.00	1115: Zone - 4	<Collection: 1 item>	613	1,481.40	72
309	J-196	1,112.00	117: Zone - 2	<Collection: 1 item>	159.00	1,279.30	72.4
224	J-V5-I	1,217.00	118: Zone - 3	<Collection: 1 item>	472	1,384.50	72.5
234	J-117	1,210.00	118: Zone - 3	<Collection: 0 items>	0	1,378.30	72.8
135	J-V17-I	1,320.00	1115: Zone - 4	<Collection: 1 item>	613	1,488.40	72.8
255	J-V25-I	1,110.00	117: Zone - 2	<Collection: 1 item>	1,100.00	1,278.60	73
816	J-274	1,070.00	116: Zone - 1	<Collection: 1 item>	101	1,238.80	73
252	J-136	1,110.00	117: Zone - 2	<Collection: 1 item>	318	1,279.40	73.3
200	J-83	1,197.00	118: Zone - 3	<Collection: 0 items>	0.00	1,366.40	73.3
763	J-252	1,200.00	118: Zone - 3	<Collection: 1 item>	636.00	1,369.80	73.5
787	J-262	1,196.00	118: Zone - 3	<Collection: 1 item>	318	1,365.90	73.5
1081	J-338	1,300.00	1115: Zone - 4	<Collection: 0 items>	0	1,470.00	73.6
314	J-201	1,200.00	118: Zone - 3	<Collection: 0 items>	0.00	1,370.20	73.7
218	J-101	1,110.00	117: Zone - 2	<Collection: 0 items>	0.00	1,280.20	73.7
198	J-V22-III	1,193.00	118: Zone - 3	<Collection: 1 item>	549	1,363.30	73.7

Junction Nodes- MDD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
260	J-V24-I	1,109.00	117: Zone - 2	<Collection: 1 item>	780	1,279.30	73.7
139	J-20	1,311.00	1115: Zone - 4	<Collection: 0 items>	0	1,481.40	73.7
256	J-140	1,110.00	117: Zone - 2	<Collection: 0 items>	0	1,280.60	73.8
681	J-227	1,116.00	117: Zone - 2	<Collection: 1 item>	410	1,286.90	73.9
126	J-7	1,325.00	1115: Zone - 4	<Collection: 0 items>	0	1,495.90	74
945	J-307	1,112.00	117: Zone - 2	<Collection: 1 item>	242.00	1,283.00	74
278	J-164	1,110.00	117: Zone - 2	<Collection: 0 items>	0	1,281.10	74
134	J-15	1,320.00	1115: Zone - 4	<Collection: 0 items>	0	1,491.40	74.2
227	J-110	1,208.00	118: Zone - 3	<Collection: 0 items>	0	1,379.60	74.2
742	J-245	1,034.00	116: Zone - 1	<Collection: 1 item>	318.00	1,206.40	74.6
925	J-300	1,058.00	116: Zone - 1	<Collection: 1 item>	260	1,230.80	74.8
729	J-240	1,035.00	116: Zone - 1	<Collection: 1 item>	481.00	1,208.00	74.9
185	J-V15-I-Z3	1,300.00	1115: Zone - 4	<Collection: 1 item>	532	1,473.00	74.9
799	J-267	1,110.00	117: Zone - 2	<Collection: 1 item>	477	1,283.80	75.2
691	J-229	1,066.00	116: Zone - 1	<Collection: 1 item>	101	1,239.90	75.2
199	J-82	1,192.00	118: Zone - 3	<Collection: 0 items>	0	1,366.40	75.5
235	J-V6-II	1,203.00	118: Zone - 3	<Collection: 1 item>	446	1,377.40	75.5
259	J-144	1,105.00	117: Zone - 2	<Collection: 0 items>	0	1,279.60	75.5
251	J-135	1,105.00	117: Zone - 2	<Collection: 0 items>	0	1,279.70	75.6
804	J-269	1,110.00	117: Zone - 2	<Collection: 1 item>	795	1,284.80	75.6
229	J-112	1,208.00	118: Zone - 3	<Collection: 0 items>	0	1,382.80	75.6
127	J-8	1,318.00	1115: Zone - 4	<Collection: 0 items>	0	1,493.10	75.8
296	J-183	1,205.00	118: Zone - 3	<Collection: 0 items>	0	1,380.40	75.9
208	J-91	1,201.00	118: Zone - 3	<Collection: 0 items>	0	1,377.20	76.2
207	J-90	1,200.00	118: Zone - 3	<Collection: 0 items>	0	1,376.80	76.5
265	J-V24-II	1,100.00	117: Zone - 2	<Collection: 1 item>	780	1,276.90	76.5
263	J-148	1,100.00	117: Zone - 2	<Collection: 1 item>	260.00	1,276.90	76.6
887	J-287	1,193.00	118: Zone - 3	<Collection: 1 item>	318.00	1,370.30	76.7
666	J-220	1,030.00	116: Zone - 1	<Collection: 1 item>	481.00	1,207.50	76.8
206	J-89	1,196.00	118: Zone - 3	<Collection: 0 items>	0	1,373.60	76.8
253	J-137	1,100.00	117: Zone - 2	<Collection: 1 item>	318	1,278.60	77.3
775	J-258	1,190.00	118: Zone - 3	<Collection: 1 item>	477	1,369.20	77.5
167	J-48	1,303.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,482.30	77.6
305	J-192	1,210.00	118: Zone - 3	<Collection: 1 item>	159.00	1,389.90	77.9
152	J-V15-II-Z3	1,290.00	1115: Zone - 4	<Collection: 1 item>	532	1,470.00	77.9
219	J-V23-I	1,098.00	117: Zone - 2	<Collection: 1 item>	276.00	1,278.30	78
893	J-290	1,199.00	118: Zone - 3	<Collection: 1 item>	318	1,380.00	78.3
679	J-226	1,107.00	117: Zone - 2	<Collection: 1 item>	431	1,288.00	78.3
168	J-V11-I-Z3	1,300.00	1115: Zone - 4	<Collection: 1 item>	223	1,481.20	78.4
974	J-316	1,100.00	117: Zone - 2	<Collection: 0 items>	0.00	1,281.40	78.5
132	J-13	1,314.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,495.50	78.5
205	J-88	1,191.00	118: Zone - 3	<Collection: 0 items>	0	1,372.70	78.6
891	J-289	1,195.00	118: Zone - 3	<Collection: 1 item>	318	1,376.70	78.6
968	J-314	1,100.00	117: Zone - 2	<Collection: 0 items>	0.00	1,281.90	78.7
813	J-272	1,023.00	116: Zone - 1	<Collection: 1 item>	318.00	1,205.00	78.7
734	J-242	1,023.00	116: Zone - 1	<Collection: 1 item>	318.00	1,205.20	78.8
236	J-119	1,195.00	118: Zone - 3	<Collection: 0 items>	0.00	1,377.50	78.9
230	J-113	1,200.00	118: Zone - 3	<Collection: 0 items>	0.00	1,382.80	79.1
656	J-215	1,105.00	117: Zone - 2	<Collection: 1 item>	394	1,288.10	79.2
166	J-47	1,300.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,483.70	79.5
1130	J-347	1,100.00	117: Zone - 2	<Collection: 0 items>	0	1,283.70	79.5
736	J-243	1,022.00	116: Zone - 1	<Collection: 1 item>	636	1,206.40	79.8
701	J-234	1,098.00	117: Zone - 2	<Collection: 1 item>	350.00	1,283.10	80.1
231	J-V5-II	1,195.00	118: Zone - 3	<Collection: 1 item>	472	1,380.10	80.1
832	J-280	1,093.00	117: Zone - 2	<Collection: 1 item>	318	1,278.20	80.1
1139	J-348	1,180.00	118: Zone - 3	<Collection: 1 item>	200.00	1,366.40	80.6

Junction Nodes- MDD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
248	J-V3-I-Z2	1,190.00	118: Zone - 3	<Collection: 1 item>	606.00	1,376.40	80.6
184	J-65	1,290.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,476.50	80.7
783	J-260	1,178.00	118: Zone - 3	<Collection: 1 item>	636.00	1,365.20	81
302	J-189	1,282.00	1115: Zone - 4	<Collection: 0 items>	0	1,469.50	81.1
318	J-205	1,196.00	118: Zone - 3	<Collection: 1 item>	159	1,383.50	81.1
943	J-306	1,100.00	117: Zone - 2	<Collection: 1 item>	209	1,287.70	81.2
668	J-221	1,100.00	117: Zone - 2	<Collection: 1 item>	649	1,288.10	81.4
179	J-60	1,295.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,483.30	81.5
183	J-64	1,290.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,478.70	81.7
228	J-111	1,190.00	118: Zone - 3	<Collection: 0 items>	0.00	1,378.90	81.7
693	J-230	1,177.00	118: Zone - 3	<Collection: 1 item>	250.00	1,366.30	81.9
128	J-9	1,301.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,490.70	82.1
757	J-249	1,180.00	118: Zone - 3	<Collection: 1 item>	318.00	1,369.90	82.1
244	J-V4-II-Z2	1,186.00	118: Zone - 3	<Collection: 1 item>	646.00	1,376.50	82.4
889	J-288	1,182.00	118: Zone - 3	<Collection: 1 item>	318.00	1,372.50	82.4
1142	J-349	1,175.00	118: Zone - 3	<Collection: 0 items>	0.00	1,366.30	82.8
1201	J-362	1,090.00	117: Zone - 2	<Collection: 0 items>	0.00	1,281.40	82.8
699	J-233	1,092.00	117: Zone - 2	<Collection: 1 item>	409.00	1,283.70	83
262	J-147	1,085.00	117: Zone - 2	<Collection: 1 item>	159.00	1,277.20	83.1
243	J-127	1,184.00	118: Zone - 3	<Collection: 0 items>	0	1,376.50	83.3
211	J-94	1,184.00	118: Zone - 3	<Collection: 0 items>	0	1,376.70	83.4
261	J-146	1,085.00	117: Zone - 2	<Collection: 1 item>	318	1,278.00	83.5
133	J-V18-III	1,300.00	1115: Zone - 4	<Collection: 1 item>	472.00	1,493.20	83.6
1144	J-350	1,172.00	118: Zone - 3	<Collection: 1 item>	300.00	1,366.30	84.1
232	J-115	1,185.00	118: Zone - 3	<Collection: 0 items>	0.00	1,379.50	84.2
823	J-277	1,045.00	116: Zone - 1	<Collection: 1 item>	101	1,239.90	84.3
785	J-261	1,170.00	118: Zone - 3	<Collection: 1 item>	477.00	1,365.00	84.4
165	J-V14-I-Z3	1,289.00	1115: Zone - 4	<Collection: 1 item>	367	1,484.40	84.5
275	J-161	1,181.00	118: Zone - 3	<Collection: 0 items>	0	1,376.60	84.6
801	J-268	1,088.00	117: Zone - 2	<Collection: 1 item>	636.00	1,283.80	84.7
306	J-193	1,184.00	118: Zone - 3	<Collection: 1 item>	159.00	1,380.50	85
970	J-315	1,090.00	117: Zone - 2	<Collection: 0 items>	0.00	1,286.90	85.2
242	J-126	1,179.00	118: Zone - 3	<Collection: 0 items>	0.00	1,376.50	85.4
187	J-V10-I-Z3	1,282.00	1115: Zone - 4	<Collection: 1 item>	84	1,479.50	85.5
212	J-95	1,179.00	118: Zone - 3	<Collection: 0 items>	0.00	1,376.60	85.5
281	J-167	1,283.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,481.00	85.7
1177	J-357	1,090.00	117: Zone - 2	<Collection: 0 items>	0.00	1,288.10	85.7
280	J-166	1,285.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,483.40	85.8
238	J-V4-I-Z2	1,180.00	118: Zone - 3	<Collection: 1 item>	646	1,378.60	85.9
193	J-V15-III-Z3	1,271.00	1115: Zone - 4	<Collection: 1 item>	532.00	1,469.70	86
1077	J-337	1,270.00	1115: Zone - 4	<Collection: 0 items>	0	1,469.10	86.1
180	J-V14-II-Z3	1,282.00	1115: Zone - 4	<Collection: 1 item>	367	1,481.20	86.2
1071	J-335	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,369.20	86.2
838	J-282	1,270.00	1115: Zone - 4	<Collection: 0 items>	0	1,469.20	86.2
149	J-V21-I-Z2	1,270.00	1115: Zone - 4	<Collection: 1 item>	219	1,469.30	86.2
1074	J-336	1,170.00	118: Zone - 3	<Collection: 1 item>	318	1,369.50	86.3
304	J-191	1,270.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,469.70	86.4
283	J-169	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,378.80	86.4
284	J-170	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,378.90	86.5
912	J-297	1,170.00	118: Zone - 3	<Collection: 1 item>	159	1,369.90	86.5
197	J-V22-I	1,269.00	1115: Zone - 4	<Collection: 1 item>	549	1,469.00	86.5
181	J-62	1,281.00	1115: Zone - 4	<Collection: 1 item>	318	1,481.30	86.6
270	J-V15-I-Z2	1,269.00	1115: Zone - 4	<Collection: 1 item>	532	1,470.10	87
178	J-59	1,282.00	1115: Zone - 4	<Collection: 0 items>	0	1,484.00	87.4
162	J-V13-I-Z3	1,285.00	1115: Zone - 4	<Collection: 1 item>	418.00	1,488.30	87.9
164	J-V17-III	1,280.00	1115: Zone - 4	<Collection: 1 item>	613	1,484.80	88.6

Junction Nodes- MDD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
213	J-V3-I-Z1	1,171.00	118: Zone - 3	<Collection: 1 item>	67	1,376.60	89
713	DZ-North	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,376.60	89.4
872	J-284	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,376.60	89.4
1262	J-372	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,376.60	89.4
910	J-296	1,170.00	118: Zone - 3	<Collection: 1 item>	318	1,377.00	89.6
129	J-10	1,281.00	1115: Zone - 4	<Collection: 0 items>	0	1,488.10	89.6
163	J-44	1,280.00	1115: Zone - 4	<Collection: 0 items>	0	1,488.20	90.1
918	J-298	1,170.00	118: Zone - 3	<Collection: 1 item>	318	1,379.20	90.5

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
835	J-281	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,361.70	39.7
882	J-286	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,362.20	39.9
1023	J-323	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,362.20	39.9
1042	J-327	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,362.20	39.9
1030	J-324	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,362.40	40
1019	J-322	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,362.70	40.1
769	J-255	1,270.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,363.80	40.6
830	J-279	1,162.00	117: Zone - 2	<Collection: 1 item>	336.4	1,258.40	41.7
777	J-259	1,170.00	117: Zone - 2	<Collection: 1 item>	1,113.48	1,267.20	42.1
1180	J-358	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,187.30	42.1
1103	J-342	1,270.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,367.80	42.3
182	J-V11-IV-Z2	1,264.00	118: Zone - 3	<Collection: 1 item>	1,126.94	1,362.80	42.8
704	J-235	1,264.00	118: Zone - 3	<Collection: 0 items>	0	1,362.80	42.8
317	J-204	1,268.00	118: Zone - 3	<Collection: 0 items>	0	1,366.80	42.8
1208	J-363	1,086.00	116: Zone - 1	<Collection: 0 items>	0.00	1,185.40	43
272	J-V14-I-Z2	1,264.00	118: Zone - 3	<Collection: 1 item>	275.85	1,364.20	43.3
157	J-V19-I	1,371.00	1115: Zone - 4	<Collection: 1 item>	2,260.61	1,471.20	43.3
754	J-248	1,085.00	116: Zone - 1	<Collection: 1 item>	1,083.21	1,185.40	43.5
285	J-171	1,170.00	117: Zone - 2	<Collection: 1 item>	534.88	1,270.70	43.6
869	J-283	1,170.00	117: Zone - 2	<Collection: 0 items>	0	1,270.70	43.6
811	J-271	1,002.00	115: Zone - 0	<Collection: 1 item>	1,069.75	1,103.20	43.8
1100	J-341	1,270.00	118: Zone - 3	<Collection: 0 items>	0.00	1,371.80	44
301	J-188	1,260.00	118: Zone - 3	<Collection: 0 items>	0	1,361.90	44.1
978	J-317	1,170.00	117: Zone - 2	<Collection: 1 item>	1,513.80	1,271.90	44.1
271	J-V10-I-Z2	1,258.00	118: Zone - 3	<Collection: 1 item>	2,543.18	1,360.20	44.2
1295	J-378	1,168.00	117: Zone - 2	<Collection: 0 items>	0	1,270.80	44.5
277	J-V15-III-Z2	1,260.00	118: Zone - 3	<Collection: 1 item>	1,789.65	1,362.90	44.5
732	J-241	1,000.00	115: Zone - 0	<Collection: 1 item>	1,611.36	1,102.90	44.5
922	J-299	1,050.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,153.10	44.6
195	J-V22-II	1,255.00	118: Zone - 3	<Collection: 1 item>	1,846.84	1,358.20	44.6
257	J-V25-II	1,086.00	116: Zone - 1	<Collection: 1 item>	3,700.40	1,190.00	45
1067	J-334	1,160.00	117: Zone - 2	<Collection: 1 item>	578.61	1,264.40	45.2
1033	J-325	1,258.00	118: Zone - 3	<Collection: 0 items>	0	1,362.40	45.2
1233	J-368	1,000.00	115: Zone - 0	<Collection: 0 items>	0	1,104.80	45.3
282	J-168	1,165.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,270.70	45.7
875	J-285	1,170.00	117: Zone - 2	<Collection: 0 items>	0	1,275.80	45.8
276	J-162	1,256.00	118: Zone - 3	<Collection: 0 items>	0.00	1,361.90	45.8
738	J-244	1,071.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,176.90	45.8
274	J-V20-I-Z2	1,256.00	118: Zone - 3	<Collection: 1 item>	1,009.20	1,362.10	45.9
241	J-V4-I-Z1	1,165.00	117: Zone - 2	<Collection: 1 item>	1,086.57	1,271.10	45.9
188	J-70	1,255.00	118: Zone - 3	<Collection: 0 items>	0.00	1,361.20	45.9
751	J-247	1,085.00	116: Zone - 1	<Collection: 1 item>	534.88	1,191.40	46
239	J-123	1,164.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,270.70	46.2
237	J-120	1,164.00	117: Zone - 2	<Collection: 0 items>	0.00	1,270.90	46.3
1218	J-365	1,088.00	116: Zone - 1	<Collection: 0 items>	0	1,195.00	46.3
254	J-138	1,090.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,197.10	46.3
1163	J-355	1,152.00	117: Zone - 2	<Collection: 0 items>	0.00	1,259.60	46.6
1127	J-346	1,166.00	117: Zone - 2	<Collection: 0 items>	0	1,274.10	46.8
658	J-216	1,079.00	116: Zone - 1	<Collection: 1 item>	1,083.21	1,187.30	46.8
981	J-318	1,168.00	117: Zone - 2	<Collection: 1 item>	2,139.50	1,276.30	46.9
273	J-V13-III-Z2	1,263.00	118: Zone - 3	<Collection: 1 item>	2,943.50	1,372.50	47.4
160	J-41	1,355.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,464.50	47.4
245	J-129	1,163.00	117: Zone - 2	<Collection: 0 items>	0.00	1,272.70	47.4
154	J-V19-II	1,360.00	1115: Zone - 4	<Collection: 1 item>	2,260.61	1,469.70	47.5
279	J-165	1,087.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,196.90	47.5
173	J-V12-I	1,261.00	118: Zone - 3	<Collection: 1 item>	1,463.34	1,371.50	47.8
174	J-55	1,255.00	118: Zone - 3	<Collection: 0 items>	0.00	1,365.70	47.9
746	J-246	1,000.00	115: Zone - 0	<Collection: 1 item>	1,069.75	1,110.70	47.9
240	J-124	1,160.00	117: Zone - 2	<Collection: 1 item>	814.09	1,271.40	48.2
662	J-218	1,058.00	116: Zone - 1	<Collection: 1 item>	1,083.21	1,169.60	48.3
1198	J-361	1,090.00	116: Zone - 1	<Collection: 0 items>	0.00	1,201.70	48.3

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
246	J-V2-I	1,161.00	117: Zone - 2	<Collection: 1 item>	1,073.12	1,273.60	48.7
767	J-254	1,256.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,368.70	48.7
900	J-293	1,170.00	117: Zone - 2	<Collection: 1 item>	534.88	1,282.80	48.8
177	J-58	1,265.00	118: Zone - 3	<Collection: 0 items>	0.00	1,377.90	48.9
771	J-256	1,240.00	118: Zone - 3	<Collection: 1 item>	534.88	1,353.00	48.9
937	J-304	1,060.00	116: Zone - 1	<Collection: 1 item>	2,139.50	1,173.70	49.2
158	J-39	1,354.00	1115: Zone - 4	<Collection: 0 items>	0	1,468.20	49.4
196	J-79	1,245.00	118: Zone - 3	<Collection: 0 items>	0.00	1,359.30	49.5
958	J-311	1,158.00	117: Zone - 2	<Collection: 1 item>	814.09	1,272.60	49.6
153	J-34	1,355.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,469.70	49.6
258	J-143	1,083.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,197.70	49.6
289	J-175	1,160.00	117: Zone - 2	<Collection: 0 items>	0	1,275.70	50
214	J-V2-II	1,160.00	117: Zone - 2	<Collection: 1 item>	1,073.12	1,275.70	50.1
965	J-313	1,092.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,207.70	50.1
962	J-312	1,072.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,187.80	50.1
288	J-174	1,160.00	117: Zone - 2	<Collection: 1 item>	534.88	1,275.80	50.1
192	J-V9-I	1,240.00	118: Zone - 3	<Collection: 1 item>	2,189.96	1,355.90	50.2
190	J-V8-I	1,245.00	118: Zone - 3	<Collection: 1 item>	1,897.30	1,361.20	50.3
727	J-239	1,052.00	116: Zone - 1	<Collection: 1 item>	1,618.08	1,168.20	50.3
175	J-V11-II-Z2	1,247.00	118: Zone - 3	<Collection: 1 item>	1,126.94	1,363.30	50.3
813	J-272	1,023.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,139.30	50.3
247	J-131	1,245.00	118: Zone - 3	<Collection: 0 items>	0.00	1,361.70	50.5
1189	J-359	1,055.00	116: Zone - 1	<Collection: 0 items>	0	1,171.80	50.5
742	J-245	1,034.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,150.80	50.5
191	J-V15-II-Z2	1,245.00	118: Zone - 3	<Collection: 1 item>	1,789.65	1,362.00	50.6
664	J-219	1,059.00	116: Zone - 1	<Collection: 1 item>	1,083.21	1,176.30	50.8
267	J-V11-III-Z2	1,240.00	118: Zone - 3	<Collection: 1 item>	2,253.88	1,357.60	50.9
155	J-36	1,340.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,457.80	51
298	J-185	1,247.00	118: Zone - 3	<Collection: 0 items>	0	1,364.80	51
929	J-301	1,078.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,196.00	51.1
794	J-265	1,142.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,260.10	51.1
734	J-242	1,023.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,141.20	51.1
189	J-71	1,243.00	118: Zone - 3	<Collection: 0 items>	0.00	1,361.20	51.1
908	J-295	1,170.00	117: Zone - 2	<Collection: 1 item>	534.88	1,288.50	51.3
194	J-76	1,243.00	118: Zone - 3	<Collection: 0 items>	0	1,362.00	51.5
220	J-103	1,091.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,210.00	51.5
299	J-186	1,240.00	118: Zone - 3	<Collection: 0 items>	0.00	1,359.40	51.7
1160	J-354	1,138.00	117: Zone - 2	<Collection: 1 item>	733.35	1,257.60	51.8
201	J-84	1,240.00	118: Zone - 3	<Collection: 0 items>	0.00	1,359.80	51.8
147	J-V21-I-Z3	1,335.00	1115: Zone - 4	<Collection: 1 item>	1,476.80	1,454.80	51.8
269	J-V9-II	1,225.00	118: Zone - 3	<Collection: 1 item>	2,189.96	1,345.20	52
141	J-22	1,350.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,470.20	52
159	J-V16-II	1,341.00	1115: Zone - 4	<Collection: 1 item>	1,924.21	1,461.60	52.2
266	J-V11-I-Z2	1,237.00	118: Zone - 3	<Collection: 1 item>	2,253.88	1,357.70	52.2
729	J-240	1,035.00	116: Zone - 1	<Collection: 1 item>	1,618.08	1,155.80	52.3
172	J-53	1,255.00	118: Zone - 3	<Collection: 0 items>	0.00	1,376.20	52.4
787	J-262	1,196.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,317.30	52.5
932	J-302	1,075.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,196.30	52.5
121	J-2	1,354.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,475.30	52.5
143	J-24	1,346.00	1115: Zone - 4	<Collection: 0 items>	0	1,467.90	52.8
142	J-23	1,346.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,468.10	52.8
169	J-50	1,260.00	118: Zone - 3	<Collection: 0 items>	0.00	1,383.00	53.2
1291	J-377	1,150.00	117: Zone - 2	<Collection: 0 items>	0.00	1,273.00	53.2
303	J-190	1,335.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,458.30	53.4
120	CAP-Belmont	1,363.00	1115: Zone - 4	<Collection: 1 item>	0.00	1,486.90	53.6
204	J-87	1,235.00	118: Zone - 3	<Collection: 0 items>	0	1,359.10	53.7
144	J-25	1,345.00	1115: Zone - 4	<Collection: 0 items>	0	1,469.40	53.8
725	J-238	1,070.00	116: Zone - 1	<Collection: 1 item>	2,139.50	1,195.00	54.1
666	J-220	1,030.00	116: Zone - 1	<Collection: 1 item>	1,618.08	1,155.00	54.1
176	J-V13-II-Z2	1,260.00	118: Zone - 3	<Collection: 1 item>	1,873.75	1,385.70	54.4
145	J-26	1,344.00	1115: Zone - 4	<Collection: 0 items>	0	1,469.80	54.4

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
826	J-278	1,164.00	117: Zone - 2	<Collection: 1 item>	534.88	1,290.00	54.5
268	J-V7-I	1,231.00	118: Zone - 3	<Collection: 1 item>	2,284.16	1,357.10	54.6
898	J-292	1,160.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,286.20	54.6
934	J-303	1,074.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,200.40	54.7
1156	J-353	1,149.00	117: Zone - 2	<Collection: 0 items>	0	1,275.40	54.7
291	J-177	1,245.00	118: Zone - 3	<Collection: 0 items>	0.00	1,371.50	54.7
300	J-187	1,360.00	1115: Zone - 4	<Collection: 0 items>	0	1,487.20	55
1286	J-376	1,143.00	117: Zone - 2	<Collection: 0 items>	0	1,270.90	55.4
264	J-149	1,092.00	116: Zone - 1	<Collection: 1 item>	339.76	1,220.60	55.6
1153	J-352	1,145.00	117: Zone - 2	<Collection: 0 items>	0.00	1,273.70	55.7
773	J-257	1,216.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,344.70	55.7
1213	J-364	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,218.70	55.7
797	J-266	1,128.00	117: Zone - 2	<Collection: 1 item>	2,139.50	1,257.20	55.9
710	DZ-South	1,145.00	117: Zone - 2	<Collection: 0 items>	0.00	1,274.70	56.1
951	J-310	1,148.00	117: Zone - 2	<Collection: 0 items>	0	1,277.80	56.2
156	J-37	1,330.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,460.10	56.3
906	J-294	1,170.00	117: Zone - 2	<Collection: 1 item>	534.88	1,300.10	56.3
286	J-172	1,230.00	118: Zone - 3	<Collection: 0 items>	0.00	1,361.00	56.7
736	J-243	1,022.00	116: Zone - 1	<Collection: 1 item>	2,139.50	1,153.10	56.7
221	J-104	1,245.00	118: Zone - 3	<Collection: 0 items>	0	1,376.30	56.8
123	J-V18-I	1,340.00	1115: Zone - 4	<Collection: 1 item>	1,587.81	1,471.30	56.8
761	J-251	1,236.00	118: Zone - 3	<Collection: 1 item>	534.88	1,367.60	56.9
949	J-309	1,136.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,267.80	57
265	J-V24-II	1,100.00	117: Zone - 2	<Collection: 1 item>	2,623.92	1,232.70	57.4
783	J-260	1,178.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,310.80	57.5
263	J-148	1,100.00	117: Zone - 2	<Collection: 1 item>	874.64	1,232.90	57.5
809	J-270	1,160.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,293.40	57.7
292	J-178	1,241.00	118: Zone - 3	<Collection: 0 items>	0	1,374.70	57.8
297	J-184	1,225.00	118: Zone - 3	<Collection: 0 items>	0.00	1,359.00	58
818	J-275	1,090.00	116: Zone - 1	<Collection: 1 item>	339.76	1,224.10	58
148	J-V21-II-Z3	1,318.00	1115: Zone - 4	<Collection: 1 item>	1,476.80	1,452.40	58.2
1253	J-371	1,078.00	116: Zone - 1	<Collection: 0 items>	0.00	1,212.80	58.3
311	J-198	1,140.00	117: Zone - 2	<Collection: 0 items>	0.00	1,274.90	58.4
765	J-253	1,228.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,363.20	58.5
683	J-228	1,144.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,279.20	58.5
799	J-267	1,110.00	117: Zone - 2	<Collection: 1 item>	1,604.63	1,245.20	58.5
226	J-V6-I	1,227.00	118: Zone - 3	<Collection: 1 item>	1,500.34	1,362.50	58.6
122	J-3	1,335.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,470.80	58.7
249	J-V1-II	1,133.00	117: Zone - 2	<Collection: 1 item>	2,038.58	1,269.10	58.9
202	J-V8-II	1,223.00	118: Zone - 3	<Collection: 1 item>	1,897.30	1,359.10	58.9
1250	J-370	1,085.00	116: Zone - 1	<Collection: 0 items>	0.00	1,221.40	59
312	J-199	1,145.00	117: Zone - 2	<Collection: 1 item>	534.88	1,281.60	59.1
209	J-92	1,227.00	118: Zone - 3	<Collection: 0 items>	0.00	1,363.60	59.1
255	J-V25-I	1,110.00	117: Zone - 2	<Collection: 1 item>	3,700.40	1,246.60	59.1
290	J-176	1,320.00	1115: Zone - 4	<Collection: 0 items>	0	1,456.90	59.2
124	J-5	1,341.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,477.90	59.2
1167	J-356	1,119.00	117: Zone - 2	<Collection: 0 items>	0.00	1,256.10	59.3
130	J-V18-II	1,352.00	1115: Zone - 4	<Collection: 1 item>	1,587.81	1,489.20	59.3
186	J-67	1,310.00	1115: Zone - 4	<Collection: 0 items>	0	1,447.40	59.5
940	J-305	1,059.00	116: Zone - 1	<Collection: 1 item>	2,139.50	1,196.40	59.5
146	J-V20-I-Z3	1,329.00	1115: Zone - 4	<Collection: 1 item>	2,018.40	1,467.20	59.8
150	J-V20-II-Z3	1,320.00	1115: Zone - 4	<Collection: 1 item>	2,018.40	1,459.00	60.1
697	J-232	1,132.00	117: Zone - 2	<Collection: 1 item>	1,513.80	1,271.10	60.2
785	J-261	1,170.00	118: Zone - 3	<Collection: 1 item>	1,604.63	1,309.20	60.2
215	J-98	1,141.00	117: Zone - 2	<Collection: 0 items>	0.00	1,280.70	60.5
161	J-V16-I	1,319.00	1115: Zone - 4	<Collection: 1 item>	1,924.21	1,458.90	60.5
1281	J-374	1,128.00	117: Zone - 2	<Collection: 0 items>	0.00	1,268.50	60.8
140	J-21	1,330.00	1115: Zone - 4	<Collection: 0 items>	0	1,470.60	60.8
170	J-V13-I-Z2	1,237.00	118: Zone - 3	<Collection: 1 item>	1,873.75	1,377.80	60.9
896	J-291	1,152.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,293.30	61.1
233	J-116	1,221.00	118: Zone - 3	<Collection: 0 items>	0.00	1,362.50	61.2

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
293	J-180	1,221.00	118: Zone - 3	<Collection: 0 items>	0.00	1,362.70	61.3
225	J-108	1,225.00	118: Zone - 3	<Collection: 0 items>	0	1,367.00	61.4
1046	J-328	1,311.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,453.20	61.5
1049	J-329	1,308.00	1115: Zone - 4	<Collection: 0 items>	0	1,450.20	61.5
136	J-17	1,330.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,472.50	61.7
125	J-6	1,343.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,485.80	61.8
151	J-V16-III	1,310.00	1115: Zone - 4	<Collection: 1 item>	1,924.21	1,453.20	61.9
216	J-99	1,133.00	117: Zone - 2	<Collection: 0 items>	0	1,276.30	62
287	J-173	1,133.00	117: Zone - 2	<Collection: 0 items>	0	1,276.40	62
804	J-269	1,110.00	117: Zone - 2	<Collection: 1 item>	2,674.38	1,253.40	62
309	J-196	1,112.00	117: Zone - 2	<Collection: 1 item>	534.88	1,255.50	62.1
1194	J-360	1,062.00	116: Zone - 1	<Collection: 0 items>	0	1,205.80	62.2
310	J-197	1,126.00	117: Zone - 2	<Collection: 0 items>	0.00	1,270.00	62.3
295	J-182	1,218.00	118: Zone - 3	<Collection: 0 items>	0.00	1,362.60	62.6
137	J-18	1,323.00	1115: Zone - 4	<Collection: 0 items>	0	1,468.00	62.7
210	J-V7-II	1,220.00	118: Zone - 3	<Collection: 1 item>	1,142.08	1,365.20	62.8
138	J-V17-II	1,315.00	1115: Zone - 4	<Collection: 1 item>	2,062.13	1,460.20	62.8
307	J-194	1,135.00	117: Zone - 2	<Collection: 0 items>	0	1,280.70	63
315	J-202	1,130.00	117: Zone - 2	<Collection: 0 items>	0	1,275.90	63.1
252	J-136	1,110.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,256.60	63.4
260	J-V24-I	1,109.00	117: Zone - 2	<Collection: 1 item>	2,623.92	1,256.00	63.6
313	J-200	1,120.00	117: Zone - 2	<Collection: 0 items>	0.00	1,267.10	63.6
947	J-308	1,120.00	117: Zone - 2	<Collection: 1 item>	814.09	1,267.60	63.9
219	J-V23-I	1,098.00	117: Zone - 2	<Collection: 1 item>	928.46	1,245.70	63.9
253	J-137	1,100.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,247.90	64
185	J-V15-I-Z3	1,300.00	1115: Zone - 4	<Collection: 1 item>	1,789.65	1,448.10	64.1
198	J-V22-III	1,193.00	118: Zone - 3	<Collection: 1 item>	1,846.84	1,341.40	64.2
217	J-100	1,123.00	117: Zone - 2	<Collection: 0 items>	0	1,271.90	64.4
1065	J-333	1,129.00	117: Zone - 2	<Collection: 1 item>	578.61	1,278.70	64.8
677	J-225	1,135.00	117: Zone - 2	<Collection: 1 item>	1,113.48	1,284.70	64.8
171	J-52	1,240.00	118: Zone - 3	<Collection: 0 items>	0	1,389.80	64.8
1053	J-330	1,170.00	117: Zone - 2	<Collection: 0 items>	0.00	1,319.80	64.8
256	J-140	1,110.00	117: Zone - 2	<Collection: 0 items>	0.00	1,260.00	64.9
262	J-147	1,085.00	117: Zone - 2	<Collection: 1 item>	534.88	1,235.00	64.9
1081	J-338	1,300.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,450.10	65
250	J-V1-I	1,114.00	117: Zone - 2	<Collection: 1 item>	2,038.58	1,264.50	65.1
223	J-106	1,225.00	118: Zone - 3	<Collection: 0 items>	0.00	1,375.50	65.1
203	J-86	1,210.00	118: Zone - 3	<Collection: 0 items>	0.00	1,361.20	65.4
832	J-280	1,093.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,244.80	65.7
675	Balterra	1,135.00	117: Zone - 2	<Collection: 1 item>	578.61	1,287.30	65.9
278	J-164	1,110.00	117: Zone - 2	<Collection: 0 items>	0	1,262.40	65.9
234	J-117	1,210.00	118: Zone - 3	<Collection: 0 items>	0	1,362.50	66
139	J-20	1,311.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,463.50	66
650	J-212	1,131.00	117: Zone - 2	<Collection: 1 item>	1,816.56	1,283.50	66
135	J-V17-I	1,320.00	1115: Zone - 4	<Collection: 1 item>	2,062.13	1,472.90	66.1
660	J-217	1,077.00	116: Zone - 1	<Collection: 1 item>	746.81	1,230.90	66.6
222	J-V12-II	1,227.00	118: Zone - 3	<Collection: 1 item>	1,463.34	1,381.50	66.9
308	J-195	1,130.00	117: Zone - 2	<Collection: 1 item>	1,604.63	1,284.70	66.9
259	J-144	1,105.00	117: Zone - 2	<Collection: 0 items>	0	1,259.90	67
227	J-110	1,208.00	118: Zone - 3	<Collection: 0 items>	0	1,363.30	67.2
251	J-135	1,105.00	117: Zone - 2	<Collection: 0 items>	0.00	1,260.70	67.4
652	J-213	1,128.00	117: Zone - 2	<Collection: 1 item>	746.81	1,283.70	67.4
670	J-222	1,130.00	117: Zone - 2	<Collection: 1 item>	578.61	1,286.10	67.5
801	J-268	1,088.00	117: Zone - 2	<Collection: 1 item>	2,139.50	1,244.60	67.8
224	J-V5-I	1,217.00	118: Zone - 3	<Collection: 1 item>	1,587.81	1,373.70	67.8
152	J-V15-II-Z3	1,290.00	1115: Zone - 4	<Collection: 1 item>	1,789.65	1,446.80	67.9
235	J-V6-II	1,203.00	118: Zone - 3	<Collection: 1 item>	1,500.34	1,360.10	68
820	J-276	1,072.00	116: Zone - 1	<Collection: 1 item>	339.76	1,229.20	68
218	J-101	1,110.00	117: Zone - 2	<Collection: 0 items>	0	1,267.60	68.2
261	J-146	1,085.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,243.00	68.3
945	J-307	1,112.00	117: Zone - 2	<Collection: 1 item>	814.09	1,270.00	68.4

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
654	J-214	1,126.00	117: Zone - 2	<Collection: 1 item>	1,325.42	1,284.30	68.5
759	J-250	1,210.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,368.40	68.5
296	J-183	1,205.00	118: Zone - 3	<Collection: 0 items>	0	1,363.50	68.6
1077	J-337	1,270.00	1115: Zone - 4	<Collection: 0 items>	0	1,428.80	68.7
302	J-189	1,282.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,441.30	68.9
167	J-48	1,303.00	1115: Zone - 4	<Collection: 0 items>	0	1,462.50	69
294	J-V7-III	1,220.00	118: Zone - 3	<Collection: 1 item>	1,142.08	1,379.80	69.1
197	J-V22-I	1,269.00	1115: Zone - 4	<Collection: 1 item>	1,846.84	1,428.80	69.1
134	J-15	1,320.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,480.00	69.2
775	J-258	1,190.00	118: Zone - 3	<Collection: 1 item>	1,604.63	1,350.20	69.3
763	J-252	1,200.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,360.80	69.6
200	J-83	1,197.00	118: Zone - 3	<Collection: 0 items>	0	1,357.80	69.6
891	J-289	1,195.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,356.00	69.6
314	J-201	1,200.00	118: Zone - 3	<Collection: 0 items>	0.00	1,361.00	69.6
229	J-112	1,208.00	118: Zone - 3	<Collection: 0 items>	0.00	1,369.10	69.7
893	J-290	1,199.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,361.00	70.1
168	J-V11-I-Z3	1,300.00	1115: Zone - 4	<Collection: 1 item>	750.17	1,462.00	70.1
925	J-300	1,058.00	116: Zone - 1	<Collection: 1 item>	874.64	1,220.40	70.3
131	J-12	1,335.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,497.80	70.4
208	J-91	1,201.00	118: Zone - 3	<Collection: 0 items>	0.00	1,363.80	70.4
166	J-47	1,300.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,463.00	70.5
838	J-282	1,270.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,433.00	70.5
974	J-316	1,100.00	117: Zone - 2	<Collection: 0 items>	0.00	1,263.30	70.7
127	J-8	1,318.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,481.40	70.7
184	J-65	1,290.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,453.60	70.8
316	J-203	1,225.00	118: Zone - 3	<Collection: 0 items>	0.00	1,388.90	70.9
207	J-90	1,200.00	118: Zone - 3	<Collection: 0 items>	0.00	1,364.90	71.3
199	J-82	1,192.00	118: Zone - 3	<Collection: 0 items>	0.00	1,357.30	71.5
681	J-227	1,116.00	117: Zone - 2	<Collection: 1 item>	1,379.24	1,281.40	71.6
236	J-119	1,195.00	118: Zone - 3	<Collection: 0 items>	0.00	1,360.50	71.6
968	J-314	1,100.00	117: Zone - 2	<Collection: 0 items>	0.00	1,265.50	71.6
231	J-V5-II	1,195.00	118: Zone - 3	<Collection: 1 item>	1,587.81	1,361.00	71.8
149	J-V21-I-Z2	1,270.00	1115: Zone - 4	<Collection: 1 item>	736.72	1,436.20	71.9
179	J-60	1,295.00	1115: Zone - 4	<Collection: 0 items>	0	1,461.40	72
887	J-287	1,193.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,359.50	72
816	J-274	1,070.00	116: Zone - 1	<Collection: 1 item>	339.76	1,236.60	72.1
206	J-89	1,196.00	118: Zone - 3	<Collection: 0 items>	0.00	1,362.90	72.2
183	J-64	1,290.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,457.00	72.3
126	J-7	1,325.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,492.50	72.5
248	J-V3-I-Z2	1,190.00	118: Zone - 3	<Collection: 1 item>	2,038.58	1,357.80	72.6
193	J-V15-III-Z3	1,271.00	1115: Zone - 4	<Collection: 1 item>	1,789.65	1,439.00	72.7
244	J-V4-II-Z2	1,186.00	118: Zone - 3	<Collection: 1 item>	2,173.14	1,354.40	72.9
304	J-191	1,270.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,438.60	73
230	J-113	1,200.00	118: Zone - 3	<Collection: 0 items>	0.00	1,368.70	73
270	J-V15-I-Z2	1,269.00	1115: Zone - 4	<Collection: 1 item>	1,789.65	1,438.20	73.2
701	J-234	1,098.00	117: Zone - 2	<Collection: 1 item>	1,177.40	1,267.50	73.3
243	J-127	1,184.00	118: Zone - 3	<Collection: 0 items>	0.00	1,354.40	73.7
228	J-111	1,190.00	118: Zone - 3	<Collection: 0 items>	0.00	1,360.60	73.8
205	J-88	1,191.00	118: Zone - 3	<Collection: 0 items>	0.00	1,362.40	74.2
1130	J-347	1,100.00	117: Zone - 2	<Collection: 0 items>	0.00	1,273.00	74.9
1201	J-362	1,090.00	117: Zone - 2	<Collection: 0 items>	0.00	1,263.30	75
180	J-V14-II-Z3	1,282.00	1115: Zone - 4	<Collection: 1 item>	1,234.59	1,455.70	75.2
691	J-229	1,066.00	116: Zone - 1	<Collection: 1 item>	339.76	1,239.80	75.2
165	J-V14-I-Z3	1,289.00	1115: Zone - 4	<Collection: 1 item>	1,234.59	1,462.90	75.2
889	J-288	1,182.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,356.00	75.3
128	J-9	1,301.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,475.10	75.3
238	J-V4-I-Z2	1,180.00	118: Zone - 3	<Collection: 1 item>	2,173.14	1,354.10	75.3
181	J-62	1,281.00	1115: Zone - 4	<Collection: 1 item>	1,069.75	1,455.30	75.4
318	J-205	1,196.00	118: Zone - 3	<Collection: 1 item>	534.88	1,370.60	75.5
132	J-13	1,314.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,488.90	75.7
187	J-V10-I-Z3	1,282.00	1115: Zone - 4	<Collection: 1 item>	282.58	1,457.40	75.9

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
211	J-94	1,184.00	118: Zone - 3	<Collection: 0 items>	0.00	1,359.40	75.9
242	J-126	1,179.00	118: Zone - 3	<Collection: 0 items>	0.00	1,354.40	75.9
232	J-115	1,185.00	118: Zone - 3	<Collection: 0 items>	0.00	1,360.60	76
281	J-167	1,283.00	1115: Zone - 4	<Collection: 0 items>	0	1,459.20	76.3
280	J-166	1,285.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,461.30	76.3
1139	J-348	1,180.00	118: Zone - 3	<Collection: 1 item>	672.80	1,356.80	76.5
656	J-215	1,105.00	117: Zone - 2	<Collection: 1 item>	1,325.42	1,282.00	76.6
275	J-161	1,181.00	118: Zone - 3	<Collection: 0 items>	0.00	1,358.40	76.8
306	J-193	1,184.00	118: Zone - 3	<Collection: 1 item>	534.88	1,362.20	77.1
283	J-169	1,179.00	118: Zone - 3	<Collection: 0 items>	0.00	1,357.70	77.3
693	J-230	1,177.00	118: Zone - 3	<Collection: 1 item>	841.00	1,356.00	77.5
668	J-221	1,100.00	117: Zone - 2	<Collection: 1 item>	2,183.24	1,279.20	77.5
212	J-95	1,179.00	118: Zone - 3	<Collection: 0 items>	0.00	1,358.60	77.7
305	J-192	1,210.00	118: Zone - 3	<Collection: 1 item>	534.88	1,389.80	77.8
284	J-170	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,359.10	77.9
178	J-59	1,282.00	1115: Zone - 4	<Collection: 0 items>	0	1,462.40	78
133	J-V18-III	1,300.00	1115: Zone - 4	<Collection: 1 item>	1,587.81	1,480.50	78.1
679	J-226	1,107.00	117: Zone - 2	<Collection: 1 item>	1,449.88	1,287.90	78.3
699	J-233	1,092.00	117: Zone - 2	<Collection: 1 item>	1,375.88	1,273.30	78.4
1071	J-335	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,351.30	78.4
1142	J-349	1,175.00	118: Zone - 3	<Collection: 0 items>	0	1,356.40	78.5
162	J-V13-I-Z3	1,285.00	1115: Zone - 4	<Collection: 1 item>	1,406.15	1,466.90	78.7
164	J-V17-III	1,280.00	1115: Zone - 4	<Collection: 1 item>	2,062.13	1,462.60	79
757	J-249	1,180.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,363.70	79.5
1144	J-350	1,172.00	118: Zone - 3	<Collection: 1 item>	1,009.20	1,356.00	79.6
943	J-306	1,100.00	117: Zone - 2	<Collection: 1 item>	703.08	1,284.80	80
910	J-296	1,170.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,355.90	80.4
129	J-10	1,281.00	1115: Zone - 4	<Collection: 0 items>	0	1,468.00	80.9
163	J-44	1,280.00	1115: Zone - 4	<Collection: 0 items>	0	1,467.50	81.1
213	J-V3-I-Z1	1,171.00	118: Zone - 3	<Collection: 1 item>	225.39	1,358.60	81.1
1074	J-336	1,170.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,357.80	81.3
713	DZ-North	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,358.60	81.6
872	J-284	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,358.60	81.6
1262	J-372	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,358.60	81.6
918	J-298	1,170.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,358.70	81.6
912	J-297	1,170.00	118: Zone - 3	<Collection: 1 item>	534.88	1,360.50	82.4
970	J-315	1,090.00	117: Zone - 2	<Collection: 0 items>	0	1,281.40	82.8
1177	J-357	1,090.00	117: Zone - 2	<Collection: 0 items>	0	1,282.00	83.1
823	J-277	1,045.00	116: Zone - 1	<Collection: 1 item>	339.76	1,239.50	84.2

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
850	P-509	158	12	130	FALSE	0	0.00	0	0	0
851	P-510	243	12	130	FALSE	0	0.00	0	0	0
1024	P-620	419	12	130	FALSE	0	0.00	0	0	0
878	P-527	451	12	130	FALSE	0	-321.20	0	0	0.91
871	P-522	811	12	130	FALSE	0	129.96	0	0	0.37
1036	P-630	1,128	12	130	FALSE	0	31.82	0	0	0.09
877	P-526	1,269	12	130	FALSE	0	0.00	0	0	0
613	P-359	1,326	12	130	FALSE	0	1,447.59	0.005	1,326	4.11
1297	P-800	1,432	12	130	FALSE	0	-258.13	0	0	0.73
616	P-362	1,484	12	130	FALSE	0	1,788.61	0.007	1,484	5.07
1035	P-629	1,522	12	130	FALSE	0	-310.91	0	0	0.88
1034	P-628	1,563	12	130	FALSE	0	-342.73	0	0	0.97
1159	P-709	1,762	12	130	FALSE	0	-597.12	0.001	0	1.69
1166	P-714	1,805	12	130	FALSE	0	-640.35	0.001	0	1.82
1018	P-616	1,900	12	130	FALSE	0	-1,475.93	0.005	0	4.19
1296	P-799	2,015	12	130	FALSE	0	129.96	0	0	0.37
913	P-546	2,112	12	130	FALSE	0	-398.70	0	0	1.13
944	P-568	2,317	12	130	FALSE	0	703.08	0.001	0	1.99
1162	P-711	2,402	12	130	FALSE	0	-335.25	0	0	0.95
1294	P-798	2,513	12	130	FALSE	0	194.28	0	0	0.55
1161	P-710	2,586	12	130	FALSE	0	-242.25	0	0	0.69
1298	P-801	2,615	12	130	FALSE	0	-128.17	0	0	0.36
1045	P-637	3,389	12	130	FALSE	0	221.92	0	0	0.63
587	P-329	3,501	12	130	FALSE	0	-725.24	0.001	3,501	2.06
1075	P-657	4,087	12	130	FALSE	0	-777.05	0.002	0	2.2
1170	P-717	4,225	12	130	FALSE	0	-589.09	0.001	0	1.67
1171	P-718	4,601	12	130	FALSE	0	-792.55	0.002	0	2.25
1076	P-658	5,050	12	130	FALSE	0	-659.32	0.001	0	1.87
1133	P-692	5,511	12	130	FALSE	0	253.06	0	0	0.72
1107	P-676	5,983	12	130	FALSE	0	707.93	0.001	0	2.01
1290	P-795	8,450	12	130	FALSE	0	736.12	0.001	0	2.09
544	P-281	319	12	130	FALSE	0	-1,649.79	0.006	501	4.68
1264	P-780	553	12	130	FALSE	0	0.00	0	1,097	0
522	P-249	583	12	130	FALSE	0	-971.02	0.002	583	2.75
593	P-335	819	12	130	FALSE	0	384.79	0	819	1.09
396	P-76	841	12	130	FALSE	0	856.09	0.002	841	2.43
502	P-223	909	12	130	FALSE	0	-614.82	0.001	909	1.74
446	P-145	941	12	130	FALSE	0	-17.16	0	941	0.05
535	P-267	1,047	12	130	FALSE	0	-608.40	0.001	1,047	1.73
638	P-385	1,064	12	130	FALSE	0	-817.50	0.002	1,064	2.32
456	P-159	1,101	12	130	FALSE	0	0.00	0	1,239	0
560	P-301	1,104	12	130	FALSE	0	-518.74	0.001	1,104	1.47
602	P-346	1,106	12	130	FALSE	0	1,268.55	0.004	1,106	3.6
557	P-298	1,119	12	130	FALSE	0	-117.82	0	1,119	0.33
458	P-161	1,227	12	130	FALSE	0	-1,432.03	0.005	1,227	4.06
435	P-132	1,236	12	130	FALSE	0	749.59	0.001	1,236	2.13
441	P-140	1,240	12	130	FALSE	0	1,228.00	0.004	1,240	3.48
350	P-22	1,313	12	130	FALSE	0	-994.65	0.003	1,313	2.82
495	P-211	1,325	12	130	FALSE	0	-513.64	0.001	1,325	1.46
634	P-381	1,340	12	130	FALSE	0	875.31	0.002	1,340	2.48
451	P-150	1,373	12	130	FALSE	0	-280.05	0	1,373	0.79
496	P-213	1,383	12	130	FALSE	0	599.46	0.001	1,383	1.7
497	P-216	1,425	12	130	FALSE	0	1,069.68	0.003	1,425	3.03
380	P-56	1,436	12	130	FALSE	0	-344.91	0	1,436	0.98
398	P-78	1,441	12	130	FALSE	0	322.46	0	1,427	0.91

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
514	P-238	1,442	12	130	FALSE	0	-138.89	0	1,442	0.39
562	P-303	1,452	12	130	FALSE	0	807.54	0.002	1,452	2.29
365	P-40	1,469	12	130	FALSE	0	270.37	0	1,419	0.77
520	P-246	1,478	12	130	FALSE	0	-971.02	0.002	1,478	2.75
487	P-198	1,485	12	130	FALSE	0	1,139.02	0.003	1,485	3.23
624	P-371	1,486	12	130	FALSE	0	0.00	0	1,486	0
379	P-55	1,580	12	130	FALSE	0	-344.91	0	1,580	0.98
444	P-143	1,625	12	130	FALSE	0	280.61	0	1,625	0.8
343	P-15	1,648	12	130	FALSE	0	-431.44	0.001	1,648	1.22
563	P-304	1,772	12	130	FALSE	0	-177.09	0	1,772	0.5
457	P-160	1,805	12	130	FALSE	0	0.00	0	1,800	0
404	P-85	1,807	12	130	FALSE	0	-248.70	0	1,807	0.71
452	P-152	1,809	12	130	FALSE	0	1,202.12	0.004	1,705	3.41
464	P-167	1,865	12	130	FALSE	0	1,239.98	0.004	1,865	3.52
598	P-342	1,871	12	130	FALSE	0	-547.45	0.001	1,871	1.55
559	P-300	1,908	12	130	FALSE	0	-718.72	0.001	1,908	2.04
516	P-242	1,910	12	130	FALSE	0	-839.85	0.002	1,910	2.38
633	P-380	2,026	12	130	FALSE	0	-433.95	0.001	2,026	1.23
393	P-71	2,045	12	130	FALSE	0	-703.64	0.001	2,040	2
434	P-131	2,093	12	130	FALSE	0	1,066.15	0.003	1,989	3.02
348	P-20	2,108	12	130	FALSE	0	911.79	0.002	2,037	2.59
442	P-141	2,147	12	130	FALSE	0	243.38	0	2,147	0.69
447	P-146	2,210	12	130	FALSE	0	100.66	0	2,066	0.29
448	P-147	2,223	12	130	FALSE	0	619.40	0.001	1,882	1.76
561	P-302	2,290	12	130	FALSE	0	984.63	0.002	2,290	2.79
414	P-107	2,326	12	130	FALSE	0	732.59	0.001	2,320	2.08
517	P-243	2,398	12	130	FALSE	0	-531.28	0.001	2,398	1.51
558	P-299	2,487	12	130	FALSE	0	600.89	0.001	2,487	1.7
342	P-14	2,546	12	130	FALSE	0	1,156.36	0.003	2,526	3.28
493	P-207	2,564	12	130	FALSE	0	313.72	0	2,557	0.89
601	P-345	2,573	12	130	FALSE	0	-856.08	0.002	2,573	2.43
488	P-199	2,577	12	130	FALSE	0	-1,114.86	0.003	2,329	3.16
576	P-317	2,615	12	130	FALSE	0	195.75	0	2,615	0.56
341	P-13	2,674	12	130	FALSE	0	1,156.36	0.003	2,674	3.28
453	P-155	2,705	12	130	FALSE	0	-290.23	0	1,307	0.82
349	P-21	2,725	12	130	FALSE	0	1,067.48	0.003	2,665	3.03
443	P-142	2,730	12	130	FALSE	0	1,060.88	0.003	2,730	3.01
501	P-222	2,758	12	130	FALSE	0	-741.12	0.001	2,758	2.1
378	P-54	2,916	12	130	FALSE	0	1,061.24	0.003	2,851	3.01
551	P-289	2,934	12	130	FALSE	0	-316.56	0	2,934	0.9
583	P-324	2,937	12	130	FALSE	0	144.16	0	2,937	0.41
572	P-313	3,023	12	130	FALSE	0	879.18	0.002	3,032	2.49
575	P-316	3,023	12	130	FALSE	0	195.75	0	3,023	0.56
374	P-50	3,024	12	130	FALSE	0	-597.09	0.001	2,826	1.69
519	P-245	3,085	12	130	FALSE	0	-43.41	0	3,085	0.12
574	P-315	3,162	12	130	FALSE	0	1,168.96	0.003	3,365	3.32
545	P-282	3,171	12	130	FALSE	0	1,142.22	0.003	3,160	3.24
388	P-65	3,516	12	130	FALSE	0	-1,170.11	0.003	3,516	3.32
599	P-343	3,544	12	130	FALSE	0	126.3	0	3,544	0.36
546	P-283	3,600	12	130	FALSE	0	-1,073.35	0.003	3,600	3.04
387	P-64	3,878	12	130	FALSE	0	703.64	0.001	3,878	2
513	P-237	4,069	12	130	FALSE	0	-747.30	0.001	4,069	2.12
397	P-77	4,132	12	130	FALSE	0	717.19	0.001	4,132	2.03
465	P-168	4,142	12	130	FALSE	0	-251.16	0	3,112	0.71
375	P-51	4,329	12	130	FALSE	0	695.68	0.001	4,165	1.97

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
492	P-206	4,794	12	130	FALSE	0	-1,021.01	0.003	4,748	2.9
595	P-337	5,654	12	130	FALSE	0	-384.79	0	5,654	1.09
411	P-100	6,853	12	130	FALSE	0	979.81	0.002	6,853	2.78
412	P-101	8,142	12	130	FALSE	0	-867.03	0.002	8,142	2.46
1044	P-636	190	16	130	FALSE	0	-1,530.13	0.001	0	2.44
1078	P-659	236	16	130	FALSE	0	-1,529.69	0.001	0	2.44
715	P-427	239	16	130	FALSE	0	0.00	0	0	0
847	P-507	294	16	130	FALSE	0	0	0	0	0
1206	P-742	306	16	130	FALSE	0	0.00	0	2,609	0
714	P-426	473	16	130	FALSE	0	0	0	0	0
1073	P-656	532	16	130	FALSE	0	0.00	0	0	0
625	P-372	604	16	130	FALSE	0	1,024.16	0.001	604	1.63
417	P-111	639	16	130	FALSE	0	-1,155.68	0.001	639	1.84
1146	P-700	669	16	130	FALSE	0	0	0	0	0
1232	P-759	675	16	130	FALSE	0	3,750.86	0.007	0	5.99
1202	P-740	686	16	130	FALSE	0	0.00	0	0	0
997	P-604	721	16	130	FALSE	0	-3,728.45	0.007	0	5.95
377	P-53	768	16	130	FALSE	0	-3,021.45	0.005	768	4.82
1186	P-728	806	16	130	FALSE	0	0.00	0	0	0
632	P-379	832	16	130	FALSE	0	-4,191.74	0.009	832	6.69
1215	P-748	868	16	130	FALSE	0	-1,938.40	0.002	4,990	3.09
369	P-45	876	16	130	FALSE	0	2,021.68	0.002	876	3.23
477	P-186	938	16	130	FALSE	0	4,004.03	0.008	938	6.39
476	P-185	961	16	130	FALSE	0	1,069.75	0.001	961	1.71
868	P-520	966	16	130	FALSE	0	0.00	0	0	0
975	P-589	1,076	16	130	FALSE	0	-1,204.34	0.001	0	1.92
542	P-279	1,085	16	130	FALSE	0	228.14	0	1,085	0.36
1251	P-771	1,099	16	130	FALSE	0	-1,061.93	0.001	0	1.69
408	P-97	1,127	16	130	FALSE	0	-1,308.21	0.001	1,127	2.09
432	P-129	1,149	16	130	FALSE	0	-212.03	0	1,141	0.34
573	P-314	1,151	16	130	FALSE	0	-2,479.74	0.003	1,933	3.96
539	P-271	1,156	16	130	FALSE	0	-196.14	0	908	0.31
467	P-173	1,159	16	130	FALSE	0	2,446.62	0.003	1,159	3.9
1037	P-631	1,162	16	130	FALSE	0	831.57	0	0	1.33
372	P-48	1,210	16	130	FALSE	0	-1,432.64	0.001	1,210	2.29
1047	P-638	1,264	16	130	FALSE	0	-159.44	0	0	0.25
491	P-202	1,289	16	130	FALSE	0	-1,618.33	0.002	1,289	2.58
550	P-288	1,290	16	130	FALSE	0	1,450.22	0.001	1,290	2.31
1025	P-621	1,294	16	130	FALSE	0	376.05	0	0	0.6
833	P-497	1,306	16	130	FALSE	0	1,069.75	0.001	0	1.71
1178	P-722	1,337	16	130	FALSE	0	0	0	0	0
525	P-252	1,344	16	130	FALSE	0	0.00	0	1,344	0
352	P-24	1,354	16	130	FALSE	0	444.87	0	1,354	0.71
466	P-172	1,370	16	130	FALSE	0	-1,986.01	0.002	1,370	3.17
400	P-81	1,371	16	130	FALSE	0	2,115.92	0.003	1,371	3.38
1209	P-744	1,375	16	130	FALSE	0	0.00	0	0	0
484	P-195	1,411	16	130	FALSE	0	427.09	0	1,411	0.68
1031	P-626	1,420	16	130	FALSE	0	-522.52	0	0	0.83
1174	P-720	1,431	16	130	FALSE	0	0	0	0	0
1032	P-627	1,439	16	130	FALSE	0	-554.34	0	0	0.88
403	P-84	1,444	16	130	FALSE	0	789.38	0	1,444	1.26
623	P-370	1,452	16	130	FALSE	0	925.15	0.001	1,452	1.48
952	P-572	1,463	16	130	FALSE	0	-1,475.04	0.001	0	2.35
415	P-108	1,467	16	130	FALSE	0	1,576.75	0.001	1,440	2.52
884	P-531	1,512	16	130	FALSE	0	522.52	0	0	0.83

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
499	P-218	1,519	16	130	FALSE	0	-2,097.05	0.002	1,519	3.35
416	P-109	1,532	16	130	FALSE	0	-41.58	0	1,497	0.07
354	P-27	1,551	16	130	FALSE	0	343.48	0	1,551	0.55
373	P-49	1,559	16	130	FALSE	0	-2,759.77	0.004	1,559	4.4
865	P-518	1,641	16	130	FALSE	0	0.00	0	0	0
709	P-423	1,662	16	130	FALSE	0	225.39	0	0	0.36
589	P-331	1,682	16	130	FALSE	0	-1,859.98	0.002	1,682	2.97
610	P-356	1,687	16	130	FALSE	0	2,520.00	0.003	1,687	4.02
490	P-201	1,695	16	130	FALSE	0	665.83	0	1,695	1.06
382	P-58	1,715	16	130	FALSE	0	-419.77	0	1,715	0.67
552	P-293	1,736	16	130	FALSE	0	-1,921.65	0.002	1,736	3.07
1132	P-691	1,743	16	130	FALSE	0	-484.06	0	0	0.77
549	P-287	1,754	16	130	FALSE	0	-1,766.78	0.002	1,817	2.82
470	P-176	1,756	16	130	FALSE	0	0	0	1,756	0
383	P-59	1,762	16	130	FALSE	0	-321.07	0	1,762	0.51
504	P-225	1,765	16	130	FALSE	0	-289.08	0	1,765	0.46
1066	P-651	1,770	16	130	FALSE	0	2,499.50	0.003	0	3.99
370	P-46	1,779	16	130	FALSE	0	343.48	0	1,779	0.55
618	P-364	1,786	16	130	FALSE	0	-1,155.68	0.001	1,786	1.84
402	P-83	1,791	16	130	FALSE	0	789.38	0	1,791	1.26
924	P-555	1,811	16	130	FALSE	0	145.15	0	0	0.23
346	P-18	1,818	16	130	FALSE	0	537.95	0	1,684	0.86
347	P-19	1,831	16	130	FALSE	0	-2,315.53	0.003	1,750	3.69
909	P-544	1,871	16	130	FALSE	0	-1,452.26	0.001	0	2.32
712	P-425	1,900	16	130	FALSE	0	-892.21	0.001	0	1.42
494	P-210	1,904	16	130	FALSE	0	875.22	0	1,892	1.4
367	P-42	1,907	16	130	FALSE	0	-1,432.64	0.001	1,799	2.29
905	P-542	1,931	16	130	FALSE	0	0.00	0	0	0
1016	P-614	1,932	16	130	FALSE	0	0.00	0	0	0
345	P-17	1,951	16	130	FALSE	0	2,600.08	0.004	1,951	4.15
614	P-360	1,954	16	130	FALSE	0	1,310.22	0.001	1,954	2.09
1079	P-660	1,967	16	130	FALSE	0	-70.86	0	0	0.11
500	P-221	1,977	16	130	FALSE	0	292.01	0	1,977	0.47
355	P-28	1,977	16	130	FALSE	0	-1,087.62	0.001	1,967	1.74
405	P-88	1,981	16	130	FALSE	0	-176.42	0	1,969	0.28
608	P-354	2,014	16	130	FALSE	0	-828.8	0	2,014	1.32
395	P-74	2,017	16	130	FALSE	0	608.4	0	2,017	0.97
581	P-322	2,021	16	130	FALSE	0	1,154.33	0.001	2,021	1.84
333	P-4	2,040	16	130	FALSE	0	-2,431.62	0.003	2,040	3.88
591	P-333	2,051	16	130	FALSE	0	-655.84	0	1,256	1.05
911	P-545	2,052	16	130	FALSE	0	187.42	0	0	0.3
597	P-341	2,057	16	130	FALSE	0	-3,919.30	0.008	2,057	6.25
606	P-352	2,065	16	130	FALSE	0	3,731.32	0.007	2,065	5.95
582	P-323	2,067	16	130	FALSE	0	842.96	0	2,067	1.35
537	P-269	2,070	16	130	FALSE	0	1,518.43	0.001	2,070	2.42
609	P-355	2,077	16	130	FALSE	0	1,072.41	0.001	2,077	1.71
337	P-8	2,087	16	130	FALSE	0	2,323.27	0.003	2,087	3.71
498	P-217	2,097	16	130	FALSE	0	2,155.70	0.003	2,097	3.44
481	P-191	2,148	16	130	FALSE	0	1,301.73	0.001	2,148	2.08
344	P-16	2,150	16	130	FALSE	0	3,325.32	0.006	2,150	5.31
401	P-82	2,177	16	130	FALSE	0	2,115.92	0.003	2,177	3.38
469	P-175	2,180	16	130	FALSE	0	2,711.73	0.004	2,180	4.33
1288	P-793	2,184	16	130	FALSE	0	1,371.72	0.001	0	2.19
548	P-285	2,187	16	130	FALSE	0	177.68	0	2,187	0.28
536	P-268	2,205	16	130	FALSE	0	841	0	2,205	1.34

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
385	P-61	2,225	16	130	FALSE	0	527.14	0	2,225	0.84
936	P-563	2,228	16	130	FALSE	0	1,423.33	0.001	0	2.27
584	P-325	2,237	16	130	FALSE	0	-698.80	0	2,237	1.12
553	P-294	2,258	16	130	FALSE	0	1,055.70	0.001	2,258	1.68
1237	P-763	2,261	16	130	FALSE	0	1,069.75	0.001	0	1.71
468	P-174	2,271	16	130	FALSE	0	1,785.95	0.002	2,271	2.85
376	P-52	2,296	16	130	FALSE	0	-1,884.37	0.002	2,216	3.01
366	P-41	2,296	16	130	FALSE	0	-1,878.15	0.002	2,296	3
1207	P-743	2,303	16	130	FALSE	0	0.00	0	2,609	0
844	P-505	2,322	16	130	FALSE	0	-2,488.16	0.003	0	3.97
437	P-135	2,324	16	130	FALSE	0	1,830.90	0.002	2,324	2.92
418	P-112	2,333	16	130	FALSE	0	-1,155.68	0.001	2,333	1.84
1254	P-773	2,336	16	130	FALSE	0	-1,425.27	0.001	0	2.27
570	P-311	2,342	16	130	FALSE	0	1,428.17	0.001	2,618	2.28
445	P-144	2,349	16	130	FALSE	0	-34.82	0	2,349	0.06
1154	P-705	2,374	16	130	FALSE	0	1,920.89	0.002	0	3.07
788	P-470	2,393	16	130	FALSE	0	4,813.88	0.011	0	7.68
977	P-591	2,403	16	130	FALSE	0	1,204.34	0.001	0	1.92
619	P-365	2,404	16	130	FALSE	0	323.11	0	2,404	0.52
824	P-491	2,415	16	130	FALSE	0	339.76	0	0	0.54
1191	P-732	2,432	16	130	FALSE	0	-1,113.32	0.001	0	1.78
439	P-137	2,447	16	130	FALSE	0	1,611.27	0.002	2,447	2.57
332	P-3	2,455	16	130	FALSE	0	-590.77	0	2,455	0.94
837	P-500	2,457	16	130	FALSE	0	677.43	0	0	1.08
1168	P-715	2,489	16	130	FALSE	0	-1,349.36	0.001	0	2.15
353	P-25	2,492	16	130	FALSE	0	444.87	0	2,454	0.71
515	P-240	2,493	16	130	FALSE	0	1,371.13	0.001	2,493	2.19
424	P-119	2,499	16	130	FALSE	0	1,765.11	0.002	2,499	2.82
335	P-6	2,504	16	130	FALSE	0	-2,192.80	0.003	2,504	3.5
478	P-187	2,506	16	130	FALSE	0	3,290.67	0.006	2,506	5.25
427	P-123	2,523	16	130	FALSE	0	-1,872.26	0.002	2,523	2.99
1283	P-790	2,530	16	130	FALSE	0	656.47	0	0	1.05
399	P-80	2,532	16	130	FALSE	0	1,867.22	0.002	2,532	2.98
789	P-471	2,537	16	130	FALSE	0	2,139.50	0.003	0	3.41
839	P-501	2,539	16	130	FALSE	0	1,458.82	0.001	0	2.33
521	P-247	2,544	16	130	FALSE	0	971.02	0.001	2,544	1.55
1282	P-789	2,552	16	130	FALSE	0	-715.25	0	0	1.14
637	P-384	2,560	16	130	FALSE	0	2,450.30	0.003	2,560	3.91
449	P-148	2,592	16	130	FALSE	0	263.79	0	2,592	0.42
636	P-383	2,599	16	130	FALSE	0	3,802.68	0.007	2,599	6.07
964	P-582	2,600	16	130	FALSE	0	-2,392.74	0.003	0	3.82
578	P-319	2,603	16	130	FALSE	0	-2,554.36	0.004	2,603	4.08
814	P-486	2,604	16	130	FALSE	0	1,069.75	0.001	0	1.71
605	P-351	2,630	16	130	FALSE	0	-538.72	0	2,630	0.86
640	P-387	2,643	16	130	FALSE	0	1,606.94	0.002	2,643	2.56
438	P-136	2,645	16	130	FALSE	0	-791.30	0	2,645	1.26
1164	P-712	2,657	16	130	FALSE	0	519.46	0	0	0.83
419	P-113	2,673	16	130	FALSE	0	766.03	0	2,642	1.22
1155	P-706	2,691	16	130	FALSE	0	2,518.02	0.003	0	4.02
506	P-229	2,700	16	130	FALSE	0	-1,204.34	0.001	2,700	1.92
808	P-483	2,712	16	130	FALSE	0	-5,199.03	0.013	0	8.3
508	P-231	2,716	16	130	FALSE	0	2,122.67	0.003	2,692	3.39
450	P-149	2,719	16	130	FALSE	0	-1,448.29	0.001	2,719	2.31
336	P-7	2,725	16	130	FALSE	0	2,754.72	0.004	2,725	4.4
828	P-494	2,728	16	130	FALSE	0	-1,448.43	0.001	0	2.31

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
371	P-47	2,749	16	130	FALSE	0	1,343.25	0.001	2,749	2.14
661	P-396	2,752	16	130	FALSE	0	-5,732.74	0.016	0	9.15
440	P-138	2,763	16	130	FALSE	0	1,269.63	0.001	2,763	2.03
600	P-344	2,775	16	130	FALSE	0	660.67	0	2,775	1.05
604	P-350	2,783	16	130	FALSE	0	-2,906.36	0.005	2,783	4.64
1169	P-716	2,788	16	130	FALSE	0	-760.26	0	0	1.21
873	P-523	2,794	16	130	FALSE	0	0.00	0	0	0
1293	P-797	2,810	16	130	FALSE	0	-1,255.91	0.001	0	2
384	P-60	2,815	16	130	FALSE	0	527.14	0	2,815	0.84
1072	P-655	2,827	16	130	FALSE	0	-777.05	0	0	1.24
556	P-297	2,835	16	130	FALSE	0	3,161.69	0.005	2,835	5.05
1287	P-792	2,840	16	130	FALSE	0	310.09	0	0	0.49
1043	P-635	2,842	16	130	FALSE	0	-1,308.21	0.001	0	2.09
474	P-181	2,870	16	130	FALSE	0	-2,962.79	0.005	2,845	4.73
617	P-363	2,871	16	130	FALSE	0	-1,478.79	0.001	2,871	2.36
1292	P-796	2,920	16	130	FALSE	0	-1,061.64	0.001	0	1.69
334	P-5	2,929	16	130	FALSE	0	-2,192.80	0.003	2,929	3.5
394	P-72	2,995	16	130	FALSE	0	2,155.70	0.003	2,976	3.44
588	P-330	3,005	16	130	FALSE	0	-1,704.30	0.002	3,005	2.72
1054	P-643	3,010	16	130	FALSE	0	-4,171.41	0.009	0	6.66
425	P-120	3,032	16	130	FALSE	0	602.84	0	3,032	0.96
489	P-200	3,071	16	130	FALSE	0	1,850.03	0.002	2,917	2.95
368	P-44	3,077	16	130	FALSE	0	-1,328.67	0.001	2,935	2.12
547	P-284	3,082	16	130	FALSE	0	-1,589.10	0.001	3,082	2.54
596	P-340	3,134	16	130	FALSE	0	886.69	0	3,134	1.41
1051	P-641	3,146	16	130	FALSE	0	2,258.16	0.003	0	3.6
954	P-574	3,160	16	130	FALSE	0	-2,408.81	0.003	0	3.84
359	P-32	3,172	16	130	FALSE	0	1,102.39	0.001	3,172	1.76
1190	P-731	3,182	16	130	FALSE	0	-3,354.41	0.006	0	5.35
615	P-361	3,214	16	130	FALSE	0	-478.39	0	3,214	0.76
607	P-353	3,220	16	130	FALSE	0	2,902.52	0.004	3,220	4.63
1052	P-642	3,224	16	130	FALSE	0	1,232.39	0.001	0	1.97
338	P-9	3,227	16	130	FALSE	0	1,987.28	0.002	3,227	3.17
1048	P-639	3,247	16	130	FALSE	0	-1,391.84	0.001	0	2.22
433	P-130	3,284	16	130	FALSE	0	-1,662.25	0.002	2,841	2.65
626	P-373	3,356	16	130	FALSE	0	2,499.19	0.003	3,356	3.99
1080	P-661	3,379	16	130	FALSE	0	1,458.82	0.001	0	2.33
381	P-57	3,396	16	130	FALSE	0	1,642.36	0.002	3,387	2.62
1050	P-640	3,396	16	130	FALSE	0	1,025.77	0.001	0	1.64
358	P-31	3,433	16	130	FALSE	0	2,579.18	0.004	3,433	4.12
436	P-133	3,437	16	130	FALSE	0	1,853.08	0.002	3,437	2.96
1247	P-769	3,456	16	130	FALSE	0	-1,187.49	0.001	0	1.89
479	P-188	3,476	16	130	FALSE	0	1,374.03	0.001	3,476	2.19
639	P-386	3,505	16	130	FALSE	0	1,576.81	0.001	3,505	2.52
1026	P-622	3,515	16	130	FALSE	0	-455.51	0	0	0.73
1255	P-774	3,558	16	130	FALSE	0	-1,949.72	0.002	0	3.11
410	P-99	3,562	16	130	FALSE	0	-1,917.70	0.002	3,562	3.06
1143	P-698	3,566	16	130	FALSE	0	383.28	0	0	0.61
1182	P-725	3,571	16	130	FALSE	0	0.00	0	0	0
1252	P-772	3,576	16	130	FALSE	0	-2,824.46	0.004	0	4.51
821	P-489	3,589	16	130	FALSE	0	-1,555.99	0.001	0	2.48
622	P-369	3,598	16	130	FALSE	0	-1,728.69	0.002	3,598	2.76
554	P-295	3,623	16	130	FALSE	0	-2,977.34	0.005	3,623	4.75
1175	P-721	3,637	16	130	FALSE	0	0.00	0	0	0
822	P-490	3,659	16	130	FALSE	0	-1,895.76	0.002	0	3.03

Pipe Table Report

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473	P-180	3,685	16	130	FALSE	0	737.61	0	3,196	1.18
972	P-587	3,847	16	130	FALSE	0	0.00	0	0	0
1028	P-624	3,848	16	130	FALSE	0	1,400.18	0.001	0	2.23
1220	P-751	3,888	16	130	FALSE	0	0.00	0	0	0
819	P-488	3,891	16	130	FALSE	0	-1,216.23	0.001	0	1.94
590	P-332	3,913	16	130	FALSE	0	-445.50	0	4,907	0.71
935	P-562	3,923	16	130	FALSE	0	-1,322.12	0.001	0	2.11
1197	P-737	3,953	16	130	FALSE	0	-1,528.22	0.001	0	2.44
1165	P-713	4,016	16	130	FALSE	0	671.65	0	0	1.07
772	P-460	4,081	16	130	FALSE	0	2,179.62	0.003	0	3.48
941	P-566	4,104	16	130	FALSE	0	-3,252.83	0.006	0	5.19
480	P-190	4,117	16	130	FALSE	0	1,836.61	0.002	4,117	2.93
1214	P-747	4,123	16	130	FALSE	0	-1,938.40	0.002	4,990	3.09
482	P-193	4,209	16	130	FALSE	0	2,293.91	0.003	4,209	3.66
919	P-551	4,225	16	130	FALSE	0	923.36	0.001	0	1.47
1231	P-758	4,265	16	130	FALSE	0	3,750.86	0.007	0	5.99
1257	P-776	4,280	16	130	FALSE	0	2,286.98	0.003	0	3.65
702	P-418	4,280	16	130	FALSE	0	1,177.40	0.001	0	1.88
955	P-575	4,289	16	130	FALSE	0	-1,758.45	0.002	0	2.81
1006	P-607	4,289	16	130	FALSE	0	-904.37	0.001	0	1.44
1147	P-701	4,301	16	130	FALSE	0	383.28	0	0	0.61
586	P-328	4,305	16	130	FALSE	0	-1,470.29	0.001	4,305	2.35
566	P-307	4,318	16	130	FALSE	0	-178.52	0	4,318	0.28
966	P-583	4,354	16	130	FALSE	0	-2,930.26	0.005	0	4.68
1104	P-673	4,374	16	130	FALSE	0	-1,329.01	0.001	0	2.12
867	P-519	4,447	16	130	FALSE	0	0	0	0	0
621	P-368	4,534	16	130	FALSE	0	-1,941.69	0.002	4,534	3.1
923	P-554	4,680	16	130	FALSE	0	-2,139.50	0.003	0	3.41
592	P-334	4,782	16	130	FALSE	0	1,939.03	0.002	4,411	3.09
963	P-581	4,804	16	130	FALSE	0	-2,012.16	0.002	0	3.21
1256	P-775	4,806	16	130	FALSE	0	1,762.53	0.002	0	2.81
485	P-196	4,867	16	130	FALSE	0	-2,196.83	0.003	4,848	3.51
956	P-576	4,989	16	130	FALSE	0	-1,995.53	0.002	0	3.18
657	P-394	4,990	16	130	FALSE	0	845.95	0	0	1.35
764	P-456	4,997	16	130	FALSE	0	1,522.41	0.001	0	2.43
957	P-577	4,999	16	130	FALSE	0	-1,027.54	0.001	0	1.64
802	P-478	5,066	16	130	FALSE	0	414.34	0	0	0.66
766	P-457	5,066	16	130	FALSE	0	-862.19	0	0	1.38
890	P-533	5,070	16	130	FALSE	0	1,063.50	0.001	0	1.7
901	P-539	5,075	16	130	FALSE	0	1,029.64	0.001	0	1.64
686	P-410	5,092	16	130	FALSE	0	831.33	0	0	1.33
665	P-398	5,092	16	130	FALSE	0	-1,494.75	0.001	0	2.39
680	P-406	5,093	16	130	FALSE	0	-1,395.45	0.001	0	2.23
961	P-580	5,093	16	130	FALSE	0	-892.88	0.001	0	1.42
667	P-399	5,096	16	130	FALSE	0	2,277.04	0.003	0	3.63
827	P-493	5,116	16	130	FALSE	0	-913.55	0.001	0	1.46
888	P-532	5,117	16	130	FALSE	0	1,734.56	0.002	0	2.77
780	P-465	5,136	16	130	FALSE	0	2,126.65	0.003	0	3.39
805	P-480	5,138	16	130	FALSE	0	-1,725.17	0.002	0	2.75
902	P-540	5,150	16	130	FALSE	0	1,071.42	0.001	0	1.71
969	P-585	5,150	16	130	FALSE	0	1,204.34	0.001	0	1.92
730	P-434	5,172	16	130	FALSE	0	2,072.20	0.002	0	3.31
747	P-445	5,172	16	130	FALSE	0	-1,611.36	0.002	0	2.57
895	P-536	5,191	16	130	FALSE	0	-3,256.53	0.006	0	5.2
899	P-538	5,192	16	130	FALSE	0	1,532.46	0.001	0	2.45

Pipe Table Report

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892	P-534	5,192	16	130	FALSE	0	-6.25	0	0	0.01
894	P-535	5,194	16	130	FALSE	0	-1,263.42	0.001	0	2.02
669	P-400	5,194	16	130	FALSE	0	915.98	0.001	0	1.46
663	P-397	5,195	16	130	FALSE	0	2,496.26	0.003	0	3.98
800	P-477	5,207	16	130	FALSE	0	2,018.96	0.002	0	3.22
781	P-466	5,207	16	130	FALSE	0	2,939.82	0.005	0	4.69
733	P-436	5,216	16	130	FALSE	0	0.00	0	0	0
807	P-482	5,242	16	130	FALSE	0	-3,050.19	0.005	0	4.87
750	P-448	5,246	16	130	FALSE	0	-630.76	0	0	1.01
897	P-537	5,250	16	130	FALSE	0	133.51	0	0	0.21
731	P-435	5,263	16	130	FALSE	0	454.12	0	0	0.72
782	P-467	5,279	16	130	FALSE	0	942.39	0.001	0	1.5
921	P-553	5,283	16	130	FALSE	0	1,028.73	0.001	0	1.64
946	P-569	5,287	16	130	FALSE	0	1,955.30	0.002	0	3.12
917	P-550	5,287	16	130	FALSE	0	885.32	0	0	1.41
774	P-461	5,290	16	130	FALSE	0	1,644.74	0.002	0	2.62
475	P-184	5,308	16	130	FALSE	0	-1,577.74	0.001	5,295	2.52
948	P-570	5,350	16	130	FALSE	0	829.75	0	0	1.32
752	P-449	5,375	16	130	FALSE	0	-2,208.18	0.003	0	3.52
916	P-549	5,408	16	130	FALSE	0	1,702.71	0.002	0	2.72
1172	P-719	5,410	16	130	FALSE	0	-3,059.52	0.005	0	4.88
790	P-472	5,418	16	130	FALSE	0	-1,604.63	0.001	0	2.56
776	P-462	5,419	16	130	FALSE	0	-1,299.08	0.001	0	2.07
744	P-443	5,490	16	130	FALSE	0	-1,113.07	0.001	0	1.78
1056	P-645	5,491	16	130	FALSE	0	3,299.90	0.006	0	5.27
1057	P-646	5,492	16	130	FALSE	0	1,312.77	0.001	0	2.09
1131	P-690	5,496	16	130	FALSE	0	-737.12	0	0	1.18
635	P-382	5,502	16	130	FALSE	0	1,309.25	0.001	5,502	2.09
745	P-444	5,594	16	130	FALSE	0	2,924.09	0.005	0	4.67
920	P-552	5,619	16	130	FALSE	0	882.33	0	0	1.41
743	P-442	5,664	16	130	FALSE	0	783.45	0	0	1.25
1183	P-726	5,714	16	130	FALSE	0	372.80	0	0	0.59
1188	P-730	5,747	16	130	FALSE	0	2,777.80	0.004	0	4.43
1192	P-733	5,761	16	130	FALSE	0	2,241.08	0.003	0	3.58
829	P-495	5,795	16	130	FALSE	0	1,859.94	0.002	0	2.97
914	P-547	5,879	16	130	FALSE	0	-933.57	0.001	0	1.49
748	P-446	7,695	16	130	FALSE	0	0.00	0	0	0
1236	P-762	8,386	16	130	FALSE	0	1,069.75	0.001	0	1.71
1017	P-615	191	24	130	FALSE	0	0.00	0	0	0
706	P-421	225	24	130	FALSE	0	0.00	0	0	0
1055	P-644	250	24	130	FALSE	0	0.00	0	0	0
1021	P-618	409	24	130	FALSE	0	0.00	0	0	0
1187	P-729	446	24	130	FALSE	0	0.00	0	0	0
1005	P-606	797	24	130	FALSE	0	7,539.02	0.004	0	5.35
603	P-347	837	24	130	FALSE	0	102.76	0	837	0.07
1020	P-617	866	24	130	FALSE	0	1,385.91	0	0	0.98
979	P-592	905	24	130	FALSE	0	0.00	0	0	0
1140	P-696	977	24	130	FALSE	0	2,523.00	0	0	1.79
848	P-508	988	24	130	FALSE	0	404.92	0	0	0.29
340	P-12	1,228	24	130	FALSE	0	8,272.84	0.004	1,228	5.87
526	P-253	1,246	24	130	FALSE	0	0.00	0	1,246	0
1098	P-670	1,257	24	130	FALSE	0	3,519.61	0.001	0	2.5
428	P-124	1,278	24	130	FALSE	0	7,296.45	0.003	1,278	5.17
518	P-244	1,365	24	130	FALSE	0	-1,389.91	0	1,365	0.99
1068	P-652	1,397	24	130	FALSE	0	-6,854.78	0.003	0	4.86

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
422	P-117	1,581	24	130	FALSE	0	-3,781.50	0.001	1,581	2.68
430	P-126	1,581	24	130	FALSE	0	6,468.43	0.003	1,581	4.59
363	P-38	1,603	24	130	FALSE	0	400.88	0	2,320	0.28
429	P-125	1,610	24	130	FALSE	0	6,468.43	0.003	1,610	4.59
931	P-560	1,621	24	130	FALSE	0	-2,690.53	0.001	0	1.91
1069	P-653	1,701	24	130	FALSE	0	-4,915.38	0.002	0	3.49
386	P-62	1,733	24	130	FALSE	0	-3,461.38	0.001	1,733	2.45
1097	P-669	1,768	24	130	FALSE	0	-2,627.40	0.001	0	1.86
825	P-492	1,792	24	130	FALSE	0	-5,059.98	0.002	0	3.59
331	P-2	1,793	24	130	FALSE	0	6,194.51	0.003	1,793	4.39
1082	P-662	1,807	24	130	FALSE	0	4,958.72	0.002	3,765	3.52
1083	P-663	1,958	24	130	FALSE	0	4,958.72	0.002	3,765	3.52
798	P-476	1,971	24	130	FALSE	0	4,676.48	0.002	0	3.32
568	P-309	1,983	24	130	FALSE	0	4,510.08	0.001	1,694	3.2
413	P-102	1,985	24	130	FALSE	0	-1,911.24	0	1,985	1.36
907	P-543	2,028	24	130	FALSE	0	-7,177.09	0.003	0	5.09
579	P-320	2,063	24	130	FALSE	0	-3,680.87	0.001	2,063	2.61
460	P-163	2,082	24	130	FALSE	0	-2,446.49	0	2,082	1.74
463	P-166	2,083	24	130	FALSE	0	1,732.74	0	2,083	1.23
1200	P-739	2,095	24	130	FALSE	0	5,882.95	0.002	0	4.17
330	P-1	2,119	24	130	FALSE	0	9,378.26	0.005	2,119	6.65
392	P-69	2,154	24	130	FALSE	0	4,015.46	0.001	2,125	2.85
1145	P-699	2,203	24	130	FALSE	0	625.92	0	0	0.44
1128	P-688	2,207	24	130	FALSE	0	3,720.94	0.001	0	2.64
953	P-573	2,267	24	130	FALSE	0	3,655.17	0.001	0	2.59
655	P-393	2,444	24	130	FALSE	0	-1,650.74	0	0	1.17
580	P-321	2,477	24	130	FALSE	0	-1,126.51	0	2,477	0.8
959	P-578	2,487	24	130	FALSE	0	-2,535.78	0	0	1.8
364	P-39	2,493	24	130	FALSE	0	400.88	0	2,584	0.28
1129	P-689	2,518	24	130	FALSE	0	3,467.88	0.001	0	2.46
676	P-404	2,546	24	130	FALSE	0	-2,490.04	0	0	1.77
630	P-377	2,551	24	130	FALSE	0	2,086.01	0	2,551	1.48
1221	P-752	2,614	24	130	FALSE	0	5,882.95	0.002	0	4.17
1158	P-708	2,617	24	130	FALSE	0	-7,418.53	0.004	0	5.26
611	P-357	2,623	24	130	FALSE	0	-2,021.87	0	2,623	1.43
472	P-179	2,654	24	130	FALSE	0	-4,733.09	0.002	2,654	3.36
455	P-157	2,673	24	130	FALSE	0	-985.99	0	1,397	0.7
631	P-378	2,681	24	130	FALSE	0	-2,105.73	0	2,681	1.49
454	P-156	2,689	24	130	FALSE	0	1,431.46	0	1,239	1.02
1157	P-707	2,702	24	130	FALSE	0	-6,821.40	0.003	0	4.84
351	P-23	2,731	24	130	FALSE	0	6,340.40	0.003	2,731	4.5
653	P-392	2,750	24	130	FALSE	0	-903.93	0	0	0.64
612	P-358	2,791	24	130	FALSE	0	-4,004.33	0.001	2,791	2.84
980	P-593	2,886	24	130	FALSE	0	1,954.08	0	0	1.39
421	P-116	2,901	24	130	FALSE	0	-1,140.17	0	2,901	0.81
459	P-162	2,919	24	130	FALSE	0	-2,640.77	0.001	4,198	1.87
406	P-89	2,977	24	130	FALSE	0	-20.43	0	2,977	0.01
462	P-165	2,980	24	130	FALSE	0	2,658.25	0.001	2,980	1.89
927	P-557	2,988	24	130	FALSE	0	-10,264.50	0.006	0	7.28
564	P-305	3,024	24	130	FALSE	0	-2,199.66	0	3,024	1.56
420	P-115	3,028	24	130	FALSE	0	-1,370.44	0	3,028	0.97
360	P-34	3,031	24	130	FALSE	0	7,440.19	0.004	3,031	5.28
423	P-118	3,032	24	130	FALSE	0	2,447.37	0	3,032	1.74
555	P-296	3,500	24	130	FALSE	0	8,089.67	0.004	3,500	5.74
361	P-35	3,608	24	130	FALSE	0	4,845.34	0.002	3,739	3.44

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
982	P-594	3,679	24	130	FALSE	0	5,860.44	0.002	0	4.16
391	P-68	3,770	24	130	FALSE	0	4,696.37	0.002	3,531	3.33
1193	P-734	3,927	24	130	FALSE	0	-519.59	0	0	0.37
1195	P-735	4,047	24	130	FALSE	0	-5,911.92	0.002	0	4.19
1196	P-736	4,098	24	130	FALSE	0	-7,440.14	0.004	0	5.28
620	P-366	4,209	24	130	FALSE	0	2,130.10	0	4,209	1.51
1141	P-697	4,266	24	130	FALSE	0	1,466.92	0	0	1.04
339	P-11	4,584	24	130	FALSE	0	-5,268.68	0.002	4,584	3.74
577	P-318	4,861	24	130	FALSE	0	-7,062.62	0.003	4,861	5.01
1105	P-674	4,900	24	130	FALSE	0	723.59	0	0	0.51
760	P-454	4,996	24	130	FALSE	0	-3,605.04	0.001	0	2.56
703	P-419	5,093	24	130	FALSE	0	-3,437.07	0.001	0	2.44
756	P-452	5,097	24	130	FALSE	0	-2,153.27	0	0	1.53
1184	P-727	5,103	24	130	FALSE	0	5,129.25	0.002	0	3.64
810	P-484	5,130	24	130	FALSE	0	4,525.40	0.001	0	3.21
1269	P-783	5,155	24	130	FALSE	0	7,711.97	0.004	0	5.47
755	P-451	5,168	24	130	FALSE	0	4,059.19	0.001	0	2.88
685	P-409	5,195	24	130	FALSE	0	-3,409.76	0.001	0	2.42
770	P-459	5,208	24	130	FALSE	0	3,611.19	0.001	0	2.56
960	P-579	5,235	24	130	FALSE	0	-4,242.75	0.001	0	3.01
671	P-401	5,297	24	130	FALSE	0	-4,317.45	0.001	0	3.06
682	P-407	5,297	24	130	FALSE	0	4,165.87	0.001	0	2.95
672	P-402	5,305	24	130	FALSE	0	2,119.39	0	0	1.5
768	P-458	5,348	24	130	FALSE	0	-3,799.34	0.001	0	2.69
967	P-584	5,402	24	130	FALSE	0	6,802.25	0.003	0	4.82
762	P-455	5,490	24	130	FALSE	0	1,333.70	0	0	0.95
1106	P-675	5,604	24	130	FALSE	0	-3,122.35	0.001	0	2.21
933	P-561	5,978	24	130	FALSE	0	-771.96	0	0	0.55
357	P-30	1,162	24	130	FALSE	0	5,739.80	0.002	1,162	4.07
356	P-29	1,404	24	130	FALSE	0	-1,890.60	0	1,404	1.34
569	P-310	1,417	24	130	FALSE	0	4,411.62	0.001	1,791	3.13
407	P-90	1,734	24	130	FALSE	0	-2,431.36	0	1,734	1.72
390	P-67	2,001	24	130	FALSE	0	5,982.03	0.002	2,001	4.24
565	P-306	2,534	24	130	FALSE	0	-2,021.14	0	2,534	1.43
567	P-308	3,292	24	130	FALSE	0	4,696.63	0.002	2,975	3.33
389	P-66	3,427	24	130	FALSE	0	7,867.05	0.004	3,427	5.58
1096	P-668	402	30	130	FALSE	0	15,471.47	0.005	50	7.02
1090	P-665	576	30	130	FALSE	0	15,046.51	0.004	50	6.83
1249	P-770	715	30	130	FALSE	0	-16,004.01	0.005	50	7.26
1259	P-777	716	30	130	FALSE	0	-16,810.49	0.005	50	7.63
1273	P-785	857	30	130	FALSE	0	-14,697.88	0.004	50	6.67
1261	P-778	1,030	30	130	FALSE	0	15,370.78	0.005	50	6.98
1087	P-664	1,033	30	130	FALSE	0	15,856.26	0.005	50	7.2
1268	P-782	1,077	30	130	FALSE	0	-15,183.28	0.005	50	6.89
1279	P-788	1,082	30	130	FALSE	0	13,619.12	0.004	50	6.18
1275	P-786	1,154	30	130	FALSE	0	-11,678.58	0.003	50	5.3
1266	P-781	1,249	30	130	FALSE	0	-11,151.34	0.003	50	5.06
1271	P-784	1,262	30	130	FALSE	0	-7,743.04	0.001	0	3.51
1300	P-802	1,557	30	130	FALSE	0	17,060.66	0.006	50	7.74
983	P-595	1,593	30	130	FALSE	0	13,186.61	0.003	200	5.99
1277	P-787	1,659	30	130	FALSE	0	16,685.21	0.005	50	7.57
471	CAP-bel	498	36	130	FALSE	0	15,314.37	0.002	50	4.83
1134	P-693	1,504	36	130	FALSE	0	-16,320.13	0.002	100	5.14
1102	P-672	2,429	36	130	FALSE	0	12,489.85	0.001	0	3.94
678	P-405	2,546	36	130	FALSE	0	11,031.51	0.001	0	3.48

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System)	Is Fire Flow Run Balanced?
CAP-Belmont	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	53.7	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-2	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	54.2	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-3	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	61.2	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V18-I	115: Zone -	2	TRUE	1,500.00	2,000.00	2,434.56	2,934.56	20	59.4	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-5	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	60.6	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-6	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	60.8	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-7	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	72.8	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-8	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	71	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-9	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	76.4	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-10	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	83.1	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V18-II	115: Zone -	2	TRUE	1,500.00	2,000.00	2,434.56	2,934.56	20	59.1	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-12	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	70.6	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-13	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	71.3	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V18-III	115: Zone -	2	TRUE	1,500.00	2,000.00	2,434.56	2,934.56	20	75.3	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-15	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	70.1	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V17-I	115: Zone -	2	TRUE	1,500.00	2,000.00	2,713.74	3,213.74	20	68.2	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-17	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	63.9	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-18	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	65.6	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V17-II	115: Zone -	2	TRUE	1,500.00	2,000.00	2,713.74	3,213.74	20	64.1	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-20	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	69.9	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-21	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	62.4	20	44.5	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-22	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	53.2	20	44.4	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-23	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	53.7	20	44.4	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-24	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	53.7	20	44.5	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-25	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	54.1	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-26	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	54.6	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V20-I-Z3	115: Zone -	2	TRUE	1,500.00	2,000.00	2,688.00	3,188.00	20	60.3	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V21-I-Z3	115: Zone -	2	TRUE	1,500.00	2,000.00	2,369.22	2,869.22	20	54.4	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V21-II-Z3	115: Zone -	2	TRUE	1,500.00	2,000.00	2,369.22	2,869.22	20	61.8	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V21-I-Z2	115: Zone -	2	TRUE	1,500.00	2,000.00	1,933.62	2,433.62	20	79	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V20-II-Z3	115: Zone -	2	TRUE	1,500.00	2,000.00	2,688.00	3,188.00	20	63	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V16-III	115: Zone -	2	TRUE	1,500.00	2,000.00	2,632.56	3,132.56	20	66.6	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V15-II-Z3	115: Zone -	2	TRUE	1,500.00	2,000.00	2,553.36	3,053.36	20	74	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-34	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	49.8	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V19-II	115: Zone -	2	TRUE	1,500.00	2,000.00	2,830.56	3,330.56	20	47.7	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-36	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	54.1	20	44.5	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-37	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	58.6	20	44.5	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V19-I	115: Zone -	2	TRUE	1,500.00	2,000.00	2,830.56	3,330.56	20	44	20	47.8	154: J-V19-II	20	40.1	1042: J-327	TRUE
J-39	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	50.8	20	44.3	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V16-II	115: Zone -	2	TRUE	1,500.00	2,000.00	2,632.56	3,132.56	20	54.2	20	44.5	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-41	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	49.3	20	44.4	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V16-I	115: Zone -	2	TRUE	1,500.00	2,000.00	2,632.56	3,132.56	20	64.1	20	44.5	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V13-I-Z3	115: Zone -	2	TRUE	1,500.00	2,000.00	2,327.64	2,827.64	20	76.7	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-44	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	80.5	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V17-III	115: Zone -	2	TRUE	1,500.00	2,000.00	2,713.74	3,213.74	20	82.6	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V14-I-Z3	115: Zone -	2	TRUE	1,500.00	2,000.00	2,226.66	2,726.66	20	79.4	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-47	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	74.7	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-48	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	72.8	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V11-I-Z3	115: Zone -	2	TRUE	1,500.00	2,000.00	1,941.54	2,441.54	20	74.2	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-50	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	48.7	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System)	Is Fire Flow Run Balanced?
J-V13-I-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	2,602.86	3,102.86	20	54.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-52	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	65	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-53	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	53.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V12-I	18: Zone -	2	TRUE	1,500.00	2,000.00	2,361.30	2,861.30	20	49.7	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-55	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	50.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V11-II-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	2,163.30	2,663.30	20	52.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V13-II-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	2,602.86	3,102.86	20	54.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-58	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	48.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-59	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	81.1	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-60	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	74.9	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V14-II-Z3	115: Zone -	2	TRUE	1,500.00	2,000.00	2,226.66	2,726.66	20	77.3	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-62	115: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	75.5	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V11-IV-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	2,163.30	2,663.30	20	45	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-64	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	75.9	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-65	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	74.9	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V15-I-Z3	115: Zone -	2	TRUE	1,500.00	2,000.00	2,553.36	3,053.36	20	70	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-67	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	65.3	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V10-I-Z3	115: Zone -	2	TRUE	1,500.00	2,000.00	1,666.32	2,166.32	20	77.9	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-70	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	47.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-71	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	53	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V8-I	18: Zone -	2	TRUE	1,500.00	2,000.00	2,616.72	3,116.72	20	51.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V15-II-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	2,553.36	3,053.36	20	51.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V9-I	18: Zone -	2	TRUE	1,500.00	2,000.00	2,788.98	3,288.98	20	51.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V15-III-Z3	115: Zone -	2	TRUE	1,500.00	2,000.00	2,553.36	3,053.36	20	79.4	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-76	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	51.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V22-II	18: Zone -	2	TRUE	1,500.00	2,000.00	2,587.02	3,087.02	20	44.2	20	40	1042: J-327	20	40	1042: J-327	TRUE
J-79	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	48.8	20	40	1042: J-327	20	40	1042: J-327	TRUE
J-V22-I	115: Zone -	2	TRUE	1,500.00	2,000.00	2,587.02	3,087.02	20	76	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V22-III	18: Zone -	2	TRUE	1,500.00	2,000.00	2,587.02	3,087.02	20	54.6	20	40	1042: J-327	20	40	1042: J-327	TRUE
J-82	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	73.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-83	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	71.5	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-84	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	53.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V8-II	18: Zone -	2	TRUE	1,500.00	2,000.00	2,616.72	3,116.72	20	60.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-86	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	66.5	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-87	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	55.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-88	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	75.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-89	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	73.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-90	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	73.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-91	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	73.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-92	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	62	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V7-II	18: Zone -	2	TRUE	1,500.00	2,000.00	2,172.21	2,672.21	20	65.5	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-94	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	78.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-95	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V3-I-Z1	18: Zone -	2	TRUE	1,500.00	2,000.00	1,632.66	2,132.66	20	80.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V2-II	17: Zone -	2	TRUE	1,500.00	2,000.00	2,131.62	2,631.62	20	51.3	20	46.9	285: J-171	20	40.1	1042: J-327	TRUE
J-98	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	60.7	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-99	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	63.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-100	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	66.3	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-101	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	71.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-V23-I	17: Zone -	2	TRUE	1,500.00	2,000.00	2,046.48	2,546.48	20	70.3	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System)	Is Fire Flow Run Balanced?
J-103	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	53.1	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-104	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	58	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V12-II	18: Zone -	2	TRUE	1,500.00	2,000.00	2,361.30	2,861.30	20	67.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-106	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	66	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V5-I	18: Zone -	2	TRUE	1,500.00	2,000.00	2,434.56	2,934.56	20	69.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-108	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	63.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V6-I	18: Zone -	2	TRUE	1,500.00	2,000.00	2,383.08	2,883.08	20	61.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-110	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	70.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-111	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	77.5	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-112	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	70.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-113	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	73.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V5-II	18: Zone -	2	TRUE	1,500.00	2,000.00	2,434.56	2,934.56	20	74.5	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-115	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79.5	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-116	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	63.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-117	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	68.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V6-II	18: Zone -	2	TRUE	1,500.00	2,000.00	2,383.08	2,883.08	20	70.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-119	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	75	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-120	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	48.9	20	46.3	285: J-171	20	40.1	1042: J-327	TRUE
J-V4-I-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	2,779.08	3,279.08	20	75.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-123	17: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	46.6	20	46.3	285: J-171	20	40.1	1042: J-327	TRUE
J-124	17: Zone -	2	TRUE	1,500.00	2,000.00	1,979.16	2,479.16	20	50.8	20	46.4	285: J-171	20	40.1	1042: J-327	TRUE
J-V4-I-Z1	17: Zone -	2	TRUE	1,500.00	2,000.00	2,139.54	2,639.54	20	48.5	20	46.3	869: J-283	20	40.1	1042: J-327	TRUE
J-126	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	65.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-127	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	67.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V4-II-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	2,779.08	3,279.08	20	73.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-129	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	49.5	20	46.5	869: J-283	20	40.1	1042: J-327	TRUE
J-V2-I	17: Zone -	2	TRUE	1,500.00	2,000.00	2,131.62	2,631.62	20	50.5	20	46.6	869: J-283	20	40.1	1042: J-327	TRUE
J-131	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	52.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V3-I-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	2,699.88	3,199.88	20	73.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V1-II	17: Zone -	2	TRUE	1,500.00	2,000.00	2,699.88	3,199.88	20	61	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-V1-I	17: Zone -	2	TRUE	1,500.00	2,000.00	2,699.88	3,199.88	20	68.4	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-135	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	71.6	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-136	17: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	68	20	47	285: J-171	20	40.1	1042: J-327	TRUE
J-137	17: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	70.6	20	47	285: J-171	20	40.1	1042: J-327	TRUE
J-138	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	48.8	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-V25-I	17: Zone -	2	TRUE	1,500.00	2,000.00	3,678.00	4,178.00	20	64.6	20	46.9	285: J-171	20	40.1	1042: J-327	TRUE
J-140	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	67.8	20	46.8	285: J-171	20	40.1	1042: J-327	TRUE
J-V25-II	16: Zone -	2	TRUE	1,500.00	2,000.00	3,678.00	4,178.00	20	48.8	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-143	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	53.4	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-144	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	71.4	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-V24-I	17: Zone -	2	TRUE	1,500.00	2,000.00	3,044.40	3,544.40	20	68.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-146	17: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	73	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-147	17: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	70.5	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-148	17: Zone -	2	TRUE	1,500.00	2,000.00	2,014.80	2,514.80	20	63.3	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-149	16: Zone -	2	TRUE	1,500.00	2,000.00	1,699.98	2,199.98	20	55.6	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-V24-II	17: Zone -	2	TRUE	1,500.00	2,000.00	3,044.40	3,544.40	20	63.3	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-V11-I-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	2,826.60	3,326.60	20	52.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V11-III-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	2,826.60	3,326.60	20	53.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V7-I	18: Zone -	2	TRUE	1,500.00	2,000.00	2,844.42	3,344.42	20	56.7	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V9-II	18: Zone -	2	TRUE	1,500.00	2,000.00	2,788.98	3,288.98	20	48.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System)	Is Fire Flow Run Balanced?
J-V15-I-Z2	115: Zone -	2	TRUE	1,500.00	2,000.00	2,553.36	3,053.36	20	77.3	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V10-I-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	2,996.88	3,496.88	20	45.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V14-I-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	1,662.36	2,162.36	20	44.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V13-III-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	3,232.50	3,732.50	20	48.5	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V20-I-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	2,094.00	2,594.00	20	46.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-161	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	78.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-162	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	46.7	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V15-III-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	2,553.36	3,053.36	20	45	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-164	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	67.8	20	46.8	285: J-171	20	40.1	1042: J-327	TRUE
J-165	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	51.4	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-166	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	78.8	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-167	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79.9	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-168	17: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	48.2	20	46.1	285: J-171	20	40.1	1042: J-327	TRUE
J-169	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	78.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-170	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79.7	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-171	17: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	45.9	20	46	869: J-283	20	40.1	1042: J-327	TRUE
J-172	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	56.4	20	39.8	835: J-281	20	39.8	835: J-281	TRUE
J-173	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	62.9	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-174	17: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	50.4	20	46	875: J-285	20	40.1	1042: J-327	TRUE
J-175	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	51.4	20	46.9	285: J-171	20	40.1	1042: J-327	TRUE
J-176	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	62.4	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-177	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	56.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-178	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	58.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-180	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	62.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V7-III	18: Zone -	2	TRUE	1,500.00	2,000.00	2,172.21	2,672.21	20	69.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-182	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	64.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-183	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	71.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-184	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	59.7	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-185	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	51.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-186	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	50.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-187	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	55.1	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-188	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	45.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-189	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	75.3	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-190	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	56.9	20	44.5	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-191	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	78.5	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-192	18: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	78	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-193	18: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	80.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-194	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	63.2	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-195	17: Zone -	2	TRUE	1,500.00	2,000.00	2,444.46	2,944.46	20	67.1	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-196	17: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	66.2	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-197	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	64.3	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-198	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	59.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-199	17: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	59.1	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-200	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	65.9	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-201	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	70.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-202	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	64.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-203	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	70.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-204	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	44	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-205	18: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	76.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-212	17: Zone -	2	TRUE	1,500.00	2,000.00	2,569.20	3,069.20	20	67.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System)	Is Fire Flow Run Balanced?
J-213	17: Zone -	2	TRUE	1,500.00	2,000.00	1,939.56	2,439.56	20	68.5	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-214	17: Zone -	2	TRUE	1,500.00	2,000.00	2,280.12	2,780.12	20	69.5	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-215	17: Zone -	2	TRUE	1,500.00	2,000.00	2,280.12	2,780.12	20	77.2	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-216	16: Zone -	2	TRUE	1,500.00	2,000.00	2,137.56	2,637.56	20	52.7	20	47.9	1180: J-358	20	40.1	1042: J-327	TRUE
J-217	16: Zone -	2	TRUE	1,500.00	2,000.00	1,939.56	2,439.56	20	66.7	20	50.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-218	16: Zone -	2	TRUE	1,500.00	2,000.00	2,137.56	2,637.56	20	57.7	20	48.8	1180: J-358	20	40.1	1042: J-327	TRUE
J-219	16: Zone -	2	TRUE	1,500.00	2,000.00	2,137.56	2,637.56	20	59.1	20	48.8	1180: J-358	20	40.1	1042: J-327	TRUE
J-220	16: Zone -	2	TRUE	1,500.00	2,000.00	2,452.38	2,952.38	20	66.2	20	49	1180: J-358	20	40.1	1042: J-327	TRUE
J-221	17: Zone -	2	TRUE	1,500.00	2,000.00	2,785.02	3,285.02	20	78.9	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-222	17: Zone -	2	TRUE	1,500.00	2,000.00	1,840.56	2,340.56	20	68.4	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
Balterra	17: Zone -	2	TRUE	1,500.00	2,000.00	1,840.56	2,340.56	20	66.2	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-225	17: Zone -	2	TRUE	1,500.00	2,000.00	2,155.38	2,655.38	20	65.6	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-226	17: Zone -	2	TRUE	1,500.00	2,000.00	2,353.38	2,853.38	20	78.4	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-227	17: Zone -	2	TRUE	1,500.00	2,000.00	2,311.80	2,811.80	20	72.4	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-228	17: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	60	20	47	285: J-171	20	40.1	1042: J-327	TRUE
J-229	16: Zone -	2	TRUE	1,500.00	2,000.00	1,699.98	2,199.98	20	75.3	20	50.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-230	18: Zone -	2	TRUE	1,500.00	2,000.00	1,995.00	2,495.00	20	78.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-232	17: Zone -	2	TRUE	1,500.00	2,000.00	2,391.00	2,891.00	20	61	20	45.2	978: J-317	20	40.1	1042: J-327	TRUE
J-233	17: Zone -	2	TRUE	1,500.00	2,000.00	2,309.82	2,809.82	20	78.5	20	45.9	978: J-317	20	40.1	1042: J-327	TRUE
J-234	17: Zone -	2	TRUE	1,500.00	2,000.00	2,193.00	2,693.00	20	68.5	20	45.2	978: J-317	20	40.1	1042: J-327	TRUE
J-235	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	44.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
DZ-South	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	57.7	20	46.8	285: J-171	20	40.1	1042: J-327	TRUE
DZ-North	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	80.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-238	16: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	56.9	20	49.1	1218: J-365	20	40.1	1042: J-327	TRUE
J-239	16: Zone -	2	TRUE	1,500.00	2,000.00	2,452.38	2,952.38	20	59.3	20	48.9	1180: J-358	20	40.1	1042: J-327	TRUE
J-240	16: Zone -	2	TRUE	1,500.00	2,000.00	2,452.38	2,952.38	20	63.2	20	48.9	1180: J-358	20	40.1	1042: J-327	TRUE
J-241	15: Zone -	2	TRUE	1,500.00	2,000.00	2,448.42	2,948.42	20	37.1	20	45.4	811: J-271	20	40.1	1042: J-327	TRUE
J-242	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	57.5	20	49.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-243	16: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	69.6	20	49.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-244	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	53.6	20	49.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-245	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	63.4	20	49.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-246	15: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	47.5	20	45.4	811: J-271	20	40.1	1042: J-327	TRUE
J-247	16: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	50.4	20	49.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-248	16: Zone -	2	TRUE	1,500.00	2,000.00	2,137.56	2,637.56	20	49.7	20	48.6	1180: J-358	20	40.1	1042: J-327	TRUE
J-249	18: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	80.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-250	18: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	69	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-251	18: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	57.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-252	18: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	70.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-253	18: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	59.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-254	18: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	49.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-255	18: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	41.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-256	18: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	50	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-257	18: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	59.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-258	18: Zone -	2	TRUE	1,500.00	2,000.00	2,444.46	2,944.46	20	71.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-259	17: Zone -	2	TRUE	1,500.00	2,000.00	2,155.38	2,655.38	20	45.7	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-260	18: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	57.5	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-261	18: Zone -	2	TRUE	1,500.00	2,000.00	2,444.46	2,944.46	20	56.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-262	18: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	55.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-265	17: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	56.1	20	46	777: J-259	20	40.1	1042: J-327	TRUE
J-266	17: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	61.4	20	46.1	777: J-259	20	40.1	1042: J-327	TRUE

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System)	Is Fire Flow Run Balanced?
J-267	17: Zone -	2	TRUE	1,500.00	2,000.00	2,444.46	2,944.46	20	63	20	46.2	777: J-259	20	40.1	1042: J-327	TRUE
J-268	17: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	72	20	46.3	777: J-259	20	40.1	1042: J-327	TRUE
J-269	17: Zone -	2	TRUE	1,500.00	2,000.00	3,074.10	3,574.10	20	67.2	20	46.4	777: J-259	20	40.1	1042: J-327	TRUE
J-270	17: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	58	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-271	15: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	29.4	20	33.9	1233: J-368	20	33.9	1233: J-368	TRUE
J-272	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	53.3	20	49.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-274	16: Zone -	2	TRUE	1,500.00	2,000.00	1,699.98	2,199.98	20	72	20	50.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-275	16: Zone -	2	TRUE	1,500.00	2,000.00	1,699.98	2,199.98	20	56.9	20	50.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-276	16: Zone -	2	TRUE	1,500.00	2,000.00	1,699.98	2,199.98	20	65.9	20	50.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-277	16: Zone -	2	TRUE	1,500.00	2,000.00	1,699.98	2,199.98	20	81.6	20	50.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-278	17: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	53.7	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-279	17: Zone -	2	TRUE	1,500.00	2,000.00	1,698.00	2,198.00	20	44.3	20	46	777: J-259	20	40.1	1042: J-327	TRUE
J-280	17: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	70.3	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-281	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	39.3	20	40	1042: J-327	20	40	1042: J-327	TRUE
J-282	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	76.9	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-283	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	44.7	20	46	285: J-171	20	40.1	1042: J-327	TRUE
J-284	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	78.5	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-285	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	41	20	46.9	285: J-171	20	40.1	1042: J-327	TRUE
J-286	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	40.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-287	18: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	73.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-288	18: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	76.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-289	18: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	71.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-290	18: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	72.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-291	17: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	61.2	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-292	17: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	55	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-293	17: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	49.1	20	47	285: J-171	20	40.1	1042: J-327	TRUE
J-294	17: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	55.8	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-295	17: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	51	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-296	18: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	82.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-297	18: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	82.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-298	18: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	84	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-299	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	57.1	20	49.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-300	16: Zone -	2	TRUE	1,500.00	2,000.00	2,014.80	2,514.80	20	71.9	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-301	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	55.2	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-302	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	57	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-303	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	58.6	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-304	16: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	56.7	20	49.6	1180: J-358	20	40.1	1042: J-327	TRUE
J-305	16: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	64.1	20	50	1180: J-358	20	40.1	1042: J-327	TRUE
J-306	17: Zone -	2	TRUE	1,500.00	2,000.00	1,913.82	2,413.82	20	68.5	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-307	17: Zone -	2	TRUE	1,500.00	2,000.00	1,979.16	2,479.16	20	70.6	20	46.7	285: J-171	20	40.1	1042: J-327	TRUE
J-308	17: Zone -	2	TRUE	1,500.00	2,000.00	1,979.16	2,479.16	20	66.6	20	46.7	285: J-171	20	40.1	1042: J-327	TRUE
J-309	17: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	59.3	20	46.9	285: J-171	20	40.1	1042: J-327	TRUE
J-310	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	57	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-311	17: Zone -	2	TRUE	1,500.00	2,000.00	1,979.16	2,479.16	20	52	20	46.5	285: J-171	20	40.1	1042: J-327	TRUE
J-312	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	55.3	20	49.7	1180: J-358	20	40.1	1042: J-327	TRUE
J-313	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	50.3	20	50.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-314	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	72.8	20	46.8	285: J-171	20	40.1	1042: J-327	TRUE
J-315	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79.9	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-316	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	72.3	20	46.8	285: J-171	20	40.1	1042: J-327	TRUE
J-317	17: Zone -	2	TRUE	1,500.00	2,000.00	2,391.00	2,891.00	20	45.1	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE

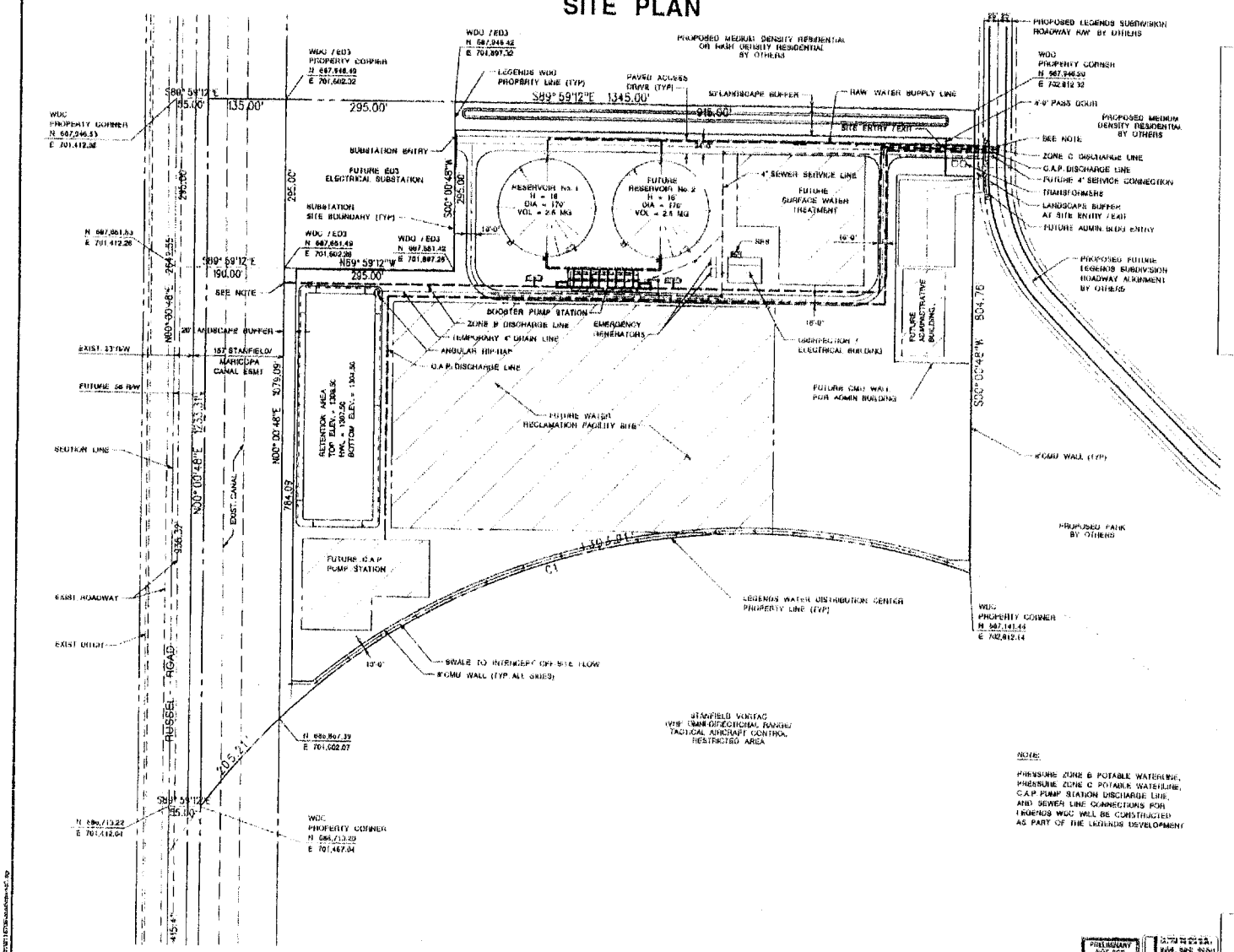
Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System)	Is Fire Flow Run Balanced?
J-318	17: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	47.8	20	46.3	978: J-317	20	40.1	1042: J-327	TRUE
J-322	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	40.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-323	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	40.1	20	40.1	835: J-281	20	40.1	835: J-281	TRUE
J-324	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	40.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-325	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	45.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-327	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	39.9	20	40.4	835: J-281	20	40.4	835: J-281	TRUE
J-328	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	65.8	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-329	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	65.8	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-330	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	64.9	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-333	17: Zone -	2	TRUE	1,500.00	2,000.00	1,840.56	2,340.56	20	65.2	20	47	777: J-259	20	40.1	1042: J-327	TRUE
J-334	17: Zone -	2	TRUE	1,500.00	2,000.00	1,840.56	2,340.56	20	49.4	20	45.9	777: J-259	20	40.1	1042: J-327	TRUE
J-335	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-336	18: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	82.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-337	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	75.7	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-338	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	70.2	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-341	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	44.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-342	18: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	42.7	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-346	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	47.8	20	45.7	978: J-317	20	40.1	1042: J-327	TRUE
J-347	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	75.1	20	45.7	978: J-317	20	40.1	1042: J-327	TRUE
J-348	18: Zone -	2	TRUE	1,500.00	2,000.00	1,896.00	2,396.00	20	78.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-349	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-350	18: Zone -	2	TRUE	1,500.00	2,000.00	2,094.00	2,594.00	20	80.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-352	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	57.2	20	46.5	777: J-259	20	40.1	1042: J-327	TRUE
J-353	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	56.9	20	46.6	777: J-259	20	40.1	1042: J-327	TRUE
J-354	17: Zone -	2	TRUE	1,500.00	2,000.00	1,931.64	2,431.64	20	55.3	20	46	830: J-279	20	40.1	1042: J-327	TRUE
J-355	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	50.6	20	46	777: J-259	20	40.1	1042: J-327	TRUE
J-356	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	64.3	20	46.2	777: J-259	20	40.1	1042: J-327	TRUE
J-357	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	82.4	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-358	16: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	44.4	20	49.5	1208: J-363	20	40.1	1042: J-327	TRUE
J-359	16: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	58.5	20	49.6	1180: J-358	20	40.1	1042: J-327	TRUE
J-360	16: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	65.5	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-361	16: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	50.5	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-362	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	76	20	46.8	285: J-171	20	40.1	1042: J-327	TRUE
J-363	16: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	47.9	20	48.6	1180: J-358	20	40.1	1042: J-327	TRUE
J-364	16: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	55.4	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-365	16: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	45.3	20	49.6	1180: J-358	20	40.1	1042: J-327	TRUE
J-368	15: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	33.9	20	32.8	811: J-271	20	32.8	811: J-271	TRUE
J-370	16: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	59.2	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-371	16: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	60.1	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-372	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-374	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	63.5	20	46.7	285: J-171	20	40.1	1042: J-327	TRUE
J-376	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	57.5	20	46.6	285: J-171	20	40.1	1042: J-327	TRUE
J-377	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	54.8	20	46.6	285: J-171	20	40.1	1042: J-327	TRUE
J-378	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	46	20	45.9	869: J-283	20	40.1	1042: J-327	TRUE

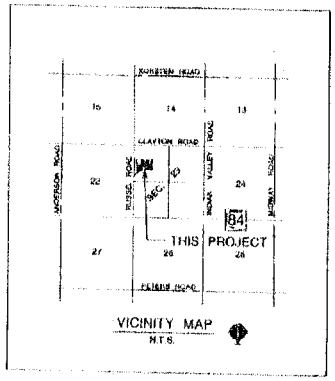
APPENDIX B

Typical Water Distribution Center Layout

GLOBAL WATER - SANTA CRUZ WATER COMPANY, LLC
LEGENDS WATER DISTRIBUTION CENTER
SITE PLAN

SOUTH PROPERTY LINE CURVE DATA						
NO.	RADIUS	ARC	DELTA	TANGENT	CHORD	CHORD BEARING
1	1200.00	1599.13	072°03'20"	872.74	1411.62	S72°20'24.0"W





NOTE:

PRESSURE ZONE B POTABLE WATERLINE, PRESSURE ZONE C POTABLE WATERLINE, C.A.P. PUMP STATION DISCHARGE LINE, AND SEWER LINE CONNECTIONS FOR LEGENDS WDC WILL BE CONSTRUCTED AS PART OF THE LEGENDS DEVELOPMENT

SCALE: 1" = 80'

PRELIMINARY NOT FOR CONSTRUCTION OR RECORDING

CALL BLUE STAKE, INC. 602-263-1100 1-800-STAKE-IT

GLOBAL WATER
RELIABLE • RENEWABLE • REUSEABLE

COE & VAN LOO
4550 NORTH 12TH STREET
PHOENIX, ARIZONA 85014
TELEPHONE: (602) 264-6831

GLOBAL WATER - SANTA CRUZ WATER COMPANY, LLC
CITY OF CASA GRANDE, AZ.
SITE PLAN
LEGENDS WATER DISTRIBUTION CENTER

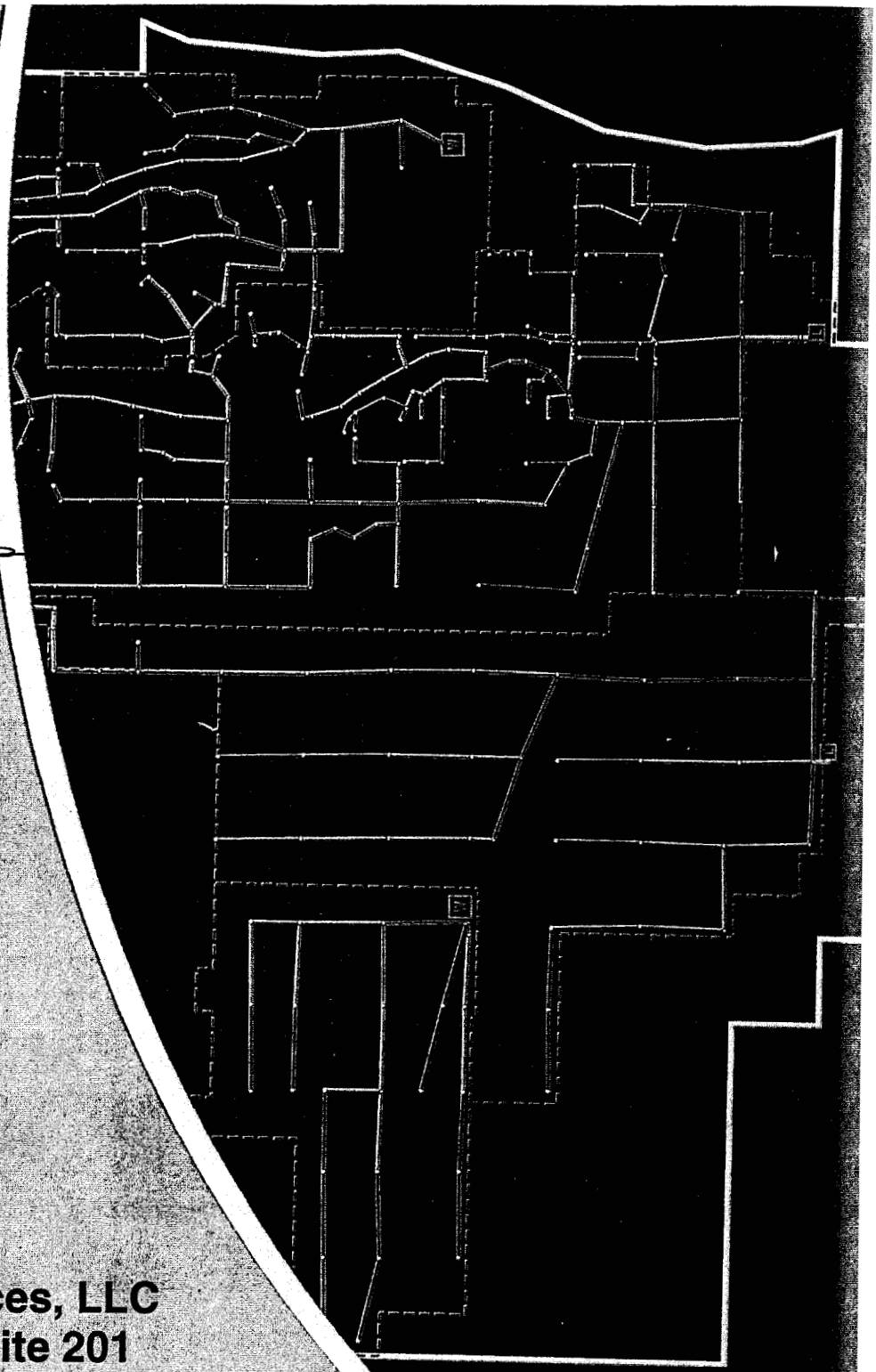
DESIGNED BWW
DRAWN BWW
REVIEWED
CHECKED BEH
DATE REVISED
DATE 12/18/06
SCALE AS SHOWN
JOB NO. 1.31.0116.0A
FILE
SP-2 OF 4

EXHIBIT A-11

GLOBAL WATER

Final
Hassayampa Utility Company
Wastewater Master Plan

July 2007



Registered Professional Engineer (Civil)
CERTIFICATE NO. 42779
BRENT L. STAFFT
Date Signed
ARIZONA, U.S.A.

Prepared for:
Global Water Resources, LLC
21410 N. 19th Ave, Suite 201
Phoenix, AZ 85027
Phone: (623) 580-9600
Fax: (623) 580-9659

EXHIBIT
A-11
admitted

DSWA
DAMON S. WILLIAMS ASSOCIATES, LLC

Table of Contents

Page

1.0 INTRODUCTION 1-1
1.1 SCOPE OF WORK 1-2
1.2 SERVICE AREA 1-2
1.3 TOPOGRAPHY 1-2
1.4 EXISTING CONDITIONS 1-3
1.5 EXISTING MASTER PLANS 1-3

2.0 MASTER PLAN 2-1
2.1 ANALYTICAL METHODOLOGY 2-1
2.2 CRITERIA AND ASSUMPTIONS 2-1
2.3 FLOW LOADINGS 2-2
2.4 PHASING 2-3
2.5 SEWER SHEDS 2-4
2.6 MODELING RESULTS 2-4
2.6.1 Pipelines 2-5
2.6.2 Lift Stations and Forcemains 2-6
2.6.3 Water Reclamation Facilities 2-7
2.6.4 Cost Estimates 2-9

3.0 EFFLUENT DISPOSAL AND PERMITTING 3-1
3.1 EFFLUENT DISPOSAL STRATEGY 3-1
3.2 PERMITTING 3-2

4.0 RECOMMENDATIONS 4-1

5.0 REFERENCES 5-1

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List of Tables

Page

Table 2-1 Design Criteria 2-1
Table 2-2 Wastewater Flow Criteria 2-2
Table 2-3 Wastewater Flow Loadings 2-3
Table 2-4 Flow Loading Projections - Ultimate 2-3
Table 2-5 Sewer Shed Sizes 2-4
Table 2-6 Sewer Velocity and Cover Results 2-5
Table 2-7 Pipeline Quantities (Ultimate Buildout) 2-5
Table 2-8 Lift Station Capacities 2-6
Table 2-9 Forcemain Sizing 2-7
Table 2-10 WRF Treatment Requirements 2-8
Table 3-1 WRF Surface Discharge Sites 3-1
Table 3-2 Permit Requirements 3-2

List of Exhibits

		Follows Page
Exhibit 1.1	Proposed Service Area Location Map Showing Tributary Areas	5-1
Exhibit 2.1	Proposed Phase 1 Wastewater Collection System	
Exhibit 2.2	Proposed Ultimate Buildout Wastewater Collection System	
Exhibit 3.1	Proposed Reclaimed Water Recharge and Discharge Sites	

List of Appendices

Appendix A	SewerCAD Results
Appendix B	Water Reclamation Facility Process Flow Schematic

1.0 Introduction

A consortium of development companies is in the process of developing Greater Tonopah in western Maricopa County. The Hassayampa Utility Company (HUC), a wholly owned subsidiary of Global Water Resources Incorporated (Global), will be responsible for regional wastewater service for the master planned developments.

Potable water will be supplied via the Water Utility of Greater Tonopah (WUGT), another subsidiary of Global, and is the subject of the Water Master Plan, also developed by DSWA.

There is limited existing wastewater infrastructure in the Greater Tonopah area and an integrated regional wastewater system is proposed. The purpose of this document is to provide a regional wastewater master plan for HUC's proposed service area in western Maricopa County, focusing on eight (8) developments which are in relatively advanced stages of planning and have requested service from HUC.

The area to be regionally planned for the HUC is located in western Maricopa County and in total comprises approximately one hundred and sixty (160) square miles. The proposed service area is bounded by the Central Arizona Project canal on the north, 443rd Avenue on the west, Broadway Road on the south, and the Hassayampa River on the east. Exhibit 1.1 provides a vicinity map of the area. For this master plan, 63,000 acres are planned.

HUC filed an application for a CC&N with the ACC for wastewater on September 19, 2005 (Docket No. SW-20422a-05-0659). The application covered a service area of approximately 2,050 acres encompassing the Hassayampa Ranch development. The CC&N extension was approved in September 2006.

Additionally, HUC filed an extension application for wastewater on September 7, 2006, docket number SW-20422-06-0566 to incorporate the Belmont, Copper Leaf, Silver Water Ranch, Silver Springs Ranch, and 339th Avenue developments encompassing approximately 24,492 acres. The resulting CC&N will cover more than 24,000 acres and include the following developments:

- Belmont
- 339th Avenue
- Hassayampa Ranch
- Copper Leaf

- Silver Water Ranch
- Silver Springs Ranch

The Belmont development is planned for 25,000 acres including State Land and offsite areas. This master plan will focus on serving the developments included in the CC&N applications and unplanned areas outside of the proposed development boundaries, for a total of 63,000 acres. None of the proposed developments have existing wastewater service as they are all in the planning stages and have not reached final plat.

1.1 Scope of Work

Global has contracted with DSWA to provide a comprehensive wastewater master plan for the Greater Tonopah region. DSWA is responsible for modeling two phases of the service area (Phase 1 and Ultimate), including the Belmont portion. Phase 1 includes the first phase of the Belmont development (Villages 1, 2, 3 and 4 and Offsite Areas 3 through 9) and the remainder of the other developments at full buildout. Ultimate includes full buildout of Belmont and the other developments. Where a master plan for a particular development was not provided, model definition was limited to one-mile grid gravity sewers. CMX has provided an existing hydraulic model for the Belmont portion of the development area. In addition, HUC has provided corresponding cost estimates of the proposed infrastructure.

The Master Plan will provide recommended locations of wastewater lift stations and treatment facilities for each sewer shed. Conceptual sewer and forcemain sizes and locations are provided with this plan. A conceptual cost estimate for the Phase 1 and Ultimate facilities are also included.

1.2 Service Area

The service area and the proposed developments modeled are shown in Exhibit 1.1. The ultimate service area for HUC is greater than the modeled area. A future master plan will be required to incorporate the remaining areas and integrate it into this plan. Approximately 63,000 acres were modeled in this master plan.

1.3 Topography

The service area generally slopes from northwest to southeast. The lowest elevation served in this plan is approximately 1,000-feet above mean sea level (AMSL). The highest elevation served is

approximately 1,370-feet AMSL. The lowest elevation is located approximately one mile east of Wintersburg Road at Lower Buckeye Road in the south. Higher elevations are located along the CAP canal in the north. For the Belmont area, contour data was provided by CMX in their wastewater model, who obtained the topography from MapMart. United States Geographical Survey (USGS) contour mapping (10 and 20-foot intervals) was used as a basis for ground elevations for the remainder of the model. Vertical elevations are based on National Geodetic Vertical Datum 1929 (NGVD 29).

1.4 Existing Conditions

The proposed service area being modeled is relatively undeveloped. Localized treatment systems include small treatment facilities that serve the Palo Verde Mobile Home Park (200,000 gpd), Truck Stops of America (80,000 gpd) along I-10, and the Ruth Fisher School (15,000 gpd) near the intersection of I-10 and Indian School Road. The remainder of the existing treatment/disposal systems is assumed to be individual septic systems.

The groundwater conditions in the development service area are important as they relate to effluent disposal. The depth of water below ground surface ranges from approximately 20 feet near the Gila River to over 700 feet at the northern portion of the Hassayampa Sub-basin.

1.5 Existing Master Plans

CMX created both water and wastewater master plans for the proposed Belmont development that have been approved by Maricopa County. The Belmont wastewater master plan was incorporated into this master plan with minor changes. Several pipe sizes and slopes were modified. In general, the revisions included:

- Maximum pipeline cover reduced from 35 feet to 25 feet. This resulted in larger sewer diameters.
- Some manholes and pipelines were realigned to reduce pipeline cover.
- Some manholes and sewers were eliminated and flow re-routed.
- The number of lift stations were reduced from three in the Belmont Development to one at build-out.

Other than Belmont, the Hassayampa Ranch, Silver Water Ranch, Silver Springs Ranch and Copper Leaf developments have water and wastewater master plans. However, these have not been approved by Maricopa County. From these master plans, only proposed development boundaries were used in the development of the wastewater system model.

2.0 Master Plan

Two (2) models were created for this master plan. The first model, Phase 1, involves a wastewater collection model for the first phase of the Belmont development and buildout of the remaining developments. The second model, Ultimate, is the ultimate buildout of both Belmont and the remaining developments. The area modeled is shown in Exhibit 1.1.

2.1 Analytical Methodology

For each model, Average Day Flow (ADF) and Peak Dry Weather Flow (PDWF) scenarios were analyzed with Bentley's (Haestad Methods) SewerCAD v.5.6. SewerCAD takes user inputs for manhole locations, pipe locations, ground elevations, and flows. Based on user input design constraints, such as minimum and maximum velocity, cover, and slope, the program determines the size and slope of each pipe that minimizes pipe size and excavation. After the initial run of the model, the program will indicate where design constraints are exceeded. Manual adjustments are then made to facilitate the design requirements of the project. The hydraulic model created for this master plan includes 398 pipes and manholes. Only steady state analysis runs were made.

2.2 Criteria and Assumptions

Table 2-1 provides the design criteria used for the hydraulic modeling for this project:

Table 2-1 Design Criteria

Parameter	Value
Minimum Pipe Size, inch	8
Manning's Roughness Coefficient, n	0.013
Minimum Pipe Velocity at Peak Flow, ft/s	2*
Maximum Pipe Velocity, ft/s	8
Minimum Slope for 8-inch Pipe	0.0035
Maximum hydraulic depth to Pipe Diameter Ratio (d/D) for Peak Dry Weather Flow	0.75
Minimum Depth of Cover, feet	7
Maximum Depth of Cover, feet	25
Manhole Headloss K-Coefficient	0.5
Change in Pipe Diameter Matching	Pipe Crowns Matched at Manhole
Forcemain Minimum Velocity, ft/s	3
Forcemain Maximum Velocity, ft/s	6

* The exception to this design criterion is that for 8-inch pipes the minimum slope requirement governs.

The following assumptions were made:

- Generally, existing ground surface elevations were used.
- Infiltration was not considered.
- Pipe sizes and slopes were selected based on Peak Dry Weather Flow (PDWF).
- Maricopa County Environmental Services Division (MCESD) and Global Water System Design standards were adhered for the creation of the models and assigning flows to manholes. Where these standards differed, the more stringent standard was taken. The following criteria in Table 2-2 were used.

Table 2-2 Wastewater Flow Criteria

Criteria	Value	Units
Per Capita Flow Generation	80	Gal/capita/day
Persons/DU	3.2	Persons
DU consumption	256	Gal/DU/day
Development Density	3	DU/acre
PDWF Multiplier	2.0	Multiply ADF

The above DU consumption value is based on MCESD criteria (i.e. 80 gal/capita/day and 3.2 persons/DU) and is more stringent than the Global Water standard of 234 gal/DU/day for its collection system and 187 gal/DU/day for treatment capacity. Global's subsidiaries typically see flows in their existing service areas in the order of 140 gal/DU/day.

Commercial, Institutional, Industrial, and open space demands were not considered in modeled areas outside the Belmont development. Peaking factors were multiplied by the Average Day Flow (ADF) to obtain the PDWF.

2.3 Flow Loadings

Wastewater flows were estimated for each scenario based on the criteria shown above. Table 2-3 shows the following overall flow loading estimates used in the models.

Table 2-3 Wastewater Flow Loadings

Model	Value
Phase 1- ADD, mgd	37.0
Phase 1 – MDD, mgd	74.0
Ultimate Buildout- ADD, mgd	55.3
Ultimate Buildout- MDD, mgd	110.7

*mgd = million gallons per day

More specifically, projected flow loadings were allocated to specific planned developments and un-planned areas according to Table 2-4. These loadings were allocated to junction nodes adjacent to the area of development.

Table 2-4 Flow Loading Projections - Ultimate

Development	Development Area (acres)	1Dwelling Units at Buildout	Average Day Flow Loading, mgd
Belmont	24,773	78,423	24.4
Belmont Offsite Area	5,644	16,025	4.8
Copperleaf	1,280	4,000	1.0
Desert Whisper	948	2,844	0.7
Hassayampa Ranch	2,050	7,536	2.6
Silver Water Ranch	528	1,877	0.5
Silver Springs Ranch	2,229	6,687	1.7
339th Avenue	1,273	3,819	1.0
Balterra	1,256	3,768	1.0
Un-planned areas	22,764	68,2922	17.5
Totals	62,745	193,271	55.2

[1] Dwelling units and acreages taken from development master plans prepared by others.
[2] Dwelling units estimated from 640-acres per section and 3 DU/ac.

The projected Ultimate flow loading for the service area modeled is 55-mgd to serve 193,900 dwelling units.

2.4 Phasing

Two phases were considered in this Master Plan. The Phase 1 model includes Villages 1, 2, 3 and 4 and Offsite Areas 3, 4, 5, 6, 7, 8, and 9 of Belmont and all other development areas within the model

boundary and is shown in Exhibit 2.1. Ultimate includes the buildout of all the developments and is shown in Exhibit 2.2. The Phase 1 model was developed by eliminating non-required infrastructure from the Ultimate model including the service areas for Villages 5 through 25 and Offsite Areas 1 and 2. This ensures that the Phase 1 pipe sizes and slopes will be suitable for future phase requirements.

2.5 Sewer Sheds

The Phase 1 development area is divided into six sanitary collection areas or sewer sheds. Each sewer shed is serviced by a dedicated WRF or a Lift Station that pumps to a WRF. The WRF and Lift Stations are shown in Exhibit 2.1. WRFs will be constructed at Hassayampa Ranch, Balterra at 403rd Avenue and the I-10, Silver Springs Ranch at 395th Avenue and Buckeye Road, 339th Avenue at 339th Avenue and Buckeye, and Belmont at 355th Avenue and Thomas Road. An additional Belmont WRF at Camelback Road and 367th Avenue will begin as a Lift Station and be converted to a WRF when flows exceed 3-mgd.

The sewer shed sizes are presented in Table 2-5.

Table 2-5 Sewer Shed Sizes

Sewer Shed	Ultimate (Acres)
Hassayampa Ranch WRF	11,000
Belmont (355th Avenue)	11,400
Belmont (Camelback Road)	5,000
339th Avenue Project	6,600
Balterra WRF	15,000
Silver Springs Ranch	14,200

2.6 Modeling Results

Exhibits 2.1 and 2.2 show the piping network required to meet the projected loadings of the system for Phase 1 and Ultimate, respectively. Typically, PDWF conditions dictate the pipeline sizes and slopes for each phase. The SewerCAD network and output for each phase are located in Appendix A. The manholes and pipe labels are shown and the output from each run of each phase is shown.

The modeled pipe sizes and slopes were optimized to provide a minimum of 2 ft/s of flow during PDWF while maintaining a minimum amount of cover. Minimum velocities during ADFs in some cases will be

less than the minimum 2 ft/s flushing velocity. However, due to the diurnal nature of the system, the pipes will flush during the peak flows.

Sewer velocity and cover results are shown in Table 2-6.

Table 2-6 Sewer Velocity and Cover Results

Phase	Scenario	Min. Velocity* (ft/s)	Max. Velocity (ft/s)	Max. Cover (ft)
Phase1	ADF	0.9	8.0	26
	PDWF	1.1	9.7	26
Ultimate	ADF	1.6	8.0	26
	PDWF	2	9.7	26

* For pipes larger than 8-inch

It is important to note many of the 8-inch pipes do not meet minimum velocity requirements at peak flow because of insufficient flows. However, the 8-inch pipes are governed by minimum slope. During Phase 1, minimum velocity requirements are not met in some (11 percent) of the pipes due to insufficient flow. As development grows, the flow in these pipes will increase to meet the requirement.

2.6.1 Pipelines

The model results indicate a range of pipe diameters. Table 2-7 shows the required length and size for the pipelines modeled. In most cases, smaller diameter feeder lines internal to a main square mile loop were not modeled and are not accounted for herein.

Table 2-7 Pipeline Quantities (Ultimate Buildout)

Pipe Diameter (inches)	Length (miles)
8	36.1
10	13.5
12	26.4
15	21.9
18	15.0
24	21.6
30	5.4
36	13.6
42	6.0
48	4.9
54	0.2

2.6.2 Lift Stations and Forcemains

Three permanent Lift Stations (LS) were placed at strategic locations to collect gravity flow and convey it to a WRF via forcemain. One lift station will be located at the I-10 and 371st Avenue to catch gravity flows east of Balterra. The Balterra LS will pump back to the Balterra WRF. Another lift station will be located at the I-10 and 335th Avenue to eliminate an I-10 crossing. This flow will be conveyed to the 339th Avenue WRF. A small lift station will be required at Silver Springs Ranch to service a low area in Silver Springs at Lower Buckeye Road and the Salome Highway. Wastewater collected here will be pumped to the Silver Springs Ranch WRF.

In addition, the Camelback WRF will begin as Lift Station that pumps to the 355th Avenue WRF. After flows exceed 3-mgd, the LS will be converted into a WRF.

Lift stations will consist of a wetwell with submersible pumps. Each lift station will have a standby pump sized to meet the demand with the largest pump out of service. The lift stations will also be equipped with standby power capabilities. Small lift stations (less than 2000 gpm) will have constant speed motors and be operated on a fill-draw based on level setpoints. Large lift stations will have Variable Frequency Drives (VFDs) and be operated on level setpoint. The lift stations will be odor controlled.

Lift Station capacities are shown in Table 2-8 below. Lift station capacities are double their intake flow for constant speed fill and draw type lift stations and equal to their intake flow capacity for variable speed pump level setpoint operation type lift stations.

Table 2-8 Lift Station Capacities

Location	Phase 1 (mgd)	Ultimate (mgd)
Balterra (VFD)	3.0	3.0
335th Avenue (VFD)	4.9	5.3
Silver Springs Ranch (Constant Speed)	0.24	0.24
Camelback LS to 335th Ave. WRF (VFD)	2.3	N/A*

*Converted to WRF in Ultimate phase.

Forcemain sizes are shown in Table 2-9 as follows.

Table 2-9 Forcemain Sizing

Location	Forcemain Diameter (in)	Forcemain Peak Flow (mgd)	Forcemain Velocity (ft/s)
Balterra (VFD)	12	3.0	5.9
335th Avenue (VFD)	16	5.3	5.9
Silver Springs Ranch (Constant Speed)	4	0.24	4.3
Camelback LS to 335th Ave. WRF (VFD)	10	2.3	6.5

2.6.3 Water Reclamation Facilities

Water Reclamation Facilities (WRFs) will be provided to treat wastewater from the service area. WRFs will produce Class A+ effluent to meet reuse requirements and Aquifer Water Quality Standards (AWQS) for groundwater disposal. While the goal is to maximize reclaimed water for reuse and aquifer recharge, if it is necessary to discharge to a surface source, the treatment plants will have the ability to do so. Solids from the treatment process will be brought to Class B standards suitable for land application or landfill disposal.

The wastewater treatment process will consist of screening and grit removal, followed by settlement and biological treatment in a Sequencing Batch Reactor (SBR) system. Biological treatment will consist of BOD and TSS removal, as well as nitrogen removal by nitrification/denitrification. The SBR effluent will be further processed via tertiary filters and UV disinfection. A chlorine residual will be provided in the reuse distribution system to minimize biological growth. Effluent disposed into a surface water will be dechlorinated prior to discharge. Equalization will be provided for effluent after the SBR system. Reclaimed water will have less than 10 mg/L of total Nitrogen, BOD and TSS, and turbidity less than 2 ntu.

Solids will be stabilized in aerobic digesters, which will be dewatered using a belt press or centrifuge system and disposed of in a landfill or on permitted farmland. A process flow schematic for the WRF system is shown in Appendix B.

Each WRF will be designed to facilitate aesthetics including noise and odor mitigation. All major process elements will be covered and odor controlled and the plants will be constructed with a 350 feet

setback per the Arizona Administrative Code (AAC). Blowers will be housed for noise abatement. Standby power will be provided for each WRF. Each plant will be automated and controlled with a Supervisory Control and Data Acquisition (SCADA) system. The SCADA system will include components for asset management, process optimization, predictive maintenance, troubleshooting, and reclaimed water management. The SCADA system will employ statistical process controls, condition-based monitoring, and dynamically developed alarm conditions and include monitoring systems such as accelerometers for vibration analysis and shock pulse metering bearing analyses.

The WRF design will take a modular approach. The plant design is easily configured in 1, 2 and 3 mgd modules and can be deployed through a Design-Build delivery method to minimize the project time frame. One advantage of the SBR system is that it minimizes plant footprint allowing more area to be developed for other purposes. SBR treatment systems typically minimize capital and O&M costs. A modular approach also allows flexibility with staffing since each system will operate the same.

Five WRFs are proposed to be constructed initially, Hassayampa Ranch, 335th Avenue, Balterra, 339th Avenue and Silver Springs Ranch. Each of these plants will be constructed as 1-mgd facilities. With the exception of Balterra, all of the plants will utilize a modular SBR treatment system. Balterra will be a Membrane Bio Reactor (MBR) treatment system due to limited land area for aesthetic setback requirements.

During Phase 1, a sixth WRF will be added at Belmont by converting the Camelback Road LS to a WRF when average flows approach 3-mgd.

Table 2-10 provides the capacities for each treatment facility. Note that sizes have been expressed in terms of Annual Average Day Flow (ADF).

Table 2-10 WRF Treatment Requirements

Location	Phase 1 (mgd)	Ultimate (mgd)
Hassayampa Ranch	2.2	8.2
355th Avenue	4.6	9.3
Balterra	11.2	11.2
339th Avenue	9.3	9.7
Silver Springs Ranch	9.7	11.5
Camelback Road	NA	5.5
Total	**37.0**	**55.3**

2.6.4 Cost Estimates

Cost estimates for the infrastructure proposed in this master plan are presented below. These estimates are preliminary in nature and based on the quantities derived from the hydraulic model. These estimates include backbone infrastructure only.

Phase 1 - Estimate of Probable Cost

Description	Quantity		Unit Cost	Total
SEWERS (Including Manholes)				
8" PVC	68,185	LF	$ 70	$ 4,772,950
10" PVC	35,052	LF	$ 85	$ 2,979,420
12" PVC	80,881	LF	$ 95	$ 7,683,695
15" PVC	61,514	LF	$ 120	$ 7,381,680
18" VCP	53,524	LF	$ 161	$ 8,617,364
24" VCP	75,194	LF	$ 227	$ 17,069,038
30" VCP	14,523	LF	$ 273	$ 3,964,779
36" RCP	47,852	LF	$ 309	$ 14,786,268
42" RCP	28,357	LF	$ 348	$ 9,868,236
48" RCP	25,924	LF	$ 404	$ 10,473,296
54" RCP	994	LF	$ 466	$ 463,204
Pipeline Subtotal				**$ 88,059,930**
FORCEMAINS				
4" DIP	5,280	LF	$ 42	$ 219,120
10" DIP	20,500	LF	$ 112	$ 2,290,875
12" DIP	22,000	LF	$ 122	$ 2,673,000
16" DIP	3,500	LF	$ 169	$ 590,625
Forcemain Subtotal				**$ 5,773,620**

Phase 1 - Estimate of Probable Cost – Cont'd.

Description	Quantity		Unit Cost	Total
LIFT STATIONS				
335th Avenue to MH-O9	4.9	MGD	ea	3,200,000
Balterra LS to Balterra WRF	3.0	MGD	ea	2,430,000
Silver Springs Ranch LS to Silver Springs Ranch WRF	0.24	MGD	ea	333,000
Camelback LS to 355th Avenue WRF	2.30	MGD	ea	2,200,000
Lift Station Subtotal				**$ 8,163,000**
WATER RECLAMATION FACILITIES (WRF)				
Hassayampa	2.2	MGD	$10,000,000	**$ 22,000,000**
Balterra	11.2	MGD	$10,000,000	**$ 112,000,000**
339th Avenue	9.7	MGD	$10,000,000	**$ 97,000,000**
Silver Springs Ranch	9.7	MGD	$10,000,000	**$ 97,000,000**
355th Avenue	4.6	MGD	$10,000,000	**$ 46,000,000**
Camelback Road	N/A	MGD	$10,000,000	
WRF Subtotal				**$ 374,000,000**
			Total Estimated Construction Cost:	**$475,997,000**

Ultimate Buildout - Estimate of Probable Cost

Description	Quantity		Unit Cost	Total
SEWERS (Including Manholes)				
8" PVC	190,567	LF	$ 70	$ 13,339,690
10" PVC	71,147	LF	$ 85	$ 6,047,495
12" PVC	139,726	LF	$ 95	$ 13,273,970
15" PVC	115,486	LF	$ 120	$ 13,858,320
18" VCP	79,186	LF	$ 161	$ 12,748,946
24" VCP	113,840	LF	$ 227	$ 25,841,680
30" VCP	28,642	LF	$ 273	$ 7,819,266
36" RCP	71,629	LF	$ 309	$ 22,133,361
42" RCP	31,865	LF	$ 348	$ 11,089,020
48" RCP	25,924	LF	$ 404	$ 10,473,296
54" RCP	994	LF	$ 466	$ 463,204
Pipeline Subtotal				**$ 137,088,248**
FORCEMAINS				
4" DIP	5,280	LF	$ 42	$ 219,120
12" DIP	22,000	LF	$ 122	$ 2,673,000
16" DIP	3,500	LF	$ 169	$ 590,625
Forcemain Subtotal				**$ 3,482,745**

Ultimate Buildout - Estimate of Probable Cost – Cont'd.

Description	Quantity		Unit Cost	Total
LIFT STATIONS				
335th Avenue to MH-O9	5.3	MGD	ea	3,300,000
Balterra Lift Station to Balterra WRF	3.0	MGD	ea	2,430,000
Silver Springs Ranch LS to Silver Springs WRF	0.24	MGD	ea	333,000
Lift Station Subtotal				**$ 6,063,000**
WATER RECLAMATION FACILITIES (WRF)				
Hassayampa	8.2	MGD	$10,000,000	**$ 82,000,000**
Balterra	11.2	MGD	$10,000,000	**$ 112,000,000**
339th Avenue	9.7	MGD	$10,000,000	**$ 97,000,000**
Silver Springs Ranch	11.5	MGD	$10,000,000	**$ 115,000,000**
355th Avenue	9.3	MGD	$10,000,000	**$ 93,000,000**
Camelback Road	5.5	MGD	$10,000,000	**$ 55,000,000**
WRF Subtotal				**$ 554,000,000**
			Total Estimated Construction Cost:	**$700,634,000**

3.0 Effluent Disposal and Permitting

3.1 Effluent Disposal Strategy

HUC maintains the following strategies with respect to effluent disposal:

- Maximize the use of reclaimed water for reuse.
- Utilize reuse water for preservation of natural resources and irrigation of open areas including turf and other landscaping.
- Utilize reuse water for irrigation of common areas in all subdivisions, schools and individual home sites.
- Utilize reuse water for cooling, for process water used in industrial applications, and flush water for toilets in commercial, municipal and residential buildings.
- Store reclaimed water in the aquifer during periods of low demand and withdraw during periods of high demand.
- Trade reclaimed water for credit at other water distribution networks such as CAP surface water.
- Excess reclaimed water will be discharged to various washes.

Disposal recharge and discharge sites are shown in Exhibit 3-1. On a seasonal basis, recharge will constitute the majority of the effluent discharge; however, summer will have high demand for reclaimed water for irrigation purposes. Recharge sites will be located adjacent to WRFs and discharge sites will be located at a nearby wash or river. These are summarized in Table 3-1 as follows.

Table 3-1 WRF Surface Discharge Sites

Location	Surface Discharge Sites (AzPDES/NPDES Permit)
Campus 1 - Hassayampa Ranch WRF	Hassayampa River
Campus 2 - 339th Avenue WRF	Hassayampa River or Dickey Wash
Campus 3 - 335th Avenue WRF	Philips Wash
Campus 4 - Camelback WRF	Four Mile Wash
Campus 5 - Silver Springs Ranch WRF	Old Camp Wash, Delaney Wash, Four Mile Wash or Unnamed Wash
Campus 6 - Balterra WRF	Old Camp Wash

3.2 Permitting

Reclaimed water from the WRFs will primarily be used for beneficial reuse. No significant industrial wastewater is anticipated for these facilities. However, all users will be required to meet Global's Pretreatment Requirements.

Sludge will be treated to Class B and disposed of either by land application or in a landfill. The closest landfill accepting sludge for disposal is the Butterfield Station Municipal Waste Landfill in Mobile, Arizona.

To facilitate effluent reuse, groundwater recharge, and surface water discharge, the following permits are required in Table 3-2:

Table 3-2 Permit Requirements

Permit	Agency	Permit Trigger	Permit Requirement
Section 401 Water Quality Certification	ADEQ	AzPDES/NPDES	Confirms compliance with 208 Water Quality Master Plan
AzPDES/NPDES	ADEQ	Point Source Discharge to Waterway of the US Stormwater Discharge	Meet contaminant loading discharge requirements. Ensure containment of hazardous materials and wastewater on-site.
Section 404	US Army Corps of Engineers	Disturbance to Waterway of the US greater than 0.1 Acres.	Cultural resource survey and native plant survey.
Aquifer Protection Permit (APP)	ADEQ	Groundwater recharge and construction of wastewater treatment facility.	Need to meet aquifer water quality. A+ effluent will be produced.
Underground Storage Facility Permit	ADWR	Aquifer Recharge	Meet Arizona Water Quality Standards. Show Hydrologic Feasibility.
Water Storage Permit	ADWR	Aquifer Storage	Meet Arizona Water Quality Standards. Show Hydrologic Feasibility.

Permit	Agency	Permit Trigger	Permit Requirement
Recovery Well Permit	ADWR	Aquifer Withdrawal	Allows removal of stored water.
Reclaimed Water Reuse Permit	ADEQ	Direct use of reclaimed water.	Meet Class A+ effluent standards for direct reuse.
Drywell Registration	ADEQ	On-site Stormwater Retention	General Drywell Permit
Air Quality Permit	Maricopa County Air Quality Department (MCAQD)	Standby Power Generation Odor Scrubber Emissions	Need to meet emission limits for priority pollutants.
Approval to Construct	Maricopa County Environmental Services Division (MCESD)	Construction of a new treatment facility.	Meet County design guidelines.
Approval of Construction	MCESD	Startup of new treatment facility.	Meet County construction guidelines, ensure operation as designed.
Special Use Permit	Maricopa County Planning and Development Department	Property Zoning Exception	Conforms property use to Maricopa County Guidelines.

4.0 Recommendations

Global's standards for the Planning, Design and Construction of Water and Wastewater Systems along with this master plan provide the necessary guidance and requirements for development in the HUC service area. Global Water's design standards specify lower design sewer loading values for their sewage collection systems and treatment facilities than is required by MCESD. Therefore, MCESD design flow capacity standards were used in the development of the master plan for both sewage collection and treatment.

Proposed pipelines, lift stations, and water reclamation facilities should be constructed as development occurs in the area. As each phase is implemented, sewers should be constructed based on the ultimate phase master plan to minimize future capital expenditures. In addition, if the existing wastewater infrastructure meets current standards, it should be phased into the new wastewater collection system as development occurs nearby.

Although this plan calls for specific pipe sizes along certain roadway/section line alignments, detailed hydraulic models of each development's planned area are needed to accurately estimate pipeline sizes, locations, and grades. Detailed hydraulic models should be based on elevation data from an approved survey.

To ensure appropriate recharge conditions, groundwater quality in recharge areas should be determined prior to finalizing recharge locations.

5.0 References

Wastewater Master Plan for Belmont, by CMX LLC, Phoenix, Arizona, August 2006.

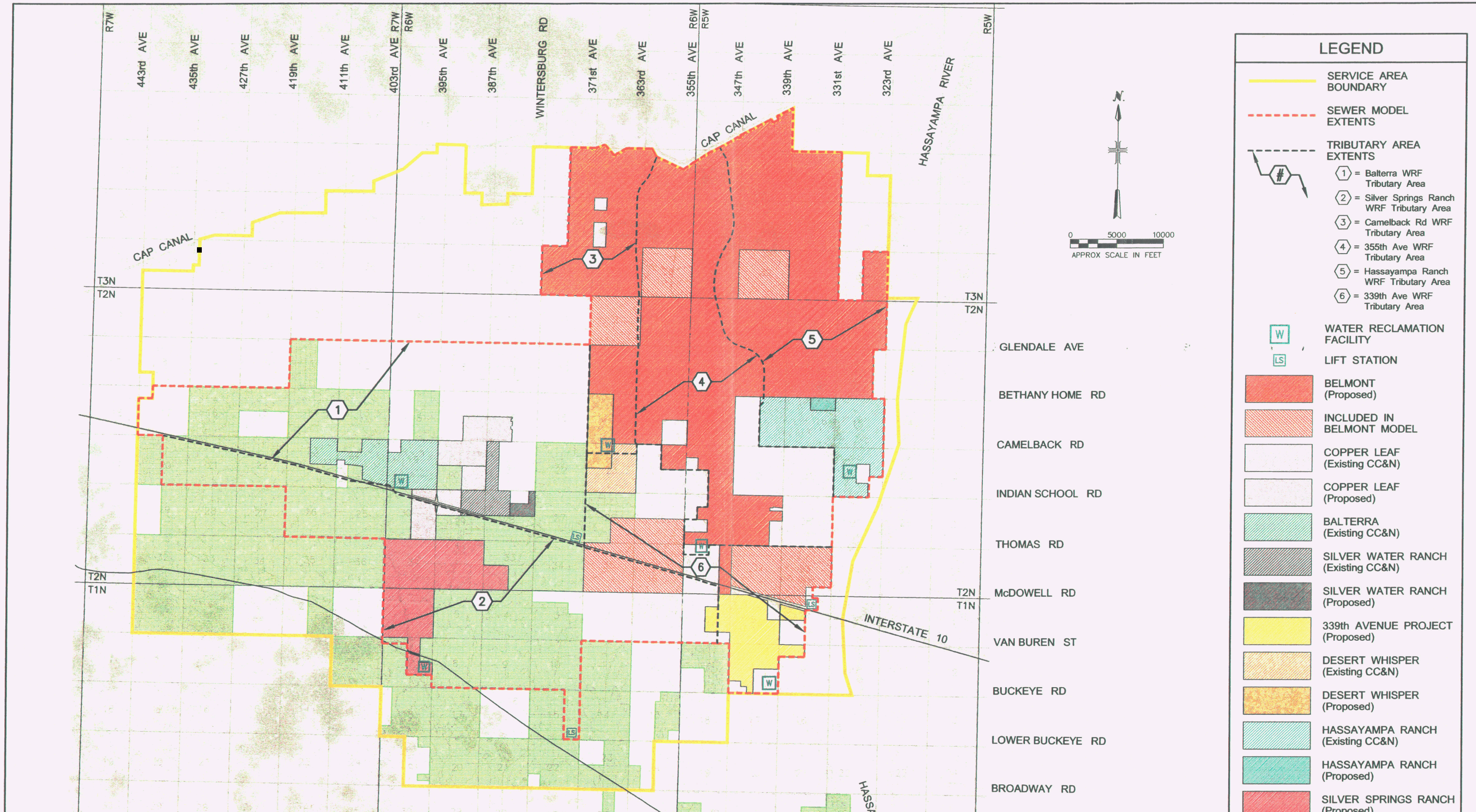
Bentley Systems, Inc. Haestad Methods Solution Center, Watertown, CT, SewerCAD v.5.6.

MAG 208 Water Quality Management Plan Amendment Application, HUC Southwest Service Area, DSWA, Phoenix, Arizona, October 2006.

MAG 208 Water Quality Management Plan Amendment Application, Hassayampa Ranch Water Reclamation Facility Hassayampa Utilities Company, RBF Consulting, Phoenix, Arizona, August 2005.

EXHIBIT 1.1

Proposed Service Area Location Map



REVISIONS			
NO	DATE	BY	DESCRIPTION

File Name: WUGTSG01.dwg

Designed By BIS
Drawn By CDH
Checked By CHC

DSWA
DAMON S. WILLIAMS ASSOCIATES, LLC

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HASSAYAMPA UTILITY COMPANY

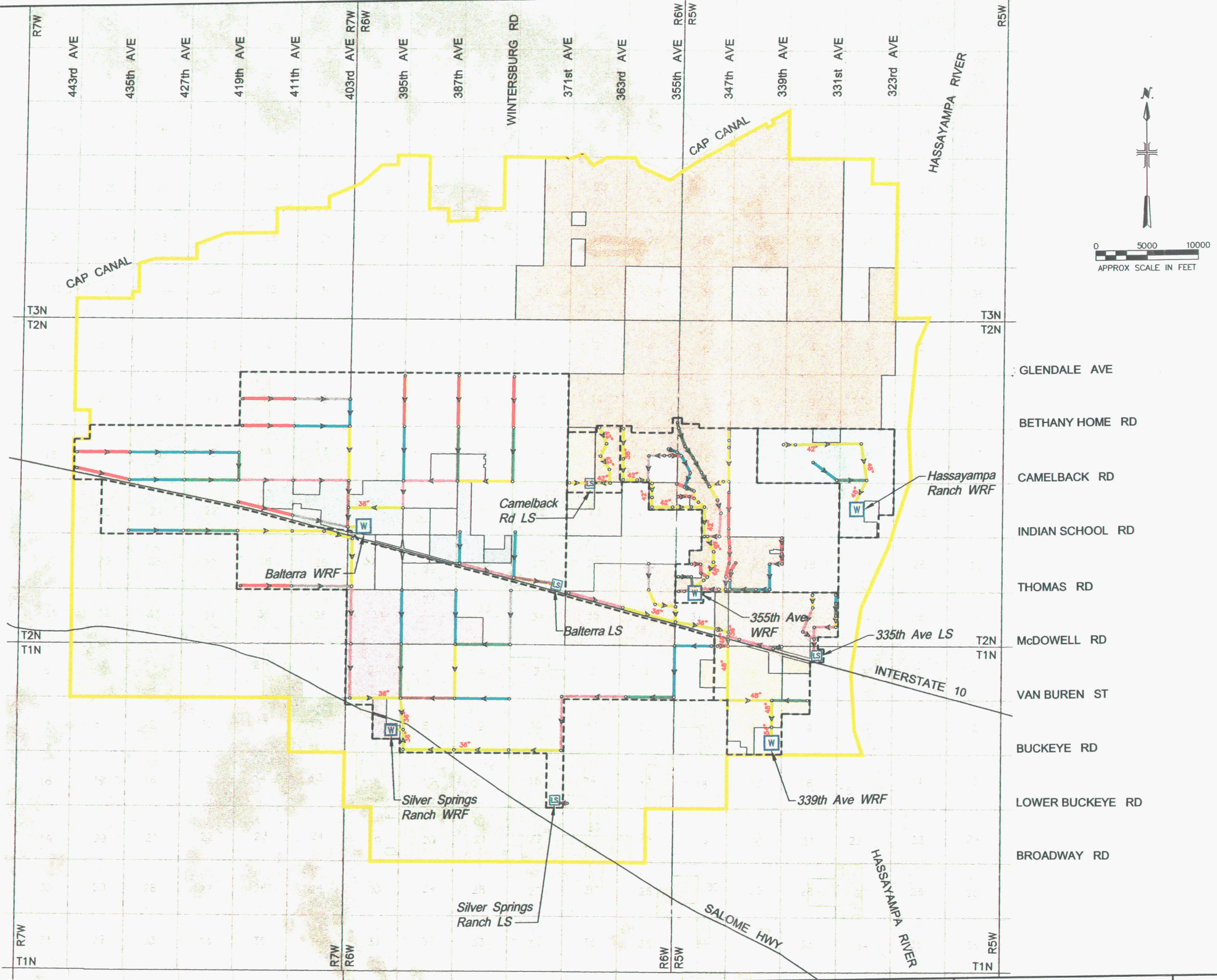
PROPOSED SERVICE AREAS LOCATION MAP SHOWING TRIBUTARY AREAS

DSWA Project No 060250
Date MAY 2007

EXHIBIT 1.1

EXHIBIT 2.1

Proposed Phase 1 Wastewater Collection System



LEGEND

- SERVICE AREA BOUNDARY
- TRIBUTARY AREA EXTENTS
- 8" SEWER
- 10" SEWER
- 12" SEWER
- 15" SEWER
- 18" SEWER
- 24" SEWER
- 30" SEWER
- 36" TO 78" SEWER
- SEWER FLOW DIRECTION
- SEWER MANHOLE
- W WATER RECLAMATION FACILITY
- LS LIFT STATION
- BELMONT (Proposed)
- INCLUDED IN BELMONT MODEL
- COPPER LEAF (Existing CC&N)
- COPPER LEAF (Proposed)
- BALTERRA (Existing CC&N)
- SILVER WATER RANCH (Existing CC&N)
- SILVER WATER RANCH (Proposed)
- 339th AVENUE PROJECT (Proposed)
- DESERT WHISPER (Existing CC&N)
- DESERT WHISPER (Proposed)
- HASSAYAMPA RANCH (Existing CC&N)
- HASSAYAMPA RANCH (Proposed)
- SILVER SPRINGS RANCH (Proposed)
- WUGT (Existing Service Area)

REVISIONS			
NO	DATE	BY	DESCRIPTION

File Name: WUGTSG01.dwg

Designed By BIS
Drawn By CDH
Checked By CHC

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UTILITY COMPANY

PROPOSED
PHASE 1
WASTEWATER COLLECTION SYSTEM

DSWA Project No 060250
Date MAY 2007

EXHIBIT 2.1

EXHIBIT 2.2

Proposed Ultimate Buildout Wastewater Collection System

REVISIONS			
NO	DATE	BY	DESCRIPTION

File Name: WUGTSG01.dwg

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HASSAYAMPA UTILITY COMPANY

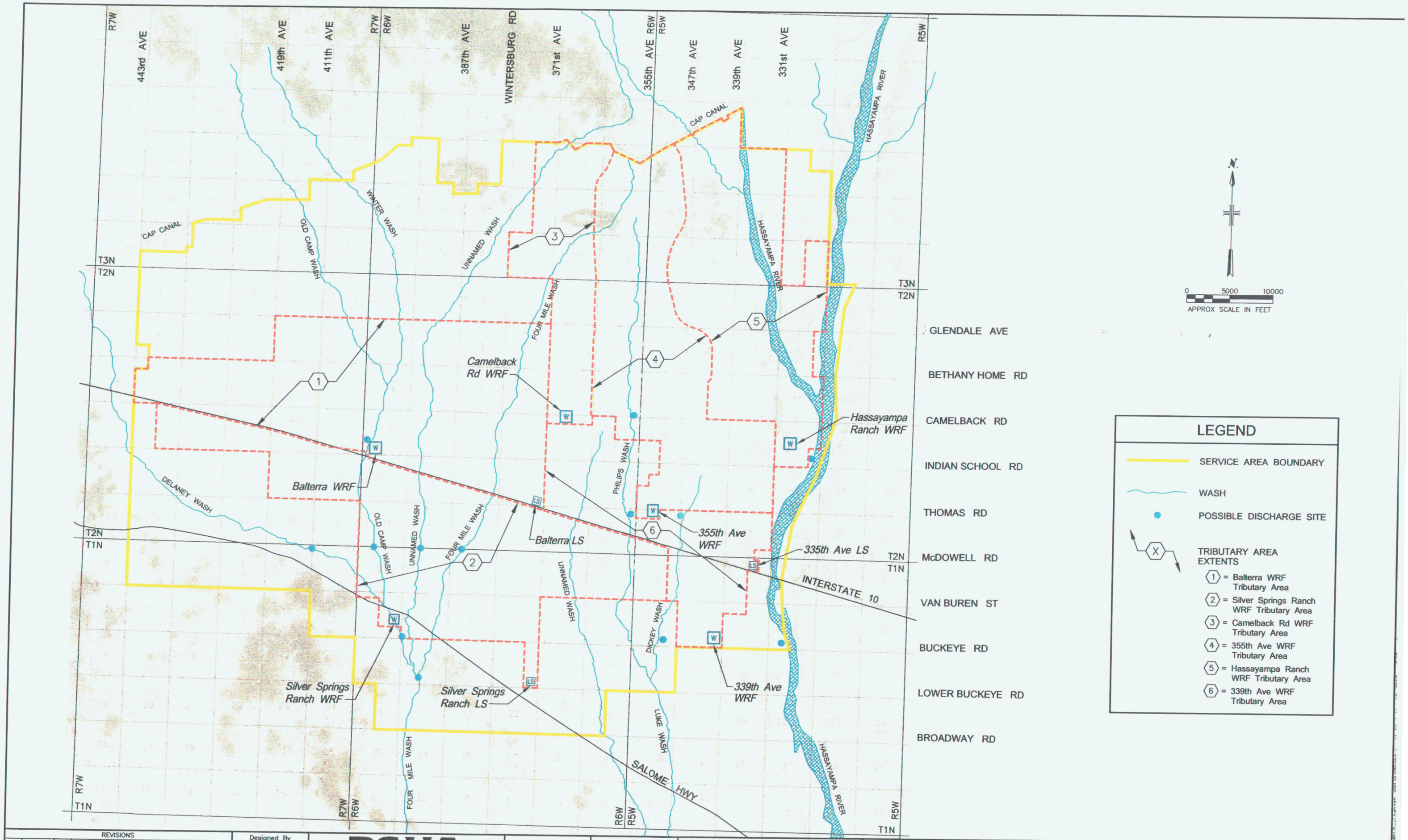
PROPOSED
ULTIMATE BUILDOUT
WASTEWATER COLLECTION SYSTEM

DSWA Project No 060250
Date MAY 2007

EXHIBIT 2.2

EXHIBIT 3.1

Proposed Reclaimed Water and Recharge Discharge Sites



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HASSAYAMPA UTILITY COMPANY

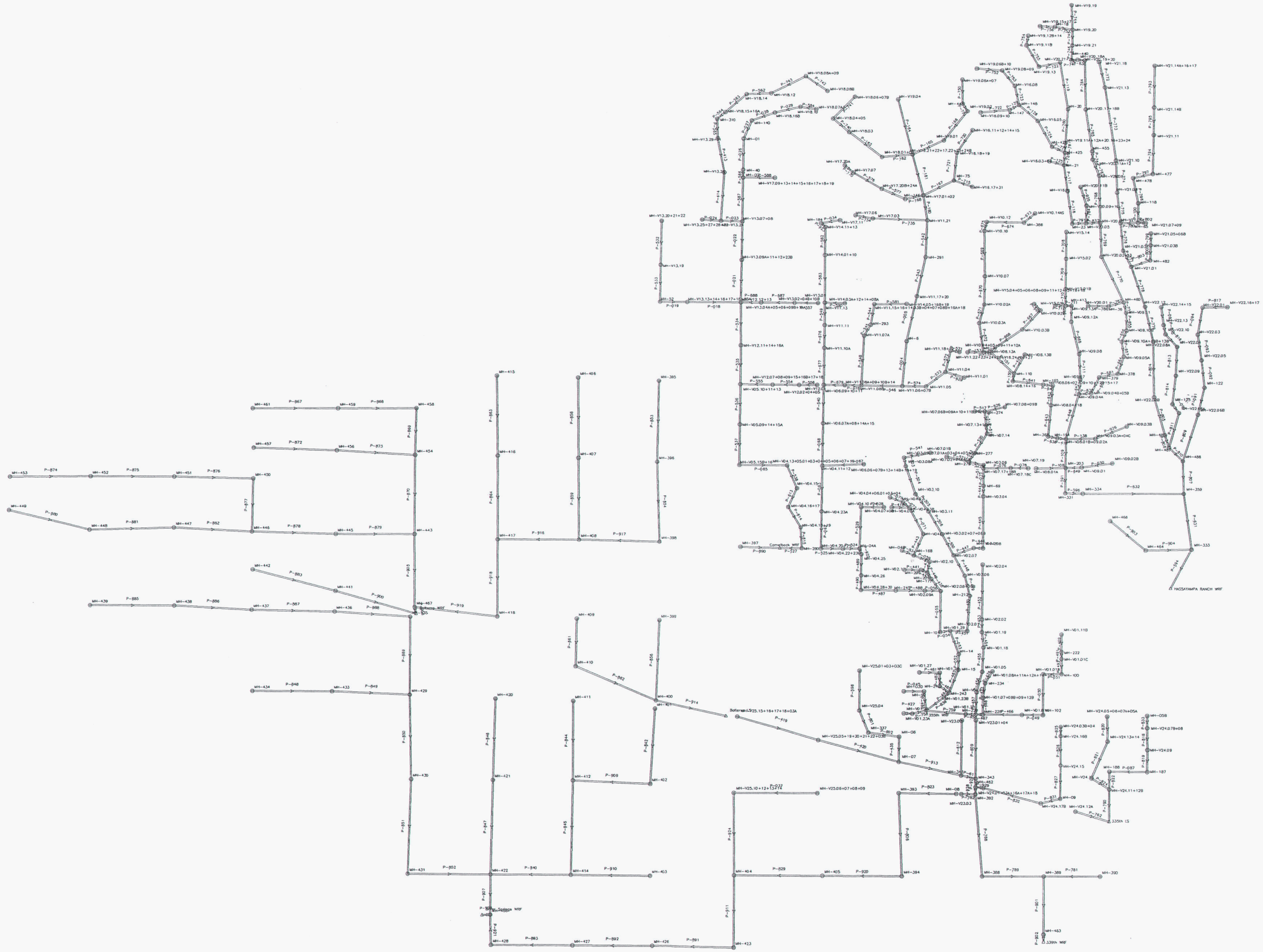
PROPOSED RECLAIMED WATER RECHARGE AND DISCHARGE SITES

DSWA Project No 060250
Date MAY 2007

EXHIBIT 3.1

APPENDIX A

SewerCAD Results



REVISIONS			
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File Name: WUGTSG03.dwg

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CDH

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HASSAYAMPA
UTILITY COMPANY

SEWER COLLECTION NETWORK
ULTIMATE BUILDOUT

DSWA Project No 060250
Date MAY 2007

Dwg File: U:\CADD\060250-260\Dwg\060250-WW\WUGTSG03.dwg Modified: May 11, 2007 - 1:45pm Plotted: May 18, 2007 - 8:23am

Ultimate Buildout
Peak Day
Pipe Table Report

Pipe Table Report - Peak Day													
Label	Size (inch)	Length (ft)	Manning's n	Slope (ft/ft)	Velocity (ft/s)	d/D (%)	Downstream Cover (ft)	Upstream Cover (ft)	Upstream Node	Upstream Invert El (ft)	Downstream Node	Downstream Invert El (ft)	Total Flow (gpd)
P-004	24 inch	2,907.00	0.013	0.0086	6.02	47.7	10.9	7.0	MH-6	1,239.00	MH-V11.06+07B	1,214.13	4,597,264
P-005	24 inch	2,972.00	0.013	0.0057	5.19	51.9	7.0	7.0	MH-V11.17+20	1,256.00	MH-6	1,239.00	4,597,264
P-018	18 inch	3,443.00	0.013	0.0011	2	41.4	25.2	13.3	MH-V13.13+14+16+17+18+23A	1,218.25	MH-V12.12+13	1,214.33	1,130,157
P-019	15 inch	1,778.00	0.013	0.0018	2	40.4	13.3	7.0	MH-52	1,221.75	MH-V13.13+14+16+17+18+23A	1,218.50	569,679
P-021	24 inch	2,730.00	0.013	0.0133	6.6	36.6	25.2	7.0	MH-V13.09A+11+12+23B	1,250.00	MH-V12.12+13	1,213.83	3,607,636
P-022	24 inch	2,486.00	0.013	0.0018	3.08	50.3	7.0	23.5	MH-V13.07+08	1,254.47	MH-V13.09A+11+12+23B	1,250.00	3,211,016
P-023	24 inch	1,368.00	0.013	0.001	2	46.4	23.5	22.2	MH-V13.24	1,255.84	MH-V13.07+08	1,254.47	1,418,327
P-024	10 inch	1,208.00	0.013	0.0034	2	33	22.2	7.0	MH-V13.25+27+28+32	1,261.17	MH-V13.24	1,257.00	223,464
P-026	8 inch	1,985.00	0.013	0.0055	2.82	67.3	7.0	7.0	MH-O1	1,304.33	MH-40	1,293.33	430,269
P-027	8 inch	1,272.00	0.013	0.0063	2.86	64.4	7.0	7.0	MH-140	1,312.33	MH-O1	1,304.33	368,829
P-028	8 inch	1,514.00	0.013	0.0066	2.92	59.9	7.0	7.0	MH-V18.16B	1,322.33	MH-140	1,312.33	368,829
P-029	8 inch	1,704.00	0.013	0.0059	2.4	52.4	7.0	7.0	MH-V18.10	1,332.33	MH-V18.16B	1,322.33	203,436
P-034	8 inch	1,210.00	0.013	0.005	2.03	37.7	7.0	7.0	MH-V17.11	1,287.33	MH-184	1,281.33	138,214
P-037	18 inch	5,382.00	0.013	0.001	2	67.1	9.3	7.0	MH-V25.06+07+08+09	1,070.50	MH-V25.10+12+13+14	1,065.22	1,438,984
P-045	15 inch	1,260.00	0.013	0.0018	2	36.4	9.3	7.0	MH-O3D	1,106.25	MH-92	1,103.92	560,978
P-049	12 inch	1,328.00	0.013	0.0024	2	35.5	14.2	18.5	MH-102	1,100.99	MH-V01.01A	1,097.78	371,958
P-050	12 inch	2,623.00	0.013	0.0024	2	41	18.5	18.7	MH-V01.01B	1,107.35	MH-102	1,100.99	371,958
P-051	10 inch	1,183.00	0.013	0.0031	2	36.3	18.7	7.0	MH-100	1,111.17	MH-V01.01B	1,107.51	258,632
P-052	48 inch	1,014.00	0.013	0.0028	5.44	41.4	7.0	12.1	MH-14	1,116.88	MH-15	1,114.00	16,045,837
P-053	48 inch	1,602.00	0.013	0.0005	2.82	53.6	12.1	19.3	MH-V01.29	1,117.68	MH-14	1,116.88	16,045,837
P-054	42 inch	638.00	0.013	0.0005	2.64	62.1	19.3	7.0	MH-104	1,118.50	MH-V01.29	1,118.18	13,030,599
P-055	42 inch	2,645.00	0.013	0.004	5.84	53.3	7.0	12.0	MH-V02.08+09B	1,128.97	MH-104	1,118.50	13,030,599
P-056	42 inch	1,025.00	0.013	0.0093	7.76	42.1	12.0	7.5	MH-V02.09A	1,138.47	MH-V02.08+09B	1,128.97	11,966,508
P-059	15 inch	1,074.00	0.013	0.0014	2	44	10.7	12.7	MH-168	1,149.01	MH-V02.10	1,147.51	834,765
P-062	36 inch	2,397.00	0.013	0.0063	6.62	52.2	7.0	7.0	MH-V04.23A	1,168.00	MH-V04.20+21	1,153.00	10,764,890
P-063	36 inch	2,953.00	0.013	0.0037	5.44	48.1	7.0	9.1	MH-V04.11+12	1,178.89	MH-V04.23A	1,168.00	10,698,984
P-065	36 inch	3,020.00	0.013	0.0005	2.39	62.1	12.5	7.0	MH-V05.15B+16	1,172.00	MH-V04.13+05.01+03+04+05+06+07+19	1,170.49	8,682,580
P-067	12 inch	2,637.00	0.013	0.0017	2	48.9	9.1	7.0	MH-V06.06+07B+13+14B+18+19	1,185.50	MH-V04.11+12	1,180.89	601,197
P-068	36 inch	2,745.00	0.013	0.007	6.7	46.8	9.1	7.0	MH-V06.07A+08+14A+15	1,198.00	MH-V04.11+12	1,178.89	9,771,438
P-071	12 inch	1,901.00	0.013	0.0022	2.14	53.2	7.0	12.9	MH-V04.03B	1,166.10	MH-V04.01	1,162.00	573,893
P-072	12 inch	553.00	0.013	0.0079	3.21	45.1	12.9	10.5	MH-V04.02	1,170.46	MH-V04.03B	1,166.10	440,607
P-075	18 inch	1,131.00	0.013	0.0054	3.59	39	7.0	9.9	MH-V03.06	1,182.59	MH-69	1,176.50	1,203,453
P-076	8 inch	1,756.00	0.013	0.0045	2	34.6	9.9	10.0	MH-V07.18C	1,191.38	MH-V03.06	1,183.43	147,668
P-078	8 inch	1,130.00	0.013	0.0035	1.11	28.5	10.0	7.0	MH-V07.19	1,195.33	MH-V07.18C	1,191.38	25,971
P-079	12 inch	868.00	0.013	0.0029	2	36.8	10.5	7.0	MH-V04.04+06.01+03+04	1,173.00	MH-V04.02	1,170.46	290,755
P-087	24 inch	2,426.00	0.013	0.0007	2	59.8	23.7	7.0	MH-187	1,061.00	MH-188	1,059.35	2,486,996
P-091	12 inch	1,800.00	0.013	0.0072	3.08	38.6	7.0	7.0	MH-122	1,190.00	MH-V22.06B	1,177.00	425,213
P-092	12 inch	1,786.00	0.013	0.0022	2.01	41.7	7.0	7.0	MH-V22.05	1,194.00	MH-122	1,190.00	425,213
P-093	12 inch	1,675.00	0.013	0.0083	3.17	39.5	7.0	14.1	MH-V22.03	1,207.88	MH-V22.05	1,194.00	393,469
P-094	12 inch	1,774.00	0.013	0.0026	2	37.7	14.1	21.6	MH-V22.01	1,212.45	MH-V22.03	1,207.88	342,628
P-095	12 inch	714.00	0.013	0.0416	5.63	37.3	7.0	16.3	MH-125	1,207.69	MH-V22.06A	1,178.00	395,733
P-097	8 inch	1,166.00	0.013	0.0065	2	26.1	9.5	7.0	MH-V22.14+15	1,239.33	MH-V22.13	1,231.80	93,939
P-100	15 inch	1,257.00	0.013	0.015	4.09	36.3	12.7	9.9	MH-118	1,268.88	MH-65	1,250.08	500,944
P-108	8 inch	1,898.00	0.013	0.013	2.38	21.1	18.2	7.0	MH-V08.01A	1,192.83	MH-203	1,168.10	72,768
P-109	42 inch	1,866.00	0.013	0.0025	4.5	47.5	18.2	18.6	MH-V08.01B+09.02A	1,169.92	MH-203	1,165.27	9,219,270
P-111	15 inch	1,645.00	0.013	0.003	2.5	37.9	7.0	10.1	MH-V09.08	1,228.70	MH-V09.07	1,223.75	664,103
P-116	24 inch	2,115.00	0.013	0.0049	3.9	33.2	7.0	23.1	MH-V16.01	1,288.89	MH-23	1,278.50	1,968,600
P-117	24 inch	1,695.00	0.013	0.0008	2	41.2	23.1	17.7	MH-21	1,290.29	MH-V16.01	1,288.89	1,843,704
P-119	12 inch	3,016.00	0.013	0.0072	3.23	40.4	7.0	9.8	MH-V20.21+25	1,333.70	MH-20	1,312.00	505,657
P-122	12 inch	1,366.00	0.013	0.0024	2	41.7	9.8	7.0	MH-V19.13	1,337.00	MH-V20.21+25	1,333.70	373,085
P-125	8 inch	972.00	0.013	0.0285	4.11	31	17.7	7.0	MH-V16.03+04	1,319.33	MH-21	1,291.62	183,002
P-128	10 inch	1,563.00	0.013	0.0064	3.31	53.1	7.0	11.5	MH-148	1,328.71	MH-V16.05	1,318.67	633,123
P-129	10 inch	689.00	0.013	0.0036	2	48.9	11.5	7.0	MH-147	1,331.17	MH-148	1,328.71	213,980
P-138	10 inch	1,884.00	0.013	0.0038	2	30.5	18.6	24.4	MH-V09.03A+04C	1,179.75	MH-V08.01B+09.02A	1,172.58	196,801
P-150	24 inch	493.00	0.013	0.0007	2	49.2	10.4	7.0	MH-110	1,211.00	MH-V08.14+16	1,210.64	2,236,597
P-151	18 inch	2,131.00	0.013	0.0092	5.13	43.1	7.0	10.3	MH-V08.13A	1,231.17	MH-110	1,211.50	2,167,951
P-152	18 inch	403.00	0.013	0.0031	2.72	44.6	10.3	9.1	MH-70	1,232.41	MH-V08.13A	1,231.17	920,798
P-153	15 inch	991.00	0.013	0.0021	2	30.3	9.1	7.0	MH-V10.04+05+09+11+12A	1,234.75	MH-70	1,232.66	472,606
P-160	18 inch	1,631.00	0.013	0.0138	6.81	53.9	20.2	7.6	MH-V17.01+02	1,300.92	MH-V11.21	1,278.35	3,599,406

Pipe Table Report - Peak Day													
Label	Size (inch)	Length (ft)	Manning's n	Slope (ft/ft)	Velocity (ft/s)	d/D (%)	Downstream Cover (ft)	Upstream Cover (ft)	Upstream Node	Upstream Invert El (ft)	Downstream Node	Downstream Invert El (ft)	Total Flow (gpd)
P-161	15 inch	2,713.00	0.013	0.0078	4.71	62	7.6	10.5	MH-V16.21+22+17.22+23+24B	1,322.28	MH-V17.01+02	1,301.17	1,950,843
P-162	15 inch	1,943.00	0.013	0.0014	2	59.3	10.5	8.7	MH-V18.01+02	1,325.03	MH-V16.21+22+17.22+23+24B	1,322.28	819,617
P-163	12 inch	2,633.00	0.013	0.0017	2	50.5	8.7	10.2	MH-V18.03	1,329.80	MH-V18.01+02	1,325.28	619,476
P-164	8 inch	3,644.00	0.013	0.0081	2.16	32.4	10.5	7.0	MH-V19.04	1,352.33	MH-V16.21+22+17.22+23+24B	1,322.87	93,760
P-165	10 inch	2,174.00	0.013	0.0048	2.87	52.4	10.5	7.0	MH-V19.01	1,333.17	MH-V16.21+22+17.22+23+24B	1,322.70	555,603
P-166	8 inch	2,402.00	0.013	0.0054	2.79	61.1	7.0	7.0	MH-V19.02	1,346.33	MH-V19.01	1,333.33	430,159
P-167	15 inch	2,172.00	0.013	0.0014	2.08	62.9	7.6	13.6	MH-75	1,304.19	MH-V17.01+02	1,301.17	984,779
P-168	12 inch	1,149.00	0.013	0.0021	2	53.3	7.6	10.2	MH-146	1,303.80	MH-V17.01+02	1,301.42	461,350
P-170	8 inch	720	0.013	0.004	2	38.3	8.9	7.0	MH-V17.20A	1,317.33	MH-V17.07	1,314.44	173,134
P-413	12 inch	2,231.00	0.013	0.0043	3.15	62.7	7.0	7.0	MH-V13.29+31	1,291.50	MH-V13.26	1,282.00	976,989
P-414	12 inch	3,125.00	0.013	0.0081	4.13	53.7	22.2	7.0	MH-V13.26	1,282.00	MH-V13.24	1,256.84	1,099,515
P-416	30 inch	579.00	0.013	0.0148	6.72	26.9	18.6	7.0	MH-194	1,179.50	MH-V08.01B+09.02A	1,170.92	3,616,264
P-418	8 inch	1,115.00	0.013	0.0035	1.19	25.9	12.9	7.0	MH-V04.03A	1,170.33	MH-V04.03B	1,166.43	33,322
P-419	24 inch	5,425.00	0.013	0.0007	2	46.4	13.2	7.0	MH-V25.15+16+17+18+O3A	1,088.50	MH-V25.05+19+20+21+22+O3B	1,084.80	2,471,849
P-420	36 inch	5,343.00	0.013	0.0005	2.18	62.1	15.9	13.2	MH-V25.05+19+20+21+22+O3B	1,083.80	MH-O7	1,081.13	5,519,591
P-427	8 inch	525.00	0.013	0.0076	2.06	24.3	7.0	7.0	MH-V01.25	1,102.33	MH-V01.23A	1,098.33	84,920
P-429	8 inch	1,408.00	0.013	0.0142	2.41	20.3	7.0	7.0	MH-V08.13B	1,232.33	MH-110	1,212.33	68,646
P-435	18 inch	1,605.00	0.013	0.0095	4.79	36.8	15.9	10.6	MH-O6	1,097.92	MH-O7	1,082.63	1,620,747
P-438	18 inch	989.00	0.013	0.0013	2	36.3	12.0	21.2	MH-177	1,132.26	MH-V02.08+09B	1,130.97	928,538
P-439	18 inch	713.00	0.013	0.0201	5.27	37	25.6	10.7	MH-V02.10	1,147.26	MH-204	1,132.90	887,987
P-440	18 inch	492.00	0.013	0.0013	2	43.7	21.2	25.6	MH-204	1,132.90	MH-177	1,132.26	928,538
P-441	8 inch	1,037.00	0.013	0.013	2	18.5	18.0	7.0	MH-V02.12	1,152.83	MH-206	1,139.36	40,550
P-442	8 inch	433	0.013	0.013	2	15.8	25.6	18.0	MH-206	1,139.36	MH-204	1,133.74	40,550
P-443	12 inch	1,505.00	0.013	0.0085	3.82	43.3	12.7	7.0	MH-V04.01	1,162.00	MH-168	1,149.26	752,845
P-444	18 inch	682.00	0.013	0.0029	2.88	40.5	7.0	7.0	MH-69	1,176.50	MH-V03.04	1,174.50	1,203,453
P-445	18 inch	3,355.00	0.013	0.006	3.78	39.4	7.0	7.0	MH-V03.04	1,174.50	MH-208	1,154.50	1,267,274
P-446	18 inch	574.00	0.013	0.0035	3.11	49.1	7.0	7.0	MH-208	1,154.50	MH-V03.01	1,152.50	1,267,274
P-447	18 inch	1,353.00	0.013	0.001	2	60	10.4	7.0	MH-V03.01	1,152.50	MH-V02.07	1,151.13	1,356,418
P-448	18 inch	1,505.00	0.013	0.0067	4.84	53.6	7.0	10.4	MH-V02.07	1,151.13	MH-V02.06	1,141.00	2,707,359
P-449	24 inch	1,330.00	0.013	0.0006	2	54.7	13.4	7.0	MH-V02.06	1,140.50	MH-212	1,139.65	2,814,103
P-450	24 inch	2,284.00	0.013	0.0036	3.83	41.8	7.0	13.4	MH-212	1,139.65	MH-V02.01	1,131.50	2,814,103
P-451	24 inch	1,089.00	0.013	0.0109	5.81	33.8	19.3	7.0	MH-V02.01	1,131.50	MH-V01.29	1,119.68	2,965,303
P-452	8 inch	3,531.00	0.013	0.0079	2.51	44.8	7.0	7.0	MH-V02.04	1,155.33	MH-V02.02	1,127.33	162,386
P-453	8 inch	821.00	0.013	0.0037	2.09	54	7.0	7.0	MH-V02.02	1,127.33	MH-V01.19	1,124.33	235,250
P-454	8 inch	987.00	0.013	0.0071	2.87	55.6	7.0	7.0	MH-V01.19	1,124.33	MH-V01.18	1,117.33	310,867
P-455	8 inch	1,567.00	0.013	0.0077	3.06	59.3	7.0	7.0	MH-V01.18	1,117.33	MH-V01.05	1,105.33	355,089
P-456	8 inch	1,365.00	0.013	0.0062	2.87	55.4	7.0	7.0	MH-V01.05	1,105.33	MH-V01.03	1,096.83	379,880
P-457	10 inch	1,420.00	0.013	0.0032	2.31	47.8	7.0	7.0	MH-V01.03	1,096.67	MH-220	1,092.14	432,042
P-458	18 inch	617.00	0.013	0.001	2	47.1	17.7	7.0	MH-220	1,091.47	MH-V01.21	1,090.85	1,364,234
P-466	15 inch	2,529.00	0.013	0.0021	2	46.9	12.4	14.2	MH-V01.01A	1,097.53	MH-228	1,092.31	485,284
P-467	15 inch	453.00	0.013	0.0013	2	54.3	7.0	12.4	MH-228	1,092.31	MH-220	1,091.72	932,192
P-468	12 inch	1,052.00	0.013	0.0048	2.7	42.7	12.4	8.4	MH-V01.07+08B+09+12B	1,097.64	MH-228	1,092.56	446,908
P-469	8 inch	1,132.00	0.013	0.0044	2.16	44.7	7.0	7.0	MH-V01.11B	1,132.33	MH-222	1,127.33	201,969
P-473	8 inch	959	0.013	0.0035	2.09	48	8.4	7.0	MH-234	1,101.33	MH-V01.07+08B+09+12B	1,097.98	250,372
P-476	8 inch	893	0.013	0.0095	3.03	50.5	7.0	7.0	MH-V01.08A+11A+12A+14+16	1,109.83	MH-234	1,101.33	250,372
P-481	8 inch	1,301.00	0.013	0.0104	2	30.8	10.5	7.0	MH-V01.27	1,117.33	MH-V01.26	1,103.84	52,931
P-482	8 inch	860.00	0.013	0.0044	2	40.5	8.8	10.5	MH-V01.26	1,103.84	MH-242	1,100.06	153,846
P-483	48 inch	1,565.00	0.013	0.0127	9.32	47.5	14.9	7.0	MH-15	1,114.00	MH-243	1,094.12	16,045,837
P-484	48 inch	477.00	0.013	0.0005	2.83	49.9	7.1	14.9	MH-243	1,094.12	MH-V01.23B	1,093.89	16,199,683
P-485	8 inch	744.00	0.013	0.0035	1.84	36.7	14.9	8.8	MH-242	1,100.06	MH-243	1,097.46	153,846
P-486	15 inch	1,243.00	0.013	0.0123	3.95	26.4	18.2	9.3	MH-92	1,103.92	355th WRF	1,088.60	560,978
P-487	42 inch	2,243.00	0.013	0.0005	2.61	67.8	7.1	7.0	MH-V04.28+30	1,140.50	MH-245	1,139.38	11,896,306
P-488	42 inch	1,826.00	0.013	0.0005	2.61	55	7.5	7.1	MH-245	1,139.38	MH-V02.09A	1,138.47	11,896,306
P-489	42 inch	1,365.00	0.013	0.0008	3.12	50.7	7.0	12.4	MH-V04.25	1,151.08	MH-V04.26	1,150.00	11,659,424
P-490	42 inch	941.00	0.013	0.0101	7.96	53.6	7.0	7.0	MH-V04.26	1,150.00	MH-V04.28+30	1,140.50	11,768,057
P-491	8 inch	450.00	0.013	0.0067	2.51	45.7	7.0	7.0	MH-222	1,127.33	MH-V01.01C	1,124.33	201,969
P-492	8 inch	975	0.013	0.0133	3.45	40.4	7.0	7.0	MH-V01.01C	1,124.33	MH-100	1,111.33	258,632
P-500	15 inch	1,565.00	0.013	0.0082	4.33	50.2	10.4	7.0	MH-V03.02+07+08B	1,164.25	MH-V02.07	1,151.38	1,302,428
P-503	15 inch	566.00	0.013	0.0019	2	43.4	20.2	24.1	MH-V03.09+07.01A+03+04+05+06A	1,175.66	MH-V03.08A	1,174.59	548,132
P-504	15 inch	1,909.00	0.013	0.0015	2	49.8	11.1	20.2	MH-V03.08A	1,174.59	MH-V03.10	1,171.66	722,718

Pipe Table Report - Peak Day													
Label	Size (inch)	Length (ft)	Manning's n	Slope (ft/ft)	Velocity (ft/s)	d/D (%)	Downstream Cover (ft)	Upstream Cover (ft)	Upstream Node	Upstream Invert El (ft)	Downstream Node	Downstream Invert El (ft)	Total Flow (gpd)
P-505	15 inch	1,393.00	0.013	0.0014	2	50.1	8.1	11.1	MH-V03.10	1,171.66	MH-V03.11	1,169.67	804,540
P-506	15 inch	1,708.00	0.013	0.0032	2.82	49.3	7.0	8.1	MH-V03.11	1,169.67	MH-V03.02+07+08B	1,164.25	967,157
P-511	18 inch	221.00	0.013	0.0059	3.53	35.8	9.9	9.6	MH-V07.17+18B	1,183.91	MH-V03.06	1,182.59	995,712
P-517	12 inch	600.00	0.013	0.005	2.43	37.4	10.0	7.0	MH-V07.06B+09A+10+11B+12	1,212.00	MH-274	1,208.99	292,850
P-518	12 inch	911.00	0.013	0.0071	3.31	44.8	7.0	10.0	MH-274	1,208.99	MH-V07.13+18A	1,202.50	559,020
P-519	12 inch	524.00	0.013	0.0115	4.12	54.8	7.0	7.0	MH-V07.13+18A	1,202.50	MH-V07.14	1,196.50	665,142
P-520	12 inch	1,490.00	0.013	0.002	2.22	58.6	7.0	7.0	MH-V07.14	1,196.50	MH-277	1,193.50	749,606
P-521	8 inch	1,451.00	0.013	0.0044	2	35.8	12.3	7.0	MH-V07.02+11A+15	1,192.33	MH-278	1,186.01	155,203
P-522	18 inch	949.00	0.013	0.0013	2	39.2	9.6	12.3	MH-278	1,185.17	MH-V07.17+18B	1,183.91	904,809
P-523	12 inch	651.00	0.013	0.012	4.34	41.4	12.3	7.0	MH-277	1,193.50	MH-278	1,185.67	749,606
P-524	42 inch	1,056.00	0.013	0.0005	2.57	64	10.2	10.2	MH-V04.22+23B	1,151.80	MH-O4A	1,151.28	10,992,428
P-525	42 inch	1,394.00	0.013	0.0005	2.57	65.5	10.2	7.0	MH-V04.20+21	1,152.50	MH-V04.22+23B	1,151.80	10,891,322
P-527	42 inch	1,445.00	0.013	0.0077	6.89	31.2	11.1	7.0	MH-280	1,149.50	Camelback WRF	1,138.41	9,964,716
P-528	10 inch	1,474.00	0.013	0.0036	2	44.4	13.3	7.0	MH-V04.07+08	1,172.17	MH-V04.10+24	1,166.83	209,381
P-529	10 inch	2,678.00	0.013	0.0048	2.74	46.3	10.2	13.3	MH-V04.10+24	1,166.83	MH-O4A	1,153.94	458,750
P-532	8 inch	2,819.00	0.013	0.0064	2.85	52.8	7.0	7.0	MH-V13.20+21+22	1,253.33	MH-V13.19	1,235.33	351,030
P-533	10 inch	2,389.00	0.013	0.0054	3.03	51.3	7.0	7.0	MH-V13.19	1,235.17	MH-52	1,222.17	569,679
P-534	36 inch	2,761.00	0.013	0.0005	2.21	47.2	9.6	25.2	MH-V12.12+13	1,212.83	MH-V12.11+14+16A	1,211.45	5,846,611
P-535	36 inch	2,518.00	0.013	0.0093	6.5	50.3	18.9	9.6	MH-V12.11+14+16A	1,211.45	MH-V05.10+11+13	1,188.08	6,090,228
P-536	36 inch	2,605.00	0.013	0.0005	2.34	55.4	7.2	18.9	MH-V05.10+11+13	1,188.08	MH-V05.09+14+15A	1,186.78	7,721,105
P-537	36 inch	2,618.00	0.013	0.0056	5.87	55.7	7.0	7.2	MH-V05.09+14+15A	1,186.78	MH-V05.15B+16	1,172.00	7,986,987
P-538	42 inch	1,625.00	0.013	0.0005	2.49	48.3	7.3	12.5	MH-V04.13+05.01+03+04+05+06+07+19	1,169.99	MH-V04.15	1,169.18	9,526,788
P-540	36 inch	2,481.00	0.013	0.0051	5.93	44.9	7.0	10.4	MH-V06.09+10+11	1,210.61	MH-V06.07A+08+14A+15	1,198.00	9,498,646
P-541	8 inch	1,681.00	0.013	0.0096	2	19.6	24.1	7.0	MH-V07.01B	1,192.33	MH-V03.09+07.01A+03+04+05+06A	1,176.24	58,260
P-542	24 inch	2,362.00	0.013	0.0016	3.15	57.7	7.0	20.2	MH-V11.21	1,277.85	MH-291	1,274.00	4,157,599
P-543	24 inch	2,564.00	0.013	0.007	5.45	50.7	7.0	7.0	MH-291	1,274.00	MH-V11.17+20	1,256.00	4,157,599
P-544	15 inch	1,347.00	0.013	0.0014	2	46.2	7.3	14.4	MH-V11.15+16+14.03B+04+07+08B+16A+18	1,249.38	MH-293	1,247.46	805,614
P-545	15 inch	832.00	0.013	0.0069	3.55	40.5	7.0	7.3	MH-293	1,247.46	MH-V11.07A	1,241.75	805,614
P-546	36 inch	2,639.00	0.013	0.0005	2.3	67.4	13.2	10.9	MH-V11.06+07B	1,213.13	MH-V11.08B	1,211.81	6,984,842
P-548	15 inch	3,225.00	0.013	0.0087	4.07	36.2	13.2	7.0	MH-V11.07A	1,241.75	MH-V11.08B	1,213.56	959,751
P-549	10 inch	1,450.00	0.013	0.0052	3.13	69.6	7.0	11.5	MH-V11.13	1,249.68	MH-V11.11	1,242.17	719,044
P-554	10 inch	1,724.00	0.013	0.003	2	36.7	23.3	21.5	MH-V12.02+04+05	1,198.15	MH-V12.07+08+09+15+16B+17+18	1,192.90	263,563
P-555	18 inch	2,030.00	0.013	0.0013	2	39.5	18.9	23.3	MH-V12.07+08+09+15+16B+17+18	1,192.23	MH-V05.10+11+13	1,189.58	928,853
P-556	8 inch	1,194.00	0.013	0.0151	2	22.6	21.5	7.0	MH-V12.01	1,216.33	MH-V12.02+04+05	1,198.32	34,012
P-557	8 inch	1,548.00	0.013	0.0039	2.03	59.3	7.0	7.0	MH-V13.01	1,252.33	MH-V13.02+04B+10B	1,246.33	191,739
P-562	8 inch	1,549.00	0.013	0.0071	3.16	60.9	7.0	7.0	MH-V18.12	1,323.33	MH-V18.14	1,312.33	463,136
P-563	10 inch	1,767.00	0.013	0.0057	3.09	55.4	7.0	7.0	MH-V18.14	1,312.17	MH-V18.15+16A	1,302.17	582,163
P-564	12 inch	678.00	0.013	0.0029	2.64	58.5	7.0	7.0	MH-V18.15+16A	1,302.00	MH-310	1,300.00	833,879
P-565	12 inch	1,240.00	0.013	0.0069	3.63	57.2	7.0	7.0	MH-310	1,300.00	MH-V13.29+31	1,291.50	833,879
P-571	15 inch	564.00	0.013	0.0015	2	51.1	7.3	7.0	MH-V11.22+23+24+26+V16.24+26+27	1,236.75	MH-V11.18+19	1,235.91	754,030
P-572	15 inch	1,414.00	0.013	0.013	5.12	40.6	20.2	7.3	MH-V11.18+19	1,235.91	MH-V11.04	1,217.51	1,307,376
P-573	24 inch	1,557.00	0.013	0.0009	2	44.9	13.2	20.2	MH-V11.04	1,216.76	MH-V11.05	1,215.32	1,564,553
P-574	24 inch	1,475.00	0.013	0.0008	2	47.7	10.9	13.2	MH-V11.05	1,215.32	MH-V11.06+07B	1,214.13	1,888,525
P-576	10 inch	2,102.00	0.013	0.0033	2	38.3	11.8	8.9	MH-V17.07	1,314.27	MH-V17.20B+24A	1,307.38	238,484
P-577	12 inch	1,644.00	0.013	0.0021	2	48	10.2	11.8	MH-V17.20B+24A	1,307.21	MH-146	1,303.80	461,350
P-581	12 inch	2,062.00	0.013	0.0026	2	39.1	14.4	7.0	MH-V14.05+16B+19	1,255.00	MH-V11.15+16+14.03B+04+07+08B+16A+18	1,249.63	338,202
P-582	8 inch	1,813.00	0.013	0.0035	2.15	63.3	7.6	8.3	MH-V14.11+13	1,280.04	MH-V14.01+10	1,273.70	279,860
P-583	8 inch	3,082.00	0.013	0.0077	3.23	61.1	11.5	7.6	MH-V14.01+10	1,273.70	MH-V11.13	1,249.85	440,303
P-584	8 inch	1,067.00	0.013	0.0084	2.04	34.9	7.0	7.0	MH-V18.07A	1,341.33	MH-V18.10	1,332.33	72,736
P-586	8 inch	502.00	0.013	0.0069	3.08	58.6	7.5	7.0	MH-40	1,293.33	MH-O2	1,289.87	430,269
P-587	15 inch	2,828.00	0.013	0.012	5.24	45.3	23.5	7.5	MH-O2	1,289.29	MH-V13.07+08	1,255.22	1,580,374
P-588	15 inch	1,999.00	0.013	0.0012	2	60.8	7.5	7.0	MH-V17.09+13+14+15+16+17+18+19	1,291.75	MH-O2	1,289.29	1,027,225
P-590	10 inch	1,273.00	0.013	0.0035	2	52.9	11.5	7.0	MH-V14.03A+12+14+08A	1,254.17	MH-V11.13	1,249.68	217,272
P-591	42 inch	1,642.00	0.013	0.0005	2.5	49.5	12.1	18.2	MH-203	1,165.27	MH-331	1,164.44	9,552,714
P-594	48 inch	2,845.00	0.013	0.0055	6.97	35.2	7.0	11.3	MH-333	1,144.74	HASSAYAMPA RANCH WRF	1,129.00	16,435,094
P-596	42 inch	1,148.00	0.013	0.006	6.44	41.5	7.0	12.1	MH-331	1,164.44	MH-334	1,157.50	10,607,754
P-598	10 inch	2,559.00	0.013	0.0074	3.73	61.2	7.0	7.0	MH-V25.01+03+O3C	1,121.17	MH-V25.04	1,102.17	843,151
P-601	18 inch	1,539.00	0.013	0.001	2	58.6	8.6	7.0	MH-V25.04	1,101.50	MH-337	1,099.94	1,359,995
P-602	18 inch	1,988.00	0.013	0.001	2	52.5	10.6	8.6	MH-337	1,099.94	MH-O6	1,097.92	1,359,995
P-609	8 inch	3,723.00	0.013	0.0035	2.3	63.6	7.5	7.0	MH-V23.01+04	1,086.83	MH-343	1,073.80	399,036

Pipe Table Report - Peak Day													
Label	Size (inch)	Length (ft)	Manning's n	Slope (ft/ft)	Velocity (ft/s)	d/D (%)	Downstream Cover (ft)	Upstream Cover (ft)	Upstream Node	Upstream Invert El (ft)	Downstream Node	Downstream Invert El (ft)	Total Flow (gpd)
P-611	36 inch	938.00	0.013	0.0081	6.7	41.9	7.5	10.9	MH-342	1,079.10	MH-343	1,071.47	7,990,550
P-612	8 inch	3,511.00	0.013	0.0062	2.27	33.8	10.9	7.0	MH-V23.02	1,103.33	MH-342	1,081.43	152,680
P-613	42 inch	1,333.00	0.013	0.0073	6.68	37.8	7.0	7.3	MH-V04.15	1,169.18	MH-V04.16+17	1,159.50	9,627,933
P-614	42 inch	1,557.00	0.013	0.0026	4.61	38.8	7.0	7.0	MH-V04.16+17	1,159.50	MH-V04.18+19	1,155.50	9,720,462
P-615	42 inch	1,349.00	0.013	0.0044	5.66	37.3	7.0	7.0	MH-V04.18+19	1,155.50	MH-280	1,149.50	9,964,716
P-626	10 inch	1,328.00	0.013	0.003	2	37.9	10.0	7.0	MH-V07.08+09B	1,213.17	MH-274	1,209.15	266,170
P-629	8 inch	1,255.00	0.013	0.0074	2	23.7	20.2	7.0	MH-V11.01	1,227.33	MH-V11.04	1,218.10	80,051
P-631	48 inch	3,633.00	0.013	0.0005	2.74	51.9	11.3	7.4	MH-359	1,146.56	MH-333	1,144.74	13,836,681
P-632	42 inch	6,385.00	0.013	0.0016	4	49.9	7.4	7.0	MH-334	1,157.50	MH-359	1,147.06	10,607,754
P-638	30 inch	603.00	0.013	0.0132	6.45	34.1	7.0	8.1	MH-365	1,187.43	MH-194	1,179.50	3,616,264
P-640	24 inch	602.00	0.013	0.0199	6.8	40.6	7.0	7.0	MH-165	1,207.00	MH-V08.06+07+09+10+12+15+17	1,195.00	2,404,966
P-641	24 inch	1,943.00	0.013	0.0019	2.9	41.3	7.0	10.4	MH-V08.14+16	1,210.64	MH-165	1,207.00	2,404,966
P-642	24 inch	1,275.00	0.013	0.0047	4.44	43	7.0	7.0	MH-V08.06+07+09+10+12+15+17	1,195.00	MH-V08.04+18	1,189.00	3,324,301
P-643	30 inch	2,026.00	0.013	0.0005	2	46.2	8.1	7.0	MH-V08.04+18	1,188.50	MH-365	1,187.43	3,616,264
P-647	15 inch	963.00	0.013	0.0147	4.5	29.2	14.1	7.0	MH-V09.07	1,223.75	MH-V09.04A	1,209.61	710,106
P-648	30 inch	3,017.00	0.013	0.0124	7.04	33.3	18.6	14.1	MH-V09.04A	1,208.36	MH-V08.01B+09.02A	1,170.92	5,283,900
P-649	10 inch	1,054.00	0.013	0.0031	2	36.5	18.2	7.0	MH-V09.01	1,171.17	MH-203	1,167.93	260,676
P-650	8 inch	1,906.00	0.013	0.0105	2.71	31.2	7.0	7.0	MH-V09.02B	1,191.33	MH-V09.01	1,171.33	148,608
P-655	30 inch	1,150.00	0.013	0.0015	3.01	40.1	7.0	11.3	MH-V09.11	1,227.25	MH-V09.10B	1,225.50	3,815,115
P-656	30 inch	789.00	0.013	0.0114	6.24	35.9	7.0	7.0	MH-V09.10B	1,225.50	MH-V09.10A+12B+13B	1,216.50	3,840,984
P-657	30 inch	972.00	0.013	0.0062	5.11	49.1	7.0	7.0	MH-V09.10A+12B+13B	1,216.50	MH-V09.05A	1,210.50	4,109,690
P-660	30 inch	1,153.00	0.013	0.0005	2.04	62.2	16.8	24.7	MH-379	1,209.33	MH-V09.04B+05B	1,208.75	4,289,690
P-661	30 inch	1,166.00	0.013	0.0005	2.04	63.6	24.7	22.6	MH-378	1,209.91	MH-379	1,209.33	4,289,690
P-664	30 inch	1,179.00	0.013	0.0005	2.04	64.1	22.6	7.0	MH-V09.05A	1,210.50	MH-378	1,209.91	4,289,690
P-665	12 inch	1,023.00	0.013	0.0021	2	39.6	8.2	7.0	MH-V09.13A	1,235.00	MH-V09.12A	1,232.81	441,072
P-666	15 inch	2,141.00	0.013	0.0018	2	40.1	10.1	8.2	MH-V09.12A	1,232.56	MH-V09.08	1,228.70	579,654
P-667	18 inch	1,672.00	0.013	0.0012	2	50.1	10.0	7.0	MH-V10.02B	1,236.00	MH-V10.03B	1,234.00	1,052,029
P-668	18 inch	2,547.00	0.013	0.0011	2	53.4	10.3	10.0	MH-V10.03B	1,234.00	MH-V08.13A	1,231.17	1,178,506
P-669	8 inch	2,910.00	0.013	0.0081	2.74	47.8	7.0	7.9	MH-V10.10	1,286.44	MH-V10.07	1,262.83	215,054
P-670	8 inch	1,832.00	0.013	0.0052	2.46	55.6	7.0	7.0	MH-V10.07	1,262.83	MH-V10.02A	1,253.33	266,157
P-671	8 inch	1,241.00	0.013	0.0048	2.51	63.5	7.0	7.0	MH-V10.02A	1,253.33	MH-V10.03A	1,247.33	321,715
P-672	8 inch	1,901.00	0.013	0.0074	3.19	59.3	9.1	7.0	MH-V10.03A	1,247.33	MH-70	1,233.25	448,192
P-673	8 inch	916.00	0.013	0.0251	2.23	15.1	7.0	7.0	MH-V10.14AS	1,332.33	MH-386	1,309.33	27,174
P-674	8 inch	2,409.00	0.013	0.0071	1.43	18.7	7.0	7.0	MH-386	1,309.33	MH-V10.12	1,292.33	27,174
P-675	8 inch	595	0.013	0.0099	2	33.8	7.9	7.0	MH-V10.12	1,292.33	MH-V10.10	1,286.44	55,878
P-676	10 inch	1,471.00	0.013	0.0068	3.64	71.5	7.0	7.0	MH-V11.11	1,242.17	MH-V11.10A	1,232.17	880,623
P-677	10 inch	2,395.00	0.013	0.0081	3.94	63.7	10.4	7.0	MH-V11.10A	1,232.17	MH-V06.09+10+11	1,212.78	924,476
P-678	36 inch	1,054.00	0.013	0.0005	2.36	68.9	11.7	13.2	MH-V11.08B	1,211.81	MH-V11.08A+09+10B+14	1,211.28	8,004,670
P-679	36 inch	1,336.00	0.013	0.0005	2.37	57.7	10.4	11.7	MH-V11.08A+09+10B+14	1,211.28	MH-V06.09+10+11	1,210.61	8,340,766
P-687	8 inch	2,145.00	0.013	0.0051	2.74	62.1	7.0	7.0	MH-V13.02+04B+10B	1,246.33	MH-V13.04A+05+06+09B+10A	1,235.33	433,885
P-688	15 inch	1,274.00	0.013	0.0158	4.99	33.2	25.2	7.0	MH-V13.04A+05+06+09B+10A	1,234.75	MH-V12.12+13	1,214.58	929,683
P-698	10 inch	578.00	0.013	0.0061	3.48	65.3	7.0	7.0	MH-V15.04+05+06+08+09+11+12+13+16+18	1,240.17	MH-V10.02B	1,236.67	885,354
P-708	8 inch	1,726.00	0.013	0.0072	2.35	43.4	7.0	7.0	MH-V15.14	1,279.83	MH-V15.02	1,267.33	142,963
P-709	8 inch	1,957.00	0.013	0.0079	2.9	52.7	7.0	7.0	MH-V15.02	1,267.33	MH-V15.01B	1,251.83	273,663
P-710	8 inch	1,075.00	0.013	0.014	3.74	62	7.0	7.0	MH-V15.01B	1,251.83	MH-413	1,236.83	328,443
P-711	8 inch	395.00	0.013	0.0038	2.37	60.9	7.0	7.0	MH-413	1,236.83	MH-V09.13A	1,235.33	383,223
P-712	8 inch	689.00	0.013	0.0152	2.31	46.9	7.0	7.0	MH-V15.01A	1,247.33	MH-413	1,236.83	54,780
P-715	12 inch	1,227.00	0.013	0.0021	2	48.3	13.6	7.0	MH-V16.17+31	1,307.00	MH-75	1,304.44	457,421
P-720	8 inch	1,753.00	0.013	0.0088	3.05	62.3	7.0	7.0	MH-V16.11+12+14+15	1,341.83	MH-V16.18+19	1,326.33	285,761
P-721	8 inch	1,793.00	0.013	0.012	3.99	60.4	13.6	7.0	MH-V16.18+19	1,326.33	MH-75	1,304.77	527,358
P-722	8 inch	1,866.00	0.013	0.0059	2.43	40.6	7.0	7.0	MH-V16.09+10	1,342.33	MH-147	1,331.33	213,980
P-723	10 inch	1,254.00	0.013	0.0067	3.03	53.1	11.5	7.0	MH-V16.08	1,337.17	MH-148	1,328.71	419,142
P-724	15 inch	1,884.00	0.013	0.0015	2	43.8	8.3	7.0	MH-V16.05	1,318.25	MH-424	1,315.41	743,899
P-726	24 inch	805.00	0.013	0.0009	2	45.4	17.7	7.0	MH-425	1,291.00	MH-21	1,290.29	1,660,702
P-727	15 inch	925.00	0.013	0.0256	5.56	28.2	7.0	8.3	MH-424	1,315.41	MH-425	1,291.75	743,899
P-734	8 inch	1,138.00	0.013	0.0054	2	30.2	13.1	7.0	MH-V17.06	1,295.33	MH-V17.03	1,289.23	118,566
P-735	12 inch	3,446.00	0.013	0.0029	2	32.3	20.2	13.1	MH-V17.03	1,288.89	MH-V11.21	1,278.85	291,597
P-740	12 inch	1,348.00	0.013	0.0024	2	51	10.2	7.0	MH-V18.04+05	1,333.00	MH-V18.03	1,329.80	381,750
P-741	8 inch	1,944.00	0.013	0.0072	2.86	47.2	7.0	7.0	MH-V18.06+07B	1,347.33	MH-V18.04+05	1,333.33	296,339
P-742	8 inch	1,706.00	0.013	0.0058	2	41.8	10.9	7.0	MH-V18.08B	1,350.33	MH-V18.08A+09	1,340.40	106,906

Pipe Table Report - Peak Day													
Label	Size (inch)	Length (ft)	Manning's n	Slope (ft/ft)	Velocity (ft/s)	d/D (%)	Downstream Cover (ft)	Upstream Cover (ft)	Upstream Node	Upstream Invert El (ft)	Downstream Node	Downstream Invert El (ft)	Total Flow (gpd)
P-743	8 inch	2,499.00	0.013	0.0068	2.76	59.8	7.0	10.9	MH-V18.08A+09	1,340.40	MH-V18.12	1,323.33	279,161
P-744	8 inch	1,571.00	0.013	0.011	2	34.3	9.2	7.0	MH-V19.19	1,352.33	MH-V19.20	1,335.10	49,523
P-745	8 inch	1,004.00	0.013	0.0047	2.25	53.1	7.0	9.2	MH-V19.20	1,335.10	MH-V19.21	1,330.33	214,201
P-746	8 inch	962.00	0.013	0.0042	2.34	56.7	7.0	7.0	MH-V19.21	1,330.33	MH-440	1,326.33	303,345
P-747	8 inch	373.00	0.013	0.0174	3.97	42.6	7.0	7.0	MH-440	1,326.33	MH-V20.19+20	1,319.83	303,345
P-750	8 inch	1,529.00	0.013	0.0111	3.29	50.2	7.0	7.0	MH-V19.06A+07	1,367.33	MH-444	1,350.33	277,097
P-751	8 inch	568.00	0.013	0.007	2.78	59.7	7.0	7.0	MH-444	1,350.33	MH-V19.02	1,346.33	277,097
P-752	8 inch	1,611.00	0.013	0.0043	2	51.1	9.9	7.0	MH-V19.06B+10	1,357.33	MH-V19.08+09	1,350.49	160,637
P-753	8 inch	1,276.00	0.013	0.0103	3.44	50.3	7.0	9.9	MH-V19.08+09	1,350.49	MH-V16.08	1,337.33	365,171
P-754	8 inch	620.00	0.013	0.0061	2	34.6	7.8	7.0	MH-V19.12B+14	1,355.33	MH-V19.11B	1,351.52	99,981
P-755	8 inch	1,584.00	0.013	0.009	2.65	33.9	7.0	7.8	MH-V19.11B	1,351.52	MH-V19.13	1,337.33	168,444
P-756	8 inch	939.00	0.013	0.0053	2.03	34.1	7.0	7.0	MH-V19.15+17	1,352.33	MH-18	1,347.33	126,867
P-757	8 inch	1,196.00	0.013	0.0102	2.57	40.1	9.2	7.0	MH-18	1,347.33	MH-V19.20	1,335.10	126,867
P-758	10 inch	879.00	0.013	0.0104	2.79	25.6	18.2	7.0	MH-V01.23A	1,098.17	355th WRF	1,089.02	179,388
P-759	24 inch	2,573.00	0.013	0.001	2	32.7	18.2	17.7	MH-V01.21	1,090.35	355th WRF	1,087.85	1,473,152
P-760	12 inch	2,160.00	0.013	0.0079	3.34	49.8	7.0	7.0	MH-20	1,312.00	MH-V19.11A+12A+20.16+23+24	1,295.00	505,657
P-761	12 inch	634.00	0.013	0.0047	3.23	52.5	7.0	7.0	MH-V19.11A+12A+20.16+23+24	1,295.00	MH-425	1,292.00	916,803
P-762	8 inch	2,184.00	0.013	0.011	3.57	51.2	7.0	7.0	MH-V24.12A	1,077.33	335th LS	1,053.33	382,536
P-764	12 inch	3,141.00	0.013	0.0043	2.63	43.7	7.0	10.6	MH-V20.18A	1,318.45	MH-V20.17+18B	1,305.00	472,675
P-765	12 inch	2,715.00	0.013	0.0074	3.45	46.6	7.0	7.0	MH-V20.17+18B	1,305.00	MH-455	1,285.00	623,702
P-766	12 inch	520.00	0.013	0.0038	2.72	50.6	7.0	7.0	MH-455	1,285.00	MH-V20.11A+12	1,283.00	623,702
P-767	12 inch	1,111.00	0.013	0.0099	4.07	43	7.0	7.0	MH-V20.11A+12	1,283.00	MH-V20.08	1,272.00	771,331
P-768	15 inch	3,052.00	0.013	0.0014	2	44.9	7.2	7.0	MH-V20.08	1,271.75	MH-V20.06	1,267.57	861,161
P-769	24 inch	2,187.00	0.013	0.0072	5.16	44.1	7.0	7.2	MH-V20.06	1,266.82	MH-V20.02+03	1,251.00	3,256,588
P-770	24 inch	3,242.00	0.013	0.0071	5.21	42.7	10.9	7.0	MH-V20.02+03	1,251.00	MH-460	1,228.11	3,492,102
P-771	30 inch	704.00	0.013	0.0005	2	49.5	11.3	10.9	MH-460	1,227.61	MH-V09.11	1,227.25	3,752,846
P-772	8 inch	1,663.00	0.013	0.0108	2.19	36.7	7.0	7.0	MH-V21.18	1,328.33	MH-V21.13	1,310.33	68,367
P-773	8 inch	4,734.00	0.013	0.0065	2.62	49.2	7.0	7.0	MH-V21.13	1,310.33	MH-V21.10	1,279.33	244,790
P-774	8 inch	2,065.00	0.013	0.0058	2.58	55.5	7.0	7.0	MH-V21.10	1,279.33	MH-V21.08	1,267.33	271,352
P-775	8 inch	1,986.00	0.013	0.0094	3.32	51.1	9.6	7.0	MH-V21.08	1,267.33	MH-V21.06A	1,248.74	366,861
P-776	15 inch	1,764.00	0.013	0.0053	3.49	44.7	7.0	9.6	MH-V21.06A	1,248.16	MH-V21.03A	1,238.75	1,056,550
P-777	15 inch	1,176.00	0.013	0.0068	3.85	48.1	7.0	7.0	MH-V21.03A	1,238.75	MH-V21.01	1,230.75	1,084,102
P-778	15 inch	2,729.00	0.013	0.004	3.3	51.4	7.0	7.0	MH-V21.01	1,230.75	MH-V22.12	1,219.75	1,253,613
P-779	15 inch	2,315.00	0.013	0.0056	3.78	50.9	7.0	7.0	MH-V22.12	1,219.75	MH-V22.08A	1,206.75	1,319,559
P-780	15 inch	1,148.00	0.013	0.0017	2	45.4	9.6	12.7	MH-65	1,250.08	MH-V21.06A	1,248.16	643,851
P-781	15 inch	3,608.00	0.013	0.0039	2.82	35.1	21.0	7.0	MH-390	1,061.75	MH-389	1,047.78	737,280
P-782	8 inch	886	0.013	0.0124	1.64	11.7	7.5	7.0	MH-V23.03	1,082.83	MH-392	1,071.86	21,956
P-784	10 inch	1,134.00	0.013	0.0034	2	33.6	9.8	7.0	MH-V20.09+10	1,276.17	MH-V20.05	1,272.33	229,221
P-786	10 inch	1,249.00	0.013	0.0031	2	41.6	10.8	7.0	MH-V20.01	1,236.17	MH-36	1,232.33	260,744
P-787	10 inch	997.00	0.013	0.0031	2	36.5	10.9	10.8	MH-36	1,232.33	MH-460	1,229.28	260,744
P-788	48 inch	5,247.00	0.013	0.0041	6.23	53.3	7.0	7.5	MH-392	1,068.52	MH-388	1,047.00	16,203,749
P-789	48 inch	3,949.00	0.013	0.0005	2.85	61	21.0	7.0	MH-388	1,047.00	MH-389	1,045.03	16,941,029
P-790	24 inch	2,064.00	0.013	0.0032	4.24	52.1	7.0	19.4	MH-V24.11+12B	1,058.59	335th LS	1,052.00	4,878,060
P-791	24 inch	894.00	0.013	0.0082	4.68	34.7	9.8	7.0	MH-23	1,278.50	MH-V20.05	1,271.17	1,968,600
P-793	8 inch	2,663.00	0.013	0.0058	2.69	60.5	7.0	7.0	MH-V21.14A+16+17	1,316.83	MH-V21.14B	1,301.33	318,951
P-794	8 inch	2,501.00	0.013	0.0064	3.08	65.5	7.0	7.0	MH-V21.11	1,291.33	MH-477	1,275.33	500,944
P-795	8 inch	1,763.00	0.013	0.0057	2.79	69.3	7.0	7.0	MH-V21.14B	1,301.33	MH-V21.11	1,291.33	392,656
P-796	15 inch	1,647.00	0.013	0.002	2	33.9	9.9	7.6	MH-478	1,272.20	MH-118	1,268.88	500,944
P-797	10 inch	1,264.00	0.013	0.002	2	56.8	7.6	7.0	MH-477	1,275.17	MH-478	1,272.61	500,944
P-799	8 inch	767.00	0.013	0.0056	2	33.9	7.3	7.0	MH-V21.05+06B	1,257.33	MH-V21.03B	1,253.00	111,188
P-800	8 inch	973.00	0.013	0.0058	2.15	35.3	7.0	7.3	MH-V21.03B	1,253.00	MH-482	1,247.33	138,740
P-802	8 inch	478.00	0.013	0.0035	1.81	35.3	12.7	7.0	MH-V21.07+09	1,252.33	MH-65	1,250.66	142,907
P-803	8 inch	1,253.00	0.013	0.0128	2.85	29.4	7.0	7.0	MH-482	1,247.33	MH-V21.01	1,231.33	138,740
P-804	15 inch	3,589.00	0.013	0.0059	3.9	52.6	7.0	7.0	MH-V22.08A	1,206.75	MH-V22.08B	1,185.75	1,406,112
P-805	15 inch	2,549.00	0.013	0.0071	4.24	53.3	7.0	7.0	MH-V22.08B	1,185.75	MH-485	1,167.75	1,492,666
P-806	12 inch	5,293.00	0.013	0.0029	2.73	64.5	7.0	8.6	MH-393	1,069.45	MH-394	1,054.00	1,004,208
P-807	24 inch	2,111.00	0.013	0.0007	2	46.2	7.4	7.0	MH-486	1,150.00	MH-359	1,148.56	2,457,241
P-808	15 inch	846.00	0.013	0.0095	4.73	58	7.0	7.0	MH-485	1,167.75	MH-487	1,159.75	1,492,666
P-809	12 inch	3,157.00	0.013	0.0082	3.37	34.9	7.0	7.0	MH-V22.06B	1,177.00	MH-486	1,151.00	497,028
P-810	15 inch	1,262.00	0.013	0.0071	4.56	54.7	7.0	7.0	MH-487	1,159.75	MH-486	1,150.75	1,960,214

Pipe Table Report - Peak Day

Label	Size (inch)	Length (ft)	Manning's n	Slope (ft/ft)	Velocity (ft/s)	d/D (%)	Downstream Cover (ft)	Upstream Cover (ft)	Upstream Node	Upstream Invert El (ft)	Downstream Node	Downstream Invert El (ft)	Total Flow (gpd)
P-811	12 inch	2,321.00	0.013	0.0078	3.25	47.4	7.0	7.0	MH-V22.06A	1,178.00	MH-487	1,160.00	467,548
P-813	10 inch	1,864.00	0.013	0.0071	2.96	38.4	7.0	14.2	MH-V22.04	1,225.44	MH-V22.09	1,212.17	358,608
P-814	12 inch	1,861.00	0.013	0.0023	2	39.9	16.3	7.0	MH-V22.09	1,212.00	MH-125	1,207.69	395,733
P-815	10 inch	611.00	0.013	0.0045	2	35.2	11.3	9.5	MH-V22.13	1,231.63	MH-V22.10	1,228.89	159,289
P-816	10 inch	1,102.00	0.013	0.0031	2	42.7	14.2	11.3	MH-V22.10	1,228.89	MH-V22.04	1,225.44	253,638
P-817	10 inch	1,571.00	0.013	0.0029	2	38.4	21.6	7.0	MH-V22.16+17	1,217.17	MH-V22.01	1,212.62	282,232
P-818	15 inch	1,390.00	0.013	0.0036	3.57	67.3	7.0	7.0	MH-V24.07B+08	1,071.75	MH-V24.09	1,066.75	2,259,303
P-819	18 inch	1,405.00	0.013	0.0036	3.73	53.3	7.0	7.0	MH-V24.09	1,066.50	MH-187	1,061.50	2,486,996
P-820	18 inch	1,601.00	0.013	0.0019	2.71	49.7	7.0	7.0	MH-V24.05+06+07A+O5A	1,076.50	MH-V24.13+14	1,073.50	1,820,432
P-821	24 inch	2,542.00	0.013	0.0008	2	44.3	11.9	7.0	MH-V24.13+14	1,073.00	MH-V24.10	1,071.07	2,086,386
P-822	24 inch	1,127.00	0.013	0.0007	2	60.8	19.4	23.7	MH-188	1,059.35	MH-V24.11+12B	1,058.59	2,486,996
P-823	12 inch	3,652.00	0.013	0.0019	2	62.1	8.6	7.0	MH-O8	1,076.50	MH-393	1,069.45	512,688
P-824	24 inch	1,300.00	0.013	0.0096	5.06	47	19.4	11.9	MH-V24.10	1,071.07	MH-V24.11+12B	1,058.59	2,123,610
P-825	10 inch	585.00	0.013	0.0042	2	36.4	9.4	7.0	MH-V24.03B+04	1,100.17	MH-V24.16B	1,097.74	175,750
P-826	10 inch	1,876.00	0.013	0.0031	2	53.6	8.3	9.4	MH-V24.16B	1,097.74	MH-V24.15	1,091.91	256,726
P-827	10 inch	2,118.00	0.013	0.0022	2.08	55.1	7.0	8.3	MH-V24.15	1,091.91	MH-O9	1,087.17	494,282
P-829	24 inch	5,691.00	0.013	0.0008	2	60.6	10.5	7.0	MH-405	1,041.00	MH-404	1,036.55	1,987,248
P-831	24 inch	1,279.00	0.013	0.0023	3.9	71.6	7.0	7.0	MH-O9	1,086.00	MH-V24.17B	1,083.00	5,874,514
P-832	24 inch	3,809.00	0.013	0.0032	4.46	61	7.0	7.0	MH-V24.17B	1,083.00	MH-V24.01+03A+16A+17A+18	1,071.00	6,334,358
P-833	12 inch	796.00	0.013	0.0126	5.67	77.6	7.0	7.0	MH-O5B	1,082.00	MH-V24.07B+08	1,072.00	2,107,543
P-834	8 inch	795.00	0.013	0.0072	2	24.1	12.7	7.0	MH-O4B	1,155.33	MH-168	1,149.59	81,920
P-835	12 inch	475.00	0.013	0.0022	2	43.6	10.6	7.0	MH-V20.19+20	1,319.50	MH-V20.18A	1,318.45	421,987
P-837	24 inch	863.00	0.013	0.005	4.1	40	7.2	9.8	MH-V20.05	1,271.17	MH-V20.06	1,266.82	2,294,834
P-838	30 inch	781.00	0.013	0.0005	2.06	52.6	14.1	16.8	MH-V09.04B+05B	1,208.75	MH-V09.04A	1,208.36	4,504,392
P-839	48 inch	1,431.00	0.013	0.0056	6.99	35	18.2	7.1	MH-V01.23B	1,093.89	355th WRF	1,085.85	16,294,151
P-840	30 inch	5,164.00	0.013	0.0008	2.55	59.2	7.0	7.0	MH-414	1,024.50	MH-422	1,020.50	5,529,600
P-842	10 inch	4,816.00	0.013	0.0046	2.88	60.6	7.0	7.0	MH-401	1,085.17	MH-402	1,063.17	614,400
P-844	12 inch	5,086.00	0.013	0.0055	3.48	59.7	7.0	7.0	MH-411	1,081.00	MH-412	1,053.00	983,040
P-845	18 inch	6,017.00	0.013	0.0045	4.41	63.5	7.0	7.0	MH-412	1,052.50	MH-414	1,025.50	3,563,520
P-846	12 inch	5,212.00	0.013	0.0038	3.12	66.5	7.0	7.0	MH-420	1,074.00	MH-421	1,054.00	1,141,146
P-847	15 inch	6,018.00	0.013	0.0053	4.15	60	7.0	7.0	MH-421	1,053.75	MH-422	1,021.75	2,124,186
P-848	8 inch	5,055.00	0.013	0.004	2.18	62.7	7.0	7.0	MH-434	1,109.33	MH-433	1,089.33	245,760
P-849	10 inch	5,013.00	0.013	0.0034	2.65	65.4	7.0	7.0	MH-433	1,089.17	MH-429	1,072.17	737,280
P-850	24 inch	5,413.00	0.013	0.0041	4.76	60.7	7.0	7.0	MH-429	1,071.00	MH-430	1,049.00	5,406,720
P-851	24 inch	6,035.00	0.013	0.0041	4.89	55.7	7.0	7.0	MH-430	1,049.00	MH-431	1,024.00	5,898,240
P-852	36 inch	5,272.00	0.013	0.0006	2.35	58.6	7.0	7.0	MH-431	1,023.00	MH-422	1,020.00	6,144,000
P-853	8 inch	5,242.00	0.013	0.005	2.76	67.8	7.0	7.0	MH-395	1,191.33	MH-396	1,165.33	491,520
P-854	15 inch	5,167.00	0.013	0.0046	3.62	61.2	7.0	7.0	MH-396	1,164.75	MH-398	1,140.75	1,474,560
P-856	12 inch	5,168.00	0.013	0.0049	3.33	54.4	13.2	7.0	MH-399	1,112.00	MH-400	1,086.81	983,040
P-858	8 inch	5,195.00	0.013	0.0073	3.24	62.8	7.0	7.0	MH-406	1,190.33	MH-407	1,152.33	491,520
P-859	15 inch	5,288.00	0.013	0.0038	3.35	53.5	7.0	7.0	MH-407	1,151.75	MH-408	1,131.75	1,474,560
P-861	12 inch	3,071.00	0.013	0.0039	3.05	56.5	7.0	7.0	MH-409	1,104.00	MH-410	1,092.00	983,040
P-862	24 inch	5,607.00	0.013	0.0009	2	39	13.2	7.0	MH-410	1,091.00	MH-400	1,085.81	1,564,672
P-863	8 inch	5,180.00	0.013	0.006	2.98	71.8	7.0	7.0	MH-415	1,182.33	MH-416	1,151.33	491,520
P-864	12 inch	5,412.00	0.013	0.0054	3.74	68.5	7.0	7.0	MH-416	1,151.00	MH-417	1,122.00	1,474,560
P-867	8 inch	5,412.00	0.013	0.0042	2.24	60	7.0	7.0	MH-461	1,213.33	MH-459	1,190.33	245,760
P-868	10 inch	5,055.00	0.013	0.004	2.82	68.1	7.0	7.0	MH-459	1,190.17	MH-458	1,170.17	737,280
P-869	12 inch	3,027.00	0.013	0.0059	3.78	60	7.0	7.0	MH-458	1,170.00	MH-454	1,152.00	1,228,800
P-870	18 inch	5,115.00	0.013	0.0059	4.78	56.8	7.0	7.0	MH-454	1,151.50	MH-443	1,121.50	3,194,880
P-872	8 inch	5,274.00	0.013	0.0042	2.22	50.4	7.0	7.0	MH-457	1,194.33	MH-456	1,172.33	245,760
P-873	12 inch	5,061.00	0.013	0.004	3.07	56.7	7.0	7.0	MH-456	1,172.00	MH-454	1,152.00	983,040
P-874	8 inch	5,164.00	0.013	0.0035	2.08	48.4	15.1	7.0	MH-453	1,242.33	MH-452	1,224.26	245,760
P-875	12 inch	5,365.00	0.013	0.0024	2.37	65.8	7.0	15.1	MH-452	1,223.93	MH-451	1,211.00	737,280
P-876	12 inch	5,071.00	0.013	0.0057	3.72	60.4	7.0	7.0	MH-451	1,211.00	MH-450	1,182.00	1,228,800
P-877	15 inch	3,427.00	0.013	0.0058	4.1	52.3	7.0	7.0	MH-450	1,181.75	MH-446	1,161.75	1,720,320
P-878	24 inch	5,321.00	0.013	0.0038	4.46	58.4	7.0	7.0	MH-446	1,161.00	MH-445	1,141.00	4,669,440
P-879	24 inch	5,086.00	0.013	0.0039	4.75	55.3	7.0	7.0	MH-445	1,141.00	MH-443	1,121.00	5,652,480
P-880	8 inch	5,314.00	0.013	0.0041	2.21	58.3	7.0	7.0	MH-449	1,232.33	MH-448	1,210.33	245,760
P-881	12 inch	5,414.00	0.013	0.0041	3.24	69	7.0	7.0	MH-448	1,210.00	MH-447	1,188.00	1,228,800
P-882	15 inch	5,014.00	0.013	0.0052	4.14	61.7	7.0	7.0	MH-447	1,187.75	MH-446	1,161.75	2,211,840

Pipe Table Report - Peak Day													
Label	Size (inch)	Length (ft)	Manning's n	Slope (ft/ft)	Velocity (ft/s)	d/D (%)	Downstream Cover (ft)	Upstream Cover (ft)	Upstream Node	Upstream Invert El (ft)	Downstream Node	Downstream Invert El (ft)	Total Flow (gpd)
P-883	8 inch	5,431.00	0.013	0.005	2.37	55.5	7.0	7.0	MH-442	1,149.33	MH-441	1,122.33	245,760
P-885	12 inch	5,396.00	0.013	0.0035	2.93	59.8	7.0	7.0	MH-439	1,173.00	MH-438	1,154.00	983,040
P-886	15 inch	4,968.00	0.013	0.0044	3.69	56.4	7.0	7.0	MH-438	1,153.75	MH-437	1,131.75	1,720,320
P-887	18 inch	5,273.00	0.013	0.0036	3.73	67.7	7.0	7.0	MH-437	1,131.50	MH-436	1,112.50	2,457,600
P-888	18 inch	4,887.00	0.013	0.0029	3.59	74.3	7.0	7.0	MH-436	1,112.50	MH-435	1,098.50	3,194,880
P-889	18 inch	5,022.00	0.013	0.0054	4.77	62.7	7.0	7.0	MH-435	1,098.50	MH-429	1,071.50	3,686,400
P-890	18 inch	2,481.00	0.013	0.0012	2	37.9	11.1	7.0	MH-397	1,143.50	Camelback WRF	1,140.41	992,870
P-891	36 inch	5,288.00	0.013	0.0005	2.28	52.5	9.6	7.0	MH-423	1,020.00	MH-426	1,017.36	6,759,717
P-892	36 inch	5,102.00	0.013	0.003	4.55	53.6	7.0	9.6	MH-426	1,017.36	MH-427	1,002.00	7,251,237
P-893	36 inch	5,229.00	0.013	0.0005	2.35	68.2	7.6	7.0	MH-427	1,002.00	MH-428	999.39	7,742,757
P-895	8 inch	542.00	0.013	0.0052	2	30.9	9.8	7.0	MH-465	1,001.33	Silver Springs LS No. 2	998.50	122,880
P-900	10 inch	5,396.00	0.013	0.0056	3.24	59.3	7.0	7.0	MH-441	1,122.17	Balterra WRF	1,092.17	737,280
P-901	48 inch	3,708.00	0.013	0.0016	4.6	48.9	7.0	21.0	MH-389	1,045.03	MH-463	1,039.00	18,661,349
P-902	54 inch	468.00	0.013	0.0005	2.98	43.1	7.2	7.0	MH-463	1,038.50	339th WRF	1,038.27	19,441,637
P-903	12 inch	2,966.00	0.013	0.002	2.24	57.4	7.0	7.0	MH-466	1,168.00	MH-464	1,162.00	771,686
P-904	15 inch	2,915.00	0.013	0.0049	3.73	50.6	11.3	7.0	MH-464	1,161.75	MH-333	1,147.49	1,543,373
P-905	30 inch	4,714.00	0.013	0.0053	6.09	58.1	8.8	7.0	MH-443	1,120.50	MH-467	1,095.72	9,830,400
P-906	36 inch	435.00	0.013	0.012	9.71	50.7	7.0	8.8	MH-467	1,095.22	Balterra WRF	1,090.00	18,535,936
P-907	36 inch	2,578.00	0.013	0.0084	8.01	46.9	18.6	7.0	MH-422	1,020.00	MH-468	998.43	14,780,826
P-908	54 inch	526.00	0.013	0.0005	3.08	47.4	18.8	18.6	MH-468	996.93	Silver Springs WRF	996.66	23,015,103
P-909	15 inch	4,951.00	0.013	0.002	2.66	71.5	7.0	7.0	MH-402	1,062.75	MH-412	1,052.75	1,597,440
P-910	12 inch	5,061.00	0.013	0.0032	2.81	58.7	7.0	7.0	MH-403	1,042.00	MH-414	1,026.00	983,040
P-911	24 inch	4,605.00	0.013	0.0034	4.58	59.8	7.0	10.5	MH-404	1,036.55	MH-423	1,021.00	6,268,197
P-913	36 inch	4,062.00	0.013	0.0005	2.35	56.3	10.9	15.9	MH-O7	1,081.13	MH-342	1,079.10	7,837,870
P-914	30 inch	4,645.00	0.013	0.0006	2	38.5	14.9	13.2	MH-400	1,085.31	Balterra LS	1,082.57	3,039,232
P-916	24 inch	5,210.00	0.013	0.0019	3.48	71.5	7.0	7.0	MH-408	1,131.00	MH-417	1,121.00	4,915,200
P-917	18 inch	5,180.00	0.013	0.0017	2.79	66.3	7.0	7.0	MH-398	1,140.50	MH-408	1,131.50	2,457,600
P-918	24 inch	4,978.00	0.013	0.004	5.07	64	7.0	7.0	MH-417	1,121.00	MH-418	1,101.00	7,372,800
P-919	36 inch	5,293.00	0.013	0.0009	3	63.7	8.8	7.0	MH-418	1,100.00	MH-467	1,095.22	8,214,016
P-920	15 inch	5,068.00	0.013	0.0024	2.8	56.2	7.0	7.0	MH-394	1,053.75	MH-405	1,041.75	1,495,728
P-921	36 inch	1,919.00	0.013	0.0005	2.36	52.9	18.6	7.6	MH-428	999.39	MH-468	998.43	7,988,517
P-922	42 inch	382.00	0.013	0.0005	2.6	60.7	12.4	10.2	MH-O4A	1,151.28	MH-V04.25	1,151.08	11,615,018
P-923	8 inch	369.00	0.013	0.0035	1.79	49.5	8.3	7.0	MH-184	1,281.33	MH-V14.11+13	1,280.04	138,214
P-924	18 inch	5,253.00	0.013	0.0054	4.73	62.6	10.5	9.3	MH-V25.10+12+13+14	1,065.22	MH-404	1,037.05	3,543,669
P-925	8 inch	1,258.00	0.013	0.0079	1.85	22.4	7.0	7.0	MH-V20.11B	1,286.33	MH-V20.09+10	1,276.33	55,872
P-926	8 inch	2,120.00	0.013	0.0035	1.61	28.6	24.4	7.0	MH-V09.03B	1,187.33	MH-V09.03A+04C	1,179.91	95,549
P-927	36 inch	542.00	0.013	0.0032	4.83	41.6	7.3	7.5	MH-343	1,071.47	MH-462	1,069.75	8,389,586
P-928	48 inch	453	0.013	0.0005	2.81	49.2	7.5	7.3	MH-462	1,068.75	MH-392	1,068.52	15,690,273
P-929	36 inch	501	0.013	0.0005	2.32	49.6	7.3	7.0	MH-V24.01+03A+16A+17A+18	1,070.00	MH-462	1,069.75	7,300,687

Ultimate Buildout
Peak Day
Manhole Table Report

Manhole Table Report - Peak Day												
Label	Ground Elevation (ft)	Sump Elevation (ft)	Structure Depth (ft)	Headloss Method	Headloss Coefficient	Sanitary Base Load (gpd)	Known Flow (gpd)	Total Flow (gpd)	HGL In (ft)	HGL Out (ft)	Pipe Matching	MH Size (ft)
MH-6	1,248.00	1,239.00	9.0	Standard	0.5	0	0	4,597,264	1,240.13	1,239.95	Crowns	4
MH-14	1,133.00	1,116.88	16.1	Standard	0.5	0	0	16,045,837	1,118.68	1,118.45	Crowns	4
MH-15	1,125.00	1,114.00	11.0	Standard	0.5	0	0	16,045,837	1,115.74	1,115.47	Crowns	4
MH-18	1,355.00	1,347.33	7.7	Standard	0.5	0	0	126,867	1,347.57	1,347.54	Crowns	4
MH-20	1,320.00	1,312.00	8.0	Standard	0.5	0	0	505,657	1,312.44	1,312.37	Crowns	4
MH-21	1,310.00	1,290.29	19.7	Standard	0.5	0	0	1,843,704	1,291.24	1,291.21	Crowns	4
MH-23	1,287.50	1,278.50	9.0	Standard	0.5	0	0	1,968,600	1,279.22	1,279.11	Crowns	4
MH-36	1,244.00	1,232.33	11.7	Standard	0.5	0	0	260,744	1,232.70	1,232.67	Crowns	4
MH-40	1,301.00	1,293.33	7.7	Standard	0.5	0	0	430,269	1,293.80	1,293.73	Crowns	4
MH-52	1,230.00	1,221.75	8.3	Standard	0.5	0	0	569,679	1,222.27	1,222.24	Crowns	4
MH-65	1,264.00	1,250.08	13.9	Standard	0.5	0	0	643,851	1,250.64	1,250.61	Crowns	4
MH-69	1,185.00	1,176.50	8.5	Standard	0.5	0	0	1,203,453	1,177.16	1,177.09	Crowns	4
MH-70	1,243.00	1,232.41	10.6	Standard	0.5	0	0	920,798	1,232.98	1,232.92	Crowns	4
MH-75	1,319.00	1,304.19	14.8	Standard	0.5	0	0	984,779	1,304.94	1,304.91	Crowns	4
MH-92	1,114.50	1,103.92	10.6	Standard	0.5	0	0	560,978	1,104.35	1,104.29	Crowns	4
MH-100	1,119.00	1,111.17	7.8	Standard	0.5	0	0	258,632	1,111.53	1,111.50	Crowns	4
MH-102	1,120.50	1,100.99	19.5	Standard	0.5	0	0	371,958	1,101.42	1,101.39	Crowns	4
MH-104	1,129.00	1,118.50	10.5	Standard	0.5	0	0	13,030,599	1,120.86	1,120.79	Crowns	4
MH-110	1,220.00	1,211.00	9.0	Standard	0.5	0	0	2,236,597	1,212.08	1,212.05	Crowns	4
MH-118	1,280.00	1,268.88	11.1	Standard	0.5	0	0	500,944	1,269.29	1,269.23	Crowns	4
MH-122	1,198.00	1,190.00	8.0	Standard	0.5	0	0	425,213	1,190.40	1,190.34	Crowns	4
MH-125	1,225.00	1,207.69	17.3	Standard	0.5	0	0	395,733	1,208.08	1,208.02	Crowns	4
MH-140	1,320.00	1,312.33	7.7	Standard	0.5	0	0	368,829	1,312.77	1,312.70	Crowns	4
MH-146	1,315.00	1,303.80	11.2	Standard	0.5	0	0	461,350	1,304.29	1,304.26	Crowns	4
MH-147	1,339.00	1,331.17	7.8	Standard	0.5	0	0	213,980	1,331.48	1,331.45	Crowns	4
MH-148	1,341.00	1,328.71	12.3	Standard	0.5	0	0	633,123	1,329.24	1,329.16	Crowns	4
MH-165	1,216.00	1,207.00	9.0	Standard	0.5	0	0	2,404,966	1,207.80	1,207.68	Crowns	4
MH-168	1,163.00	1,149.01	14.0	Standard	0.5	0	0	834,765	1,149.69	1,149.66	Crowns	4
MH-177	1,155.00	1,132.26	22.7	Standard	0.5	0	0	928,538	1,132.93	1,132.90	Crowns	4
MH-184	1,289.00	1,281.33	7.7	Standard	0.5	0	0	138,214	1,281.61	1,281.58	Crowns	4
MH-187	1,070.00	1,061.00	9.0	Standard	0.5	0	0	2,486,996	1,062.21	1,062.18	Crowns	4
MH-188	1,085.00	1,059.35	25.7	Standard	0.5	0	0	2,486,996	1,060.57	1,060.54	Crowns	4
MH-194	1,189.00	1,179.50	9.5	Standard	0.5	0	0	3,616,264	1,180.42	1,180.28	Crowns	4
MH-203	1,187.00	1,165.27	21.7	Standard	0.5	0	0	9,552,714	1,167.32	1,167.27	Crowns	4
MH-204	1,160.00	1,132.90	27.1	Standard	0.5	0	0	928,538	1,133.57	1,133.54	Crowns	4
MH-206	1,158.00	1,139.36	18.6	Standard	0.5	0	0	40,550	1,139.49	1,139.47	Crowns	4
MH-208	1,163.00	1,154.50	8.5	Standard	0.5	0	0	1,267,274	1,155.15	1,155.08	Crowns	4
MH-212	1,155.00	1,139.65	15.4	Standard	0.5	0	0	2,814,103	1,140.55	1,140.43	Crowns	4
MH-220	1,100.00	1,091.47	8.5	Standard	0.5	0	0	1,364,234	1,092.37	1,092.33	Crowns	4
MH-222	1,135.00	1,127.33	7.7	Standard	0.5	0	0	201,969	1,127.64	1,127.59	Crowns	4
MH-228	1,106.00	1,092.31	13.7	Standard	0.5	0	0	932,192	1,093.05	1,093.02	Crowns	4
MH-234	1,109.00	1,101.33	7.7	Standard	0.5	0	0	250,372	1,101.72	1,101.68	Crowns	4
MH-242	1,109.50	1,100.06	9.4	Standard	0.5	0	0	153,846	1,100.35	1,100.33	Crowns	4
MH-243	1,113.00	1,094.12	18.9	Standard	0.5	0	0	16,199,683	1,096.45	1,096.35	Crowns	4
MH-245	1,150.00	1,139.38	10.6	Standard	0.5	0	0	11,896,306	1,141.73	1,141.67	Crowns	4
MH-274	1,220.00	1,208.99	11.0	Standard	0.5	0	0	559,020	1,209.45	1,209.38	Crowns	4
MH-277	1,201.50	1,193.50	8.0	Standard	0.5	0	0	749,606	1,194.04	1,193.95	Crowns	4
MH-278	1,199.00	1,185.17	13.8	Standard	0.5	0	0	904,809	1,185.83	1,185.80	Crowns	4
MH-280	1,160.00	1,149.50	10.5	Standard	0.5	0	0	9,964,716	1,150.92	1,150.70	Crowns	4
MH-291	1,283.00	1,274.00	9.0	Standard	0.5	0	0	4,157,599	1,275.07	1,274.90	Crowns	4
MH-293	1,256.00	1,247.46	8.5	Standard	0.5	0	0	805,614	1,247.98	1,247.90	Crowns	4
MH-310	1,308.00	1,300.00	8.0	Standard	0.5	0	0	833,879	1,300.57	1,300.48	Crowns	4

Manhole Table Report - Peak Day												
Label	Ground Elevation (ft)	Sump Elevation (ft)	Structure Depth (ft)	Headloss Method	Headloss Coefficient	Sanitary Base Load (gpd)	Known Flow (gpd)	Total Flow (gpd)	HGL In (ft)	HGL Out (ft)	Pipe Matching	MH Size (ft)
MH-331	1,180.00	1,164.44	15.6	Standard	0.5	527,520	0	10,607,754	1,165.91	1,165.68	Crowns	4
MH-333	1,160.00	1,144.74	15.3	Standard	0.5	527,520	0	16,435,094	1,146.51	1,146.23	Crowns	4
MH-334	1,168.00	1,157.50	10.5	Standard	0.5	0	0	10,607,754	1,159.17	1,159.05	Crowns	4
MH-337	1,110.00	1,099.94	10.1	Standard	0.5	0	0	1,359,995	1,100.83	1,100.80	Crowns	4
MH-342	1,093.00	1,079.10	13.9	Standard	0.5	0	0	7,990,550	1,080.42	1,080.21	Crowns	4
MH-343	1,082.00	1,071.47	10.5	Standard	0.5	0	0	8,389,586	1,072.87	1,072.69	Crowns	4
MH-359	1,158.00	1,146.56	11.4	Standard	0.5	385,843	0	13,836,681	1,149.00	1,148.94	Crowns	4
MH-365	1,198.00	1,187.43	10.6	Standard	0.5	0	0	3,616,264	1,188.36	1,188.21	Crowns	4
MH-378	1,235.00	1,209.91	25.1	Standard	0.5	0	0	4,289,690	1,211.53	1,211.49	Crowns	4
MH-379	1,236.50	1,209.33	27.2	Standard	0.5	0	0	4,289,690	1,210.93	1,210.89	Crowns	4
MH-386	1,317.00	1,309.33	7.7	Standard	0.5	0	0	27,174	1,309.44	1,309.43	Crowns	4
MH-388	1,058.00	1,047.00	11.0	Standard	0.5	368,640	0	16,941,029	1,049.78	1,049.72	Crowns	4
MH-389	1,070.00	1,045.03	25.0	Standard	0.5	491,520	0	18,661,349	1,047.19	1,047.02	Crowns	4
MH-390	1,070.00	1,061.75	8.3	Standard	0.5	368,640	0	737,280	1,062.27	1,062.21	Crowns	4
MH-392	1,080.00	1,068.52	11.5	Standard	0.5	245,760	0	16,203,749	1,070.28	1,070.00	Crowns	4
MH-393	1,079.00	1,069.45	9.6	Standard	0.5	245,760	0	1,004,208	1,070.19	1,070.13	Crowns	4
MH-394	1,062.00	1,053.75	8.3	Standard	0.5	245,760	0	1,495,728	1,054.61	1,054.55	Crowns	4
MH-395	1,199.00	1,191.33	7.7	Standard	0.5	245,760	0	491,520	1,191.88	1,191.82	Crowns	4
MH-396	1,173.00	1,164.75	8.3	Standard	0.5	491,520	0	1,474,560	1,165.49	1,165.39	Crowns	4
MH-397	1,152.00	1,143.50	8.5	Standard	0.5	496,435	0	992,870	1,144.20	1,144.17	Crowns	4
MH-398	1,149.00	1,140.50	8.5	Standard	0.5	491,520	0	2,457,600	1,141.64	1,141.58	Crowns	4
MH-399	1,120.00	1,112.00	8.0	Standard	0.5	491,520	0	983,040	1,112.65	1,112.56	Crowns	4
MH-400	1,101.00	1,085.31	15.7	Standard	0.5	245,760	0	3,039,232	1,086.54	1,086.51	Crowns	4
MH-401	1,093.00	1,085.17	7.8	Standard	0.5	307,200	0	614,400	1,085.72	1,085.65	Crowns	4
MH-402	1,071.00	1,062.75	8.3	Standard	0.5	491,520	0	1,597,440	1,063.69	1,063.64	Crowns	4
MH-403	1,050.00	1,042.00	8.0	Standard	0.5	491,520	0	983,040	1,042.71	1,042.65	Crowns	4
MH-404	1,049.00	1,036.55	12.5	Standard	0.5	368,640	0	6,268,197	1,037.99	1,037.82	Crowns	4
MH-405	1,050.00	1,041.00	9.0	Standard	0.5	245,760	0	1,987,248	1,042.01	1,041.98	Crowns	4
MH-406	1,198.00	1,190.33	7.7	Standard	0.5	245,760	0	491,520	1,190.84	1,190.76	Crowns	4
MH-407	1,160.00	1,151.75	8.3	Standard	0.5	491,520	0	1,474,560	1,152.52	1,152.43	Crowns	4
MH-408	1,140.00	1,131.00	9.0	Standard	0.5	491,520	0	4,915,200	1,132.41	1,132.31	Crowns	4
MH-409	1,112.00	1,104.00	8.0	Standard	0.5	491,520	0	983,040	1,104.68	1,104.61	Crowns	4
MH-410	1,100.00	1,091.00	9.0	Standard	0.5	290,816	0	1,564,672	1,091.85	1,091.82	Crowns	4
MH-411	1,089.00	1,081.00	8.0	Standard	0.5	491,520	0	983,040	1,081.64	1,081.54	Crowns	4
MH-412	1,061.00	1,052.50	8.5	Standard	0.5	491,520	0	3,563,520	1,053.65	1,053.50	Crowns	4
MH-413	1,244.50	1,236.83	7.7	Standard	0.5	0	0	383,223	1,237.33	1,237.28	Crowns	4
MH-414	1,034.00	1,024.50	9.5	Standard	0.5	491,520	0	5,529,600	1,026.17	1,026.11	Crowns	4
MH-415	1,190.00	1,182.33	7.7	Standard	0.5	245,760	0	491,520	1,182.86	1,182.79	Crowns	4
MH-416	1,159.00	1,151.00	8.0	Standard	0.5	491,520	0	1,474,560	1,151.83	1,151.72	Crowns	4
MH-417	1,130.00	1,121.00	9.0	Standard	0.5	491,520	0	7,372,800	1,122.55	1,122.35	Crowns	4
MH-418	1,110.00	1,100.00	10.0	Standard	0.5	420,608	0	8,214,016	1,101.80	1,101.73	Crowns	4
MH-420	1,082.00	1,074.00	8.0	Standard	0.5	570,573	0	1,141,146	1,074.75	1,074.68	Crowns	4
MH-421	1,062.00	1,053.75	8.3	Standard	0.5	491,520	0	2,124,186	1,054.65	1,054.52	Crowns	4
MH-422	1,030.00	1,020.00	10.0	Standard	0.5	491,520	0	14,780,826	1,021.84	1,021.54	Crowns	4
MH-423	1,030.00	1,020.00	10.0	Standard	0.5	184,320	122,880	6,759,717	1,021.89	1,021.85	Crowns	4
MH-424	1,325.00	1,315.41	9.6	Standard	0.5	0	0	743,899	1,315.91	1,315.83	Crowns	4
MH-425	1,300.00	1,291.00	9.0	Standard	0.5	0	0	1,660,702	1,291.89	1,291.86	Crowns	4
MH-426	1,030.00	1,017.36	12.6	Standard	0.5	245,760	0	7,251,237	1,018.66	1,018.50	Crowns	4
MH-427	1,012.00	1,002.00	10.0	Standard	0.5	245,760	0	7,742,757	1,004.08	1,004.04	Crowns	4
MH-428	1,010.00	999.39	10.6	Standard	0.5	122,880	0	7,988,517	1,001.44	1,001.39	Crowns	4
MH-429	1,080.00	1,071.00	9.0	Standard	0.5	491,520	0	5,406,720	1,072.27	1,072.09	Crowns	4
MH-430	1,058.00	1,049.00	9.0	Standard	0.5	245,760	0	5,898,240	1,050.33	1,050.15	Crowns	4
MH-431	1,033.00	1,023.00	10.0	Standard	0.5	122,880	0	6,144,000	1,024.71	1,024.67	Crowns	4

Manhole Table Report - Peak Day												
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MH-433	1,097.00	1,089.17	7.8	Standard	0.5	245,760	0	737,280	1,089.84	1,089.78	Crowns	4
MH-434	1,117.00	1,109.33	7.7	Standard	0.5	122,880	0	245,760	1,109.70	1,109.67	Crowns	4
MH-435	1,107.00	1,098.50	8.5	Standard	0.5	245,760	0	3,686,400	1,099.64	1,099.46	Crowns	4
MH-436	1,121.00	1,112.50	8.5	Standard	0.5	368,640	0	3,194,880	1,113.69	1,113.59	Crowns	4
MH-437	1,140.00	1,131.50	8.5	Standard	0.5	368,640	0	2,457,600	1,132.45	1,132.34	Crowns	4
MH-438	1,162.00	1,153.75	8.3	Standard	0.5	368,640	0	1,720,320	1,154.57	1,154.46	Crowns	4
MH-439	1,181.00	1,173.00	8.0	Standard	0.5	491,520	0	983,040	1,173.69	1,173.63	Crowns	4
MH-440	1,334.00	1,326.33	7.7	Standard	0.5	0	0	303,345	1,326.72	1,326.65	Crowns	4
MH-441	1,130.00	1,122.17	7.8	Standard	0.5	245,760	0	737,280	1,122.76	1,122.68	Crowns	4
MH-442	1,157.00	1,149.33	7.7	Standard	0.5	122,880	0	245,760	1,149.69	1,149.65	Crowns	4
MH-443	1,130.00	1,120.50	9.5	Standard	0.5	491,520	0	9,830,400	1,122.08	1,121.82	Crowns	4
MH-444	1,358.00	1,350.33	7.7	Standard	0.5	0	0	277,097	1,350.70	1,350.64	Crowns	4
MH-445	1,150.00	1,141.00	9.0	Standard	0.5	491,520	0	5,652,480	1,142.31	1,142.14	Crowns	4
MH-446	1,170.00	1,161.00	9.0	Standard	0.5	368,640	0	4,669,440	1,162.18	1,162.02	Crowns	4
MH-447	1,196.00	1,187.75	8.3	Standard	0.5	491,520	0	2,211,840	1,188.68	1,188.55	Crowns	4
MH-448	1,218.00	1,210.00	8.0	Standard	0.5	491,520	0	1,228,800	1,210.78	1,210.70	Crowns	4
MH-449	1,240.00	1,232.33	7.7	Standard	0.5	122,880	0	245,760	1,232.70	1,232.66	Crowns	4
MH-450	1,190.00	1,181.75	8.3	Standard	0.5	245,760	0	1,720,320	1,182.53	1,182.40	Crowns	4
MH-451	1,219.00	1,211.00	8.0	Standard	0.5	245,760	0	1,228,800	1,211.73	1,211.62	Crowns	4
MH-452	1,240.00	1,223.93	16.1	Standard	0.5	245,760	0	737,280	1,224.56	1,224.51	Crowns	4
MH-453	1,250.00	1,242.33	7.7	Standard	0.5	122,880	0	245,760	1,242.71	1,242.68	Crowns	4
MH-454	1,160.00	1,151.50	8.5	Standard	0.5	491,520	0	3,194,880	1,152.53	1,152.36	Crowns	4
MH-455	1,293.00	1,285.00	8.0	Standard	0.5	0	0	623,702	1,285.52	1,285.46	Crowns	4
MH-456	1,180.00	1,172.00	8.0	Standard	0.5	368,640	0	983,040	1,172.68	1,172.60	Crowns	4
MH-457	1,202.00	1,194.33	7.7	Standard	0.5	122,880	0	245,760	1,194.70	1,194.66	Crowns	4
MH-458	1,178.00	1,170.00	8.0	Standard	0.5	245,760	0	1,228,800	1,170.72	1,170.61	Crowns	4
MH-459	1,198.00	1,190.17	7.8	Standard	0.5	245,760	0	737,280	1,190.81	1,190.74	Crowns	4
MH-460	1,241.00	1,227.61	13.4	Standard	0.5	0	0	3,752,846	1,229.00	1,228.96	Crowns	4
MH-461	1,221.00	1,213.33	7.7	Standard	0.5	122,880	0	245,760	1,213.70	1,213.66	Crowns	4
MH-462	1,080.00	1,068.75	11.3	Standard	0.5	0	0	15,690,273	1,071.03	1,070.93	Crowns	4
MH-463	1,050.00	1,038.50	11.5	Standard	0.5	390,144	0	19,441,637	1,040.91	1,040.81	Crowns	4
MH-464	1,170.00	1,161.75	8.3	Standard	0.5	385,843	0	1,543,373	1,162.50	1,162.40	Crowns	4
MH-465	1,009.00	1,001.33	7.7	Standard	0.5	61,440	0	122,880	1,001.58	1,001.54	Crowns	4
MH-466	1,176.00	1,168.00	8.0	Standard	0.5	385,843	0	771,686	1,168.68	1,168.64	Crowns	4
MH-467	1,107.00	1,095.22	11.8	Standard	0.5	245,760	0	18,535,936	1,097.31	1,096.95	Crowns	4
MH-468	1,020.00	996.93	23.1	Standard	0.5	122,880	0	23,015,103	999.59	999.47	Crowns	4
MH-477	1,283.00	1,275.17	7.8	Standard	0.5	0	0	500,944	1,275.75	1,275.72	Crowns	4
MH-478	1,281.00	1,272.20	8.8	Standard	0.5	0	0	500,944	1,272.67	1,272.64	Crowns	4
MH-482	1,255.00	1,247.33	7.7	Standard	0.5	0	0	138,740	1,247.59	1,247.55	Crowns	4
MH-485	1,176.00	1,167.75	8.3	Standard	0.5	0	0	1,492,666	1,168.48	1,168.36	Crowns	4
MH-486	1,159.00	1,150.00	9.0	Standard	0.5	0	0	2,457,241	1,151.20	1,151.17	Crowns	4
MH-487	1,168.00	1,159.75	8.3	Standard	0.5	0	0	1,960,214	1,160.59	1,160.45	Crowns	4
MH-O1	1,312.00	1,304.33	7.7	Standard	0.5	30,720	0	430,269	1,304.82	1,304.76	Crowns	4
MH-O2	1,298.00	1,289.29	8.7	Standard	0.5	61,440	0	1,580,374	1,290.03	1,289.91	Crowns	4
MH-O3D	1,114.50	1,106.25	8.3	Standard	0.5	280,489	0	560,978	1,106.76	1,106.73	Crowns	4
MH-O4A	1,165.00	1,151.28	13.7	Standard	0.5	81,920	0	11,615,018	1,153.50	1,153.44	Crowns	4
MH-O4B	1,163.00	1,155.33	7.7	Standard	0.5	40,960	0	81,920	1,155.52	1,155.50	Crowns	4
MH-O5B	1,090.00	1,082.00	8.0	Standard	0.5	1,053,771	0	2,107,543	1,082.97	1,082.77	Crowns	4
MH-O6	1,110.00	1,097.92	12.1	Standard	0.5	130,376	0	1,620,747	1,098.64	1,098.52	Crowns	4
MH-O7	1,100.00	1,081.13	18.9	Standard	0.5	348,766	0	7,837,870	1,083.23	1,083.18	Crowns	4
MH-O8	1,084.50	1,076.50	8.0	Standard	0.5	256,344	0	512,688	1,077.04	1,077.00	Crowns	4
MH-O9	1,095.00	1,086.00	9.0	Standard	0.5	59,818	5,260,596	5,874,514	1,087.51	1,087.39	Crowns	4
MH-V01.01A	1,113.00	1,097.53	15.5	Standard	0.5	56,663	0	485,284	1,097.99	1,097.96	Crowns	4

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MH-V01.01B	1,127.00	1,107.35	19.7	Standard	0.5	56,663	0	371,958	1,107.77	1,107.74	Crowns	4
MH-V01.01C	1,132.00	1,124.33	7.7	Standard	0.5	28,332	0	258,632	1,124.68	1,124.63	Crowns	4
MH-V01.03	1,104.50	1,096.67	7.8	Standard	0.5	26,081	0	432,042	1,097.14	1,097.10	Crowns	4
MH-V01.05	1,113.00	1,105.33	7.7	Standard	0.5	12,396	0	379,880	1,105.78	1,105.71	Crowns	4
MH-V01.07+08B+09+12B	1,107.00	1,097.64	9.4	Standard	0.5	98,268	0	446,908	1,098.06	1,098.00	Crowns	4
MH-V01.08A+11A+12A+14+16	1,117.50	1,109.83	7.7	Standard	0.5	125,186	0	250,372	1,110.18	1,110.12	Crowns	4
MH-V01.11B	1,140.00	1,132.33	7.7	Standard	0.5	100,984	0	201,969	1,132.66	1,132.62	Crowns	4
MH-V01.18	1,125.00	1,117.33	7.7	Standard	0.5	22,111	0	355,089	1,117.75	1,117.68	Crowns	4
MH-V01.19	1,132.00	1,124.33	7.7	Standard	0.5	37,809	0	310,867	1,124.72	1,124.66	Crowns	4
MH-V01.21	1,110.00	1,090.35	19.7	Standard	0.5	54,459	0	1,473,152	1,091.16	1,091.13	Crowns	4
MH-V01.23A	1,106.00	1,098.17	7.8	Standard	0.5	47,234	0	179,388	1,098.44	1,098.39	Crowns	4
MH-V01.23B	1,105.00	1,093.89	11.1	Standard	0.5	47,234	0	16,294,151	1,095.64	1,095.37	Crowns	4
MH-V01.25	1,110.00	1,102.33	7.7	Standard	0.5	42,460	0	84,920	1,102.53	1,102.50	Crowns	4
MH-V01.26	1,115.00	1,103.84	11.2	Standard	0.5	50,458	0	153,846	1,104.12	1,104.09	Crowns	4
MH-V01.27	1,125.00	1,117.33	7.7	Standard	0.5	26,465	0	52,931	1,117.49	1,117.46	Crowns	4
MH-V01.29	1,141.00	1,117.68	23.3	Standard	0.5	24,968	0	16,045,837	1,120.24	1,120.17	Crowns	4
MH-V02.01	1,140.50	1,131.50	9.0	Standard	0.5	75,600	0	2,965,303	1,132.39	1,132.25	Crowns	4
MH-V02.02	1,135.00	1,127.33	7.7	Standard	0.5	36,432	0	235,250	1,127.70	1,127.67	Crowns	4
MH-V02.04	1,163.00	1,155.33	7.7	Standard	0.5	81,193	0	162,386	1,155.61	1,155.56	Crowns	4
MH-V02.06	1,149.50	1,140.50	9.0	Standard	0.5	53,372	0	2,814,103	1,141.82	1,141.79	Crowns	4
MH-V02.07	1,163.00	1,151.13	11.9	Standard	0.5	24,256	0	2,707,359	1,152.07	1,151.91	Crowns	4
MH-V02.08+09B	1,144.50	1,128.97	15.5	Standard	0.5	67,776	0	13,030,599	1,130.60	1,130.34	Crowns	4
MH-V02.09A	1,149.50	1,138.47	11.0	Standard	0.5	35,101	0	11,966,508	1,140.02	1,139.78	Crowns	4
MH-V02.10	1,159.50	1,147.26	12.2	Standard	0.5	26,611	0	887,987	1,147.78	1,147.70	Crowns	4
MH-V02.12	1,160.50	1,152.83	7.7	Standard	0.5	20,275	0	40,550	1,152.97	1,152.95	Crowns	4
MH-V03.01	1,161.00	1,152.50	8.5	Standard	0.5	44,572	0	1,356,418	1,153.39	1,153.36	Crowns	4
MH-V03.02+07+08B	1,172.50	1,164.25	8.3	Standard	0.5	167,636	0	1,302,428	1,164.92	1,164.82	Crowns	4
MH-V03.04	1,183.00	1,174.50	8.5	Standard	0.5	31,910	0	1,267,274	1,175.12	1,175.03	Crowns	4
MH-V03.06	1,194.00	1,182.59	11.4	Standard	0.5	30,036	0	1,203,453	1,183.20	1,183.11	Crowns	4
MH-V03.08A	1,196.00	1,174.59	21.4	Standard	0.5	87,293	0	722,718	1,175.21	1,175.18	Crowns	4
MH-V03.09+07.01A+03+04+05+06A	1,201.00	1,175.66	25.3	Standard	0.5	244,936	0	548,132	1,176.16	1,176.13	Crowns	4
MH-V03.10	1,184.00	1,171.66	12.3	Standard	0.5	40,911	0	804,540	1,172.32	1,172.29	Crowns	4
MH-V03.11	1,179.00	1,169.67	9.3	Standard	0.5	81,308	0	967,157	1,170.29	1,170.22	Crowns	4
MH-V04.01	1,170.00	1,162.00	8.0	Standard	0.5	89,476	0	752,845	1,162.54	1,162.45	Crowns	4
MH-V04.02	1,182.00	1,170.46	11.5	Standard	0.5	74,926	0	440,607	1,170.87	1,170.81	Crowns	4
MH-V04.03A	1,178.00	1,170.33	7.7	Standard	0.5	16,661	0	33,322	1,170.47	1,170.45	Crowns	4
MH-V04.03B	1,180.00	1,166.10	13.9	Standard	0.5	49,982	0	573,893	1,166.65	1,166.62	Crowns	4
MH-V04.04+06.01+03+04	1,181.00	1,173.00	8.0	Standard	0.5	145,377	0	290,755	1,173.36	1,173.33	Crowns	4
MH-V04.07+08	1,180.00	1,172.17	7.8	Standard	0.5	104,690	0	209,381	1,172.48	1,172.45	Crowns	4
MH-V04.10+24	1,181.00	1,166.83	14.2	Standard	0.5	124,685	0	458,750	1,167.29	1,167.23	Crowns	4
MH-V04.11+12	1,191.00	1,178.89	12.1	Standard	0.5	163,175	0	10,698,984	1,180.46	1,180.23	Crowns	4
MH-V04.13+05.01+03+04+05+06+07+19	1,186.00	1,169.99	16.0	Standard	0.5	422,104	0	9,526,788	1,172.04	1,171.98	Crowns	4
MH-V04.15	1,180.00	1,169.18	10.8	Standard	0.5	50,573	0	9,627,933	1,170.57	1,170.35	Crowns	4
MH-V04.16+17	1,170.00	1,159.50	10.5	Standard	0.5	46,264	0	9,720,462	1,160.97	1,160.80	Crowns	4
MH-V04.18+19	1,166.00	1,155.50	10.5	Standard	0.5	122,127	0	9,964,716	1,156.92	1,156.70	Crowns	4
MH-V04.20+21	1,163.00	1,152.50	10.5	Standard	0.5	63,216	0	10,891,322	1,154.83	1,154.78	Crowns	4
MH-V04.22+23B	1,165.50	1,151.80	13.7	Standard	0.5	50,553	0	10,992,428	1,154.11	1,154.06	Crowns	4
MH-V04.23A	1,178.00	1,168.00	10.0	Standard	0.5	32,953	0	10,764,890	1,169.55	1,169.30	Crowns	4
MH-V04.25	1,167.00	1,151.08	15.9	Standard	0.5	22,203	0	11,659,424	1,153.17	1,153.09	Crowns	4
MH-V04.26	1,160.50	1,150.00	10.5	Standard	0.5	54,317	0	11,768,057	1,151.55	1,151.30	Crowns	4
MH-V04.28+30	1,151.00	1,140.50	10.5	Standard	0.5	64,124	0	11,896,306	1,142.95	1,142.89	Crowns	4
MH-V05.09+14+15A	1,197.00	1,186.78	10.2	Standard	0.5	132,941	0	7,986,987	1,188.10	1,187.89	Crowns	4
MH-V05.10+11+13	1,210.00	1,188.08	21.9	Standard	0.5	351,012	0	7,721,105	1,190.13	1,190.08	Crowns	4

Manhole Table Report - Peak Day												
Label	Ground Elevation (ft)	Sump Elevation (ft)	Structure Depth (ft)	Headloss Method	Headloss Coefficient	Sanitary Base Load (gpd)	Known Flow (gpd)	Total Flow (gpd)	HGL In (ft)	HGL Out (ft)	Pipe Matching	MH Size (ft)
MH-V05.15B+16	1,182.00	1,172.00	10.0	Standard	0.5	347,796	0	8,682,580	1,174.23	1,174.18	Crowns	4
MH-V06.06+07B+13+14B+18+19	1,193.50	1,185.50	8.0	Standard	0.5	300,598	0	601,197	1,186.10	1,186.07	Crowns	4
MH-V06.07A+08+14A+15	1,208.00	1,198.00	10.0	Standard	0.5	136,396	0	9,771,438	1,199.47	1,199.24	Crowns	4
MH-V06.09+10+11	1,224.00	1,210.61	13.4	Standard	0.5	116,702	0	9,498,646	1,212.06	1,211.83	Crowns	4
MH-V07.01B	1,200.00	1,192.33	7.7	Standard	0.5	29,130	0	58,260	1,192.49	1,192.47	Crowns	4
MH-V07.02+11A+15	1,200.00	1,192.33	7.7	Standard	0.5	77,601	0	155,203	1,192.62	1,192.58	Crowns	4
MH-V07.06B+09A+10+11B+12	1,220.00	1,212.00	8.0	Standard	0.5	146,425	0	292,850	1,212.33	1,212.29	Crowns	4
MH-V07.08+09B	1,221.00	1,213.17	7.8	Standard	0.5	133,085	0	266,170	1,213.53	1,213.50	Crowns	4
MH-V07.13+18A	1,210.50	1,202.50	8.0	Standard	0.5	53,061	0	665,142	1,203.01	1,202.93	Crowns	4
MH-V07.14	1,204.50	1,196.50	8.0	Standard	0.5	42,232	0	749,606	1,197.17	1,197.13	Crowns	4
MH-V07.17+18B	1,195.00	1,183.91	11.1	Standard	0.5	45,452	0	995,712	1,184.46	1,184.37	Crowns	4
MH-V07.18C	1,202.00	1,191.38	10.6	Standard	0.5	60,849	0	147,668	1,191.65	1,191.62	Crowns	4
MH-V07.19	1,203.00	1,195.33	7.7	Standard	0.5	12,986	0	25,971	1,195.45	1,195.44	Crowns	4
MH-V08.01A	1,200.50	1,192.83	7.7	Standard	0.5	36,384	0	72,768	1,193.01	1,192.99	Crowns	4
MH-V08.01B+09.02A	1,192.00	1,169.92	22.1	Standard	0.5	61,152	0	9,219,270	1,171.35	1,171.19	Crowns	4
MH-V08.04+18	1,198.00	1,188.50	9.5	Standard	0.5	145,981	0	3,616,264	1,189.92	1,189.89	Crowns	4
MH-V08.06+07+09+10+12+15+17	1,204.00	1,195.00	9.0	Standard	0.5	459,668	0	3,324,301	1,195.95	1,195.80	Crowns	4
MH-V08.13A	1,243.00	1,231.17	11.8	Standard	0.5	34,323	0	2,167,951	1,232.01	1,231.87	Crowns	4
MH-V08.13B	1,240.00	1,232.33	7.7	Standard	0.5	34,323	0	68,646	1,232.51	1,232.48	Crowns	4
MH-V08.14+16	1,223.00	1,210.64	12.4	Standard	0.5	84,184	0	2,404,966	1,211.56	1,211.50	Crowns	4
MH-V09.01	1,179.00	1,171.17	7.8	Standard	0.5	56,034	0	260,676	1,171.53	1,171.50	Crowns	4
MH-V09.02B	1,199.00	1,191.33	7.7	Standard	0.5	74,304	0	148,608	1,191.59	1,191.55	Crowns	4
MH-V09.03A+04C	1,205.00	1,179.75	25.3	Standard	0.5	50,626	0	196,801	1,180.05	1,180.02	Crowns	4
MH-V09.03B	1,195.00	1,187.33	7.7	Standard	0.5	47,774	0	95,549	1,187.56	1,187.54	Crowns	4
MH-V09.04A	1,225.00	1,208.36	16.6	Standard	0.5	34,701	0	5,283,900	1,209.49	1,209.31	Crowns	4
MH-V09.04B+05B	1,228.00	1,208.75	19.3	Standard	0.5	107,351	0	4,504,392	1,210.29	1,210.25	Crowns	4
MH-V09.05A	1,220.00	1,210.50	9.5	Standard	0.5	90,000	0	4,289,690	1,212.12	1,212.09	Crowns	4
MH-V09.07	1,232.00	1,223.75	8.3	Standard	0.5	23,002	0	710,106	1,224.24	1,224.16	Crowns	4
MH-V09.08	1,240.00	1,228.70	11.3	Standard	0.5	42,225	0	664,103	1,229.21	1,229.16	Crowns	4
MH-V09.10A+12B+13B	1,226.00	1,216.50	9.5	Standard	0.5	134,353	0	4,109,690	1,217.49	1,217.34	Crowns	4
MH-V09.10B	1,235.00	1,225.50	9.5	Standard	0.5	12,934	0	3,840,984	1,226.45	1,226.31	Crowns	4
MH-V09.11	1,241.00	1,227.25	13.8	Standard	0.5	31,135	0	3,815,115	1,228.37	1,228.30	Crowns	4
MH-V09.12A	1,242.00	1,232.56	9.4	Standard	0.5	69,291	0	579,654	1,233.08	1,233.05	Crowns	4
MH-V09.13A	1,243.00	1,235.00	8.0	Standard	0.5	28,925	0	441,072	1,235.48	1,235.45	Crowns	4
MH-V10.02A	1,261.00	1,253.33	7.7	Standard	0.5	27,779	0	321,715	1,253.75	1,253.70	Crowns	4
MH-V10.02B	1,244.50	1,236.00	8.5	Standard	0.5	83,338	0	1,052,029	1,236.73	1,236.70	Crowns	4
MH-V10.03A	1,255.00	1,247.33	7.7	Standard	0.5	63,238	0	448,192	1,247.81	1,247.73	Crowns	4
MH-V10.03B	1,245.50	1,234.00	11.5	Standard	0.5	63,238	0	1,178,506	1,234.80	1,234.77	Crowns	4
MH-V10.04+05+09+11+12A	1,243.00	1,234.75	8.3	Standard	0.5	236,303	0	472,606	1,235.20	1,235.17	Crowns	4
MH-V10.07	1,270.50	1,262.83	7.7	Standard	0.5	25,551	0	266,157	1,263.20	1,263.16	Crowns	4
MH-V10.10	1,295.00	1,286.44	8.6	Standard	0.5	79,588	0	215,054	1,286.75	1,286.70	Crowns	4
MH-V10.12	1,300.00	1,292.33	7.7	Standard	0.5	14,352	0	55,878	1,292.49	1,292.47	Crowns	4
MH-V10.14AS	1,340.00	1,332.33	7.7	Standard	0.5	13,587	0	27,174	1,332.44	1,332.43	Crowns	4
MH-V11.01	1,235.00	1,227.33	7.7	Standard	0.5	40,026	0	80,051	1,227.52	1,227.49	Crowns	4
MH-V11.04	1,239.00	1,216.76	22.2	Standard	0.5	88,563	0	1,564,553	1,217.61	1,217.58	Crowns	4
MH-V11.05	1,230.50	1,215.32	15.2	Standard	0.5	161,986	0	1,888,525	1,216.30	1,216.27	Crowns	4
MH-V11.06+07B	1,227.00	1,213.13	13.9	Standard	0.5	249,527	0	6,984,842	1,215.09	1,215.05	Crowns	4
MH-V11.07A	1,250.00	1,241.75	8.3	Standard	0.5	77,069	0	959,751	1,242.32	1,242.23	Crowns	4
MH-V11.08A+09+10B+14	1,226.00	1,211.28	14.7	Standard	0.5	168,048	0	8,340,766	1,213.34	1,213.29	Crowns	4
MH-V11.08B	1,228.00	1,211.81	16.2	Standard	0.5	30,038	0	8,004,670	1,213.93	1,213.88	Crowns	4
MH-V11.10A	1,240.00	1,232.17	7.8	Standard	0.5	21,926	0	924,476	1,232.82	1,232.70	Crowns	4
MH-V11.11	1,250.00	1,242.17	7.8	Standard	0.5	80,790	0	880,623	1,242.81	1,242.71	Crowns	4
MH-V11.13	1,262.00	1,249.68	12.3	Standard	0.5	30,734	0	719,044	1,250.28	1,250.20	Crowns	4

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MH-V11.15+16+14.03B+04+07+08B+16A+18	1,265.00	1,249.38	15.6	Standard	0.5	233,706	0	805,614	1,250.05	1,250.02	Crowns	4
MH-V11.17+20	1,265.00	1,256.00	9.0	Standard	0.5	219,832	0	4,597,264	1,257.13	1,256.95	Crowns	4
MH-V11.18+19	1,244.50	1,235.91	8.6	Standard	0.5	276,673	0	1,307,376	1,236.58	1,236.47	Crowns	4
MH-V11.21	1,300.00	1,277.85	22.2	Standard	0.5	133,298	0	4,157,599	1,279.16	1,279.08	Crowns	4
MH-V11.22+23+24+26+V16.24+26+27	1,245.00	1,236.75	8.3	Standard	0.5	377,015	0	754,030	1,237.38	1,237.35	Crowns	4
MH-V12.01	1,224.00	1,216.33	7.7	Standard	0.5	17,006	0	34,012	1,216.46	1,216.44	Crowns	4
MH-V12.02+04+05	1,220.50	1,198.15	22.4	Standard	0.5	114,776	0	263,563	1,198.51	1,198.48	Crowns	4
MH-V12.07+08+09+15+16B+17+18	1,217.00	1,192.23	24.8	Standard	0.5	332,645	0	928,853	1,192.90	1,192.87	Crowns	4
MH-V12.11+14+16A	1,224.00	1,211.45	12.6	Standard	0.5	121,809	0	6,090,228	1,212.59	1,212.42	Crowns	4
MH-V12.12+13	1,241.00	1,212.83	28.2	Standard	0.5	89,568	0	5,846,611	1,214.55	1,214.51	Crowns	4
MH-V13.01	1,260.00	1,252.33	7.7	Standard	0.5	95,869	0	191,739	1,252.66	1,252.62	Crowns	4
MH-V13.02+04B+10B	1,254.00	1,246.33	7.7	Standard	0.5	121,073	0	433,885	1,246.83	1,246.77	Crowns	4
MH-V13.04A+05+06+09B+10A	1,243.00	1,234.75	8.3	Standard	0.5	247,899	0	929,683	1,235.31	1,235.22	Crowns	4
MH-V13.07+08	1,280.00	1,254.47	25.5	Standard	0.5	106,158	0	3,211,016	1,255.57	1,255.49	Crowns	4
MH-V13.09A+11+12+23B	1,259.00	1,250.00	9.0	Standard	0.5	198,310	0	3,607,636	1,250.99	1,250.83	Crowns	4
MH-V13.13+14+16+17+18+23A	1,233.00	1,218.25	14.8	Standard	0.5	280,239	0	1,130,157	1,219.03	1,219.00	Crowns	4
MH-V13.19	1,243.00	1,235.17	7.8	Standard	0.5	109,325	0	569,679	1,235.68	1,235.61	Crowns	4
MH-V13.20+21+22	1,261.00	1,253.33	7.7	Standard	0.5	175,515	0	351,030	1,253.75	1,253.69	Crowns	4
MH-V13.24	1,280.00	1,255.84	24.2	Standard	0.5	47,674	0	1,418,327	1,256.63	1,256.60	Crowns	4
MH-V13.25+27+28+32	1,269.00	1,261.17	7.8	Standard	0.5	111,732	0	223,464	1,261.49	1,261.46	Crowns	4
MH-V13.26	1,290.00	1,282.00	8.0	Standard	0.5	61,263	0	1,099,515	1,282.67	1,282.55	Crowns	4
MH-V13.29+31	1,299.50	1,291.50	8.0	Standard	0.5	71,555	0	976,989	1,292.16	1,292.09	Crowns	4
MH-V14.01+10	1,282.00	1,273.70	8.3	Standard	0.5	80,221	0	440,303	1,274.17	1,274.09	Crowns	4
MH-V14.03A+12+14+08A	1,262.00	1,254.17	7.8	Standard	0.5	108,636	0	217,272	1,254.49	1,254.46	Crowns	4
MH-V14.05+16B+19	1,263.00	1,255.00	8.0	Standard	0.5	169,101	0	338,202	1,255.40	1,255.37	Crowns	4
MH-V14.11+13	1,289.00	1,280.04	9.0	Standard	0.5	70,823	0	279,860	1,280.45	1,280.42	Crowns	4
MH-V15.01A	1,255.00	1,247.33	7.7	Standard	0.5	27,390	0	54,780	1,247.49	1,247.47	Crowns	4
MH-V15.01B	1,259.50	1,251.83	7.7	Standard	0.5	27,390	0	328,443	1,252.23	1,252.17	Crowns	4
MH-V15.02	1,275.00	1,267.33	7.7	Standard	0.5	65,350	0	273,663	1,267.70	1,267.64	Crowns	4
MH-V15.04+05+06+08+09+11+12+13+16+18	1,248.00	1,240.17	7.8	Standard	0.5	442,677	0	885,354	1,240.83	1,240.73	Crowns	4
MH-V15.14	1,287.50	1,279.83	7.7	Standard	0.5	71,482	0	142,963	1,280.09	1,280.05	Crowns	4
MH-V16.01	1,314.00	1,288.89	25.1	Standard	0.5	62,448	0	1,968,600	1,289.61	1,289.50	Crowns	4
MH-V16.03+04	1,327.00	1,319.33	7.7	Standard	0.5	91,501	0	183,002	1,319.62	1,319.58	Crowns	4
MH-V16.05	1,326.50	1,318.25	8.3	Standard	0.5	55,388	0	743,899	1,318.88	1,318.84	Crowns	4
MH-V16.08	1,345.00	1,337.17	7.8	Standard	0.5	26,986	0	419,142	1,337.59	1,337.52	Crowns	4
MH-V16.09+10	1,350.00	1,342.33	7.7	Standard	0.5	106,990	0	213,980	1,342.65	1,342.61	Crowns	4
MH-V16.11+12+14+15	1,349.50	1,341.83	7.7	Standard	0.5	142,880	0	285,761	1,342.20	1,342.14	Crowns	4
MH-V16.17+31	1,315.00	1,307.00	8.0	Standard	0.5	228,710	0	457,421	1,307.49	1,307.46	Crowns	4
MH-V16.18+19	1,334.00	1,326.33	7.7	Standard	0.5	120,799	0	527,358	1,326.85	1,326.76	Crowns	4
MH-V16.21+22+17.22+23+24B	1,334.00	1,322.28	11.7	Standard	0.5	240,931	0	1,950,843	1,323.12	1,322.98	Crowns	4
MH-V17.01+02	1,310.00	1,300.92	9.1	Standard	0.5	101,217	0	3,599,406	1,302.02	1,301.83	Crowns	4
MH-V17.03	1,303.00	1,288.89	14.1	Standard	0.5	86,515	0	291,597	1,289.25	1,289.22	Crowns	4
MH-V17.06	1,303.00	1,295.33	7.7	Standard	0.5	59,283	0	118,566	1,295.57	1,295.54	Crowns	4
MH-V17.07	1,324.00	1,314.27	9.7	Standard	0.5	32,675	0	238,484	1,314.61	1,314.58	Crowns	4
MH-V17.09+13+14+15+16+17+18+19	1,300.00	1,291.75	8.3	Standard	0.5	513,613	0	1,027,225	1,292.55	1,292.52	Crowns	4
MH-V17.11	1,295.00	1,287.33	7.7	Standard	0.5	69,107	0	138,214	1,287.59	1,287.56	Crowns	4
MH-V17.20A	1,325.00	1,317.33	7.7	Standard	0.5	86,567	0	173,134	1,317.64	1,317.61	Crowns	4
MH-V17.20B+24A	1,320.00	1,307.21	12.8	Standard	0.5	111,433	0	461,350	1,307.71	1,307.67	Crowns	4
MH-V18.01+02	1,335.00	1,325.03	10.0	Standard	0.5	100,070	0	819,617	1,325.70	1,325.67	Crowns	4
MH-V18.03	1,341.00	1,329.80	11.2	Standard	0.5	118,863	0	619,476	1,330.41	1,330.38	Crowns	4
MH-V18.04+05	1,341.00	1,333.00	8.0	Standard	0.5	42,705	0	381,750	1,333.43	1,333.40	Crowns	4
MH-V18.06+07B	1,355.00	1,347.33	7.7	Standard	0.5	148,170	0	296,339	1,347.71	1,347.65	Crowns	4
MH-V18.07A	1,349.00	1,341.33	7.7	Standard	0.5	36,368	0	72,736	1,341.51	1,341.49	Crowns	4

Manhole Table Report - Peak Day												
Label	Ground Elevation (ft)	Sump Elevation (ft)	Structure Depth (ft)	Headloss Method	Headloss Coefficient	Sanitary Base Load (gpd)	Known Flow (gpd)	Total Flow (gpd)	HGL In (ft)	HGL Out (ft)	Pipe Matching	MH Size (ft)
MH-V18.08A+09	1,352.00	1,340.40	11.6	Standard	0.5	86,128	0	279,161	1,340.76	1,340.70	Crowns	4
MH-V18.08B	1,358.00	1,350.33	7.7	Standard	0.5	53,453	0	106,906	1,350.56	1,350.52	Crowns	4
MH-V18.10	1,340.00	1,332.33	7.7	Standard	0.5	65,350	0	203,436	1,332.65	1,332.60	Crowns	4
MH-V18.12	1,331.00	1,323.33	7.7	Standard	0.5	91,987	0	463,136	1,323.82	1,323.75	Crowns	4
MH-V18.14	1,320.00	1,312.17	7.8	Standard	0.5	59,514	0	582,163	1,312.68	1,312.61	Crowns	4
MH-V18.15+16A	1,310.00	1,302.00	8.0	Standard	0.5	125,858	0	833,879	1,302.65	1,302.60	Crowns	4
MH-V18.16B	1,330.00	1,322.33	7.7	Standard	0.5	82,696	0	368,829	1,322.76	1,322.70	Crowns	4
MH-V19.01	1,341.00	1,333.17	7.8	Standard	0.5	62,722	0	555,603	1,333.68	1,333.62	Crowns	4
MH-V19.02	1,354.00	1,346.33	7.7	Standard	0.5	76,531	0	430,159	1,346.82	1,346.76	Crowns	4
MH-V19.04	1,360.00	1,352.33	7.7	Standard	0.5	46,880	0	93,760	1,352.54	1,352.51	Crowns	4
MH-V19.06A+07	1,375.00	1,367.33	7.7	Standard	0.5	138,548	0	277,097	1,367.70	1,367.64	Crowns	4
MH-V19.06B+10	1,365.00	1,357.33	7.7	Standard	0.5	80,319	0	160,637	1,357.62	1,357.59	Crowns	4
MH-V19.08+09	1,361.00	1,350.49	10.5	Standard	0.5	102,267	0	365,171	1,350.91	1,350.84	Crowns	4
MH-V19.11A+12A+20.16+23+24	1,303.00	1,295.00	8.0	Standard	0.5	205,573	0	916,803	1,295.63	1,295.55	Crowns	4
MH-V19.11B	1,360.00	1,351.52	8.5	Standard	0.5	34,232	0	168,444	1,351.80	1,351.76	Crowns	4
MH-V19.12B+14	1,363.00	1,355.33	7.7	Standard	0.5	49,990	0	99,981	1,355.55	1,355.52	Crowns	4
MH-V19.13	1,345.00	1,337.00	8.0	Standard	0.5	102,321	0	373,085	1,337.43	1,337.40	Crowns	4
MH-V19.15+17	1,360.00	1,352.33	7.7	Standard	0.5	63,433	0	126,867	1,352.58	1,352.55	Crowns	4
MH-V19.19	1,360.00	1,352.33	7.7	Standard	0.5	24,762	0	49,523	1,352.48	1,352.46	Crowns	4
MH-V19.20	1,345.00	1,335.10	9.9	Standard	0.5	18,906	0	214,201	1,335.43	1,335.39	Crowns	4
MH-V19.21	1,338.00	1,330.33	7.7	Standard	0.5	44,572	0	303,345	1,330.75	1,330.71	Crowns	4
MH-V20.01	1,244.00	1,236.17	7.8	Standard	0.5	130,372	0	260,744	1,236.53	1,236.50	Crowns	4
MH-V20.02+03	1,260.00	1,251.00	9.0	Standard	0.5	117,757	0	3,492,102	1,251.97	1,251.82	Crowns	4
MH-V20.05	1,283.00	1,271.17	11.8	Standard	0.5	48,507	0	2,294,834	1,271.95	1,271.83	Crowns	4
MH-V20.06	1,276.00	1,266.82	9.2	Standard	0.5	50,296	0	3,256,588	1,267.76	1,267.61	Crowns	4
MH-V20.08	1,280.00	1,271.75	8.3	Standard	0.5	44,915	0	861,161	1,272.45	1,272.42	Crowns	4
MH-V20.09+10	1,284.00	1,276.17	7.8	Standard	0.5	86,674	0	229,221	1,276.50	1,276.47	Crowns	4
MH-V20.11A+12	1,291.00	1,283.00	8.0	Standard	0.5	73,814	0	771,331	1,283.55	1,283.46	Crowns	4
MH-V20.11B	1,294.00	1,286.33	7.7	Standard	0.5	27,936	0	55,872	1,286.49	1,286.47	Crowns	4
MH-V20.17+18B	1,313.00	1,305.00	8.0	Standard	0.5	75,514	0	623,702	1,305.49	1,305.41	Crowns	4
MH-V20.18A	1,330.00	1,318.45	11.6	Standard	0.5	25,344	0	472,675	1,318.89	1,318.84	Crowns	4
MH-V20.19+20	1,327.50	1,319.50	8.0	Standard	0.5	59,321	0	421,987	1,319.96	1,319.93	Crowns	4
MH-V20.21+25	1,344.50	1,333.70	10.8	Standard	0.5	66,286	0	505,657	1,334.14	1,334.07	Crowns	4
MH-V21.01	1,239.00	1,230.75	8.3	Standard	0.5	15,386	0	1,253,613	1,231.44	1,231.36	Crowns	4
MH-V21.03A	1,247.00	1,238.75	8.3	Standard	0.5	13,776	0	1,084,102	1,239.36	1,239.26	Crowns	4
MH-V21.03B	1,261.00	1,253.00	8.0	Standard	0.5	13,776	0	138,740	1,253.26	1,253.22	Crowns	4
MH-V21.05+06B	1,265.00	1,257.33	7.7	Standard	0.5	55,594	0	111,188	1,257.56	1,257.53	Crowns	4
MH-V21.06A	1,259.00	1,248.16	10.8	Standard	0.5	22,919	0	1,056,550	1,248.76	1,248.67	Crowns	4
MH-V21.07+09	1,260.00	1,252.33	7.7	Standard	0.5	71,453	0	142,907	1,252.61	1,252.59	Crowns	4
MH-V21.08	1,275.00	1,267.33	7.7	Standard	0.5	47,754	0	366,861	1,267.76	1,267.69	Crowns	4
MH-V21.10	1,287.00	1,279.33	7.7	Standard	0.5	13,281	0	271,352	1,279.70	1,279.65	Crowns	4
MH-V21.11	1,299.00	1,291.33	7.7	Standard	0.5	54,144	0	500,944	1,291.86	1,291.79	Crowns	4
MH-V21.13	1,318.00	1,310.33	7.7	Standard	0.5	88,211	0	244,790	1,310.67	1,310.62	Crowns	4
MH-V21.14A+16+17	1,324.50	1,316.83	7.7	Standard	0.5	159,476	0	318,951	1,317.24	1,317.18	Crowns	4
MH-V21.14B	1,309.00	1,301.33	7.7	Standard	0.5	36,852	0	392,656	1,301.79	1,301.73	Crowns	4
MH-V21.18	1,336.00	1,328.33	7.7	Standard	0.5	34,184	0	68,367	1,328.51	1,328.48	Crowns	4
MH-V22.01	1,235.00	1,212.45	22.6	Standard	0.5	30,198	0	342,628	1,212.85	1,212.82	Crowns	4
MH-V22.03	1,223.00	1,207.88	15.1	Standard	0.5	25,421	0	393,469	1,208.26	1,208.21	Crowns	4
MH-V22.04	1,240.50	1,225.44	15.1	Standard	0.5	52,485	0	358,608	1,225.82	1,225.76	Crowns	4
MH-V22.05	1,202.00	1,194.00	8.0	Standard	0.5	15,872	0	425,213	1,194.47	1,194.43	Crowns	4
MH-V22.06A	1,186.00	1,178.00	8.0	Standard	0.5	35,907	0	467,548	1,178.42	1,178.35	Crowns	4
MH-V22.06B	1,185.00	1,177.00	8.0	Standard	0.5	35,907	0	497,028	1,177.43	1,177.37	Crowns	4
MH-V22.08A	1,215.00	1,206.75	8.3	Standard	0.5	43,277	0	1,406,112	1,207.45	1,207.34	Crowns	4

Manhole Table Report - Peak Day												
Label	Ground Elevation (ft)	Sump Elevation (ft)	Structure Depth (ft)	Headloss Method	Headloss Coefficient	Sanitary Base Load (gpd)	Known Flow (gpd)	Total Flow (gpd)	HGL In (ft)	HGL Out (ft)	Pipe Matching	MH Size (ft)
MH-V22.08B	1,194.00	1,185.75	8.3	Standard	0.5	43,277	0	1,492,666	1,186.48	1,186.36	Crowns	4
MH-V22.09	1,220.00	1,212.00	8.0	Standard	0.5	18,563	0	395,733	1,212.44	1,212.41	Crowns	4
MH-V22.10	1,241.00	1,228.89	12.1	Standard	0.5	47,174	0	253,638	1,229.24	1,229.21	Crowns	4
MH-V22.12	1,228.00	1,219.75	8.3	Standard	0.5	32,973	0	1,319,559	1,220.43	1,220.32	Crowns	4
MH-V22.13	1,242.00	1,231.63	10.4	Standard	0.5	32,675	0	159,289	1,231.89	1,231.86	Crowns	4
MH-V22.14+15	1,247.00	1,239.33	7.7	Standard	0.5	46,970	0	93,939	1,239.54	1,239.51	Crowns	4
MH-V22.16+17	1,225.00	1,217.17	7.8	Standard	0.5	141,116	0	282,232	1,217.55	1,217.52	Crowns	4
MH-V23.01+04	1,094.50	1,086.83	7.7	Standard	0.5	199,518	0	399,036	1,087.35	1,087.31	Crowns	4
MH-V23.02	1,111.00	1,103.33	7.7	Standard	0.5	76,340	0	152,680	1,103.60	1,103.56	Crowns	4
MH-V23.03	1,090.50	1,082.83	7.7	Standard	0.5	10,978	0	21,956	1,082.93	1,082.92	Crowns	4
MH-V24.01+03A+16A+17A+18	1,080.00	1,070.00	10.0	Standard	0.5	483,164	0	7,300,687	1,071.75	1,071.70	Crowns	4
MH-V24.03B+04	1,108.00	1,100.17	7.8	Standard	0.5	87,875	0	175,750	1,100.45	1,100.41	Crowns	4
MH-V24.05+06+07A+O5A	1,085.00	1,076.50	8.5	Standard	0.5	910,216	0	1,820,432	1,077.41	1,077.35	Crowns	4
MH-V24.07B+08	1,080.00	1,071.75	8.3	Standard	0.5	75,880	0	2,259,303	1,072.78	1,072.68	Crowns	4
MH-V24.09	1,075.00	1,066.50	8.5	Standard	0.5	113,846	0	2,486,996	1,067.46	1,067.35	Crowns	4
MH-V24.10	1,085.00	1,071.07	13.9	Standard	0.5	18,612	0	2,123,610	1,071.82	1,071.71	Crowns	4
MH-V24.11+12B	1,080.00	1,058.59	21.4	Standard	0.5	133,727	0	4,878,060	1,059.83	1,059.69	Crowns	4
MH-V24.12A	1,085.00	1,077.33	7.7	Standard	0.5	191,268	0	382,536	1,077.77	1,077.69	Crowns	4
MH-V24.13+14	1,082.00	1,073.00	9.0	Standard	0.5	132,977	0	2,086,386	1,074.05	1,074.02	Crowns	4
MH-V24.15	1,101.00	1,091.91	9.1	Standard	0.5	118,778	0	494,282	1,092.48	1,092.45	Crowns	4
MH-V24.16B	1,108.00	1,097.74	10.3	Standard	0.5	40,488	0	256,726	1,098.09	1,098.06	Crowns	4
MH-V24.17B	1,092.00	1,083.00	9.0	Standard	0.5	229,922	0	6,334,358	1,084.47	1,084.32	Crowns	4
MH-V25.01+03+O3C	1,129.00	1,121.17	7.8	Standard	0.5	421,575	0	843,151	1,121.78	1,121.68	Crowns	4
MH-V25.04	1,110.00	1,101.50	8.5	Standard	0.5	258,422	0	1,359,995	1,102.39	1,102.36	Crowns	4
MH-V25.05+19+20+21+22+O3B	1,100.00	1,083.80	16.2	Standard	0.5	1,523,871	0	5,519,591	1,085.46	1,085.43	Crowns	4
MH-V25.06+07+08+09	1,079.00	1,070.50	8.5	Standard	0.5	719,492	0	1,438,984	1,071.44	1,071.40	Crowns	4
MH-V25.10+12+13+14	1,076.00	1,065.22	10.8	Standard	0.5	1,052,343	0	3,543,669	1,066.33	1,066.15	Crowns	4
MH-V25.15+16+17+18+O3A	1,097.50	1,088.50	9.0	Standard	0.5	1,235,924	0	2,471,849	1,089.70	1,089.67	Crowns	4

Ultimate Buildout
Average Day
Pipe Table Report

Pipe Table Report - Average Day													
Label	Size (inch)	Length (ft)	Manning's n	Slope (ft/ft)	Velocity (ft/s)	d/D (%)	Downstream Cover (ft)	Upstream Cover (ft)	Upstream Node	Upstream Invert El (ft)	Downstream Node	Downstream Invert El (ft)	Total Flow (gpd)
P-004	24 inch	2,907.00	0.013	0.0086	4.97	30.4	10.9	7.0	MH-6	1,239.00	MH-V11.06+07E	1,214.13	2,298,632
P-005	24 inch	2,972.00	0.013	0.0057	4.3	36	7.0	7.0	MH-V11.17+2C	1,256.00	MH-6	1,239.00	2,298,632
P-018	18 inch	3,443.00	0.013	0.0011	1.66	28.5	25.2	13.3	MH-V13.13+14+16+17+18+23/	1,218.25	MH-V12.12+13	1,214.33	565,076
P-019	15 inch	1,778.00	0.013	0.0018	1.65	24.7	13.3	7.0	MH-52	1,221.75	MH-V13.13+14+16+17+18+23/	1,218.50	284,840
P-021	24 inch	2,730.00	0.013	0.0133	5.41	25.6	25.2	7.0	MH-V13.09A+11+12+23E	1,250.00	MH-V12.12+13	1,213.83	1,803,816
P-022	24 inch	2,486.00	0.013	0.0018	2.56	34.5	7.0	23.5	MH-V13.07+0E	1,254.47	MH-V13.09A+11+12+23E	1,250.00	1,605,508
P-023	24 inch	1,368.00	0.013	0.001	1.65	31.9	23.5	22.2	MH-V13.24	1,255.84	MH-V13.07+0E	1,254.47	709,164
P-024	10 inch	1,208.00	0.013	0.0034	1.64	23.1	22.2	7.0	MH-V13.25+27+28+32	1,261.17	MH-V13.24	1,257.00	111,732
P-026	8 inch	1,985.00	0.013	0.0055	2.38	44.9	7.0	7.0	MH-O1	1,304.33	MH-40	1,293.33	215,134
P-027	8 inch	1,272.00	0.013	0.0063	2.39	43.1	7.0	7.0	MH-140	1,312.33	MH-O1	1,304.33	184,414
P-028	8 inch	1,514.00	0.013	0.0066	2.44	40.6	7.0	7.0	MH-V18.16B	1,322.33	MH-140	1,312.33	184,414
P-029	8 inch	1,704.00	0.013	0.0059	1.98	35.9	7.0	7.0	MH-V18.10	1,332.33	MH-V18.16B	1,322.33	101,718
P-034	8 inch	1,210.00	0.013	0.005	1.67	26.3	7.0	7.0	MH-V17.11	1,287.33	MH-184	1,281.33	69,107
P-037	18 inch	5,382.00	0.013	0.001	1.68	44.9	9.3	7.0	MH-V25.06+07+08+09	1,070.50	MH-V25.10+12+13+14	1,065.22	719,492
P-045	15 inch	1,260.00	0.013	0.0018	1.65	25.4	9.3	7.0	MH-O3D	1,106.25	MH-92	1,103.92	280,489
P-049	12 inch	1,328.00	0.013	0.0024	1.65	24.7	14.2	18.5	MH-102	1,100.99	MH-V01.01A	1,097.78	185,979
P-050	12 inch	2,623.00	0.013	0.0024	1.65	28.5	18.5	18.7	MH-V01.01B	1,107.35	MH-102	1,100.99	185,979
P-051	10 inch	1,183.00	0.013	0.0031	1.65	25.3	18.7	7.0	MH-100	1,111.17	MH-V01.01B	1,107.51	129,316
P-052	48 inch	1,014.00	0.013	0.0028	4.48	28.8	7.0	12.1	MH-14	1,116.88	MH-15	1,114.00	8,022,919
P-053	48 inch	1,602.00	0.013	0.0005	2.39	36.8	12.1	19.3	MH-V01.29	1,117.68	MH-14	1,116.88	8,022,919
P-054	42 inch	638.00	0.013	0.0005	2.27	39.7	19.3	7.0	MH-104	1,118.50	MH-V01.29	1,118.18	6,515,299
P-055	42 inch	2,645.00	0.013	0.004	4.81	36.3	7.0	12.0	MH-V02.08+09E	1,128.97	MH-104	1,118.50	6,515,299
P-056	42 inch	1,025.00	0.013	0.0093	6.35	29.3	12.0	7.5	MH-V02.09A	1,138.47	MH-V02.08+09E	1,128.97	5,983,254
P-059	15 inch	1,074.00	0.013	0.0014	1.67	30.2	10.7	12.7	MH-168	1,149.01	MH-V02.10	1,147.51	417,382
P-062	36 inch	2,397.00	0.013	0.0063	5.45	32.3	7.0	7.0	MH-V04.23A	1,168.00	MH-V04.20+21	1,153.00	5,382,445
P-063	36 inch	2,953.00	0.013	0.0037	4.5	33.2	7.0	9.1	MH-V04.11+12	1,178.89	MH-V04.23A	1,168.00	5,349,492
P-065	36 inch	3,020.00	0.013	0.0005	2.05	38.7	12.5	7.0	MH-V05.15B+16	1,172.00	MH-V04.13+05.01+03+04+05+06+07+1	1,170.49	4,341,290
P-067	12 inch	2,637.00	0.013	0.0017	1.68	33.3	9.1	7.0	MH-V06.06+07B+13+14B+18+19	1,185.50	MH-V04.11+12	1,180.89	300,598
P-068	36 inch	2,745.00	0.013	0.007	5.5	32.4	9.1	7.0	MH-V06.07A+08+14A+15	1,198.00	MH-V04.11+12	1,178.89	4,885,719
P-071	12 inch	1,901.00	0.013	0.0022	1.79	36.4	7.0	12.9	MH-V04.03B	1,166.10	MH-V04.01	1,162.00	286,947
P-072	12 inch	553.00	0.013	0.0079	2.63	31	12.9	10.5	MH-V04.02	1,170.46	MH-V04.03B	1,166.10	220,303
P-075	18 inch	1,131.00	0.013	0.0054	2.95	27.1	7.0	9.9	MH-V03.06	1,182.59	MH-69	1,176.50	601,727
P-076	8 inch	1,756.00	0.013	0.0045	1.64	24.2	9.9	10.0	MH-V07.18C	1,191.38	MH-V03.06	1,183.43	73,834
P-078	8 inch	1,130.00	0.013	0.0035	0.9	20	10.0	7.0	MH-V07.19	1,195.33	MH-V07.18C	1,191.38	12,986
P-079	12 inch	868.00	0.013	0.0029	1.64	25.7	10.5	7.0	MH-V04.04+06.01+03+04	1,173.00	MH-V04.02	1,170.46	145,377
P-087	24 inch	2,426.00	0.013	0.0007	1.68	39.8	23.7	7.0	MH-187	1,061.00	MH-188	1,059.35	1,243,498
P-091	12 inch	1,800.00	0.013	0.0072	2.53	26.9	7.0	7.0	MH-122	1,190.00	MH-V22.06B	1,177.00	212,607
P-092	12 inch	1,786.00	0.013	0.0022	1.66	28.9	7.0	7.0	MH-V22.05	1,194.00	MH-122	1,190.00	212,607
P-093	12 inch	1,675.00	0.013	0.0083	2.59	27.4	7.0	14.1	MH-V22.03	1,207.88	MH-V22.05	1,194.00	196,735
P-094	12 inch	1,774.00	0.013	0.0026	1.65	26.3	14.1	21.6	MH-V22.01	1,212.45	MH-V22.03	1,207.88	171,314
P-095	12 inch	714.00	0.013	0.0416	4.58	26	7.0	16.3	MH-125	1,207.69	MH-V22.06A	1,178.00	197,867
P-097	8 inch	1,166.00	0.013	0.0065	1.63	18.4	9.5	7.0	MH-V22.14+15	1,239.33	MH-V22.13	1,231.80	46,970
P-100	15 inch	1,257.00	0.013	0.015	3.34	25.2	12.7	9.9	MH-118	1,268.88	MH-65	1,250.08	250,472
P-108	8 inch	1,898.00	0.013	0.013	1.94	15	18.2	7.0	MH-V08.01A	1,192.83	MH-203	1,168.10	36,384
P-109	42 inch	1,866.00	0.013	0.0025	3.7	32.9	18.2	18.6	MH-V08.01B+09.02A	1,169.92	MH-203	1,165.27	4,609,635
P-111	15 inch	1,645.00	0.013	0.003	2.06	26.5	7.0	10.1	MH-V09.08	1,228.70	MH-V09.07	1,223.75	332,051
P-116	24 inch	2,115.00	0.013	0.0049	3.19	23.2	7.0	23.1	MH-V16.01	1,288.89	MH-23	1,278.50	984,300
P-117	24 inch	1,695.00	0.013	0.0008	1.66	28.5	23.1	17.7	MH-21	1,290.29	MH-V16.01	1,288.89	921,852
P-119	12 inch	3,016.00	0.013	0.0072	2.65	28.1	7.0	9.8	MH-V20.21+25	1,333.70	MH-20	1,312.00	252,829
P-122	12 inch	1,366.00	0.013	0.0024	1.65	28.9	9.8	7.0	MH-V19.13	1,337.00	MH-V20.21+25	1,333.70	186,543
P-125	8 inch	972.00	0.013	0.0285	3.36	21.8	17.7	7.0	MH-V16.03+04	1,319.33	MH-21	1,291.62	91,501
P-128	10 inch	1,563.00	0.013	0.0064	2.76	36.4	7.0	11.5	MH-148	1,328.71	MH-V16.05	1,318.67	316,561
P-129	10 inch	689.00	0.013	0.0036	1.64	33.8	11.5	7.0	MH-147	1,331.17	MH-148	1,328.71	106,990
P-138	10 inch	1,884.00	0.013	0.0038	1.64	21.4	18.6	24.4	MH-V09.03A+04C	1,179.75	MH-V08.01B+09.02A	1,172.58	98,401
P-150	24 inch	493.00	0.013	0.0007	1.67	34	10.4	7.0	MH-110	1,211.00	MH-V08.14+16	1,210.64	1,118,298
P-151	18 inch	2,131.00	0.013	0.0092	4.23	30	7.0	10.3	MH-V08.13A	1,231.17	MH-110	1,211.50	1,083,975
P-152	18 inch	403.00	0.013	0.0031	2.24	31	10.3	9.1	MH-70	1,232.41	MH-V08.13A	1,231.17	460,399
P-153	15 inch	991.00	0.013	0.0021	1.64	21.2	9.1	7.0	MH-V10.04+05+09+11+12/	1,234.75	MH-70	1,232.66	236,303
P-160	18 inch	1,631.00	0.013	0.0138	5.65	37.2	20.2	7.6	MH-V17.01+02	1,300.92	MH-V11.21	1,278.35	1,799,703
P-161	15 inch	2,713.00	0.013	0.0078	3.92	39.6	7.6	10.5	MH-V16.21+22+17.22+23+24E	1,322.28	MH-V17.01+02	1,301.17	975,421
P-162	15 inch	1,943.00	0.013	0.0014	1.66	40.5	10.5	8.7	MH-V18.01+02	1,325.03	MH-V16.21+22+17.22+23+24E	1,322.28	409,809
P-163	12 inch	2,633.00	0.013	0.0017	1.68	33.9	8.7	10.2	MH-V18.03	1,329.80	MH-V18.01+02	1,325.28	309,738
P-164	8 inch	3,644.00	0.013	0.0081	1.77	17.9	10.5	7.0	MH-V19.04	1,352.33	MH-V16.21+22+17.22+23+24E	1,322.87	46,880

Pipe Table Report - Average Day													
Label	Size (inch)	Length (ft)	Manning's n	Slope (ft/ft)	Velocity (ft/s)	d/D (%)	Downstream Cover (ft)	Upstream Cover (ft)	Upstream Node	Upstream Invert El (ft)	Downstream Node	Downstream Invert El (ft)	Total Flow (gpd)
P-165	10 inch	2,174.00	0.013	0.0048	2.4	35.4	10.5	7.0	MH-V19.01	1,333.17	MH-V16.21+22+17.22+23+24E	1,322.70	277,802
P-166	8 inch	2,402.00	0.013	0.0054	2.36	41.3	7.0	7.0	MH-V19.02	1,346.33	MH-V19.01	1,333.33	215,080
P-167	15 inch	2,172.00	0.013	0.0014	1.74	39.4	7.6	13.6	MH-75	1,304.19	MH-V17.01+02	1,301.17	492,390
P-168	12 inch	1,149.00	0.013	0.0021	1.66	28.6	7.6	10.2	MH-146	1,303.80	MH-V17.01+02	1,301.42	230,675
P-170	8 inch	720	0.013	0.004	1.65	26.7	8.9	7.0	MH-V17.20A	1,317.33	MH-V17.07	1,314.44	86,567
P-413	12 inch	2,231.00	0.013	0.0043	2.64	42.5	7.0	7.0	MH-V13.29+31	1,291.50	MH-V13.26	1,282.00	488,494
P-414	12 inch	3,125.00	0.013	0.0081	3.44	36.9	22.2	7.0	MH-V13.26	1,282.00	MH-V13.24	1,256.84	549,758
P-416	30 inch	579.00	0.013	0.0148	5.48	19	18.6	7.0	MH-194	1,179.50	MH-V08.01B+09.02A	1,170.92	1,808,132
P-418	8 inch	1,115.00	0.013	0.0035	0.97	11.9	12.9	7.0	MH-V04.03A	1,170.33	MH-V04.03B	1,166.43	16,661
P-419	24 inch	5,425.00	0.013	0.0007	1.68	31.6	13.2	7.0	MH-V25.15+16+17+18+O3A	1,088.50	MH-V25.05+19+20+21+22+O3E	1,084.80	1,235,924
P-420	36 inch	5,343.00	0.013	0.0005	1.82	41	15.9	13.2	MH-V25.05+19+20+21+22+O3E	1,083.80	MH-O7	1,081.13	2,759,796
P-427	8 inch	525.00	0.013	0.0076	1.68	17.2	7.0	7.0	MH-V01.25	1,102.33	MH-V01.23A	1,098.33	42,460
P-429	8 inch	1,408.00	0.013	0.0142	1.96	14.4	7.0	7.0	MH-V08.13B	1,232.33	MH-110	1,212.33	34,323
P-435	18 inch	1,605.00	0.013	0.0095	3.93	25.8	15.9	10.6	MH-O6	1,097.92	MH-O7	1,082.63	810,373
P-438	18 inch	989.00	0.013	0.0013	1.65	25.2	12.0	21.2	MH-177	1,132.26	MH-V02.08+09E	1,130.97	464,269
P-439	18 inch	713.00	0.013	0.0201	4.29	25.7	25.6	10.7	MH-V02.10	1,147.26	MH-204	1,132.90	443,994
P-440	18 inch	492.00	0.013	0.0013	1.65	30.2	21.2	25.6	MH-204	1,132.90	MH-177	1,132.26	464,269
P-441	8 inch	1,037.00	0.013	0.013	1.62	13	18.0	7.0	MH-V02.12	1,152.83	MH-206	1,139.36	20,275
P-442	8 inch	433.00	0.013	0.013	1.62	11.2	25.6	18.0	MH-206	1,139.36	MH-204	1,133.74	20,275
P-443	12 inch	1,505.00	0.013	0.0085	3.15	30.1	12.7	7.0	MH-V04.01	1,162.00	MH-168	1,149.26	376,422
P-444	18 inch	682.00	0.013	0.0029	2.37	28.2	7.0	7.0	MH-69	1,176.50	MH-V03.04	1,174.50	601,727
P-445	18 inch	3,355.00	0.013	0.006	3.1	27.4	7.0	7.0	MH-V03.04	1,174.50	MH-208	1,154.50	633,637
P-446	18 inch	574.00	0.013	0.0035	2.56	33.4	7.0	7.0	MH-208	1,154.50	MH-V03.01	1,152.50	633,637
P-447	18 inch	1,353.00	0.013	0.001	1.68	40.8	10.4	7.0	MH-V03.01	1,152.50	MH-V02.07	1,151.13	678,209
P-448	18 inch	1,505.00	0.013	0.0067	4.02	35	7.0	10.4	MH-V02.07	1,151.13	MH-V02.06	1,141.00	1,353,679
P-449	24 inch	1,330.00	0.013	0.0006	1.69	36.9	13.4	7.0	MH-V02.06	1,140.50	MH-212	1,139.65	1,407,051
P-450	24 inch	2,284.00	0.013	0.0036	3.16	29.1	7.0	13.4	MH-212	1,139.65	MH-V02.01	1,131.50	1,407,051
P-451	24 inch	1,089.00	0.013	0.0109	4.76	23.7	19.3	7.0	MH-V02.01	1,131.50	MH-V01.29	1,119.68	1,482,651
P-452	8 inch	3,531.00	0.013	0.0079	2.06	30.9	7.0	7.0	MH-V02.04	1,155.33	MH-V02.02	1,127.33	81,193
P-453	8 inch	821	0.013	0.0037	1.74	37.1	7.0	7.0	MH-V02.02	1,127.33	MH-V01.19	1,124.33	117,625
P-454	8 inch	987.00	0.013	0.0071	2.39	38.5	7.0	7.0	MH-V01.19	1,124.33	MH-V01.18	1,117.33	155,434
P-455	8 inch	1,567.00	0.013	0.0077	2.54	40.6	7.0	7.0	MH-V01.18	1,117.33	MH-V01.05	1,105.33	177,544
P-456	8 inch	1,365.00	0.013	0.0062	2.41	37.9	7.0	7.0	MH-V01.05	1,105.33	MH-V01.03	1,096.83	189,940
P-457	10 inch	1,420.00	0.013	0.0032	1.93	32.8	7.0	7.0	MH-V01.03	1,096.67	MH-220	1,092.14	216,021
P-458	18 inch	617	0.013	0.001	1.68	32.1	17.7	7.0	MH-220	1,091.47	MH-V01.21	1,090.85	682,117
P-466	15 inch	2,529.00	0.013	0.0021	1.64	32	12.4	14.2	MH-V01.01A	1,097.53	MH-228	1,092.31	242,642
P-467	15 inch	453.00	0.013	0.0013	1.67	33.1	7.0	12.4	MH-228	1,092.31	MH-220	1,091.72	466,096
P-468	12 inch	1,052.00	0.013	0.0048	2.22	25.1	12.4	8.4	MH-V01.07+08B+09+12E	1,097.64	MH-228	1,092.56	223,454
P-469	8 inch	1,132.00	0.013	0.0044	1.78	30.9	7.0	7.0	MH-V01.11B	1,132.33	MH-222	1,127.33	100,984
P-473	8 inch	959.00	0.013	0.0035	1.74	32.9	8.4	7.0	MH-234	1,101.33	MH-V01.07+08B+09+12E	1,097.98	125,186
P-476	8 inch	893	0.013	0.0095	2.49	34.7	7.0	7.0	MH-V01.08A+11A+12A+14+1(	1,109.83	MH-234	1,101.33	125,186
P-481	8 inch	1,301.00	0.013	0.0104	1.63	21.4	10.5	7.0	MH-V01.27	1,117.33	MH-V01.26	1,103.84	26,465
P-482	8 inch	860.00	0.013	0.0044	1.65	28.2	8.8	10.5	MH-V01.26	1,103.84	MH-242	1,100.06	76,923
P-483	48 inch	1,565.00	0.013	0.0127	7.62	33.3	14.9	7.0	MH-15	1,114.00	MH-243	1,094.12	8,022,919
P-484	48 inch	477.00	0.013	0.0005	2.4	34.9	7.1	14.9	MH-243	1,094.12	MH-V01.23B	1,093.89	8,099,841
P-485	8 inch	744.00	0.013	0.0035	1.52	25.6	14.9	8.8	MH-242	1,100.06	MH-243	1,097.46	76,923
P-486	15 inch	1,243.00	0.013	0.0123	3.22	18.6	18.2	9.3	MH-92	1,103.92	355th WRF	1,088.60	280,489
P-487	42 inch	2,243.00	0.013	0.0005	2.22	45	7.1	7.0	MH-V04.28+3C	1,140.50	MH-245	1,139.38	5,948,153
P-488	42 inch	1,826.00	0.013	0.0005	2.22	37.7	7.5	7.1	MH-245	1,139.38	MH-V02.09A	1,138.47	5,948,153
P-489	42 inch	1,365.00	0.013	0.0008	2.62	34.7	7.0	12.4	MH-V04.25	1,151.08	MH-V04.26	1,150.00	5,829,712
P-490	42 inch	941.00	0.013	0.0101	6.52	35.9	7.0	7.0	MH-V04.26	1,150.00	MH-V04.28+3C	1,140.50	5,884,029
P-491	8 inch	450.00	0.013	0.0067	2.06	31.8	7.0	7.0	MH-222	1,127.33	MH-V01.01C	1,124.33	100,984
P-492	8 inch	975.00	0.013	0.0133	2.84	28.2	7.0	7.0	MH-V01.01C	1,124.33	MH-100	1,111.33	129,316
P-500	15 inch	1,565.00	0.013	0.0082	3.57	31.7	10.4	7.0	MH-V03.02+07+08E	1,164.25	MH-V02.07	1,151.38	651,214
P-503	15 inch	566.00	0.013	0.0019	1.65	30	20.2	24.1	MH-V03.09+07.01A+03+04+05+06/	1,175.66	MH-V03.08A	1,174.59	274,066
P-504	15 inch	1,909.00	0.013	0.0015	1.66	34	11.1	20.2	MH-V03.08A	1,174.59	MH-V03.10	1,171.66	361,359
P-505	15 inch	1,393.00	0.013	0.0014	1.66	34.3	8.1	11.1	MH-V03.10	1,171.66	MH-V03.11	1,169.67	402,270
P-506	15 inch	1,708.00	0.013	0.0032	2.33	34	7.0	8.1	MH-V03.11	1,169.67	MH-V03.02+07+08E	1,164.25	483,578
P-511	18 inch	221.00	0.013	0.0059	2.89	25	9.9	9.6	MH-V07.17+18E	1,183.91	MH-V03.06	1,182.59	497,856
P-517	12 inch	600.00	0.013	0.005	1.99	26.2	10.0	7.0	MH-V07.06B+09A+10+11B+1:	1,212.00	MH-274	1,208.99	146,425
P-518	12 inch	911.00	0.013	0.0071	2.72	31.2	7.0	10.0	MH-274	1,208.99	MH-V07.13+18A	1,202.50	279,510
P-519	12 inch	524.00	0.013	0.0115	3.39	37.1	7.0	7.0	MH-V07.13+18A	1,202.50	MH-V07.14	1,196.50	332,571

Pipe Table Report - Average Day													
Label	Size (inch)	Length (ft)	Manning's n	Slope (ft/ft)	Velocity (ft/s)	d/D (%)	Downstream Cover (ft)	Upstream Cover (ft)	Upstream Node	Upstream Invert El (ft)	Downstream Node	Downstream Invert El (ft)	Total Flow (gpd)
P-520	12 inch	1,490.00	0.013	0.002	1.87	39.5	7.0	7.0	MH-V07.14	1,196.50	MH-277	1,193.50	374,803
P-521	8 inch	1,451.00	0.013	0.0044	1.65	25	12.3	7.0	MH-V07.02+11A+15	1,192.33	MH-278	1,186.01	77,601
P-522	18 inch	949.00	0.013	0.0013	1.65	27.3	9.6	12.3	MH-278	1,185.17	MH-V07.17+18E	1,183.91	452,404
P-523	12 inch	651.00	0.013	0.012	3.57	28.8	12.3	7.0	MH-277	1,193.50	MH-278	1,185.67	374,803
P-524	42 inch	1,056.00	0.013	0.0005	2.18	43	10.2	10.2	MH-V04.22+23E	1,151.80	MH-O4A	1,151.28	5,496,214
P-525	42 inch	1,394.00	0.013	0.0005	2.17	43.2	10.2	7.0	MH-V04.20+21	1,152.50	MH-V04.22+23E	1,151.80	5,445,661
P-527	42 inch	1,445.00	0.013	0.0077	5.63	22	11.1	7.0	MH-280	1,149.50	Camelback WRF	1,138.41	4,982,358
P-528	10 inch	1,474.00	0.013	0.0036	1.64	30.7	13.3	7.0	MH-V04.07+08	1,172.17	MH-V04.10+24	1,166.83	104,690
P-529	10 inch	2,678.00	0.013	0.0048	2.27	32	10.2	13.3	MH-V04.10+24	1,166.83	MH-O4A	1,153.94	229,375
P-532	8 inch	2,819.00	0.013	0.0064	2.38	36.2	7.0	7.0	MH-V13.20+21+22	1,253.33	MH-V13.19	1,235.33	175,515
P-533	10 inch	2,389.00	0.013	0.0054	2.52	35.2	7.0	7.0	MH-V13.19	1,235.17	MH-52	1,222.17	284,840
P-534	36 inch	2,761.00	0.013	0.0005	1.85	32.2	9.6	25.2	MH-V12.12+13	1,212.83	MH-V12.11+14+16A	1,211.45	2,923,305
P-535	36 inch	2,518.00	0.013	0.0093	5.31	33.8	18.9	9.6	MH-V12.11+14+16A	1,211.45	MH-V05.10+11+13	1,188.08	3,045,114
P-536	36 inch	2,605.00	0.013	0.0005	1.99	37.3	7.2	18.9	MH-V05.10+11+13	1,188.08	MH-V05.09+14+15A	1,186.78	3,860,553
P-537	36 inch	2,618.00	0.013	0.0056	4.82	37.1	7.0	7.2	MH-V05.09+14+15A	1,186.78	MH-V05.15B+16	1,172.00	3,993,494
P-538	42 inch	1,625.00	0.013	0.0005	2.09	33.5	7.3	12.5	MH-V04.13+05.01+03+04+05+06+07+1	1,169.99	MH-V04.15	1,169.18	4,763,394
P-540	36 inch	2,481.00	0.013	0.0051	4.88	31.2	7.0	10.4	MH-V06.09+10+11	1,210.61	MH-V06.07A+08+14A+15	1,198.00	4,749,323
P-541	8 inch	1,681.00	0.013	0.0096	1.63	13.9	24.1	7.0	MH-V07.01B	1,192.33	MH-V03.09+07.01A+03+04+05+06	1,176.24	29,130
P-542	24 inch	2,362.00	0.013	0.0016	2.65	39	7.0	20.2	MH-V11.21	1,277.85	MH-291	1,274.00	2,078,799
P-543	24 inch	2,564.00	0.013	0.007	4.5	35.2	7.0	7.0	MH-291	1,274.00	MH-V11.17+20	1,256.00	2,078,799
P-544	15 inch	1,347.00	0.013	0.0014	1.66	31.7	7.3	14.4	MH-V11.15+16+14.03B+04+07+08B+16A+1	1,249.38	MH-293	1,247.46	402,807
P-545	15 inch	832.00	0.013	0.0069	2.91	28.2	7.0	7.3	MH-293	1,247.46	MH-V11.07A	1,241.75	402,807
P-546	36 inch	2,639.00	0.013	0.0005	1.94	44	13.2	10.9	MH-V11.06+07E	1,213.13	MH-V11.08B	1,211.81	3,492,421
P-548	15 inch	3,225.00	0.013	0.0087	3.34	25.3	13.2	7.0	MH-V11.07A	1,241.75	MH-V11.08B	1,213.56	479,876
P-549	10 inch	1,450.00	0.013	0.0052	2.64	46.5	7.0	11.5	MH-V11.13	1,249.68	MH-V11.11	1,242.17	359,522
P-554	10 inch	1,724.00	0.013	0.003	1.65	25.6	23.3	21.5	MH-V12.02+04+05	1,198.15	MH-V12.07+08+09+15+16B+17+1	1,192.90	131,782
P-555	18 inch	2,030.00	0.013	0.0013	1.65	25.2	18.9	23.3	MH-V12.07+08+09+15+16B+17+1	1,192.23	MH-V05.10+11+13	1,189.58	464,427
P-556	8 inch	1,194.00	0.013	0.0151	1.62	11.9	21.5	7.0	MH-V12.01	1,216.33	MH-V12.02+04+05	1,198.32	17,006
P-557	8 inch	1,548.00	0.013	0.0039	1.68	39.8	7.0	7.0	MH-V13.01	1,252.33	MH-V13.02+04B+10E	1,246.33	95,869
P-562	8 inch	1,549.00	0.013	0.0071	2.66	41.4	7.0	7.0	MH-V18.12	1,323.33	MH-V18.14	1,312.33	231,568
P-563	10 inch	1,767.00	0.013	0.0057	2.57	35.4	7.0	7.0	MH-V18.14	1,312.17	MH-V18.15+16A	1,302.17	291,081
P-564	12 inch	678.00	0.013	0.0029	2.22	39.7	7.0	7.0	MH-V18.15+16A	1,302.00	MH-310	1,300.00	416,939
P-565	12 inch	1,240.00	0.013	0.0069	3.01	39.1	7.0	7.0	MH-310	1,300.00	MH-V13.29+31	1,291.50	416,939
P-571	15 inch	564.00	0.013	0.0015	1.66	35.1	7.3	7.0	MH-V11.22+23+24+26+V16.24+26+2	1,236.75	MH-V11.18+19	1,235.91	377,015
P-572	15 inch	1,414.00	0.013	0.013	4.21	28.3	20.2	7.3	MH-V11.18+19	1,235.91	MH-V11.04	1,217.51	653,688
P-573	24 inch	1,557.00	0.013	0.0009	1.65	30.9	13.2	20.2	MH-V11.04	1,216.76	MH-V11.05	1,215.32	782,277
P-574	24 inch	1,475.00	0.013	0.0008	1.66	26.6	10.9	13.2	MH-V11.05	1,215.32	MH-V11.06+07E	1,214.13	944,263
P-576	10 inch	2,102.00	0.013	0.0033	1.65	24.1	11.8	8.9	MH-V17.07	1,314.27	MH-V17.20B+24A	1,307.38	119,242
P-577	12 inch	1,644.00	0.013	0.0021	1.66	32.9	10.2	11.8	MH-V17.20B+24A	1,307.21	MH-146	1,303.80	230,675
P-581	12 inch	2,062.00	0.013	0.0026	1.64	23.3	14.4	7.0	MH-V14.05+16B+19	1,255.00	MH-V11.15+16+14.03B+04+07+08B+16A+1	1,249.63	169,101
P-582	8 inch	1,813.00	0.013	0.0035	1.79	43	7.6	8.3	MH-V14.11+13	1,280.04	MH-V14.01+10	1,273.70	139,930
P-583	8 inch	3,082.00	0.013	0.0077	2.71	39.8	11.5	7.6	MH-V14.01+10	1,273.70	MH-V11.13	1,249.85	220,152
P-584	8 inch	1,067.00	0.013	0.0084	1.66	24.3	7.0	7.0	MH-V18.07A	1,341.33	MH-V18.10	1,332.33	36,368
P-586	8 inch	502.00	0.013	0.0069	2.58	39.9	7.5	7.0	MH-40	1,293.33	MH-O2	1,289.87	215,134
P-587	15 inch	2,828.00	0.013	0.012	4.32	31.5	23.5	7.5	MH-O2	1,289.29	MH-V13.07+08	1,255.22	790,187
P-588	15 inch	1,999.00	0.013	0.0012	1.68	41.1	7.5	7.0	MH-V17.09+13+14+15+16+17+18+1	1,291.75	MH-O2	1,289.29	513,613
P-590	10 inch	1,273.00	0.013	0.0035	1.64	35.9	11.5	7.0	MH-V14.03A+12+14+08A	1,254.17	MH-V11.13	1,249.68	108,636
P-591	42 inch	1,642.00	0.013	0.0005	2.09	34.2	12.1	18.2	MH-203	1,165.27	MH-331	1,164.44	4,776,357
P-594	48 inch	2,845.00	0.013	0.0055	5.72	24.7	7.0	11.3	MH-333	1,144.74	HASSAYAMPA RANCH WRF	1,129.00	8,217,547
P-596	42 inch	1,148.00	0.013	0.006	5.27	28.8	7.0	12.1	MH-331	1,164.44	MH-334	1,157.50	5,303,877
P-598	10 inch	2,559.00	0.013	0.0074	3.14	41.6	7.0	7.0	MH-V25.01+03+O3C	1,121.17	MH-V25.04	1,102.17	421,575
P-601	18 inch	1,539.00	0.013	0.001	1.68	39.3	8.6	7.0	MH-V25.04	1,101.50	MH-337	1,099.94	679,998
P-602	18 inch	1,988.00	0.013	0.001	1.68	35.7	10.6	8.6	MH-337	1,099.94	MH-O6	1,097.92	679,998
P-609	8 inch	3,723.00	0.013	0.0035	1.97	42.3	7.5	7.0	MH-V23.01+04	1,086.83	MH-343	1,073.80	199,518
P-611	36 inch	938.00	0.013	0.0081	5.48	29.1	7.5	10.9	MH-342	1,079.10	MH-343	1,071.47	3,995,275
P-612	8 inch	3,511.00	0.013	0.0062	1.86	23.6	10.9	7.0	MH-V23.02	1,103.33	MH-342	1,081.43	76,340
P-613	42 inch	1,333.00	0.013	0.0073	5.47	26.3	7.0	7.3	MH-V04.15	1,169.18	MH-V04.16+17	1,159.50	4,813,967
P-614	42 inch	1,557.00	0.013	0.0026	3.79	27	7.0	7.0	MH-V04.16+17	1,159.50	MH-V04.18+19	1,155.50	4,860,231
P-615	42 inch	1,349.00	0.013	0.0044	4.64	26	7.0	7.0	MH-V04.18+19	1,155.50	MH-280	1,149.50	4,982,358
P-626	10 inch	1,328.00	0.013	0.003	1.65	25.7	10.0	7.0	MH-V07.08+09E	1,213.17	MH-274	1,209.15	133,085
P-629	8 inch	1,255.00	0.013	0.0074	1.63	16.8	20.2	7.0	MH-V11.01	1,227.33	MH-V11.04	1,218.10	40,026
P-631	48 inch	3,633.00	0.013	0.0005	2.3	35.2	11.3	7.4	MH-359	1,146.56	MH-333	1,144.74	6,918,341

Pipe Table Report - Average Day													
Label	Size (inch)	Length (ft)	Manning's n	Slope (ft/ft)	Velocity (ft/s)	d/D (%)	Downstream Cover (ft)	Upstream Cover (ft)	Upstream Node	Upstream Invert El (ft)	Downstream Node	Downstream Invert El (ft)	Total Flow (gpd)
P-755	8 inch	1,584.00	0.013	0.009	2.18	23.8	7.0	7.8	MH-V19.11B	1,351.52	MH-V19.13	1,337.33	84,222
P-756	8 inch	939.00	0.013	0.0053	1.67	23.8	7.0	7.0	MH-V19.15+17	1,352.33	MH-18	1,347.33	63,433
P-757	8 inch	1,196.00	0.013	0.0102	2.1	27.8	9.2	7.0	MH-18	1,347.33	MH-V19.20	1,335.10	63,433
P-758	10 inch	879.00	0.013	0.0104	2.28	18.1	18.2	7.0	MH-V01.23A	1,098.17	355th WRF	1,089.02	89,694
P-759	24 inch	2,573.00	0.013	0.001	1.65	22.8	18.2	17.7	MH-V01.21	1,090.35	355th WRF	1,087.85	736,576
P-760	12 inch	2,160.00	0.013	0.0079	2.74	34.2	7.0	7.0	MH-20	1,312.00	MH-V19.11A+12A+20.16+23+2	1,295.00	252,829
P-761	12 inch	634.00	0.013	0.0047	2.7	36	7.0	7.0	MH-V19.11A+12A+20.16+23+2	1,295.00	MH-425	1,292.00	458,402
P-762	8 inch	2,184.00	0.013	0.011	2.96	35.3	7.0	7.0	MH-V24.12A	1,077.33	335th LS	1,053.33	191,268
P-764	12 inch	3,141.00	0.013	0.0043	2.16	30.4	7.0	10.6	MH-V20.18A	1,318.45	MH-V20.17+18E	1,305.00	236,337
P-765	12 inch	2,715.00	0.013	0.0074	2.84	32.2	7.0	7.0	MH-V20.17+18E	1,305.00	MH-455	1,285.00	311,851
P-766	12 inch	520.00	0.013	0.0038	2.25	34.8	7.0	7.0	MH-455	1,285.00	MH-V20.11A+12	1,283.00	311,851
P-767	12 inch	1,111.00	0.013	0.0099	3.36	29.9	7.0	7.0	MH-V20.11A+12	1,283.00	MH-V20.08	1,272.00	385,665
P-768	15 inch	3,052.00	0.013	0.0014	1.67	30.8	7.2	7.0	MH-V20.08	1,271.75	MH-V20.06	1,267.57	430,581
P-769	24 inch	2,187.00	0.013	0.0072	4.24	30.7	7.0	7.2	MH-V20.06	1,266.82	MH-V20.02+03	1,251.00	1,628,294
P-770	24 inch	3,242.00	0.013	0.0071	4.28	27.1	10.9	7.0	MH-V20.02+03	1,251.00	MH-460	1,228.11	1,746,051
P-771	30 inch	704.00	0.013	0.0005	1.68	34.3	11.3	10.9	MH-460	1,227.61	MH-V09.11	1,227.25	1,876,423
P-772	8 inch	1,663.00	0.013	0.0108	1.78	25.5	7.0	7.0	MH-V21.18	1,328.33	MH-V21.13	1,310.33	34,184
P-773	8 inch	4,734.00	0.013	0.0065	2.17	33.9	7.0	7.0	MH-V21.13	1,310.33	MH-V21.10	1,279.33	122,395
P-774	8 inch	2,065.00	0.013	0.0058	2.14	38.1	7.0	7.0	MH-V21.10	1,279.33	MH-V21.08	1,267.33	135,676
P-775	8 inch	1,986.00	0.013	0.0094	2.76	35.3	9.6	7.0	MH-V21.08	1,267.33	MH-V21.06A	1,248.74	183,430
P-776	15 inch	1,764.00	0.013	0.0053	2.88	31.1	7.0	9.6	MH-V21.06A	1,248.16	MH-V21.03A	1,238.75	528,275
P-777	15 inch	1,176.00	0.013	0.0068	3.17	33.2	7.0	7.0	MH-V21.03A	1,238.75	MH-V21.01	1,230.75	542,051
P-778	15 inch	2,729.00	0.013	0.004	2.74	35.3	7.0	7.0	MH-V21.01	1,230.75	MH-V22.12	1,219.75	626,807
P-779	15 inch	2,315.00	0.013	0.0056	3.13	35.3	7.0	7.0	MH-V22.12	1,219.75	MH-V22.08A	1,206.75	659,779
P-780	15 inch	1,148.00	0.013	0.0017	1.65	31.4	9.6	12.7	MH-65	1,250.08	MH-V21.06A	1,248.16	321,925
P-781	15 inch	3,608.00	0.013	0.0039	2.32	24.5	21.0	7.0	MH-390	1,061.75	MH-389	1,047.78	368,640
P-782	8 inch	886.00	0.013	0.0124	1.33	8.3	7.5	7.0	MH-V23.03	1,082.83	MH-392	1,071.86	10,978
P-784	10 inch	1,134.00	0.013	0.0034	1.64	23.5	9.8	7.0	MH-V20.09+10	1,276.17	MH-V20.05	1,272.33	114,610
P-786	10 inch	1,249.00	0.013	0.0031	1.65	28.8	10.8	7.0	MH-V20.01	1,236.17	MH-36	1,232.33	130,372
P-787	10 inch	997.00	0.013	0.0031	1.65	25.4	10.9	10.8	MH-36	1,232.33	MH-460	1,229.28	130,372
P-788	48 inch	5,247.00	0.013	0.0041	5.12	35.7	7.0	7.5	MH-392	1,068.52	MH-388	1,047.00	8,101,874
P-789	48 inch	3,949.00	0.013	0.0005	2.43	40.7	21.0	7.0	MH-388	1,047.00	MH-389	1,045.03	8,470,514
P-790	24 inch	2,064.00	0.013	0.0032	3.54	35.6	7.0	19.4	MH-V24.11+12E	1,058.59	335th LS	1,052.00	2,439,030
P-791	24 inch	894.00	0.013	0.0082	3.82	24.2	9.8	7.0	MH-23	1,278.50	MH-V20.05	1,271.17	984,300
P-793	8 inch	2,663.00	0.013	0.0058	2.24	40.8	7.0	7.0	MH-V21.14A+16+17	1,316.83	MH-V21.14B	1,301.33	159,476
P-794	8 inch	2,501.00	0.013	0.0064	2.62	43.8	7.0	7.0	MH-V21.11	1,291.33	MH-477	1,275.33	250,472
P-795	8 inch	1,763.00	0.013	0.0057	2.35	45.9	7.0	7.0	MH-V21.14B	1,301.33	MH-V21.11	1,291.33	196,328
P-796	15 inch	1,647.00	0.013	0.002	1.64	23.7	9.9	7.6	MH-478	1,272.20	MH-118	1,268.88	250,472
P-797	10 inch	1,264.00	0.013	0.002	1.7	38.1	7.6	7.0	MH-477	1,275.17	MH-478	1,272.61	250,472
P-799	8 inch	767.00	0.013	0.0056	1.64	23.7	7.3	7.0	MH-V21.05+06E	1,257.33	MH-V21.03B	1,253.00	55,594
P-800	8 inch	973.00	0.013	0.0058	1.77	24.7	7.0	7.3	MH-V21.03B	1,253.00	MH-482	1,247.33	69,370
P-802	8 inch	478.00	0.013	0.0035	1.49	24.6	12.7	7.0	MH-V21.07+09	1,252.33	MH-65	1,250.66	71,453
P-803	8 inch	1,253.00	0.013	0.0128	2.33	20.7	7.0	7.0	MH-482	1,247.33	MH-V21.01	1,231.33	69,370
P-804	15 inch	3,589.00	0.013	0.0059	3.23	36.4	7.0	7.0	MH-V22.08A	1,206.75	MH-V22.08B	1,185.75	703,056
P-805	15 inch	2,549.00	0.013	0.0071	3.51	37	7.0	7.0	MH-V22.08B	1,185.75	MH-485	1,167.75	746,333
P-806	12 inch	5,293.00	0.013	0.0029	2.32	40.5	7.0	8.6	MH-393	1,069.45	MH-394	1,054.00	502,104
P-807	24 inch	2,111.00	0.013	0.0007	1.68	31.4	7.4	7.0	MH-486	1,150.00	MH-359	1,148.56	1,228,621
P-808	15 inch	846.00	0.013	0.0095	3.9	40.1	7.0	7.0	MH-485	1,167.75	MH-487	1,159.75	746,333
P-809	12 inch	3,157.00	0.013	0.0082	2.77	24.4	7.0	7.0	MH-V22.06B	1,177.00	MH-486	1,151.00	248,514
P-810	15 inch	1,262.00	0.013	0.0071	3.81	37.5	7.0	7.0	MH-487	1,159.75	MH-486	1,150.75	980,107
P-811	12 inch	2,321.00	0.013	0.0078	2.66	28.8	7.0	7.0	MH-V22.06A	1,178.00	MH-487	1,160.00	233,774
P-813	10 inch	1,864.00	0.013	0.0071	2.44	26.8	7.0	14.2	MH-V22.04	1,225.44	MH-V22.09	1,212.17	179,304
P-814	12 inch	1,861.00	0.013	0.0023	1.65	27.7	16.3	7.0	MH-V22.09	1,212.00	MH-125	1,207.69	197,867
P-815	10 inch	611.00	0.013	0.0045	1.64	24.6	11.3	9.5	MH-V22.13	1,231.63	MH-V22.10	1,228.89	79,645
P-816	10 inch	1,102.00	0.013	0.0031	1.65	29.7	14.2	11.3	MH-V22.10	1,228.89	MH-V22.04	1,225.44	126,819
P-817	10 inch	1,571.00	0.013	0.0029	1.65	26.7	21.6	7.0	MH-V22.16+17	1,217.17	MH-V22.01	1,212.62	141,116
P-818	15 inch	1,390.00	0.013	0.0036	3.08	44.5	7.0	7.0	MH-V24.07B+08	1,071.75	MH-V24.09	1,066.75	1,129,651
P-819	18 inch	1,405.00	0.013	0.0036	3.12	36.4	7.0	7.0	MH-V24.09	1,066.50	MH-187	1,061.50	1,243,498
P-820	18 inch	1,601.00	0.013	0.0019	2.27	33.9	7.0	7.0	MH-V24.05+06+07A+05A	1,076.50	MH-V24.13+14	1,073.50	910,216
P-821	24 inch	2,542.00	0.013	0.0008	1.66	30.4	11.9	7.0	MH-V24.13+14	1,073.00	MH-V24.10	1,071.07	1,043,193
P-822	24 inch	1,127.00	0.013	0.0007	1.68	40.7	19.4	23.7	MH-188	1,059.35	MH-V24.11+12E	1,058.59	1,243,498
P-823	12 inch	3,652.00	0.013	0.0019	1.66	41.4	8.6	7.0	MH-08	1,076.50	MH-393	1,069.45	256,344

Pipe Table Report - Average Day													
Label	Size (inch)	Length (ft)	Manning's n	Slope (ft/ft)	Velocity (ft/s)	d/D (%)	Downstream Cover (ft)	Upstream Cover (ft)	Upstream Node	Upstream Invert El (ft)	Downstream Node	Downstream Invert El (ft)	Total Flow (gpd)
P-824	24 inch	1,300.00	0.013	0.0096	4.13	32.1	19.4	11.9	MH-V24.10	1,071.07	MH-V24.11+12E	1,058.59	1,061,805
P-825	10 inch	585	0.013	0.0042	1.64	25.4	9.4	7.0	MH-V24.03B+04	1,100.17	MH-V24.16B	1,097.74	87,875
P-826	10 inch	1,876.00	0.013	0.0031	1.65	36.1	8.3	9.4	MH-V24.16B	1,097.74	MH-V24.15	1,091.91	128,363
P-827	10 inch	2,118.00	0.013	0.0022	1.76	37.2	7.0	8.3	MH-V24.15	1,091.91	MH-O9	1,087.17	247,141
P-829	24 inch	5,691.00	0.013	0.0008	1.66	40.7	10.5	7.0	MH-405	1,041.00	MH-404	1,036.55	993,624
P-831	24 inch	1,279.00	0.013	0.0023	3.32	46.8	7.0	7.0	MH-O9	1,086.00	MH-V24.17B	1,083.00	2,937,257
P-832	24 inch	3,809.00	0.013	0.0032	3.78	41	7.0	7.0	MH-V24.17B	1,083.00	MH-V24.01+03A+16A+17A+1	1,071.00	3,167,179
P-833	12 inch	796.00	0.013	0.0126	4.83	49.4	7.0	7.0	MH-O5B	1,082.00	MH-V24.07B+0	1,072.00	1,053,771
P-834	8 inch	795.00	0.013	0.0072	1.63	17	12.7	7.0	MH-O4B	1,155.33	MH-168	1,149.59	40,960
P-835	12 inch	475.00	0.013	0.0022	1.65	30.2	10.6	7.0	MH-V20.19+2	1,319.50	MH-V20.18A	1,318.45	210,993
P-837	24 inch	863.00	0.013	0.005	3.36	27.8	7.2	9.8	MH-V20.05	1,271.17	MH-V20.06	1,266.82	1,147,417
P-838	30 inch	781.00	0.013	0.0005	1.74	36.4	14.1	16.8	MH-V09.04B+05E	1,208.75	MH-V09.04A	1,208.36	2,252,196
P-839	48 inch	1,431.00	0.013	0.0056	5.73	24.5	18.2	7.1	MH-V01.23B	1,093.89	355th WRF	1,085.85	8,147,075
P-840	30 inch	5,164.00	0.013	0.0008	2.16	36.6	7.0	7.0	MH-414	1,024.50	MH-422	1,020.50	2,764,800
P-842	10 inch	4,816.00	0.013	0.0046	2.42	37.6	7.0	7.0	MH-401	1,085.17	MH-402	1,063.17	307,200
P-844	12 inch	5,086.00	0.013	0.0055	2.91	36.6	7.0	7.0	MH-411	1,081.00	MH-412	1,053.00	491,520
P-845	18 inch	6,017.00	0.013	0.0045	3.74	42.7	7.0	7.0	MH-412	1,052.50	MH-414	1,025.50	1,781,760
P-846	12 inch	5,212.00	0.013	0.0038	2.65	41.7	7.0	7.0	MH-420	1,074.00	MH-421	1,054.00	570,573
P-847	15 inch	6,018.00	0.013	0.0053	3.5	40.7	7.0	7.0	MH-421	1,053.75	MH-422	1,021.75	1,062,093
P-848	8 inch	5,055.00	0.013	0.004	1.81	36.8	7.0	7.0	MH-434	1,109.33	MH-433	1,089.33	122,880
P-849	10 inch	5,013.00	0.013	0.0034	2.27	43.3	7.0	7.0	MH-433	1,089.17	MH-429	1,072.17	368,640
P-850	24 inch	5,413.00	0.013	0.0041	3.98	40.9	7.0	7.0	MH-429	1,071.00	MH-430	1,049.00	2,703,360
P-851	24 inch	6,035.00	0.013	0.0041	4.1	38	7.0	7.0	MH-430	1,049.00	MH-431	1,024.00	2,949,120
P-852	36 inch	5,272.00	0.013	0.0006	1.97	39.9	7.0	7.0	MH-431	1,023.00	MH-422	1,020.00	3,072,000
P-853	8 inch	5,242.00	0.013	0.005	2.37	44.9	7.0	7.0	MH-395	1,191.33	MH-396	1,165.33	245,760
P-854	15 inch	5,167.00	0.013	0.0046	3.01	36.8	7.0	7.0	MH-396	1,164.75	MH-398	1,140.75	737,280
P-856	12 inch	5,168.00	0.013	0.0049	2.78	37.2	13.2	7.0	MH-399	1,112.00	MH-400	1,086.81	491,520
P-858	8 inch	5,195.00	0.013	0.0073	2.73	42.5	7.0	7.0	MH-406	1,190.33	MH-407	1,152.33	245,760
P-859	15 inch	5,288.00	0.013	0.0038	2.8	35.2	7.0	7.0	MH-407	1,151.75	MH-408	1,131.75	737,280
P-861	12 inch	3,071.00	0.013	0.0039	2.57	38.4	7.0	7.0	MH-409	1,104.00	MH-410	1,092.00	491,520
P-862	24 inch	5,607.00	0.013	0.0009	1.65	23.7	13.2	7.0	MH-410	1,091.00	MH-400	1,085.81	782,336
P-863	8 inch	5,180.00	0.013	0.006	2.54	43.7	7.0	7.0	MH-415	1,182.33	MH-416	1,151.33	245,760
P-864	12 inch	5,412.00	0.013	0.0054	3.21	45.6	7.0	7.0	MH-416	1,151.00	MH-417	1,122.00	737,280
P-867	8 inch	5,412.00	0.013	0.0042	1.86	35.6	7.0	7.0	MH-461	1,213.33	MH-459	1,190.33	122,880
P-868	10 inch	5,055.00	0.013	0.004	2.41	42.3	7.0	7.0	MH-459	1,190.17	MH-458	1,170.17	368,640
P-869	12 inch	3,027.00	0.013	0.0059	3.18	40.7	7.0	7.0	MH-458	1,170.00	MH-454	1,152.00	614,400
P-870	18 inch	5,115.00	0.013	0.0059	4.01	38.9	7.0	7.0	MH-454	1,151.50	MH-443	1,121.50	1,597,440
P-872	8 inch	5,274.00	0.013	0.0042	1.84	31.8	7.0	7.0	MH-457	1,194.33	MH-456	1,172.33	122,880
P-873	12 inch	5,061.00	0.013	0.004	2.58	38.3	7.0	7.0	MH-456	1,172.00	MH-454	1,152.00	491,520
P-874	8 inch	5,164.00	0.013	0.0035	1.73	32.6	15.1	7.0	MH-453	1,242.33	MH-452	1,224.26	122,880
P-875	12 inch	5,365.00	0.013	0.0024	1.99	44	7.0	15.1	MH-452	1,223.93	MH-451	1,211.00	368,640
P-876	12 inch	5,071.00	0.013	0.0057	3.13	41	7.0	7.0	MH-451	1,211.00	MH-450	1,182.00	614,400
P-877	15 inch	3,427.00	0.013	0.0058	3.41	36	7.0	7.0	MH-450	1,181.75	MH-446	1,161.75	860,160
P-878	24 inch	5,321.00	0.013	0.0038	3.71	39.5	7.0	7.0	MH-446	1,161.00	MH-445	1,141.00	2,334,720
P-879	24 inch	5,086.00	0.013	0.0039	3.98	37.4	7.0	7.0	MH-445	1,141.00	MH-443	1,121.00	2,826,240
P-880	8 inch	5,314.00	0.013	0.0041	1.84	31.9	7.0	7.0	MH-449	1,232.33	MH-448	1,210.33	122,880
P-881	12 inch	5,414.00	0.013	0.0041	2.76	43	7.0	7.0	MH-448	1,210.00	MH-447	1,188.00	614,400
P-882	15 inch	5,014.00	0.013	0.0052	3.5	41.8	7.0	7.0	MH-447	1,187.75	MH-446	1,161.75	1,105,920
P-883	8 inch	5,431.00	0.013	0.005	1.97	33.4	7.0	7.0	MH-442	1,149.33	MH-441	1,122.33	122,880
P-885	12 inch	5,396.00	0.013	0.0035	2.47	38.9	7.0	7.0	MH-439	1,173.00	MH-438	1,154.00	491,520
P-886	15 inch	4,968.00	0.013	0.0044	3.09	37.3	7.0	7.0	MH-438	1,153.75	MH-437	1,131.75	860,160
P-887	18 inch	5,273.00	0.013	0.0036	3.12	44.5	7.0	7.0	MH-437	1,131.50	MH-436	1,112.50	1,228,800
P-888	18 inch	4,887.00	0.013	0.0029	3.08	48.6	7.0	7.0	MH-436	1,112.50	MH-435	1,098.50	1,597,440
P-889	18 inch	5,022.00	0.013	0.0054	4.03	42.4	7.0	7.0	MH-435	1,098.50	MH-429	1,071.50	1,843,200
P-890	18 inch	2,481.00	0.013	0.0012	1.65	26.3	11.1	7.0	MH-397	1,143.50	Camelback WRF	1,140.41	496,435
P-891	36 inch	5,288.00	0.013	0.0005	1.92	35.5	9.6	7.0	MH-423	1,020.00	MH-426	1,017.36	3,379,859
P-892	36 inch	5,102.00	0.013	0.003	3.75	35.8	7.0	9.6	MH-426	1,017.36	MH-427	1,002.00	3,625,619
P-893	36 inch	5,229.00	0.013	0.0005	1.99	45	7.6	7.0	MH-427	1,002.00	MH-428	999.39	3,871,379
P-895	8 inch	542.00	0.013	0.0052	1.64	21.7	9.8	7.0	MH-465	1,001.33	Silver Springs LS No. 2	998.50	61,440
P-900	10 inch	5,396.00	0.013	0.0056	2.73	40.3	7.0	7.0	MH-441	1,122.17	Balterra WRF	1,092.17	368,640
P-901	48 inch	3,708.00	0.013	0.0016	3.83	32.1	7.0	21.0	MH-389	1,045.03	MH-463	1,039.00	9,330,674
P-902	54 inch	468.00	0.013	0.0005	2.5	30.4	7.2	7.0	MH-463	1,038.50	339th WRF	1,038.27	9,720,818

Pipe Table Report - Average Day													
Label	Size (inch)	Length (ft)	Manning's n	Slope (ft/ft)	Velocity (ft/s)	d/D (%)	Downstream Cover (ft)	Upstream Cover (ft)	Upstream Node	Upstream Invert El (ft)	Downstream Node	Downstream Invert El (ft)	Total Flow (gpd)
P-903	12 inch	2,966.00	0.013	0.002	1.89	37.2	7.0	7.0	MH-466	1,168.00	MH-464	1,162.00	385,843
P-904	15 inch	2,915.00	0.013	0.0049	3.11	34.8	11.3	7.0	MH-464	1,161.75	MH-333	1,147.49	771,686
P-905	30 inch	4,714.00	0.013	0.0053	5.07	37	8.8	7.0	MH-443	1,120.50	MH-467	1,095.72	4,915,200
P-906	36 inch	435.00	0.013	0.012	8.03	35.1	7.0	8.8	MH-467	1,095.22	Balterra WRF	1,090.00	9,267,968
P-907	36 inch	2,578.00	0.013	0.0084	6.62	32.5	18.6	7.0	MH-422	1,020.00	MH-468	998.43	7,390,413
P-908	54 inch	526.00	0.013	0.0005	2.62	33.3	18.8	18.6	MH-468	996.93	Silver Springs WRF	996.66	11,507,551
P-909	15 inch	4,951.00	0.013	0.002	2.27	43.2	7.0	7.0	MH-402	1,062.75	MH-412	1,052.75	798,720
P-910	12 inch	5,061.00	0.013	0.0032	2.38	39.6	7.0	7.0	MH-403	1,042.00	MH-414	1,026.00	491,520
P-911	24 inch	4,605.00	0.013	0.0034	3.87	40.4	7.0	10.5	MH-404	1,036.55	MH-423	1,021.00	3,134,099
P-913	36 inch	4,062.00	0.013	0.0005	2	37.5	10.9	15.9	MH-O7	1,081.13	MH-342	1,079.10	3,918,935
P-914	30 inch	4,645.00	0.013	0.0006	1.66	26.6	14.9	13.2	MH-400	1,085.31	Balterra LS	1,082.57	1,519,616
P-916	24 inch	5,210.00	0.013	0.0019	2.95	47	7.0	7.0	MH-408	1,131.00	MH-417	1,121.00	2,457,600
P-917	18 inch	5,180.00	0.013	0.0017	2.39	40.4	7.0	7.0	MH-398	1,140.50	MH-408	1,131.50	1,228,800
P-918	24 inch	4,978.00	0.013	0.004	4.3	43	7.0	7.0	MH-417	1,121.00	MH-418	1,101.00	3,686,400
P-919	36 inch	5,293.00	0.013	0.0009	2.52	43.2	8.8	7.0	MH-418	1,100.00	MH-467	1,095.22	4,107,008
P-920	15 inch	5,068.00	0.013	0.0024	2.37	38	7.0	7.0	MH-394	1,053.75	MH-405	1,041.75	747,864
P-921	36 inch	1,919.00	0.013	0.0005	2.01	35.4	18.6	7.6	MH-428	999.39	MH-468	998.43	3,994,259
P-922	42 inch	382.00	0.013	0.0005	2.21	41.1	12.4	10.2	MH-O4A	1,151.28	MH-V04.25	1,151.08	5,807,509
P-923	8 inch	369.00	0.013	0.0035	1.47	33.8	8.3	7.0	MH-184	1,281.33	MH-V14.11+13	1,280.04	69,107
P-924	18 inch	5,253.00	0.013	0.0054	3.99	41.6	10.5	9.3	MH-V25.10+12+13+14	1,065.22	MH-404	1,037.05	1,771,835
P-925	8 inch	1,258.00	0.013	0.0079	1.51	13.9	7.0	7.0	MH-V20.11B	1,286.33	MH-V20.09+1C	1,276.33	27,936
P-926	8 inch	2,120.00	0.013	0.0035	1.32	20.1	24.4	7.0	MH-V09.03B	1,187.33	MH-V09.03A+04C	1,179.91	47,774
P-927	36 inch	542.00	0.013	0.0032	3.98	27.4	7.3	7.5	MH-343	1,071.47	MH-462	1,069.75	4,194,793
P-928	48 inch	453.00	0.013	0.0005	2.38	34.5	7.5	7.3	MH-462	1,068.75	MH-392	1,068.52	7,845,136
P-929	36 inch	501	0.013	0.0005	1.96	32.3	7.3	7.0	MH-V24.01+03A+16A+17A+18	1,070.00	MH-462	1,069.75	3,650,343

Ultimate Buildout
Average Day
Manhole Table Report

Manhole Table Report - Average Day												
Label	Ground Elevation (ft)	Sump Elevation (ft)	Structure Depth (ft)	Headloss Method	Headloss Coefficient	Sanitary Base Load (gpd)	Known Flow (gpd)	Total Flow (gpd)	HGL In (ft)	HGL Out (ft)	Pipe Matching	MH Size (ft)
MH-6	1,248.00	1,239.00	9	Standard	0.5	0	0	2,298,632	1,239.78	1,239.66	Crowns	4
MH-14	1,133.00	1,116.88	16.12	Standard	0.5	0	0	8,022,919	1,118.13	1,117.97	Crowns	4
MH-15	1,125.00	1,114.00	11	Standard	0.5	0	0	8,022,919	1,115.21	1,115.03	Crowns	4
MH-18	1,355.00	1,347.33	7.67	Standard	0.5	0	0	63,433	1,347.50	1,347.48	Crowns	4
MH-20	1,320.00	1,312.00	8	Standard	0.5	0	0	252,829	1,312.30	1,312.26	Crowns	4
MH-21	1,310.00	1,290.29	19.71	Standard	0.5	0	0	921,852	1,290.94	1,290.92	Crowns	4
MH-23	1,287.50	1,278.50	9	Standard	0.5	0	0	984,300	1,279.00	1,278.93	Crowns	4
MH-36	1,244.00	1,232.33	11.67	Standard	0.5	0	0	130,372	1,232.59	1,232.56	Crowns	4
MH-40	1,301.00	1,293.33	7.67	Standard	0.5	0	0	215,134	1,293.65	1,293.60	Crowns	4
MH-52	1,230.00	1,221.75	8.25	Standard	0.5	0	0	284,840	1,222.11	1,222.09	Crowns	4
MH-65	1,264.00	1,250.08	13.92	Standard	0.5	0	0	321,925	1,250.47	1,250.44	Crowns	4
MH-69	1,185.00	1,176.50	8.5	Standard	0.5	0	0	601,727	1,176.95	1,176.91	Crowns	4
MH-70	1,243.00	1,232.41	10.59	Standard	0.5	0	0	460,399	1,232.81	1,232.77	Crowns	4
MH-75	1,319.00	1,304.19	14.81	Standard	0.5	0	0	492,390	1,304.70	1,304.67	Crowns	4
MH-92	1,114.50	1,103.92	10.58	Standard	0.5	0	0	280,489	1,104.22	1,104.18	Crowns	4
MH-100	1,119.00	1,111.17	7.83	Standard	0.5	0	0	129,316	1,111.42	1,111.40	Crowns	4
MH-102	1,120.50	1,100.99	19.51	Standard	0.5	0	0	185,979	1,101.29	1,101.27	Crowns	4
MH-104	1,129.00	1,118.50	10.5	Standard	0.5	0	0	6,515,299	1,120.08	1,120.03	Crowns	4
MH-110	1,220.00	1,211.00	9	Standard	0.5	0	0	1,118,298	1,211.75	1,211.72	Crowns	4
MH-118	1,280.00	1,268.88	11.12	Standard	0.5	0	0	250,472	1,269.17	1,269.12	Crowns	4
MH-122	1,198.00	1,190.00	8	Standard	0.5	0	0	212,607	1,190.28	1,190.24	Crowns	4
MH-125	1,225.00	1,207.69	17.31	Standard	0.5	0	0	197,867	1,207.96	1,207.92	Crowns	4
MH-140	1,320.00	1,312.33	7.67	Standard	0.5	0	0	184,414	1,312.63	1,312.58	Crowns	4
MH-146	1,315.00	1,303.80	11.2	Standard	0.5	0	0	230,675	1,304.14	1,304.12	Crowns	4
MH-147	1,339.00	1,331.17	7.83	Standard	0.5	0	0	106,990	1,331.39	1,331.37	Crowns	4
MH-148	1,341.00	1,328.71	12.29	Standard	0.5	0	0	316,561	1,329.07	1,329.02	Crowns	4
MH-165	1,216.00	1,207.00	9	Standard	0.5	0	0	1,202,483	1,207.56	1,207.47	Crowns	4
MH-168	1,163.00	1,149.01	13.99	Standard	0.5	0	0	417,382	1,149.47	1,149.45	Crowns	4
MH-177	1,155.00	1,132.26	22.74	Standard	0.5	0	0	464,269	1,132.72	1,132.70	Crowns	4
MH-184	1,289.00	1,281.33	7.67	Standard	0.5	0	0	69,107	1,281.52	1,281.51	Crowns	4
MH-187	1,070.00	1,061.00	9	Standard	0.5	0	0	1,243,498	1,061.81	1,061.79	Crowns	4
MH-188	1,085.00	1,059.35	25.65	Standard	0.5	0	0	1,243,498	1,060.16	1,060.14	Crowns	4
MH-194	1,189.00	1,179.50	9.5	Standard	0.5	0	0	1,808,132	1,180.14	1,180.05	Crowns	4
MH-203	1,187.00	1,165.27	21.73	Standard	0.5	0	0	4,776,357	1,166.68	1,166.64	Crowns	4
MH-204	1,160.00	1,132.90	27.1	Standard	0.5	0	0	464,269	1,133.37	1,133.34	Crowns	4
MH-206	1,158.00	1,139.36	18.64	Standard	0.5	0	0	20,275	1,139.45	1,139.44	Crowns	4
MH-208	1,163.00	1,154.50	8.5	Standard	0.5	0	0	633,637	1,154.95	1,154.90	Crowns	4
MH-212	1,155.00	1,139.65	15.35	Standard	0.5	0	0	1,407,051	1,140.27	1,140.20	Crowns	4
MH-220	1,100.00	1,091.47	8.53	Standard	0.5	0	0	682,117	1,092.07	1,092.05	Crowns	4
MH-222	1,135.00	1,127.33	7.67	Standard	0.5	0	0	100,984	1,127.55	1,127.51	Crowns	4
MH-228	1,106.00	1,092.31	13.69	Standard	0.5	0	0	466,096	1,092.81	1,092.79	Crowns	4
MH-234	1,109.00	1,101.33	7.67	Standard	0.5	0	0	125,186	1,101.59	1,101.57	Crowns	4
MH-242	1,109.50	1,100.06	9.44	Standard	0.5	0	0	76,923	1,100.26	1,100.25	Crowns	4
MH-243	1,113.00	1,094.12	18.88	Standard	0.5	0	0	8,099,841	1,095.76	1,095.70	Crowns	4
MH-245	1,150.00	1,139.38	10.62	Standard	0.5	0	0	5,948,153	1,140.97	1,140.93	Crowns	4
MH-274	1,220.00	1,208.99	11.01	Standard	0.5	0	0	279,510	1,209.31	1,209.26	Crowns	4
MH-277	1,201.50	1,193.50	8	Standard	0.5	0	0	374,803	1,193.87	1,193.82	Crowns	4
MH-278	1,199.00	1,185.17	13.83	Standard	0.5	0	0	452,404	1,185.63	1,185.61	Crowns	4
MH-280	1,160.00	1,149.50	10.5	Standard	0.5	0	0	4,982,358	1,150.48	1,150.34	Crowns	4
MH-291	1,283.00	1,274.00	9	Standard	0.5	0	0	2,078,799	1,274.74	1,274.63	Crowns	4
MH-293	1,256.00	1,247.46	8.54	Standard	0.5	0	0	402,807	1,247.82	1,247.77	Crowns	4
MH-310	1,308.00	1,300.00	8	Standard	0.5	0	0	416,939	1,300.40	1,300.33	Crowns	4

Manhole Table Report - Average Day												
Label	Ground Elevation (ft)	Sump Elevation (ft)	Structure Depth (ft)	Headloss Method	Headloss Coefficient	Sanitary Base Load (gpd)	Known Flow (gpd)	Total Flow (gpd)	HGL In (ft)	HGL Out (ft)	Pipe Matching	MH Size (ft)
MH-331	1,180.00	1,164.44	15.56	Standard	0.5	527,520	0	5,303,877	1,165.46	1,165.31	Crowns	4
MH-333	1,160.00	1,144.74	15.26	Standard	0.5	527,520	0	8,217,547	1,145.97	1,145.78	Crowns	4
MH-334	1,168.00	1,157.50	10.5	Standard	0.5	0	0	5,303,877	1,158.65	1,158.57	Crowns	4
MH-337	1,110.00	1,099.94	10.06	Standard	0.5	0	0	679,998	1,100.54	1,100.52	Crowns	4
MH-342	1,093.00	1,079.10	13.9	Standard	0.5	0	0	3,995,275	1,080.02	1,079.88	Crowns	4
MH-343	1,082.00	1,071.47	10.53	Standard	0.5	0	0	4,194,793	1,072.44	1,072.31	Crowns	4
MH-359	1,158.00	1,146.56	11.44	Standard	0.5	385,843	0	6,918,341	1,148.19	1,148.15	Crowns	4
MH-365	1,198.00	1,187.43	10.57	Standard	0.5	0	0	1,808,132	1,188.08	1,187.98	Crowns	4
MH-378	1,235.00	1,209.91	25.09	Standard	0.5	0	0	2,144,845	1,210.98	1,210.95	Crowns	4
MH-379	1,236.50	1,209.33	27.17	Standard	0.5	0	0	2,144,845	1,210.39	1,210.37	Crowns	4
MH-386	1,317.00	1,309.33	7.67	Standard	0.5	0	0	13,587	1,309.41	1,309.40	Crowns	4
MH-388	1,058.00	1,047.00	11	Standard	0.5	368,640	0	8,470,514	1,048.82	1,048.78	Crowns	4
MH-389	1,070.00	1,045.03	24.97	Standard	0.5	491,520	0	9,330,674	1,046.50	1,046.39	Crowns	4
MH-390	1,070.00	1,061.75	8.25	Standard	0.5	368,640	0	368,640	1,062.11	1,062.07	Crowns	4
MH-392	1,080.00	1,068.52	11.48	Standard	0.5	245,760	0	8,101,874	1,069.74	1,069.56	Crowns	4
MH-393	1,079.00	1,069.45	9.55	Standard	0.5	245,760	0	502,104	1,069.93	1,069.89	Crowns	4
MH-394	1,062.00	1,053.75	8.25	Standard	0.5	245,760	0	747,864	1,054.32	1,054.27	Crowns	4
MH-395	1,199.00	1,191.33	7.67	Standard	0.5	245,760	0	245,760	1,191.69	1,191.65	Crowns	4
MH-396	1,173.00	1,164.75	8.25	Standard	0.5	491,520	0	737,280	1,165.25	1,165.18	Crowns	4
MH-397	1,152.00	1,143.50	8.5	Standard	0.5	496,435	0	496,435	1,143.98	1,143.96	Crowns	4
MH-398	1,149.00	1,140.50	8.5	Standard	0.5	491,520	0	1,228,800	1,141.24	1,141.19	Crowns	4
MH-399	1,120.00	1,112.00	8	Standard	0.5	491,520	0	491,520	1,112.44	1,112.38	Crowns	4
MH-400	1,101.00	1,085.31	15.69	Standard	0.5	245,760	0	1,519,616	1,086.15	1,086.13	Crowns	4
MH-401	1,093.00	1,085.17	7.83	Standard	0.5	307,200	0	307,200	1,085.54	1,085.49	Crowns	4
MH-402	1,071.00	1,062.75	8.25	Standard	0.5	491,520	0	798,720	1,063.36	1,063.32	Crowns	4
MH-403	1,050.00	1,042.00	8	Standard	0.5	491,520	0	491,520	1,042.47	1,042.43	Crowns	4
MH-404	1,049.00	1,036.55	12.45	Standard	0.5	368,640	0	3,134,099	1,037.50	1,037.39	Crowns	4
MH-405	1,050.00	1,041.00	9	Standard	0.5	245,760	0	993,624	1,041.69	1,041.67	Crowns	4
MH-406	1,198.00	1,190.33	7.67	Standard	0.5	245,760	0	245,760	1,190.67	1,190.62	Crowns	4
MH-407	1,160.00	1,151.75	8.25	Standard	0.5	491,520	0	737,280	1,152.27	1,152.21	Crowns	4
MH-408	1,140.00	1,131.00	9	Standard	0.5	491,520	0	2,457,600	1,131.93	1,131.86	Crowns	4
MH-409	1,112.00	1,104.00	8	Standard	0.5	491,520	0	491,520	1,104.45	1,104.40	Crowns	4
MH-410	1,100.00	1,091.00	9	Standard	0.5	290,816	0	782,336	1,091.59	1,091.57	Crowns	4
MH-411	1,089.00	1,081.00	8	Standard	0.5	491,520	0	491,520	1,081.43	1,081.37	Crowns	4
MH-412	1,061.00	1,052.50	8.5	Standard	0.5	491,520	0	1,781,760	1,053.26	1,053.15	Crowns	4
MH-413	1,244.50	1,236.83	7.67	Standard	0.5	0	0	191,612	1,237.16	1,237.13	Crowns	4
MH-414	1,034.00	1,024.50	9.5	Standard	0.5	491,520	0	2,764,800	1,025.60	1,025.56	Crowns	4
MH-415	1,190.00	1,182.33	7.67	Standard	0.5	245,760	0	245,760	1,182.68	1,182.63	Crowns	4
MH-416	1,159.00	1,151.00	8	Standard	0.5	491,520	0	737,280	1,151.54	1,151.46	Crowns	4
MH-417	1,130.00	1,121.00	9	Standard	0.5	491,520	0	3,686,400	1,122.02	1,121.88	Crowns	4
MH-418	1,110.00	1,100.00	10	Standard	0.5	420,608	0	4,107,008	1,101.21	1,101.16	Crowns	4
MH-420	1,082.00	1,074.00	8	Standard	0.5	570,573	0	570,573	1,074.49	1,074.44	Crowns	4
MH-421	1,062.00	1,053.75	8.25	Standard	0.5	491,520	0	1,062,093	1,054.35	1,054.26	Crowns	4
MH-422	1,030.00	1,020.00	10	Standard	0.5	491,520	0	7,390,413	1,021.27	1,021.07	Crowns	4
MH-423	1,030.00	1,020.00	10	Standard	0.5	184,320	61,440	3,379,859	1,021.26	1,021.23	Crowns	4
MH-424	1,325.00	1,315.41	9.59	Standard	0.5	0	0	371,949	1,315.76	1,315.71	Crowns	4
MH-425	1,300.00	1,291.00	9	Standard	0.5	0	0	830,351	1,291.61	1,291.59	Crowns	4
MH-426	1,030.00	1,017.36	12.64	Standard	0.5	245,760	0	3,625,619	1,018.26	1,018.15	Crowns	4
MH-427	1,012.00	1,002.00	10	Standard	0.5	245,760	0	3,871,379	1,003.35	1,003.32	Crowns	4
MH-428	1,010.00	999.39	10.61	Standard	0.5	122,880	0	3,994,259	1,000.76	1,000.73	Crowns	4
MH-429	1,080.00	1,071.00	9	Standard	0.5	491,520	0	2,703,360	1,071.86	1,071.74	Crowns	4
MH-430	1,058.00	1,049.00	9	Standard	0.5	245,760	0	2,949,120	1,049.90	1,049.77	Crowns	4

Manhole Table Report - Average Day												
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MH-431	1,033.00	1,023.00	10	Standard	0.5	122,880	0	3,072,000	1,024.15	1,024.12	Crowns	4
MH-433	1,097.00	1,089.17	7.83	Standard	0.5	245,760	0	368,640	1,089.60	1,089.56	Crowns	4
MH-434	1,117.00	1,109.33	7.67	Standard	0.5	122,880	0	122,880	1,109.59	1,109.56	Crowns	4
MH-435	1,107.00	1,098.50	8.5	Standard	0.5	245,760	0	1,843,200	1,099.26	1,099.14	Crowns	4
MH-436	1,121.00	1,112.50	8.5	Standard	0.5	368,640	0	1,597,440	1,113.27	1,113.20	Crowns	4
MH-437	1,140.00	1,131.50	8.5	Standard	0.5	368,640	0	1,228,800	1,132.14	1,132.06	Crowns	4
MH-438	1,162.00	1,153.75	8.25	Standard	0.5	368,640	0	860,160	1,154.30	1,154.23	Crowns	4
MH-439	1,181.00	1,173.00	8	Standard	0.5	491,520	0	491,520	1,173.46	1,173.41	Crowns	4
MH-440	1,334.00	1,326.33	7.67	Standard	0.5	0	0	151,673	1,326.60	1,326.56	Crowns	4
MH-441	1,130.00	1,122.17	7.83	Standard	0.5	245,760	0	368,640	1,122.56	1,122.51	Crowns	4
MH-442	1,157.00	1,149.33	7.67	Standard	0.5	122,880	0	122,880	1,149.58	1,149.55	Crowns	4
MH-443	1,130.00	1,120.50	9.5	Standard	0.5	491,520	0	4,915,200	1,121.59	1,121.42	Crowns	4
MH-444	1,358.00	1,350.33	7.67	Standard	0.5	0	0	138,548	1,350.59	1,350.55	Crowns	4
MH-445	1,150.00	1,141.00	9	Standard	0.5	491,520	0	2,826,240	1,141.89	1,141.76	Crowns	4
MH-446	1,170.00	1,161.00	9	Standard	0.5	368,640	0	2,334,720	1,161.80	1,161.70	Crowns	4
MH-447	1,196.00	1,187.75	8.25	Standard	0.5	491,520	0	1,105,920	1,188.37	1,188.27	Crowns	4
MH-448	1,218.00	1,210.00	8	Standard	0.5	491,520	0	614,400	1,210.51	1,210.45	Crowns	4
MH-449	1,240.00	1,232.33	7.67	Standard	0.5	122,880	0	122,880	1,232.58	1,232.56	Crowns	4
MH-450	1,190.00	1,181.75	8.25	Standard	0.5	245,760	0	860,160	1,182.29	1,182.21	Crowns	4
MH-451	1,219.00	1,211.00	8	Standard	0.5	245,760	0	614,400	1,211.49	1,211.41	Crowns	4
MH-452	1,240.00	1,223.93	16.07	Standard	0.5	245,760	0	368,640	1,224.35	1,224.32	Crowns	4
MH-453	1,250.00	1,242.33	7.67	Standard	0.5	122,880	0	122,880	1,242.59	1,242.57	Crowns	4
MH-454	1,160.00	1,151.50	8.5	Standard	0.5	491,520	0	1,597,440	1,152.21	1,152.10	Crowns	4
MH-455	1,293.00	1,285.00	8	Standard	0.5	0	0	311,851	1,285.36	1,285.32	Crowns	4
MH-456	1,180.00	1,172.00	8	Standard	0.5	368,640	0	491,520	1,172.45	1,172.40	Crowns	4
MH-457	1,202.00	1,194.33	7.67	Standard	0.5	122,880	0	122,880	1,194.58	1,194.56	Crowns	4
MH-458	1,178.00	1,170.00	8	Standard	0.5	245,760	0	614,400	1,170.49	1,170.41	Crowns	4
MH-459	1,198.00	1,190.17	7.83	Standard	0.5	245,760	0	368,640	1,190.59	1,190.54	Crowns	4
MH-460	1,241.00	1,227.61	13.39	Standard	0.5	0	0	1,876,423	1,228.57	1,228.55	Crowns	4
MH-461	1,221.00	1,213.33	7.67	Standard	0.5	122,880	0	122,880	1,213.58	1,213.56	Crowns	4
MH-462	1,080.00	1,068.75	11.25	Standard	0.5	0	0	7,845,136	1,070.35	1,070.29	Crowns	4
MH-463	1,050.00	1,038.50	11.5	Standard	0.5	390,144	0	9,720,818	1,040.21	1,040.14	Crowns	4
MH-464	1,170.00	1,161.75	8.25	Standard	0.5	385,843	0	771,686	1,162.26	1,162.19	Crowns	4
MH-465	1,009.00	1,001.33	7.67	Standard	0.5	61,440	0	61,440	1,001.50	1,001.48	Crowns	4
MH-466	1,176.00	1,168.00	8	Standard	0.5	385,843	0	385,843	1,168.45	1,168.42	Crowns	4
MH-467	1,107.00	1,095.22	11.78	Standard	0.5	245,760	0	9,267,968	1,096.65	1,096.43	Crowns	4
MH-468	1,020.00	996.93	23.07	Standard	0.5	122,880	0	11,507,551	998.79	998.73	Crowns	4
MH-477	1,283.00	1,275.17	7.83	Standard	0.5	0	0	250,472	1,275.55	1,275.53	Crowns	4
MH-478	1,281.00	1,272.20	8.8	Standard	0.5	0	0	250,472	1,272.53	1,272.50	Crowns	4
MH-482	1,255.00	1,247.33	7.67	Standard	0.5	0	0	69,370	1,247.51	1,247.48	Crowns	4
MH-485	1,176.00	1,167.75	8.25	Standard	0.5	0	0	746,333	1,168.25	1,168.17	Crowns	4
MH-486	1,159.00	1,150.00	9	Standard	0.5	0	0	1,228,621	1,150.80	1,150.78	Crowns	4
MH-487	1,168.00	1,159.75	8.25	Standard	0.5	0	0	980,107	1,160.33	1,160.24	Crowns	4
MH-O1	1,312.00	1,304.33	7.67	Standard	0.5	30,720	0	215,134	1,304.66	1,304.61	Crowns	4
MH-O2	1,298.00	1,289.29	8.71	Standard	0.5	61,440	0	790,187	1,289.80	1,289.72	Crowns	4
MH-O3D	1,114.50	1,106.25	8.25	Standard	0.5	280,489	0	280,489	1,106.61	1,106.58	Crowns	4
MH-O4A	1,165.00	1,151.28	13.72	Standard	0.5	81,920	0	5,807,509	1,152.79	1,152.74	Crowns	4
MH-O4B	1,163.00	1,155.33	7.67	Standard	0.5	40,960	0	40,960	1,155.47	1,155.45	Crowns	4
MH-O5B	1,090.00	1,082.00	8	Standard	0.5	1,053,771	0	1,053,771	1,082.65	1,082.54	Crowns	4
MH-O6	1,110.00	1,097.92	12.08	Standard	0.5	130,376	0	810,373	1,098.42	1,098.34	Crowns	4
MH-O7	1,100.00	1,081.13	18.87	Standard	0.5	348,766	0	3,918,935	1,082.49	1,082.46	Crowns	4
MH-O8	1,084.50	1,076.50	8	Standard	0.5	256,344	0	256,344	1,076.86	1,076.84	Crowns	4

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MH-O9	1,095.00	1,086.00	9	Standard	0.5	59,818	2,630,298	2,937,257	1,086.98	1,086.90	Crowns	4
MH-V01.01A	1,113.00	1,097.53	15.47	Standard	0.5	56,663	0	242,642	1,097.85	1,097.83	Crowns	4
MH-V01.01B	1,127.00	1,107.35	19.65	Standard	0.5	56,663	0	185,979	1,107.64	1,107.62	Crowns	4
MH-V01.01C	1,132.00	1,124.33	7.67	Standard	0.5	28,332	0	129,316	1,124.58	1,124.54	Crowns	4
MH-V01.03	1,104.50	1,096.67	7.83	Standard	0.5	26,081	0	216,021	1,096.99	1,096.96	Crowns	4
MH-V01.05	1,113.00	1,105.33	7.67	Standard	0.5	12,396	0	189,940	1,105.63	1,105.59	Crowns	4
MH-V01.07+08B+09+12B	1,107.00	1,097.64	9.36	Standard	0.5	98,268	0	223,454	1,097.93	1,097.90	Crowns	4
MH-V01.08A+11A+12A+14+16	1,117.50	1,109.83	7.67	Standard	0.5	125,186	0	125,186	1,110.07	1,110.04	Crowns	4
MH-V01.11B	1,140.00	1,132.33	7.67	Standard	0.5	100,984	0	100,984	1,132.56	1,132.53	Crowns	4
MH-V01.18	1,125.00	1,117.33	7.67	Standard	0.5	22,111	0	177,544	1,117.62	1,117.58	Crowns	4
MH-V01.19	1,132.00	1,124.33	7.67	Standard	0.5	37,809	0	155,434	1,124.60	1,124.56	Crowns	4
MH-V01.21	1,110.00	1,090.35	19.65	Standard	0.5	54,459	0	736,576	1,090.91	1,090.89	Crowns	4
MH-V01.23A	1,106.00	1,098.17	7.83	Standard	0.5	47,234	0	89,694	1,098.35	1,098.33	Crowns	4
MH-V01.23B	1,105.00	1,093.89	11.11	Standard	0.5	47,234	0	8,147,075	1,095.11	1,094.92	Crowns	4
MH-V01.25	1,110.00	1,102.33	7.67	Standard	0.5	42,460	0	42,460	1,102.47	1,102.45	Crowns	4
MH-V01.26	1,115.00	1,103.84	11.16	Standard	0.5	50,458	0	76,923	1,104.03	1,104.01	Crowns	4
MH-V01.27	1,125.00	1,117.33	7.67	Standard	0.5	26,465	0	26,465	1,117.44	1,117.42	Crowns	4
MH-V01.29	1,141.00	1,117.68	23.32	Standard	0.5	24,968	0	8,022,919	1,119.43	1,119.38	Crowns	4
MH-V02.01	1,140.50	1,131.50	9	Standard	0.5	75,600	0	1,482,651	1,132.12	1,132.03	Crowns	4
MH-V02.02	1,135.00	1,127.33	7.67	Standard	0.5	36,432	0	117,625	1,127.58	1,127.56	Crowns	4
MH-V02.04	1,163.00	1,155.33	7.67	Standard	0.5	81,193	0	81,193	1,155.52	1,155.50	Crowns	4
MH-V02.06	1,149.50	1,140.50	9	Standard	0.5	53,372	0	1,407,051	1,141.38	1,141.36	Crowns	4
MH-V02.07	1,163.00	1,151.13	11.87	Standard	0.5	24,256	0	1,353,679	1,151.77	1,151.67	Crowns	4
MH-V02.08+09B	1,144.50	1,128.97	15.53	Standard	0.5	67,776	0	6,515,299	1,130.10	1,129.93	Crowns	4
MH-V02.09A	1,149.50	1,138.47	11.03	Standard	0.5	35,101	0	5,983,254	1,139.55	1,139.38	Crowns	4
MH-V02.10	1,159.50	1,147.26	12.24	Standard	0.5	26,611	0	443,994	1,147.62	1,147.57	Crowns	4
MH-V02.12	1,160.50	1,152.83	7.67	Standard	0.5	20,275	0	20,275	1,152.93	1,152.91	Crowns	4
MH-V03.01	1,161.00	1,152.50	8.5	Standard	0.5	44,572	0	678,209	1,153.10	1,153.08	Crowns	4
MH-V03.02+07+08B	1,172.50	1,164.25	8.25	Standard	0.5	167,636	0	651,214	1,164.72	1,164.64	Crowns	4
MH-V03.04	1,183.00	1,174.50	8.5	Standard	0.5	31,910	0	633,637	1,174.93	1,174.87	Crowns	4
MH-V03.06	1,194.00	1,182.59	11.41	Standard	0.5	30,036	0	601,727	1,183.02	1,182.95	Crowns	4
MH-V03.08A	1,196.00	1,174.59	21.41	Standard	0.5	87,293	0	361,359	1,175.01	1,174.99	Crowns	4
MH-V03.09+07.01A+03+04+05+06A	1,201.00	1,175.66	25.34	Standard	0.5	244,936	0	274,066	1,176.01	1,175.99	Crowns	4
MH-V03.10	1,184.00	1,171.66	12.34	Standard	0.5	40,911	0	402,270	1,172.11	1,172.09	Crowns	4
MH-V03.11	1,179.00	1,169.67	9.33	Standard	0.5	81,308	0	483,578	1,170.09	1,170.05	Crowns	4
MH-V04.01	1,170.00	1,162.00	8	Standard	0.5	89,476	0	376,422	1,162.37	1,162.32	Crowns	4
MH-V04.02	1,182.00	1,170.46	11.54	Standard	0.5	74,926	0	220,303	1,170.75	1,170.70	Crowns	4
MH-V04.03A	1,178.00	1,170.33	7.67	Standard	0.5	16,661	0	16,661	1,170.43	1,170.42	Crowns	4
MH-V04.03B	1,180.00	1,166.10	13.9	Standard	0.5	49,982	0	286,947	1,166.48	1,166.45	Crowns	4
MH-V04.04+06.01+03+04	1,181.00	1,173.00	8	Standard	0.5	145,377	0	145,377	1,173.25	1,173.23	Crowns	4
MH-V04.07+08	1,180.00	1,172.17	7.83	Standard	0.5	104,690	0	104,690	1,172.38	1,172.36	Crowns	4
MH-V04.10+24	1,181.00	1,166.83	14.17	Standard	0.5	124,685	0	229,375	1,167.14	1,167.10	Crowns	4
MH-V04.11+12	1,191.00	1,178.89	12.11	Standard	0.5	163,175	0	5,349,492	1,179.97	1,179.81	Crowns	4
MH-V04.13+05.01+03+04+05+06+07+19	1,186.00	1,169.99	16.01	Standard	0.5	422,104	0	4,763,394	1,171.40	1,171.37	Crowns	4
MH-V04.15	1,180.00	1,169.18	10.82	Standard	0.5	50,573	0	4,813,967	1,170.15	1,170.00	Crowns	4
MH-V04.16+17	1,170.00	1,159.50	10.5	Standard	0.5	46,264	0	4,860,231	1,160.52	1,160.41	Crowns	4
MH-V04.18+19	1,166.00	1,155.50	10.5	Standard	0.5	122,127	0	4,982,358	1,156.48	1,156.34	Crowns	4
MH-V04.20+21	1,163.00	1,152.50	10.5	Standard	0.5	63,216	0	5,445,661	1,154.03	1,153.99	Crowns	4
MH-V04.22+23B	1,165.50	1,151.80	13.7	Standard	0.5	50,553	0	5,496,214	1,153.34	1,153.30	Crowns	4
MH-V04.23A	1,178.00	1,168.00	10	Standard	0.5	32,953	0	5,382,445	1,169.07	1,168.91	Crowns	4
MH-V04.25	1,167.00	1,151.08	15.92	Standard	0.5	22,203	0	5,829,712	1,152.49	1,152.44	Crowns	4
MH-V04.26	1,160.50	1,150.00	10.5	Standard	0.5	54,317	0	5,884,029	1,151.07	1,150.91	Crowns	4

Manhole Table Report - Average Day												
Label	Ground Elevation (ft)	Sump Elevation (ft)	Structure Depth (ft)	Headloss Method	Headloss Coefficient	Sanitary Base Load (gpd)	Known Flow (gpd)	Total Flow (gpd)	HGL In (ft)	HGL Out (ft)	Pipe Matching	MH Size (ft)
MH-V04.28+30	1,151.00	1,140.50	10.5	Standard	0.5	64,124	0	5,948,153	1,142.10	1,142.06	Crowns	4
MH-V05.09+14+15A	1,197.00	1,186.78	10.22	Standard	0.5	132,941	0	3,993,494	1,187.70	1,187.56	Crowns	4
MH-V05.10+11+13	1,210.00	1,188.08	21.92	Standard	0.5	351,012	0	3,860,553	1,189.43	1,189.40	Crowns	4
MH-V05.15B+16	1,182.00	1,172.00	10	Standard	0.5	347,796	0	4,341,290	1,173.44	1,173.41	Crowns	4
MH-V06.06+07B+13+14B+18+19	1,193.50	1,185.50	8	Standard	0.5	300,598	0	300,598	1,185.91	1,185.88	Crowns	4
MH-V06.07A+08+14A+15	1,208.00	1,198.00	10	Standard	0.5	136,396	0	4,885,719	1,199.02	1,198.87	Crowns	4
MH-V06.09+10+11	1,224.00	1,210.61	13.39	Standard	0.5	116,702	0	4,749,323	1,211.62	1,211.46	Crowns	4
MH-V07.01B	1,200.00	1,192.33	7.67	Standard	0.5	29,130	0	29,130	1,192.45	1,192.43	Crowns	4
MH-V07.02+11A+15	1,200.00	1,192.33	7.67	Standard	0.5	77,601	0	77,601	1,192.53	1,192.51	Crowns	4
MH-V07.06B+09A+10+11B+12	1,220.00	1,212.00	8	Standard	0.5	146,425	0	146,425	1,212.23	1,212.20	Crowns	4
MH-V07.08+09B	1,221.00	1,213.17	7.83	Standard	0.5	133,085	0	133,085	1,213.42	1,213.40	Crowns	4
MH-V07.13+18A	1,210.50	1,202.50	8	Standard	0.5	53,061	0	332,571	1,202.85	1,202.80	Crowns	4
MH-V07.14	1,204.50	1,196.50	8	Standard	0.5	42,232	0	374,803	1,196.94	1,196.92	Crowns	4
MH-V07.17+18B	1,195.00	1,183.91	11.09	Standard	0.5	45,452	0	497,856	1,184.29	1,184.23	Crowns	4
MH-V07.18C	1,202.00	1,191.38	10.62	Standard	0.5	60,849	0	73,834	1,191.57	1,191.55	Crowns	4
MH-V07.19	1,203.00	1,195.33	7.67	Standard	0.5	12,986	0	12,986	1,195.42	1,195.41	Crowns	4
MH-V08.01A	1,200.50	1,192.83	7.67	Standard	0.5	36,384	0	36,384	1,192.96	1,192.94	Crowns	4
MH-V08.01B+09.02A	1,192.00	1,169.92	22.08	Standard	0.5	61,152	0	4,609,635	1,170.92	1,170.81	Crowns	4
MH-V08.04+18	1,198.00	1,188.50	9.5	Standard	0.5	145,981	0	1,808,132	1,189.46	1,189.43	Crowns	4
MH-V08.06+07+09+10+12+15+17	1,204.00	1,195.00	9	Standard	0.5	459,668	0	1,662,151	1,195.66	1,195.56	Crowns	4
MH-V08.13A	1,243.00	1,231.17	11.83	Standard	0.5	34,323	0	1,083,975	1,231.75	1,231.66	Crowns	4
MH-V08.13B	1,240.00	1,232.33	7.67	Standard	0.5	34,323	0	34,323	1,232.46	1,232.44	Crowns	4
MH-V08.14+16	1,223.00	1,210.64	12.36	Standard	0.5	84,184	0	1,202,483	1,211.28	1,211.23	Crowns	4
MH-V09.01	1,179.00	1,171.17	7.83	Standard	0.5	56,034	0	130,338	1,171.42	1,171.40	Crowns	4
MH-V09.02B	1,199.00	1,191.33	7.67	Standard	0.5	74,304	0	74,304	1,191.52	1,191.49	Crowns	4
MH-V09.03A+04C	1,205.00	1,179.75	25.25	Standard	0.5	50,626	0	98,401	1,179.96	1,179.94	Crowns	4
MH-V09.03B	1,195.00	1,187.33	7.67	Standard	0.5	47,774	0	47,774	1,187.49	1,187.48	Crowns	4
MH-V09.04A	1,225.00	1,208.36	16.64	Standard	0.5	34,701	0	2,641,950	1,209.14	1,209.03	Crowns	4
MH-V09.04B+05B	1,228.00	1,208.75	19.25	Standard	0.5	107,351	0	2,252,196	1,209.81	1,209.79	Crowns	4
MH-V09.05A	1,220.00	1,210.50	9.5	Standard	0.5	90,000	0	2,144,845	1,211.57	1,211.54	Crowns	4
MH-V09.07	1,232.00	1,223.75	8.25	Standard	0.5	23,002	0	355,053	1,224.09	1,224.04	Crowns	4
MH-V09.08	1,240.00	1,228.70	11.3	Standard	0.5	42,225	0	332,051	1,229.05	1,229.02	Crowns	4
MH-V09.10A+12B+13B	1,226.00	1,216.50	9.5	Standard	0.5	134,353	0	2,054,845	1,217.19	1,217.08	Crowns	4
MH-V09.10B	1,235.00	1,225.50	9.5	Standard	0.5	12,934	0	1,920,492	1,226.16	1,226.06	Crowns	4
MH-V09.11	1,241.00	1,227.25	13.75	Standard	0.5	31,135	0	1,907,558	1,228.02	1,227.97	Crowns	4
MH-V09.12A	1,242.00	1,232.56	9.44	Standard	0.5	69,291	0	289,827	1,232.92	1,232.90	Crowns	4
MH-V09.13A	1,243.00	1,235.00	8	Standard	0.5	28,925	0	220,536	1,235.33	1,235.31	Crowns	4
MH-V10.02A	1,261.00	1,253.33	7.67	Standard	0.5	27,779	0	160,858	1,253.62	1,253.58	Crowns	4
MH-V10.02B	1,244.50	1,236.00	8.5	Standard	0.5	83,338	0	526,015	1,236.50	1,236.48	Crowns	4
MH-V10.03A	1,255.00	1,247.33	7.67	Standard	0.5	63,238	0	224,096	1,247.66	1,247.61	Crowns	4
MH-V10.03B	1,245.50	1,234.00	11.5	Standard	0.5	63,238	0	589,253	1,234.54	1,234.52	Crowns	4
MH-V10.04+05+09+11+12A	1,243.00	1,234.75	8.25	Standard	0.5	236,303	0	236,303	1,235.07	1,235.05	Crowns	4
MH-V10.07	1,270.50	1,262.83	7.67	Standard	0.5	25,551	0	133,078	1,263.09	1,263.05	Crowns	4
MH-V10.10	1,295.00	1,286.44	8.56	Standard	0.5	79,588	0	107,527	1,286.66	1,286.62	Crowns	4
MH-V10.12	1,300.00	1,292.33	7.67	Standard	0.5	14,352	0	27,939	1,292.44	1,292.43	Crowns	4
MH-V10.14AS	1,340.00	1,332.33	7.67	Standard	0.5	13,587	0	13,587	1,332.41	1,332.40	Crowns	4
MH-V11.01	1,235.00	1,227.33	7.67	Standard	0.5	40,026	0	40,026	1,227.47	1,227.45	Crowns	4
MH-V11.04	1,239.00	1,216.76	22.24	Standard	0.5	88,563	0	782,277	1,217.35	1,217.33	Crowns	4
MH-V11.05	1,230.50	1,215.32	15.18	Standard	0.5	161,986	0	944,263	1,215.99	1,215.97	Crowns	4
MH-V11.06+07B	1,227.00	1,213.13	13.87	Standard	0.5	249,527	0	3,492,421	1,214.40	1,214.37	Crowns	4
MH-V11.07A	1,250.00	1,241.75	8.25	Standard	0.5	77,069	0	479,876	1,242.15	1,242.09	Crowns	4
MH-V11.08A+09+10B+14	1,226.00	1,211.28	14.72	Standard	0.5	168,048	0	4,170,383	1,212.67	1,212.64	Crowns	4

Manhole Table Report - Average Day												
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MH-V11.08B	1,228.00	1,211.81	16.19	Standard	0.5	30,038	0	4,002,335	1,213.19	1,213.16	Crowns	4
MH-V11.10A	1,240.00	1,232.17	7.83	Standard	0.5	21,926	0	462,238	1,232.61	1,232.54	Crowns	4
MH-V11.11	1,250.00	1,242.17	7.83	Standard	0.5	80,790	0	440,312	1,242.60	1,242.53	Crowns	4
MH-V11.13	1,262.00	1,249.68	12.32	Standard	0.5	30,734	0	359,522	1,250.08	1,250.03	Crowns	4
MH-V11.15+16+14.03B+04+07+08B+16A+18	1,265.00	1,249.38	15.62	Standard	0.5	233,706	0	402,807	1,249.84	1,249.82	Crowns	4
MH-V11.17+20	1,265.00	1,256.00	9	Standard	0.5	219,832	0	2,298,632	1,256.78	1,256.66	Crowns	4
MH-V11.18+19	1,244.50	1,235.91	8.59	Standard	0.5	276,673	0	653,688	1,236.37	1,236.30	Crowns	4
MH-V11.21	1,300.00	1,277.85	22.15	Standard	0.5	133,298	0	2,078,799	1,278.72	1,278.67	Crowns	4
MH-V11.22+23+24+26+V16.24+26+27	1,245.00	1,236.75	8.25	Standard	0.5	377,015	0	377,015	1,237.18	1,237.16	Crowns	4
MH-V12.01	1,224.00	1,216.33	7.67	Standard	0.5	17,006	0	17,006	1,216.42	1,216.41	Crowns	4
MH-V12.02+04+05	1,220.50	1,198.15	22.35	Standard	0.5	114,776	0	131,782	1,198.40	1,198.38	Crowns	4
MH-V12.07+08+09+15+16B+17+18	1,217.00	1,192.23	24.77	Standard	0.5	332,645	0	464,427	1,192.70	1,192.68	Crowns	4
MH-V12.11+14+16A	1,224.00	1,211.45	12.55	Standard	0.5	121,809	0	3,045,114	1,212.25	1,212.13	Crowns	4
MH-V12.12+13	1,241.00	1,212.83	28.17	Standard	0.5	89,568	0	2,923,305	1,213.99	1,213.96	Crowns	4
MH-V13.01	1,260.00	1,252.33	7.67	Standard	0.5	95,869	0	95,869	1,252.56	1,252.53	Crowns	4
MH-V13.02+04B+10B	1,254.00	1,246.33	7.67	Standard	0.5	121,073	0	216,943	1,246.66	1,246.62	Crowns	4
MH-V13.04A+05+06+09B+10A	1,243.00	1,234.75	8.25	Standard	0.5	247,899	0	464,841	1,235.14	1,235.08	Crowns	4
MH-V13.07+08	1,280.00	1,254.47	25.53	Standard	0.5	106,158	0	1,605,508	1,255.22	1,255.17	Crowns	4
MH-V13.09A+11+12+23B	1,259.00	1,250.00	9	Standard	0.5	198,310	0	1,803,818	1,250.69	1,250.58	Crowns	4
MH-V13.13+14+16+17+18+23A	1,233.00	1,218.25	14.75	Standard	0.5	280,239	0	565,078	1,218.78	1,218.76	Crowns	4
MH-V13.19	1,243.00	1,235.17	7.83	Standard	0.5	109,325	0	284,840	1,235.51	1,235.46	Crowns	4
MH-V13.20+21+22	1,261.00	1,253.33	7.67	Standard	0.5	175,515	0	175,515	1,253.62	1,253.58	Crowns	4
MH-V13.24	1,280.00	1,255.84	24.16	Standard	0.5	47,674	0	709,164	1,256.39	1,256.37	Crowns	4
MH-V13.25+27+28+32	1,269.00	1,261.17	7.83	Standard	0.5	111,732	0	111,732	1,261.39	1,261.37	Crowns	4
MH-V13.26	1,290.00	1,282.00	8	Standard	0.5	61,263	0	549,758	1,282.46	1,282.39	Crowns	4
MH-V13.29+31	1,299.50	1,291.50	8	Standard	0.5	71,555	0	488,494	1,291.95	1,291.89	Crowns	4
MH-V14.01+10	1,282.00	1,273.70	8.3	Standard	0.5	80,221	0	220,152	1,274.02	1,273.97	Crowns	4
MH-V14.03A+12+14+08A	1,262.00	1,254.17	7.83	Standard	0.5	108,636	0	108,636	1,254.39	1,254.37	Crowns	4
MH-V14.05+16B+19	1,263.00	1,255.00	8	Standard	0.5	169,101	0	169,101	1,255.28	1,255.26	Crowns	4
MH-V14.11+13	1,289.00	1,280.04	8.96	Standard	0.5	70,823	0	139,930	1,280.32	1,280.29	Crowns	4
MH-V15.01A	1,255.00	1,247.33	7.67	Standard	0.5	27,390	0	27,390	1,247.44	1,247.43	Crowns	4
MH-V15.01B	1,259.50	1,251.83	7.67	Standard	0.5	27,390	0	164,222	1,252.11	1,252.07	Crowns	4
MH-V15.02	1,275.00	1,267.33	7.67	Standard	0.5	65,350	0	136,832	1,267.58	1,267.55	Crowns	4
MH-V15.04+05+06+08+09+11+12+13+16+18	1,248.00	1,240.17	7.83	Standard	0.5	442,677	0	442,677	1,240.60	1,240.53	Crowns	4
MH-V15.14	1,287.50	1,279.83	7.67	Standard	0.5	71,482	0	71,482	1,280.01	1,279.98	Crowns	4
MH-V16.01	1,314.00	1,288.89	25.11	Standard	0.5	62,448	0	984,300	1,289.39	1,289.32	Crowns	4
MH-V16.03+04	1,327.00	1,319.33	7.67	Standard	0.5	91,501	0	91,501	1,319.54	1,319.51	Crowns	4
MH-V16.05	1,326.50	1,318.25	8.25	Standard	0.5	55,388	0	371,949	1,318.68	1,318.66	Crowns	4
MH-V16.08	1,345.00	1,337.17	7.83	Standard	0.5	26,986	0	209,571	1,337.46	1,337.41	Crowns	4
MH-V16.09+10	1,350.00	1,342.33	7.67	Standard	0.5	106,990	0	106,990	1,342.56	1,342.52	Crowns	4
MH-V16.11+12+14+15	1,349.50	1,341.83	7.67	Standard	0.5	142,880	0	142,880	1,342.09	1,342.05	Crowns	4
MH-V16.17+31	1,315.00	1,307.00	8	Standard	0.5	228,710	0	228,710	1,307.34	1,307.32	Crowns	4
MH-V16.18+19	1,334.00	1,326.33	7.67	Standard	0.5	120,799	0	263,679	1,326.69	1,326.63	Crowns	4
MH-V16.21+22+17.22+23+24B	1,334.00	1,322.28	11.72	Standard	0.5	240,931	0	975,421	1,322.86	1,322.77	Crowns	4
MH-V17.01+02	1,310.00	1,300.92	9.08	Standard	0.5	101,217	0	1,799,703	1,301.67	1,301.55	Crowns	4
MH-V17.03	1,303.00	1,288.89	14.11	Standard	0.5	86,515	0	145,798	1,289.14	1,289.12	Crowns	4
MH-V17.06	1,303.00	1,295.33	7.67	Standard	0.5	59,283	0	59,283	1,295.50	1,295.48	Crowns	4
MH-V17.07	1,324.00	1,314.27	9.73	Standard	0.5	32,675	0	119,242	1,314.51	1,314.49	Crowns	4
MH-V17.09+13+14+15+16+17+18+19	1,300.00	1,291.75	8.25	Standard	0.5	513,613	0	513,613	1,292.28	1,292.26	Crowns	4
MH-V17.11	1,295.00	1,287.33	7.67	Standard	0.5	69,107	0	69,107	1,287.51	1,287.49	Crowns	4
MH-V17.20A	1,325.00	1,317.33	7.67	Standard	0.5	86,567	0	86,567	1,317.54	1,317.52	Crowns	4
MH-V17.20B+24A	1,320.00	1,307.21	12.79	Standard	0.5	111,433	0	230,675	1,307.55	1,307.53	Crowns	4

Manhole Table Report - Average Day												
Label	Ground Elevation (ft)	Sump Elevation (ft)	Structure Depth (ft)	Headloss Method	Headloss Coefficient	Sanitary Base Load (gpd)	Known Flow (gpd)	Total Flow (gpd)	HGL In (ft)	HGL Out (ft)	Pipe Matching	MH Size (ft)
MH-V18.01+02	1,335.00	1,325.03	9.97	Standard	0.5	100,070	0	409,809	1,325.49	1,325.46	Crowns	4
MH-V18.03	1,341.00	1,329.80	11.2	Standard	0.5	118,863	0	309,738	1,330.21	1,330.19	Crowns	4
MH-V18.04+05	1,341.00	1,333.00	8	Standard	0.5	42,705	0	190,875	1,333.30	1,333.28	Crowns	4
MH-V18.06+07B	1,355.00	1,347.33	7.67	Standard	0.5	148,170	0	148,170	1,347.59	1,347.55	Crowns	4
MH-V18.07A	1,349.00	1,341.33	7.67	Standard	0.5	36,368	0	36,368	1,341.46	1,341.44	Crowns	4
MH-V18.08A+09	1,352.00	1,340.40	11.6	Standard	0.5	86,128	0	139,581	1,340.65	1,340.61	Crowns	4
MH-V18.08B	1,358.00	1,350.33	7.67	Standard	0.5	53,453	0	53,453	1,350.49	1,350.47	Crowns	4
MH-V18.10	1,340.00	1,332.33	7.67	Standard	0.5	65,350	0	101,718	1,332.55	1,332.52	Crowns	4
MH-V18.12	1,331.00	1,323.33	7.67	Standard	0.5	91,987	0	231,568	1,323.66	1,323.61	Crowns	4
MH-V18.14	1,320.00	1,312.17	7.83	Standard	0.5	59,514	0	291,081	1,312.52	1,312.46	Crowns	4
MH-V18.15+16A	1,310.00	1,302.00	8	Standard	0.5	125,858	0	416,939	1,302.44	1,302.40	Crowns	4
MH-V18.16B	1,330.00	1,322.33	7.67	Standard	0.5	82,696	0	184,414	1,322.63	1,322.58	Crowns	4
MH-V19.01	1,341.00	1,333.17	7.83	Standard	0.5	62,722	0	277,802	1,333.51	1,333.47	Crowns	4
MH-V19.02	1,354.00	1,346.33	7.67	Standard	0.5	76,531	0	215,080	1,346.66	1,346.62	Crowns	4
MH-V19.04	1,360.00	1,352.33	7.67	Standard	0.5	46,880	0	46,880	1,352.48	1,352.46	Crowns	4
MH-V19.06A+07	1,375.00	1,367.33	7.67	Standard	0.5	138,548	0	138,548	1,367.59	1,367.55	Crowns	4
MH-V19.06B+10	1,365.00	1,357.33	7.67	Standard	0.5	80,319	0	80,319	1,357.53	1,357.51	Crowns	4
MH-V19.08+09	1,361.00	1,350.49	10.51	Standard	0.5	102,267	0	182,586	1,350.78	1,350.73	Crowns	4
MH-V19.11A+12A+20.16+23+24	1,303.00	1,295.00	8	Standard	0.5	205,573	0	458,402	1,295.43	1,295.37	Crowns	4
MH-V19.11B	1,360.00	1,351.52	8.48	Standard	0.5	34,232	0	84,222	1,351.72	1,351.69	Crowns	4
MH-V19.12B+14	1,363.00	1,355.33	7.67	Standard	0.5	49,990	0	49,990	1,355.48	1,355.46	Crowns	4
MH-V19.13	1,345.00	1,337.00	8	Standard	0.5	102,321	0	186,543	1,337.30	1,337.27	Crowns	4
MH-V19.15+17	1,360.00	1,352.33	7.67	Standard	0.5	63,433	0	63,433	1,352.51	1,352.48	Crowns	4
MH-V19.19	1,360.00	1,352.33	7.67	Standard	0.5	24,762	0	24,762	1,352.44	1,352.42	Crowns	4
MH-V19.20	1,345.00	1,335.10	9.9	Standard	0.5	18,906	0	107,101	1,335.33	1,335.30	Crowns	4
MH-V19.21	1,338.00	1,330.33	7.67	Standard	0.5	44,572	0	151,673	1,330.61	1,330.58	Crowns	4
MH-V20.01	1,244.00	1,236.17	7.83	Standard	0.5	130,372	0	130,372	1,236.42	1,236.40	Crowns	4
MH-V20.02+03	1,260.00	1,251.00	9	Standard	0.5	117,757	0	1,746,051	1,251.68	1,251.57	Crowns	4
MH-V20.05	1,283.00	1,271.17	11.83	Standard	0.5	48,507	0	1,147,417	1,271.71	1,271.63	Crowns	4
MH-V20.06	1,276.00	1,266.82	9.18	Standard	0.5	50,296	0	1,628,294	1,267.48	1,267.38	Crowns	4
MH-V20.08	1,280.00	1,271.75	8.25	Standard	0.5	44,915	0	430,581	1,272.22	1,272.20	Crowns	4
MH-V20.09+10	1,284.00	1,276.17	7.83	Standard	0.5	86,674	0	114,610	1,276.40	1,276.38	Crowns	4
MH-V20.11A+12	1,291.00	1,283.00	8	Standard	0.5	73,814	0	385,665	1,283.38	1,283.32	Crowns	4
MH-V20.11B	1,294.00	1,286.33	7.67	Standard	0.5	27,936	0	27,936	1,286.44	1,286.43	Crowns	4
MH-V20.17+18B	1,313.00	1,305.00	8	Standard	0.5	75,514	0	311,851	1,305.34	1,305.29	Crowns	4
MH-V20.18A	1,330.00	1,318.45	11.55	Standard	0.5	25,344	0	236,337	1,318.75	1,318.72	Crowns	4
MH-V20.19+20	1,327.50	1,319.50	8	Standard	0.5	59,321	0	210,993	1,319.82	1,319.80	Crowns	4
MH-V20.21+25	1,344.50	1,333.70	10.8	Standard	0.5	66,286	0	252,829	1,334.00	1,333.96	Crowns	4
MH-V21.01	1,239.00	1,230.75	8.25	Standard	0.5	15,386	0	626,807	1,231.22	1,231.16	Crowns	4
MH-V21.03A	1,247.00	1,238.75	8.25	Standard	0.5	13,776	0	542,051	1,239.17	1,239.11	Crowns	4
MH-V21.03B	1,261.00	1,253.00	8	Standard	0.5	13,776	0	69,370	1,253.18	1,253.16	Crowns	4
MH-V21.05+06B	1,265.00	1,257.33	7.67	Standard	0.5	55,594	0	55,594	1,257.49	1,257.47	Crowns	4
MH-V21.06A	1,259.00	1,248.16	10.84	Standard	0.5	22,919	0	528,275	1,248.58	1,248.51	Crowns	4
MH-V21.07+09	1,260.00	1,252.33	7.67	Standard	0.5	71,453	0	71,453	1,252.53	1,252.51	Crowns	4
MH-V21.08	1,275.00	1,267.33	7.67	Standard	0.5	47,754	0	183,430	1,267.63	1,267.58	Crowns	4
MH-V21.10	1,287.00	1,279.33	7.67	Standard	0.5	13,281	0	135,676	1,279.59	1,279.55	Crowns	4
MH-V21.11	1,299.00	1,291.33	7.67	Standard	0.5	54,144	0	250,472	1,291.68	1,291.63	Crowns	4
MH-V21.13	1,318.00	1,310.33	7.67	Standard	0.5	88,211	0	122,395	1,310.57	1,310.53	Crowns	4
MH-V21.14A+16+17	1,324.50	1,316.83	7.67	Standard	0.5	159,476	0	159,476	1,317.11	1,317.07	Crowns	4
MH-V21.14B	1,309.00	1,301.33	7.67	Standard	0.5	36,852	0	196,328	1,301.64	1,301.60	Crowns	4
MH-V21.18	1,336.00	1,328.33	7.67	Standard	0.5	34,184	0	34,184	1,328.46	1,328.44	Crowns	4
MH-V22.01	1,235.00	1,212.45	22.55	Standard	0.5	30,198	0	171,314	1,212.73	1,212.71	Crowns	4

Manhole Table Report - Average Day												
Label	Ground Elevation (ft)	Sump Elevation (ft)	Structure Depth (ft)	Headloss Method	Headloss Coefficient	Sanitary Base Load (gpd)	Known Flow (gpd)	Total Flow (gpd)	HGL In (ft)	HGL Out (ft)	Pipe Matching	MH Size (ft)
MH-V22.03	1,223.00	1,207.88	15.12	Standard	0.5	25,421	0	196,735	1,208.15	1,208.11	Crowns	4
MH-V22.04	1,240.50	1,225.44	15.06	Standard	0.5	52,485	0	179,304	1,225.70	1,225.66	Crowns	4
MH-V22.05	1,202.00	1,194.00	8	Standard	0.5	15,872	0	212,607	1,194.32	1,194.30	Crowns	4
MH-V22.06A	1,186.00	1,178.00	8	Standard	0.5	35,907	0	233,774	1,178.29	1,178.25	Crowns	4
MH-V22.06B	1,185.00	1,177.00	8	Standard	0.5	35,907	0	248,514	1,177.30	1,177.26	Crowns	4
MH-V22.08A	1,215.00	1,206.75	8.25	Standard	0.5	43,277	0	703,056	1,207.24	1,207.16	Crowns	4
MH-V22.08B	1,194.00	1,185.75	8.25	Standard	0.5	43,277	0	746,333	1,186.25	1,186.17	Crowns	4
MH-V22.09	1,220.00	1,212.00	8	Standard	0.5	18,563	0	197,867	1,212.31	1,212.29	Crowns	4
MH-V22.10	1,241.00	1,228.89	12.11	Standard	0.5	47,174	0	126,819	1,229.13	1,229.11	Crowns	4
MH-V22.12	1,228.00	1,219.75	8.25	Standard	0.5	32,973	0	659,779	1,220.22	1,220.15	Crowns	4
MH-V22.13	1,242.00	1,231.63	10.37	Standard	0.5	32,675	0	79,645	1,231.82	1,231.80	Crowns	4
MH-V22.14+15	1,247.00	1,239.33	7.67	Standard	0.5	46,970	0	46,970	1,239.48	1,239.46	Crowns	4
MH-V22.16+17	1,225.00	1,217.17	7.83	Standard	0.5	141,116	0	141,116	1,217.43	1,217.41	Crowns	4
MH-V23.01+04	1,094.50	1,086.83	7.67	Standard	0.5	199,518	0	199,518	1,087.17	1,087.14	Crowns	4
MH-V23.02	1,111.00	1,103.33	7.67	Standard	0.5	76,340	0	76,340	1,103.52	1,103.49	Crowns	4
MH-V23.03	1,090.50	1,082.83	7.67	Standard	0.5	10,978	0	10,978	1,082.90	1,082.89	Crowns	4
MH-V24.01+03A+16A+17A+18	1,080.00	1,070.00	10	Standard	0.5	483,164	0	3,650,343	1,071.23	1,071.19	Crowns	4
MH-V24.03B+04	1,108.00	1,100.17	7.83	Standard	0.5	87,875	0	87,875	1,100.36	1,100.34	Crowns	4
MH-V24.05+06+07A+O5A	1,085.00	1,076.50	8.5	Standard	0.5	910,216	0	910,216	1,077.11	1,077.07	Crowns	4
MH-V24.07B+08	1,080.00	1,071.75	8.25	Standard	0.5	75,880	0	1,129,651	1,072.41	1,072.34	Crowns	4
MH-V24.09	1,075.00	1,066.50	8.5	Standard	0.5	113,846	0	1,243,498	1,067.15	1,067.07	Crowns	4
MH-V24.10	1,085.00	1,071.07	13.93	Standard	0.5	18,612	0	1,061,805	1,071.60	1,071.52	Crowns	4
MH-V24.11+12B	1,080.00	1,058.59	21.41	Standard	0.5	133,727	0	2,439,030	1,059.43	1,059.33	Crowns	4
MH-V24.12A	1,085.00	1,077.33	7.67	Standard	0.5	191,268	0	191,268	1,077.63	1,077.59	Crowns	4
MH-V24.13+14	1,082.00	1,073.00	9	Standard	0.5	132,977	0	1,043,193	1,073.72	1,073.69	Crowns	4
MH-V24.15	1,101.00	1,091.91	9.09	Standard	0.5	118,778	0	247,141	1,092.29	1,092.26	Crowns	4
MH-V24.16B	1,108.00	1,097.74	10.26	Standard	0.5	40,488	0	128,363	1,097.98	1,097.96	Crowns	4
MH-V24.17B	1,092.00	1,083.00	9	Standard	0.5	229,922	0	3,167,179	1,083.97	1,083.86	Crowns	4
MH-V25.01+03+O3C	1,129.00	1,121.17	7.83	Standard	0.5	421,575	0	421,575	1,121.59	1,121.52	Crowns	4
MH-V25.04	1,110.00	1,101.50	8.5	Standard	0.5	258,422	0	679,998	1,102.10	1,102.08	Crowns	4
MH-V25.05+19+20+21+22+O3B	1,100.00	1,083.80	16.2	Standard	0.5	1,523,871	0	2,759,796	1,084.93	1,084.90	Crowns	4
MH-V25.06+07+08+09	1,079.00	1,070.50	8.5	Standard	0.5	719,492	0	719,492	1,071.12	1,071.10	Crowns	4
MH-V25.10+12+13+14	1,076.00	1,065.22	10.78	Standard	0.5	1,052,343	0	1,771,835	1,065.97	1,065.85	Crowns	4
MH-V25.15+16+17+18+O3A	1,097.50	1,088.50	9	Standard	0.5	1,235,924	0	1,235,924	1,089.30	1,089.28	Crowns	4

Phase 1
Peak Day
Pipe Table Report

Pipe Table Report - Peak Day													
Label	Size (inch)	Length (ft)	Manning's n	Slope (ft/ft)	Velocity (ft/s)	d/D (%)	Downstream Cover (ft)	Upstream Cover (ft)	Upstream Node	Upstream Invert El (ft)	Downstream Node	Downstream Invert El (ft)	Total Flow (gpd)
P-045	15 inch	1,260.00	0.013	0.0018	2	36.4	9.3	7.0	MH-O3D	1,106.25	MH-92	1,103.92	560,978
P-049	12 inch	1,328.00	0.013	0.0024	2	35.5	14.2	18.5	MH-102	1,100.99	MH-V01.01A	1,097.78	371,958
P-050	12 inch	2,623.00	0.013	0.0024	2	41	18.5	18.7	MH-V01.01B	1,107.35	MH-102	1,100.99	371,958
P-051	10 inch	1,183.00	0.013	0.0031	2	36.3	18.7	7.0	MH-100	1,111.17	MH-V01.01B	1,107.51	258,632
P-052	48 inch	1,014.00	0.013	0.0028	3.78	21.4	7.0	12.1	MH-14	1,116.88	MH-15	1,114.00	4,471,561
P-053	48 inch	1,602.00	0.013	0.0005	2.04	27.3	12.1	19.3	MH-V01.29	1,117.68	MH-14	1,116.88	4,471,561
P-054	42 inch	638.00	0.013	0.0005	1.78	25.4	19.3	7.0	MH-104	1,118.50	MH-V01.29	1,118.18	2,657,964
P-055	42 inch	2,645.00	0.013	0.004	3.71	23.1	7.0	12.0	MH-V02.08+09B	1,128.97	MH-104	1,118.50	2,657,964
P-056	42 inch	1,025.00	0.013	0.0093	4.29	16.9	12.0	7.5	MH-V02.09A	1,138.47	MH-V02.08+09B	1,128.97	1,593,873
P-059	15 inch	1,074.00	0.013	0.0014	2	44	10.7	12.7	MH-168	1,149.01	MH-V02.10	1,147.51	834,765
P-062	36 inch	2,397.00	0.013	0.0063	2.5	7.8	7.0	7.0	MH-V04.23A	1,168.00	MH-V04.20+21	1,153.00	392,255
P-063	36 inch	2,953.00	0.013	0.0037	1.97	8.6	7.0	9.1	MH-V04.11+12	1,178.89	MH-V04.23A	1,168.00	326,349
P-071	12 inch	1,901.00	0.013	0.0022	2.14	53.2	7.0	12.9	MH-V04.03B	1,166.10	MH-V04.01	1,162.00	573,893
P-072	12 inch	553.00	0.013	0.0079	3.21	45.1	12.9	10.5	MH-V04.02	1,170.46	MH-V04.03B	1,166.10	440,607
P-075	18 inch	1,131.00	0.013	0.0054	1.48	8.7	7.0	9.9	MH-V03.06	1,182.59	MH-69	1,176.50	60,073
P-079	12 inch	868.00	0.013	0.0029	2	36.8	10.5	7.0	MH-V04.04+06.01+03+04	1,173.00	MH-V04.02	1,170.46	290,755
P-087	24 inch	2,426.00	0.013	0.0007	2	59.8	23.7	7.0	MH-187	1,061.00	MH-188	1,059.35	2,486,996
P-418	8 inch	1,115.00	0.013	0.0035	1.19	25.9	12.9	7.0	MH-V04.03A	1,170.33	MH-V04.03B	1,166.43	33,322
P-419	24 inch	5,425.00	0.013	0.0007	2	46.4	13.2	7.0	MH-V25.15+16+17+18+O3A	1,088.50	MH-V25.05+19+20+21+22+O3B	1,084.80	2,471,849
P-420	36 inch	5,343.00	0.013	0.0005	2.18	62.1	15.9	13.2	MH-V25.05+19+20+21+22+O3B	1,083.80	MH-O7	1,081.13	5,519,591
P-427	8 inch	525.00	0.013	0.0076	2.06	24.3	7.0	7.0	MH-V01.25	1,102.33	MH-V01.23A	1,098.33	84,920
P-435	18 inch	1,605.00	0.013	0.0095	4.79	36.8	15.9	10.6	MH-O6	1,097.92	MH-O7	1,082.63	1,620,747
P-438	18 inch	989.00	0.013	0.0013	2	36.3	12.0	21.2	MH-177	1,132.26	MH-V02.08+09B	1,130.97	928,538
P-439	18 inch	713.00	0.013	0.0201	5.27	37	25.6	10.7	MH-V02.10	1,147.26	MH-204	1,132.90	887,987
P-440	18 inch	492.00	0.013	0.0013	2	43.7	21.2	25.6	MH-204	1,132.90	MH-177	1,132.26	928,538
P-441	8 inch	1,037.00	0.013	0.013	2	18.5	18.0	7.0	MH-V02.12	1,152.83	MH-206	1,139.36	40,550
P-442	8 inch	433.00	0.013	0.013	2	15.8	25.6	18.0	MH-206	1,139.36	MH-204	1,133.74	40,550
P-443	12 inch	1,505.00	0.013	0.0085	3.82	43.3	12.7	7.0	MH-V04.01	1,162.00	MH-168	1,149.26	752,845
P-444	18 inch	682.00	0.013	0.0029	1.2	10.7	7.0	7.0	MH-69	1,176.50	MH-V03.04	1,174.50	60,073
P-445	18 inch	3,355.00	0.013	0.006	1.91	12.1	7.0	7.0	MH-V03.04	1,174.50	MH-208	1,154.50	123,894
P-446	18 inch	574.00	0.013	0.0035	1.58	17	7.0	7.0	MH-208	1,154.50	MH-V03.01	1,152.50	123,894
P-447	18 inch	1,353.00	0.013	0.001	1.21	33.4	10.4	7.0	MH-V03.01	1,152.50	MH-V02.07	1,151.13	213,038
P-448	18 inch	1,505.00	0.013	0.0067	4.14	37	7.0	10.4	MH-V02.07	1,151.13	MH-V02.06	1,141.00	1,505,718
P-449	24 inch	1,330.00	0.013	0.0006	1.76	39.8	13.4	7.0	MH-V02.06	1,140.50	MH-212	1,139.65	1,612,462
P-450	24 inch	2,284.00	0.013	0.0036	3.28	31.5	7.0	13.4	MH-212	1,139.65	MH-V02.01	1,131.50	1,612,462
P-451	24 inch	1,089.00	0.013	0.0109	5.01	25.9	19.3	7.0	MH-V02.01	1,131.50	MH-V01.29	1,119.68	1,763,662
P-452	8 inch	3,531.00	0.013	0.0079	2.51	44.8	7.0	7.0	MH-V02.04	1,155.33	MH-V02.02	1,127.33	162,386
P-453	8 inch	821.00	0.013	0.0037	2.09	54	7.0	7.0	MH-V02.02	1,127.33	MH-V01.19	1,124.33	235,250
P-454	8 inch	987.00	0.013	0.0071	2.87	55.6	7.0	7.0	MH-V01.19	1,124.33	MH-V01.18	1,117.33	310,867
P-455	8 inch	1,567.00	0.013	0.0077	3.06	59.3	7.0	7.0	MH-V01.18	1,117.33	MH-V01.05	1,105.33	355,089
P-456	8 inch	1,365.00	0.013	0.0062	2.87	55.4	7.0	7.0	MH-V01.05	1,105.33	MH-V01.03	1,096.83	379,880
P-457	10 inch	1,420.00	0.013	0.0032	2.31	47.8	7.0	7.0	MH-V01.03	1,096.67	MH-220	1,092.14	432,042
P-458	18 inch	617.00	0.013	0.001	2	47.1	17.7	7.0	MH-220	1,091.47	MH-V01.21	1,090.85	1,364,234
P-466	15 inch	2,529.00	0.013	0.0021	2	46.9	12.4	14.2	MH-V01.01A	1,097.53	MH-228	1,092.31	485,284
P-467	15 inch	453.00	0.013	0.0013	2	54.3	7.0	12.4	MH-228	1,092.31	MH-220	1,091.72	932,192
P-468	12 inch	1,052.00	0.013	0.0048	2.7	42.7	12.4	8.4	MH-V01.07+08B+09+12B	1,097.64	MH-228	1,092.56	446,908
P-469	8 inch	1,132.00	0.013	0.0044	2.16	44.7	7.0	7.0	MH-V01.11B	1,132.33	MH-222	1,127.33	201,969
P-473	8 inch	959.00	0.013	0.0035	2.09	48	8.4	7.0	MH-234	1,101.33	MH-V01.07+08B+09+12B	1,097.98	250,372
P-476	8 inch	893.00	0.013	0.0095	3.03	50.5	7.0	7.0	MH-V01.08A+11A+12A+14+16	1,109.83	MH-234	1,101.33	250,372
P-481	8 inch	1,301.00	0.013	0.0104	2	30.8	10.5	7.0	MH-V01.27	1,117.33	MH-V01.26	1,103.84	52,931
P-482	8 inch	860.00	0.013	0.0044	2	40.5	8.8	10.5	MH-V01.26	1,103.84	MH-242	1,100.06	153,846
P-483	48 inch	1,565.00	0.013	0.0127	6.41	25.1	14.9	7.0	MH-15	1,114.00	MH-243	1,094.12	4,471,561
P-484	48 inch	477.00	0.013	0.0005	2.06	26.6	7.1	14.9	MH-243	1,094.12	MH-V01.23B	1,093.89	4,625,407
P-485	8 inch	744.00	0.013	0.0035	1.84	36.7	14.9	8.8	MH-242	1,100.06	MH-243	1,097.46	153,846
P-486	15 inch	1,243.00	0.013	0.0123	3.95	26.4	18.2	9.3	MH-92	1,103.92	355th WRF	1,088.60	560,978
P-487	42 inch	2,243.00	0.013	0.0005	1.52	22.1	7.1	7.0	MH-V04.28+30	1,140.50	MH-245	1,139.38	1,523,670
P-488	42 inch	1,826.00	0.013	0.0005	1.52	18.8	7.5	7.1	MH-245	1,139.38	MH-V02.09A	1,138.47	1,523,670
P-489	42 inch	1,365.00	0.013	0.0008	1.7	16.3	7.0	12.4	MH-V04.25	1,151.08	MH-V04.26	1,150.00	1,286,788
P-490	42 inch	941.00	0.013	0.0101	4.24	17.4	7.0	7.0	MH-V04.26	1,150.00	MH-V04.28+30	1,140.50	1,395,422
P-491	8 inch	450.00	0.013	0.0067	2.51	45.7	7.0	7.0	MH-222	1,127.33	MH-V01.01C	1,124.33	201,969

Pipe Table Report - Peak Day													
Label	Size (inch)	Length (ft)	Manning's n	Slope (ft/ft)	Velocity (ft/s)	d/D (%)	Downstream Cover (ft)	Upstream Cover (ft)	Upstream Node	Upstream Invert El (ft)	Downstream Node	Downstream Invert El (ft)	Total Flow (gpd)
P-492	8 inch	975.00	0.013	0.0133	3.45	40.4	7.0	7.0	MH-V01.01C	1,124.33	MH-100	1,111.33	258,632
P-500	15 inch	1,565.00	0.013	0.0082	4.28	41.8	10.4	7.0	MH-V03.02+07+08B	1,164.25	MH-V02.07	1,151.38	1,244,168
P-503	15 inch	566.00	0.013	0.0019	1.94	41.1	20.2	24.1	MH-V03.09+07.01A+03+04+05+06A	1,175.66	MH-V03.08A	1,174.59	489,872
P-504	15 inch	1,909.00	0.013	0.0015	1.96	47.6	11.1	20.2	MH-V03.08A	1,174.59	MH-V03.10	1,171.66	664,457
P-505	15 inch	1,393.00	0.013	0.0014	1.96	48.2	8.1	11.1	MH-V03.10	1,171.66	MH-V03.11	1,169.67	746,280
P-506	15 inch	1,708.00	0.013	0.0032	2.77	47.9	7.0	8.1	MH-V03.11	1,169.67	MH-V03.02+07+08B	1,164.25	908,896
P-524	42 inch	1,056.00	0.013	0.0005	1.16	17	10.2	10.2	MH-V04.22+23B	1,151.80	MH-O4A	1,151.28	619,792
P-525	42 inch	1,394.00	0.013	0.0005	1.1	13.7	10.2	7.0	MH-V04.20+21	1,152.50	MH-V04.22+23B	1,151.80	518,686
P-527	42 inch	1,445.00	0.013	0.0077	3.76	11.2	11.1	7.0	MH-280	1,149.50	Camelback WRF	1,138.41	1,282,136
P-528	10 inch	1,474.00	0.013	0.0036	2	44.4	13.3	7.0	MH-V04.07+08	1,172.17	MH-V04.10+24	1,166.83	209,381
P-529	10 inch	2,678.00	0.013	0.0048	2.74	46.3	10.2	13.3	MH-V04.10+24	1,166.83	MH-O4A	1,153.94	458,750
P-538	42 inch	1,625.00	0.013	0.0005	1.27	14.2	7.3	12.5	MH-V04.13+05.01+03+04+05+06+07+19	1,169.99	MH-V04.15	1,169.18	844,208
P-594	48 inch	2,845.00	0.013	0.0055	4.77	18.1	7.0	11.3	MH-333	1,144.74	HASSAYAMPA RANCH WRF	1,129.00	4,425,139
P-596	42 inch	1,148.00	0.013	0.006	3.26	12.7	7.0	12.1	MH-331	1,164.44	MH-334	1,157.50	1,055,040
P-598	10 inch	2,559.00	0.013	0.0074	3.73	61.2	7.0	7.0	MH-V25.01+03+O3C	1,121.17	MH-V25.04	1,102.17	843,151
P-601	18 inch	1,539.00	0.013	0.001	2	58.6	8.6	7.0	MH-V25.04	1,101.50	MH-337	1,099.94	1,359,995
P-602	18 inch	1,988.00	0.013	0.001	2	52.5	10.6	8.6	MH-337	1,099.94	MH-O6	1,097.92	1,359,995
P-611	36 inch	938.00	0.013	0.0081	6.66	40.9	7.5	10.9	MH-342	1,079.10	MH-343	1,071.47	7,837,870
P-613	42 inch	1,333.00	0.013	0.0073	3.36	11.9	7.0	7.3	MH-V04.15	1,169.18	MH-V04.16+17	1,159.50	945,353
P-614	42 inch	1,557.00	0.013	0.0026	2.41	13.1	7.0	7.0	MH-V04.16+17	1,159.50	MH-V04.18+19	1,155.50	1,037,882
P-615	42 inch	1,349.00	0.013	0.0044	3.11	13	7.0	7.0	MH-V04.18+19	1,155.50	MH-280	1,149.50	1,282,136
P-631	48 inch	3,633.00	0.013	0.0005	1.57	21.2	11.3	7.4	MH-359	1,146.56	MH-333	1,144.74	1,826,726
P-632	42 inch	6,385.00	0.013	0.0016	2.06	12.3	7.4	7.0	MH-334	1,157.50	MH-359	1,147.06	1,055,040
P-758	10 inch	879.00	0.013	0.0104	2.79	25.6	18.2	7.0	MH-V01.23A	1,098.17	355th WRF	1,089.02	179,388
P-759	24 inch	2,573.00	0.013	0.001	2	32.7	18.2	17.7	MH-V01.21	1,090.35	355th WRF	1,087.85	1,473,152
P-781	15 inch	3,608.00	0.013	0.0039	2.82	35.1	21.0	7.0	MH-390	1,061.75	MH-389	1,047.78	737,280
P-782	8 inch	886.00	0.013	0.0124	1.64	11.7	7.5	7.0	MH-V23.03	1,082.83	MH-392	1,071.86	21,956
P-788	48 inch	5,247.00	0.013	0.0041	6.13	51.4	7.0	7.5	MH-392	1,068.52	MH-388	1,047.00	15,269,497
P-789	48 inch	3,949.00	0.013	0.0005	2.82	58.9	21.0	7.0	MH-388	1,047.00	MH-389	1,045.03	16,006,777
P-790	24 inch	2,064.00	0.013	0.0032	4.24	52.1	7.0	19.4	MH-V24.11+12B	1,058.59	335th LS	1,052.00	4,878,060
P-806	12 inch	5,293.00	0.013	0.0029	2.73	64.5	7.0	8.6	MH-393	1,069.45	MH-394	1,054.00	1,004,208
P-818	15 inch	1,390.00	0.013	0.0036	3.57	67.3	7.0	7.0	MH-V24.07B+08	1,071.75	MH-V24.09	1,066.75	2,259,303
P-819	18 inch	1,405.00	0.013	0.0036	3.73	53.3	7.0	7.0	MH-V24.09	1,066.50	MH-187	1,061.50	2,486,996
P-820	18 inch	1,601.00	0.013	0.0019	2.71	49.7	7.0	7.0	MH-V24.05+06+07A+O5A	1,076.50	MH-V24.13+14	1,073.50	1,820,432
P-821	24 inch	2,542.00	0.013	0.0008	2	44.3	11.9	7.0	MH-V24.13+14	1,073.00	MH-V24.10	1,071.07	2,086,386
P-822	24 inch	1,127.00	0.013	0.0007	2	60.8	19.4	23.7	MH-188	1,059.35	MH-V24.11+12B	1,058.59	2,486,996
P-823	12 inch	3,652.00	0.013	0.0019	2	62.1	8.6	7.0	MH-O8	1,076.50	MH-393	1,069.45	512,688
P-824	24 inch	1,300.00	0.013	0.0096	5.06	47	19.4	11.9	MH-V24.10	1,071.07	MH-V24.11+12B	1,058.59	2,123,610
P-825	10 inch	585.00	0.013	0.0042	2	36.4	9.4	7.0	MH-V24.03B+04	1,100.17	MH-V24.16B	1,097.74	175,750
P-826	10 inch	1,876.00	0.013	0.0031	2	53.6	8.3	9.4	MH-V24.16B	1,097.74	MH-V24.15	1,091.91	256,726
P-827	10 inch	2,118.00	0.013	0.0022	2.08	55.1	7.0	8.3	MH-V24.15	1,091.91	MH-O9	1,087.17	494,282
P-829	24 inch	5,691.00	0.013	0.0008	2	46.7	10.5	7.0	MH-405	1,041.00	MH-404	1,036.55	1,987,248
P-831	24 inch	1,279.00	0.013	0.0023	3.85	68.4	7.0	7.0	MH-O9	1,086.00	MH-V24.17B	1,083.00	5,491,978
P-832	24 inch	3,809.00	0.013	0.0032	4.41	58.7	7.0	7.0	MH-V24.17B	1,083.00	MH-V24.01+03A+16A+17A+18	1,071.00	5,951,822
P-833	12 inch	796.00	0.013	0.0126	5.67	77.6	7.0	7.0	MH-O5B	1,082.00	MH-V24.07B+08	1,072.00	2,107,543
P-834	8 inch	795.00	0.013	0.0072	2	24.1	12.7	7.0	MH-O4B	1,155.33	MH-168	1,149.59	81,920
P-839	48 inch	1,431.00	0.013	0.0056	4.89	18.6	18.2	7.1	MH-V01.23B	1,093.89	355th WRF	1,085.85	4,719,875
P-840	30 inch	5,164.00	0.013	0.0008	2.55	59.2	7.0	7.0	MH-414	1,024.50	MH-422	1,020.50	5,529,600
P-842	10 inch	4,816.00	0.013	0.0046	2.88	60.6	7.0	7.0	MH-401	1,085.17	MH-402	1,063.17	614,400
P-844	12 inch	5,086.00	0.013	0.0055	3.48	59.7	7.0	7.0	MH-411	1,081.00	MH-412	1,053.00	983,040
P-845	18 inch	6,017.00	0.013	0.0045	4.41	63.5	7.0	7.0	MH-412	1,052.50	MH-414	1,025.50	3,563,520
P-846	12 inch	5,212.00	0.013	0.0038	3.12	66.5	7.0	7.0	MH-420	1,074.00	MH-421	1,054.00	1,141,146
P-847	15 inch	6,018.00	0.013	0.0053	4.15	60	7.0	7.0	MH-421	1,053.75	MH-422	1,021.75	2,124,186
P-848	8 inch	5,055.00	0.013	0.004	2.18	62.7	7.0	7.0	MH-434	1,109.33	MH-433	1,089.33	245,760
P-849	10 inch	5,013.00	0.013	0.0034	2.65	65.4	7.0	7.0	MH-433	1,089.17	MH-429	1,072.17	737,280
P-850	24 inch	5,413.00	0.013	0.0041	4.76	60.7	7.0	7.0	MH-429	1,071.00	MH-430	1,049.00	5,406,720
P-851	24 inch	6,035.00	0.013	0.0041	4.89	55.7	7.0	7.0	MH-430	1,049.00	MH-431	1,024.00	5,898,240
P-852	36 inch	5,272.00	0.013	0.0006	2.35	58.6	7.0	7.0	MH-431	1,023.00	MH-422	1,020.00	6,144,000
P-853	8 inch	5,242.00	0.013	0.005	2.76	67.8	7.0	7.0	MH-395	1,191.33	MH-396	1,165.33	491,520
P-854	15 inch	5,167.00	0.013	0.0046	3.62	61.2	7.0	7.0	MH-396	1,164.75	MH-398	1,140.75	1,474,560

Pipe Table Report - Peak Day													
Label	Size (inch)	Length (ft)	Manning's n	Slope (ft/ft)	Velocity (ft/s)	d/D (%)	Downstream Cover (ft)	Upstream Cover (ft)	Upstream Node	Upstream Invert El (ft)	Downstream Node	Downstream Invert El (ft)	Total Flow (gpd)
P-856	12 inch	5,168.00	0.013	0.0049	3.33	54.4	13.2	7.0	MH-399	1,112.00	MH-400	1,086.81	983,040
P-858	8 inch	5,195.00	0.013	0.0073	3.24	62.8	7.0	7.0	MH-406	1,190.33	MH-407	1,152.33	491,520
P-859	15 inch	5,288.00	0.013	0.0038	3.35	53.5	7.0	7.0	MH-407	1,151.75	MH-408	1,131.75	1,474,560
P-861	12 inch	3,071.00	0.013	0.0039	3.05	56.5	7.0	7.0	MH-409	1,104.00	MH-410	1,092.00	983,040
P-862	24 inch	5,607.00	0.013	0.0009	2	39	13.2	7.0	MH-410	1,091.00	MH-400	1,085.81	1,564,672
P-863	8 inch	5,180.00	0.013	0.006	2.98	71.8	7.0	7.0	MH-415	1,182.33	MH-416	1,151.33	491,520
P-864	12 inch	5,412.00	0.013	0.0054	3.74	68.5	7.0	7.0	MH-416	1,151.00	MH-417	1,122.00	1,474,560
P-867	8 inch	5,412.00	0.013	0.0042	2.24	60	7.0	7.0	MH-461	1,213.33	MH-459	1,190.33	245,760
P-868	10 inch	5,055.00	0.013	0.004	2.82	68.1	7.0	7.0	MH-459	1,190.17	MH-458	1,170.17	737,280
P-869	12 inch	3,027.00	0.013	0.0059	3.78	60	7.0	7.0	MH-458	1,170.00	MH-454	1,152.00	1,228,800
P-870	18 inch	5,115.00	0.013	0.0059	4.78	56.8	7.0	7.0	MH-454	1,151.50	MH-443	1,121.50	3,194,880
P-872	8 inch	5,274.00	0.013	0.0042	2.22	50.4	7.0	7.0	MH-457	1,194.33	MH-456	1,172.33	245,760
P-873	12 inch	5,061.00	0.013	0.004	3.07	56.7	7.0	7.0	MH-456	1,172.00	MH-454	1,152.00	983,040
P-874	8 inch	5,164.00	0.013	0.0035	2.08	48.6	15.1	7.0	MH-453	1,242.33	MH-452	1,224.26	245,760
P-875	12 inch	5,365.00	0.013	0.0024	2.37	65.8	7.0	15.1	MH-452	1,223.93	MH-451	1,211.00	737,280
P-876	12 inch	5,071.00	0.013	0.0057	3.72	60.4	7.0	7.0	MH-451	1,211.00	MH-450	1,182.00	1,228,800
P-877	15 inch	3,427.00	0.013	0.0058	4.1	52.3	7.0	7.0	MH-450	1,181.75	MH-446	1,161.75	1,720,320
P-878	24 inch	5,321.00	0.013	0.0038	4.46	58.4	7.0	7.0	MH-446	1,161.00	MH-445	1,141.00	4,669,440
P-879	24 inch	5,086.00	0.013	0.0039	4.75	55.3	7.0	7.0	MH-445	1,141.00	MH-443	1,121.00	5,652,480
P-880	8 inch	5,314.00	0.013	0.0041	2.21	58.3	7.0	7.0	MH-449	1,232.33	MH-448	1,210.33	245,760
P-881	12 inch	5,414.00	0.013	0.0041	3.24	69	7.0	7.0	MH-448	1,210.00	MH-447	1,188.00	1,228,800
P-882	15 inch	5,014.00	0.013	0.0052	4.14	61.7	7.0	7.0	MH-447	1,187.75	MH-446	1,161.75	2,211,840
P-883	8 inch	5,431.00	0.013	0.005	2.37	55.5	7.0	7.0	MH-442	1,149.33	MH-441	1,122.33	245,760
P-885	12 inch	5,396.00	0.013	0.0035	2.93	59.8	7.0	7.0	MH-439	1,173.00	MH-438	1,154.00	983,040
P-886	15 inch	4,968.00	0.013	0.0044	3.69	56.4	7.0	7.0	MH-438	1,153.75	MH-437	1,131.75	1,720,320
P-887	18 inch	5,273.00	0.013	0.0036	3.73	67.7	7.0	7.0	MH-437	1,131.50	MH-436	1,112.50	2,457,600
P-888	18 inch	4,887.00	0.013	0.0029	3.59	74.3	7.0	7.0	MH-436	1,112.50	MH-435	1,098.50	3,194,880
P-889	18 inch	5,022.00	0.013	0.0054	4.77	62.7	7.0	7.0	MH-435	1,098.50	MH-429	1,071.50	3,686,400
P-890	18 inch	2,481.00	0.013	0.0012	2	37.9	11.1	7.0	MH-397	1,143.50	Camelback WRF	1,140.41	992,870
P-891	36 inch	5,288.00	0.013	0.0005	1.9	35.1	9.6	7.0	MH-423	1,020.00	MH-426	1,017.36	3,216,048
P-892	36 inch	5,102.00	0.013	0.003	3.77	37	7.0	9.6	MH-426	1,017.36	MH-427	1,002.00	3,707,568
P-893	36 inch	5,229.00	0.013	0.0005	2.04	47.5	7.6	7.0	MH-427	1,002.00	MH-428	999.39	4,199,088
P-895	8 inch	542.00	0.013	0.0052	2	30.9	9.8	7.0	MH-465	1,001.33	Silver Springs LS No. 2	998.50	122,880
P-900	10 inch	5,396.00	0.013	0.0056	3.24	59.3	7.0	7.0	MH-441	1,122.17	Balterra WRF	1,092.17	737,280
P-901	48 inch	3,708.00	0.013	0.0016	4.55	47.4	7.0	21.0	MH-389	1,045.03	MH-463	1,039.00	17,727,097
P-902	54 inch	468.00	0.013	0.0005	2.94	42	7.2	7.0	MH-463	1,038.50	339th WRF	1,038.27	18,507,385
P-903	12 inch	2,966.00	0.013	0.002	2.24	57.4	7.0	7.0	MH-466	1,168.00	MH-464	1,162.00	771,686
P-904	15 inch	2,915.00	0.013	0.0049	3.73	50.6	11.3	7.0	MH-464	1,161.75	MH-333	1,147.49	1,543,373
P-905	30 inch	4,714.00	0.013	0.0053	6.09	58.1	8.8	7.0	MH-443	1,120.50	MH-467	1,095.72	9,830,400
P-906	36 inch	435.00	0.013	0.012	9.71	50.7	7.0	8.8	MH-467	1,095.22	Balterra WRF	1,090.00	18,535,936
P-907	36 inch	2,578.00	0.013	0.0084	8.01	46.9	18.6	7.0	MH-422	1,020.00	MH-468	998.43	14,780,826
P-908	54 inch	526.00	0.013	0.0005	2.98	43.4	18.8	18.6	MH-468	996.93	Silver Springs WRF	996.66	19,471,434
P-909	15 inch	4,951.00	0.013	0.002	2.66	71.5	7.0	7.0	MH-402	1,062.75	MH-412	1,052.75	1,597,440
P-910	12 inch	5,061.00	0.013	0.0032	2.81	58.7	7.0	7.0	MH-403	1,042.00	MH-414	1,026.00	983,040
P-911	24 inch	4,605.00	0.013	0.0034	3.72	37.5	7.0	10.5	MH-404	1,036.55	MH-423	1,021.00	2,724,528
P-913	36 inch	4,062.00	0.013	0.0005	2.35	56.1	10.9	15.9	MH-O7	1,081.13	MH-342	1,079.10	7,837,870
P-914	30 inch	4,645.00	0.013	0.0006	2	38.5	14.9	13.2	MH-400	1,085.31	Balterra LS	1,082.57	3,039,232
P-916	24 inch	5,210.00	0.013	0.0019	3.48	71.5	7.0	7.0	MH-408	1,131.00	MH-417	1,121.00	4,915,200
P-917	18 inch	5,180.00	0.013	0.0017	2.79	66.3	7.0	7.0	MH-398	1,140.50	MH-408	1,131.50	2,457,600
P-918	24 inch	4,978.00	0.013	0.004	5.07	64	7.0	7.0	MH-417	1,121.00	MH-418	1,101.00	7,372,800
P-919	36 inch	5,293.00	0.013	0.0009	3	63.7	8.8	7.0	MH-418	1,100.00	MH-467	1,095.22	8,214,016
P-920	15 inch	5,068.00	0.013	0.0024	2.8	56.2	7.0	7.0	MH-394	1,053.75	MH-405	1,041.75	1,495,728
P-921	36 inch	1,919.00	0.013	0.0005	2.07	39.4	18.6	7.6	MH-428	999.39	MH-468	998.43	4,444,848
P-922	42 inch	382.00	0.013	0.0005	1.43	19	12.4	10.2	MH-O4A	1,151.28	MH-V04.25	1,151.08	1,242,383
P-927	36 inch	542.00	0.013	0.0032	4.74	39.6	7.3	7.5	MH-343	1,071.47	MH-462	1,069.75	7,837,870
P-928	48 inch	453.00	0.013	0.0005	2.77	47.7	7.5	7.3	MH-462	1,068.75	MH-392	1,068.52	14,756,021
P-929	36 inch	501.00	0.013	0.0005	2.29	47.5	7.3	7.0	MH-V24.01+03A+16A+17A+18	1,070.00	MH-462	1,069.75	6,918,151

Phase 1
Peak Day
Manhole Table Report

Manhole Table Report - Peak Day												
Label	Ground Elevation (ft)	Sump Elevation (ft)	Structure Depth (ft)	Headloss Method	Headloss Coefficient	Sanitary Base Load (gpd)	Known Flow (gpd)	Total Flow (gpd)	HGL In (ft)	HGL Out (ft)	Pipe Matching	MH Size (ft)
MH-14	1,133.00	1,116.88	16.1	Standard	0.5	0	0	4,471,561	1,117.80	1,117.69	Crowns	4
MH-15	1,125.00	1,114.00	11.0	Standard	0.5	0	0	4,471,561	1,114.90	1,114.76	Crowns	4
MH-69	1,185.00	1,176.50	8.5	Standard	0.5	0	0	60,073	1,176.64	1,176.63	Crowns	4
MH-92	1,114.50	1,103.92	10.6	Standard	0.5	0	0	560,978	1,104.35	1,104.29	Crowns	4
MH-100	1,119.00	1,111.17	7.8	Standard	0.5	0	0	258,632	1,111.53	1,111.50	Crowns	4
MH-102	1,120.50	1,100.99	19.5	Standard	0.5	0	0	371,958	1,101.42	1,101.39	Crowns	4
MH-104	1,129.00	1,118.50	10.5	Standard	0.5	0	0	2,657,964	1,119.51	1,119.48	Crowns	4
MH-168	1,163.00	1,149.01	14.0	Standard	0.5	0	0	834,765	1,149.69	1,149.66	Crowns	4
MH-177	1,155.00	1,132.26	22.7	Standard	0.5	0	0	928,538	1,132.93	1,132.90	Crowns	4
MH-187	1,070.00	1,061.00	9.0	Standard	0.5	0	0	2,486,996	1,062.21	1,062.18	Crowns	4
MH-188	1,085.00	1,059.35	25.7	Standard	0.5	0	0	2,486,996	1,060.57	1,060.54	Crowns	4
MH-204	1,160.00	1,132.90	27.1	Standard	0.5	0	0	928,538	1,133.57	1,133.54	Crowns	4
MH-206	1,158.00	1,139.36	18.6	Standard	0.5	0	0	40,550	1,139.49	1,139.47	Crowns	4
MH-208	1,163.00	1,154.50	8.5	Standard	0.5	0	0	123,894	1,154.70	1,154.68	Crowns	4
MH-212	1,155.00	1,139.65	15.4	Standard	0.5	0	0	1,612,462	1,140.32	1,140.24	Crowns	4
MH-220	1,100.00	1,091.47	8.5	Standard	0.5	0	0	1,364,234	1,092.37	1,092.33	Crowns	4
MH-222	1,135.00	1,127.33	7.7	Standard	0.5	0	0	201,969	1,127.64	1,127.59	Crowns	4
MH-228	1,106.00	1,092.31	13.7	Standard	0.5	0	0	932,192	1,093.05	1,093.02	Crowns	4
MH-234	1,109.00	1,101.33	7.7	Standard	0.5	0	0	250,372	1,101.72	1,101.68	Crowns	4
MH-242	1,109.50	1,100.06	9.4	Standard	0.5	0	0	153,846	1,100.35	1,100.33	Crowns	4
MH-243	1,113.00	1,094.12	18.9	Standard	0.5	0	0	4,625,407	1,095.37	1,095.33	Crowns	4
MH-245	1,150.00	1,139.38	10.6	Standard	0.5	0	0	1,523,670	1,140.16	1,140.14	Crowns	4
MH-280	1,160.00	1,149.50	10.5	Standard	0.5	0	0	1,282,136	1,149.99	1,149.92	Crowns	4
MH-331	1,180.00	1,164.44	15.6	Standard	0.5	527,520	0	1,055,040	1,164.89	1,164.82	Crowns	4
MH-333	1,160.00	1,144.74	15.3	Standard	0.5	527,520	0	4,425,139	1,145.63	1,145.50	Crowns	4
MH-334	1,168.00	1,157.50	10.5	Standard	0.5	0	0	1,055,040	1,158.01	1,157.98	Crowns	4
MH-337	1,110.00	1,099.94	10.1	Standard	0.5	0	0	1,359,995	1,100.83	1,100.80	Crowns	4
MH-342	1,093.00	1,079.10	13.9	Standard	0.5	0	0	7,837,870	1,080.41	1,080.20	Crowns	4
MH-343	1,082.00	1,071.47	10.5	Standard	0.5	0	0	7,837,870	1,072.82	1,072.64	Crowns	4
MH-359	1,158.00	1,146.56	11.4	Standard	0.5	385,843	0	1,826,726	1,147.38	1,147.36	Crowns	4
MH-388	1,058.00	1,047.00	11.0	Standard	0.5	368,640	0	16,006,777	1,049.68	1,049.62	Crowns	4
MH-389	1,070.00	1,045.03	25.0	Standard	0.5	491,520	0	17,727,097	1,047.12	1,046.96	Crowns	4
MH-390	1,070.00	1,061.75	8.3	Standard	0.5	368,640	0	737,280	1,062.27	1,062.21	Crowns	4
MH-392	1,080.00	1,068.52	11.5	Standard	0.5	245,760	0	15,269,497	1,070.22	1,069.96	Crowns	4
MH-393	1,079.00	1,069.45	9.6	Standard	0.5	245,760	0	1,004,208	1,070.19	1,070.13	Crowns	4
MH-394	1,062.00	1,053.75	8.3	Standard	0.5	245,760	0	1,495,728	1,054.61	1,054.55	Crowns	4
MH-395	1,199.00	1,191.33	7.7	Standard	0.5	245,760	0	491,520	1,191.88	1,191.82	Crowns	4
MH-396	1,173.00	1,164.75	8.3	Standard	0.5	491,520	0	1,474,560	1,165.49	1,165.39	Crowns	4
MH-397	1,152.00	1,143.50	8.5	Standard	0.5	496,435	0	992,870	1,144.20	1,144.17	Crowns	4
MH-398	1,149.00	1,140.50	8.5	Standard	0.5	491,520	0	2,457,600	1,141.64	1,141.58	Crowns	4
MH-399	1,120.00	1,112.00	8.0	Standard	0.5	491,520	0	983,040	1,112.65	1,112.56	Crowns	4
MH-400	1,101.00	1,085.31	15.7	Standard	0.5	245,760	0	3,039,232	1,086.54	1,086.51	Crowns	4
MH-401	1,093.00	1,085.17	7.8	Standard	0.5	307,200	0	614,400	1,085.72	1,085.65	Crowns	4
MH-402	1,071.00	1,062.75	8.3	Standard	0.5	491,520	0	1,597,440	1,063.69	1,063.64	Crowns	4
MH-403	1,050.00	1,042.00	8.0	Standard	0.5	491,520	0	983,040	1,042.71	1,042.65	Crowns	4
MH-404	1,049.00	1,036.55	12.5	Standard	0.5	368,640	0	2,724,528	1,037.43	1,037.32	Crowns	4
MH-405	1,050.00	1,041.00	9.0	Standard	0.5	245,760	0	1,987,248	1,042.01	1,041.98	Crowns	4
MH-406	1,198.00	1,190.33	7.7	Standard	0.5	245,760	0	491,520	1,190.84	1,190.76	Crowns	4
MH-407	1,160.00	1,151.75	8.3	Standard	0.5	491,520	0	1,474,560	1,152.52	1,152.43	Crowns	4
MH-408	1,140.00	1,131.00	9.0	Standard	0.5	491,520	0	4,915,200	1,132.41	1,132.31	Crowns	4
MH-409	1,112.00	1,104.00	8.0	Standard	0.5	491,520	0	983,040	1,104.68	1,104.61	Crowns	4
MH-410	1,100.00	1,091.00	9.0	Standard	0.5	290,816	0	1,564,672	1,091.85	1,091.82	Crowns	4

Manhole Table Report - Peak Day												
Label	Ground Elevation (ft)	Sump Elevation (ft)	Structure Depth (ft)	Headloss Method	Headloss Coefficient	Sanitary Base Load (gpd)	Known Flow (gpd)	Total Flow (gpd)	HGL In (ft)	HGL Out (ft)	Pipe Matching	MH Size (ft)
MH-411	1,089.00	1,081.00	8.0	Standard	0.5	491,520	0	983,040	1,081.64	1,081.54	Crowns	4
MH-412	1,061.00	1,052.50	8.5	Standard	0.5	491,520	0	3,563,520	1,053.65	1,053.50	Crowns	4
MH-414	1,034.00	1,024.50	9.5	Standard	0.5	491,520	0	5,529,600	1,026.17	1,026.11	Crowns	4
MH-415	1,190.00	1,182.33	7.7	Standard	0.5	245,760	0	491,520	1,182.86	1,182.79	Crowns	4
MH-416	1,159.00	1,151.00	8.0	Standard	0.5	491,520	0	1,474,560	1,151.83	1,151.72	Crowns	4
MH-417	1,130.00	1,121.00	9.0	Standard	0.5	491,520	0	7,372,800	1,122.55	1,122.35	Crowns	4
MH-418	1,110.00	1,100.00	10.0	Standard	0.5	420,608	0	8,214,016	1,101.80	1,101.73	Crowns	4
MH-420	1,082.00	1,074.00	8.0	Standard	0.5	570,573	0	1,141,146	1,074.75	1,074.68	Crowns	4
MH-421	1,062.00	1,053.75	8.3	Standard	0.5	491,520	0	2,124,186	1,054.65	1,054.52	Crowns	4
MH-422	1,030.00	1,020.00	10.0	Standard	0.5	491,520	0	14,780,826	1,021.84	1,021.54	Crowns	4
MH-423	1,030.00	1,020.00	10.0	Standard	0.5	184,320	122,880	3,216,048	1,021.22	1,021.19	Crowns	4
MH-426	1,030.00	1,017.36	12.6	Standard	0.5	245,760	0	3,707,568	1,018.27	1,018.16	Crowns	4
MH-427	1,012.00	1,002.00	10.0	Standard	0.5	245,760	0	4,199,088	1,003.42	1,003.38	Crowns	4
MH-428	1,010.00	999.39	10.6	Standard	0.5	122,880	0	4,444,848	1,000.85	1,000.82	Crowns	4
MH-429	1,080.00	1,071.00	9.0	Standard	0.5	491,520	0	5,406,720	1,072.27	1,072.09	Crowns	4
MH-430	1,058.00	1,049.00	9.0	Standard	0.5	245,760	0	5,898,240	1,050.33	1,050.15	Crowns	4
MH-431	1,033.00	1,023.00	10.0	Standard	0.5	122,880	0	6,144,000	1,024.71	1,024.67	Crowns	4
MH-433	1,097.00	1,089.17	7.8	Standard	0.5	245,760	0	737,280	1,089.84	1,089.78	Crowns	4
MH-434	1,117.00	1,109.33	7.7	Standard	0.5	122,880	0	245,760	1,109.70	1,109.67	Crowns	4
MH-435	1,107.00	1,098.50	8.5	Standard	0.5	245,760	0	3,686,400	1,099.64	1,099.46	Crowns	4
MH-436	1,121.00	1,112.50	8.5	Standard	0.5	368,640	0	3,194,880	1,113.69	1,113.59	Crowns	4
MH-437	1,140.00	1,131.50	8.5	Standard	0.5	368,640	0	2,457,600	1,132.45	1,132.34	Crowns	4
MH-438	1,162.00	1,153.75	8.3	Standard	0.5	368,640	0	1,720,320	1,154.57	1,154.46	Crowns	4
MH-439	1,181.00	1,173.00	8.0	Standard	0.5	491,520	0	983,040	1,173.69	1,173.63	Crowns	4
MH-441	1,130.00	1,122.17	7.8	Standard	0.5	245,760	0	737,280	1,122.76	1,122.68	Crowns	4
MH-442	1,157.00	1,149.33	7.7	Standard	0.5	122,880	0	245,760	1,149.69	1,149.65	Crowns	4
MH-443	1,130.00	1,120.50	9.5	Standard	0.5	491,520	0	9,830,400	1,122.08	1,121.82	Crowns	4
MH-445	1,150.00	1,141.00	9.0	Standard	0.5	491,520	0	5,652,480	1,142.31	1,142.14	Crowns	4
MH-446	1,170.00	1,161.00	9.0	Standard	0.5	368,640	0	4,669,440	1,162.18	1,162.02	Crowns	4
MH-447	1,196.00	1,187.75	8.3	Standard	0.5	491,520	0	2,211,840	1,188.68	1,188.55	Crowns	4
MH-448	1,218.00	1,210.00	8.0	Standard	0.5	491,520	0	1,228,800	1,210.78	1,210.70	Crowns	4
MH-449	1,240.00	1,232.33	7.7	Standard	0.5	122,880	0	245,760	1,232.70	1,232.66	Crowns	4
MH-450	1,190.00	1,181.75	8.3	Standard	0.5	245,760	0	1,720,320	1,182.53	1,182.40	Crowns	4
MH-451	1,219.00	1,211.00	8.0	Standard	0.5	245,760	0	1,228,800	1,211.73	1,211.62	Crowns	4
MH-452	1,240.00	1,223.93	16.1	Standard	0.5	245,760	0	737,280	1,224.56	1,224.52	Crowns	4
MH-453	1,250.00	1,242.33	7.7	Standard	0.5	122,880	0	245,760	1,242.71	1,242.68	Crowns	4
MH-454	1,160.00	1,151.50	8.5	Standard	0.5	491,520	0	3,194,880	1,152.53	1,152.36	Crowns	4
MH-456	1,180.00	1,172.00	8.0	Standard	0.5	368,640	0	983,040	1,172.68	1,172.60	Crowns	4
MH-457	1,202.00	1,194.33	7.7	Standard	0.5	122,880	0	245,760	1,194.70	1,194.66	Crowns	4
MH-458	1,178.00	1,170.00	8.0	Standard	0.5	245,760	0	1,228,800	1,170.72	1,170.61	Crowns	4
MH-459	1,198.00	1,190.17	7.8	Standard	0.5	245,760	0	737,280	1,190.81	1,190.74	Crowns	4
MH-461	1,221.00	1,213.33	7.7	Standard	0.5	122,880	0	245,760	1,213.70	1,213.66	Crowns	4
MH-462	1,080.00	1,068.75	11.3	Standard	0.5	0	0	14,756,021	1,070.96	1,070.87	Crowns	4
MH-463	1,050.00	1,038.50	11.5	Standard	0.5	390,144	0	18,507,385	1,040.85	1,040.75	Crowns	4
MH-464	1,170.00	1,161.75	8.3	Standard	0.5	385,843	0	1,543,373	1,162.50	1,162.40	Crowns	4
MH-465	1,009.00	1,001.33	7.7	Standard	0.5	61,440	0	122,880	1,001.58	1,001.54	Crowns	4
MH-466	1,176.00	1,168.00	8.0	Standard	0.5	385,843	0	771,686	1,168.68	1,168.64	Crowns	4
MH-467	1,107.00	1,095.22	11.8	Standard	0.5	245,760	0	18,535,936	1,097.31	1,096.95	Crowns	4
MH-468	1,020.00	996.93	23.1	Standard	0.5	122,880	0	19,471,434	999.36	999.26	Crowns	4
MH-O3D	1,114.50	1,106.25	8.3	Standard	0.5	280,489	0	560,978	1,106.76	1,106.73	Crowns	4
MH-O4A	1,165.00	1,151.28	13.7	Standard	0.5	81,920	0	1,242,383	1,151.97	1,151.96	Crowns	4
MH-O4B	1,163.00	1,155.33	7.7	Standard	0.5	40,960	0	81,920	1,155.52	1,155.50	Crowns	4
MH-O5B	1,090.00	1,082.00	8.0	Standard	0.5	1,053,771	0	2,107,543	1,082.97	1,082.77	Crowns	4

Manhole Table Report - Peak Day												
Label	Ground Elevation (ft)	Sump Elevation (ft)	Structure Depth (ft)	Headloss Method	Headloss Coefficient	Sanitary Base Load (gpd)	Known Flow (gpd)	Total Flow (gpd)	HGL In (ft)	HGL Out (ft)	Pipe Matching	MH Size (ft)
MH-O6	1,110.00	1,097.92	12.1	Standard	0.5	130,376	0	1,620,747	1,098.64	1,098.52	Crowns	4
MH-O7	1,100.00	1,081.13	18.9	Standard	0.5	348,766	0	7,837,870	1,083.23	1,083.18	Crowns	4
MH-O8	1,084.50	1,076.50	8.0	Standard	0.5	256,344	0	512,688	1,077.04	1,077.00	Crowns	4
MH-O9	1,095.00	1,086.00	9.0	Standard	0.5	59,818	4,878,060	5,491,978	1,087.44	1,087.32	Crowns	4
MH-V01.01A	1,113.00	1,097.53	15.5	Standard	0.5	56,663	0	485,284	1,097.99	1,097.96	Crowns	4
MH-V01.01B	1,127.00	1,107.35	19.7	Standard	0.5	56,663	0	371,958	1,107.77	1,107.74	Crowns	4
MH-V01.01C	1,132.00	1,124.33	7.7	Standard	0.5	28,332	0	258,632	1,124.68	1,124.63	Crowns	4
MH-V01.03	1,104.50	1,096.67	7.8	Standard	0.5	26,081	0	432,042	1,097.14	1,097.10	Crowns	4
MH-V01.05	1,113.00	1,105.33	7.7	Standard	0.5	12,396	0	379,880	1,105.78	1,105.71	Crowns	4
MH-V01.07+08B+09+12B	1,107.00	1,097.64	9.4	Standard	0.5	98,268	0	446,908	1,098.06	1,098.00	Crowns	4
MH-V01.08A+11A+12A+14+16	1,117.50	1,109.83	7.7	Standard	0.5	125,186	0	250,372	1,110.18	1,110.12	Crowns	4
MH-V01.11B	1,140.00	1,132.33	7.7	Standard	0.5	100,984	0	201,969	1,132.66	1,132.62	Crowns	4
MH-V01.18	1,125.00	1,117.33	7.7	Standard	0.5	22,111	0	355,089	1,117.75	1,117.68	Crowns	4
MH-V01.19	1,132.00	1,124.33	7.7	Standard	0.5	37,809	0	310,867	1,124.72	1,124.66	Crowns	4
MH-V01.21	1,110.00	1,090.35	19.7	Standard	0.5	54,459	0	1,473,152	1,091.16	1,091.13	Crowns	4
MH-V01.23A	1,106.00	1,098.17	7.8	Standard	0.5	47,234	0	179,388	1,098.44	1,098.39	Crowns	4
MH-V01.23B	1,105.00	1,093.89	11.1	Standard	0.5	47,234	0	4,719,875	1,094.81	1,094.67	Crowns	4
MH-V01.25	1,110.00	1,102.33	7.7	Standard	0.5	42,460	0	84,920	1,102.53	1,102.50	Crowns	4
MH-V01.26	1,115.00	1,103.84	11.2	Standard	0.5	50,458	0	153,846	1,104.12	1,104.09	Crowns	4
MH-V01.27	1,125.00	1,117.33	7.7	Standard	0.5	26,465	0	52,931	1,117.49	1,117.46	Crowns	4
MH-V01.29	1,141.00	1,117.68	23.3	Standard	0.5	24,968	0	4,471,561	1,118.97	1,118.94	Crowns	4
MH-V02.01	1,140.50	1,131.50	9.0	Standard	0.5	75,600	0	1,763,662	1,132.18	1,132.08	Crowns	4
MH-V02.02	1,135.00	1,127.33	7.7	Standard	0.5	36,432	0	235,250	1,127.70	1,127.67	Crowns	4
MH-V02.04	1,163.00	1,155.33	7.7	Standard	0.5	81,193	0	162,386	1,155.61	1,155.56	Crowns	4
MH-V02.06	1,149.50	1,140.50	9.0	Standard	0.5	53,372	0	1,612,462	1,141.45	1,141.43	Crowns	4
MH-V02.07	1,163.00	1,151.13	11.9	Standard	0.5	24,256	0	1,505,718	1,151.81	1,151.70	Crowns	4
MH-V02.08+09B	1,144.50	1,128.97	15.5	Standard	0.5	67,776	0	2,657,964	1,129.68	1,129.57	Crowns	4
MH-V02.09A	1,149.50	1,138.47	11.0	Standard	0.5	35,101	0	1,593,873	1,139.01	1,138.93	Crowns	4
MH-V02.10	1,159.50	1,147.26	12.2	Standard	0.5	26,611	0	887,987	1,147.78	1,147.70	Crowns	4
MH-V02.12	1,160.50	1,152.83	7.7	Standard	0.5	20,275	0	40,550	1,152.97	1,152.95	Crowns	4
MH-V03.01	1,161.00	1,152.50	8.5	Standard	0.5	44,572	0	213,038	1,152.83	1,152.82	Crowns	4
MH-V03.02+07+08B	1,172.50	1,164.25	8.3	Standard	0.5	167,636	0	1,244,168	1,164.91	1,164.80	Crowns	4
MH-V03.04	1,183.00	1,174.50	8.5	Standard	0.5	31,910	0	123,894	1,174.69	1,174.66	Crowns	4
MH-V03.06	1,194.00	1,182.59	11.4	Standard	0.5	30,036	0	60,073	1,182.73	1,182.71	Crowns	4
MH-V03.08A	1,196.00	1,174.59	21.4	Standard	0.5	87,293	0	664,457	1,175.18	1,175.15	Crowns	4
MH-V03.09+07.01A+03+04+05+06A	1,201.00	1,175.66	25.3	Standard	0.5	244,936	0	489,872	1,176.13	1,176.10	Crowns	4
MH-V03.10	1,184.00	1,171.66	12.3	Standard	0.5	40,911	0	746,280	1,172.29	1,172.26	Crowns	4
MH-V03.11	1,179.00	1,169.67	9.3	Standard	0.5	81,308	0	908,896	1,170.27	1,170.21	Crowns	4
MH-V04.01	1,170.00	1,162.00	8.0	Standard	0.5	89,476	0	752,845	1,162.54	1,162.45	Crowns	4
MH-V04.02	1,182.00	1,170.46	11.5	Standard	0.5	74,926	0	440,607	1,170.87	1,170.81	Crowns	4
MH-V04.03A	1,178.00	1,170.33	7.7	Standard	0.5	16,661	0	33,322	1,170.47	1,170.45	Crowns	4
MH-V04.03B	1,180.00	1,166.10	13.9	Standard	0.5	49,982	0	573,893	1,166.65	1,166.62	Crowns	4
MH-V04.04+06.01+03+04	1,181.00	1,173.00	8.0	Standard	0.5	145,377	0	290,755	1,173.36	1,173.33	Crowns	4
MH-V04.07+08	1,180.00	1,172.17	7.8	Standard	0.5	104,690	0	209,381	1,172.48	1,172.45	Crowns	4
MH-V04.10+24	1,181.00	1,166.83	14.2	Standard	0.5	124,685	0	458,750	1,167.29	1,167.23	Crowns	4
MH-V04.11+12	1,191.00	1,178.89	12.1	Standard	0.5	163,175	0	326,349	1,179.16	1,179.13	Crowns	4
MH-V04.13+05.01+03+04+05+06+07+19	1,186.00	1,169.99	16.0	Standard	0.5	422,104	0	844,208	1,170.57	1,170.56	Crowns	4
MH-V04.15	1,180.00	1,169.18	10.8	Standard	0.5	50,573	0	945,353	1,169.60	1,169.54	Crowns	4
MH-V04.16+17	1,170.00	1,159.50	10.5	Standard	0.5	46,264	0	1,037,882	1,159.97	1,159.93	Crowns	4
MH-V04.18+19	1,166.00	1,155.50	10.5	Standard	0.5	122,127	0	1,282,136	1,155.99	1,155.92	Crowns	4
MH-V04.20+21	1,163.00	1,152.50	10.5	Standard	0.5	63,216	0	518,686	1,152.96	1,152.95	Crowns	4
MH-V04.22+23B	1,165.50	1,151.80	13.7	Standard	0.5	50,553	0	619,792	1,152.31	1,152.30	Crowns	4
MH-V04.23A	1,178.00	1,168.00	10.0	Standard	0.5	32,953	0	392,255	1,168.28	1,168.24	Crowns	4

Phase 1
Average Day
Pipe Table Report

Pipe Table Report - Average Day													
Label	Size (inch)	Length (ft)	Manning's n	Slope (ft/ft)	Velocity (ft/s)	d/D (%)	Downstream Cover (ft)	Upstream Cover (ft)	Upstream Node	Upstream Invert El (ft)	Downstream Node	Downstream Invert El (ft)	Total Flow (gpd)
P-045	15 inch	1,260.00	0.013	0.0018	1.65	25.4	9.3	7.0	MH-O3D	1,106.25	MH-92	1,103.92	280,489
P-049	12 inch	1,328.00	0.013	0.0024	1.65	24.7	14.2	18.5	MH-102	1,100.99	MH-V01.01A	1,097.78	185,979
P-050	12 inch	2,623.00	0.013	0.0024	1.65	28.5	18.5	18.7	MH-V01.01B	1,107.35	MH-102	1,100.99	185,979
P-051	10 inch	1,183.00	0.013	0.0031	1.65	25.3	18.7	7.0	MH-100	1,111.17	MH-V01.01B	1,107.51	129,316
P-052	48 inch	1,014.00	0.013	0.0028	3.08	15.1	7.0	12.1	MH-14	1,116.88	MH-15	1,114.00	2,235,780
P-053	48 inch	1,602.00	0.013	0.0005	1.67	19.2	12.1	19.3	MH-V01.29	1,117.68	MH-14	1,116.88	2,235,780
P-054	42 inch	638.00	0.013	0.0005	1.46	16.3	19.3	7.0	MH-104	1,118.50	MH-V01.29	1,118.18	1,328,982
P-055	42 inch	2,645.00	0.013	0.004	3.01	16.6	7.0	12.0	MH-V02.08+09E	1,128.97	MH-104	1,118.50	1,328,982
P-056	42 inch	1,025.00	0.013	0.0093	3.48	11.9	12.0	7.5	MH-V02.09A	1,138.47	MH-V02.08+09E	1,128.97	796,937
P-059	15 inch	1,074.00	0.013	0.0014	1.67	30.2	10.7	12.7	MH-168	1,149.01	MH-V02.10	1,147.51	417,382
P-062	36 inch	2,397.00	0.013	0.0063	2.03	5.5	7.0	7.0	MH-V04.23A	1,168.00	MH-V04.20+21	1,153.00	196,128
P-063	36 inch	2,953.00	0.013	0.0037	1.59	6.1	7.0	9.1	MH-V04.11+12	1,178.89	MH-V04.23A	1,168.00	163,175
P-071	12 inch	1,901.00	0.013	0.0022	1.79	36.4	7.0	12.9	MH-V04.03B	1,166.10	MH-V04.01	1,162.00	286,947
P-072	12 inch	553.00	0.013	0.0079	2.63	31	12.9	10.5	MH-V04.02	1,170.46	MH-V04.03B	1,166.10	220,303
P-075	18 inch	1,131.00	0.013	0.0054	1.2	6.2	7.0	9.9	MH-V03.06	1,182.59	MH-69	1,176.50	30,036
P-079	12 inch	868.00	0.013	0.0029	1.64	25.7	10.5	7.0	MH-V04.04+06.01+03+0	1,173.00	MH-V04.02	1,170.46	145,377
P-087	24 inch	2,426.00	0.013	0.0007	1.68	39.8	23.7	7.0	MH-187	1,061.00	MH-188	1,059.35	1,243,498
P-418	8 inch	1,115.00	0.013	0.0035	0.97	11.9	12.9	7.0	MH-V04.03A	1,170.33	MH-V04.03B	1,166.43	16,661
P-419	24 inch	5,425.00	0.013	0.0007	1.68	31.6	13.2	7.0	MH-V25.15+16+17+18+O3A	1,088.50	MH-V25.05+19+20+21+22+O3E	1,084.80	1,235,924
P-420	36 inch	5,343.00	0.013	0.0005	1.82	41	15.9	13.2	MH-V25.05+19+20+21+22+O3E	1,083.80	MH-O7	1,081.13	2,759,796
P-427	8 inch	525.00	0.013	0.0076	1.68	17.2	7.0	7.0	MH-V01.25	1,102.33	MH-V01.23A	1,098.33	42,460
P-435	18 inch	1,605.00	0.013	0.0095	3.93	25.8	15.9	10.6	MH-O6	1,097.92	MH-O7	1,082.63	810,373
P-438	18 inch	989.00	0.013	0.0013	1.65	25.2	12.0	21.2	MH-177	1,132.26	MH-V02.08+09E	1,130.97	464,269
P-439	18 inch	713.00	0.013	0.0201	4.29	25.7	25.6	10.7	MH-V02.10	1,147.26	MH-204	1,132.90	443,994
P-440	18 inch	492.00	0.013	0.0013	1.65	30.2	21.2	25.6	MH-204	1,132.90	MH-177	1,132.26	464,269
P-441	8 inch	1,037.00	0.013	0.013	1.62	13	18.0	7.0	MH-V02.12	1,152.83	MH-206	1,139.36	20,275
P-442	8 inch	433.00	0.013	0.013	1.62	11.2	25.6	18.0	MH-206	1,139.36	MH-204	1,133.74	20,275
P-443	12 inch	1,505.00	0.013	0.0085	3.15	30.1	12.7	7.0	MH-V04.01	1,162.00	MH-168	1,149.26	376,422
P-444	18 inch	682.00	0.013	0.0029	0.97	7.6	7.0	7.0	MH-69	1,176.50	MH-V03.04	1,174.50	30,036
P-445	18 inch	3,355.00	0.013	0.006	1.55	8.6	7.0	7.0	MH-V03.04	1,174.50	MH-208	1,154.50	61,947
P-446	18 inch	574.00	0.013	0.0035	1.29	12.1	7.0	7.0	MH-208	1,154.50	MH-V03.01	1,152.50	61,947
P-447	18 inch	1,353.00	0.013	0.001	0.98	23.4	10.4	7.0	MH-V03.01	1,152.50	MH-V02.07	1,151.13	106,519
P-448	18 inch	1,505.00	0.013	0.0067	3.4	25.9	7.0	10.4	MH-V02.07	1,151.13	MH-V02.06	1,141.00	752,859
P-449	24 inch	1,330.00	0.013	0.0006	1.45	27.5	13.4	7.0	MH-V02.06	1,140.50	MH-212	1,139.65	806,231
P-450	24 inch	2,284.00	0.013	0.0036	2.69	22.1	7.0	13.4	MH-212	1,139.65	MH-V02.01	1,131.50	806,231
P-451	24 inch	1,089.00	0.013	0.0109	4.08	18.2	19.3	7.0	MH-V02.01	1,131.50	MH-V01.29	1,119.68	881,831
P-452	8 inch	3,531.00	0.013	0.0079	2.06	30.9	7.0	7.0	MH-V02.04	1,155.33	MH-V02.02	1,127.33	81,193
P-453	8 inch	821.00	0.013	0.0037	1.74	37.1	7.0	7.0	MH-V02.02	1,127.33	MH-V01.19	1,124.33	117,625
P-454	8 inch	987.00	0.013	0.0071	2.39	38.5	7.0	7.0	MH-V01.19	1,124.33	MH-V01.18	1,117.33	155,434
P-455	8 inch	1,567.00	0.013	0.0077	2.54	40.6	7.0	7.0	MH-V01.18	1,117.33	MH-V01.05	1,105.33	177,544
P-456	8 inch	1,365.00	0.013	0.0062	2.41	37.9	7.0	7.0	MH-V01.05	1,105.33	MH-V01.03	1,096.83	189,940
P-457	10 inch	1,420.00	0.013	0.0032	1.93	32.8	7.0	7.0	MH-V01.03	1,096.67	MH-220	1,092.14	216,021
P-458	18 inch	617.00	0.013	0.001	1.68	32.1	17.7	7.0	MH-220	1,091.47	MH-V01.21	1,090.85	682,117
P-466	15 inch	2,529.00	0.013	0.0021	1.64	32	12.4	14.2	MH-V01.01A	1,097.53	MH-228	1,092.31	242,642
P-467	15 inch	453.00	0.013	0.0013	1.67	33.1	7.0	12.4	MH-228	1,092.31	MH-220	1,091.72	466,096
P-468	12 inch	1,052.00	0.013	0.0048	2.22	25.1	12.4	8.4	MH-V01.07+08B+09+12E	1,097.64	MH-228	1,092.56	223,454
P-469	8 inch	1,132.00	0.013	0.0044	1.78	30.9	7.0	7.0	MH-V01.11B	1,132.33	MH-222	1,127.33	100,984
P-473	8 inch	959.00	0.013	0.0035	1.74	32.9	8.4	7.0	MH-234	1,101.33	MH-V01.07+08B+09+12E	1,097.98	125,186
P-476	8 inch	893.00	0.013	0.0095	2.49	34.7	7.0	7.0	MH-V01.08A+11A+12A+14+1	1,109.83	MH-234	1,101.33	125,186
P-481	8 inch	1,301.00	0.013	0.0104	1.63	21.4	10.5	7.0	MH-V01.27	1,117.33	MH-V01.26	1,103.84	26,465
P-482	8 inch	860.00	0.013	0.0044	1.65	28.2	8.8	10.5	MH-V01.26	1,103.84	MH-242	1,100.06	76,923
P-483	48 inch	1,565.00	0.013	0.0127	5.2	17.9	14.9	7.0	MH-15	1,114.00	MH-243	1,094.12	2,235,780
P-484	48 inch	477.00	0.013	0.0005	1.69	18.9	7.1	14.9	MH-243	1,094.12	MH-V01.23B	1,093.89	2,312,703
P-485	8 inch	744.00	0.013	0.0035	1.52	25.6	14.9	8.8	MH-242	1,100.06	MH-243	1,097.46	76,923
P-486	15 inch	1,243.00	0.013	0.0123	3.22	18.6	18.2	9.3	MH-92	1,103.92	355th WRF	1,088.60	280,489
P-487	42 inch	2,243.00	0.013	0.0005	1.24	15.7	7.1	7.0	MH-V04.28+30	1,140.50	MH-245	1,139.38	761,835
P-488	42 inch	1,826.00	0.013	0.0005	1.24	13.3	7.5	7.1	MH-245	1,139.38	MH-V02.09A	1,138.47	761,835
P-489	42 inch	1,365.00	0.013	0.0008	1.38	11.6	7.0	12.4	MH-V04.25	1,151.08	MH-V04.26	1,150.00	643,394
P-490	42 inch	941.00	0.013	0.0101	3.44	12.4	7.0	7.0	MH-V04.26	1,150.00	MH-V04.28+30	1,140.50	697,711
P-491	8 inch	450.00	0.013	0.0067	2.06	31.8	7.0	7.0	MH-222	1,127.33	MH-V01.01C	1,124.33	100,984
P-492	8 inch	975.00	0.013	0.0133	2.84	28.2	7.0	7.0	MH-V01.01C	1,124.33	MH-100	1,111.33	129,316
P-500	15 inch	1,565.00	0.013	0.0082	3.52	29.1	10.4	7.0	MH-V03.02+07+08E	1,164.25	MH-V02.07	1,151.38	622,084

Pipe Table Report - Average Day														
Label	Size (inch)	Length (ft)	Manning's n	Slope (ft/ft)	Velocity (ft/s)	d/D (%)	Downstream Cover (ft)	Upstream Cover (ft)	Upstream Node	Upstream Invert El (ft)	Downstream Node	Downstream Invert El (ft)	Total Flow (gpd)
P-503	15 inch	566.00	0.013	0.0019	1.59	28.5	20.2	24.1	MH-V03.09+07.01A+03+04+05+06/	1,175.66	MH-V03.08A	1,174.59	244,936
P-504	15 inch	1,909.00	0.013	0.0015	1.62	32.6	11.1	20.2	MH-V03.08A	1,174.59	MH-V03.10	1,171.66	332,229
P-505	15 inch	1,393.00	0.013	0.0014	1.63	33.1	8.1	11.1	MH-V03.10	1,171.66	MH-V03.11	1,169.67	373,140
P-506	15 inch	1,708.00	0.013	0.0032	2.29	33.1	7.0	8.1	MH-V03.11	1,169.67	MH-V03.02+07+08E	1,164.25	454,448
P-524	42 inch	1,056.00	0.013	0.0005	0.94	12.2	10.2	10.2	MH-V04.22+23E	1,151.80	MH-O4A	1,151.28	309,896
P-525	42 inch	1,394.00	0.013	0.0005	0.89	9.8	10.2	7.0	MH-V04.20+21	1,152.50	MH-V04.22+23E	1,151.80	259,343
P-527	42 inch	1,445.00	0.013	0.0077	3.05	8	11.1	7.0	MH-280	1,149.50	Camelback WRF	1,138.41	641,068
P-528	10 inch	1,474.00	0.013	0.0036	1.64	30.7	13.3	7.0	MH-V04.07+08	1,172.17	MH-V04.10+24	1,166.83	104,690
P-529	10 inch	2,678.00	0.013	0.0048	2.27	32	10.2	13.3	MH-V04.10+24	1,166.83	MH-O4A	1,153.94	229,375
P-538	42 inch	1,625.00	0.013	0.0005	1.04	10.1	7.3	12.5	MH-V04.13+05.01+03+04+05+06+07+1	1,169.99	MH-V04.15	1,169.18	422,104
P-594	48 inch	2,845.00	0.013	0.0055	3.88	12.8	7.0	11.3	MH-333	1,144.74	HASSAYAMPA RANCH WRF	1,129.00	2,212,570
P-596	42 inch	1,148.00	0.013	0.006	2.64	9	7.0	12.1	MH-331	1,164.44	MH-334	1,157.50	527,520
P-598	10 inch	2,559.00	0.013	0.0074	3.14	41.6	7.0	7.0	MH-V25.01+03+O3C	1,121.17	MH-V25.04	1,102.17	421,575
P-601	18 inch	1,539.00	0.013	0.001	1.68	39.3	8.6	7.0	MH-V25.04	1,101.50	MH-337	1,099.94	679,998
P-602	18 inch	1,988.00	0.013	0.001	1.68	35.7	10.6	8.6	MH-337	1,099.94	MH-O6	1,097.92	679,998
P-611	36 inch	938.00	0.013	0.0081	5.45	28.4	7.5	10.9	MH-342	1,079.10	MH-343	1,071.47	3,918,935
P-613	42 inch	1,333.00	0.013	0.0073	2.73	8.4	7.0	7.3	MH-V04.15	1,169.18	MH-V04.16+17	1,159.50	472,677
P-614	42 inch	1,557.00	0.013	0.0026	1.95	9.3	7.0	7.0	MH-V04.16+17	1,159.50	MH-V04.18+19	1,155.50	518,941
P-615	42 inch	1,349.00	0.013	0.0044	2.52	9.2	7.0	7.0	MH-V04.18+19	1,155.50	MH-280	1,149.50	641,068
P-631	48 inch	3,633.00	0.013	0.0005	1.28	15	11.3	7.4	MH-359	1,146.56	MH-333	1,144.74	913,363
P-632	42 inch	6,385.00	0.013	0.0016	1.68	8.7	7.4	7.0	MH-334	1,157.50	MH-359	1,147.06	527,520
P-758	10 inch	879.00	0.013	0.0104	2.28	18.1	18.2	7.0	MH-V01.23A	1,098.17	355th WRF	1,089.02	89,694
P-759	24 inch	2,573.00	0.013	0.001	1.65	22.8	18.2	17.7	MH-V01.21	1,090.35	355th WRF	1,087.85	736,576
P-781	15 inch	3,608.00	0.013	0.0039	2.32	24.5	21.0	7.0	MH-390	1,061.75	MH-389	1,047.78	368,640
P-782	8 inch	886.00	0.013	0.0124	1.33	8.3	7.5	7.0	MH-V23.03	1,082.83	MH-392	1,071.86	10,978
P-788	48 inch	5,247.00	0.013	0.0041	5.03	34.6	7.0	7.5	MH-392	1,068.52	MH-388	1,047.00	7,634,748
P-789	48 inch	3,949.00	0.013	0.0005	2.39	39.5	21.0	7.0	MH-388	1,047.00	MH-389	1,045.03	8,003,388
P-790	24 inch	2,064.00	0.013	0.0032	3.54	35.6	7.0	19.4	MH-V24.11+12E	1,058.59	335th LS	1,052.00	2,439,030
P-806	12 inch	5,293.00	0.013	0.0029	2.32	40.5	7.0	8.6	MH-393	1,069.45	MH-394	1,054.00	502,104
P-818	15 inch	1,390.00	0.013	0.0036	3.08	44.5	7.0	7.0	MH-V24.07B+08	1,071.75	MH-V24.09	1,066.75	1,129,651
P-819	18 inch	1,405.00	0.013	0.0036	3.12	36.4	7.0	7.0	MH-V24.09	1,066.50	MH-187	1,061.50	1,243,498
P-820	18 inch	1,601.00	0.013	0.0019	2.27	33.9	7.0	7.0	MH-V24.05+06+07A+O5A	1,076.50	MH-V24.13+14	1,073.50	910,216
P-821	24 inch	2,542.00	0.013	0.0008	1.66	30.4	11.9	7.0	MH-V24.13+14	1,073.00	MH-V24.10	1,071.07	1,043,193
P-822	24 inch	1,127.00	0.013	0.0007	1.68	40.7	19.4	23.7	MH-188	1,059.35	MH-V24.11+12E	1,058.59	1,243,498
P-823	12 inch	3,652.00	0.013	0.0019	1.66	41.4	8.6	7.0	MH-O8	1,076.50	MH-393	1,069.45	256,344
P-824	24 inch	1,300.00	0.013	0.0096	4.13	32.1	19.4	11.9	MH-V24.10	1,071.07	MH-V24.11+12E	1,058.59	1,061,805
P-825	10 inch	585.00	0.013	0.0042	1.64	25.4	9.4	7.0	MH-V24.03B+04	1,100.17	MH-V24.16B	1,097.74	87,875
P-826	10 inch	1,876.00	0.013	0.0031	1.65	36.1	8.3	9.4	MH-V24.16B	1,097.74	MH-V24.15	1,091.91	128,363
P-827	10 inch	2,118.00	0.013	0.0022	1.76	37.2	7.0	8.3	MH-V24.15	1,091.91	MH-O9	1,087.17	247,141
P-829	24 inch	5,691.00	0.013	0.0008	1.66	32.1	10.5	7.0	MH-405	1,041.00	MH-404	1,036.55	993,624
P-831	24 inch	1,279.00	0.013	0.0023	3.27	45.1	7.0	7.0	MH-O9	1,086.00	MH-V24.17B	1,083.00	2,745,989
P-832	24 inch	3,809.00	0.013	0.0032	3.72	39.7	7.0	7.0	MH-V24.17B	1,083.00	MH-V24.01+03A+16A+17A+1	1,071.00	2,975,911
P-833	12 inch	796.00	0.013	0.0126	4.83	49.4	7.0	7.0	MH-O5B	1,082.00	MH-V24.07B+08	1,072.00	1,053,771
P-834	8 inch	795.00	0.013	0.0072	1.63	17	12.7	7.0	MH-O4B	1,155.33	MH-168	1,149.59	40,960
P-839	48 inch	1,431.00	0.013	0.0056	3.98	13.2	18.2	7.1	MH-V01.23B	1,093.89	355th WRF	1,085.85	2,359,937
P-840	30 inch	5,164.00	0.013	0.0008	2.16	36.6	7.0	7.0	MH-414	1,024.50	MH-422	1,020.50	2,764,800
P-842	10 inch	4,816.00	0.013	0.0046	2.42	37.6	7.0	7.0	MH-401	1,085.17	MH-402	1,063.17	307,200
P-844	12 inch	5,086.00	0.013	0.0055	2.91	36.6	7.0	7.0	MH-411	1,081.00	MH-412	1,053.00	491,520
P-845	18 inch	6,017.00	0.013	0.0045	3.74	42.7	7.0	7.0	MH-412	1,052.50	MH-414	1,025.50	1,781,760
P-846	12 inch	5,212.00	0.013	0.0038	2.65	41.7	7.0	7.0	MH-420	1,074.00	MH-421	1,054.00	570,573
P-847	15 inch	6,018.00	0.013	0.0053	3.5	40.7	7.0	7.0	MH-421	1,053.75	MH-422	1,021.75	1,062,093
P-848	8 inch	5,055.00	0.013	0.004	1.81	36.8	7.0	7.0	MH-434	1,109.33	MH-433	1,089.33	122,880
P-849	10 inch	5,013.00	0.013	0.0034	2.27	43.3	7.0	7.0	MH-433	1,089.17	MH-429	1,072.17	368,640
P-850	24 inch	5,413.00	0.013	0.0041	3.98	40.9	7.0	7.0	MH-429	1,071.00	MH-430	1,049.00	2,703,360
P-851	24 inch	6,035.00	0.013	0.0041	4.1	38	7.0	7.0	MH-430	1,049.00	MH-431	1,024.00	2,949,120
P-852	36 inch	5,272.00	0.013	0.0006	1.97	39.9	7.0	7.0	MH-431	1,023.00	MH-422	1,020.00	3,072,000
P-853	8 inch	5,242.00	0.013	0.005	2.37	44.9	7.0	7.0	MH-395	1,191.33	MH-396	1,165.33	245,760
P-854	15 inch	5,167.00	0.013	0.0046	3.01	36.8	7.0	7.0	MH-396	1,164.75	MH-398	1,140.75	737,280
P-856	12 inch	5,168.00	0.013	0.0049	2.78	37.2	13.2	7.0	MH-399	1,112.00	MH-400	1,086.81	491,520
P-858	8 inch	5,195.00	0.013	0.0073	2.73	42.5	7.0	7.0	MH-406	1,190.33	MH-407	1,152.33	245,760
P-859	15 inch	5,288.00	0.013	0.0038	2.8	35.2	7.0	7.0	MH-407	1,151.75	MH-408	1,131.75	737,280
P-861	12 inch	3,071.00	0.013	0.0039	2.57	38.4	7.0	7.0	MH-409	1,104.00	MH-410	1,092.00	491,520

Pipe Table Report - Average Day													
Label	Size (inch)	Length (ft)	Manning's n	Slope (ft/ft)	Velocity (ft/s)	d/D (%)	Downstream Cover (ft)	Upstream Cover (ft)	Upstream Node	Upstream Invert El (ft)	Downstream Node	Downstream Invert El (ft)	Total Flow (gpd)
P-862	24 inch	5,607.00	0.013	0.0009	1.65	23.7	13.2	7.0	MH-410	1,091.00	MH-400	1,085.81	782,336
P-863	8 inch	5,180.00	0.013	0.006	2.54	43.7	7.0	7.0	MH-415	1,182.33	MH-416	1,151.33	245,760
P-864	12 inch	5,412.00	0.013	0.0054	3.21	45.6	7.0	7.0	MH-416	1,151.00	MH-417	1,122.00	737,280
P-867	8 inch	5,412.00	0.013	0.0042	1.86	35.6	7.0	7.0	MH-461	1,213.33	MH-459	1,190.33	122,880
P-868	10 inch	5,055.00	0.013	0.004	2.41	42.3	7.0	7.0	MH-459	1,190.17	MH-458	1,170.17	368,640
P-869	12 inch	3,027.00	0.013	0.0059	3.18	40.7	7.0	7.0	MH-458	1,170.00	MH-454	1,152.00	614,400
P-870	18 inch	5,115.00	0.013	0.0059	4.01	38.9	7.0	7.0	MH-454	1,151.50	MH-443	1,121.50	1,597,440
P-872	8 inch	5,274.00	0.013	0.0042	1.84	31.8	7.0	7.0	MH-457	1,194.33	MH-456	1,172.33	122,880
P-873	12 inch	5,061.00	0.013	0.004	2.58	38.3	7.0	7.0	MH-456	1,172.00	MH-454	1,152.00	491,520
P-874	8 inch	5,164.00	0.013	0.0035	1.73	32.6	15.1	7.0	MH-453	1,242.33	MH-452	1,224.26	122,880
P-875	12 inch	5,365.00	0.013	0.0024	1.99	44	7.0	15.1	MH-452	1,223.93	MH-451	1,211.00	368,640
P-876	12 inch	5,071.00	0.013	0.0057	3.13	41	7.0	7.0	MH-451	1,211.00	MH-450	1,182.00	614,400
P-877	15 inch	3,427.00	0.013	0.0058	3.41	36	7.0	7.0	MH-450	1,181.75	MH-446	1,161.75	860,160
P-878	24 inch	5,321.00	0.013	0.0038	3.71	39.5	7.0	7.0	MH-446	1,161.00	MH-445	1,141.00	2,334,720
P-879	24 inch	5,086.00	0.013	0.0039	3.98	37.4	7.0	7.0	MH-445	1,141.00	MH-443	1,121.00	2,826,240
P-880	8 inch	5,314.00	0.013	0.0041	1.84	31.9	7.0	7.0	MH-449	1,232.33	MH-448	1,210.33	122,880
P-881	12 inch	5,414.00	0.013	0.0041	2.76	43	7.0	7.0	MH-448	1,210.00	MH-447	1,188.00	614,400
P-882	15 inch	5,014.00	0.013	0.0052	3.5	41.8	7.0	7.0	MH-447	1,187.75	MH-446	1,161.75	1,105,920
P-883	8 inch	5,431.00	0.013	0.005	1.97	33.4	7.0	7.0	MH-442	1,149.33	MH-441	1,122.33	122,880
P-885	12 inch	5,396.00	0.013	0.0035	2.47	38.9	7.0	7.0	MH-439	1,173.00	MH-438	1,154.00	491,520
P-886	15 inch	4,968.00	0.013	0.0044	3.09	37.3	7.0	7.0	MH-438	1,153.75	MH-437	1,131.75	860,160
P-887	18 inch	5,273.00	0.013	0.0036	3.12	44.5	7.0	7.0	MH-437	1,131.50	MH-436	1,112.50	1,228,800
P-888	18 inch	4,887.00	0.013	0.0029	3.08	48.6	7.0	7.0	MH-436	1,112.50	MH-435	1,098.50	1,597,440
P-889	18 inch	5,022.00	0.013	0.0054	4.03	42.4	7.0	7.0	MH-435	1,098.50	MH-429	1,071.50	1,843,200
P-890	18 inch	2,481.00	0.013	0.0012	1.65	26.3	11.1	7.0	MH-397	1,143.50	Camelback WRF	1,140.41	496,435
P-891	36 inch	5,288.00	0.013	0.0005	1.56	24.5	9.6	7.0	MH-423	1,020.00	MH-426	1,017.36	1,608,024
P-892	36 inch	5,102.00	0.013	0.003	3.08	25.7	7.0	9.6	MH-426	1,017.36	MH-427	1,002.00	1,853,784
P-893	36 inch	5,229.00	0.013	0.0005	1.69	32.6	7.6	7.0	MH-427	1,002.00	MH-428	999.39	2,099,544
P-895	8 inch	542.00	0.013	0.0052	1.64	21.7	9.8	7.0	MH-465	1,001.33	Silver Springs LS No. 2	998.50	61,440
P-900	10 inch	5,396.00	0.013	0.0056	2.73	40.3	7.0	7.0	MH-441	1,122.17	Balterra WRF	1,092.17	368,640
P-901	48 inch	3,708.00	0.013	0.0016	3.77	31.1	7.0	21.0	MH-389	1,045.03	MH-463	1,039.00	8,863,548
P-902	54 inch	468.00	0.013	0.0005	2.47	29.7	7.2	7.0	MH-463	1,038.50	339th WRF	1,038.27	9,253,692
P-903	12 inch	2,966.00	0.013	0.002	1.89	37.2	7.0	7.0	MH-466	1,168.00	MH-464	1,162.00	385,843
P-904	15 inch	2,915.00	0.013	0.0049	3.11	34.8	11.3	7.0	MH-464	1,161.75	MH-333	1,147.49	771,686
P-905	30 inch	4,714.00	0.013	0.0053	5.07	37	8.8	7.0	MH-443	1,120.50	MH-467	1,095.72	4,915,200
P-906	36 inch	435.00	0.013	0.012	8.03	35.1	7.0	8.8	MH-467	1,095.22	Balterra WRF	1,090.00	9,267,968
P-907	36 inch	2,578.00	0.013	0.0084	6.62	32.5	18.6	7.0	MH-422	1,020.00	MH-468	998.43	7,390,413
P-908	54 inch	526.00	0.013	0.0005	2.51	30.7	18.8	18.6	MH-468	996.93	Silver Springs WRF	996.66	9,735,717
P-909	15 inch	4,951.00	0.013	0.002	2.27	43.2	7.0	7.0	MH-402	1,062.75	MH-412	1,052.75	798,720
P-910	12 inch	5,061.00	0.013	0.0032	2.38	39.6	7.0	7.0	MH-403	1,042.00	MH-414	1,026.00	491,520
P-911	24 inch	4,605.00	0.013	0.0034	3.07	26.1	7.0	10.5	MH-404	1,036.55	MH-423	1,021.00	1,362,264
P-913	36 inch	4,062.00	0.013	0.0005	2	37.4	10.9	15.9	MH-O7	1,081.13	MH-342	1,079.10	3,918,935
P-914	30 inch	4,645.00	0.013	0.0006	1.66	26.6	14.9	13.2	MH-400	1,085.31	Balterra LS	1,082.57	1,519,616
P-916	24 inch	5,210.00	0.013	0.0019	2.95	47	7.0	7.0	MH-408	1,131.00	MH-417	1,121.00	2,457,600
P-917	18 inch	5,180.00	0.013	0.0017	2.39	40.4	7.0	7.0	MH-398	1,140.50	MH-408	1,131.50	1,228,800
P-918	24 inch	4,978.00	0.013	0.004	4.3	43	7.0	7.0	MH-417	1,121.00	MH-418	1,101.00	3,686,400
P-919	36 inch	5,293.00	0.013	0.0009	2.52	43.2	8.8	7.0	MH-418	1,100.00	MH-467	1,095.22	4,107,008
P-920	15 inch	5,068.00	0.013	0.0024	2.37	38	7.0	7.0	MH-394	1,053.75	MH-405	1,041.75	747,864
P-921	36 inch	1,919.00	0.013	0.0005	1.71	26	18.6	7.6	MH-428	999.39	MH-468	998.43	2,222,424
P-922	42 inch	382.00	0.013	0.0005	1.16	13.6	12.4	10.2	MH-O4A	1,151.28	MH-V04.25	1,151.08	621,191
P-927	36 inch	542.00	0.013	0.0032	3.9	26.5	7.3	7.5	MH-343	1,071.47	MH-462	1,069.75	3,918,935
P-928	48 inch	453.00	0.013	0.0005	2.34	33.5	7.5	7.3	MH-462	1,068.75	MH-392	1,068.52	7,378,010
P-929	36 inch	501.00	0.013	0.0005	1.94	31.4	7.3	7.0	MH-V24.01+03A+16A+17A+1i	1,070.00	MH-462	1,069.75	3,459,075

Phase 1
Average Day
Manhole Table Report

Manhole Table Report - Average Day												
Label	Ground Elevation (ft)	Sump Elevation (ft)	Structure Depth (ft)	Headloss Method	Headloss Coefficient	Sanitary Base Load (gpd)	Known Flow (gpd)	Total Flow (gpd)	HGL In (ft)	HGL Out (ft)	Pipe Matching	MH Size (ft)
MH-14	1,133.00	1,116.88	16.12	Standard	0.5	0	0	2,235,780	1,117.53	1,117.46	Crowns	4
MH-15	1,125.00	1,114.00	11	Standard	0.5	0	0	2,235,780	1,114.63	1,114.54	Crowns	4
MH-69	1,185.00	1,176.50	8.5	Standard	0.5	0	0	30,036	1,176.60	1,176.60	Crowns	4
MH-92	1,114.50	1,103.92	10.58	Standard	0.5	0	0	280,489	1,104.22	1,104.18	Crowns	4
MH-100	1,119.00	1,111.17	7.83	Standard	0.5	0	0	129,316	1,111.42	1,111.40	Crowns	4
MH-102	1,120.50	1,100.99	19.51	Standard	0.5	0	0	185,979	1,101.29	1,101.27	Crowns	4
MH-104	1,129.00	1,118.50	10.5	Standard	0.5	0	0	1,328,982	1,119.23	1,119.21	Crowns	4
MH-168	1,163.00	1,149.01	13.99	Standard	0.5	0	0	417,382	1,149.47	1,149.45	Crowns	4
MH-177	1,155.00	1,132.26	22.74	Standard	0.5	0	0	464,269	1,132.72	1,132.70	Crowns	4
MH-187	1,070.00	1,061.00	9	Standard	0.5	0	0	1,243,498	1,061.81	1,061.79	Crowns	4
MH-188	1,085.00	1,059.35	25.65	Standard	0.5	0	0	1,243,498	1,060.16	1,060.14	Crowns	4
MH-204	1,160.00	1,132.90	27.1	Standard	0.5	0	0	464,269	1,133.37	1,133.34	Crowns	4
MH-206	1,158.00	1,139.36	18.64	Standard	0.5	0	0	20,275	1,139.45	1,139.44	Crowns	4
MH-208	1,163.00	1,154.50	8.5	Standard	0.5	0	0	61,947	1,154.64	1,154.63	Crowns	4
MH-212	1,155.00	1,139.65	15.35	Standard	0.5	0	0	806,231	1,140.12	1,140.06	Crowns	4
MH-220	1,100.00	1,091.47	8.53	Standard	0.5	0	0	682,117	1,092.07	1,092.05	Crowns	4
MH-222	1,135.00	1,127.33	7.67	Standard	0.5	0	0	100,984	1,127.55	1,127.51	Crowns	4
MH-228	1,106.00	1,092.31	13.69	Standard	0.5	0	0	466,096	1,092.81	1,092.79	Crowns	4
MH-234	1,109.00	1,101.33	7.67	Standard	0.5	0	0	125,186	1,101.59	1,101.57	Crowns	4
MH-242	1,109.50	1,100.06	9.44	Standard	0.5	0	0	76,923	1,100.26	1,100.25	Crowns	4
MH-243	1,113.00	1,094.12	18.88	Standard	0.5	0	0	2,312,703	1,095.02	1,094.99	Crowns	4
MH-245	1,150.00	1,139.38	10.62	Standard	0.5	0	0	761,835	1,139.93	1,139.92	Crowns	4
MH-280	1,160.00	1,149.50	10.5	Standard	0.5	0	0	641,068	1,149.85	1,149.80	Crowns	4
MH-331	1,180.00	1,164.44	15.56	Standard	0.5	527,520	0	527,520	1,164.76	1,164.71	Crowns	4
MH-333	1,160.00	1,144.74	15.26	Standard	0.5	527,520	0	2,212,570	1,145.36	1,145.27	Crowns	4
MH-334	1,168.00	1,157.50	10.5	Standard	0.5	0	0	527,520	1,157.87	1,157.84	Crowns	4
MH-337	1,110.00	1,099.94	10.06	Standard	0.5	0	0	679,998	1,100.54	1,100.52	Crowns	4
MH-342	1,093.00	1,079.10	13.9	Standard	0.5	0	0	3,918,935	1,080.01	1,079.87	Crowns	4
MH-343	1,082.00	1,071.47	10.53	Standard	0.5	0	0	3,918,935	1,072.40	1,072.28	Crowns	4
MH-359	1,158.00	1,146.56	11.44	Standard	0.5	385,843	0	913,363	1,147.14	1,147.13	Crowns	4
MH-388	1,058.00	1,047.00	11	Standard	0.5	368,640	0	8,003,388	1,048.77	1,048.72	Crowns	4
MH-389	1,070.00	1,045.03	24.97	Standard	0.5	491,520	0	8,863,548	1,046.46	1,046.35	Crowns	4
MH-390	1,070.00	1,061.75	8.25	Standard	0.5	368,640	0	368,640	1,062.11	1,062.07	Crowns	4
MH-392	1,080.00	1,068.52	11.48	Standard	0.5	245,760	0	7,634,748	1,069.70	1,069.53	Crowns	4
MH-393	1,079.00	1,069.45	9.55	Standard	0.5	245,760	0	502,104	1,069.93	1,069.89	Crowns	4
MH-394	1,062.00	1,053.75	8.25	Standard	0.5	245,760	0	747,864	1,054.32	1,054.27	Crowns	4
MH-395	1,199.00	1,191.33	7.67	Standard	0.5	245,760	0	245,760	1,191.69	1,191.65	Crowns	4
MH-396	1,173.00	1,164.75	8.25	Standard	0.5	491,520	0	737,280	1,165.25	1,165.18	Crowns	4
MH-397	1,152.00	1,143.50	8.5	Standard	0.5	496,435	0	496,435	1,143.98	1,143.96	Crowns	4
MH-398	1,149.00	1,140.50	8.5	Standard	0.5	491,520	0	1,228,800	1,141.24	1,141.19	Crowns	4
MH-399	1,120.00	1,112.00	8	Standard	0.5	491,520	0	491,520	1,112.44	1,112.38	Crowns	4
MH-400	1,101.00	1,085.31	15.69	Standard	0.5	245,760	0	1,519,616	1,086.15	1,086.13	Crowns	4
MH-401	1,093.00	1,085.17	7.83	Standard	0.5	307,200	0	307,200	1,085.54	1,085.49	Crowns	4
MH-402	1,071.00	1,062.75	8.25	Standard	0.5	491,520	0	798,720	1,063.36	1,063.32	Crowns	4
MH-403	1,050.00	1,042.00	8	Standard	0.5	491,520	0	491,520	1,042.47	1,042.43	Crowns	4
MH-404	1,049.00	1,036.55	12.45	Standard	0.5	368,640	0	1,362,264	1,037.16	1,037.09	Crowns	4
MH-405	1,050.00	1,041.00	9	Standard	0.5	245,760	0	993,624	1,041.69	1,041.67	Crowns	4
MH-406	1,198.00	1,190.33	7.67	Standard	0.5	245,760	0	245,760	1,190.67	1,190.62	Crowns	4
MH-407	1,160.00	1,151.75	8.25	Standard	0.5	491,520	0	737,280	1,152.27	1,152.21	Crowns	4
MH-408	1,140.00	1,131.00	9	Standard	0.5	491,520	0	2,457,600	1,131.93	1,131.86	Crowns	4
MH-409	1,112.00	1,104.00	8	Standard	0.5	491,520	0	491,520	1,104.45	1,104.40	Crowns	4

Manhole Table Report - Average Day												
Label	Ground Elevation (ft)	Sump Elevation (ft)	Structure Depth (ft)	Headloss Method	Headloss Coefficient	Sanitary Base Load (gpd)	Known Flow (gpd)	Total Flow (gpd)	HGL In (ft)	HGL Out (ft)	Pipe Matching	MH Size (ft)
MH-410	1,100.00	1,091.00	9	Standard	0.5	290,816	0	782,336	1,091.59	1,091.57	Crowns	4
MH-411	1,089.00	1,081.00	8	Standard	0.5	491,520	0	491,520	1,081.43	1,081.37	Crowns	4
MH-412	1,061.00	1,052.50	8.5	Standard	0.5	491,520	0	1,781,760	1,053.26	1,053.15	Crowns	4
MH-414	1,034.00	1,024.50	9.5	Standard	0.5	491,520	0	2,764,800	1,025.60	1,025.56	Crowns	4
MH-415	1,190.00	1,182.33	7.67	Standard	0.5	245,760	0	245,760	1,182.68	1,182.63	Crowns	4
MH-416	1,159.00	1,151.00	8	Standard	0.5	491,520	0	737,280	1,151.54	1,151.46	Crowns	4
MH-417	1,130.00	1,121.00	9	Standard	0.5	491,520	0	3,686,400	1,122.02	1,121.88	Crowns	4
MH-418	1,110.00	1,100.00	10	Standard	0.5	420,608	0	4,107,008	1,101.21	1,101.16	Crowns	4
MH-420	1,082.00	1,074.00	8	Standard	0.5	570,573	0	570,573	1,074.49	1,074.44	Crowns	4
MH-421	1,062.00	1,053.75	8.25	Standard	0.5	491,520	0	1,062,093	1,054.35	1,054.26	Crowns	4
MH-422	1,030.00	1,020.00	10	Standard	0.5	491,520	0	7,390,413	1,021.27	1,021.07	Crowns	4
MH-423	1,030.00	1,020.00	10	Standard	0.5	184,320	61,440	1,608,024	1,020.85	1,020.83	Crowns	4
MH-426	1,030.00	1,017.36	12.64	Standard	0.5	245,760	0	1,853,784	1,018.00	1,017.92	Crowns	4
MH-427	1,012.00	1,002.00	10	Standard	0.5	245,760	0	2,099,544	1,002.97	1,002.95	Crowns	4
MH-428	1,010.00	999.39	10.61	Standard	0.5	122,880	0	2,222,424	1,000.39	1,000.37	Crowns	4
MH-429	1,080.00	1,071.00	9	Standard	0.5	491,520	0	2,703,360	1,071.86	1,071.74	Crowns	4
MH-430	1,058.00	1,049.00	9	Standard	0.5	245,760	0	2,949,120	1,049.90	1,049.77	Crowns	4
MH-431	1,033.00	1,023.00	10	Standard	0.5	122,880	0	3,072,000	1,024.15	1,024.12	Crowns	4
MH-433	1,097.00	1,089.17	7.83	Standard	0.5	245,760	0	368,640	1,089.60	1,089.56	Crowns	4
MH-434	1,117.00	1,109.33	7.67	Standard	0.5	122,880	0	122,880	1,109.59	1,109.56	Crowns	4
MH-435	1,107.00	1,098.50	8.5	Standard	0.5	245,760	0	1,843,200	1,099.26	1,099.14	Crowns	4
MH-436	1,121.00	1,112.50	8.5	Standard	0.5	368,640	0	1,597,440	1,113.27	1,113.20	Crowns	4
MH-437	1,140.00	1,131.50	8.5	Standard	0.5	368,640	0	1,228,800	1,132.14	1,132.06	Crowns	4
MH-438	1,162.00	1,153.75	8.25	Standard	0.5	368,640	0	860,160	1,154.30	1,154.23	Crowns	4
MH-439	1,181.00	1,173.00	8	Standard	0.5	491,520	0	491,520	1,173.46	1,173.41	Crowns	4
MH-441	1,130.00	1,122.17	7.83	Standard	0.5	245,760	0	368,640	1,122.56	1,122.51	Crowns	4
MH-442	1,157.00	1,149.33	7.67	Standard	0.5	122,880	0	122,880	1,149.58	1,149.55	Crowns	4
MH-443	1,130.00	1,120.50	9.5	Standard	0.5	491,520	0	4,915,200	1,121.59	1,121.42	Crowns	4
MH-445	1,150.00	1,141.00	9	Standard	0.5	491,520	0	2,826,240	1,141.89	1,141.76	Crowns	4
MH-446	1,170.00	1,161.00	9	Standard	0.5	368,640	0	2,334,720	1,161.80	1,161.70	Crowns	4
MH-447	1,196.00	1,187.75	8.25	Standard	0.5	491,520	0	1,105,920	1,188.37	1,188.27	Crowns	4
MH-448	1,218.00	1,210.00	8	Standard	0.5	491,520	0	614,400	1,210.51	1,210.45	Crowns	4
MH-449	1,240.00	1,232.33	7.67	Standard	0.5	122,880	0	122,880	1,232.58	1,232.56	Crowns	4
MH-450	1,190.00	1,181.75	8.25	Standard	0.5	245,760	0	860,160	1,182.29	1,182.21	Crowns	4
MH-451	1,219.00	1,211.00	8	Standard	0.5	245,760	0	614,400	1,211.49	1,211.41	Crowns	4
MH-452	1,240.00	1,223.93	16.07	Standard	0.5	245,760	0	368,640	1,224.35	1,224.32	Crowns	4
MH-453	1,250.00	1,242.33	7.67	Standard	0.5	122,880	0	122,880	1,242.59	1,242.57	Crowns	4
MH-454	1,160.00	1,151.50	8.5	Standard	0.5	491,520	0	1,597,440	1,152.21	1,152.10	Crowns	4
MH-456	1,180.00	1,172.00	8	Standard	0.5	368,640	0	491,520	1,172.45	1,172.40	Crowns	4
MH-457	1,202.00	1,194.33	7.67	Standard	0.5	122,880	0	122,880	1,194.58	1,194.56	Crowns	4
MH-458	1,178.00	1,170.00	8	Standard	0.5	245,760	0	614,400	1,170.49	1,170.41	Crowns	4
MH-459	1,198.00	1,190.17	7.83	Standard	0.5	245,760	0	368,640	1,190.59	1,190.54	Crowns	4
MH-461	1,221.00	1,213.33	7.67	Standard	0.5	122,880	0	122,880	1,213.58	1,213.56	Crowns	4
MH-462	1,080.00	1,068.75	11.25	Standard	0.5	0	0	7,378,010	1,070.30	1,070.25	Crowns	4
MH-463	1,050.00	1,038.50	11.5	Standard	0.5	390,144	0	9,253,692	1,040.17	1,040.10	Crowns	4
MH-464	1,170.00	1,161.75	8.25	Standard	0.5	385,843	0	771,686	1,162.26	1,162.19	Crowns	4
MH-465	1,009.00	1,001.33	7.67	Standard	0.5	61,440	0	61,440	1,001.50	1,001.48	Crowns	4
MH-466	1,176.00	1,168.00	8	Standard	0.5	385,843	0	385,843	1,168.45	1,168.42	Crowns	4
MH-467	1,107.00	1,095.22	11.78	Standard	0.5	245,760	0	9,267,968	1,096.65	1,096.43	Crowns	4
MH-468	1,020.00	996.93	23.07	Standard	0.5	122,880	0	9,735,717	998.65	998.59	Crowns	4
MH-O3D	1,114.50	1,106.25	8.25	Standard	0.5	280,489	0	280,489	1,106.61	1,106.58	Crowns	4
MH-O4A	1,165.00	1,151.28	13.72	Standard	0.5	81,920	0	621,191	1,151.77	1,151.76	Crowns	4

Manhole Table Report - Average Day												
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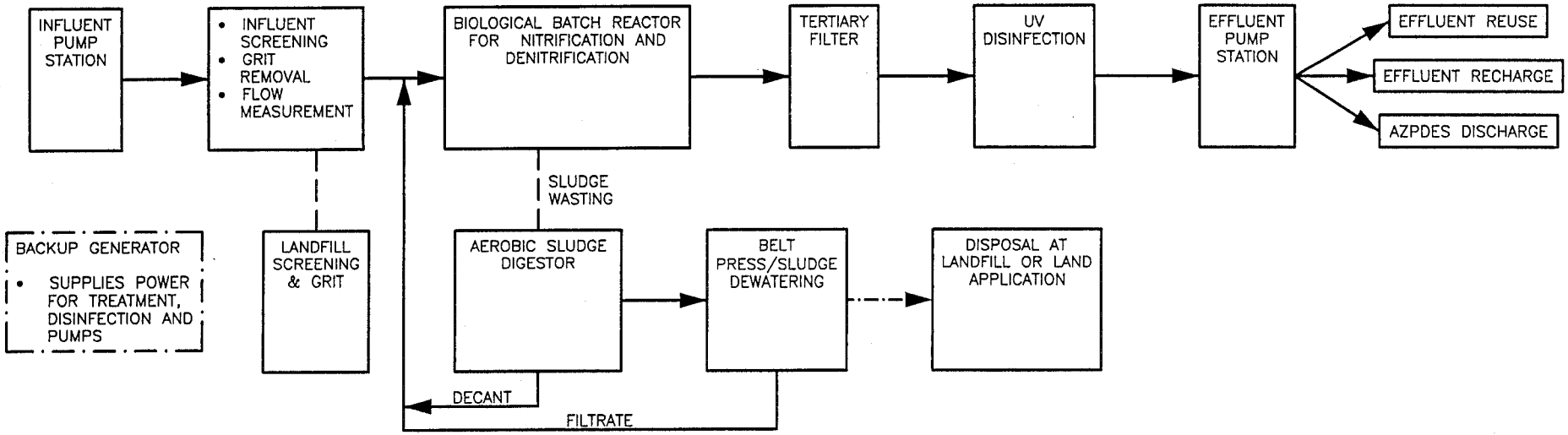
MH-O4B	1,163.00	1,155.33	7.67	Standard	0.5	40,960	0	40,960	1,155.47	1,155.45	Crowns	4
MH-O5B	1,090.00	1,082.00	8	Standard	0.5	1,053,771	0	1,053,771	1,082.65	1,082.54	Crowns	4
MH-O6	1,110.00	1,097.92	12.08	Standard	0.5	130,376	0	810,373	1,098.42	1,098.34	Crowns	4
MH-O7	1,100.00	1,081.13	18.87	Standard	0.5	348,766	0	3,918,935	1,082.49	1,082.46	Crowns	4
MH-O8	1,084.50	1,076.50	8	Standard	0.5	256,344	0	256,344	1,076.86	1,076.84	Crowns	4
MH-O9	1,095.00	1,086.00	9	Standard	0.5	59,818	2,439,030	2,745,989	1,086.95	1,086.86	Crowns	4
MH-V01.01A	1,113.00	1,097.53	15.47	Standard	0.5	56,663	0	242,642	1,097.85	1,097.83	Crowns	4
MH-V01.01B	1,127.00	1,107.35	19.65	Standard	0.5	56,663	0	185,979	1,107.64	1,107.62	Crowns	4
MH-V01.01C	1,132.00	1,124.33	7.67	Standard	0.5	28,332	0	129,316	1,124.58	1,124.54	Crowns	4
MH-V01.03	1,104.50	1,096.67	7.83	Standard	0.5	26,081	0	216,021	1,096.99	1,096.96	Crowns	4
MH-V01.05	1,113.00	1,105.33	7.67	Standard	0.5	12,396	0	189,940	1,105.63	1,105.59	Crowns	4
MH-V01.07+08B+09+12B	1,107.00	1,097.64	9.36	Standard	0.5	98,268	0	223,454	1,097.93	1,097.90	Crowns	4
MH-V01.08A+11A+12A+14+16	1,117.50	1,109.83	7.67	Standard	0.5	125,186	0	125,186	1,110.07	1,110.04	Crowns	4
MH-V01.11B	1,140.00	1,132.33	7.67	Standard	0.5	100,984	0	100,984	1,132.56	1,132.53	Crowns	4
MH-V01.18	1,125.00	1,117.33	7.67	Standard	0.5	22,111	0	177,544	1,117.62	1,117.58	Crowns	4
MH-V01.19	1,132.00	1,124.33	7.67	Standard	0.5	37,809	0	155,434	1,124.60	1,124.56	Crowns	4
MH-V01.21	1,110.00	1,090.35	19.65	Standard	0.5	54,459	0	736,576	1,090.91	1,090.89	Crowns	4
MH-V01.23A	1,106.00	1,098.17	7.83	Standard	0.5	47,234	0	89,694	1,098.35	1,098.33	Crowns	4
MH-V01.23B	1,105.00	1,093.89	11.11	Standard	0.5	47,234	0	2,359,937	1,094.53	1,094.44	Crowns	4
MH-V01.25	1,110.00	1,102.33	7.67	Standard	0.5	42,460	0	42,460	1,102.47	1,102.45	Crowns	4
MH-V01.26	1,115.00	1,103.84	11.16	Standard	0.5	50,458	0	76,923	1,104.03	1,104.01	Crowns	4
MH-V01.27	1,125.00	1,117.33	7.67	Standard	0.5	26,465	0	26,465	1,117.44	1,117.42	Crowns	4
MH-V01.29	1,141.00	1,117.68	23.32	Standard	0.5	24,968	0	2,235,780	1,118.59	1,118.57	Crowns	4
MH-V02.01	1,140.50	1,131.50	9	Standard	0.5	75,600	0	881,831	1,131.97	1,131.90	Crowns	4
MH-V02.02	1,135.00	1,127.33	7.67	Standard	0.5	36,432	0	117,625	1,127.58	1,127.56	Crowns	4
MH-V02.04	1,163.00	1,155.33	7.67	Standard	0.5	81,193	0	81,193	1,155.52	1,155.50	Crowns	4
MH-V02.06	1,149.50	1,140.50	9	Standard	0.5	53,372	0	806,231	1,141.15	1,141.14	Crowns	4
MH-V02.07	1,163.00	1,151.13	11.87	Standard	0.5	24,256	0	752,859	1,151.60	1,151.53	Crowns	4
MH-V02.08+09B	1,144.50	1,128.97	15.53	Standard	0.5	67,776	0	1,328,982	1,129.47	1,129.40	Crowns	4
MH-V02.09A	1,149.50	1,138.47	11.03	Standard	0.5	35,101	0	796,937	1,138.85	1,138.80	Crowns	4
MH-V02.10	1,159.50	1,147.26	12.24	Standard	0.5	26,611	0	443,994	1,147.62	1,147.57	Crowns	4
MH-V02.12	1,160.50	1,152.83	7.67	Standard	0.5	20,275	0	20,275	1,152.93	1,152.91	Crowns	4
MH-V03.01	1,161.00	1,152.50	8.5	Standard	0.5	44,572	0	106,519	1,152.73	1,152.73	Crowns	4
MH-V03.02+07+08B	1,172.50	1,164.25	8.25	Standard	0.5	167,636	0	622,084	1,164.70	1,164.64	Crowns	4
MH-V03.04	1,183.00	1,174.50	8.5	Standard	0.5	31,910	0	61,947	1,174.63	1,174.61	Crowns	4
MH-V03.06	1,194.00	1,182.59	11.41	Standard	0.5	30,036	0	30,036	1,182.69	1,182.68	Crowns	4
MH-V03.08A	1,196.00	1,174.59	21.41	Standard	0.5	87,293	0	332,229	1,175.00	1,174.98	Crowns	4
MH-V03.09+07.01A+03+04+05+06A	1,201.00	1,175.66	25.34	Standard	0.5	244,936	0	244,936	1,175.99	1,175.97	Crowns	4
MH-V03.10	1,184.00	1,171.66	12.34	Standard	0.5	40,911	0	373,140	1,172.09	1,172.07	Crowns	4
MH-V03.11	1,179.00	1,169.67	9.33	Standard	0.5	81,308	0	454,448	1,170.08	1,170.04	Crowns	4
MH-V04.01	1,170.00	1,162.00	8	Standard	0.5	89,476	0	376,422	1,162.37	1,162.32	Crowns	4
MH-V04.02	1,182.00	1,170.46	11.54	Standard	0.5	74,926	0	220,303	1,170.75	1,170.70	Crowns	4
MH-V04.03A	1,178.00	1,170.33	7.67	Standard	0.5	16,661	0	16,661	1,170.43	1,170.42	Crowns	4
MH-V04.03B	1,180.00	1,166.10	13.9	Standard	0.5	49,982	0	286,947	1,166.48	1,166.45	Crowns	4
MH-V04.04+06.01+03+04	1,181.00	1,173.00	8	Standard	0.5	145,377	0	145,377	1,173.25	1,173.23	Crowns	4
MH-V04.07+08	1,180.00	1,172.17	7.83	Standard	0.5	104,690	0	104,690	1,172.38	1,172.36	Crowns	4
MH-V04.10+24	1,181.00	1,166.83	14.17	Standard	0.5	124,685	0	229,375	1,167.14	1,167.10	Crowns	4
MH-V04.11+12	1,191.00	1,178.89	12.11	Standard	0.5	163,175	0	163,175	1,179.08	1,179.06	Crowns	4
MH-V04.13+05.01+03+04+05+06+07+19	1,186.00	1,169.99	16.01	Standard	0.5	422,104	0	422,104	1,170.41	1,170.40	Crowns	4
MH-V04.15	1,180.00	1,169.18	10.82	Standard	0.5	50,573	0	472,677	1,169.47	1,169.43	Crowns	4
MH-V04.16+17	1,170.00	1,159.50	10.5	Standard	0.5	46,264	0	518,941	1,159.84	1,159.81	Crowns	4
MH-V04.18+19	1,166.00	1,155.50	10.5	Standard	0.5	122,127	0	641,068	1,155.85	1,155.80	Crowns	4

Manhole Table Report - Average Day												
Label	Ground Elevation (ft)	Sump Elevation (ft)	Structure Depth (ft)	Headloss Method	Headloss Coefficient	Sanitary Base Load (gpd)	Known Flow (gpd)	Total Flow (gpd)	HGL In (ft)	HGL Out (ft)	Pipe Matching	MH Size (ft)
MH-V04.20+21	1,163.00	1,152.50	10.5	Standard	0.5	63,216	0	259,343	1,152.83	1,152.82	Crowns	4
MH-V04.22+23B	1,165.50	1,151.80	13.7	Standard	0.5	50,553	0	309,896	1,152.16	1,152.16	Crowns	4
MH-V04.23A	1,178.00	1,168.00	10	Standard	0.5	32,953	0	196,128	1,168.20	1,168.17	Crowns	4
MH-V04.25	1,167.00	1,151.08	15.92	Standard	0.5	22,203	0	643,394	1,151.55	1,151.53	Crowns	4
MH-V04.26	1,160.50	1,150.00	10.5	Standard	0.5	54,317	0	697,711	1,150.36	1,150.31	Crowns	4
MH-V04.28+30	1,151.00	1,140.50	10.5	Standard	0.5	64,124	0	761,835	1,141.06	1,141.04	Crowns	4
MH-V23.03	1,090.50	1,082.83	7.67	Standard	0.5	10,978	0	10,978	1,082.90	1,082.89	Crowns	4
MH-V24.01+03A+16A+17A+18	1,080.00	1,070.00	10	Standard	0.5	483,164	0	3,459,075	1,071.20	1,071.16	Crowns	4
MH-V24.03B+04	1,108.00	1,100.17	7.83	Standard	0.5	87,875	0	87,875	1,100.36	1,100.34	Crowns	4
MH-V24.05+06+07A+O5A	1,085.00	1,076.50	8.5	Standard	0.5	910,216	0	910,216	1,077.11	1,077.07	Crowns	4
MH-V24.07B+08	1,080.00	1,071.75	8.25	Standard	0.5	75,880	0	1,129,651	1,072.41	1,072.34	Crowns	4
MH-V24.09	1,075.00	1,066.50	8.5	Standard	0.5	113,846	0	1,243,498	1,067.15	1,067.07	Crowns	4
MH-V24.10	1,085.00	1,071.07	13.93	Standard	0.5	18,612	0	1,061,805	1,071.60	1,071.52	Crowns	4
MH-V24.11+12B	1,080.00	1,058.59	21.41	Standard	0.5	133,727	0	2,439,030	1,059.43	1,059.33	Crowns	4
MH-V24.13+14	1,082.00	1,073.00	9	Standard	0.5	132,977	0	1,043,193	1,073.72	1,073.69	Crowns	4
MH-V24.15	1,101.00	1,091.91	9.09	Standard	0.5	118,778	0	247,141	1,092.29	1,092.26	Crowns	4
MH-V24.16B	1,108.00	1,097.74	10.26	Standard	0.5	40,488	0	128,363	1,097.98	1,097.96	Crowns	4
MH-V24.17B	1,092.00	1,083.00	9	Standard	0.5	229,922	0	2,975,911	1,083.94	1,083.83	Crowns	4
MH-V25.01+03+O3C	1,129.00	1,121.17	7.83	Standard	0.5	421,575	0	421,575	1,121.59	1,121.52	Crowns	4
MH-V25.04	1,110.00	1,101.50	8.5	Standard	0.5	258,422	0	679,998	1,102.10	1,102.08	Crowns	4
MH-V25.05+19+20+21+22+O3B	1,100.00	1,083.80	16.2	Standard	0.5	1,523,871	0	2,759,796	1,084.93	1,084.90	Crowns	4
MH-V25.15+16+17+18+O3A	1,097.50	1,088.50	9	Standard	0.5	1,235,924	0	1,235,924	1,089.30	1,089.28	Crowns	4

APPENDIX B

Typical Water Reclamation Facility (WRF) Process



PROCESS DESCRIPTION

- The Plant will be Enclosed and will include Odor Control.
- Influent Sewage will be Pumped into the Headworks, where Screening, Grit Removal, and Flow Measurement will occur.
- Screening and Grit will be Dewatered and Disposed of at Landfill.
- Secondary Treatment will include BOD_5 and TSS Removal and Nitrification/Denitrification for Nitrogen Removal.
- The Secondary Treatment Process is a Sequencing Batch Reactor that provides Aerated Biological Treatment, with Nitrification, Anoxic Denitrification, and Clarification in One Tank.
- Sludge will be wasted to an Aerobic Digestor.
- Secondary Effluent will be Decanted into a Surge Tank and then Pumped to a Tertiary Filter (Automatic Backwash Sand Filter), followed by UV Disinfection.
- Waste Sludge will be Stabilized in an Aerobic Digestor and Dewatered, using Mechanical Dewatering (Belt Press) to produce a Class A Sludge.
- Ultimate Sludge Disposal will be to a Landfill or Permitted Land Application.

DSWA
DAMON S. WILLIAMS ASSOCIATES, LLC

GLOBAL WATER
RELIABLE • RENEWABLE • RELISABLE

GLOBAL WATER
WATER UTILITY OF GREATER TONOPAH

PROCESS FLOW DIAGRAM
TYPICAL WRF

APPENDIX B

U:\CADD\060250-260\Dwg\060250-WW\ProcessFlow.dwg Modified: Mar 06, 2007 7:20am

EXHIBIT A-12

BEFORE THE ARIZONA CORPORATION COMMISSION

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AZ CORP COMMISSION
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COMMISSIONERS
Jeff Hatch-Miller, Chairman
William A. Mundell
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Barry Wong

IN THE MATTER OF THE APPLICATION OF HASSAYAMPA UTILITY COMPANY, INC. FOR AN EXTENSION OF ITS EXISTING CERTIFICATE OF CONVENIENCE AND NECESSITY.	Docket No. SW-20422A-06-0566 **APPLICATION TO EXTEND CC&N**

Hassayampa Utility Company ("Hassayampa") requests that the Arizona Corporation Commission ("Commission") extend its Certificate of Convenience and Necessity ("CC&N") to include the area (the "Extension Area") set forth on the attached legal description ("Exhibit 1"). In support of this Application, Hassayampa states:

I. Groundwater Conservation.

1. Hassayampa's ultimate parent company is Global Water Resources, LLC ("Global Parent"). Global Parent recently became the ultimate parent company of the Water Utility of Greater Tonopah, Inc. ("WUGT"). Hassayampa and WUGT will together provide integrated water, wastewater and reclaimed water services to the Extension Area.

2. The Extension Area is part of the fast-growing west valley region. Because of this rapid growth, a traditional "groundwater only" approach to serving this region is not adequate. Thus, water conservation is imperative in the Extension Area. Groundwater conservation can be achieved through the "triad of conservation": (1) reusing reclaimed water for non-potable uses such as irrigating landscaping and flushing toilets; (2) introducing renewable surface water sources to the maximum feasible extent; (3) recharging excess reclaimed water and surface water into the aquifer to the maximum extent feasible. Global Parent and its regulated utilities are recognized leaders in water conservation in Arizona. For example, though this "triad of conservation"

EXHIBIT A12 admitted

strategy, Palo Verde Utilities Company and Santa Cruz Water Company (two affiliates of Hassayampa) have achieved remarkable reductions in average groundwater use as compared to traditional providers in Pinal County.

3. A CC&N extension is in the public interest because the Global Parent and its regulated utilities are at the forefront of water reclamation and re-use. Hassayampa is aggressively promoting the use of reclaimed water to serve golf courses, open spaces, school fields, homeowner association common areas, and irrigation of residential landscaping. In addition, Hassayampa is pursuing other industrial, commercial, agricultural, and residential uses for reclaimed water, including for flush water use in commercial and industrial buildings. These activities are part of Global Parent's "triad of conservation" strategy.

4. This Application is also in the public interest because there is a pressing need for consolidated, regionally-designed water, wastewater and reclaimed water service in this region of Maricopa County. Hassayampa is in the best position to extend and provide service to the Extension Area because of the proximity of its existing service area, the expertise of its personnel and its financial stability, and its relationship with WUGT.

II. The Extension Area.

5. The Extension Area is approximately 24,340 acres. As noted above, the legal description for the Extension Area is shown on Exhibit 1.

6. Five proposed subdivisions comprise the Extension Area. These subdivisions are known as Belmont, Copperleaf, Silver Water Ranch, Silver Springs Ranch, and the 339 Avenue Project. A map showing these five subdivisions (and thus the Extension Area) is attached as Exhibit 2. Each of theses subdivisions are adjacent to, or in the vicinity of, Hassayampa's existing service area.

7. The developers of these five subdivisions have each requested service from Hassayampa. Copies of the request-for-service letters are attached as Exhibit 3. The developer of the largest subdivision, Belmont, explains that they conducted an extensive review of utilities from throughout the western United States before choosing Hassayampa. This developer was

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FACSIMILE 602-256-6800

"encouraged by [Hassayampa's] mandate to maximize water conservation" and is interested in Hassayampa's and WUGT's plan of "installing two meters at every home" – one for potable water, and one for reclaimed water. Also, note that the request from Sierra Negra Ranch, LLC covers two subdivisions – Silver Water Ranch and Silver Springs Ranch.

8. Much of the Extension Area is already in the CC&N area of WUGT. WUGT plans to file an application for the portion of the Extension Area not currently within its Extension Area.

III. Description of Applicant.

9. Hassayampa received its CC&N from the Commission in Decision No. 68922 (August 29, 2006). Because it just received its CC&N, Hassayampa currently has no customers.

10. Hassayampa's management contact is:

Mr. Graham Symmonds
Senior Vice President
Global Water Management
21410 North 19th Avenue, Suite 201
Phoenix, Arizona 85027.
(623) 580-9600

11. Hassayampa's operators of record are:

Name of Utility	Certification	Name	Operator ID	Phone Number
Hassayampa	Wastewater	Joel Wade	06327	(623) 580-9600
Hassayampa	Collection	Joel Wade	06327	(623) 580-9600

12. Hassayampa's attorneys are:

Roshka DeWulf & Patten, PLC
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004
(602) 256-6100

All data requests or other requests for information should be directed to:

Michael W. Patten
Roshka DeWulf & Patten, PLC
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

ROSHKA DEWULF & PATTEN, PLC
ONE ARIZONA CENTER
400 EAST VAN BUREN STREET - SUITE 800
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TELEPHONE NO 602-256-6100
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With a copy to:

Mr. Graham Symmonds
Senior Vice President
Global Water Management
21410 North 19th Avenue, Suite 201
Phoenix, Arizona 85027

13. A Certificate of Good Standing for Hassayampa is attached as Exhibit 4.

14. The customers located in the Extension Area will receive wastewater and reclaimed water service subject to Hassayampa's current rates and charges for utility service, which were approved by the Commission in Decision No. 68922 (August 29, 2006).

15. Because Hassayampa has not yet commenced operations, and only just received its CC&N, it does not have current financial statements. Pro-forma financial statements were submitted to the Commission and are on file in Docket No. SW-20422A-06-0659.

16. Shareholder equity and advances in aid of construction will fund the cost of the construction of facilities needed to serve Extension Area.

IV. Engineering Matters.

17. Attached as Exhibit 5 is an Engineering Memorandum which discusses the additional facilities planned to serve the Extension Area. The projected costs of facilities to serve the Extension Area for each of the first five years are shown on the Engineering Memorandum. Additional details concerning these cost estimates are shown on Exhibit 6.

18. A map showing the proposed locations of wastewater collection mains and wastewater treatment / water reclamation plants is attached as Exhibit 7. A map showing the proposed locations of reclaimed water distribution mains is attached as Exhibit 8.

19. Hassayampa estimates that during its first two years of operations, it will add 200 customers per month in the Extension Area. For the following three years, Hassayampa estimates that it will add 300 customers per month in the Extension Area. Accordingly, the estimated numbers of customers for each of the first five years of service in the Extension Area are:

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Year	Estimated Customers
1	2,400
2	4,800
3	8,400
4	12,000
5	15,600

V. Permits and other Regulatory Matters

20. Hassayampa will need a franchise from Maricopa County to serve the Extension Area.

21. Copies of the Maricopa County Environmental Services Department ("MCESD") approvals to construct facilities in the Extension Area will be provided to the Commission when they are issued.

22. Hassayampa has no recent ADEQ or MCESD compliance reports because it has not yet commenced operation.

23. Hassayampa filed an application for a "Section 208" permit covering the Extension Area on May 8, 2006.

24. Hassayampa will require an Aquifer Protection Permit and/or an Arizona Pollutant Discharge Elimination System Permit. Hassayampa recommends that the Commission require that such permits be filed as a post-decision compliance item.

25. Hassayampa will provide all necessary and required notice. Proof of publication of notice will be filed with the Commission in this docket once a procedural order is issued in this docket. Likewise, once the Commission issues a procedural order specifying the desired form of notice, Hassayampa will provide the notice to all landowners of record within the Extension Area.

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WHEREFORE, Hassayampa respectfully requests that the Commission:

A. Schedule a hearing on this Application as soon as possible; and thereafter

B. Issue a final order:

1. finding that it is in the public interest to extend the Hassayampa's CC&N to include the Extension Area;

2. ordering that Hassayampa's CC&N be extended to include the Extension Area; and

3. granting such other and further relief as may be appropriate under the circumstances herein.

RESPECTFULLY SUBMITTED this 7th day of September 2006.

ROSHKA DEWULF & PATTEN, PLC

By [signature] for
Michael W. Patten
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

Original + 13copies of the foregoing
filed this 7th day of September 2006, with:

Docket Control
ARIZONA CORPORATION COMMISSION
1200 West Washington
Phoenix, Arizona 85007

Copies of the foregoing hand-delivered/mailed
this 7th day of September 2006, to:

Lyn A. Farmer, Esq.
Chief Administrative Law Judge
Hearing Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

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Director, Utilities Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

By Mary Ippolito

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Index to Exhibits

Exhibit	Description
1	Legal Description
2	Map of Extension Area (showing subdivisions)
3	Requests for Service
4	Certificate of Good Standing
5	Engineering Memorandum (attachments include cost estimates)
6	Construction Cost Estimates
7	Map of Extension Area (showing proposed wastewater facilities)
8	Map of Extension Area (showing proposed reclaimed water facilities)

EXHIBIT

"1"

LEGAL DESCRIPTION
CC&N EXPANSION AREA FOR
HASSAYAMPA UTILITY COMPANY
MARICOPA COUNTY, ARIZONA

TOWNSHIP 1 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

ALL OF SECTION 6, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

THE WEST HALF OF THE NORTHEAST QUARTER AND THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 7, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THAT PORTION OF THE FOLLOWING DESCRIBED PARCEL OF LAND LYING WITHIN A 200 FOOT STRIP, BEING 100 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:
BEGINNING AT A POINT NORTH 07 DEGREES 7 MINUTES 30 SECONDS EAST, 1223.03 FEET FROM THE SOUTHEAST CORNER OF SECTION 16, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA;
THENCE NORTH 56 DEGREES 07 MINUTES 30 SECONDS WEST, 1783.55 FEET TO THE POINT OF CURVE OF A 0 DEGREES 15 MINUTES CURVE TO THE RIGHT, HAVING A RADIUS OF 22,918.3 FEET;
THENCE ALONG THE ARC. OF SAID CURVE, A DISTANCE OF433.33 FEET TO THE POINT OF TANGENT OF SAID CURVE;
THENCE NORTH 55 DEGREES 02 MINUTES 30 SECONDS WEST, 9949.29 FEET TO THE POINT OF CURVE OF A 4 DEGREES 00 MINUTES CURVE TO THE LEFT, HAVING A RADIUS OF 1432.69 FEET;
THENCE ALONG THE ARC OF SAID CURVE, 417.29 FEET TO THE POINT OF TANGENT OF SAID CURVE;
THENCE NORTH 71 DEGREES 44 MINUTES WEST, 4963.49 FEET TO THE POINT OF CURVE OF A 2 DEGREES 00 MINUTES CURVE TO THE RIGHT HAVING A RADIUS OF 2864.79 FEET;
THENCE ALONG THE ARC OF SAID CURVE, 489.17 FEET TO THE POINT OF TANGENT OF SAID CURVE;
THENCE NORTH 61 DEGREES 57 MINUTES WEST, 211.49 FEET TO A POINT ON THE WEST LINE OF SECTION 7, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, SAID POINT BEING SOUTH 0 DEGREES 16 MINUTES WEST, 394.03 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 7.

TOWNSHIP 2 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOTS 1 THROUGH 4, INCLUSIVE; THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 1, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

ALL OF SECTION 11 , TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

ALL OF SECTION 12, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE NORTH HALF AND THE SOUTHWEST QUARTER OF SECTION 13, TOWNSHIP 2 NORTH, RANGE 6 WEST OFTHE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

THE NORTHEAST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 14, TOWNSHIP 2 NORTH, RANGE 6 WEST OFTHE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE NORTH 282.91 FEET OF THE SOUTH 305.26 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, AND

EXCEPT THE SOUTH 282.91 FEET OF THE NORTH 478.97 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN. MARICOPA COUNTY. ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY ARIZONA.

PARCEL 10

THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE WEST HALF OF SECTION 21, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE EAST 200 ACRES THEREOF.

PARCEL 12

THE NORTHEAST QUARTER OF SECTION 24, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 13

THE NORTHWEST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 14

THE WEST HALF OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE SOUTHEAST QUARTER OFTHE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 15

THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER, AND THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OFTHE GILA AND SALT RIVER MERIDIANS MARICOPA COUNTY, ARIZONA.

PARCEL 16

THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OFTHE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 17

THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE EAST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 18

THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OFTHE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SAID SECTION 29, WHICH POINT BEARS SOUTH 0 DEGREES 00 MINUTES 38 SECONDS WEST, 1476.85 FEET FROM THE NORTHWEST CORNER OFSAID SECTION 29;
THENCE SOUTH 75 DEGREES 04 MINUTES 23 SECONDS EAST, 5470.76 FEET TO A POINT ON THE EAST LINE OF SAID SECTION 29, WHICH POINT BEARS SOUTH 0 DEGREES 03 MINUTES 23 SECONDS WEST, 243 12 FEET FROM THE EAST QUARTER CORNER OF SAID SECTION 29, AS CONVEYED TO STATE OF ARIZONA BY AND THROUGH ITS HIGHWAY COMMISSION BY WARRANTY DEED RECORDED IN DOCKET 6586, PAGE 69.

PARCEL 19

THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION OF SAID EAST HALF OF THE NORTHWEST QUARTER OF SAID SECTION 29 WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SAID SECTION 29, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 29;
THENCE S75°04'23"E, 5470.76 FEET TO A POINT ON THE EAST LINE OF SAID SECTION 29, WHICH POINT BEARS S00°03'23"W, 243.12 FEET FROM THE EAST QUARTER CORNER OF SAID SECTION 29.

PARCEL 20

THE WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S 00° 00' 05" SECONDS WEST, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990 74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23'E; THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38" W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29, AND

EXCEPT THEREFROM THOSE PORTIONS LYING WITHIN THE FOLLOWING DESCRIBED PARCELS OF LAND:

TRACT NO. 1

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, 33.00 FEET;
THENCE S08°19'27"W, 809 17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET,
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507,51 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

TRACT NO. 2

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS N00°00'38"E, 2805.94 FEET FROM THE CORNER COMMON TO SECTIONS 29, 30, 31 AND 32;
THENCE N89°59'22'W, 33.00 FEET;
THENCE N07°33'28"W. 888.33 FEET TO THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310 42 FEET;
THENCE S08°19'27"W, 809.17 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

PARCEL 21

THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 22

THE SOUTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA,

PARCEL 23

THE EAST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MER1DIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S 00° 00' 05" SECONDS WEST, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990 74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23'E; THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38" W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29; AND,

EXCEPT THEREFROM THOSE PORTIONS LYING WITHIN THE FOLLOWING DESCRIBED PARCELS OF LAND:

TRACT NO. 1

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, 33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310 42 FEET;
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507 51 FEET;
THENCE N89°59'22"W, 33 00 FEET TO THE POINT OF BEGINNING.

TRACT NO. 2

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS N00°00'38"E, 2805.94 FEET FROM THE CORNER COMMON TO SECTIONS 29, 30, 31 AND 32;
THENCE N89°59'22"W, 33.00 FEET;
THENCE N07°33'28"W, 888.33 FEET TO THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET;
THENCE S08°19'27"W, 809.17 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING; AND

EXCEPT THEREFROM ANY PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING.

PARCEL 24

THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA. DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING,

EXCEPT THAT PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, .33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET,
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507.51 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

PARCEL 25

THE WEST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S00°00'05"W, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23"E;
THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF' SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29.

PARCEL 26

THE SOUTH HALF AND THE NORTHWEST QUARTER OF SECTION 31 TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 27

THE NORTHEAST QUARTER OF SECTION 31, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 28

ALL OF SECTION 32, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA;

PARCEL 29

THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 3 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOT 3 OF SECTION 14, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

THE SOUTH HALF OF THE NORTHEAST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

LOTS 1 THROUGH 3, INCLUSIVE; THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 23, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

LOTS 2 THROUGH 4, INCLUSIVE, THE SOUTH HALF OF THE NORTHWEST QUARTER AND THE SOUTH HALF OF SECTION 24, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 25, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE EAST HALF AND THE EAST HALF OF THE WEST HALF OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE EAST HALF OF SECTION 27, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 35, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA..

TOWNSHIP 1 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOTS THREE (3) AND FOUR (4) AND THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION FIVE (5), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION LYING WITHIN THE PHOENIX-EHRENBERG HIGHWAY (I-10) DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 3;
THENCE SOUTH 00 DEGREES 08 MINUEW 55 SECONDS EAST 187.60 FEET (SOUTH 187.18 FEET RECORD) ALONG THE EAST LINE OF SAID LOT 3 TO THE SOUTH RIGHT-OF-WAY OF SAID HIGHWAY;

THENCE NORTH 75 DEGREES 01 MINUES 17 SECONDS WEST (NORTH 75 DEGREES 01 MINUTES 36 SECONDS WEST 725.36 FEET RECORD) ALONG SAID RIGHT-OF-WAY TO THE NORTH LINE OF SAID LOT 3;
THENCE SOUTH 89 DEGREES 59 MINUTES 34 SECONDS EAST 700.57 FEET (EAST 700.80 FEET RECORD) TO THE POINT OF BEGINNING.

PARCEL 2

THE WEST HALF OF THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, AIRZONA.

PARCEL 3

THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE WEST HALF OF THE NORTHEAST QUARTER AND THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION EIGHT (8), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

THE WEST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE SOUTH 701.62 FEET THEREOF.

PARCEL 6

THE SOUTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE NORTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP I NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 2 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOTS 1 THROUGH 4, INCLUSIVE; THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 3, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

LOTS 1 THROUGH 4, INCLUSIVE; THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 4, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

LOTS 1 THROUGH 4, INCLUSIVE, THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 5, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

LOTS 1 THROUGH 7, INCLUSIVE; THE SOUTH HALF OF THE NORTHEAST QUARTER, THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE SOUTHEAST QUARTER AND THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 6, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 7, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 8, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 9, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE WEST HALF OF THE EAST HALF AND THE WEST HALF OF SECTION 10, TOWNSHIP 2 NORTH, RANGE 5 WEST OFTHE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 18, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

LOT 1, THE EAST HALF OF THE NORTHWEST QUARTER AND THE EAST HALF OF SECTION 19, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE WEST HALF, THE WEST HALF OF THE EAST HALF, THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER AND THE SOUTH HALF OF PTHE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 29,

TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPT COMMENCING AT THE NORTHEAST CORNER OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 29; THENCE SOUTH 00 DEGREES 11 MINUTES 16 SECONDS WEST, ALONG THE EAST LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 1291.13 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 00 DEGREES 11 MINUTES 16 SECONDS WEST, 26.41 FEET; THENCE NORTH 89 DEGREES 25 MINUTES 24 SECONDS WEST, ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER OFTHE NORTHEAST QUARTER, 808.80 FEET; THENCE NORTH 01 DEGREES 25 MINUTES 28 SECONDS WEST, 101.26 FEET; THENCE SOUTH 84 DEGREES 09 MINUTES 42 SECONDS EAST, 815.59 FEET TO THE POINT OF BEGINNING.

PARCEL 12

THE NORTHEAST QUARTER, THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE NORTH HALF OF THE SOUTHEAST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 13

GLO LOT (FRACTIONAL SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER) AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 14

THE EAST HALF OF THE EAST HALF OF SECTION 31, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 3 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOT 1, LOTS 4 THROUGH 7, INCLUSIVE; THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

LOTS 9 AND 10 OF SECTION 18, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

LOTS 2 THROUGH 6, INCLUSIVE; THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE EAST HALF OF THE SOUTHWEST QUARTER AND THE EAST HALF OF SECTION 19, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

ALL OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 21 , TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 28, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 29, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 30, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 31, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 33, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

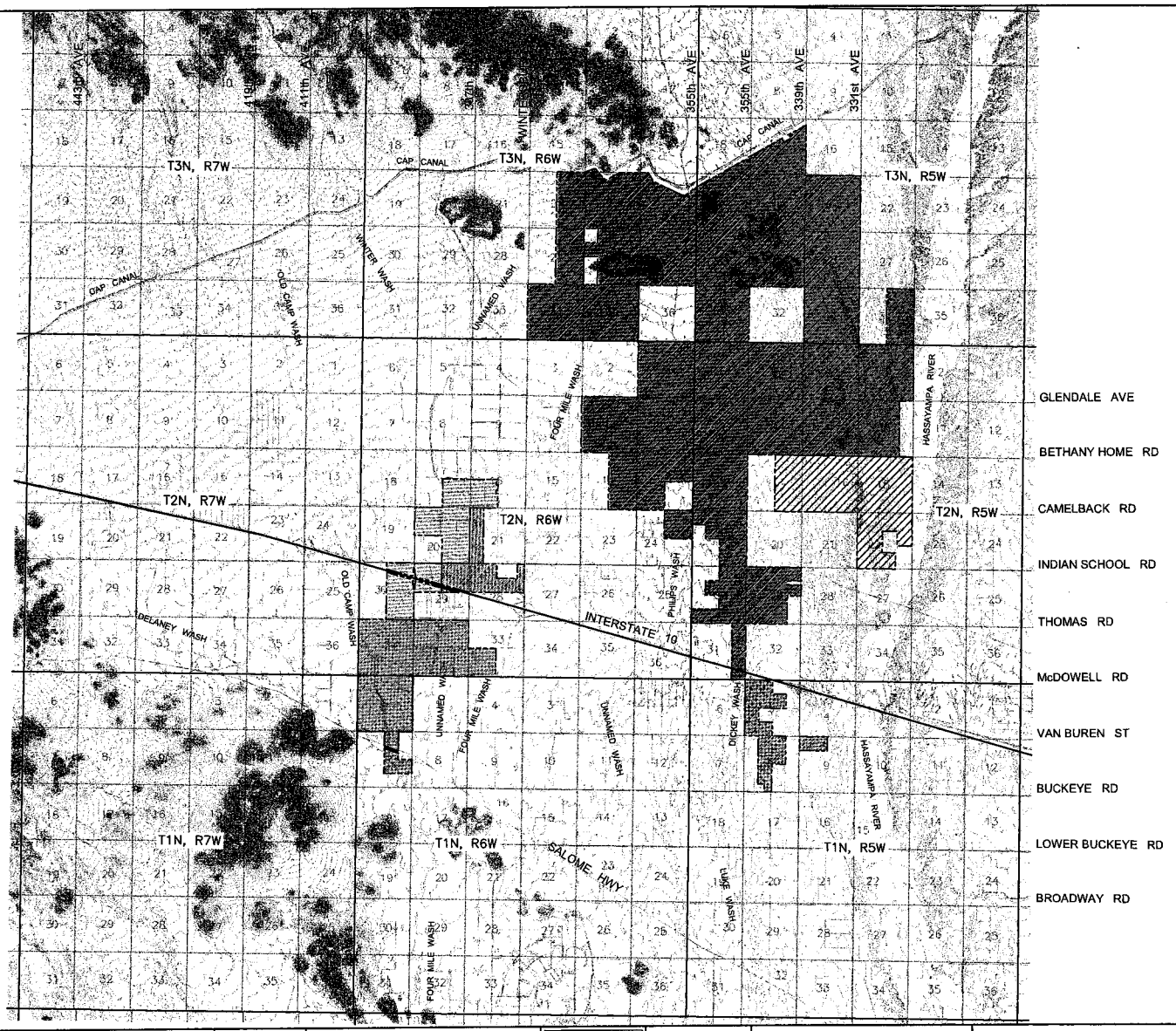
THE EAST HALF OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

CONTAINING APPROXIMATELY 24,340 ACRES, MORE OR LESS. THIS AREA IS NOT BASED ON A FIELD SURVEY, BUT BASED ON CALCULATIONS DERIVED FROM SCANNED IMAGES OF 7.5 MINUTES SERIES NGS QUAD MAPS AND OTHER SCANNED MATERIALS WORKING WITHIN AN AUTOCAD DRAWING FILE.

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21071
MARY F.
KENNEDY
Date Signed 9-5-06
ARIZONA, U.S.A.

EXHIBIT

"2"



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APPROX SCALE IN FEET

LEGEND - SUBDIVISIONS

- BELMONT
- COPPER LEAF
- SILVER WATER RANCH
- SILVER SPRING RANCH
- 339th AVENUE PROJECT
- HASSAYAMPA RANCH (CC&N W-20422A-050659, Decision No. 68922, Approved August 22, 2006)

REVISIONS			
NO	DATE	BY	DESCRIPTION

File Name: CCN-Subdiv.dwg

Designed By CHC
Drawn By CDH
Checked By CHC

DSWA
DAMON S. WILLIAMS ASSOCIATES, LLC

PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING

GLOBAL WATER
RELIABLE · RENEWABLE · REUSABLE

GLOBAL WATER
HASSAYAMPA UTILITY CO.

CC&N EXTENSION
SUBDIVISIONS SERVED

DSWA Project No 060010
Date SEPTEMBER 2006
Dwg No
Sht No of

Dwg Path: U:\CADD\060010\Dwg\CCN-Subdiv.dwg Modified: Sep 08, 2006 - 3:03pm Plotted: - 3:19pm

EXHIBIT

"3"

LKY Development Company, Inc.

5040 E. Shea Blvd.
Suite 254
Scottsdale, Arizona 85254
(480) 951-1281
FAX: (480) 483-2736

May 9, 2006

Ms. Cindy Liles
Hassayampa Utility Company
21410 N 19th Ave, #201
Phoenix, AZ 85027

RE: Belmont

Dear Ms. Liles:

As you are aware we own Belmont, an approximately 20,000 acre Master planned Community that has signed a letter of intent with your parent company to provide water and wastewater services to our development.

Belmont is not currently in any utility company's Certificate of Convenience and Necessity nor is Belmont located within the municipal boundaries of Buckeye, Arizona. We intend to develop in the county and as such desire a reputable private utility to provide water and wastewater services.

Last year we put out a detailed request for proposal to the top private utility providers in Arizona and the Western United States. We narrowed the list, interviewed our top three and from those interviews chose you. Your capital structure, personnel and success in newly developing areas such as Maricopa, Arizona, were among the factors that influenced our decision.

We do not object and actually encourage you to include us in the integrated, regional 208 plan for the area west of the Hassayampa River. We are encouraged by your mandate to maximize water conservation by requiring the developments to use reclaimed water at a minimum for golf courses, school grounds and areas owned and maintained by home owner associations. We are also interested in your concept of installing two meters at every home; one for potable water and one for reclaimed water for exterior purposes. We look forward to learning more about this process.

Hopefully everyone will see the greater benefit of developing regional infrastructure rather than having smaller land owners and developers propose independent solutions. Obviously we believe you are the best company to execute these regional plans.

William D. Ring

William D. Ring
WDR/fh

Legal Description

PARCEL NO. 3:

Lots 1 through 4, inclusive; the South half of the North half and the South half of Section 4, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 4:

Lots 1 through 4, inclusive, the South half of the North half and the South half of Section 5, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 5:

Lots 1 through 7, inclusive; the South half of the Northeast quarter, the Southeast quarter of the Northwest quarter, the Southeast quarter and the East half of the Southwest quarter of Section 6, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 6:

Lots 1 through 4, inclusive; the East half of the West half and the East half of Section 7, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 7:

All of Section 8, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 8:

All of Section 9, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 9:

The West half of the East half and the West half of Section 10, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 10:

Lots 1 through 4, inclusive; the East half of the West half and the East half of Section 18, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 11:

Lot 1, the East half of the Northwest quarter and the East half of Section 19, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 12:

Lot 1, Lots 4 through 7, inclusive; the Southeast quarter of the Northeast quarter, the South half of the Southwest quarter and the Southeast quarter of Section 17, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 13:

Lots 9 and 10 of Section 18, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 14:

Lots 2 through 6, inclusive; the Southeast quarter of the Northwest quarter, the East half of the Southwest quarter and the East half of Section 19, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 15:

All of Section 20, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 16:

All of Section 21, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 17:

All of Section 28, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 18:

All of Section 29, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 19:

Lots 1 through 4, inclusive; the East half of the West half and the East half of Section 30, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 20:

Lots 1 through 4, inclusive; the East half of the West half and the East half of Section 31, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 21:

All of Section 33, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 22:

The East half of Section 34, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 23:

Lots 1 through 4, inclusive; the South half of the North half and the South half of Section 1, Township 2 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 24:

All of Section 11, Township 2 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 25:

All of Section 12, Township 2 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 26:

The North half and the Southwest quarter of Section 13, Township 2 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 27:

The Northwest quarter and the Southeast quarter of Section 14, Township 2 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 28:

The Northeast quarter of Section 24, Township 2 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 29:

Lot 3 of Section 14, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 30:

The South half of the Northeast quarter and the Southeast quarter of Section 22, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 31:

Lots 1 through 3, inclusive; the Northeast quarter of the Northeast quarter, the South half of the North half and the South half of Section 23, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 32:

Lots 2 through 4, inclusive, the South half of the Northwest quarter and the South half of Section 24, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 33:

All of Section 25, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 34:

The East half and the East half of the West half of Section 26, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 35:

The East half of Section 27, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 36:

All of Section 34, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 37:

All of Section 35, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 38:

The West half, the West half of the East half, the Northeast quarter of the Northeast quarter, the South half of the North half of the Southeast quarter of the Northeast quarter and the South half of the Southeast quarter of the Northeast quarter of Section 29, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

EXCEPT COMMENCING at the Northeast corner of said Northeast quarter of the Northeast quarter of Section 29;

THENCE South 00 degrees 11 minutes 16 seconds West, along the East line of said Northeast quarter of the Northeast quarter, 1291.13 feet to the POINT OF BEGINNING;

THENCE continuing South 00 degrees 11 minutes 16 seconds West, 26.41 feet;

THENCE North 89 degrees 25 minutes 24 seconds West, along the South line of said Northeast quarter of the Northeast quarter, 808.80 feet;

THENCE North 01 degrees 25 minutes 28 seconds West, 101.26 feet;

THENCE South 84 degrees 09 minutes 42 seconds East, 815.59 feet to the POINT OF BEGINNING.

PARCEL NO. 39:

The Northeast quarter, the Southeast quarter of the Northwest quarter, the North half of the Southeast quarter and the Southeast quarter of the Southeast quarter of Section 30, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 40:

The East half of the East half of Section 31, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 41:

The Southwest quarter of the Northwest quarter of Section 26, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 42:

GLO Lot (fractional Southwest quarter of the Southwest quarter) and the Southeast quarter of the Southwest quarter and the Southwest quarter of the Southeast quarter of Section 30, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

SIERRA NEGRA RANCH LLC

SNR MANAGEMENT LLC

May 8, 2006

Cindy Liles
Global Water Management, LLC
21410 N. 19th Avenue, Suite 201
Phoenix, AZ 85027

Re: Hassayampa Utility Company, Inc.

Dear Ms. Liles:

As you know, I represent the owners of the Sierra Negra Ranch, a 2,753 acre area of land south and north of Interstate 10 near Tonopah, Arizona, more specifically described in the legal descriptions attached to this letter. We understand that Hassayampa Utility Company is willing to provide sewer service to the Sierra Negra Ranch lands in contemplation of future development. The proposed service is part of a plan to provide regional integrated water and sewer service to this area, with an emphasis on the production and re-use of high-quality effluent, similar to Global's subsidiaries' existing service structure in the Maricopa area.

We support Hassayampa Utility Company's plan to include the Sierra Negra Ranch lands in the Maricopa Association of Government's 208 Plan Amendment Application.

Sincerely,

Sierra Negra Ranch LLC

By: SNR Management LLC
By: Becker SNR LLC

By: _____
Barry W. Becker, Manager

Tel: 702 - 477 0700 • Fax: 702 - 870 4976 • 50 South Jones Suite 101, Las Vegas, NV 89107

May 1, 2006

LEGAL DESCRIPTION FOR
SILVER WATER RANCH

PARCEL NO. 1:

The West Half of Section 21, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona;

EXCEPT the East 200 acres thereof.

PARCEL NO. 2:

The Northwest Quarter of Section 28, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona.

PARCEL NO. 3:

The Northeast Quarter of Section 29, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona;

EXCEPT that portion of the South Half of the Northeast Quarter of Section 29, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona, which lies within a strip of land 308 feet in width, being 154 feet wide on each side of the following described line:

BEGINNING at a point on the West line of said Section 29, which point bears South 0 degrees 00 minutes 38 seconds West, 1476.85 feet from the Northwest corner of said Section 29;

Thence South 75 degrees 04 minutes 23 seconds East, 5470.76 feet to a point on the East line of said Section 29, which point bears South 0 degrees 03 minutes 23 seconds West, 243.12 feet from the East Quarter Corner of said Section 29, as conveyed to State of Arizona by and through its Highway Commission by Warranty Deed recorded in Docket 6586, Page 69.

PARCEL NO. 4:

The West Half of the Southwest Quarter of the Northeast Quarter; and

The West Half of the Southeast Quarter of the Southwest Quarter of the Northeast Quarter; and

Legal Description for
Silver Water Ranch
May 1, 2006

The West Half of the Northeast Quarter of the Southwest Quarter of the Northeast Quarter of Section 28, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona.

PARCEL NO. 5:

The Southeast Quarter of the Northeast Quarter; and

The Southeast Quarter of the Northeast Quarter of the Northeast Quarter of Section 28, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona.

PARCEL NO. 6:

The Northeast Quarter of the Northeast Quarter of the Northeast Quarter of Section 28, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona.

PARCEL NO.7:

The East Half of the Southeast Quarter of the Southwest Quarter of the Northeast Quarter; and

The East Half of the Northeast Quarter of the Southwest Quarter of the Northeast Quarter of Section 28, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona.

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
36562
FRED W.
KLEIN III
Date Signed 5/2/06
ARIZONA, U.S.A.

May 1, 2006

LEGAL DESCRIPTION FOR
SILVER SPRINGS RANCH

PARCEL NO. 1:

The West Half of the Northeast Quarter and the North Half of the Southeast Quarter of Section 7, Township 1 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona;

EXCEPT that portion of the following described parcel of land lying within a 200 foot strip, being 100 feet on each side of the following described centerline:

BEGINNING at a point North 07 degrees 7 minutes 30 seconds East, 1223.03 feet from the Southeast Corner of Section 16, Township 1 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona;

Thence North 56 degrees 07 minutes 30 seconds West, 1783.55 feet to the Point of Curve of a 0 degrees 15 minutes curve to the right, having a radius of 22,918.3 feet;

Thence along the arc of said curve, a distance of 433.33 feet to the Point of Tangent of said curve;

Thence North 55 degrees 02 minutes 30 seconds West, 9949.29 feet to the Point of Curve of a 4 degrees 00 minutes curve to the left, having a radius of 1432.69 feet;

Thence along the arc of said curve, 417.29 feet to the Point of Tangent of said curve;

Thence North 71 degrees 44 minutes West, 4963.49 feet to the Point of Curve of a 2 degrees 00 minutes curve to the right having a radius of 2864.79 feet;

Thence along the arc of said curve, 489.17 feet to the Point of Tangent of said curve;

Thence North 61 degrees 57 minutes West, 211.49 feet to a point on the West line of Section 7, Township 1 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona, said point being South 0 degrees 16 minutes West, 394.03 feet from the Northwest corner of said Section 7;

The West Half of the Northeast Quarter of Section 7, Township 1 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona, as conveyed to MARICOPA COUNTY, a political subdivision of the State of Arizona by Quit Claim Deed recorded in Docket 2747, Page 161.

Legal Description for
Silver Springs Ranch
May 1, 2006

PARCEL NO. 2:

All of Section 6, Township 1 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona.

PARCEL NO. 3:

The South Half and the Northwest Quarter of Section 31, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona;

EXCEPT from Lots 1 and 2 and the East Half of the Northwest Quarter thereof, all minerals as reserved unto the United States in the recorded Patent to said land recorded in Docket 2623, Page 394.

PARCEL NO. 4:

All of Section 32, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona;

EXCEPT all minerals as reserved unto the State of Arizona in Book 334 of Deeds, Page 248 (as to the Southeast Quarter) and in Book 360 of Deeds, Pages 10 (as to the North Half and the Southwest Quarter).

PARCEL NO. 5:

The Southwest Quarter of Section 33, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona.

PARCEL NO. 6:

The Northeast Quarter of Section 31, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona.

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
36562
FRED W.
KLEIN III
Date Signed - 5/2/06
ARIZONA, U.S.A.

339th & I-10, LLC.
12438 N. Scottsdale Road
Scottsdale, Arizona 85254

May 10, 2006

Cindy Liles
Hassayampa Utility Company
21410 N. 19th Avenue
Suite 201
Phoenix, Arizona 85027

Re: Sewer, Water, and Reclaimed Water Service

Cindy,

As we have progressed in our research and development for our project located at 339th Avenue and I-10, it has become readily apparent that your new company Hassayampa Utility Company is the preeminent provider for coordinated water, wastewater, and reclaimed water service for the area. We recognize the necessity for having all three services provided on a regional basis and fully welcome your entrance into this region as a legitimate regional provider.

We also defer back to our other dealings with your company and its surrogates and know that those have been successful in the past. Your presence in the Maricopa Submarket has made a big impact in the overall success in the region.

We, therefore request that we be included in your submittal for the new MAG 208 in the region for this year. We would like to be an integral part of any future plans your company may have in the region.

Thank you,

Michael C. Anderson
Managing Member 339th & I-10, LLC

New World Properties, Inc.

May 10, 2006

Cindy Liles
Hassayampa Utility Company
21410 N. 19th Avenue
Suite 201
Phoenix, AZ 85027

RE: Sewer, Water, and Reclaimed Water Service

Ms. Liles,

As we have progressed with the entitlement for our project at 395th & I-10, referred to as Copperleaf, it has become apparent that Hassayampa Utility Company provides a viable option for coordinated water, wastewater, and reclaimed water service for the area. We recognize the necessity for having all three services provided on a regional basis and welcome your entrance into this area as a regional provider.

We, therefore request to be included in your submittal for the MAG 208 filing in the region.

Regards,

Mark C. Brown
President, New World Properties, Inc.

706 E. Bell Rd. • Suite 200 • Phoenix, Arizona 85022 • Phone: (602) 788-7097 • Fax: (602) 992-0910

LEGAL DESCRIPTION

PARCEL NO. 1

THE NORTH HALF OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL NO. 2

THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL NO. 3

THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THE NORTH 282.91 FEET OF THE SOUTH 305.26 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA; AND

EXCEPT THE SOUTH 282.91 FEET OF THE NORTH 478.97 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA; AND

EXCEPT ALL MINERAL DEPOSITS AND RIGHTS AS RESERVED BY STATE OF ARIZONA IN DEED RECORDED AS BOOK 360 OF DEEDS, PAGE 10, RECORDS OF MARICOPA COUNTY, ARIZONA.

PARCEL NO. 6

THE SOUTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ALL MINERAL DEPOSITS AND RIGHTS AS RESERVED BY STATE OF ARIZONA IN DEED RECORDED AS BOOK 360 OF DEEDS, PAGE 10, RECORDS OF MARICOPA COUNTY, ARIZONA.

PARCEL NO. 7

THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL NO. 8

THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL NO. 9

THE SOUTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL NO. 10

THE EAST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S00°00'05"W, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30; THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E=S75°04'23"E; THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST; THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29; AND

EXCEPT THEREFROM THOSE PORTIONS LYING WITH THE FOLLOWING DESCRIBED PARCELS OF LAND:

TRACT NO. 1

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30; THENCE N89°59'22"W, 33.00 FEET; THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY); THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET; THENCE N04°29'47"W, 381.77 FEET; THENCE N09°51'36"W, 507.51 FEET; THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

TRACT NO. 2

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS N00°00'38"E, 2805.94 FEET FROM THE CORNER COMMON TO SECTIONS 29, 30, 31 AND 32; THENCE N89°59'22"W, 33.00 FEET; THENCE N07°33'28"W, 888.33 FEET TO THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY); THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET; THENCE S08°19'27"W, 809.17 FEET; THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING; AND

EXCEPT THEREFROM ANY PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30; THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET; THENCE SOUTH 90 FEET; THENCE WEST 50 FEET; THENCE SOUTH 1098 FEET; THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING.

PARCEL NO 11

THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30; THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET; THENCE SOUTH 90 FEET; THENCE WEST 50 FEET; THENCE SOUTH 1098 FEET; THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST; THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING;

EXCEPT THAT PORTION LYING WITH THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30; THENCE N89°59'22"W, 33.00 FEET; THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERELY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY); THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET; THENCE N04°29'47"W, 381.77 FEET; THENCE N09°51'36"W, 507.51 FEET; THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

PARCEL NO. 12

THE WEST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S00°00'05"W, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30; THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E=S75°04'23"E; THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST; THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29.

PARCEL NO. 13

THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THAT PORTION OF SAID EAST HALF OF THE NORTHWEST QUARTER OF SAID SECTION 29 WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SAID SECTION 29, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 29; THENCE S75°04'23"E, 5470.76 FEET TO A POINT ON THE EAST LINE OF SAID SECTION 29, WHICH POINT BEARS S00°03'23"W, 243.12 FEET FROM THE EAST QUARTER CORNER OF SAID SECTION 20.

PARCEL NO. 14

THE WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPT THEREFROM THOSE PORTIONS LYING WITH THE FOLLOWING DESCRIBED PARCELS OF LAND:

TRACT NO. 1

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30; THENCE N89°59'22"W, 33.00 FEET; THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY); THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET; THENCE N04°29'47"W, 381.77 FEET; THENCE N09°51'36"W, 507.51 FEET; THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

TRACT NO. 2

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS N00°00'38"E, 2805.94 FEET FROM THE CORNER COMMON TO SECTIONS 29, 30, 31 AND 32; THENCE N89°59'22"W, 33.00 FEET; THENCE N07°33'28"W, 888.33 FEET TO THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY); THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET; THENCE S08°19'27"W, 809.17 FEET; THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING; AND

EXCEPT THEREFROM ANY PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND;

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30; THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET; THENCE SOUTH 90 FEET; THENCE WEST 50 FEET; THENCE SOUTH 1098 FEET; THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING.

EXHIBIT

"4"

STATE OF ARIZONA

Office of the

CORPORATION COMMISSION

CERTIFICATE OF GOOD STANDING

To all to whom these presents shall come, greeting:

I, Brian C. McNeil, Executive Director of the Arizona Corporation Commission, do hereby certify that

****HASSAYAMPA UTILITY COMPANY, INC.****

a domestic corporation organized under the laws of the State of Arizona, did incorporate on July 6, 2005.

I further certify that according to the records of the Arizona Corporation Commission, as of the date set forth hereunder, the said corporation is not administratively dissolved for failure to comply with the provisions of the Arizona Business Corporation Act; and that its most recent Annual Report, subject to the provisions of A.R.S. sections 10-122, 10-123, 10-125 & 10-1622, has been delivered to the Arizona Corporation Commission for filing; and that the said corporation has not filed Articles of Dissolution as of the date of this certificate.

This certificate relates only to the legal existence of the above named entity as of the date issued. This certificate is not to be construed as an endorsement, recommendation, or notice of approval of the entity's condition or business activities and practices.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the Arizona Corporation Commission. Done at Phoenix, the Capital, this 7th Day of September, 2006, A. D.

Executive Director

Order Number: 88665

EXHIBIT

"5"

GLOBAL WATER

MEMORANDUM

Date: September 5, 2006

Re: Hassayampa Utility Company Service Area Extension Wastewater Services

This memorandum defines the service requirements of the extension of the Hassayampa Utility Company (HUC) Service Area CC&N for wastewater treatment. The initial Hassayampa Utility Company wastewater service area CC&N (SW-20422A-05-0659) for approximately 2,050 acres was approved on August 29, 2006 in Decision No. 68922. The extension service area includes approximately 24,340 acres with an estimated 103,015 additional dwelling units. As seen in the attached exhibits, the extension areas include the Belmont, Copperleaf, Silver Water Ranch, Silver Springs Ranch, and 339th Avenue developments, currently in advanced stages of planning with Maricopa County. All of these developments have requested service from HUC or its parent company, Global Water. Proposed wastewater infrastructure is shown along with the location and relationship to the existing CC&N service area system. Water Utility of Greater Tonopah, also owned by Global Water, currently has a CC&N for some of this extension area, and will file an extension to serve the remainder of the developments included in HUC's extension.

Absorption Rates

For years 1 and 2, 200 dwelling units per month are anticipated, or 2,400 per year. For years 3-5, 300 dwelling units per month are anticipated, or 3,600 per year. Note that the buildout dwelling units are based on the master planning completed for the Belmont, Copperleaf, Silver Water Ranch, Silver Springs Ranch, and 339th Avenue developments

Wastewater

At 2,400 dwelling units per year and 187 GPD/DU[1], it is expected that the Year 1 flow will be 0.45 MGD, 2.92 (approximately 3) MGD after 5 years, and 19.26 MGD at buildout. The Hassayampa Ranch WRF, also known as HUC Campus 1 WRF, is anticipated to be built and in service to accept flows from development in year 1 of this CC&N extension. Note that for the first 5 years in this extension service area, two 1 MGD WRFs are expected to be built, Campus 2 in 339th Ave Development and Campus 3 in Silver Springs Ranch Development, plus a 1 MGD expansion to the Campus 1 WRF, to provide a total of 3 MGD.

Five new WRF campuses are identified in this extension on the attached exhibits. These WRFs are proposed as regional plants ranging in size up to approximately 10 MGD to serve an estimated 175 sections, as proposed in a draft 208 Plan Amendment currently under review and revision at MCESD. This CC&N extension is limited to approximately 41.3 sections for which requests for service have been received by HUC/Global; applications for future extensions will be made as additional requests for service are received and will likely rely on these 6 WRF sites (Campus 1 WRF from the approved CC&N plus the 5 additional WRFs identified in this extension). Depending on the rate and location of

[1] ADEQ has recognized a design flow for treatment systems in the Maricopa area of 187.2 GPD/DU. Historic data, however, shows that the flow is actually in the order of 135 GPD/DU.

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Fax 623.580.9659
gwresources.com

development, the lift stations for any of the 5 new WRFs may be constructed for initial pumpover until the sewershed builds up sufficiently to justify the construction of those WRFs.

The servicing schedule is as follows:

Year 1: The Campus 1 WRF will be operational and expanded as necessary to accept the additional 0.45 MGD flows generated in the service area in Year 1. The tie-in between Campus 1 WRF (initially serving Hassayampa Ranch) and Belmont will be constructed. The main trunk sewer line will be constructed in the Silver Springs Ranch development to accommodate development in Silver Springs Ranch and the southern portion of Copperleaf. The majority of the sewer lines will be constructed within the 339th Avenue development.

Year 2: The first phase of Campus 2 WRF in the 339th Avenue development will be constructed. The remaining sewer lines in the 339th Avenue development will be constructed. The sewer collection systems in the eastern Belmont area, Silver Springs Ranch, Copperleaf and Silver Water Ranch will be expanded.

Year 3: The Campus 3 WRF in the Silver Water Ranch development will be constructed. A boring beneath I-10 will be constructed to convey wastewater from the southern portion of the Belmont development to Campus 2 WRF. The sewer collection systems in the eastern Belmont area, Silver Springs Ranch, Copperleaf and Silver Water Ranch will be expanded. The main trunk sewer line in the western portion of the Belmont development will be constructed.

Year 4: A boring beneath I-10 boring will be constructed to convey flows from the Copperleaf development to the Campus 3 WRF in Silver Springs Ranch.

During Years 4 and 5, the sewer collection system will be expanded in all developments (except 339th Avenue which should be completed in year 3) in line with anticipated development for these years.

Reclaimed Water System

The reclaimed water system will be installed to match the pace and location of the sewer lines. Integrated irrigation impoundments will be installed by the developers to receive and store reclaimed water to meet their demand needs.

A table of infrastructure to be added to serve the extension areas is included. The total, build-out estimated cost of this infrastructure is $245 million. Please see the attached spreadsheets with the breakdown of costs for each of years one through five, as follows:

Year 1: $13.3 M
Year 2: $11.2 M
Year 3: $12.8 M
Year 4: $15.8 M
Year 5: $9.2 M

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EXHIBIT

"6"

Buildout - Backbone Wastewater Infrastructure Needs in HUC Extension

NUMBER OF DU'S 103,015	LF/QUANTITY	UNIT COST	TOTAL
56" SEWER MAIN	7,926	$208	$1,743,720
48" SEWER MAIN	6,600	$179	$1,260,600
36" SEWER MAIN	29,040	$134	$4,239,840
30" SEWER MAIN	7,920	$105	$910,800
24" SEWER MAIN	29,040	$95	$3,049,200
18" SEWER MAIN	17,160	$85	$1,630,200
15" SEWER MAIN	52,800	$75	$4,488,000
12" SEWER MAIN	197,399	$65	$14,804,925
24" RECLAIMED WATER	51,486	$110	$5,663,460
18" RECLAIMED WATER	29,040	$94	$2,729,760
12" RECLAIMED WATER	69,960	$53	$3,707,880
8" RECLAIMED WATER	197,399	$35	$6,908,965
LIFT STATION	0	$0	0
BORING			
2 - 36" Diameter Borings	450	$1,157	$520,850
2 - 72" Diameter Borings	450	$2,125	$956,200
WRF	**MGD**		
187 gpd/du =	19.26	$10,000,000	$192,638,050
Total Cost at Buildout			**$245,252,450**

Year 1 - Backbone Wastewater Infrastructure Needs in HUC Extension

NUMBER OF DU'S 2400	LF/QUANTITY	UNIT COST	TOTAL
56" SEWER MAIN	0	$208	$0
48" SEWER MAIN	0	$179	$0
36" SEWER MAIN	6,600	$134	$963,600
30" SEWER MAIN	5,280	$105	$607,200
24" SEWER MAIN	10,560	$95	$1,108,800
18" SEWER MAIN	1,320	$85	$125,400
15" SEWER MAIN	0	$75	$0
12" SEWER MAIN	33,000	$65	$2,475,000
24" RECLAIMED WATER	11,880	$110	$1,306,800
18" RECLAIMED WATER	10,560	$94	$992,640
12" RECLAIMED WATER	1,320	$53	$69,960
8" RECLAIMED WATER	33,000	$35	$1,155,000
LIFT STATION	0	$0	$0
BORING			
-	0	$0	$0
WRF	**MGD**		
187 gpd/du =	0.4488	$10,000,000	$4,488,000
Total Cost Year 1			**$13,292,400**

Year 2 - Backbone Wastewater Infrastructure Needs in HUC Extension

NUMBER OF DU'S 2400	LF/QUANTITY	UNIT COST	TOTAL
54" SEWER MAIN	2,646	$208	$582,120
48" SEWER MAIN	0	$179	$0
36" SEWER MAIN	7,920	$134	$1,156,320
30" SEWER MAIN	0	$105	$0
24" SEWER MAIN	0	$95	$0
18" SEWER MAIN	5,280	$85	$501,600
15" SEWER MAIN	0	$75	$0
12" SEWER MAIN	22,440	$65	$1,683,000
24" RECLAIMED WATER	10,566	$110	$1,162,260
18" RECLAIMED WATER	0	$94	$0
12" RECLAIMED WATER	5,280	$53	$279,840
8" RECLAIMED WATER	22,440	$35	$785,400
LIFT STATION	0	$0	$0
BORING			
2 - 36" Diameter Borings	450	$1,157	$520,850
WRF	**MGD**		
187 gpd/du =	0.4488	$10,000,000	$4,488,000
Total Cost Year 2			**$11,159,390**

Year 3 - Backbone Wastewater Infrastructure Needs in HUC Extension

NUMBER OF DU'S 3600	LF/QUANTITY	UNIT COST	TOTAL
56" SEWER MAIN	5,280	$208	$1,161,600
48" SEWER MAIN		$179	$0
36" SEWER MAIN		$134	$0
30" SEWER MAIN	2,640	$105	$303,600
24" SEWER MAIN	5,280	$95	$554,400
18" SEWER MAIN		$85	$0
15" SEWER MAIN		$75	$0
12" SEWER MAIN	15,840	$65	$1,188,000
24" RECLAIMED WATER	7,920	$110	$871,200
18" RECLAIMED WATER	5,280	$94	$496,320
12" RECLAIMED WATER	0	$53	$0
8" RECLAIMED WATER	15,840	$35	$554,400
LIFT STATION	0	$0	$0
BORING			
2 - 72" Diameter Borings	450	$2,125	$956,200
WRF	**MGD**		
187 gpd/du =	0.6732	$10,000,000	$6,732,000
Total Cost Year 3			**$12,817,720**

Year 4 - Backbone Wastewater Infrastructure Needs in HUC Extension

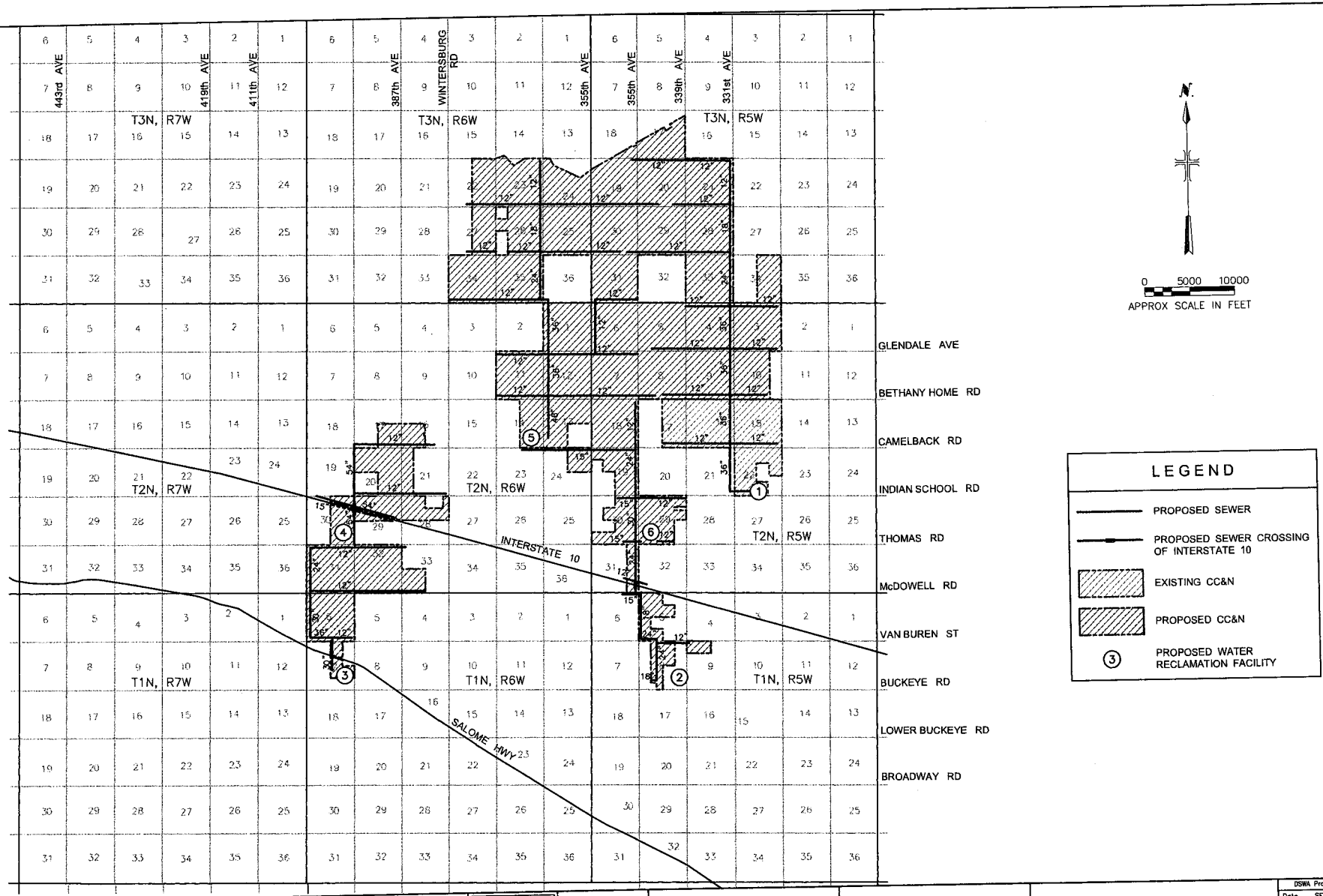
NUMBER OF DU'S 3600	LF/QUANTITY	UNIT COST	TOTAL
56" SEWER MAIN	0	$208	$0
48" SEWER MAIN	3,960	$179	$756,360
36" SEWER MAIN	10,560	$134	$1,541,760
30" SEWER MAIN		$105	$0
24" SEWER MAIN	13,200	$95	$1,386,000
18" SEWER MAIN	5,280	$85	$501,600
15" SEWER MAIN		$75	$0
12" SEWER MAIN	15,840	$65	$1,188,000
24" RECLAIMED WATER	14,520	$110	$1,597,200
18" RECLAIMED WATER	13,200	$94	$1,240,800
12" RECLAIMED WATER	5,280	$53	$279,840
8" RECLAIMED WATER	15,840	$35	$554,400
LIFT STATION	0	$0	$0
BORING			
-	0	$0	$0
WRF	**MGD**		
187 gpd/du =	0.6732	$10,000,000	$6,732,000
Total Cost Year 4			**$15,777,960**

Year 5 - Backbone Wastewater Infrastructure Needs in HUC Extension

NUMBER OF DU'S 3600	LF/QUANTITY	UNIT COST	TOTAL
56" SEWER MAIN	0	$208	$0
48" SEWER MAIN	0	$179	$0
36" SEWER MAIN	0	$134	$0
30" SEWER MAIN	0	$105	$0
24" SEWER MAIN	0	$95	$0
18" SEWER MAIN	0	$85	$0
15" SEWER MAIN	6,600	$75	$561,000
12" SEWER MAIN	14,529	$65	$1,089,675
24" RECLAIMED WATER	0	$110	$0
18" RECLAIMED WATER	0	$94	$0
12" RECLAIMED WATER	6,600	$53	$349,800
8" RECLAIMED WATER	14,529	$35	$508,515
LIFT STATION	0	$0	0
BORING			
-	0	$0	$0
WRF	**MGD**		
187 gpd/du =	0.6732	$10,000,000	$6,732,000
Total Cost Year 5			**$9,240,990**

EXHIBIT

"7"



REVISIONS			
NO	DATE	BY	DESCRIPTION

File Name: CCN-WW.dwg

Designed By CHC
Drawn By CDH
Checked By CHC

DSWA
DAMON S. WILLIAMS ASSOCIATES, LLC

PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING

GLOBAL WATER
RELIABLE · RENEWABLE · REUSABLE

GLOBAL WATER
HASSAYAMPA UTILITY CO.

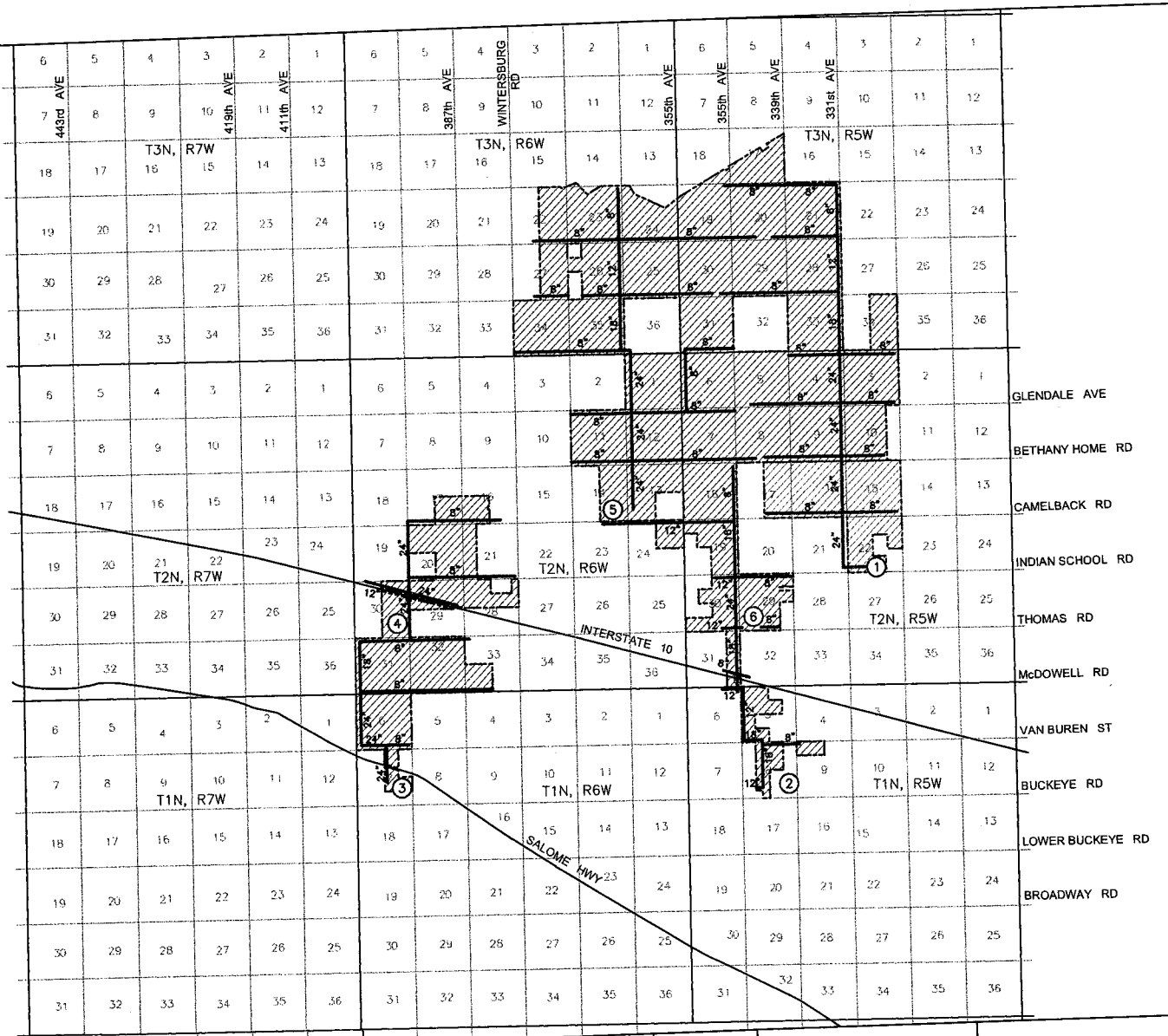
CC&N EXTENSION
SEWER COLLECTION
AND TREATMENT SYSTEM

DSWA Project No 060010
Date SEPTEMBER 2006
Dwg No
Sht No of

Dwg File: U:\CADD\0600\10\Dwg\CCN-WW.dwg Modified: Sep 07, 2006 - 1:15pm Plotted: 1:15pm

EXHIBIT

"8"



N.

0 5000 10000
APPROX SCALE IN FEET

LEGEND

- PROPOSED RECLAIMED WATER LINE
- PROPOSED RECLAIMED WATER LINE CROSSING OF INTERSTATE 10
- EXISTING CC&N
- PROPOSED CC&N
- (3) PROPOSED WATER RECLAMATION FACILITY

REVISIONS			
NO	DATE	BY	DESCRIPTION

File Name: CCN-RW.dwg

Designed By CHC
Drawn By CDH
Checked By CHC

DSWA
DAMON S. WILLIAMS ASSOCIATES, LLC

PRELIMINARY
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GLOBAL WATER
RELIABLE · RENEWABLE · REUSABLE

GLOBAL WATER
HASSAYAMPA UTILITY CO.

CC&N EXTENSION
RECLAIMED WATER SYSTEM

DSWA Project No 060010
Date SEPTEMBER 2006
Dwg No
Sht No of

Bill of Lading

User Name: *Mary Ippolito*
Company: *ROSHKA DEWULF & PATTEN*

Best (602) 248-9700

Control Number: 263440 **eTrac Number: 43167189**

Submitter Information		Shipping Information	
Account:	26031	**Service Type:**	COURTRUN-SAME DAY
Name:	ROSHKA DEWULF & PATTEN	**Return Service:**	None
Requested By:	Mary Ippolito	**Pieces:**	1
Reference:	GLOBAL WATER.HASSAYAMPA	**Weight:**	1.0 Lbs.
BOL No.:		**Charges:**	0.00
Entered:	07-SEP-2006 15:21	**Quote:**	0.00
Last Updated:	07-SEP-2006 18:24 (EST)		

Pick Up From	Deliver To
* ROSHKA DEWULF & PATTEN 400 E VAN BUREN ST STE 800 PHOENIX, AZ 85004 Phone: 602-256-6100	ACC Docket Control 1200 W. Washington Ave Phoenix, AZ 85007

Pickup Details		Delivery Details	
Requested Date:	07-SEP-2006	**Requested Date:**	07-SEP-2006
Ready Time:	NOW	**Deliver By:**	16:21
Case Information:	file orig + 13; deliver envelopes;return	**Special Instructions:**	conformed copy
Actual Date:		**Actual Date:**	
Arrival Time:		**Arrival Time:**	
Departure Time:		**Departure Time:**	

Driver: RAYMOND	**Received by:** X
Date: 9-7-06	
Time: 4:05	**Print Name:**

RECEIVED

SEP 07 2006

LEGAL DIV.
ARIZ. CORPORATION COMMISSION

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EXHIBIT A-13

BEFORE THE ARIZONA CORPORATION COMMISSION

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2006 DEC 20 P 3:43

AZ CORP COMMISSION
DOCUMENT CONTROL

COMMISSIONERS
Jeff Hatch-Miller, Chairman
William A. Mundell
Mike Gleason
Kristin K. Mayes
Barry Wong

IN THE MATTER OF THE APPLICATION OF HASSAYAMPA UTILITY COMPANY, INC. FOR AN EXTENSION OF ITS EXISTING CERTIFICATE OF CONVENIENCE AND NECESSITY.	Docket No. SW-20422A-06-0566

Hassayampa Utility Company, Inc. hereby files a revised legal description and maps. The revised items were prepared in consultation with Staff.

RESPECTFULLY SUBMITTED this 20th day of December 2006.

ROSHKA DEWULF & PATTEN, PLC

By _____
Michael W. Patten
Timothy J. Sabo
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

Original and 13 copies of the foregoing filed this 20th day of December 2006, with:

Docket Control
ARIZONA CORPORATION COMMISSION
1200 West Washington
Phoenix, Arizona 85007

EXHIBIT
A13
admitted

Copies of the foregoing hand-delivered/mailed this 20th day of December 2006, to:

Lyn A. Farmer, Esq.
Chief Administrative Law Judge
Hearing Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Christopher C. Kempley, Esq.
Chief Counsel, Legal Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Ernest G. Johnson, Esq.
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

By Mary Ippolito

ROSHKA DEWULF & PATTEN, PLC
ONE ARIZONA CENTER
400 EAST VAN BUREN STREET - SUITE 800
PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800

REVISED

LEGAL

DESCRIPTION

LEGAL DESCRIPTION
CC&N EXPANSION AREA FOR
HASSAYAMPA UTILITY COMPANY
MARICOPA COUNTY, ARIZONA

TOWNSHIP 1 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

ALL OF SECTION 6, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

THE WEST HALF OF THE NORTHEAST QUARTER AND THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 7, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THAT PORTION OF THE FOLLOWING DESCRIBED PARCEL OF LAND LYING WITHIN A 200 FOOT STRIP, BEING 100 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:
BEGINNING AT A POINT NORTH 07 DEGREES 7 MINUTES 30 SECONDS EAST, 1223.03 FEET FROM THE SOUTHEAST CORNER OF SECTION 16, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA;
THENCE NORTH 56 DEGREES 07 MINUTES 30 SECONDS WEST, 1783.55 FEET TO THE POINT OF CURVE OF A 0 DEGREES 15 MINUTES CURVE TO THE RIGHT, HAVING A RADIUS OF 22,918.3 FEET;
THENCE ALONG THE ARC OF SAID CURVE, A DISTANCE OF 433.33 FEET TO THE POINT OF TANGENT OF SAID CURVE;
THENCE NORTH 55 DEGREES 02 MINUTES 30 SECONDS WEST, 9949.29 FEET TO THE POINT OF CURVE OF A 4 DEGREES 00 MINUTES CURVE TO THE LEFT, HAVING A RADIUS OF 1432.69 FEET;
THENCE ALONG THE ARC OF SAID CURVE, 417.29 FEET TO THE POINT OF TANGENT OF SAID CURVE;
THENCE NORTH 71 DEGREES 44 MINUTES WEST, 4963.49 FEET TO THE POINT OF CURVE OF A 2 DEGREES 00 MINUTES CURVE TO THE RIGHT HAVING A RADIUS OF 2864.79 FEET;
THENCE ALONG THE ARC OF SAID CURVE, 489.17 FEET TO THE POINT OF TANGENT OF SAID CURVE;
THENCE NORTH 61 DEGREES 57 MINUTES WEST, 211.49 FEET TO A POINT ON THE WEST LINE OF SECTION 7, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, SAID POINT BEING SOUTH 0 DEGREES 16 MINUTES WEST, 394.03 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 7.

TOWNSHIP 2 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

ALL OF SECTION 1, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

ALL OF SECTION 11 , TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

ALL OF SECTION 12, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE NORTH HALF AND THE SOUTHWEST QUARTER OF SECTION 13, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

THE NORTHEAST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 14, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE NORTH 282.91 FEET OF THE SOUTH 305.26 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, AND

EXCEPT THE SOUTH 282.91 FEET OF THE NORTH 478.97 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN. MARICOPA COUNTY. ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY ARIZONA.

PARCEL 10

THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE WEST HALF OF SECTION 21, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE EAST 200 ACRES THEREOF (OR APPROXIMATELY THE EAST 1650 FEET OF SAID WEST HALF OF SECTION 21).

PARCEL 12

THE NORTHEAST QUARTER OF SECTION 24, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 13

THE NORTHWEST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 14

THE WEST HALF OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST

QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 15

THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER, AND THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIANS MARICOPA COUNTY, ARIZONA.

PARCEL 16

THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 17

THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE EAST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 18

THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SAID SECTION 29, WHICH POINT BEARS SOUTH 0 DEGREES 00 MINUTES 38 SECONDS WEST, 1476.85 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 29;
THENCE SOUTH 75 DEGREES 04 MINUTES 23 SECONDS EAST, 5470.76 FEET TO A POINT ON THE EAST LINE OF SAID SECTION 29, WHICH POINT BEARS SOUTH 0 DEGREES 03 MINUTES 23 SECONDS WEST, 243.12 FEET FROM THE EAST QUARTER CORNER OF SAID SECTION 29, AS CONVEYED TO STATE OF ARIZONA BY AND THROUGH ITS HIGHWAY COMMISSION BY WARRANTY DEED RECORDED IN DOCKET 6586, PAGE 69.

PARCEL 19

THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION OF SAID EAST HALF OF THE NORTHWEST QUARTER OF SAID SECTION 29 WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SAID SECTION 29, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 29;
THENCE S75°04'23"E, 5470.76 FEET TO A POINT ON THE EAST LINE OF SAID SECTION 29, WHICH POINT BEARS S00°03'23"W, 243.12 FEET FROM THE EAST QUARTER CORNER OF SAID SECTION 29.

PARCEL 20

THE WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S 00° 00' 05" SECONDS WEST, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23'E; THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38" W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29, AND

EXCEPT THEREFROM THOSE PORTIONS LYING WITHIN THE FOLLOWING DESCRIBED PARCELS OF LAND:

TRACT NO. 1

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, 33.00 FEET;

THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET,
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507.51 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

TRACT NO. 2

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS N00°00'38"E, 2805.94 FEET FROM THE CORNER COMMON TO SECTIONS 29, 30, 31 AND 32;
THENCE N89°59'22'W, 33.00 FEET;
THENCE N07°33'28"W, 888.33 FEET TO THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET;
THENCE S08°19'27"W, 809.17 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

PARCEL 21

THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 22

THE SOUTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA,

PARCEL 23

THE EAST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MER1DIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S 00° 00' 05" SECONDS WEST, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23'E; THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6

WEST, WHICH POINT BEARS S00°00'38" W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29; AND,

EXCEPT THEREFROM THOSE PORTIONS LYING WITHIN THE FOLLOWING DESCRIBED PARCELS OF LAND:

TRACT NO. 1

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, 33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET;
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507.51 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

TRACT NO. 2

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS N00°00'38"E, 2805.94 FEET FROM THE CORNER COMMON TO SECTIONS 29, 30, 31 AND 32;
THENCE N89°59'22"W, 33.00 FEET;
THENCE N07°33'28"W, 888.33 FEET TO THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET;
THENCE S08°19'27"W, 809.17 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING; AND

EXCEPT THEREFROM ANY PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING.

PARCEL 24

THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA. DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING,

EXCEPT THAT PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, 33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET,
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507.51 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

PARCEL 25

THE WEST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S00°00'05"W, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23"E;
THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;

THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29.

PARCEL 26

THE SOUTH HALF AND THE NORTHWEST QUARTER OF SECTION 31 TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 27

THE NORTHEAST QUARTER OF SECTION 31, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 28

ALL OF SECTION 32, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA;

PARCEL 29

THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 3 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 14, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 2

THE SOUTH HALF OF THE NORTHEAST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

ALL OF SECTION 23, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 4

ALL OF SECTION 24, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 5

ALL OF SECTION 25, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE EAST HALF AND THE EAST HALF OF THE WEST HALF OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE EAST HALF OF SECTION 27, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 35, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA..

TOWNSHIP 1 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

THE NORTHWEST QUARTER OF SECTION FIVE (5), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION LYING WITHIN THE PHOENIX-EHRENBERG HIGHWAY (I-10) DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTH QUARTER CORNER OF SECTION 5;
THENCE SOUTH 00 DEGREES 08 MINUTES 55 SECONDS EAST 187.60 FEET (SOUTH 187.18 FEET RECORD) ALONG THE EAST LINE OF THE NORTHWEST QUARTER OF SECTION 5 TO THE SOUTH RIGHT-OF-WAY OF SAID HIGHWAY;
THENCE NORTH 75 DEGREES 01 MINUES 17 SECONDS WEST (NORTH 75 DEGREES 01 MINUTES 36 SECONDS WEST 725.36 FEET RECORD) ALONG SAID RIGHT-OF-WAY TO THE NORTH LINE OF SECTION 5;
THENCE SOUTH 89 DEGREES 59 MINUTES 34 SECONDS EAST 700.57 FEET (EAST 700.80 FEET RECORD) TO THE POINT OF BEGINNING.

PARCEL 2

THE WEST HALF OF THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, AIRZONA.

PARCEL 3

THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE WEST HALF OF THE NORTHEAST QUARTER AND THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION EIGHT (8), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

THE WEST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE SOUTH 701.62 FEET THEREOF.

PARCEL 6

THE SOUTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE NORTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP I NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 2 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

ALL OF SECTION 3, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

ALL OF SECTION 4, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

ALL OF SECTION 5, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

ALL OF SECTION 6, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 7, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 8, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 9, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE WEST HALF OF THE EAST HALF AND THE WEST HALF OF SECTION 10, TOWNSHIP 2 NORTH, RANGE 5 WEST OFTHE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 18, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER, THE EAST HALF OF THE NORTHWEST QUARTER AND THE EAST HALF OF SECTION 19, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE WEST HALF, THE WEST HALF OF THE EAST HALF, THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER AND THE SOUTH HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPT COMMENCING AT THE NORTHEAST CORNER OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 29; THENCE SOUTH

00 DEGREES 11 MINUTES 16 SECONDS WEST, ALONG THE EAST LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 1291.13 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 00 DEGREES 11 MINUTES 16 SECONDS WEST, 26.41 FEET; THENCE NORTH 89 DEGREES 25 MINUTES 24 SECONDS WEST, ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER OFTHE NORTHEAST QUARTER, 808.80 FEET; THENCE NORTH 01 DEGREES 25 MINUTES 28 SECONDS WEST, 101.26 FEET; THENCE SOUTH 84 DEGREES 09 MINUTES 42 SECONDS EAST, 815.59 FEET TO THE POINT OF BEGINNING.

PARCEL 12

THE NORTHEAST QUARTER, THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE NORTH HALF OF THE SOUTHEAST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 13

THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER, AND THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 14

THE EAST HALF OF THE EAST HALF OF SECTION 31, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 3 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

ALL OF SECTION 17, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 2

THE SOUTHEAST QUARTER, AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 18, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 3

ALL OF SECTION 19, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 4

ALL OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 21 , TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 28, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 29, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

ALL OF SECTION 30, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 31, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 33, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

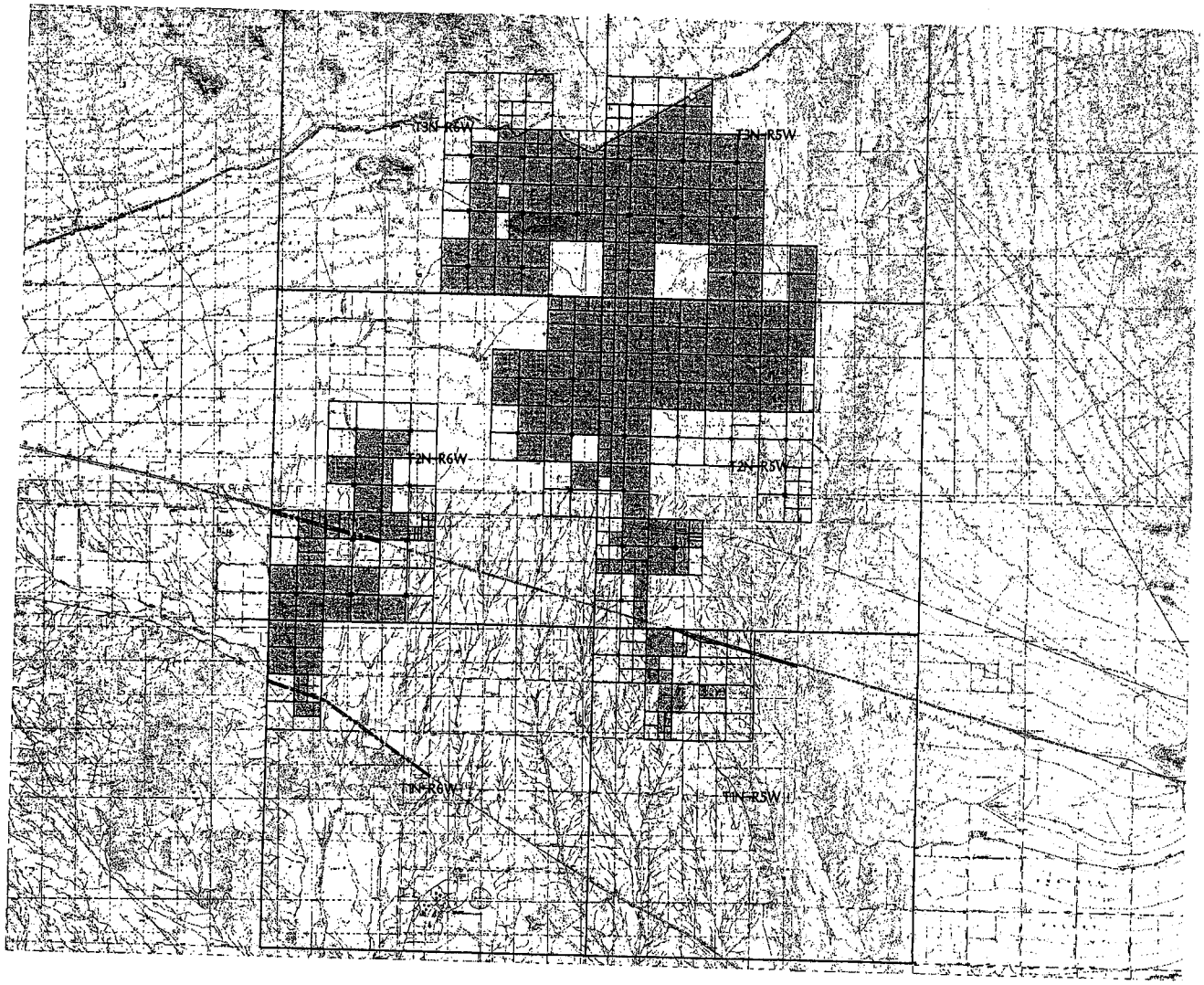
THE EAST HALF OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

CONTAINING APPROXIMATELY 24,262 ACRES, MORE OR LESS. THIS AREA IS NOT BASED ON A FIELD SURVEY, BUT BASED ON CALCULATIONS DERIVED FROM SCANNED IMAGES OF 7.5 MINUTES SERIES NGS QUAD MAPS AND OTHER SCANNED MATERIALS WORKING WITHIN AN AUTOCAD DRAWING FILE.

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21071
MARY F.
KENNEDY
Date Signed 12/18/06
ARIZONA, U.S.A.

REVISED

MAPS



REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21071
MARY F.
KENNEDY
Date Signed 12/19/06
ARIZONA U.S.A.

JMI & ASSOCIATES
CONSULTING CIVIL ENGINEERS

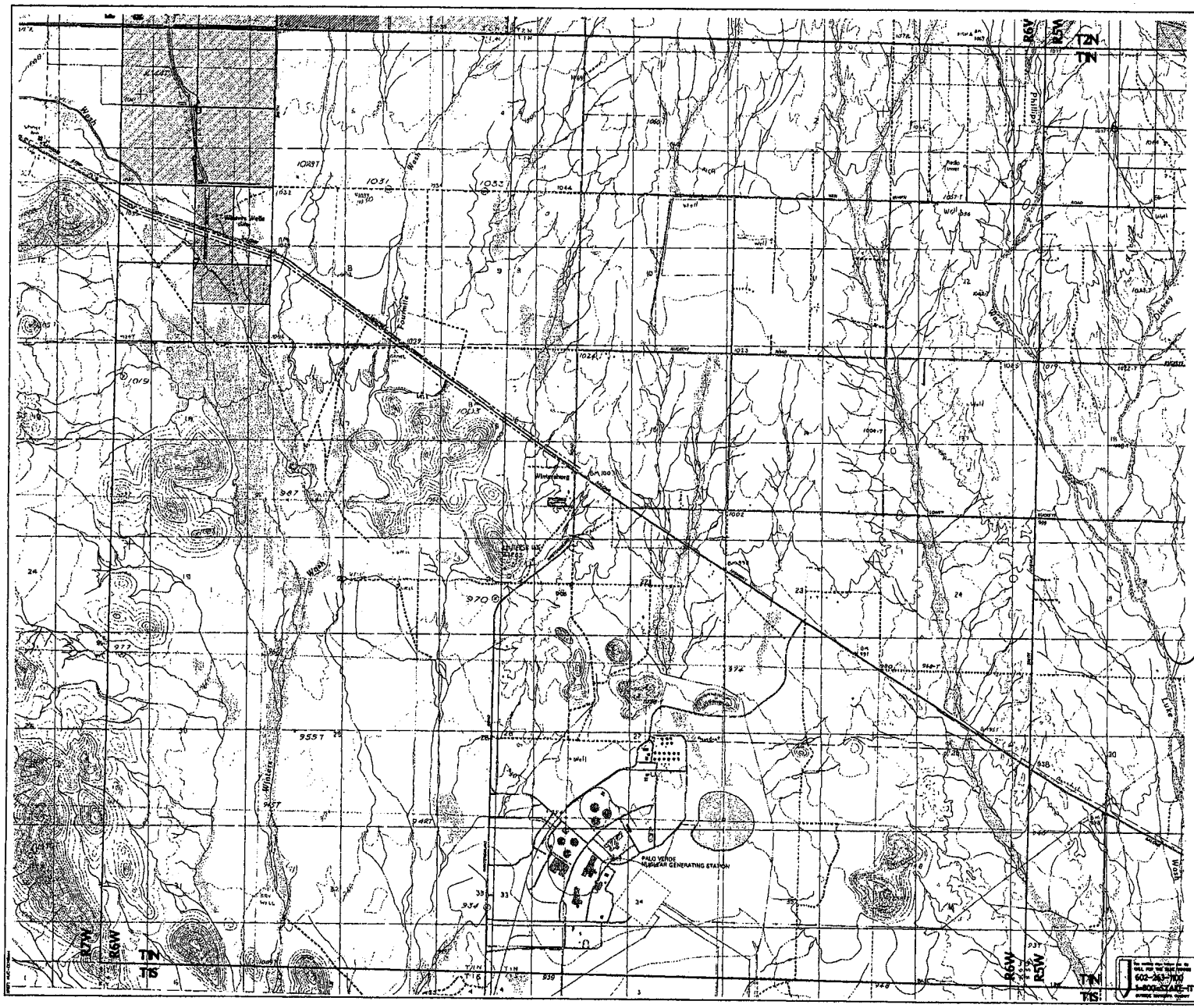
602-263-1100
1-800-STAKE-IT

DSN:
CKD:
DATE: 12/19/06
SCALE
HORZ:
VERT:

Global Water Resources
CC&N Expansion
HASSAYAMPA UTILITY COMPANY

JOB#

SHEET 1 OF 7

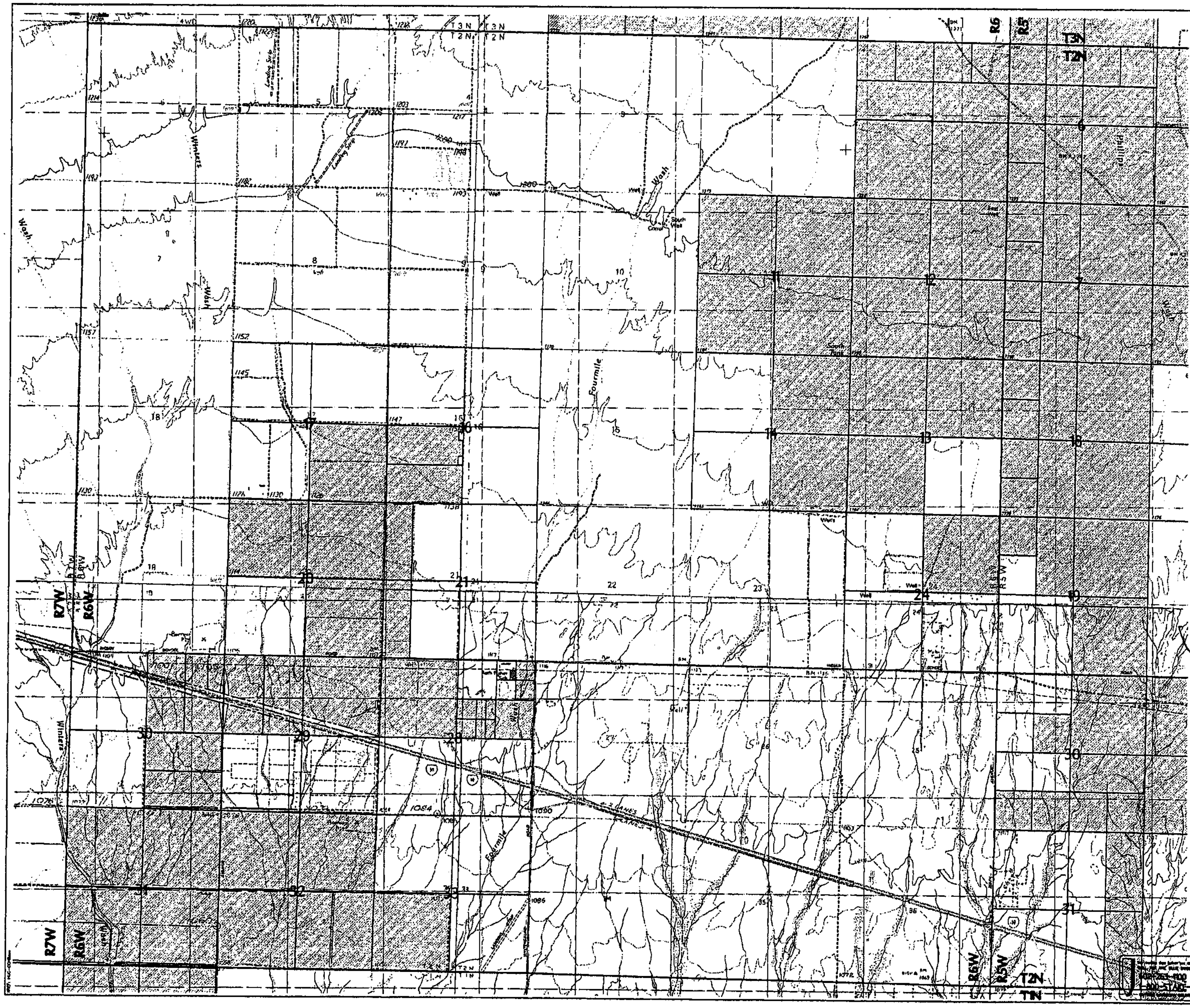


REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21071
MARY F.
KENNEDY
Date Signed 12/18/94
ARIZONA, U.S.A.

T1N, R6W

JMI & ASSOCIATES
CONSULTING CIVIL ENGINEERS

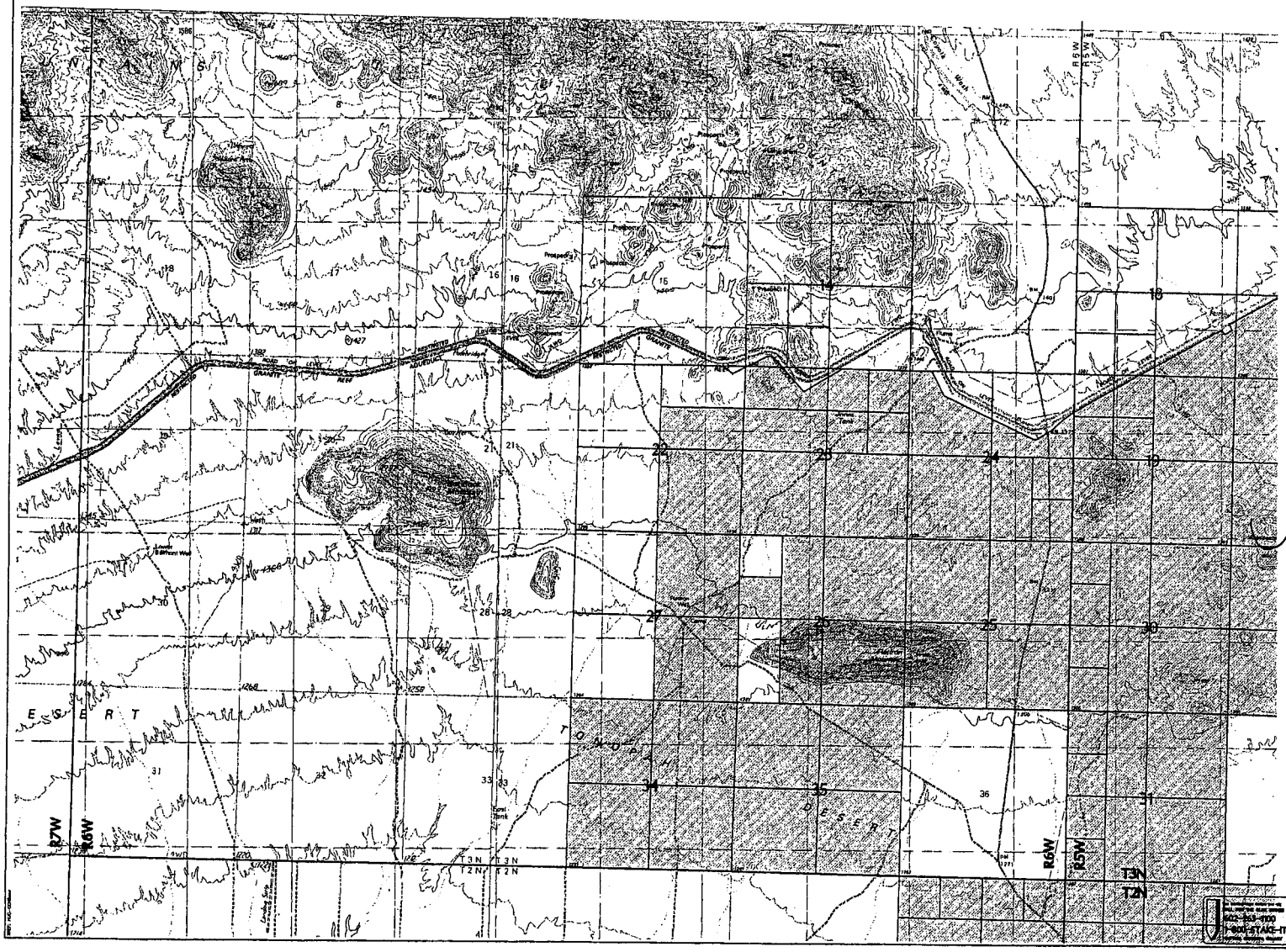
DSN: mk CKD: DATE: 12/16/94 SCALE HORZ: NTS VERT:	Global Water Resources CC&N Expansion HASSAYAMPA UTILITY COMPANY	JOB# SHEET 2 OF 7



T2N, R6W

JMI & ASSOCIATES
CONSULTING CIVIL ENGINEERS

DSN: CKD: DATE: 12/18/06 SCALE HORIZ: VERT:	Global Water Resources CC&N Expansion HASSAYAMPA UTILITY COMPANY	JOB# SHEET 3 OF 7

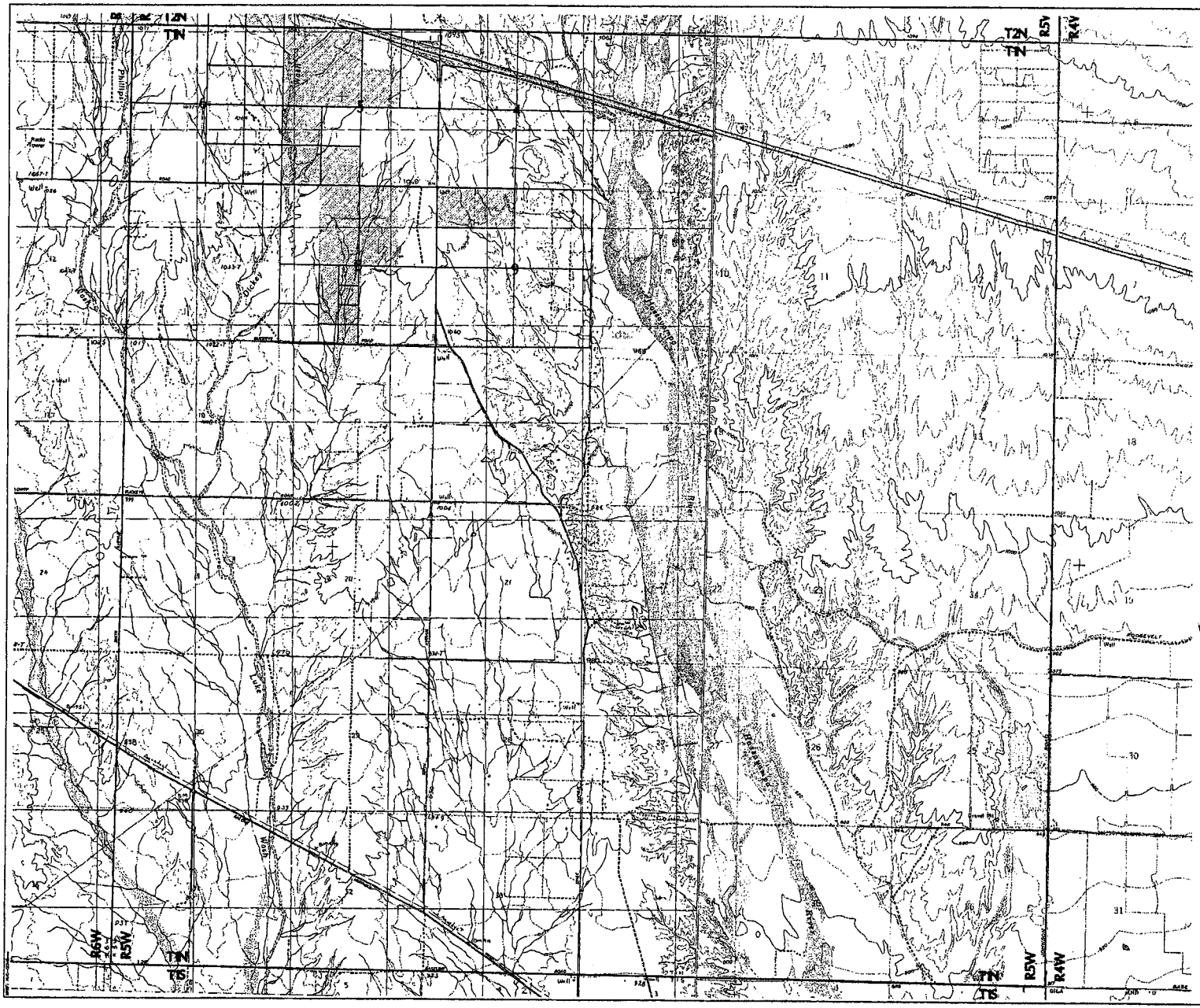


REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21071
MARY F.
KENNEDY
Date Signed 12/16/98
ARIZONA

T3N, R6W

JMI & ASSOCIATES
CONSULTING CIVIL ENGINEERS

DSN: MR DWD: DATE: 12/16/98 SCALE HORZ: 1"=1000' VERT:	Global Water Resources CC&N Expansion HASSAYAMPA UTILITY COMPANY	JOB# SHEET 4 OF 7

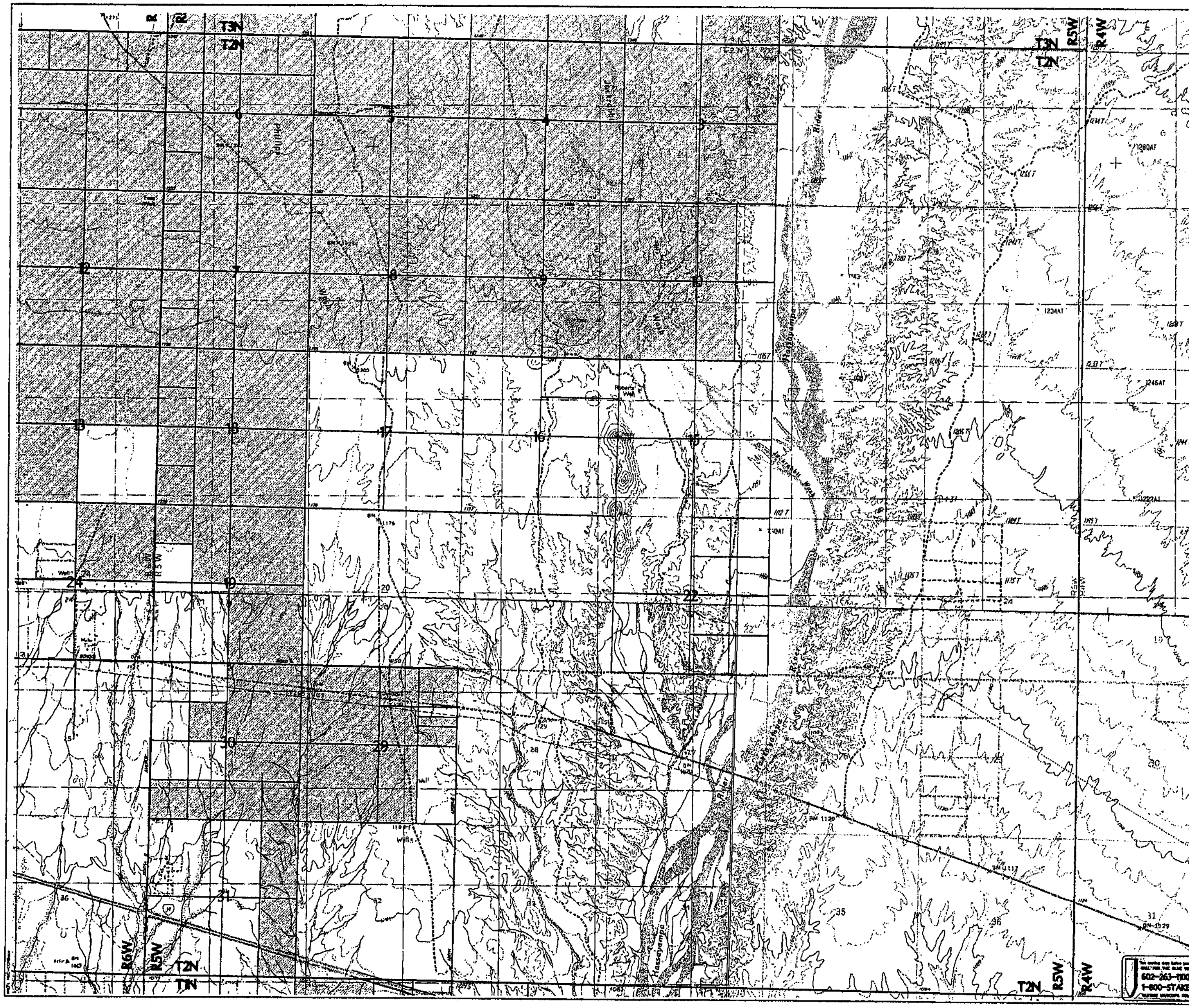


REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21071
MARY F.
KENNEDY
Date Signed 12/18/96
ARIZONA

T1N, R5W

JMI & ASSOCIATES
CONSULTING CIVIL ENGINEERS
8990 E. BOVA BLVD SUITE 130 SCOTTSDALE, AZ 85260 480.948.2400

DSN: mk CKD: DATE: 12/18/96 SCALE HORIZ:NS VERT:	Global Water Resources CC&N Expansion HASSAYAMPA UTILITY COMPANY	JOB# SHEET 5 of 7

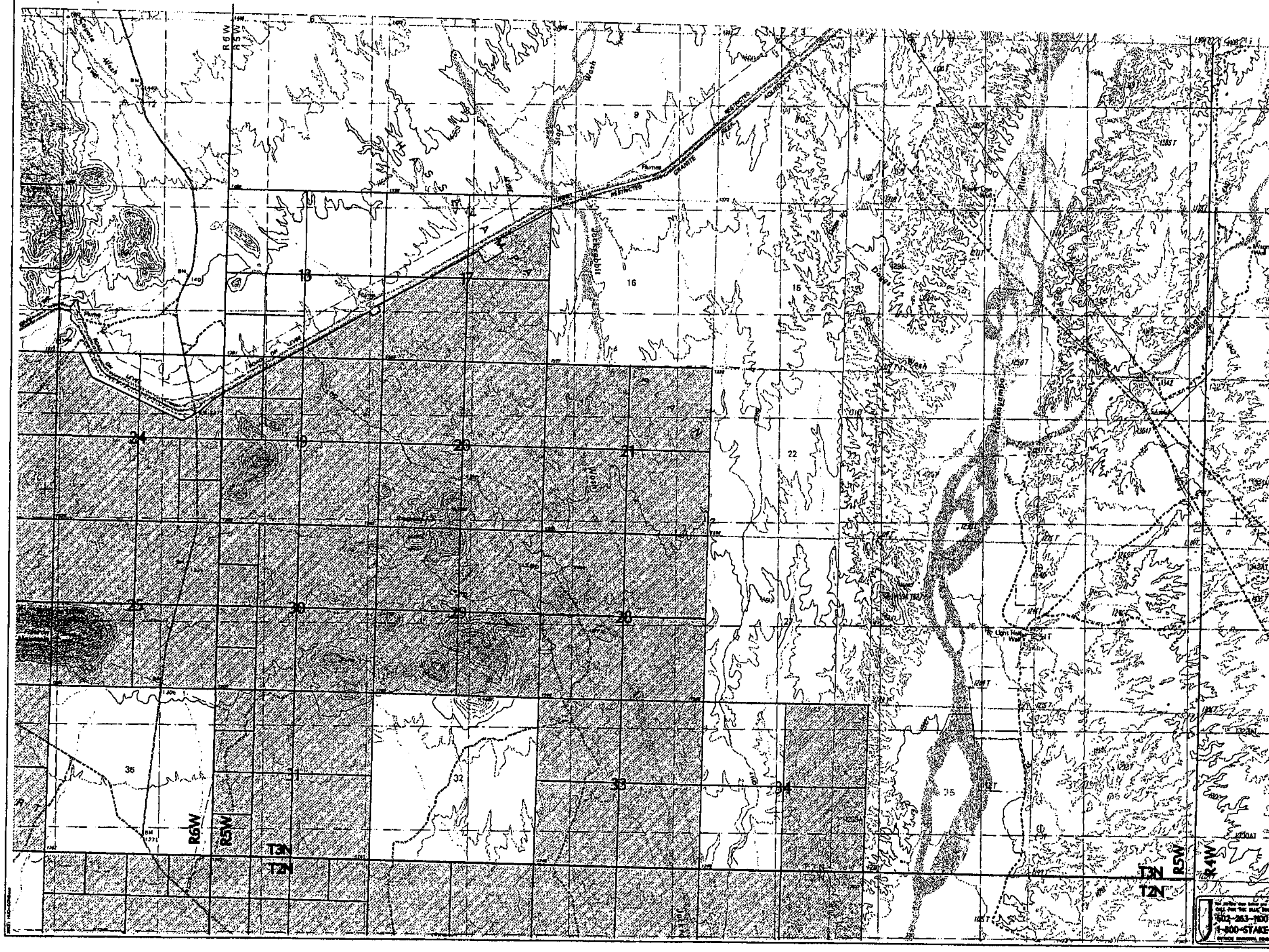


REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21071
MARY F.
KENNEDY
Date Signed 12/15/06
ARIZONA, U.S.A.

T2N, R5W

JMI & ASSOCIATES
CONSULTING CIVIL ENGINEERS

DSN: mh CKD: DATE: 12/15/06 SCALE HORZ: NTS VERT:	Global Water Resources CC&N Expansion HASSAYAMPA UTILITY COMPANY	JOB# SHEET 6 OF 7



T3N, R5W

JMI & ASSOCIATES
CONSULTING CIVIL ENGINEERS

602-263-1100
1-800-STAKE-IT

DSN:	Global Water Resources CC&N Expansion HASSAYAMPA UTILITY COMPANY	JOB#
CKD:		
DATE: 12/18/06		SHEET
SCALE HORIZ: VERT:		7 OF 7

EXHIBIT A-14

BEFORE THE ARIZONA CORPORATION COMMISSION

RECEIVED

2006 SEP 29 P 3 48

AZ CORP COMMISSION
DOCUMENT CONTROL

COMMISSIONERS
Jeff Hatch-Miller, Chairman
William A. Mundell
Mike Gleason
Kristin K. Mayes
Barry Wong

IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF GREATER TONOPAH, INC., AN ARIZONA CORPORATION, FOR AN EXTENSION OF ITS EXISTING CERTIFICATE OF CONVENIENCE AND NECESSITY.	Docket No. W-02450A-06-0626 **APPLICATION TO EXTEND CC&N**

Water Utility of Greater Tonopah, Inc. ("Tonopah") requests that the Arizona Corporation Commission ("Commission") extend its Certificate of Convenience and Necessity ("CC&N") to include the area (the "Extension Area") set forth on the attached legal description ("Exhibit 1"). In support of this Application, Tonopah states:

I. Groundwater Conservation.

1. Tonopah's ultimate parent company is Global Water Resources, LLC ("Global Parent"). Global Parent is also the ultimate parent company of Hassayampa Utility Company. Tonopah and Hassayampa will together provide integrated water, wastewater and reclaimed water services to the Extension Area (except in a small area known as Desert Whisper).

2. The Extension Area is part of the fast-growing west valley region. Because of this rapid growth, a traditional "groundwater only" approach to serving this region is not adequate. Thus, water conservation is imperative in the Extension Area. Groundwater conservation can be achieved through the "triad of conservation": (1) reusing reclaimed water for non-potable uses such as irrigating landscaping and flushing toilets; (2) introducing renewable surface water sources to the maximum feasible extent; (3) recharging excess reclaimed water and surface water into the aquifer to the maximum extent feasible. Global Parent and its regulated utilities are recognized leaders in water conservation in Arizona. For example, though this "triad of conservation"

EXHIBIT
A14
admitted

strategy, Palo Verde Utilities Company and Santa Cruz Water Company (two affiliates of Tonopah) have achieved remarkable reductions in average groundwater use as compared to traditional providers in Pinal County.

3. A CC&N extension is in the public interest because Global Parent and its regulated utilities are at the forefront of water reclamation and re-use. Hassayampa is aggressively promoting the use of reclaimed water to serve golf courses, open spaces, school fields, homeowner association common areas, and irrigation of residential landscaping. In addition, Hassayampa is pursuing other industrial, commercial, agricultural, and residential uses for reclaimed water, including for flush water use in commercial and industrial buildings. These activities will be closely coordinated with Tonopah. Such coordinated activities are part of Global Parent's "triad of conservation" strategy.

4. This Application is also in the public interest because there is a pressing need for consolidated, regionally-designed water, wastewater and reclaimed water service in this region of Maricopa County. Tonopah is in the best position to extend and provide service to the Extension Area because of the proximity of its existing service area, the expertise of its personnel and its financial stability, and its relationship with Hassayampa.

II. The Extension Area.

5. The Extension Area is approximately 22,127 acres. As noted above, the legal description for the Extension Area is shown on Exhibit 1. A map of the Extension Area is attached as Exhibit 2.

6. Six proposed subdivisions comprise the Extension Area. These subdivisions are known as Belmont, Copperleaf, Silver Water Ranch, Silver Springs Ranch, the 339 Avenue Project, and Desert Whisper. A map showing these six subdivisions (and thus the Extension Area) is attached as Exhibit 3. Each of theses subdivisions are adjacent to, or in the vicinity of, Tonopah's existing service area.

7. The developers of these six subdivisions have each requested service from Tonopah. Copies of the request-for-service letters are attached as Exhibit 4. The requests for

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ONA CENTER
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PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800

service cover 100% of the Extension Area. The developer of the largest subdivision, Belmont, explains that they conducted an extensive review of utilities from throughout the western United States before choosing Hassayampa and Tonopah. This developer was "encouraged by [our] mandate to maximize water conservation" and is interested in Hassayampa's and Tonopah's plan of "installing two meters at every home" – one for potable water, and one for reclaimed water. Also, note that the request from Sierra Negra Ranch, LLC covers two subdivisions – Silver Water Ranch and Silver Springs Ranch.

8. On September 7, 2008, Hassayampa filed an application to extend its CC&N to include the subdivisions included in this application, except for Desert Whisper. (Docket No. SW-20422A-06-0566). There are two differences between the Extension Area in this case, and the area in the Hassayampa case. First, Desert Whisper is not included in the Hassayampa case because Desert Whisper has not requested wastewater or reclaimed water service from Hassayampa. Second, the Hassayampa case includes some areas that are already within Tonopah's CC&N.

III. Description of Applicant.

9. Tonopah was incorporated in 1983 and has served as a public service corporation for many years. The Commission recently extended Tonopah's CC&N in Decision No. 68307 (November 14, 2005). In addition, the Commission retroactively extended and clarified Tonopah's CC&N in Decision No. 68451 (Feb. 2, 2006). Tonopah has another CC&N application pending in Docket No. W-02450A-06-0253.

10. Tonopah currently has 305 customers. Overall, Global Parent's regulated utilities have over 30,000 customers.

11. Tonopah's management contact is:

Mr. Graham Symmonds
Senior Vice President
Global Water Management
21410 North 19th Avenue, Suite 201
Phoenix, Arizona 85027.
(623) 580-9600

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12. Tonopah's operators of record are:

Name of Utility	Certification	Name	Operator ID	Phone Number
Tonopah	Treatment	Joel Wade	06327	(623) 580-9600
Tonopah	Distribution	Joel Wade	06327	(623) 580-9600

12. Tonopah's attorneys are:

Roshka DeWulf & Patten, PLC
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004
(602) 256-6100

All data requests or other requests for information should be directed to:

Timothy J. Sabo
Roshka DeWulf & Patten, PLC
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

With a copy to:

Mr. Graham Symmonds
Senior Vice President
Global Water Management
21410 North 19th Avenue, Suite 201
Phoenix, Arizona 85027

13. A Certificate of Good Standing for Tonopah is attached as Exhibit 5.

14. The customers located in the Extension Area will receive water service subject to Tonopah's current rates and charges for utility service, which were approved by the Commission in Decision No. 62092 (November 19, 1999).

15. Tonopah's most recent annual financial statements (balance sheet and income statement) are attached as Exhibit 6.

16. Shareholder equity and advances in aid of construction will fund the cost of the construction of facilities needed to serve Extension Area.

IV. Engineering Matters.

17. Attached as Exhibit 7 is an Engineering Memorandum which discusses the additional facilities planned to serve the Extension Area. The projected costs of facilities to serve

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ONE ARIZONA CENTER
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PHOENIX, ARIZONA 85004
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FACSIMILE 602-256-6800

the Extension Area for each of the first five years are shown on the Engineering Memorandum. Additional details concerning these cost estimates are shown on Exhibit 8.

18. A map showing the proposed locations of distribution mains and the water treatment plant is attached as Exhibit 9.

19. Tonopah estimates that during its first two years of operations, it will add 200 customers per month in the Extension Area. For the following three years, Hassayampa estimates that it will add 300 customers per month in the Extension Area. Accordingly, the estimated numbers of customers for each of the first five years of service in the Extension Area are:

Year	Customers Added	Total Estimated Customers In Extension Area
1	2,400	2,400
2	2,400	4,800
3	3,600	8,400
4	3,600	12,000
5	3,600	15,600

20. A Water Use Data Sheet for Tonopah's most recent 12 months is attached as Exhibit 10.

V. Permits and other Regulatory Matters

21. Tonopah will need a franchise from Maricopa County to serve the Extension Area.

22. Copies of the Maricopa County Environmental Services Department ("MCESD") approvals to construct facilities in the Extension Area will be provided to the Commission when they are issued.

23. Tonopah plans to apply to the Arizona Department of Water Resources for a Designation of Assured Water Supply. Tonopah's affiliate, Santa Cruz Water Company, was one of the first water public service corporations to obtain a Designation of Assured Water Supply.

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FACSIMILE 602-256-6800

24. Tonopah will provide all necessary and required notice. Proof of publication of notice will be filed with the Commission in this docket once a procedural order is issued in this docket. Likewise, once the Commission issues a procedural order specifying the desired form of notice, Tonopah will provide the notice to all landowners of record within the Extension Area.

WHEREFORE, Tonopah respectfully requests that the Commission:

A. Schedule a hearing on this Application as soon as possible; and thereafter

B. Issue a final order:

1. finding that it is in the public interest to extend the Tonopah's CC&N to include the Extension Area;

2. ordering that Tonopah's CC&N be extended to include the Extension Area; and

3. granting such other and further relief as may be appropriate under the circumstances herein.

RESPECTFULLY SUBMITTED this 29th day of September 2006.

ROSHKA DEWULF & PATTEN, PLC

By [signature]

Timothy J. Sabo
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

ROSHKA DEWULF & PATTEN, PLC
ONE ARIZONA CENTER
400 EAST VAN BUREN STREET - SUITE 800
PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800

Original + 13 copies of the foregoing filed this 29th day of September 2006, with:

Docket Control
ARIZONA CORPORATION COMMISSION
1200 West Washington
Phoenix, Arizona 85007

Copies of the foregoing hand-delivered/mailed this 29th day of September 2006, to:

Lyn A. Farmer, Esq.
Chief Administrative Law Judge
Hearing Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Christopher C. Kempley, Esq.
Chief Counsel, Legal Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Ernest G. Johnson, Esq.
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

By Mary Ippolito

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TELEPHONE NO 602-256-6100
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PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800

Index to Exhibits

Exhibit	Description
1	Legal Description
2	Map of Extension Area
3	Map of Developments Comprising the Extension Area
4	Requests for Service
5	Certificate of Good Standing
6	Balance Sheet and Income Statement
7	Engineering Memorandum
8	Construction Cost Estimates
9	Map Showing Proposed Facilities
10	Water Use Data Sheet

EXHIBIT

"1"

LEGAL DESCRIPTION
CC&N EXPANSION AREA FOR
WATER UTILITY OF GREATER TONOPAH
MARICOPA COUNTY, ARIZONA

TOWNSHIP 2 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOTS 1 THROUGH 4, INCLUSIVE; THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 1, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

ALL OF SECTION 11 , TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

ALL OF SECTION 12, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE NORTH HALF AND THE SOUTHWEST QUARTER OF SECTION 13, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 14, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE NORTH 282.91 FEET OF THE SOUTH 305.26 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, AND

EXCEPT THE SOUTH 282.91 FEET OF THE NORTH 478.97 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN. MARICOPA COUNTY. ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY ARIZONA.

PARCEL 10

THE NORTHWEST QUARTER OF SECTION 23, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE NORTHEAST QUARTER OF SECTION 24, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 12

THE WEST HALF OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 13

THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER, AND THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIANS MARICOPA COUNTY, ARIZONA.

PARCEL 14

THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 15

THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE EAST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 16

THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 17

THE SOUTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA,

PARCEL 18

THE EAST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MER1DIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S 00° 00' 05" SECONDS WEST, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990 74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23'E; THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38" W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29; AND,

EXCEPT THEREFROM THOSE PORTIONS LYING WITHIN THE FOLLOWING DESCRIBED PARCELS OF LAND:

TRACT NO. 1

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, 33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310 42 FEET;
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507 51 FEET;
THENCE N89°59'22"W, 33 00 FEET TO THE POINT OF BEGINNING.

TRACT NO. 2

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS N00°00'38"E, 2805.94 FEET FROM THE CORNER COMMON TO SECTIONS 29, 30, 31 AND 32;
THENCE N89°59'22"W, 33.00 FEET;
THENCE N07°33'28"W, 888.33 FEET TO THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET;
THENCE S08°19'27"W, 809.17 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING; AND

EXCEPT THEREFROM ANY PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING.

PARCEL 19

THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA. DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING,

EXCEPT THAT PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, .33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET,
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507.51 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

PARCEL 20

THE WEST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S00°00'05"W, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23"E;
THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF' SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29.

TOWNSHIP 3 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOT 3 OF SECTION 14, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

THE SOUTH HALF OF THE NORTHEAST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

LOTS 1 THROUGH 3, INCLUSIVE; THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 23, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

LOTS 2 THROUGH 4, INCLUSIVE, THE SOUTH HALF OF THE NORTHWEST QUARTER AND THE SOUTH HALF OF SECTION 24, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 25, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE EAST HALF AND THE EAST HALF OF THE WEST HALF OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE EAST HALF OF SECTION 27, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 35, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA..

TOWNSHIP 1 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOTS THREE (3) AND FOUR (4) AND THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION FIVE (5), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION LYING WITHIN THE PHOENIX-EHRENBERG HIGHWAY (I-10) DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 3;
THENCE SOUTH 00 DEGREES 08 MINUTES 55 SECONDS EAST 187.60 FEET (SOUTH 187.18 FEET RECORD) ALONG THE EAST LINE OF SAID LOT 3 TO THE SOUTH RIGHT-OF-WAY OF SAID HIGHWAY;
THENCE NORTH 75 DEGREES 01 MINUTES 17 SECONDS WEST (NORTH 75 DEGREES 01 MINUTES 36 SECONDS WEST 725.36 FEET RECORD) ALONG SAID RIGHT-OF-WAY TO THE NORTH LINE OF SAID LOT 3;
THENCE SOUTH 89 DEGREES 59 MINUTES 34 SECONDS EAST 700.57 FEET (EAST 700.80 FEET RECORD) TO THE POINT OF BEGINNING.

PARCEL 2

THE WEST HALF OF THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE WEST HALF OF THE NORTHEAST QUARTER AND THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION EIGHT (8), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

THE WEST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE SOUTH 701.62 FEET THEREOF.

PARCEL 6

THE SOUTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE NORTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP I NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 2 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOTS 1 THROUGH 4, INCLUSIVE; THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 3, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

LOTS 1 THROUGH 4, INCLUSIVE; THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 4, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

LOTS 1 THROUGH 4, INCLUSIVE, THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 5, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

LOTS 1 THROUGH 7, INCLUSIVE; THE SOUTH HALF OF THE NORTHEAST QUARTER, THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE SOUTHEAST QUARTER AND THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 6, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 7, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 8, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 9, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE WEST HALF OF THE EAST HALF AND THE WEST HALF OF SECTION 10, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF THE NORTHEAST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 18, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

LOT 1, THE EAST HALF OF THE NORTHWEST QUARTER AND THE EAST HALF OF SECTION 19, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 12

THE WEST HALF, THE WEST HALF OF THE EAST HALF, THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER AND THE SOUTH HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

> EXCEPT COMMENCING AT THE NORTHEAST CORNER OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 29; THENCE SOUTH 00 DEGREES 11 MINUTES 16 SECONDS WEST, ALONG THE EAST LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 1291.13 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 00 DEGREES 11 MINUTES 16 SECONDS WEST, 26.41 FEET; THENCE NORTH 89 DEGREES 25 MINUTES 24 SECONDS WEST, ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 808.80 FEET; THENCE NORTH 01 DEGREES 25 MINUTES 28 SECONDS WEST, 101.26 FEET; THENCE SOUTH 84 DEGREES 09 MINUTES 42 SECONDS EAST, 815.59 FEET TO THE POINT OF BEGINNING.

PARCEL 13

THE NORTHEAST QUARTER, THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE NORTH HALF OF THE SOUTHEAST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 14

GLO LOT (FRACTIONAL SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER) AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 15

THE EAST HALF OF THE EAST HALF OF SECTION 31, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 3 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOT 1, LOTS 4 THROUGH 7, INCLUSIVE; THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

LOTS 9 AND 10 OF SECTION 18, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

LOTS 2 THROUGH 6, INCLUSIVE; THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE EAST HALF OF THE SOUTHWEST QUARTER AND THE EAST HALF OF SECTION 19, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

ALL OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 21 , TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 28, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 29, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 30, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 31, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 33, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

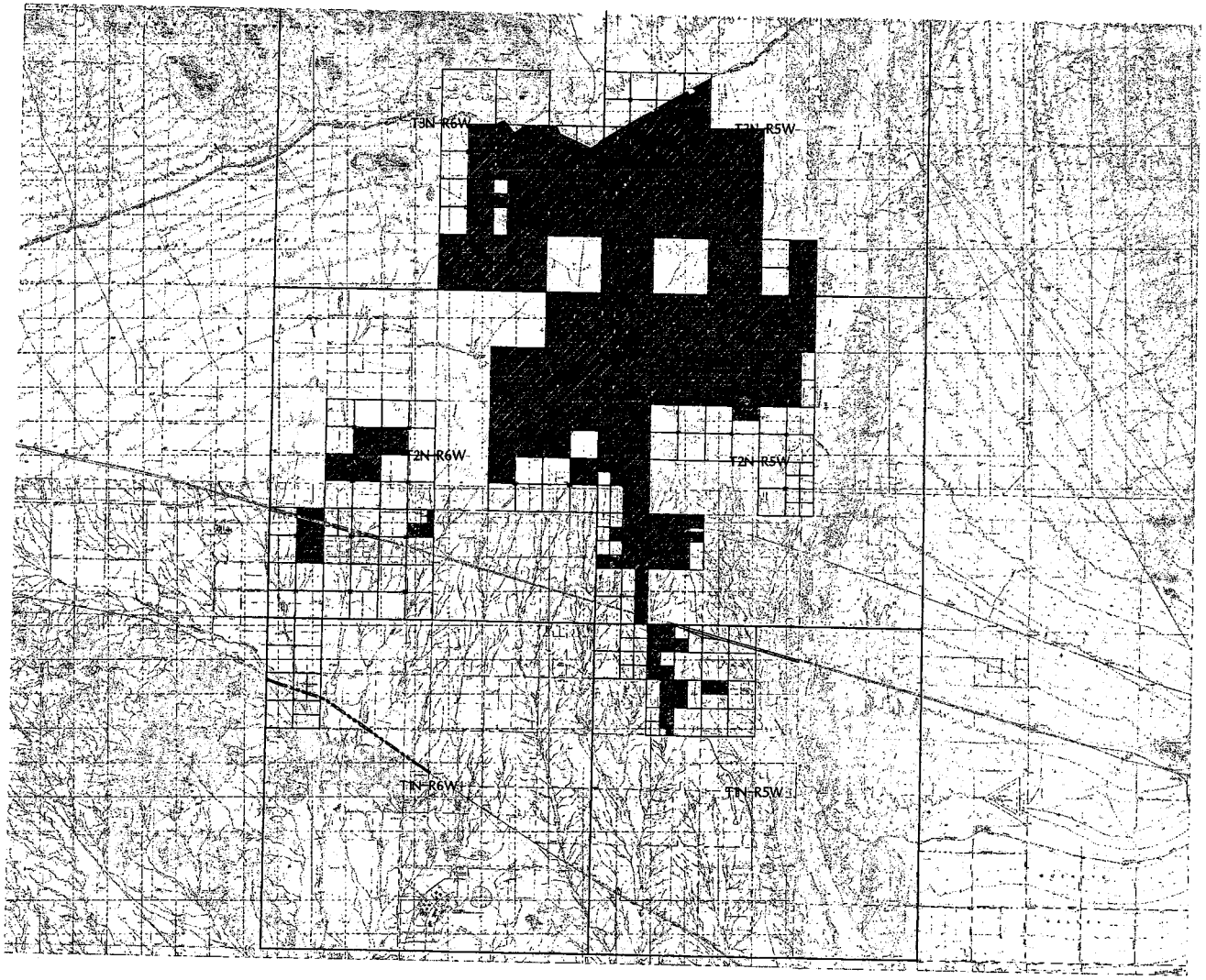
THE EAST HALF OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

CONTAINING APPROXIMATELY 22,127 ACRES, MORE OR LESS. THIS AREA IS NOT BASED ON A FIELD SURVEY, BUT BASED ON CALCULATIONS DERIVED FROM SCANNED IMAGES OF 7.5 MINUTES SERIES NGS QUAD MAPS AND OTHER SCANNED MATERIALS WORKING WITHIN AN AUTOCAD DRAWING FILE.

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21071
MARY F.
KENNEDY
Date Signed 9/19/06
ARIZONA, U.S.A.

EXHIBIT

"2"



REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21071
MARY F.
KENNEDY
Date Signed 2/19/08
ARIZONA

JMI & ASSOCIATES
CONSULTING CIVIL ENGINEERS

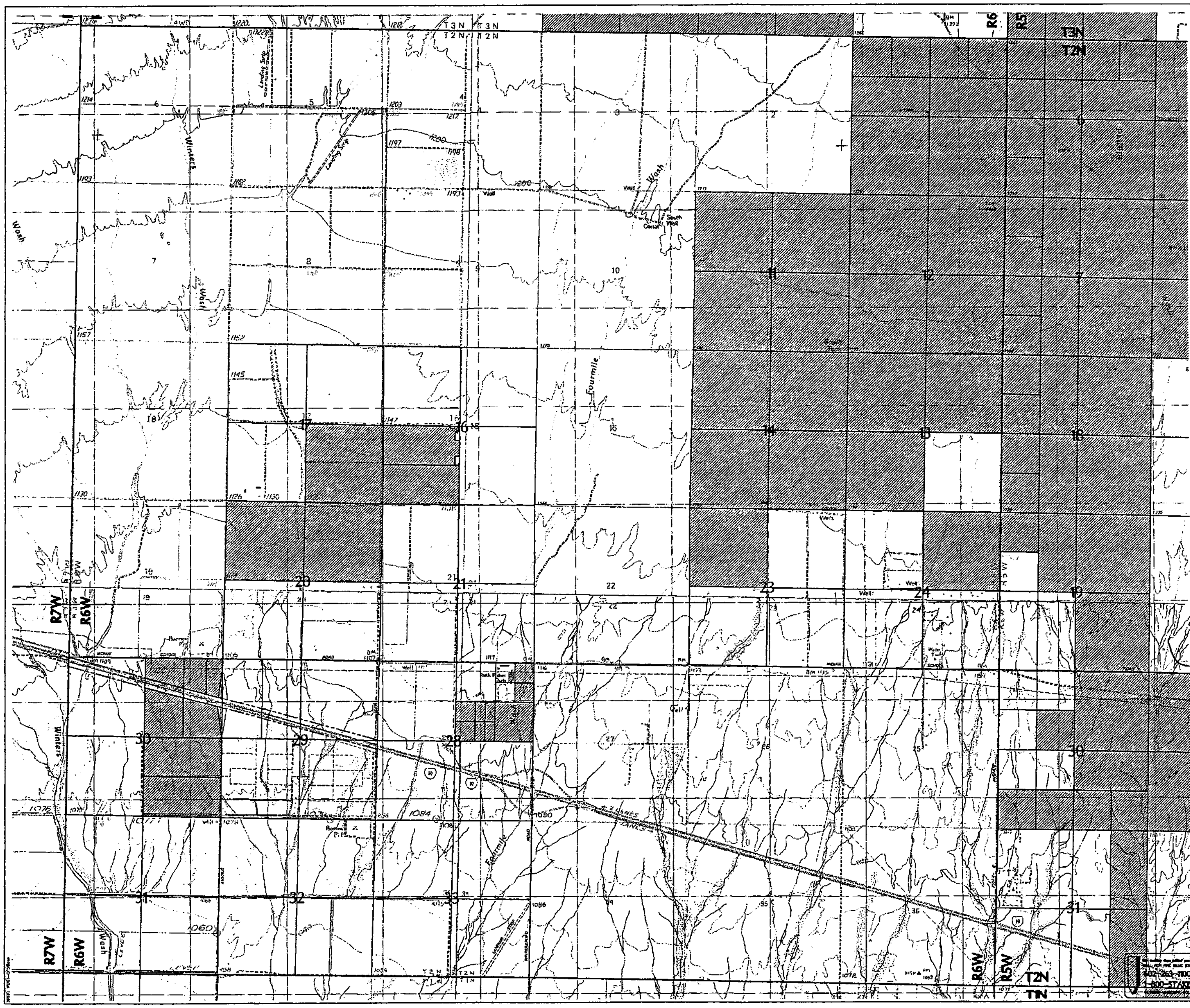
602-263-1100
1-800-STAKE-IT

DSN: mfk
CKD:
DATE: 10/05/06
SCALE
HORZ:NTS
VERT:

Global Water Resources
CC&N Expansion
Water Utility of Greater Tonopah

JOB#

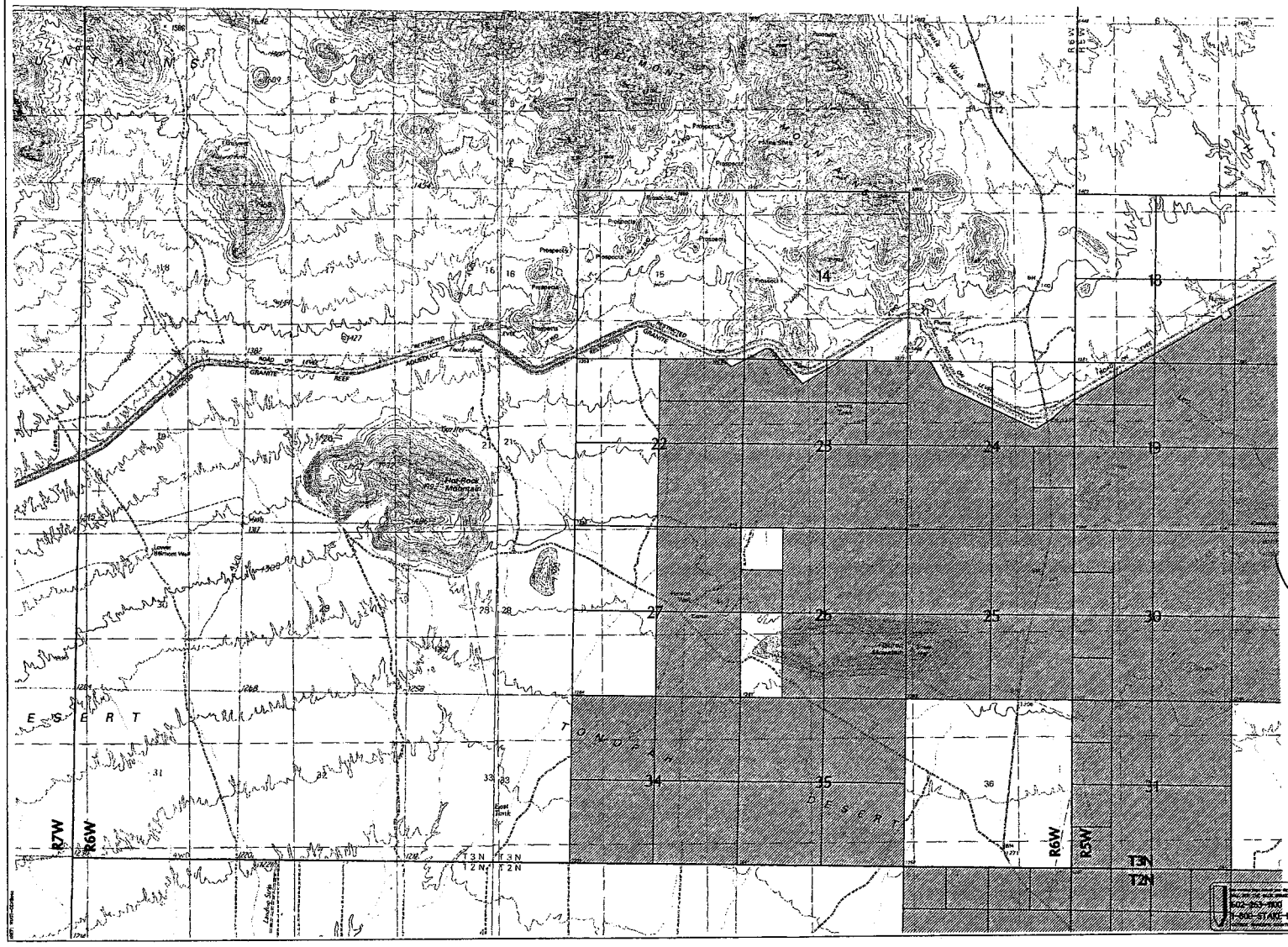
SHEET 1 OF 6



T2N, R6W

JMI & ASSOCIATES
CONSULTING CIVIL ENGINEERS

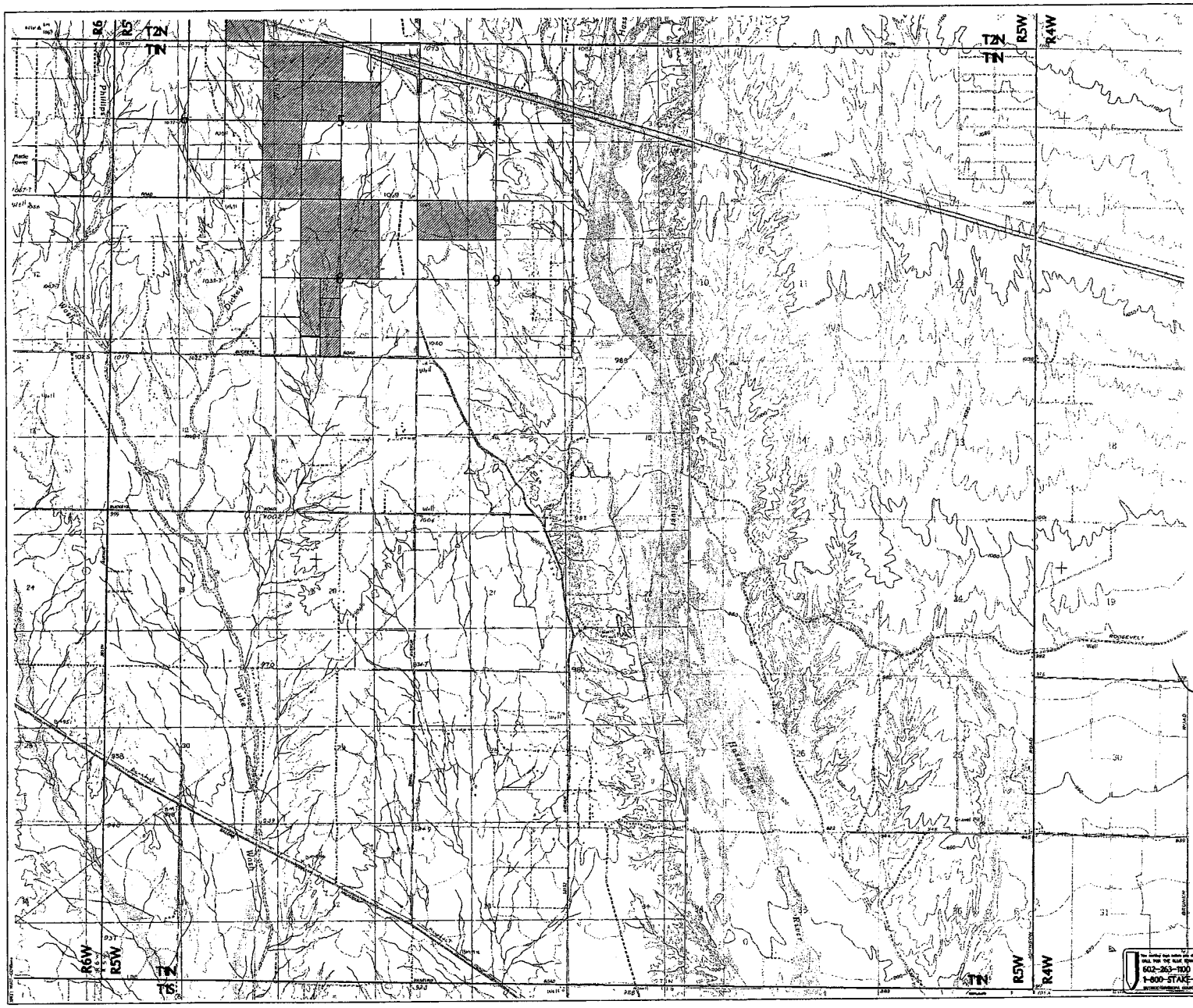
DSN: CKD: DATE: SCALE HORZ: VERT:	Global Water Resources CC&N Expansion Water Utility of Greater Tonopah	JOB# SHEET 2 OF 6



T3N, R6W

JMI & ASSOCIATES
CONSULTING CIVIL ENGINEERS

DSN: mk CKD: DATE: 8/08/06 SCALE HORZ: NTS VERT:	Global Water Resources CC&N Expansion Water Utility of Greater Tonopah	JOB# SHEET 3 OF 6



REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21071
MARY F.
KENNEDY
Date Signed 9/18/06
ARIZONA, U.S.A.

T1N, R5W

JMI & ASSOCIATES
CONSULTING CIVIL ENGINEERS
8900 E. RAIN BLVD SUITE 100 SCOTTSDALE, AZ. 85260 480/483-1400

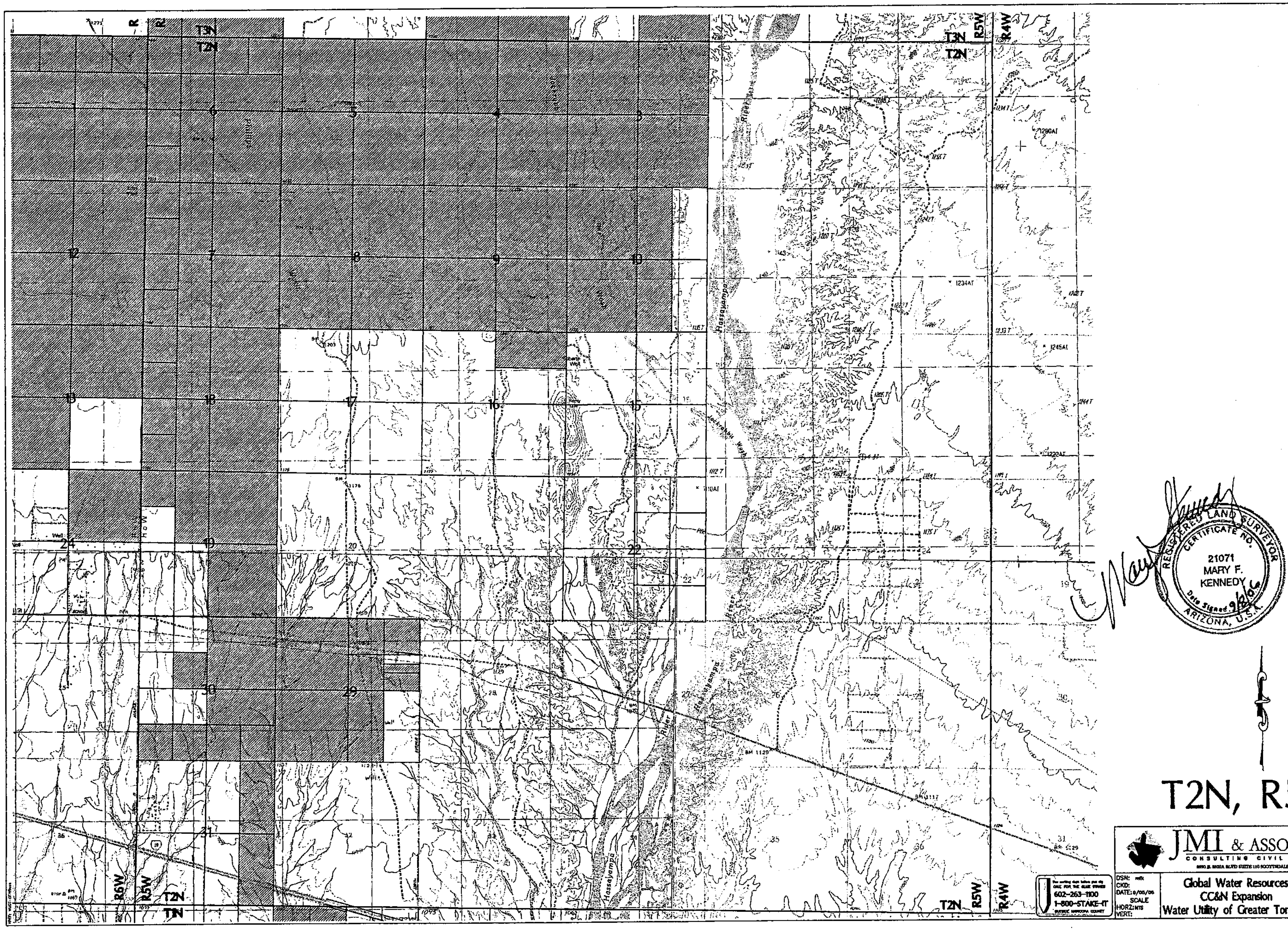
BEFORE YOU DIG CALL THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
ARIZONA BLUE STAKES, INC.

DSN: mfk
CKD:
DATE: 9/06/06
SCALE
HORZ: NTS
VERT:

Global Water Resources
CC&N Expansion
Water Utility of Greater Tonopah

JOB#

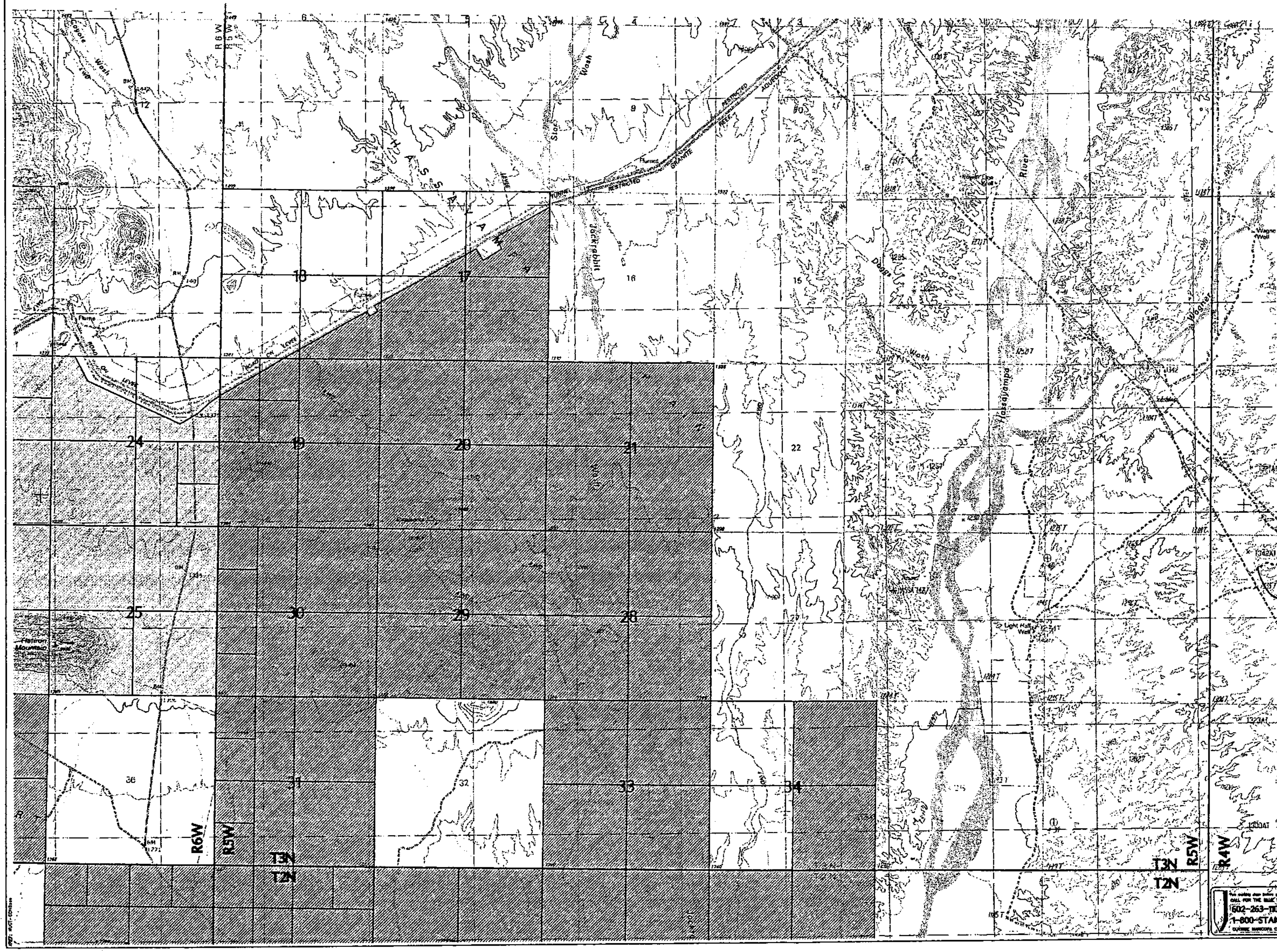
SHEET 4 OF 6

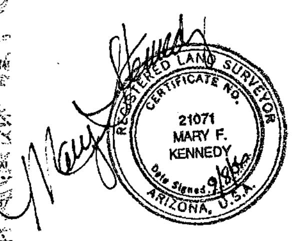


T2N, R5W

JMI & ASSOCIATES
CONSULTING CIVIL ENGINEERS

DSN:	Global Water Resources CC&N Expansion Water Utility of Greater Tonopah	JOB#
CKD:		
DATE:		SHEET 5 OF 6
SCALE HORZ: NTS VERT:		





T3N, R5W

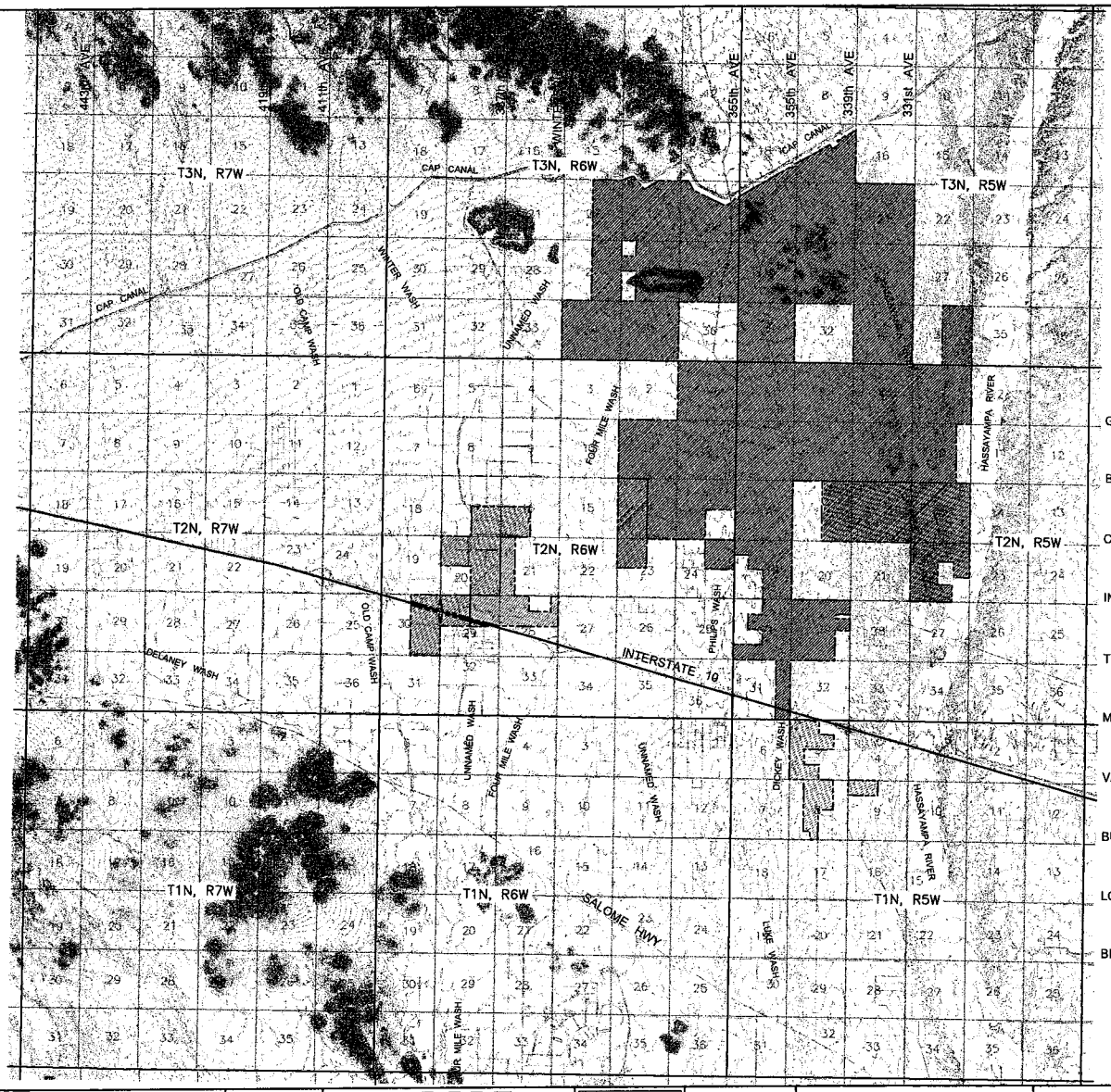
JMI & ASSOCIATES
CONSULTING CIVIL ENGINEERS

602-263-1100
1-800-STAKE-IT

DSN: mfk CKD: DATE: 6/07/06 SCALE HORZ: NTS VERT:	Global Water Resources CC&N Expansion Water Utility of Greater Tonopah	JOB# SHEET 6 OF 6

EXHIBIT

"3"



N.

0 5000 10000
APPROX SCALE IN FEET

LEGEND - SUBDIVISIONS

- BELMONT
- COPPER LEAF
- SILVER WATER RANCH
- 339th AVENUE PROJECT
- DESERT WHISPER
- HASSAYAMPA RANCH

REVISIONS			
NO	DATE	BY	DESCRIPTION

File Name: CCN-WUGT-Subdiv.dwg

Designed By CHC
Drawn By CDH
Checked By CHC

DSWA
DAMON S. WILLIAMS ASSOCIATES, LLC

PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING

GLOBAL WATER
RELIABLE - RENEWABLE - REUSABLE

GLOBAL WATER
WATER UTILITY
OF GREATER TONOPAH

CC&N EXTENSION
SUBDIVISIONS SERVED

DSWA Project No 060010
Date SEPTEMBER 2006
Dwg No
Sht No of

Dwg File: U:\CADD\060010\Dwg\CCN-WUGT-Subdiv.dwg Modified: Sep 15, 2006 - 6:53am PDT
2006 - 7:13am

EXHIBIT

"4"

LKY Development Company, Inc.

5040 E. Shea Blvd.
Suite 254
Scottsdale, Arizona 85254
(480) 951-1281
FAX: (480) 483-2736

May 9, 2006

Ms. Cindy Liles
Hassayampa Utility Company
21410 N 19th Ave, #201
Phoenix, AZ 85027

RE: Belmont

Dear Ms. Liles:

As you are aware we own Belmont, an approximately 20,000 acre Master planned Community that has signed a letter of intent with your parent company to provide water and wastewater services to our development.

Belmont is not currently in any utility company's Certificate of Convenience and Necessity nor is Belmont located within the municipal boundaries of Buckeye, Arizona. We intend to develop in the county and as such desire a reputable private utility to provide water and wastewater services.

Last year we put out a detailed request for proposal to the top private utility providers in Arizona and the Western United States. We narrowed the list, interviewed our top three and from those interviews chose you. Your capital structure, personnel and success in newly developing areas such as Maricopa, Arizona, were among the factors that influenced our decision.

We do not object and actually encourage you to include us in the integrated, regional 208 plan for the area west of the Hassayampa River. We are encouraged by your mandate to maximize water conservation by requiring the developments to use reclaimed water at a minimum for golf courses, school grounds and areas owned and maintained by home owner associations. We are also interested in your concept of installing two meters at every home; one for potable water and one for reclaimed water for exterior purposes. We look forward to learning more about this process.

Hopefully everyone will see the greater benefit of developing regional infrastructure rather than having smaller land owners and developers propose independent solutions. Obviously we believe you are the best company to execute these regional plans.

William D. Ring

William D. Ring
WDR/fh

Legal Description

PARCEL NO. 3:

Lots 1 through 4, inclusive; the South half of the North half and the South half of Section 4, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 4:

Lots 1 through 4, inclusive, the South half of the North half and the South half of Section 5, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 5:

Lots 1 through 7, inclusive; the South half of the Northeast quarter, the Southeast quarter of the Northwest quarter, the Southeast quarter and the East half of the Southwest quarter of Section 6, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 6:

Lots 1 through 4, inclusive; the East half of the West half and the East half of Section 7, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 7:

All of Section 8, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 8:

All of Section 9, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 9:

The West half of the East half and the West half of Section 10, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 10:

Lots 1 through 4, inclusive; the East half of the West half and the East half of Section 18, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 11:

Lot 1, the East half of the Northwest quarter and the East half of Section 19, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 12:

Lot 1, Lots 4 through 7, inclusive; the Southeast quarter of the Northeast quarter, the South half of the Southwest quarter and the Southeast quarter of Section 17, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 13:

Lots 9 and 10 of Section 18, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 14:

Lots 2 through 6, inclusive; the Southeast quarter of the Northwest quarter, the East half of the Southwest quarter and the East half of Section 19, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 15:

All of Section 20, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 16:

All of Section 21, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 17:

All of Section 28, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 18:

All of Section 29, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 19:

Lots 1 through 4, inclusive; the East half of the West half and the East half of Section 30, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 20:

Lots 1 through 4, inclusive; the East half of the West half and the East half of Section 31, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 21:

All of Section 33, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 22:

The East half of Section 34, Township 3 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 23:

Lots 1 through 4, inclusive; the South half of the North half and the South half of Section 1, Township 2 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 24:

All of Section 11, Township 2 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 25:

All of Section 12, Township 2 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 26:

The North half and the Southwest quarter of Section 13, Township 2 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 27:

The Northwest quarter and the Southeast quarter of Section 14, Township 2 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 28:

The Northeast quarter of Section 24, Township 2 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 29:

Lot 3 of Section 14, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 30:

The South half of the Northeast quarter and the Southeast quarter of Section 22, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 31:

Lots 1 through 3, inclusive; the Northeast quarter of the Northeast quarter, the South half of the North half and the South half of Section 23, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 32:

Lots 2 through 4, inclusive, the South half of the Northwest quarter and the South half of Section 24, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 33:

All of Section 25, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 34:

The East half and the East half of the West half of Section 26, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 35:

The East half of Section 27, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 36:

All of Section 34, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 37:

All of Section 35, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 38:

The West half, the West half of the East half, the Northeast quarter of the Northeast quarter, the South half of the North half of the Southeast quarter of the Northeast quarter and the South half of the Southeast quarter of the Northeast quarter of Section 29, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

EXCEPT COMMENCING at the Northeast corner of said Northeast quarter of the Northeast quarter of Section 29;

THENCE South 00 degrees 11 minutes 16 seconds West, along the East line of said Northeast quarter of the Northeast quarter, 1291.13 feet to the POINT OF BEGINNING;

THENCE continuing South 00 degrees 11 minutes 16 seconds West, 26.41 feet;

THENCE North 89 degrees 25 minutes 24 seconds West, along the South line of said Northeast quarter of the Northeast quarter, 808.80 feet;

THENCE North 01 degrees 25 minutes 28 seconds West, 101.26 feet;

THENCE South 84 degrees 09 minutes 42 seconds East, 815.59 feet to the POINT OF BEGINNING.

PARCEL NO. 39:

The Northeast quarter, the Southeast quarter of the Northwest quarter, the North half of the Southeast quarter and the Southeast quarter of the Southeast quarter of Section 30, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 40:

The East half of the East half of Section 31, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 41:

The Southwest quarter of the Northwest quarter of Section 26, Township 3 North, Range 6 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

PARCEL NO. 42:

GLO Lot (fractional Southwest quarter of the Southwest quarter) and the Southeast quarter of the Southwest quarter and the Southwest quarter of the Southeast quarter of Section 30, Township 2 North, Range 5 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

SIERRA NEGRA RANCH LLC

SNR MANAGEMENT LLC

May 8, 2006

Cindy Liles
Global Water Management, LLC
21410 N. 19th Avenue, Suite 201
Phoenix, AZ 85027

Re: Hassayampa Utility Company, Inc.

Dear Ms. Liles:

As you know, I represent the owners of the Sierra Negra Ranch, a 2,753 acre area of land south and north of Interstate 10 near Tonopah, Arizona, more specifically described in the legal descriptions attached to this letter. We understand that Hassayampa Utility Company is willing to provide sewer service to the Sierra Negra Ranch lands in contemplation of future development. The proposed service is part of a plan to provide regional integrated water and sewer service to this area, with an emphasis on the production and re-use of high-quality effluent, similar to Global's subsidiaries' existing service structure in the Maricopa area.

We support Hassayampa Utility Company's plan to include the Sierra Negra Ranch lands in the Maricopa Association of Government's 208 Plan Amendment Application.

Sincerely,

Sierra Negra Ranch LLC

By: SNR Management LLC
By: Becker SNR LLC
By: _____
Barry W. Becker, Manager

Tel: 702 - 477 0700 • Fax: 702 - 870 4976 • 50 South Jones Suite 101, Las Vegas, NV 89107

May 1, 2006

LEGAL DESCRIPTION FOR
SILVER WATER RANCH

PARCEL NO. 1:

The West Half of Section 21, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona;

EXCEPT the East 200 acres thereof.

PARCEL NO. 2:

The Northwest Quarter of Section 28, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona.

PARCEL NO. 3:

The Northeast Quarter of Section 29, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona;

EXCEPT that portion of the South Half of the Northeast Quarter of Section 29, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona, which lies within a strip of land 308 feet in width, being 154 feet wide on each side of the following described line:

BEGINNING at a point on the West line of said Section 29, which point bears South 0 degrees 00 minutes 38 seconds West, 1476.85 feet from the Northwest corner of said Section 29;

Thence South 75 degrees 04 minutes 23 seconds East, 5470.76 feet to a point on the East line of said Section 29, which point bears South 0 degrees 03 minutes 23 seconds West, 243.12 feet from the East Quarter Corner of said Section 29, as conveyed to State of Arizona by and through its Highway Commission by Warranty Deed recorded in Docket 6586, Page 69.

PARCEL NO. 4:

The West Half of the Southwest Quarter of the Northeast Quarter; and

The West Half of the Southeast Quarter of the Southwest Quarter of the Northeast Quarter; and

Legal Description for
Silver Water Ranch
May 1, 2006

The West Half of the Northeast Quarter of the Southwest Quarter of the Northeast Quarter of Section 28, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona.

PARCEL NO. 5:

The Southeast Quarter of the Northeast Quarter; and

The Southeast Quarter of the Northeast Quarter of the Northeast Quarter of Section 28, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona.

PARCEL NO. 6:

The Northeast Quarter of the Northeast Quarter of the Northeast Quarter of Section 28, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona.

PARCEL NO.7:

The East Half of the Southeast Quarter of the Southwest Quarter of the Northeast Quarter; and

The East Half of the Northeast Quarter of the Southwest Quarter of the Northeast Quarter of Section 28, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona.

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
36562
FRED W.
KLEIN III
Date Signed 5/2/06
ARIZONA, U.S.A.

May 1, 2006

LEGAL DESCRIPTION FOR
SILVER SPRINGS RANCH

PARCEL NO. 1:

The West Half of the Northeast Quarter and the North Half of the Southeast Quarter of Section 7, Township 1 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona;

EXCEPT that portion of the following described parcel of land lying within a 200 foot strip, being 100 feet on each side of the following described centerline:

BEGINNING at a point North 07 degrees 7 minutes 30 seconds East, 1223.03 feet from the Southeast Corner of Section 16, Township 1 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona;

Thence North 56 degrees 07 minutes 30 seconds West, 1783.55 feet to the Point of Curve of a 0 degrees 15 minutes curve to the right, having a radius of 22,918.3 feet;

Thence along the arc of said curve, a distance of 433.33 feet to the Point of Tangent of said curve;

Thence North 55 degrees 02 minutes 30 seconds West, 9949.29 feet to the Point of Curve of a 4 degrees 00 minutes curve to the left, having a radius of 1432.69 feet;

Thence along the arc of said curve, 417.29 feet to the Point of Tangent of said curve;

Thence North 71 degrees 44 minutes West, 4963.49 feet to the Point of Curve of a 2 degrees 00 minutes curve to the right having a radius of 2864.79 feet;

Thence along the arc of said curve, 489.17 feet to the Point of Tangent of said curve;

Thence North 61 degrees 57 minutes West, 211.49 feet to a point on the West line of Section 7, Township 1 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona, said point being South 0 degrees 16 minutes West, 394.03 feet from the Northwest corner of said Section 7;

The West Half of the Northeast Quarter of Section 7, Township 1 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona, as conveyed to MARICOPA COUNTY, a political subdivision of the State of Arizona by Quit Claim Deed recorded in Docket 2747, Page 161.

Legal Description for
Silver Springs Ranch
May 1, 2006

PARCEL NO. 2:

All of Section 6, Township 1 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona.

PARCEL NO. 3:

The South Half and the Northwest Quarter of Section 31, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona;

EXCEPT from Lots 1 and 2 and the East Half of the Northwest Quarter thereof, all minerals as reserved unto the United States in the recorded Patent to said land recorded in Docket 2623, Page 394.

PARCEL NO. 4:

All of Section 32, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona;

EXCEPT all minerals as reserved unto the State of Arizona in Book 334 of Deeds, Page 248 (as to the Southeast Quarter) and in Book 360 of Deeds, Pages 10 (as to the North Half and the Southwest Quarter).

PARCEL NO. 5:

The Southwest Quarter of Section 33, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona.

PARCEL NO. 6:

The Northeast Quarter of Section 31, Township 2 North, Range 6 West of the Gila and Salt River Meridian, Maricopa County, Arizona.

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
36562
FRED W.
KLEIN III
Date Signed - 5/2/06
ARIZONA, U.S.A.

339th & I-10, LLC.
12438 N. Scottsdale Road
Scottsdale, Arizona 85254

May 10, 2006

Cindy Liles
Hassayampa Utility Company
21410 N. 19th Avenue
Suite 201
Phoenix, Arizona 85027

Re: Sewer, Water, and Reclaimed Water Service

Cindy,

As we have progressed in our research and development for our project located at 339th Avenue and I-10, it has become readily apparent that your new company Hassayampa Utility Company is the preeminent provider for coordinated water, wastewater, and reclaimed water service for the area. We recognize the necessity for having all three services provided on a regional basis and fully welcome your entrance into this region as a legitimate regional provider.

We also defer back to our other dealings with your company and its surrogates and know that those have been successful in the past. Your presence in the Maricopa Submarket has made a big impact in the overall success in the region.

We, therefore request that we be included in your submittal for the new MAG 208 in the region for this year. We would like to be an integral part of any future plans your company may have in the region.

Thank you,

Michael C. Anderson
Managing Member 339th & I-10, LLC

New World Properties, Inc.

May 10, 2006

Cindy Liles
Hassayampa Utility Company
21410 N. 19th Avenue
Suite 201
Phoenix, AZ 85027

RE: Sewer, Water, and Reclaimed Water Service

Ms. Liles,

As we have progressed with the entitlement for our project at 395th & I-10, referred to as Copperleaf, it has become apparent that Hassayampa Utility Company provides a viable option for coordinated water, wastewater, and reclaimed water service for the area. We recognize the necessity for having all three services provided on a regional basis and welcome your entrance into this area as a regional provider.

We, therefore request to be included in your submittal for the MAG 208 filing in the region.

Regards,

Mark C. Brown
President, New World Properties, Inc.

706 E. Bell Rd. • Suite 200 • Phoenix, Arizona 85022 • Phone: (602) 788-7097 • Fax: (602) 992-0910

LEGAL DESCRIPTION

PARCEL NO. 1

THE NORTH HALF OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL NO. 2

THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL NO 3

THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPT THE NORTH 282.91 FEET OF THE SOUTH 305.26 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA; AND

EXCEPT THE SOUTH 282.91 FEET OF THE NORTH 478.97 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA; AND

EXCEPT ALL MINERAL DEPOSITS AND RIGHTS AS RESERVED BY STATE OF ARIZONA IN DEED RECORDED AS BOOK 360 OF DEEDS, PAGE 10, RECORDS OF MARICOPA COUNTY, ARIZONA.

PARCEL NO. 6

THE SOUTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPT ALL MINERAL DEPOSITS AND RIGHTS AS RESERVED BY STATE OF ARIZONA IN DEED RECORDED AS BOOK 360 OF DEEDS, PAGE 10, RECORDS OF MARICOPA COUNTY, ARIZONA

PARCEL NO 7

THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL NO. 8

THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL NO. 9

THE SOUTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL NO 10

THE EAST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S00°00'05"W, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30; THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E=S75°04'23"E; THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29; AND

EXCEPT THEREFROM THOSE PORTIONS LYING WITH THE FOLLOWING DESCRIBED PARCELS OF LAND:

TRACT NO. 1

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30; THENCE N89°59'22"W, 33.00 FEET; THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY); THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET; THENCE N04°29'47"W, 381.77 FEET; THENCE N09°51'36"W, 507.51 FEET; THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

TRACT NO. 2

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS N00°00'38"E, 2805.94 FEET FROM THE CORNER COMMON TO SECTIONS 29, 30, 31 AND 32; THENCE N89°59'22"W, 33.00 FEET; THENCE N07°33'28"W, 888.33 FEET TO THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY); THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET; THENCE S08°19'27"W, 809.17 FEET; THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING; AND

EXCEPT THEREFROM ANY PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30; THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET; THENCE SOUTH 90 FEET; THENCE WEST 50 FEET; THENCE SOUTH 1098 FEET; THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING.

PARCEL NO 11

THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30; THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET; THENCE SOUTH 90 FEET; THENCE WEST 50 FEET; THENCE SOUTH 1098 FEET; THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST; THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING.

EXCEPT THAT PORTION LYING WITH THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30; THENCE N89°59'22"W, 33.00 FEET; THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY); THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET; THENCE N04°29'47"W, 381.77 FEET; THENCE N09°51'36"W, 507.51 FEET; THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

PARCEL NO. 12

THE WEST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE.

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S00°00'05"W, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30; THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E=S75°04'23"E; THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST; THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29.

PARCEL NO. 13

THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THAT PORTION OF SAID EAST HALF OF THE NORTHWEST QUARTER OF SAID SECTION 29 WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SAID SECTION 29, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 29; THENCE S75°04'23"E, 5470.76 FEET TO A POINT ON THE EAST LINE OF SAID SECTION 29, WHICH POINT BEARS S00°03'23"W, 243.12 FEET FROM THE EAST QUARTER CORNER OF SAID SECTION 20.

PARCEL NO. 14

THE WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPT THEREFROM THOSE PORTIONS LYING WITH THE FOLLOWING DESCRIBED PARCELS OF LAND:

TRACT NO. 1

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30; THENCE N89°59'22"W, 33.00 FEET; THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY); THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET; THENCE N04°29'47"W, 381.77 FEET; THENCE N09°51'36"W, 507.51 FEET; THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

TRACT NO. 2

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS N00°00'38"E, 2805.94 FEET FROM THE CORNER COMMON TO SECTIONS 29, 30, 31 AND 32; THENCE N89°59'22"W, 33.00 FEET; THENCE N07°33'28"W, 888.33 FEET TO THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY); THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET; THENCE S08°19'27"W, 809.17 FEET; THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING; AND

EXCEPT THEREFROM ANY PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND;

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30; THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET; THENCE SOUTH 90 FEET; THENCE WEST 50 FEET; THENCE SOUTH 1098 FEET; THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING.

AREÁD.

April 25, 2006

Mr. John Mihilik
President
Water Utility of Greater Tonopah
3800 N. Central Ave.
Suite 770
Phoenix, Arizona 85012

RE: Water Service for Desert Whisper Development

Dear Mr. Mihlik,

AREÁD would like to officially request Water service from the Water Utility of Greater Tonopah for our Desert Whisper development. Half of our property is within your existing CC&N and we would like you to extend your CC&N to serve our entire 960 acre property, which is Section 23 and the West Half of Section 14, T2N, R6W. We plan on developing the project into approximately 2,900 homes and 40 acres of commercial uses, beginning in 2008.

Let me know what addition information you will need to process this request.

Sincerely,

Larry Tysiac

Larry Tysiac, P.E., R.L.S.
Vice President of Planning and Engineering

CC: Nariman Afkhami

15051 N Kierland Boulevard, Suite 200 | Scottsdale, Arizona 85254 | areadinc.com | v. 480-998-5440 | f. 480-998-5442

EXHIBIT

"5"

STATE OF ARIZONA

Office of the

CORPORATION COMMISSION

CERTIFICATE OF GOOD STANDING

To all to whom these presents shall come, greeting:

I, Brian C. McNeil, Executive Director of the Arizona Corporation Commission, do hereby certify that

******WATER UTILITY OF GREATER TONOPAH, INC.******

a domestic corporation organized under the laws of the State of Arizona, did incorporate on October 17, 1983.

I further certify that according to the records of the Arizona Corporation Commission, as of the date set forth hereunder, the said corporation is not administratively dissolved for failure to comply with the provisions of the Arizona Business Corporation Act; and that its most recent Annual Report, subject to the provisions of A.R.S. sections 10-122, 10-123, 10-125 & 10-1622, has been delivered to the Arizona Corporation Commission for filing; and that the said corporation has not filed Articles of Dissolution as of the date of this certificate.

This certificate relates only to the legal existence of the above named entity as of the date issued. This certificate is not to be construed as an endorsement, recommendation, or notice of approval of the entity's condition or business activities and practices.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the Arizona Corporation Commission. Done at Phoenix, the Capital, this 29th Day of September, 2006, A. D.

Executive Director

Order Number: 93877

EXHIBIT

"6"

COMPANY NAME	Water Utility of Greater Tonopah, Inc.

BALANCE SHEET

Acct .No.	ASSETS	BALANCE AT BEGINNING OF YEAR	BALANCE AT END OF YEAR
	CURRENT AND ACCRUED ASSETS		
131	Cash	$ 3,384	$ 2,757
134	Working Funds		
135	Temporary Cash Investments	2,417	3,943
141	Customer Accounts Receivable	6,246	3,565
146	Notes/Receivables from Associated Companies	0	0
151	Plant Material and Supplies		
162	Prepayments	2,660	750
174	Miscellaneous Current and Accrued Assets	38,556	25,344
	TOTAL CURRENT AND ACCRUED ASSETS	$ 53,263	$ 36,359
	FIXED ASSETS		
101	Utility Plant in Service	$ 1,219,293	$ 1,303,716
103	Property Held for Future Use		
105	Construction Work in Progress	7,949	145,650
108	Accumulated Depreciation – Utility Plant	(503,944)	(563,756)
121	Non-Utility Property		
122	Accumulated Depreciation – Non Utility		
	TOTAL FIXED ASSETS	$ 723,299	$ 885,610
	TOTAL ASSETS	**$ 776,561**	**$ 921,969**

NOTE: The Assets on this page should be equal to **Total Liabilities and Capital** on the following page.

COMPANY NAME	Water Utility of Greater Tonopah, Inc.

BALANCE SHEET (CONTINUED)

Acct. No.	LIABILITIES	BALANCE AT BEGINNING OF YEAR	BALANCE AT END OF YEAR
	CURRENT LIABILITES		
231	Accounts Payable	$ 0	$ 56,367
232	Notes Payable (Current Portion)	3,628	3,804
234	Notes/Accounts Payable to Associated Companies	22,217	105,862
235	Customer Deposits	3,570	4,710
236	Accrued Taxes	2,546	3,825
237	Accrued Interest		
241	Miscellaneous Current and Accrued Liabilities	0	5,830
	TOTAL CURRENT LIABILITIES	$ 31,961	$ 180,398
	LONG-TERM DEBT (Over 12 Months)		
224	Long-Term Notes and Bonds	$ 89,535	$ 85,734
	DEFERRED CREDITS		
251	Unamortized Premium on Debt	$	$
252	Advances in Aid of Construction	511,701	452,535
255	Accumulated Deferred Investment Tax Credits		
271	Contributions in Aid of Construction	10,794	73,118
272	Less: Amortization of Contributions	(291)	(1,550)
281	Accumulated Deferred Income Tax	0	9,137
	TOTAL DEFERRED CREDITS	$ 522,204	$ 533,240
	TOTAL LIABILITIES	$ 643,700	$ 909,832
	CAPITAL ACCOUNTS		
201	Common Stock Issued	$ 13,500	$ 13,500
211	Paid in Capital in Excess of Par Value	643,183	643,183
215	Retained Earnings	(523,822)	(534,087)
218	Proprietary Capital (Sole Props and Partnerships)		
	TOTAL CAPITAL	$ 132,861	$ 122,596
	TOTAL LIABILITIES AND CAPITAL	**$ 776,561**	**$ 921,968**

COMPANY NAME	Water Utility of Greater Tonopah, Inc.

COMPARATIVE STATEMENT OF INCOME AND EXPENSE

Acct. No.	OPERATING REVENUES	PRIOR YEAR	CURRENT YEAR
461	Metered Water Revenue	$ 146,147	$ 160,826
460	Unmetered Water Revenue		
474	Other Water Revenues	5,566	4,888
	TOTAL REVENUES	$ 151,713	$ 165,714
	OPERATING EXPENSES		
601	Salaries and Wages	$ 21,292	$ 23,938
610	Purchased Water		
615	Purchased Power	9,551	10,698
618	Chemicals		
620	Repairs and Maintenance	2,044	8,191
621	Office Supplies and Expense	1,647	1,792
630	Outside Services	30,060	39,872
635	Water Testing	5,165	8,130
641	Rents	706	1,670
650	Transportation Expenses	0	1,088
657	Insurance – General Liability	2,822	2,273
659	Insurance - Health and Life	2,343	2,896
666	Regulatory Commission Expense – Rate Case	0	3,300
675	Miscellaneous Expense	2,129	2,959
403	Depreciation Expense	52,776	58,553
408	Taxes Other Than Income	2,026	2,330
408.11	Property Taxes	4,633	12,231
409	Income Tax	5,082	(6,100)
	TOTAL OPERATING EXPENSES	$ 142,276	$ 173,821
	OPERATING INCOME/(LOSS)	$ 9,437	$ (8,107)
	OTHER INCOME/(EXPENSE)		
419	Interest and Dividend Income	$	$
421	Non-Utility Income	1,427	2,060
426	Miscellaneous Non-Utility Expenses		
427	Interest Expense	(4,077)	(4,218)
	TOTAL OTHER INCOME/(EXPENSE)	$ (2,650)	$ (2,158)
	NET INCOME/(LOSS)	**$ 6,787**	**$ (10,265)**

EXHIBIT

"7"

GLOBAL WATER

MEMORANDUM

Date: September 5, 2006

Re: Water Utility of Greater Tonopah Service Area Extension
Water Service

This memorandum defines the service requirements of the extension of the **Water Utility of Greater Tonopah (WUGT)** Service Area CC&N for water. The WUGT currently has an approved service area of approximately 65 sections and serves 305 customers. Growth in WUGT's service area has been limited to date, but with the advent of the recent housing boom for planned communities, there are a number of large master planned developments that are in rather aggressive planning and permitting, that will impact our existing service area and have created the urgency to extend our service area. The extension service area includes approximately 22,127 acres (35 sections) with an estimated 88,264 additional dwelling units. As seen in the attached exhibits, the extension areas include the Belmont, Desert Willow and 339th Avenue developments, and a portion of Copperleaf, Silver Water Ranch and Hassayampa Ranch (the balance is already in the existing CC&N), currently in development master planning with Maricopa County. All of these developments have requested service from WUGT or its parent company, Global Water. Proposed water infrastructure is shown along with the location and relationship to the existing CC&N service area system. Hassayampa Utility Company (HUC), also owned by Global Water, currently has a CC&N for all of Hassayampa Ranch development and has filed an extension SW-20422-06-0566 to serve the remainder of the developments included in WUGT's extension, with the exception of Desert Willow which has not requested wastewater service from HUC.

Absorption Rates

For years 1 and 2, 200 dwelling units per month are anticipated, or 2,400 per year. For years 3-5, 300 dwelling units per month are anticipated, or 3,600 per year. Note that the buildout dwelling units are based on the master planning completed for the Belmont, Copperleaf, Silver Water Ranch, Desert Willow, Hassayampa Ranch and 339th Avenue developments

Water Servicing Approach

At 2,400 dwelling units per year and 245 GPD/DU, it is expected that the Year 1 flow will be 0.59 MGD, 3.82 (approximately 4) MGD after 5 years, and 22 MGD at buildout. The WUGT currently has wells, necessary treatment, and distribution to its existing customers, and these facilities will be utilized in the overall water master planning to serve these new developments. Additionally, WUGT will construct centralized groundwater distribution centers and treatment beginning in year one, as well as a CAP surface water treatment plant in Belmont in Year 4, to meet the needs of this extension area with active development.

The location and construction of wells, treatment and distribution centers are dependant on the rate and location of development. In addition to the existing wells located within and serving existing WUGT customers, other existing wells in the area will be evaluated to determine their suitability for use or rehabilitation for use. Where suitable existing wells do not exist, WUGT will work with registered hydrologists to identify locations for new wells as well as treatment that may be required to meet the State Drinking Water Standards. For the purposes of our cost estimation and based on water quality data available from the developers' planning documents, arsenic treatment has been assumed to be required for 70% of the groundwater developed into potable water.

21410 North 19th Avenue, Suite 201, Phoenix, Arizona 85027
Phn 623.580.9600
Fax 623.580.9659
gwresources.com

GLOBAL WATER

Due to the proximity of the CAP Canal and the prudence of providing a renewable water supply in addition to groundwater, the first phase of a surface water treatment plant is projected to begin construction Year 4 and 5. At buildout the surface water plant will provide half the water production demand, 11 MGD.

A table of infrastructure to be added to serve the extension areas is included. The total, build-out estimated cost of this infrastructure is $143 million. Please see the attached spreadsheets with the breakdown of costs for each of years one through five, as follows:

Year 1: $3.9 M
Year 2: $5.7 M
Year 3: $10.3M
Year 4: $11.1 M
Year 5: $8.8 M

21410 North 19th Avenue, Suite 201, Phoenix, Arizona 85027

Phn 623.580.9600
Fax 623.580.9659

gwresources.com

EXHIBIT

"8"

Backbone Water Infrastructure Needs in WUGT Extension

NUMBER OF DU'S 88,264	LF	Unit Cost	Total
24" WATER MAIN	49,652	$76	$3,773,552
16" WATER MAIN	328,067	$48	$15,747,216
BOOSTER STATIONS	**MGD**		
0.584 gpm/du=	74.226	$125,000	$9,278,312
PRODUCTION	**MGD**		
0.17 gpm/du=	11		
Wells	11	$250,000	$2,750,000
Arsenic Treatment	8	$1,500,000	$11,343,689
Surface Water Trmt	11	$4,800,000	$51,856,865
STORAGE	**MGD**		
355 gpd peak mo demand =	31	less	
Firm Capacity =	11	=	
Storage Requirement	21	plus	
Add 0.5 MG fire flow	0.5	=	
	21	$2,300,000	$48,369,475
Total Cost			**$143,119,109**
Year 1			$3,923,776
Year 2			$5,740,096
Year 3			$10,298,088
Year 4			$11,111,208
Year 5			$8,840,808

9/14/2006

YEAR 1 - Backbone Water Infrastructure Needs in WUGT Extension

NUMBER OF DU'S 2,400	LF	Unit Cost	Total	
24" WATER MAIN		$76	$0	
16" WATER MAIN	10,560	$48	$506,880	
BOOSTER STATIONS	**MGD**			
0.584 gpm/du=	2.0	$125,000	$250,000	
PRODUCTION	**MGD**			
0.17 gpm/du=	0.59			
Wells	0.59	$250,000	$250,000	Note: min well cost $250,000
Arsenic Treatment	0.41	$1,500,000	$616,896	
Surface Water Trmt	0	$4,800,000	$0	
STORAGE	**MGD**			
355 gpd peak mo demand =	0.85	less		
Firm Capacity =	0.59	=		
Storage Requirement	0.26	plus		
Add 0.5 MG fire flow	0.5	=		
	1	$2,300,000	$2,300,000	
Total Cost			**$3,923,776**	

YEAR 2 - Backbone Water Infrastructure Needs in WUGT Extension

NUMBER OF DU'S 2,400	LF	Unit Cost	Total	
24" WATER MAIN	10,560	$76	$802,560	
16" WATER MAIN	31,680	$48	$1,520,640	
BOOSTER STATIONS	**MGD**			
0.584 gpm/du=	2.0	$125,000	$250,000	
PRODUCTION	**MGD**			
0.17 gpm/du=	0.59			
Wells	0.59	$250,000	$250,000	Note: min well cost $250,000
Arsenic Treatment	0.41	$1,500,000	$616,896	
Surface Water Trmt	0	$4,800,000	$0	
STORAGE	**MGD**			
355 gpd peak mo demand =	0.85	less		
Firm Capacity =	0.59	=		
Storage Requirement	0.26	plus		
Add 0.5 MG fire flow	0.5	=		
	1	$2,300,000	$2,300,000	
Total Cost			**$5,740,096**	

YEAR 3 - Backbone Water Infrastructure Needs in WUGT Extension

NUMBER OF DU'S 3,600	LF	Unit Cost	Total	
24" WATER MAIN	15,840	$76	$1,203,840	
16" WATER MAIN	21,120	$48	$1,013,760	
BOOSTER STATIONS	**MGD**			
0.584 gpm/du=	3.0	$125,000	$375,000	
PRODUCTION	**MGD**			
0.17 gpm/du=	0.88			
Wells	0.88	$250,000	$250,000	Note: min well cost $250,000
Arsenic Treatment	0.62	$1,500,000	$925,344	
Surface Water Trmt	0	$4,800,000	$4,230,144	Note: 1st phase surface water plant = 2.5 MGD
STORAGE	**MGD**			
355 gpd peak mo demand =	1.28	less		
Firm Capacity =	0.88	=		
Storage Requirement	0.40	plus		
Add 0.5 MG fire flow	0.5	=		
	1	$2,300,000	$2,300,000	
Total Cost			**$10,298,088**	

YEAR 4 - Backbone Water Infrastructure Needs in WUGT Extension

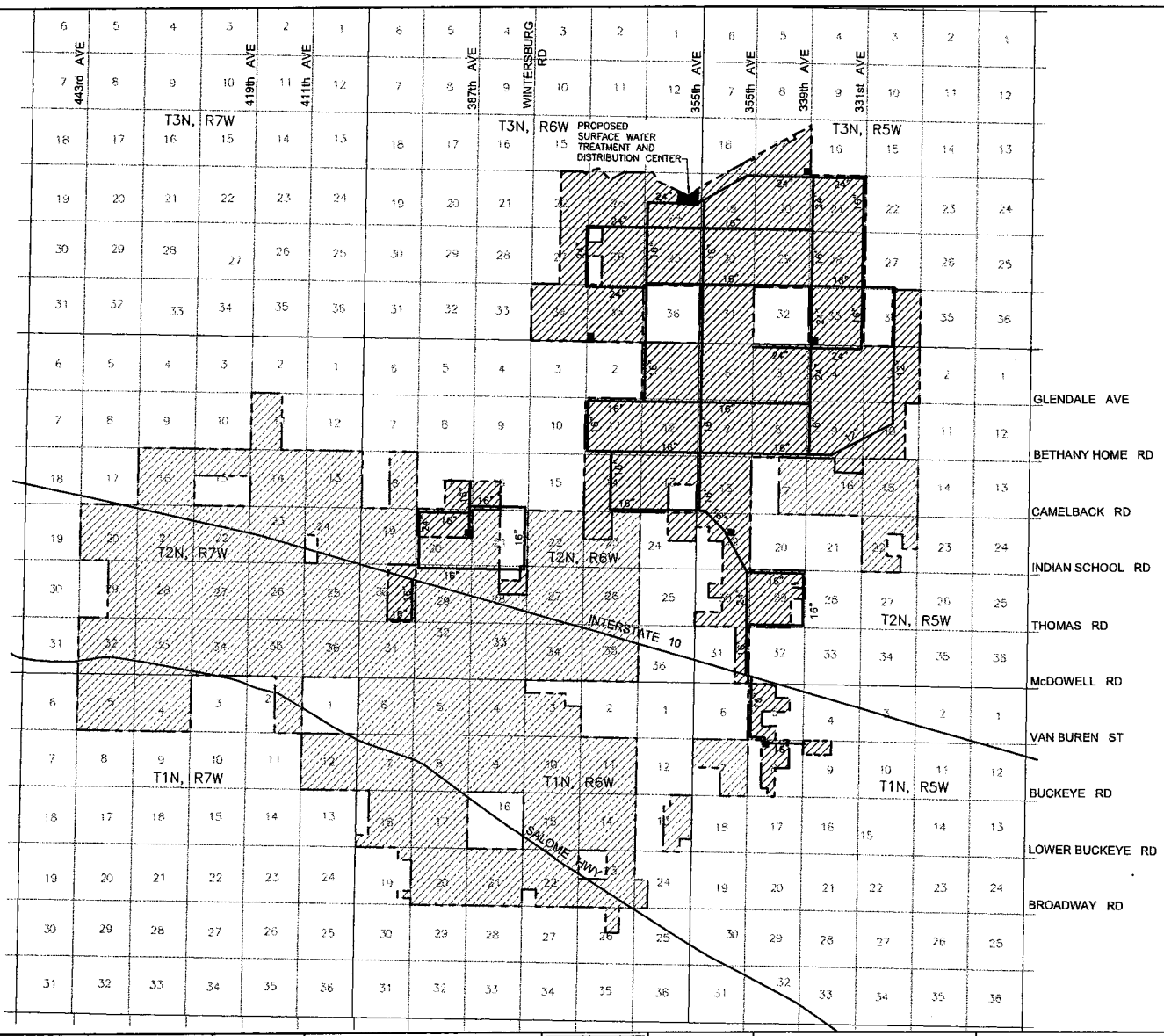
NUMBER OF DU'S 3,600	LF	Unit Cost	Total	
24" WATER MAIN	13,200	$76	$1,003,200	
16" WATER MAIN	42,240	$48	$2,027,520	
BOOSTER STATIONS	**MGD**			
0.584 gpm/du=	3.0	$125,000	$375,000	
PRODUCTION	**MGD**			
0.17 gpm/du=	0.88			
Wells	0.88	$250,000	$250,000	Note: min well cost $250,000
Arsenic Treatment	0.62	$1,500,000	$925,344	
Surface Water Trmt	0.88	$4,800,000	$4,230,144	
STORAGE	**MGD**			
355 gpd peak mo demand =	1.28	less		
Firm Capacity =	0.88	=		
Storage Requirement	0.40	plus		
Add 0.5 MG fire flow	0.5	=		
	1	$2,300,000	$2,300,000	
Total Cost			**$11,111,208**	

YEAR 5 - Backbone Water Infrastructure Needs in WUGT Extension

NUMBER OF DU'S 3,600	LF	Unit Cost	Total	
24" WATER MAIN	0	$76	$0	
16" WATER MAIN	15,840	$48	$760,320	
BOOSTER STATIONS	**MGD**			
0.584 gpm/du=	3.0	$125,000	$375,000	
PRODUCTION	**MGD**			
0.17 gpm/du=	0.88			
Wells	0.88	$250,000	$250,000	Note: min well cost $250,000
Arsenic Treatment	0.62	$1,500,000	$925,344	
Surface Water Trmt	0.88	$4,800,000	$4,230,144	
STORAGE	**MGD**			
355 gpd peak mo demand =	1.28	less		
Firm Capacity =	0.88	=		
Storage Requirement	0.40	plus		
Add 0.5 MG fire flow	0.5	=		
	1	$2,300,000	$2,300,000	
Total Cost			**$8,840,808**	

EXHIBIT

"9"



N.

0 5000 10000

APPROX SCALE IN FEET

LEGEND

- PROPOSED WATER LINE
- FUTURE WATER DISTRIBUTION CENTER
- EXISTING CC&N
- PROPOSED CC&N

REVISIONS			
NO	DATE	BY	DESCRIPTION

File Name: CCN-WUGT-W.dwg

Designed By CHC
Drawn By CDH
Checked By CHC

DSWA
DAMON S. WILLIAMS ASSOCIATES, LLC

PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING

GLOBAL WATER
RELIABLE · RENEWABLE · REUSABLE

GLOBAL WATER
WATER UTILITY
OF GREATER TONOPAH

CC&N EXTENSION
WATER SYSTEM

DSWA Project No 060010
Date SEPTEMBER 2006
Dwg No
Sht No of

Dwg File: U:\CADD\060010\Dwg\CCN-WUGT-W.dwg Modified: Sep 18, 2006 - 7:16am Plotted: 2006 - 7:17am

EXHIBIT

"10"

WATER USE DATA SHEET

NAME OF COMPANY →	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. →	B&D/Buckeye Ranch System PWS #07-618

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
08/05	72	733
09/05	74	468
10/05	72	423
11/05	73	398
12/05	75	336
01/06	76	339
02/06	77	343
03/06	85	394
04/06	85	432
05/06	91	1,117
06/06	92	2,035
07/06	92	1,014
08/06	94	786
Total		**8,818**

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
150,000	1	55-802962	125
5,000	1	55-803811	20

Other Water Sources in Gallons per Minute →	**GPM -**
Fire Hydrants on System →	**Yes X No**
Total Water Pumped Last 13 Months (Gallons in Thousands) →	10,238

WATER USE DATA SHEET

NAME OF COMPANY →	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. →	Dixie System PWS #07-030

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
08/05	24	198
09/05	24	232
10/05	23	203
11/05	23	177
12/05	23	129
01/06	23	143
02/06	23	135
03/06	23	140
04/06	24	154
05/06	24	209
06/06	26	245
07/06	26	227
08/06	27	211
Total		**2,403**

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
10,000	1	55-639586	40

Other Water Sources in Gallons per Minute →	**GPM** -
Fire Hydrants on System →	**Yes** **No X**
Total Water Pumped Last 13 Months (Gallons in Thousands) →	3,205

WATER USE DATA SHEET

NAME OF COMPANY →	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. →	WPE #6 System PWS #07-733

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
08/05	24	126
09/05	23	153
10/05	23	158
11/05	23	110
12/05	23	86
01/06	23	94
02/06	23	97
03/06	23	105
04/06	23	137
05/06	23	185
06/06	23	191
07/06	23	191
08/06	23	175
Total		**1,808**

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
7,500	1	55-802145	20

Other Water Sources in Gallons per Minute →	GPM -
Fire Hydrants on System →	Yes No X
Total Water Pumped Last 13 Months (Gallons in Thousands) →	1,945

WATER USE DATA SHEET

NAME OF COMPANY →	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. →	Tufte WPE #7 System PWS #07-617

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
08/05	6	44
09/05	6	46
10/05	6	41
11/05	6	30
12/05	6	28
01/06	6	30
02/06	6	26
03/06	6	33
04/06	6	37
05/06	6	37
06/06	6	58
07/06	6	50
08/06	6	36
Total		**496**

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
5,000	1	55-802144	20

Other Water Sources in Gallons per Minute →	**GPM** -
Fire Hydrants on System →	**Yes** **No X**
Total Water Pumped Last 13 Months (Gallons in Thousands) →	580

WATER USE DATA SHEET

NAME OF COMPANY →	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. →	Garden City/Big Horn System PWS #07-037

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
08/05	15	153
09/05	15	226
10/05	15	151
11/05	15	107
12/05	15	101
01/06	15	91
02/06	15	85
03/06	16	117
04/06	16	107
05/06	16	144
06/06	16	205
07/06	16	144
08/06	16	124
Total		**1,755**

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
20,000	1	55-804131	30
25,000	1		

Other Water Sources in Gallons per Minute →	**GPM** -
Fire Hydrants on System →	**Yes** X **No**
***Total Water Pumped Last 13 Months (Gallons in Thousands)** →	2,507

* Well casing damaged in 2005. New well in production. High water usage due to flushing of lines and tank.

WATER USE DATA SHEET

NAME OF COMPANY →	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. →	Rose View System PWS #07-082

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
08/05	14	98
09/05	14	92
10/05	15	142
11/05	14	86
12/05	14	118
01/06	15	139
02/06	15	169
03/06	15	97
04/06	15	120
05/06	15	118
06/06	15	191
07/06	16	246
08/06	16	139
Total		**1,755**

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
10,000	1	55-802143	30

Other Water Sources in Gallons per Minute →	**GPM** -
Fire Hydrants on System →	**Yes** **No X**
Total Water Pumped Last 13 Months (Gallons in Thousands) →	1,986

WATER USE DATA SHEET

NAME OF COMPANY →	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. →	WPE #1 System PWS # N/A

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
08/05	1	5
09/05	1	6
10/05	1	6
11/05	1	4
12/05	2	5
01/06	2	4
02/06	2	4
03/06	2	5
04/06	2	5
05/06	2	6
06/06	2	37
07/06	2	6
08/06	2	5
Total		**98**

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
5,000	1	55-600209	20

Other Water Sources in Gallons per Minute →	**GPM** -
Fire Hydrants on System →	**Yes** **No X**
Total Water Pumped Last 13 Months (Gallons in Thousands) →	1,353

* High water usage due to the construction of a new well in 2005.

WATER USE DATA SHEET

NAME OF COMPANY →	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. →	Sunshine System PWS #07-071

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
08/05	83	1,059
09/05	84	1,149
10/05	88	939
11/05	87	743
12/05	92	698
01/06	91	463
02/06	104	744
03/06	107	625
04/06	110	914
05/06	116	1,250
06/06	117	1,170
07/06	116	1,352
08/06	121	818
Total		**11,924**

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
100,000	1	55-802141	130

Other Water Sources in Gallons per Minute →	**GPM** -
Fire Hydrants on System →	**Yes** X **No**
Total Water Pumped Last 13 Months (Gallons in Thousands) →	13,112

EXHIBIT A-15

BEFORE THE ARIZONA CORPORATION COMMISSION

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AZ CORP COMMISSION
DOCUMENT CONTROL

COMMISSIONERS
Jeff Hatch-Miller, Chairman
William A. Mundell
Mike Gleason
Kristin K. Mayes
Barry Wong

IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF GREATER TONOPAH, INC., AN ARIZONA CORPORATION, FOR AN EXTENSION OF ITS EXISTING CERTIFICATE OF CONVENIENCE AND NECESSITY.	Docket No. W-02450A-06-0626 **NOTICE OF FILING**

Water Utility of Greater Tonopah, Inc. hereby files a revised legal description and maps. The revised items were prepared in consultation with Staff.

RESPECTFULLY SUBMITTED this 13th day of December 2006.

ROSHKA DEWULF & PATTEN, PLC

By _____
Timothy J. Sabo
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

Original + 13copies of the foregoing filed this 13th day of December 2006, with:

Docket Control
ARIZONA CORPORATION COMMISSION
1200 West Washington
Phoenix, Arizona 85007

EXHIBIT
A15
admitted

Copies of the foregoing hand-delivered/mailed this 13th day of December 2006, to:

Lyn A. Farmer, Esq.
Chief Administrative Law Judge
Hearing Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Christopher C. Kempley, Esq.
Chief Counsel, Legal Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Ernest G. Johnson, Esq.
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

By Mary Ippolito

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ONE AR[illegible]A CENTER
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PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
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REVISED

LEGAL

DESCRIPTION

LEGAL DESCRIPTION
CC&N EXPANSION AREA FOR
WATER UTILITY OF GREATER TONOPAH
MARICOPA COUNTY, ARIZONA

TOWNSHIP 2 NORTH, RANGE 6 WEST, G&SRB&M, MARICOPA COUNTY, ARIZONA

PARCEL 1

ALL OF SECTION 1, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

ALL OF SECTION 11 , TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

ALL OF SECTION 12, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE NORTH HALF AND THE SOUTHWEST QUARTER OF SECTION 13, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 14, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE NORTH 282.91 FEET OF THE SOUTH 305.26 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, AND

EXCEPT THE SOUTH 282.91 FEET OF THE NORTH 478.97 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN. MARICOPA COUNTY. ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY ARIZONA.

PARCEL 10

THE NORTHWEST QUARTER OF SECTION 23, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE NORTHEAST QUARTER OF SECTION 24, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 12

THE WEST HALF OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 13

THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER, AND THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIANS MARICOPA COUNTY, ARIZONA.

PARCEL 14

THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 15

THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE EAST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 16

THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 17

THE SOUTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA,

PARCEL 18

THE EAST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MER1DIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S 00° 00' 05" SECONDS WEST, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23'E; THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38" W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29; AND,

EXCEPT THEREFROM THOSE PORTIONS LYING WITHIN THE FOLLOWING DESCRIBED PARCELS OF LAND:

TRACT NO. 1

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, 33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET;
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507.51 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

TRACT NO. 2

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS N00°00'38"E, 2805.94 FEET FROM THE CORNER COMMON TO SECTIONS 29, 30, 31 AND 32;
THENCE N89°59'22"W, 33.00 FEET;
THENCE N07°33'28"W, 888.33 FEET TO THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET;
THENCE S08°19'27"W, 809.17 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING; AND

EXCEPT THEREFROM ANY PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING.

PARCEL 19

THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA. DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING,

EXCEPT THAT PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, .33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET,
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507.51 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

PARCEL 20

THE WEST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S00°00'05"W, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23"E;
THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF' SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29.

TOWNSHIP 3 NORTH, RANGE 6 WEST, G&SRB&M, MARICOPA COUNTY, ARIZONA

PARCEL 1

THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 14, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 2

THE SOUTH HALF OF THE NORTHEAST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

ALL OF SECTION 23, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 4

ALL OF SECTION 24, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 5

ALL OF SECTION 25, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE EAST HALF AND THE EAST HALF OF THE WEST HALF OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE EAST HALF OF SECTION 27, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 35, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA..

TOWNSHIP 1 NORTH, RANGE 5 WEST, G&SRB&M, MARICOPA COUNTY, ARIZONA

PARCEL 1

THE NORTHWEST QUARTER OF SECTION FIVE (5), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION LYING WITHIN THE PHOENIX-EHRENBERG HIGHWAY (I-10) DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTH QUARTER CORNER OF SECTION 5;
THENCE SOUTH 00 DEGREES 08 MINUTES 55 SECONDS EAST 187.60 FEET (SOUTH 187.18 FEET RECORD) ALONG THE EAST LINE OF THE NORTHWEST QUARTER OF SECTION 5 TO THE SOUTH RIGHT-OF-WAY OF SAID HIGHWAY;
THENCE NORTH 75 DEGREES 01 MINUES 17 SECONDS WEST (NORTH 75 DEGREES 01 MINUTES 36 SECONDS WEST 725.36 FEET RECORD) ALONG SAID RIGHT-OF-WAY TO THE NORTH LINE OF SECTION 5;
THENCE SOUTH 89 DEGREES 59 MINUTES 34 SECONDS EAST 700.57 FEET (EAST 700.80 FEET RECORD) TO THE POINT OF BEGINNING.

PARCEL 2

THE WEST HALF OF THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5

WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE WEST HALF OF THE NORTHEAST QUARTER AND THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION EIGHT (8), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

THE WEST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE SOUTH 701.62 FEET THEREOF.

PARCEL 6

THE SOUTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE NORTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP I NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 2 NORTH, RANGE 5 WEST, G&SRB&M, MARICOPA COUNTY, ARIZONA

PARCEL 1

ALL OF SECTION 3, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

ALL OF SECTION 4, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

ALL OF SECTION 5, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

ALL OF SECTION 6, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 7, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 8, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 9, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE WEST HALF OF THE EAST HALF AND THE WEST HALF OF SECTION 10, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF THE NORTHEAST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 18, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER, THE EAST HALF OF THE NORTHWEST QUARTER AND THE EAST HALF OF SECTION 19, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 12

THE WEST HALF, THE WEST HALF OF THE EAST HALF, THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER AND THE SOUTH HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

> EXCEPT COMMENCING AT THE NORTHEAST CORNER OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 29; THENCE SOUTH 00 DEGREES 11 MINUTES 16 SECONDS WEST, ALONG THE EAST LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 1291.13 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 00 DEGREES 11 MINUTES 16 SECONDS WEST, 26.41 FEET; THENCE NORTH 89 DEGREES 25 MINUTES 24 SECONDS WEST, ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 808.80 FEET; THENCE NORTH 01 DEGREES 25 MINUTES 28 SECONDS WEST, 101.26 FEET;

THENCE SOUTH 84 DEGREES 09 MINUTES 42 SECONDS EAST, 815.59 FEET TO THE POINT OF BEGINNING.

PARCEL 13

THE NORTHEAST QUARTER, THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE NORTH HALF OF THE SOUTHEAST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP *2* NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 14

THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 15

THE EAST HALF OF THE EAST HALF OF SECTION 31, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 3 NORTH, RANGE 5 WEST, G&SRB&M, MARICOPA COUNTY, ARIZONA

PARCEL 1

ALL OF SECTION 17, TOWNSHIP 3 NORTH, RANGE *5* WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 2

THE SOUTHEAST QUARTER, AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 18, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 3

ALL OF SECTION 19, , TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 4

ALL OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 21 , TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 28, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 29, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

ALL OF SECTION 30, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 31, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 33, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

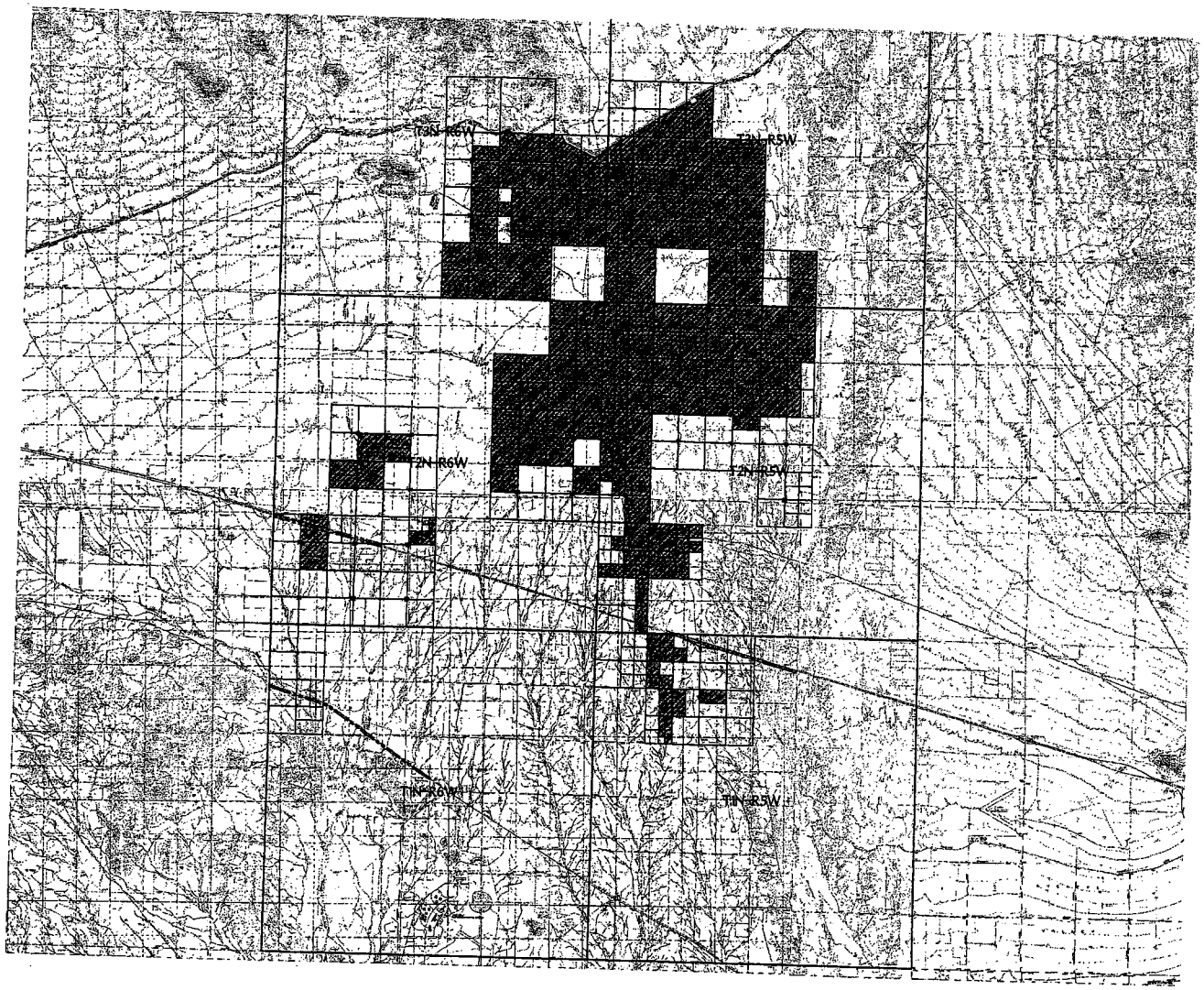
THE EAST HALF OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

CONTAINING APPROXIMATELY 22,049 ACRES, MORE OR LESS. THIS AREA IS NOT BASED ON A FIELD SURVEY, BUT BASED ON CALCULATIONS DERIVED FROM SCANNED IMAGES OF 7.5 MINUTES SERIES NGS QUAD MAPS AND OTHER SCANNED MATERIALS WORKING WITHIN AN AUTOCAD DRAWING FILE.

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21071
MARY F.
KENNEDY
Date Signed 12/9/06
ARIZONA, U.S.A.

REVISED

MAPS



REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21071
MARY F.
KENNEDY
Date Signed 12/1/99
ARIZONA, U.S.A.

JMI & ASSOCIATES
CONSULTING CIVIL ENGINEERS

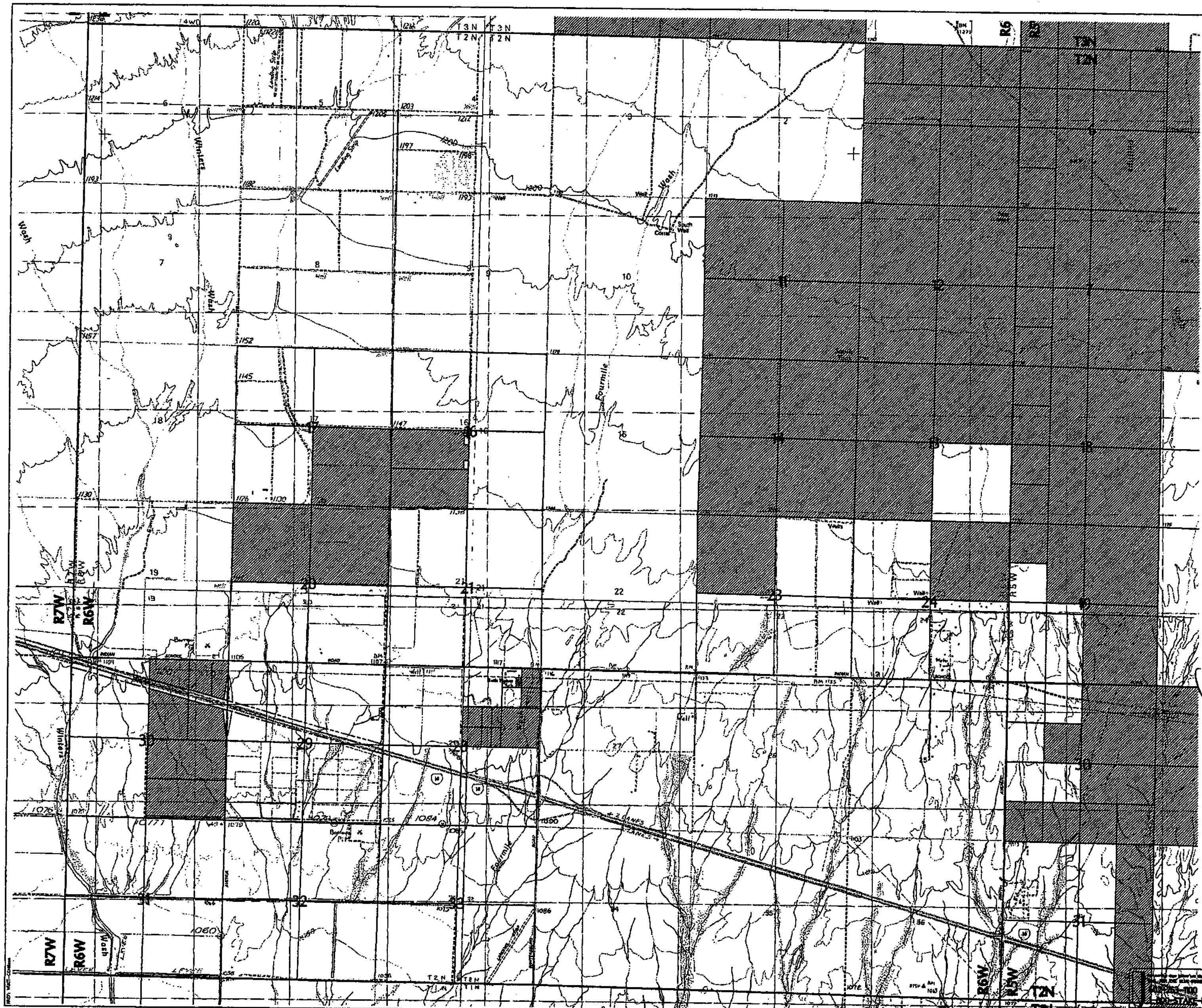
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT

DSN: wdb
CKD:
DATE: 11/1/99
SCALE
HORZ:
VERT:

Global Water Resources
CC&N Expansion
Water Utility of Greater Tonopah

JOB#

SHEET 1 of 6

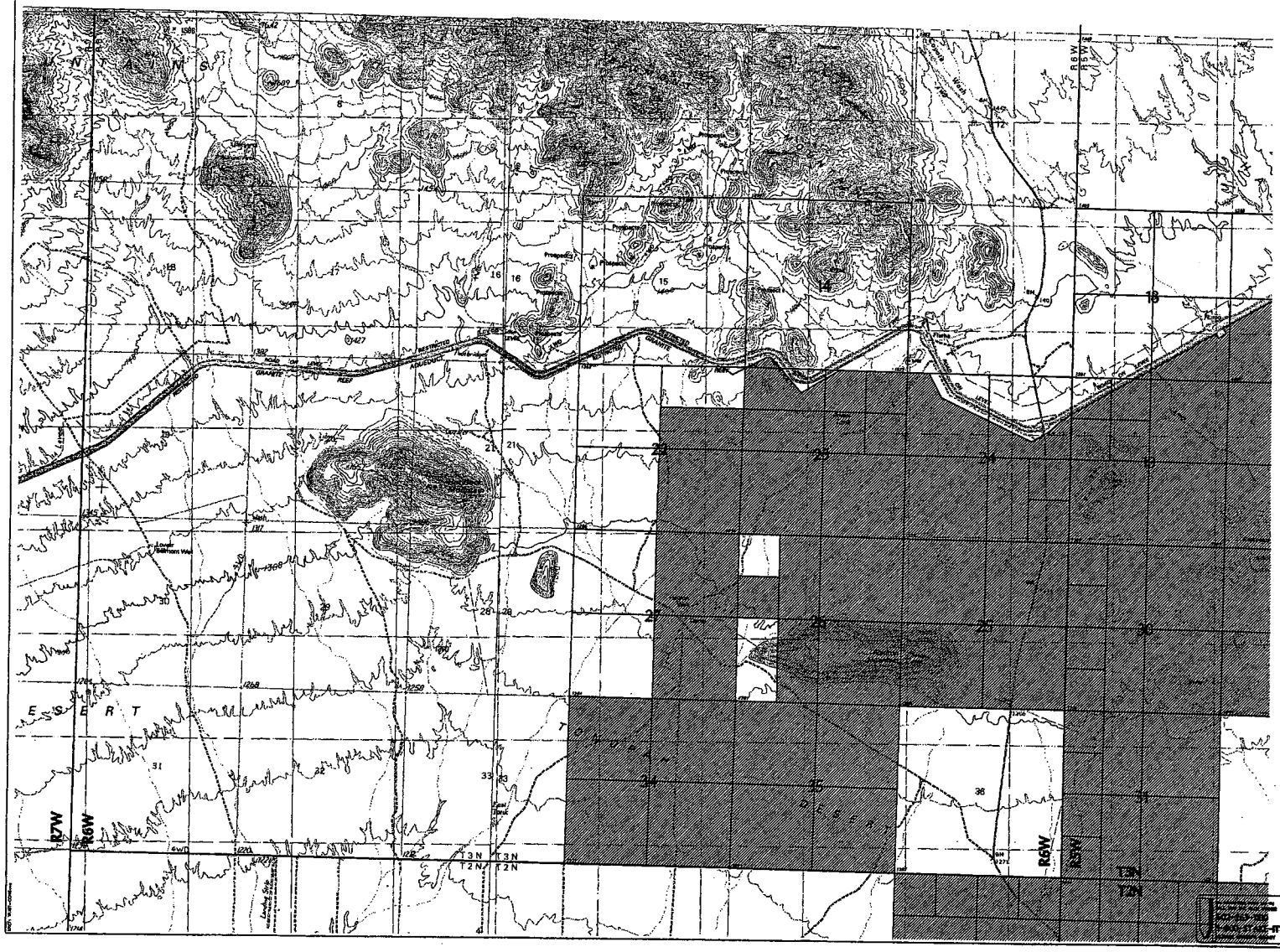


REGISTERED LAND SURVEYOR
CERTIFICATE NO. 21071
MARY F. KENNEDY
Date Signed
ARIZONA, U.S.A.

T2N, R6W

JMI & ASSOCIATES
CONSULTING CIVIL ENGINEERS

DSN: CKD: DATE: 11/7/06 SCALE HORZ: VERT:	Global Water Resources CC&N Expansion Water Utility of Greater Tonopah	JOB# SHEET 2 of 6



REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21071
MARY F.
KENNEDY
Date Signed 12/6/06
ARIZONA, U.S.A.

T3N, R6W

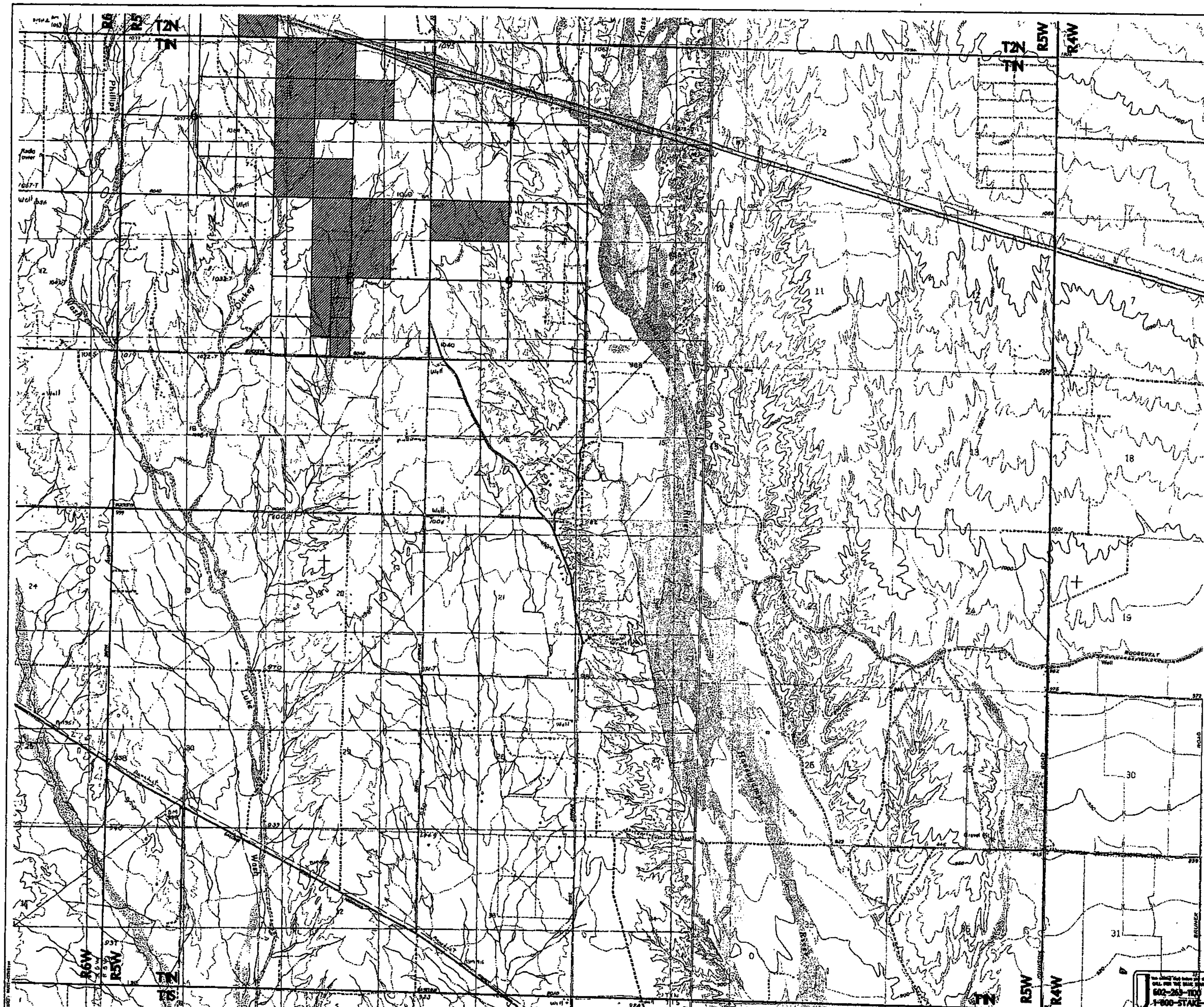
JMI & ASSOCIATES
CONSULTING CIVIL ENGINEERS

DSN: MR
CKD:
DATE: 11/7/06
SCALE
HORZ:
VERT:

Global Water Resources
CC&N Expansion
Water Utility of Greater Tonopah

JOB#

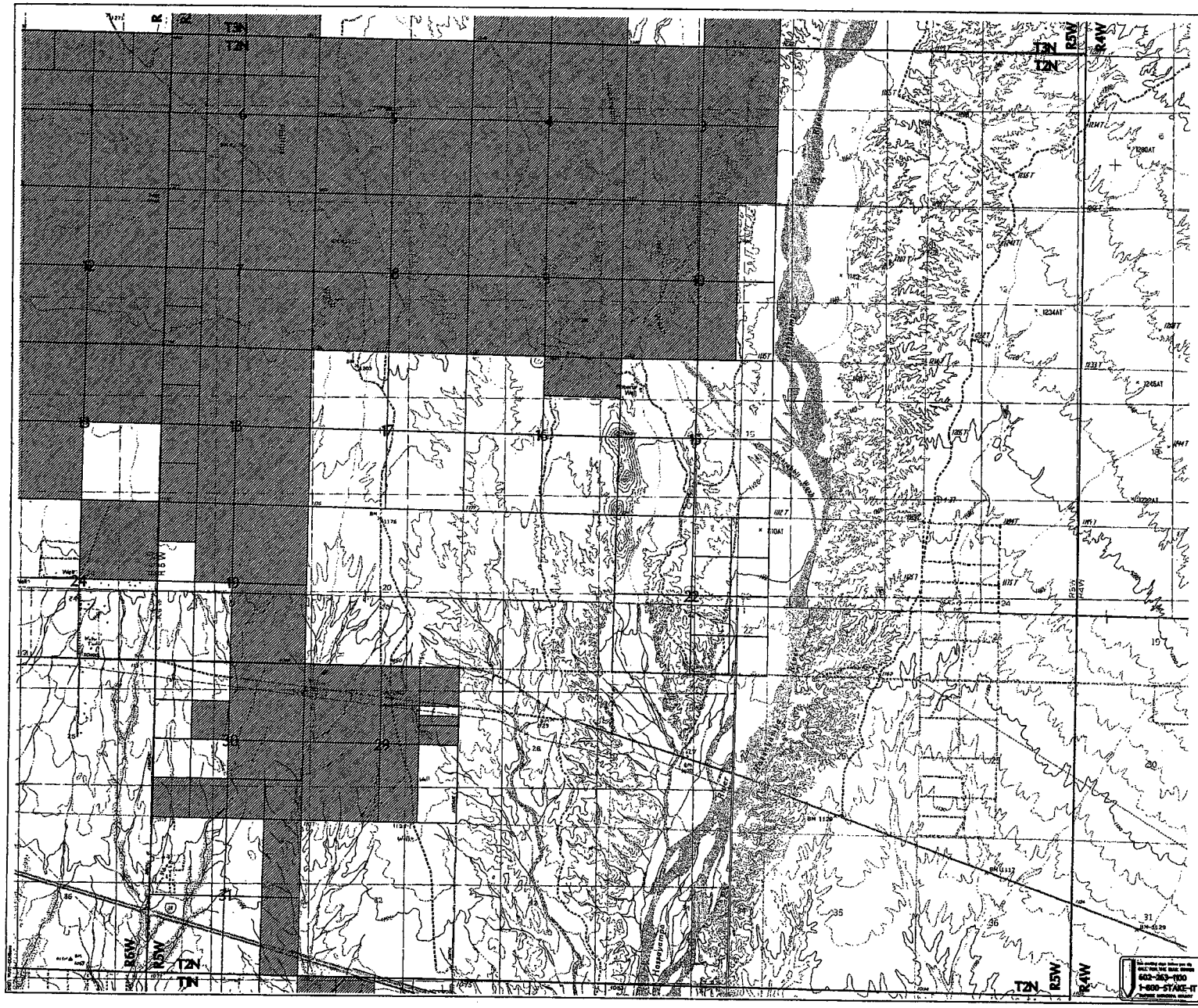
SHEET 3 OF 6



T1N, R5W

JMI & ASSOCIATES
CONSULTING CIVIL ENGINEERS

DSN: CKD: DATE: 11/7/06 SCALE HORZ: VERT:	Global Water Resources CC&N Expansion Water Utility of Greater Tonopah	JOB# SHEET 4 OF 6



REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21071
MARY F.
KENNEDY
Date Signed 12/9/06
ARIZONA, U.S.A.

T2N, R5W

JMI & ASSOCIATES
CONSULTING CIVIL ENGINEERS

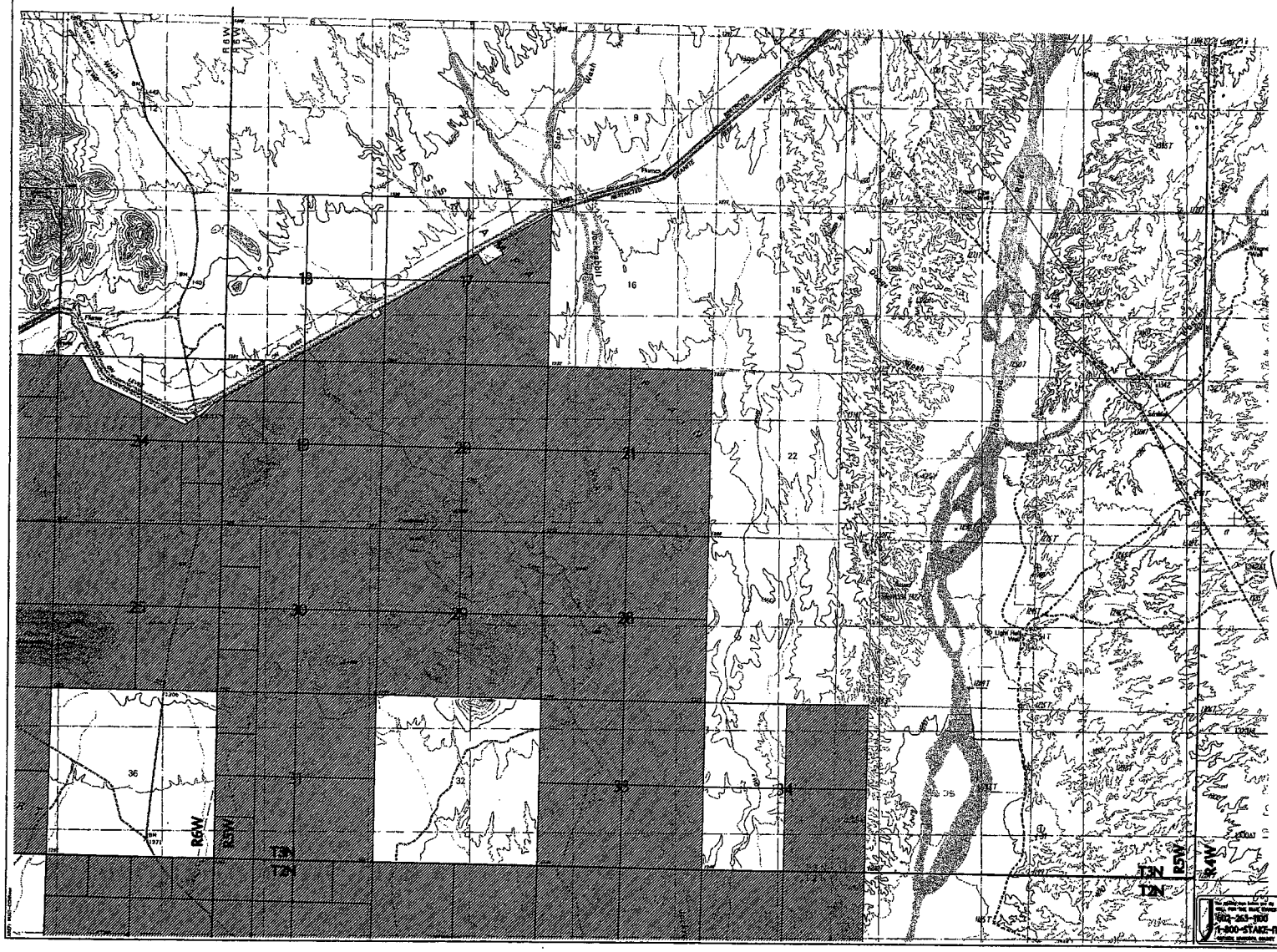
602-263-1100
1-800-STAKE-IT

DSN: mh
CKD:
DATE: 11/7/06
SCALE
HORZ:
VERT:

Global Water Resources
CC&N Expansion
Water Utility of Greater Tonopah

JOB#

SHEET 5 OF 6



REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21071
MARY F.
KENNEDY
Date Signed 12-5-00
ARIZONA, U.S.A.

T3N, R5W

JMI & ASSOCIATES
CONSULTING CIVIL ENGINEERS

DSN: WR CKD: DATE: 11/7/00 SCALE HORZ:NB VERT:	Global Water Resources CC&N Expansion Water Utility of Greater Tonopah	JOB# SHEET 6 OF 6

EXHIBIT A-16

BEFORE THE ARIZONA CORPORATION COMMISSION

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2006 DEC 26 P 1:46

AZ CORP COMMISSION
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COMMISSIONERS
Jeff Hatch-Miller, Chairman
William A. Mundell
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Barry Wong

IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF GREATER TONOPAH, INC., AN ARIZONA CORPORATION, FOR AN EXTENSION OF ITS EXISTING CERTIFICATE OF CONVENIENCE AND NECESSITY.	Docket No. W-02450A-06-0626 **RESPONSE TO INSUFFICIENCY LETTER**

Water Utility of Greater Tonopah, Inc. ("Tonopah") provides the attached response to the Insufficiency Letter filed by Staff on October 26, 2006.

RESPECTFULLY SUBMITTED this 26th day of December 2006.

ROSHKA DEWULF & PATTEN, PLC

By Timothy J. Sabo

Timothy J. Sabo
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

EXHIBIT
A16
admitted

Original + 13 copies of the foregoing
filed this 26th day of December 2006 with:

Docket Control
ARIZONA CORPORATION COMMISSION
1200 West Washington
Phoenix, Arizona 85007

Copies of the foregoing hand-delivered/mailed
this 26th day of December 2006, to:

Lyn A. Farmer, Esq.
Chief Administrative Law Judge
Hearing Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Christopher C. Kempley, Esq.
Chief Counsel, Legal Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Ernest G. Johnson, Esq.
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Linda Jaress
Utilities Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

By Mary Ippolito

ROSHKA DEWULF & PATTEN, PLC
ONE ARIZONA CENTER
400 EAST VAN BUREN STREET - SUITE 800
PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800

WATER UTILITY OF GREATER TONOPAH, INC.'S
RESPONSE TO STAFF'S INSUFFICIENCY
LETTER DATED OCTOBER 26, 2006
December 22, 2006

1. According to the submitted Exhibit 9, some subdivisions listed in the Application are already within Tonopah's *existing* CC&N.

a). Please provide an accurate list of subdivisions within the proposed Extension Area. Coordinate this information in the following documents of the Application:
"The Extension Area" (page 2)

Exhibit 3
Exhibit 7
Exhibit 9

b). Specify acreage and number of lots separately for each subdivision within the proposed Extension Area at build- out.

RESPONSE:
a. The subdivisions listed in the application on page 2 are accurate, however only Belmont and 339th Avenue are *entirely* included in the extension request, with portions of the other subdivisions already included in the existing WUGT CC&N.

Exhibit 3 has been revised (attached) to clarify those portions of the subdivision listed that are already in the existing CC&N.

Exhibit 7 has been revised (attached) as follows (first paragraph): "As seen in the attached exhibits, the extension areas include the Belmont and 339th Avenue developments, and a portion of Copperleaf, Desert Willow, Silver Water Ranch and Hassayampa Ranch (the balance is already in the existing CC&N), currently in development master planning with Maricopa County."

Exhibit 9 requires no change.

b. A copy of the requested report prepared by Christine Close, P.E., of DSWA, LLC is attached, and includes this information, as follows:

WATER UTILITY OF GREATER TONOPAH, INC.'S
RESPONSE TO STAFF'S INSUFFICIENCY
LETTER DATED OCTOBER 26, 2006
December 22, 2006

Water Demand Projections

Development	Area of Existing CC&N (acres)	Area of Proposed CC&N (acres)	[1]Dwelling Units at Buildout	Projected Water Demand, mgd
Belmont	-	19,893	80,048	38.42
Copperleaf	302	914	4,000	1.92
Silver Water Ranch	433	96	1,877	0.90
Silver Springs Ranch	2,229	-	8,200	3.94
339th Avenue	-	1,273	2,127	1.02
Desert Whisper	474	474	2,900	1.39
Hassayampa Ranch	1,989	78	6,744	3.24
Totals	**3,198**	**22,718**	**97,696**	**46.89**

1. Dwelling units and acreages taken from development master plans prepared by others

RESPONDENT: Graham S. Symmonds, Senior VP, Operations and Compliance

WATER UTILITY OF GREATER TONOPAH, INC.'S
RESPONSE TO STAFF'S INSUFFICIENCY
LETTER DATED OCTOBER 26, 2006
December 22, 2006

2. The submitted request-for-service letter from Sierra Negra Ranches LLC does not include a request for Water Service.

RESPONSE: Please see the request-for-service letter from Sierra Negra Ranches LLC, attached.

RESPONDENT: Graham S. Symmonds, Senior VP, Operations and Compliance

WATER UTILITY OF GREATER TONOPAH, INC.'S
RESPONSE TO STAFF'S INSUFFICIENCY
LETTER DATED OCTOBER 26, 2006
December 22, 2006

3. How will the utility facilities be financed?

RESPONSE: The cost of facilities to serve the Extension Area will be financed though a combination of equity and advances in aid of construction. In accordance with Global Water's standard practices, advances-in-aid of construction will be used to fund distribution facilities within each section of land, while equity will be used to provide the backbone facilities to bring water to each section of land. Global Water has successfully used this same financing approach for the CC&N extensions approved for its utilities in Pinal County (Palo Verde Utility Company and Santa Cruz Water Company). The advances-in-aid-of-construction will be paid in accordance with Staff-approved main extension agreements. The equity will be provided by the shareholder of the Applicant.

RESPONDENT: Graham S. Symmonds, Senior VP, Operations and Compliance

WATER UTILITY OF GREATER TONOPAH, INC.'S
RESPONSE TO STAFF'S INSUFFICIENCY
LETTER DATED OCTOBER 26, 2006
December 22, 2006

4. The submitted Memorandum does not contain sufficient information which will enable the Commission Staff to perform its analysis and determine if the Company has developed or can be reasonably expected to develop adequate water production and storage capacity to serve the existing and proposed CC&N area. Projects of this proposed magnitude usually evolve from an overall water system evaluation in the form of a master plan and preliminary engineering design report, which outline existing and future population, water demand projections, water production and storage capacities and ,also, map the location of existing and future wells, storage reservoirs , booster stations and subdivisions.

Please provide a copy of such a Master Plan & Report.

RESPONSE: A copy of the requested report prepared by Christine Close, P.E., of DSWA, LLC is attached.

RESPONDENT: Graham S. Symmonds, Senior VP, Operations and Compliance

WATER UTILITY OF GREATER TONOPAH, INC.'S
RESPONSE TO STAFF'S INSUFFICIENCY
LETTER DATED OCTOBER 26, 2006
December 22, 2006

5.Submitted Exhibit 10 includes Water Use Data Sheets for eight existing systems.

Provide the following information:

a). Indicate if and how the new system(s) will be interconnected with the existing systems.

b). Provide Drinking Water Compliance Report for each existing water system from Maricopa Department of Environmental Services ("MCDES").

c). Indicate the estimated number of customers to be served by each existing system in the existing and new area in each of the next five years. This information should be included in the Report referenced in item # 4 above.

RESPONSE:

a. Because of the relative distance between the existing systems, and the fact that none are configured nor appear to have the space to accommodate higher capacity storage and pumping, interconnection at this time does not seem feasible nor warranted. The existing systems are deployed solely for the purpose of their existing customers; new developments such as Belmont, 339th Ave *et al* will be serviced from newly constructed infrastructure. The existing systems do appear to be suitable to provide construction water for the purpose of constructing infrastructure, and could be accessed readily and delivered to the construction sites by hauling water.

b. Attached please find the latest Drinking Water Compliance Report for each water system presently included in WUGT from Maricopa County Environmental Services Department ("MCESD"). Of the seven systems in the WUGT, six of those systems are considered Community Water Systems for which MCESD monitors for compliance. Tufte PWS 07-617 is not considered a community water system at this time (population less than 25) and as such is not monitored by MCESD. Please note that the old Buckeye Ranch system 07-706 was merged with B & D 07-618.

There are two systems that currently are not reported as fully compliant:

1. B&D 07-618 is listed as non-compliant, minor for allegedly failing to monitor for nitrate. These lab samples (included for your information) were submitted for inclusion in the ADEQ database.
2. WPE 6 07-733 is listed at substantial compliance. However, as shown in the supporting e-mails from MCESD, the expectation is that on completion of the compliance review, full compliance will be achieved.

c. A copy of the requested report prepared by Christine Close, P.E., of DSWA, LLC is attached, and includes this information, as follows:

WATER UTILITY OF GREATER TONOPAH, INC.'S
RESPONSE TO STAFF'S INSUFFICIENCY
LETTER DATED OCTOBER 26, 2006
December 22, 2006

Table 1. Existing and Proposed Customers

Development	Existing Customers	Year 1	Year 2	Year 3	Year 4	Year 5	Total End of Year 5
Buckeye Ranch System - PWS #07-618	94	20	20	20	20	20	194
Dixie System - PWS #07-030	27	3	3	3	3	3	42
WPE #6 - PWS #07-733	23	0	0	0	0	0	23
Tufte WPE #7 System - PWS #07-617	6	0	0	0	0	0	6
Garden City/Big Horn System - PWS #07-037	16	1	1	1	1	1	21
Rose View System - PWS #07-082	16	2	2	2	2	2	26
Sunshine System - PWS #07-071	121	38	38	38	38	38	311
Copperleaf	0	220	220	240	300	300	1,280
Silver Water Ranch	0	0	90	180	0	0	270
Belmont	0	1840	1840	2820	2820	2820	12,140
339th Avenue	0	220	175	240	300	300	1,235
Desert Whisper	0	120	75	120	180	180	675
Silver Springs Ranch	0	220	220	240	300	300	1,280
Hassayampa Ranch	0	220	220	240	300	300	1,280
Total	**303**	**2,904**	**2,904**	**4,144**	**4,264**	**4,264**	**18,783**

RESPONDENT: Graham S. Symmonds, Senior VP, Operations and Compliance

WATER UTILITY OF GREATER TONOPAH, INC.'S
RESPONSE TO STAFF'S INSUFFICIENCY
LETTER DATED OCTOBER 26, 2006
December 22, 2006

6. Indicate a CAP water allocation available for the requested area.

RESPONSE: WUGT currently has no CAP water allocation available for the requested area, but are actively positioning to purchase excess capacity as it becomes available in order to fulfill the desire to serve portions of this area in the long term with a more renewable water supply and thus the need to construct a surface water treatment facility. WUGT will continue to work closely with ADWR in permitting its assured water supplies.

RESPONDENT: Graham S. Symmonds, Senior VP, Operations and Compliance

WATER UTILITY OF GREATER TONOPAH, INC.'S
RESPONSE TO STAFF'S INSUFFICIENCY
LETTER DATED OCTOBER 26, 2006
December 22, 2006

7. Provide a copy of a Designation of Assured Water Supply from the Arizona Department of Water Resources which applies to the area at issue.

RESPONSE: WUGT is currently preparing the application document and can provide a copy for the docket when it is available, if required to do so. WUGT expects to submit its application in the second quarter of 2007.

RESPONDENT: Graham S. Symmonds, Senior VP, Operations and Compliance

WATER UTILITY OF GREATER TONOPAH, INC.'S
RESPONSE TO STAFF'S INSUFFICIENCY
LETTER DATED OCTOBER 26, 2006
December 22, 2006

8. Provide estimated starting and completion dates of construction of utility facilities for the extension area.

RESPONSE: A copy of the requested report prepared by Christine Close, P.E., of DSWA, LLC is attached, and includes this information.

RESPONDENT: Graham S. Symmonds, Senior VP, Operations and Compliance

GLOBAL WATER

MEMORANDUM

Date: September 5, 2006

Re: Water Utility of Greater Tonopah Service Area Extension
Water Service

This memorandum defines the service requirements of the extension of the **Water Utility of Greater Tonopah (WUGT)** Service Area CC&N for water. The WUGT currently has an approved service area of approximately 65 sections and serves 305 customers. Growth in WUGT's service area has been limited to date, but with the advent of the recent housing boom for planned communities, there are a number of large master planned developments that are in rather aggressive planning and permitting, that will impact our existing service area and have created the urgency to extend our service area. The extension service area includes approximately 22,127 acres (35 sections) with an estimated 88,264 additional dwelling units. As seen in the attached exhibits, the extension areas include the Belmont and 339th Avenue developments, and a portion of Copperleaf, Desert Willow, Silver Water Ranch and Hassayampa Ranch (the balance is already in the existing CC&N), currently in development master planning with Maricopa County. All of these developments have requested service from WUGT or its parent company, Global Water. Proposed water infrastructure is shown along with the location and relationship to the existing CC&N service area system. Hassayampa Utility Company (HUC), also owned by Global Water, currently has a CC&N for all of Hassayampa Ranch development and has filed an extension SW-20422-06-0566 to serve the remainder of the developments included in WUGT's extension, with the exception of Desert Willow which has not requested wastewater service from HUC.

Absorption Rates

For years 1 and 2, 200 dwelling units per month are anticipated, or 2,400 per year. For years 3-5, 300 dwelling units per month are anticipated, or 3,600 per year. Note that the buildout dwelling units are based on the master planning completed for the Belmont, Copperleaf, Silver Water Ranch, Desert Willow, Hassayampa Ranch and 339th Avenue developments.

Water Servicing Approach

At 2,400 dwelling units per year and 245 GPD/DU, it is expected that the Year 1 flow will be 0.59 MGD, 3.82 (approximately 4) MGD after 5 years, and 22 MGD at buildout. The WUGT currently has wells, necessary treatment, and distribution to its existing customers, and initially these facilities will be utilized in the overall water master planning to serve these new developments. New sources will be developed as required by the absorption rates. Additionally, WUGT will construct centralized groundwater distribution centers and treatment beginning in year one, as well as a CAP surface water treatment plant in Belmont in Year 4, to meet the needs of this extension area with active development.

The location and construction of wells, treatment and distribution centers are dependant on the rate and location of development. In addition to the existing wells located within and serving existing WUGT customers, other existing wells in the area will be evaluated to determine their suitability for use or rehabilitation for use. Where suitable existing wells do not exist, WUGT will work with registered hydrologists to identify locations for new wells as well as treatment that may be required to meet the State Drinking Water Standards. For the purposes of our cost estimation and based on water quality data available from the developers' planning documents, arsenic treatment has been assumed to be required for 70% of the groundwater developed into potable water.

21410 North 19th Avenue, Suite 201, Phoenix, Arizona 85027
Phn 623.580.9600
Fax 623.580.9659
gwresources.com

GLOBAL WATER

Due to the proximity of the CAP Canal and the prudence of providing a renewable water supply in addition to groundwater, the first phase of a surface water treatment plant is projected to begin construction Year 4 and 5. At buildout the surface water plant will provide half the water production demand, 11 MGD.

A table of infrastructure to be added to serve the extension areas is included. The total, build-out estimated cost of this infrastructure is $143 million. Please see the attached spreadsheets with the breakdown of costs for each of years one through five, as follows:

Year 1: $3.9 M
Year 2: $5.7 M
Year 3: $10.3M
Year 4: $11.1 M
Year 5: $8.8 M

21410 North 19th Avenue, Suite 201, Phoenix, Arizona 85027
Phn 623.580.9600
Fax 623.580.9659
gwresources.com

FACSIMILE COVER PAGE

To :	**Robin Bain**	**From :**	
Sent :	12/21/2006 at 3:46:42 PM	**Pages :**	2 (including Cover)
Subject :	Sierra Negra Ranch LLC		

SIERRA NEGRA RANCH LLC

SNR MANAGEMENT LLC

December 20, 2006

Ms. Cindy Liles
Senior Vice President & CFO
Global Water Resources, LLC
21410 North 19th Avenue, Suite 201
Phoenix, AZ 85027

Re: Water and Wastewater Services

Dear Ms. Liles:

Please accept this letter as a request for service from Sierra Negra Ranch for water and wastewater services to approximately 2,753 acres, more particularly described as Exhibit A attached hereto. It is our intention to continue to pursue the preliminary platting, rezoning and development of this planned area development to serve single family residential homes.

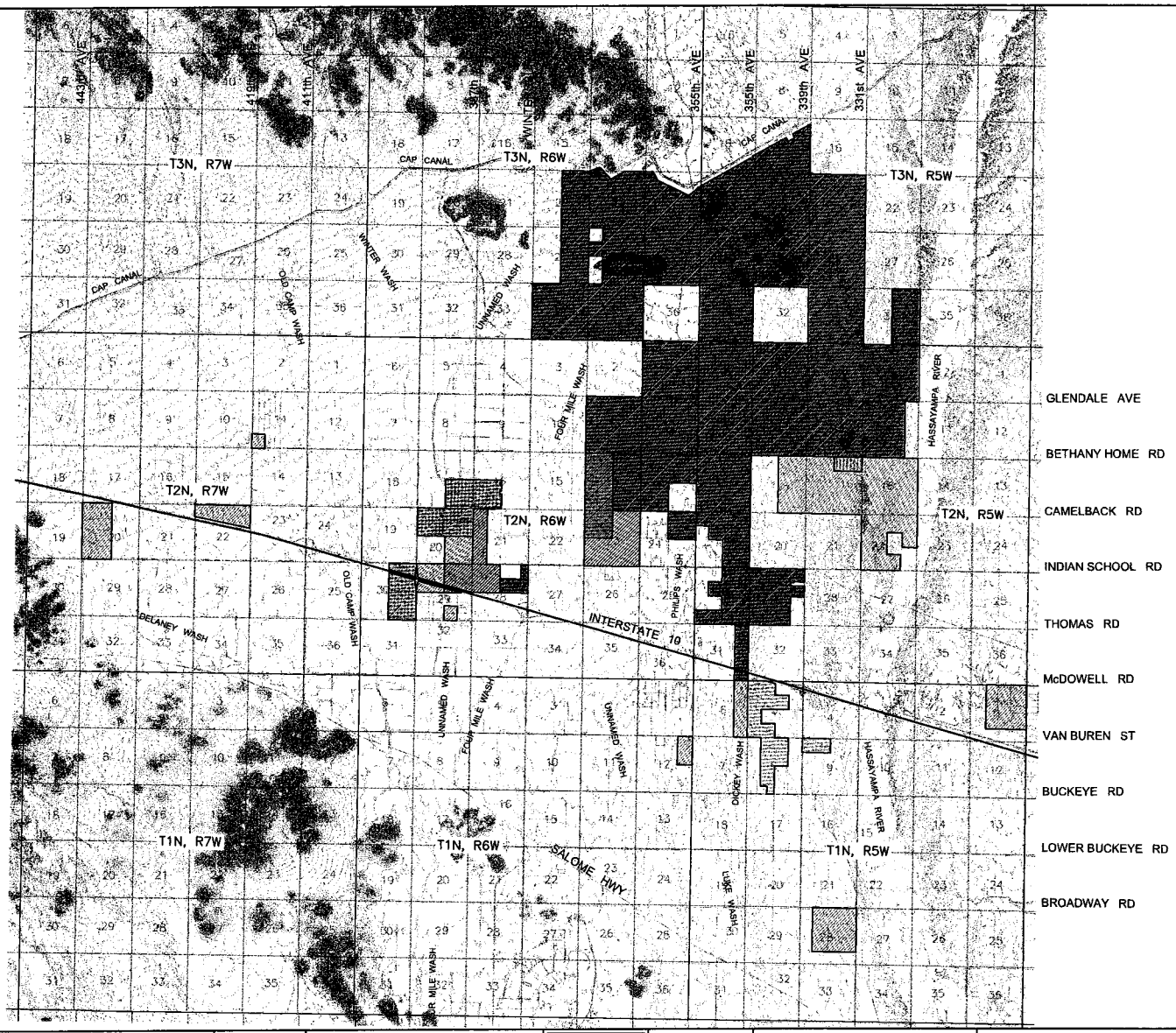
Sierra Negra Ranch would like to be included in your next available expansion of service areas for Water Utility of Greater Tonopah and Hassayampa Utility Company.

Yours truly,

Sierra Negra Ranch LLC

By: SNR Management LLC
By: Becker SNR LLC
By: _____
Barry W. Becker, Manager

Tel: 702 - 477 0700 • Fax: 702 - 870 4976 • 50 South Jones Suite 101, Las Vegas, NV 89107



REVISIONS			
NO	DATE	BY	DESCRIPTION

File Name: WUGT-Subdiv.dwg

Designed By CHC
Drawn By CDH
Checked By CHC

DSWA
DAMON S. WILLIAMS ASSOCIATES, LLC

PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING

GLOBAL WATER
RELIABLE · RENEWABLE · REUSABLE

GLOBAL WATER
WATER UTILITY
OF GREATER TONOPAH

CC&N EXTENSION
SUBDIVISIONS SERVED

DSWA Project No 060010
Date DECEMBER 2006
Dwg No
Sht No of

Dwg File: U:\CADD\060010\Dwg\WUGT Master Planning\WUGT-Subdiv.dwg Modified: Dec 22, 2006
Plotted: Dec 22, 2006 - 9:41am

Draft

Water Utility of Greater Tonopah
Conceptual Water Master Plan
Phase 1

December 2006

Prepared for:
Global Water Resources, LLC
21410 North 19th Avenue, Suite 201
Phoenix, Arizona 85027
Phone (623) 580-9600
Fax: (623) 580-9659

Registered Professional Engineer (Civil)
CERTIFICATE NO.
34572
CHRISTINE H. CLOSE
Date Signed 12-22-06
ARIZONA, U.S.A.

GLOBAL WATER

DSWA

WATER UTILITY OF GREATER TONOPAH
CONCEPTUAL WATER MASTER PLAN
PHASE 1

***Prepared for*:**

Global Water Resources, LLC

21410 North 19th Avenue, Suite 201

Phoenix, Arizona 85027

Phone (623) 580-9600

***Prepared by*:**

Damon S. Williams Associates

2355 E. Camelback Road, Suite 700

Phoenix, Arizona 85016

Phone (602) 265-5400

December 2006

TABLE OF CONTENTS

Page

1.0 INTRODUCTION 1-1
2.0 BACKGROUND 2-1
3.0 EXISTING CONDITIONS 3-1
3.1 Existing Water Systems 3-1
3.2 Geohydrology 3-1
4.0 PROPOSED IMPROVEMENTS 4-1
4.1 Water Demands 4-1
4.2 Wells 4-2
4.3 Water Storage/Booster Facilities 4-3
4.4 Pipelines 4-3
4.5 Pressure Zones 4-3
4.6 Water Quality 4-3
5.0 CONCLUSIONS 5-1

LIST OF TABLES

Page

Table 3-1. Existing WUGT Water Systems and Customers 3-1
Table 4-1. Water Demand Projections 4-1
Table 4-2. Existing and Proposed Customers 4-2

LIST OF EXHIBITS

Follows Page

Exhibit 2.1 Vicinity Map 2-1
Exhibit 3.1 WUGT Existing Water Systems Location Map 3-1
Exhibit 3.2 Well Location Map 3-2
Exhibit 4.1 CC&N Extension Water System 4-3
Exhibit 4.2 Proposed Service Areas Location Map Showing Pressure Zones 4-3

1.0 INTRODUCTION

Global Water recently acquired the Water Utility of Greater Tonopah (WUGT) as a new subsidiary. The WUGT is the major water provider in this area of Maricopa County to the west of the Hassayampa River. As such, they are responsible for providing water services to the existing and proposed communities in this area. Global and WUGT recognize the need to provide a regional planning document that will aid them in implementing future capital improvement projects. The purpose of this document is to provide Phase 1 of a regional water plan for Global Water's (Global) existing and proposed service area in western Maricopa County, focusing on seven developments which are in relatively advanced stages of planning and have requested service from WUGT.

The WUGT is currently in the process of extending their Certificate of Convenience and Necessity (CC&N) to cover various subdivisions or portions thereof that are not included in their existing CC&N. This document is intended to be used for discussion purposes, but does not necessarily encompass the final version of the full-scale master planning effort.

2.0 BACKGROUND

The area to be regionally planned for the WUGT is located in western Maricopa County and in total comprises approximately one hundred and seventy five (175) square miles. The proposed service area is bounded by the Central Arizona Project canal on the north, 443rd Avenue on the west, Salome Highway on the south, and the Hassayampa River on the east. Exhibit 2.1 provides a vicinity map of the area. WUGT's current service area covers approximately 61 square miles, or close to 39,000 acres.

Global filed an application for an extension of Certificate of Convenience and Necessity (CC&N) with the Arizona Corporation Commission (ACC) for water (WUGT) Docket No. W-02450A-06-0626. The proposed extension area is approximately 22,000 acres and includes the Belmont and 339th Avenue developments, and a portion of Copperleaf, Desert Willow, Silver Water Ranch and Hassayampa Ranch (the balance is already in the existing CC&N), currently in development master planning with Maricopa County. All of these developments have requested service from WUGT or its parent company, Global Water. Currently, Global is responding to comments provided on October 26, 2006. This master plan will focus on serving the developments included in this CC&N extension area, as well as those portions already in the existing CC&N area, for an approximate total of 25,000 acres; thus this master plan is to be considered Phase 1. None of the developments have existing service as they are all in the planning stages and have not reached final plat.

Water for the region will be provided by groundwater and CAP water. Groundwater will be chlorinated prior to distribution and other treatment including blending for arsenic, fluoride or nitrate removal will be provided as well if required to meet drinking water quality standards. CAP water cannot be utilized until capacity is secured, which is not expected until 2010. Treatment technologies for the CAP water will consist of conventional sedimentation and filtration or membrane filtration. The water will be treated to drinking water quality as prescribed by the A.A.C.

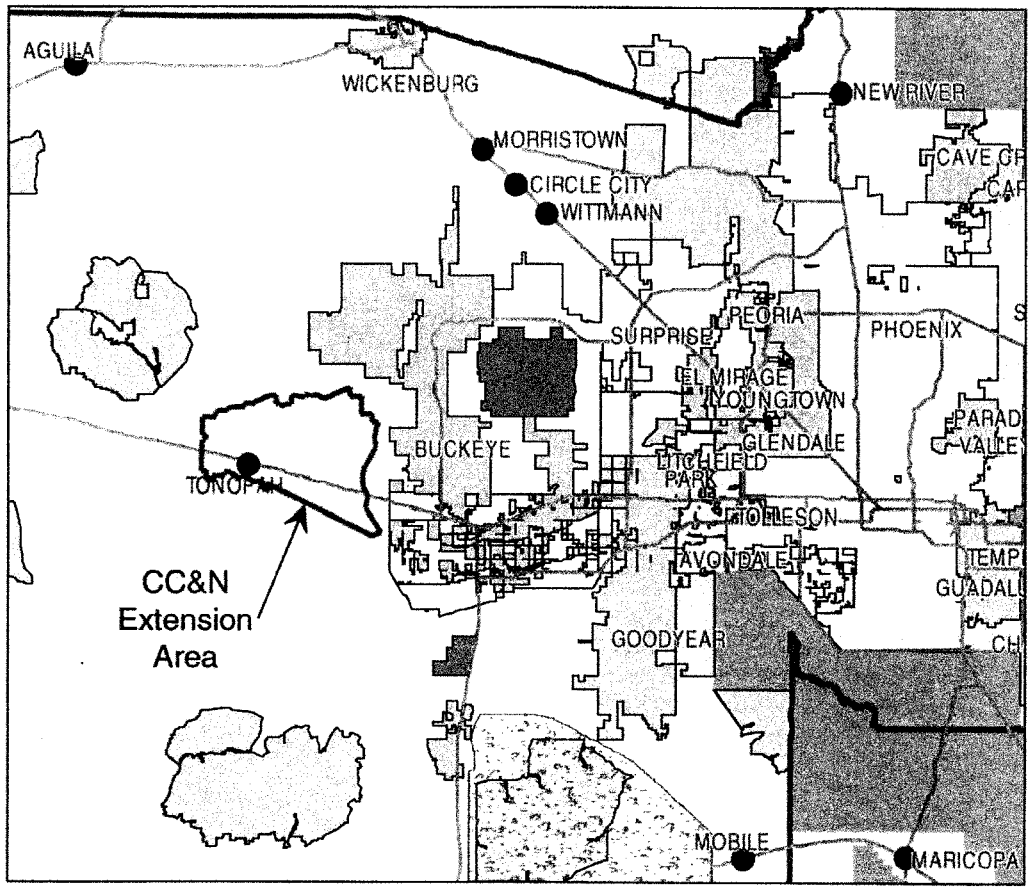


Exhibit 2.1 Vicinity Map

3.0 EXISTING CONDITIONS

The area to be regionally planned is located in western Maricopa County and in total, comprises approximately one hundred and seventy five (175) square miles. The proposed service area is bounded by the Central Arizona Project canal on the north, 443rd Avenue on the west, the WUGT boundary to the south, and the Hassayampa River on the east. WUGT's current service area covers approximately 61 square miles, or close to 39,000 acres.

3.1 Existing Water Systems

As indicated in Table 3.1, the existing water delivery system for Water Utility of Greater Tonopah (WUGT) serves approximately 300 customers. These customers are spread out over several miles. Exhibit 3.1 shows the approximate locations of the existing customers. Typically, these existing systems are characterized by small diameter pipelines and small wells. Of the seven systems within the WUGT, three of them provide fire hydrants on the system.

Table 3-1. Existing WUGT Water Systems and Customers

Water System	Existing Customers
Buckeye Ranch System - PWS #07-618	94
Dixie System - PWS #07-030	27
WPE #6 - PWS #07-733	23
Tufte WPE #7 System - PWS #07-617	6
Garden City/Big Horn System - PWS #07-037	16
Rose View System - PWS #07-082	16
Sunshine System - PWS #07-071	121
Total	**303**

3.2 Geohydrology

The proposed service area is located in the western portion of the Phoenix Active Management Area and the Hassayampa Subbasin. The Hassayampa Subbasin comprises approximately 1,200 square miles. The basin is bounded to the north by the Vulture Mountains, to the east by the White Tank Mountains, to the south by the Gila Bend Mountains and Buckeye Hills, and west by the Palo Verde Hills, Belmont Mountains, and Big Horn Mountains. The Hassayampa Subbasin is drained by the Hassayampa River, which with the Gila River to the east.

Two cones of depression have developed in this subbasin due to extensive groundwater pumping for agricultural use. These depressions have created a decline in water levels of between 70 and 90 feet in the Tonopah Desert and Centennial Wash areas, respectively. The depth to water ranges from approximately 20 feet below land surface near the Gila River and to over 700 feet below land surface to the north portion of the subbasin.

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WUGT Developments in CC&N Extension

T:\GIS\ArcSDE_projects\Toncpah_Water.mxd

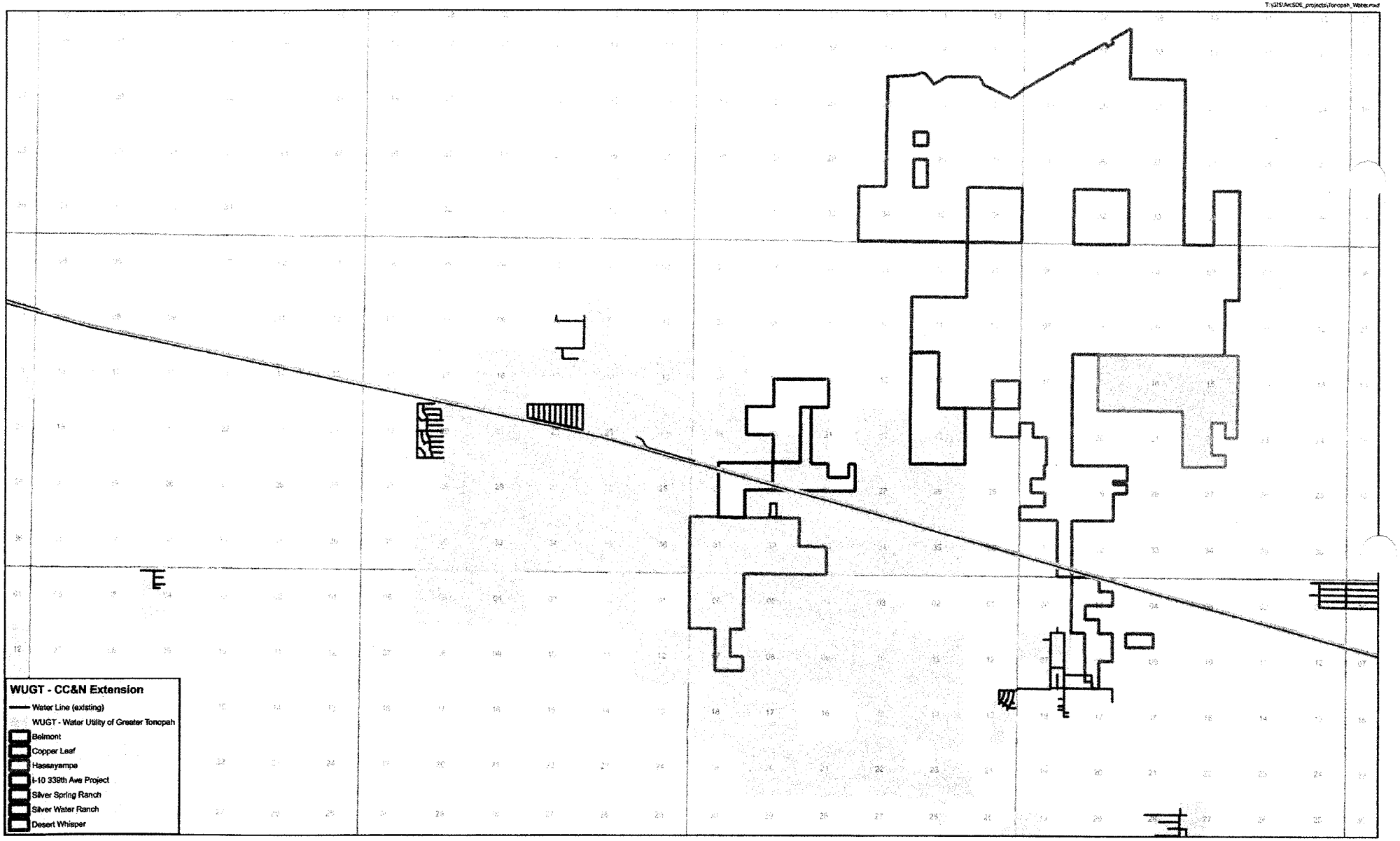


EXHIBIT 3.1 WUGT EXISTING WATER SYSTEMS LOCATION MAP

ranges from approximately 20 feet below land surface near the Gila River and to over 700 feet below land surface to the north portion of the subbasin.

The Arizona Department of Water Resources (ADWR) Groundwater Site Inventory (GWSI) and Well Registry databases indicate that there are up to 357 wells located within the proposed service. GWSI indicates that the wells located within the proposed service are used for drinking water, irrigation, stock, and monitoring purposes.

The specific conductance across the proposed service, as reported by the ADWR, ranged from 400 to 4,650 microsiemens per centimeter (uS/cm) with the higher values recorded in the southeast where agricultural use is high. The calculated total dissolved solids (TDS) concentration ranged from 240 to 2,790 mg/L, respectively. The TDS concentration was calculated by multiplying the specific conductance by 0.6 to obtain milligrams per liter (mg/L) of dissolved solids. The fluoride and arsenic concentrations exceed Aquifer Water Quality Standards generally on the south side of proposed service area.

Presently, all water services for the proposed service area are provided by groundwater wells. Figure 3.2 provides a well location map showing existing wells throughout the proposed service area.

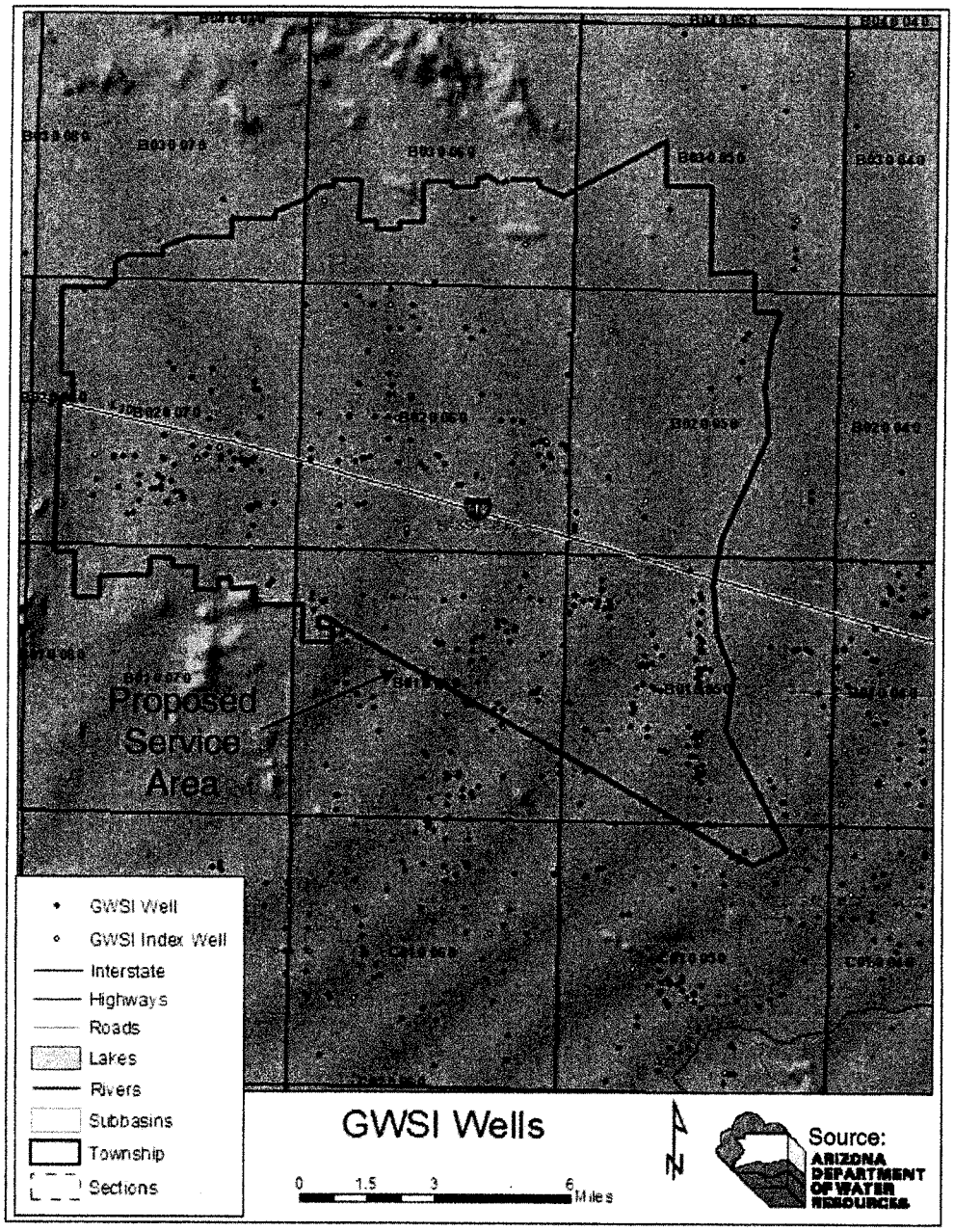


Exhibit 3.2 Well Location Map

4.0 PROPOSED IMPROVEMENTS

4.1 Water Demands

Table 4-1 shows the water demand projections developed for the seven proposed developments considered in this Phase 1 conceptual master plan.

Table 4-1. Water Demand Projections

Development	Area of Existing CC&N (acres)	Area of Proposed CC&N (acres)	[1]Dwelling Units at Buildout	Projected Water Demand, mgd
Belmont	-	19,893	80,048	38.42
Copperleaf	302	914	4,000	1.92
Silver Water Ranch	433	96	1,877	0.90
Silver Springs Ranch	2,229	-	8,200	3.94
339th Avenue	-	1,273	2,127	1.02
Desert Whisper	474	474	2,900	1.39
Hassayampa Ranch	1,989	78	6,744	3.24
Totals	**3,198**	**22,718**	**97,696**	**46.89**

1. Dwelling units and acreages taken from development master plans prepared by others.

Water demands were developed based on the following criteria:

- 150 gallons per day per capita
- 3.2 persons per residential dwelling unit
- Initially, groundwater will supply all of the calculated demands

The projected water demand for the service area is 46.89 mgd. Global intends to meet the water initial demands through two water distribution centers and future treatment facilities for CAP water. One water distribution center will be located near 403rd Avenue and Camelback in the Balterra development and one will be located in the Belmont development near the pressure zone boundary along Camelback. This water distribution center will be a dual zone site thereby supplying water to two separate zones.

It is unlikely that the new water distribution system will be interconnected with the existing system due to the limited groundwater pumping capabilities at each of the existing well sites. WUGT will use the existing wells to provide future construction water needs. Table 4.2 shows

the proposed use of the existing water system for services to existing customers and limited future customers in the immediate vicinity of these systems in the next five years. In addition, the table shows the proposed addition of customers over the next five years for the proposed master planned developments in the area of the CC&N extension.

Table 4-2. Existing and Proposed Customers

Development	Existing Customers	Year 1	Year 2	Year 3	Year 4	Year 5	Total End of Year 5
Buckeye Ranch System - PWS #07-618	94	20	20	20	20	20	194
Dixie System - PWS #07-030	27	3	3	3	3	3	42
WPE #6 - PWS #07-733	23	0	0	0	0	0	23
Tufte WPE #7 System - PWS #07-617	6	0	0	0	0	0	6
Garden City/Big Horn System - PWS #07-037	16	1	1	1	1	1	21
Rose View System - PWS #07-082	16	2	2	2	2	2	26
Sunshine System - PWS #07-071	121	38	38	38	38	38	311
Copperleaf	0	220	220	240	300	300	1,280
Silver Water Ranch	0	0	90	180	0	0	270
Belmont	0	1840	1840	2820	2820	2820	12,140
339th Avenue	0	220	175	240	300	300	1,235
Desert Whisper	0	120	75	120	180	180	675
Silver Springs Ranch	0	220	220	240	300	300	1,280
Hassayampa Ranch	0	220	220	240	300	300	1,280
Total	**303**	**2,904**	**2,904**	**4,144**	**4,264**	**4,264**	**18,783**

The future CAP treatment plant will be located near 355th Avenue and the CAP. This plant should be operational by Year 2012.

4.2 Wells

GWSI indicates that there are several high production wells available that would be suitable for rehabilitation and outfitting as domestic supply wells. Groundwater production wells will be drilled near the water distribution centers. Raw water will be conveyed to the distribution centers for disinfection and treatment via raw water pipe networks. Specific well locations will be developed by hydrogeologists and will be sited and screened to maximize groundwater quality.

4.3 Water Storage/Booster Facilities

Two water distribution centers are required to serve the initial phases of the proposed developments. Exhibit 4.1 illustrates the location of the proposed water distribution centers. Typical water campus layouts will consist of two (2) reservoirs totaling 5.0 million gallons, booster pumping capable of 15,000 gpm, treatment facilities (if required), disinfection, standby generators, and a control building. Each water distribution center will screened from view by earthen berms and CMU walls.

4.4 Pipelines

Several miles of pipelines are required to supply the proposed service area with water. Typically these pipelines will range in size from 24" transmission mains to 8" distribution lines. The conceptual location and preliminary sizes for the mains are shown in Exhibit 4.1.

4.5 Pressure Zones

The initial evaluation of the proposed service area indicates that four separate pressures zones can be implemented. As illustrated in Exhibit 4.2, the zones would be located between elevations; +/- 970 to 1,070, 1,070 to 1,170, 1,170 to 1,270, and 1,270 to 1,370 feet above mean sea level. Connections between pressure zones will be limited. Typically, a pressure reducing valve (PRV) station will include a low flow valve and a high flow valve to accommodate the varying flow conditions.

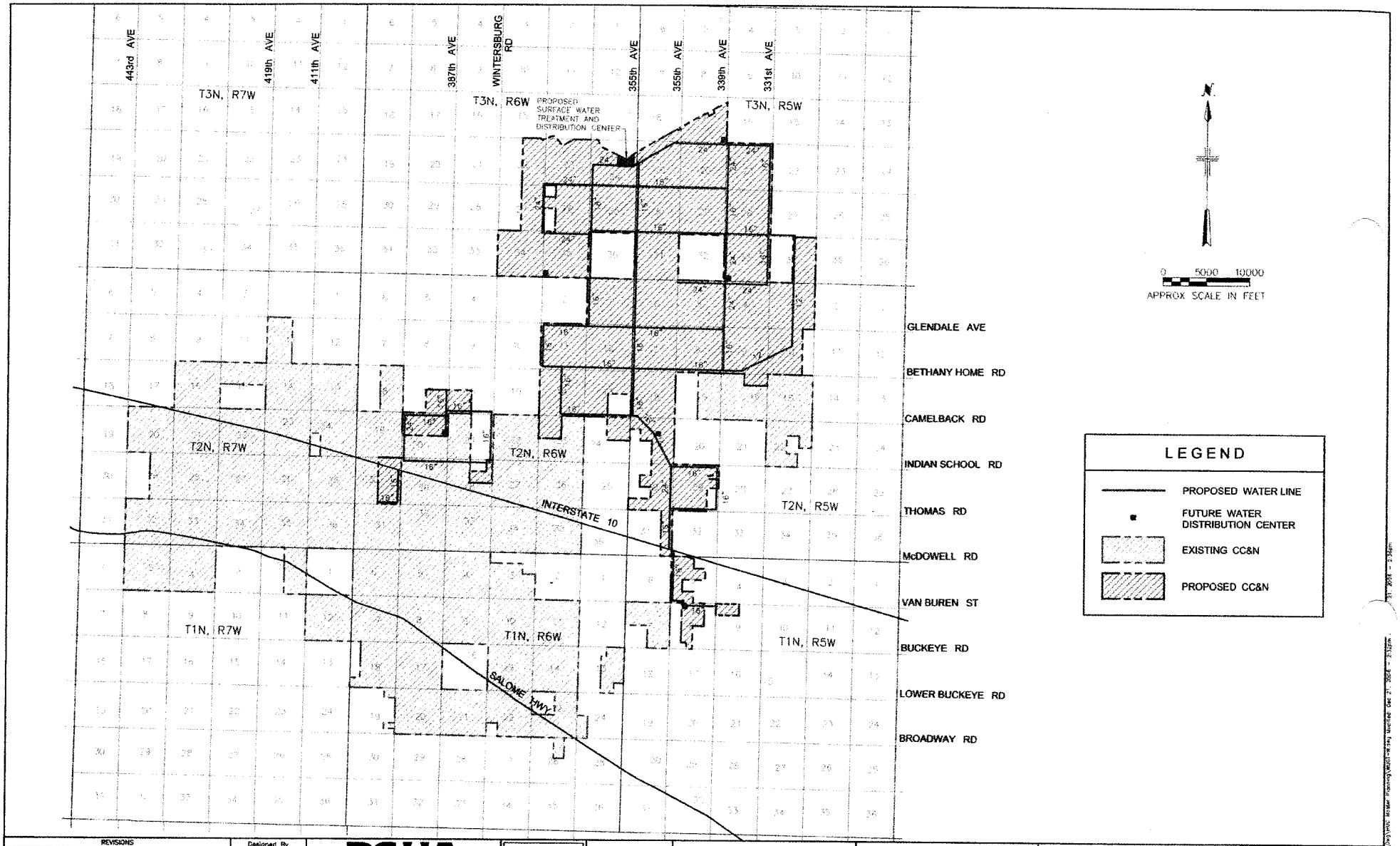
4.6 Water Quality

Global maintains the following strategies with respect to groundwater quality:

1. Identify and rehabilitate high quality wells in the proposed service area.
2. Develop blending mechanisms and control strategies to blend high quality water with poorer quality groundwater to ensure compliance with the Safe Drinking Water Act and AAC R18-4.
3. Modify existing wells to isolate areas of high concentrations or access higher quality water.
4. Provide slipstream treatment processes which in conjunction with an effective blending plan will meet the requirements.
5. Provide full scale treatment of groundwater.

A three phased approach to the evaluation of wells is employed by Global:

1. Phase 1 – Review available ADWR and ADEQ data, and physical assessment of wells;
2. Phase 2 – Analytical sampling of flow rates and quality (depth specific sampling, spinner logs);



REVISIONS			
NO	DATE	BY	DESCRIPTION

File Name: WUGT-8.dwg

Designed By CHC
Drawn By CDH
Checked By CHC

DSWA
DAMON S. WILLIAMS ASSOCIATES, LLC

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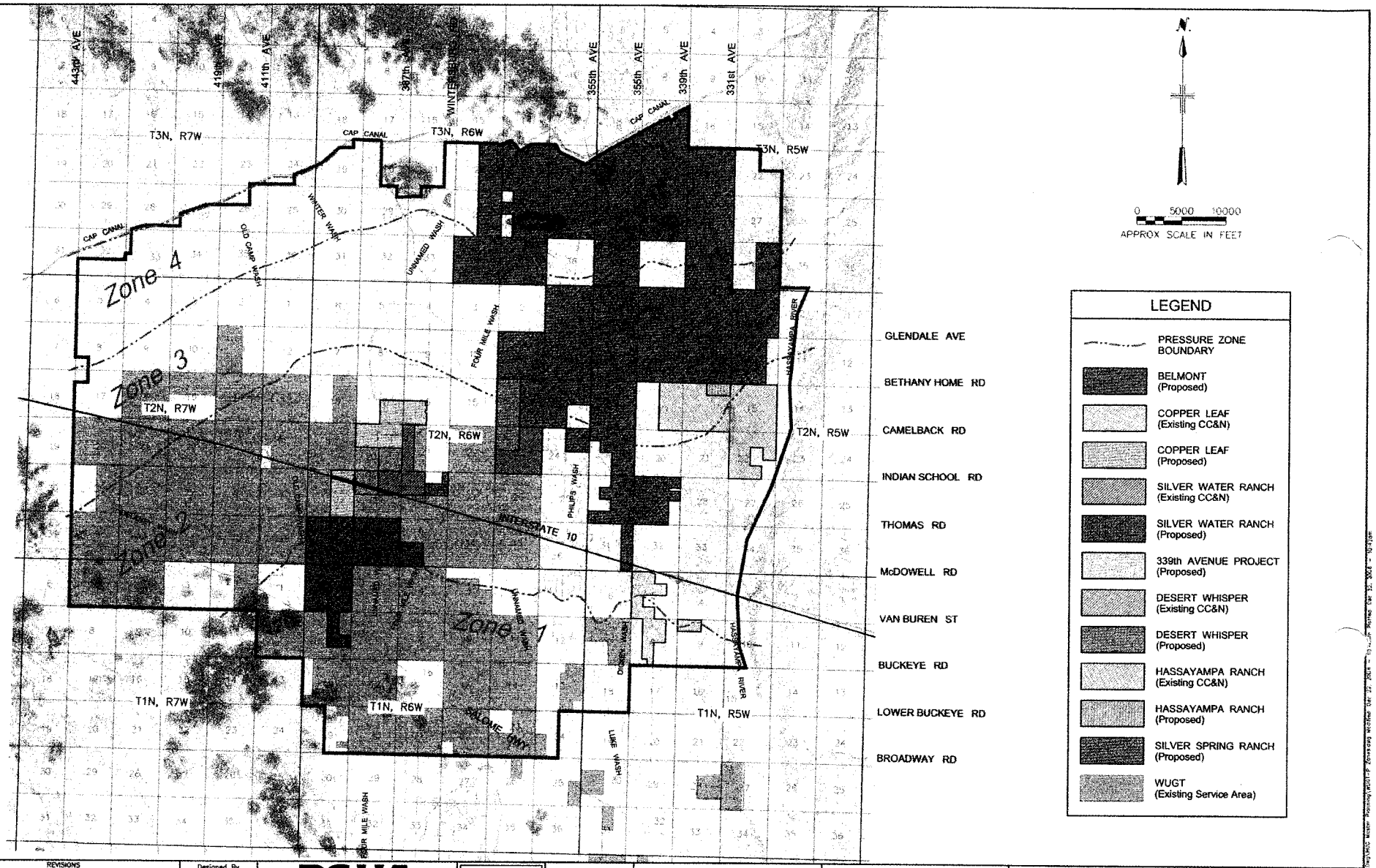
OF GREATER TONOPAH

CC&N EXTENSION
WATER SYSTEM

DSWA Project No 060010
Date DECEMBER 2006

EXHIBIT 4.1



REVISIONS			
NO	DATE	BY	DESCRIPTION

File Name: WUGT-P Zones.dwg

Designed By CHC
Drawn By CDH
Checked By CHC

DSWA
DAMON S. WILLIAMS ASSOCIATES, LLC

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GLOBAL WATER
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OF GREATER TONOPAH

PROPOSED SERVICE AREAS
LOCATION MAP
SHOWING PRESSURE ZONES

DSWA Project No 060010
Date DECEMBER 2006

EXHIBIT 4.2

3. Phase 3 – Rehabilitation. Installation of sanitary seal, re-screening, renewal of electrical control system, installation of SCADA control system, and obtain New Source Approval.

During Phase 2 of the evaluation program, a full suite of analytical data is taken from the groundwater including:

- Metals
- Inorganics
- Synthetic Organic Compounds
- Volatile Organic Compounds
- Nutrients
- Bacteriological Analyses
- Radiochemical constituents

The results of these analyses will determine any groundwater treatment requirements. The selection of wells for potable water production will take into account the water quality data, so investment into the conversion is made prudently. Global is prepared to install, operate and maintain any treatment processes that may be required. Global is considering three (3) alternative type of treatment methods for removal of Arsenic and Flouride from the groundwater. These facilities will be located on the water distribution centers.

5.0 CONCLUSIONS

The master planned area will require new pipelines and water distribution centers to adequately serve the proposed developments with potable water. The maximum pressure in the system will be 80 psi. The minimum pressure in the system during peak hour conditions is 40 psi. As new development plans become available and as construction begins, this master plan should be updated and revised accordingly. Ultimately, a complete hydraulic model of the system will be created and maintained to accurately assess the distribution and delivery system.

Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: WUGT - B & D Water Co.
PWS ID#: 07-618

Type of System: Community Number of EPDS's: 2 Surface Water: N/A
Number of Service Connections: 76 Population Served: 235

Assigned Monitoring Dates - Initial: 1/1/98 Phase II: 1/1/98 Phase V: 1/1/98

Does the water system have a Certified Operator? Yes

Does the system have major treatment plant deficiencies? N/A
Please describe: _____

Date of last Sanitary Survey: February 13, 2004

Does the system have major O & M deficiencies? No
Please describe: _____

Does the system have water quality monitoring/reporting deficiencies? Yes
Please describe: System has not performed nitrate monitoring for EPDS 002. Missed monitoring public notice is required.

Sent Lab results to ADEQ/MCE 4/12

General Public Water System Compliance Status? **Non-compliant, minor**

Date of compliance review: **April 11, 2206** By: **Doug Taylor R.S.** Initials: DT
Phone: **(602) 506-6631**

Requested By: Joyce Goodwin, Paralegal Fax Number/ Contact: 602-256-6800 Tracking Number: 1120

Supervisor Initials: [illegible] Date: 4/12/06

Drinking Water Program
John Kolman, Manager
1001 N. Central Ave., Suite 150Phoenix, Arizona 85004-1940 Phone: (602) 506-6666 Fax: (602) 506-6925

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

DRINKING WATER INORGANIC CHEMICAL ANALYSIS REPORT

*** SAMPLES TO BE TAKEN AT POE ONLY ***

07-618
System ID

B & D
System Name

10/05/05 11:20 (24 hr clock)
Sample date Sample time

Jack Meister
Owner/Contact Person Name

(623) 386-6638
Owner/Contact Fax Number

(623) 386-4252
Owner/Contact Person Phone Number

SAMPLE TYPE
[x] Compliance Monitoring

SAMPLE COLLECTION POINT/ID
[x] Point of Entry# 002

POE 002 B & D
SAMPLING SITE ID

FOR MCL EXCEEDANCE OR COMPOSITE TRIGGER

Original Violating Specimen Number

SAMPLE TYPE
[ ] CONFIRMATION
[ ] CONFIRMATION FOR COMPOSITE TRIGGER

***** INORGANIC CHEMICAL ANALYSIS *****

> > > TO BE FILLED OUT BY THE LABORATORY PERSONNEL < < <

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analysis Run Date	Result	Exceeds MCL	Exceeds Reporting Limit
E300	10	5	Nitrate (as N)	1040	10/06/2005	2	[ ]	[ ]

Note: The value in the results column only displays to the last significant integer, absent of any trailing zeros.

> > > > > LABORATORY INFORMATION < < < < <

To be filled out by laboratory personnel

SPECIMEN NUMBER
05100714-09

Lab ID Number AZ0610 Name: Aerotech Environmental

Comments:

Authorized Signature:

Date Public Water System Notified:

Unregulated Contaminants

All units must be reported in milligrams per liter (mg/L

DWAR 2IN: Revised 2003

Main Laboratory: 4646 E. Cotton Center Boulevard, Building 3, Suite 189 Phoenix, AZ 85040 Phone: 602.437.3340 Toll Free: 866.772.5227 Fax: 623.445.6192 www.aeroenvirolabs.com
Tucson Facility: 4455 S. Park Ave. Ste. 110 Tucson, AZ 85714 Phone: 520.807.3601 Fax: 520.807.3603
Corporate Address: 1501 W. Knudsen Drive, Phoenix, Arizona 85027 Phone: 623.780.4800 Toll Free: 800.651.4802 Fax: 623.780.7695 www.aerotechlabs.com

Water Utility of Greater Tonopah
201 E. Coronado St.
Buckeye, AZ 85326
(623)386-4252

April 12, 2006

ADEQ
1110 West Washington St
Phoenix, AZ 85007
Attention: Water Quality Compliance Section

RE: PWS# 07-618

Dear Sir:

Enclosed you will find lab results for 2005 Nitrate samples for PWS # 07-618.

If you have any questions, please contact my office.

Sincerely,

Robyn M. Wymer
Compliance
robyn@wmcwater.com

Water Utility of Greater Tonopah
201 E. Coronado St.
Buckeye, AZ 85326
(623)386-4252

April 12, 2006

MCES
1001 N Central Ave
Phoenix, AZ 85326
Attention: Doug Taylor

RE: PWS# 07-618

Dear Sir:

Enclosed you will find lab results for 2005 Nitrate samples for PWS # 07-618.

If you have any questions, please contact my office.

Sincerely,

Robyn M. Wymer
Compliance
robyn@wmcwater.com

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

DRINKING WATER INORGANIC CHEMICAL ANALYSIS REPORT

*** SAMPLES TO BE TAKEN AT POE ONLY ***

07-518
System ID

B & D
System Name

10/05/05 Sample date
11:10 Sample time (24 hr clock)

Jack Meister
Owner/Contact Person Name

(623) 386-6638
Owner/Contact Fax Number

(623) 386-4252
Owner/Contact Person Phone Number

SAMPLE TYPE
[x] Compliance Monitoring

SAMPLE COLLECTION POINT/ID
[x] Point of Entry# 002

001

POE ~~002~~ Buckeye Ranch
SAMPLING SITE ID

FOR MCL EXCEEDANCE OR COMPOSITE TRIGGER

Original Violating Specimen Number

SAMPLE TYPE
[ ] CONFIRMATION
[ ] CONFIRMATION FOR COMPOSITE TRIGGER

***** INORGANIC CHEMICAL ANALYSIS *****

> > > TO BE FILLED OUT BY THE LABORATORY PERSONNEL < < <

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont Code	Analysis Run Date	Result	Exceeds MCL	Exceeds Reporting Limit
E300	10	5	Nitrate (as N)	1040	10/06/2005	2.1	☐	☐

Note: The value in the results column only displays to the last significant integer, absent of any trailing zeros.

> > > > > LABORATORY INFORMATION < < < < <

To be filled out by laboratory personnel

SPECIMEN NUMBER
05100714-04

Lab ID Number AZ0610 Name: Aerotech Environmental

Comments:

Authorized Signature:

Date Public Water System Notified:

Unregulated Contaminants

All units must be reported in milligrams per liter (mg/L

Main Laboratory: 4645 E. Cotton Center Boulevard, Building 3, Suite 189 Phoenix, AZ 85040 Phone: 602.437.3340 Toll Free: 866.772.5227 Fax. 623.445.6192 www.aeroenvirolabs.c
Tucson Facility: 4455 S. Park Ave. Ste. 110 Tucson, AZ 85714 Phone: 520.807.3801 Fax: 520.807.3803
Corporate Address: 1501 W. Knudsen Drive, Phoenix, Arizona 85027 Phone: 623.780.4800 Toll Free: 800.651.4802 Fax: 623.780.7695 www.aerotechlabs.com

Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: WUGT - Sunshine Water Co.
PWS ID#: 07-071

Type of System: Community Number of POE's: 1 Surface Water: N/A
Number of Service Connections: 81 Population Served: 251

Assigned Monitoring Dates - Initial: 1/1/94 Phase II: 1/1/94 Phase V: 1/1/97

Does the water system have a Certified Operator? Yes

Does the system have major treatment plant deficiencies? No
Please describe: _____

Date of last Sanitary Survey: November 15, 2005

Does the system have major O & M deficiencies? No
Please describe: System has entered into a consent agreement to correct vioaltions..

Does the system have water quality monitoring/reporting deficiencies? No
Please describe: ystem has not submitted disinfection byproduct monitoring results. System has entered into a concent agreement to correct monitoring violation and must conitnue to meet requirements of consent agreement to remain in compliance.

General Public Water System Compliance Status? **Compliant**

Date of compliance review: April 7, 2006 By: Doug Taylor R.S. Initials: DT
Phone: (602) 506-6631

Requested By: Joyce Goodwin, Paralegal Fax Number/ Contact: 602-256-6800 Tracking Number: 1118

Supervisor Initials: [illegible] Date: 4/10/06

Drinking Water Program
John Kolman, Manager
1001 N. Central Ave., Suite 150Phoenix, Arizona 85004-1940 Phone: (602) 506-6666 Fax: (602) 506-6925

Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: WUGT - Rose View Water Company
PWS ID#: 07-082

Type of System: Community Number of POE's: 1 Surface Water: N/A
Number of Service Connections: 20 Population Served: 50

Assigned Monitoring Dates - Initial: 1/1/02 Phase II: 1/1/02 Phase V: 1/1/02

Does the water system have a Certified Operator? Yes

Does the system have major treatment plant deficiencies? N/A
Please describe: _____

Date of last Sanitary Survey: November 15, 2005

Does the system have major O & M deficiencies? No
Please describe: _____

Does the system have water quality monitoring/reporting deficiencies? No
Please describe: _____

General Public Water System Compliance Status? **Compliant**

Date of compliance review: April 7, 2006 By: Doug Taylor R.S. Initials: DT
Phone: (602) 506-6631

Requested By: Joyce Goodwin, Paralegal Fax Number/ Contact: 602-256-6800 Tracking Number: 1117

Supervisor Initials: (MB) Date: 4/12/06

Drinking Water Program
John Kolman, Manager
1001 N. Central Ave., Suite 150Phoenix, Arizona 85004-1940 Phone: (602) 506-6666 Fax: (602) 506-6925

Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: WUGT - Garden City Water Co.
PWS ID#: 07-037

Type of System: Community Number of POE's: 1 Surface Water: N/A
Number of Service Connections: 15 Population Served: 50

Assigned Monitoring Dates - Initial: 1/1/98 Phase II: 1/1/98 Phase V: 1/1/98

Does the water system have a Certified Operator? Yes

Does the system have major treatment plant deficiencies? N/A
Please describe: _____

Date of last Sanitary Survey: November 15, 2005

Does the system have major O & M deficiencies? No
Please describe: _____

Does the system have water quality monitoring/reporting deficiencies? No
Please describe: _____

General Public Water System Compliance Status? Compliant

Date of compliance review: April 7, 2007 By: Doug Taylor R.S. Initials: DT
Phone: (602) 506-6631

Requested By: Joyce Goodwin, Paralegal Fax Number/ Contact: 602-256-6800 Tracking Number: 1119

Supervisor Initials: _____ Date: _____

Drinking Water Program
John Kolman, Manager
1001 N. Central Ave., Suite 150Phoenix, Arizona 85004-1940 Phone: (602) 506-6666 Fax: (602) 506-6925

Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: WUGT - WPE #6 (West Phoenix Estates #6)
PWS ID#: 07-733

Type of System: Community Number of EPDS's: 1 Surface Water: N/A
Number of Service Connections: 23 Population Served: 71

Assigned Monitoring Dates - Initial: 1/1/02 Phase II: 1/1/02 Phase V: 1/1/02

Does the water system have a Certified Operator? Yes

Does the system have major treatment plant deficiencies? No
Please describe: _____

Date of last Sanitary Survey: August 19, 2005

Does the system have major O & M deficiencies? No
Please describe: _____

Does the system have water quality monitoring/reporting deficiencies? Yes
Please describe: System operating status has been changed to substantial compliance. However, this status is contengent upon sucessful completion of the initial lead and copper monitoring as discused between system representatives and Mr. Taylor on April 24, 2006.

General Public Water System Compliance Status? **Substantial Compliance**

Date of compliance review: **May 9, 2006** By: **Doug Taylor R.S.** Initials: _____
Phone: **(602) 506-6631**

Requested By: Dorothy Hains Fax Number/ Contact: 602-542-0766 Tracking Number: _____
Supervisor Initials: _____ Date: _____

Drinking Water Program
John Kolman, Manager
1001 N. Central Ave., Suite 150Phoenix, Arizona 85004-1940 Phone: (602) 506-6666 Fax: (602) 506-6925

Susan Armijo

From: Jenny Young - ENVX [JYoung@mail.maricopa.gov]
Sent: Friday, September 01, 2006 7:26 AM
To: Robyn Wymer; Susan Armijo
Subject: WPE #6, 07-733

I have verified that the lead and copper monitoring requirement listed on the previous compliance review dated 5/9/06 has been completed by the water system. We are currently performing a new compliance review but it is not complete. I don't know of any other deficiencies for this water system. If you have any questions, please contact me. I will send a separate email regarding the Dixie water system.

Genevieve Young
Lead Environmental Specialist
Maricopa County
Environmental Services Department
Drinking Water Program
(602) 506-0462
(602) 372-0866 (Fax - Note new number.)
jyoung@mail.maricopa.gov

Susan Armijo

From: Jenny Young - ENVX [JYoung@mail.maricopa.gov]
Sent: Friday, September 01, 2006 7:26 AM
To: Robyn Wymer; Susan Armijo
Subject: WPE #6, 07-733

I have verified that the lead and copper monitoring requirement listed on the previous compliance review dated 5/9/06 has been completed by the water system. We are currently performing a new compliance review but it is not complete. I don't know of any other deficiencies for this water system. If you have any questions, please contact me. I will send a separate email regarding the Dixie water system.

Genevieve Young
Lead Environmental Specialist
Maricopa County
Environmental Services Department
Drinking Water Program
(602) 506-0462
(602) 372-0866 (Fax - Note new number.)
jyoung@mail.maricopa.gov

Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: Dixie Water Company
PWS ID#: 07-030

Type of System: Community Number of POE's: 1 Surface Water: n/a
Number of Service Connections: 26 Population Served: 81

Assigned Monitoring Dates - Initial: 1/1/99 Phase II: 1/1/99 Phase V: 1/1/99

Does the water system have a Certified Operator? Yes

Does the system have major treatment plant deficiencies? n/a
Please describe: _____

Date of last inspection: February 13, 2004

Does the system have major O & M deficiencies? No
Please describe: _____

Does the system have water quality monitoring/reporting deficiencies? No
Please describe: System has performed public notice for total coliform MCL in November 2005 and for missed monitoring. Other corrective action also completed.

General Public Water System Compliance Status? **Compliant**

Date of compliance review: **09/11/2006** By: **Genevieve Young** Initials: **GY**
Phone: **(602) 506-0462**

Requested By: Robyn Wymer Fax Number/ Contact: _____ Tracking Number: 1184

Drinking Water Program
John Kolman, Manager
1001 N. Central Ave., Suite 150Phoenix, Arizona 85004-1940 Phone: (602) 506-6666 Fax: (602) 506-6925

EXHIBIT A-17

ROSHKA DEWULF & PATTEN

ROSHKA DEWULF & PATTEN, PLC
ATTORNEYS AT LAW
ONE ARIZONA CENTER
400 EAST VAN BUREN STREET
SUITE 800
PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800

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AZ CORP COMMISSION
DOCUMENT CONTROL

February 2, 2007

Via hand delivery

Ms. Linda A. Jaress
Executive Consultant III
Utilities Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Re: **Response to 2nd Insufficiency Letter**
Water Utility of Greater Tonopah CC&N Extension
Docket No. W-02450A-06-0626

Dear Ms. Jaress:

Attached, please find Water Utility of Greater Tonopah's Response to your Insufficiency Letter dated January 17, 2007. Please let me know if you have any questions.

Very truly yours,

Timothy J. Sabo

TJS:mi
Enclosures

cc: Docket Control

EXHIBIT
A17
admitted

Water Utility of Greater Tonopah's Responses to
Engineering 2nd List of Deficiencies
Docket No. W-02450A-06-0626
February 2, 2007

1. The submitted Master Plan includes the Hassayampa Ranch development. Please provide a Request for Water Service.

RESPONSE: Please find the Request for Water Service attached.

RESPONDENT: Graham S. Symmonds, SVP
Operations and Compliance

HARVARD INVESTMENTS
A HILL COMPANY

January 25, 2007

Ms. Cindy Liles, Senior Vice President
Global Water Resources, Inc.
21410 N. 19th Avenue
Suite 201
Phoenix, AZ 85027

Re: Water Utility of Greater Tonopah CC&N Extension, Request for Service

Dear Ms. Liles:

We understand that Global Water Resources, Inc. (Global) is in the process of filing an application for an extension to the Certificate of Convenience and Necessity (CC&N) issued by the Arizona Corporation Commission, for its subsidiary, Water Utility of Greater Tonopah (WUGT). If approved, this extension will allow WUGT to provide water service in Hassayampa Ranch, a new planned development in the West Valley.

We support the filing by Global and/or WUGT to expand their CC&N and request from WUGT to provide water service to our development. The legal description of our subject property is enclosed as Exhibit A.

Hassayampa Ranch Ventures, LLC

By: Hassayampa Ranch Partners, L.L.C.
By: Harvard Investments, Inc.

By: _____
Christopher J. Cacheris
Vice President

Enclosure

17700 North Pacesetter Way • Scottsdale, Arizona 85255 • 480.348.1118 • Fax 480.348.8976

EXHIBIT "A"

PARCEL NO. 1:

ALL OF SECTION 15, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, RECORDS OF MARICOPA COUNTY, ARIZONA.

PARCEL NO. 2:

THE EAST HALF OF THE NORTHEAST QUARTER, THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER, THE WEST HALF AND THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, RECORDS OF MARICOPA COUNTY, ARIZONA.

PARCEL NO. 3

ALL OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, RECORDS OF MARICOPA COUNTY, ARIZONA;

EXCEPT THE NORTH HALF OF THE NORTHEAST QUARTER OF SAID SECTION; AND

EXCEPT ALL THE MINERAL INTEREST RESERVED TO THE STATE OF ARIZONA IN AND TO THE FOLLOWING LAND BY THE FOLLOWING INSTRUMENT;

AS TO THE SOUTH HALF OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 5 WEST BY DEED DATED NOVEMBER 12, 1941 AND RECORDED AT BOOK 366 OF DEEDS, PAGE 563, RECORDS OF MARICOPA COUNTY, ARIZONA; AND

EXCEPT ALL THE MINERAL INTEREST RESERVED TO THE STATE OF ARIZONA IN AND TO THE FOLLOWING LAND BY THE FOLLOWING INSTRUMENT;

AS TO THE NORTHEAST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 5 WEST BY DEED DATED MARCH 3, 1939 AND RECORDED AT BOOK 331 OF DEEDS, PAGE 569, RECORDS OF MARICOPA COUNTY, ARIZONA; AND

EXCEPT ALL THE MINERAL INTEREST RESERVED TO THE STATE OF ARIZONA IN AND TO THE FOLLOWING LAND BY THE FOLLOWING INSTRUMENT;

AS TO THE NORTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 5 WEST, BY DEED DATED MAY 11, 1949 AND RECORDED AT DOCKET 401, PAGE 326, RECORDS OF MARICOPA COUNTY, ARIZONA.

PARCEL NO. 4:

THE EAST HALF OF SECTION 17, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, RECORDS OF MARICOPA COUNTY, ARIZONA.

PARCEL NO. 5:

THE NORTH HALF OF THE NORTHEAST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

Water Utility of Greater Tonopah's Responses to
Engineering 2nd List of Deficiencies
Docket No. W-02450A-06-0626
February 2, 2007

2. According to the Application, Desert Whisper has not requested wastewater service from Hassayampa.

Please state which utility will provide wastewater service.

RESPONSE: To the best of our knowledge, Desert Whisper has requested wastewater service from Balterra Sewer Corporation.

RESPONDENT: Graham S. Symmonds, SVP
Operations and Compliance

3. Please coordinate engineering matters discussed in Engineering Memorandum ("E.M.")- Exhibits 7&8 and the Master Report (M.R.).

E.M. water demands design criteria based on 245 GPD / DU. However, M.P. water demands based on 480 GPD / DU. Furthermore , Hassayampa Utilities Company's estimated wastewater flow is based on 187 GPD /DU.

Revise the Backbone Water Infrastructure capacities and costs in all documents accordingly (including Exhibit 8).

RESPONSE: The Arizona Corporation Commission has historically been sensitive about overbuilding facilities which are reflected in rate base but not used. This has caused us to look carefully at sizing water facilities correctly. This average water use estimate came about as a result of our experience with the Santa Cruz Water Company (SCWC) which operates in and around the incorporated City of Maricopa. Because of our desert environment and limited water resources, Global Water Resources ("Global"), the owner of WUGT and the SCWC, has put extensive thought and effort into reducing the amount of potable water needed to service its communities.

<u>Source and Justification of 245 gpd/du average water demand in the Engineering Memorandum and Cost Tables</u>
The Santa Cruz experience has shown that by using A+ reclaimed water for community landscaping and irrigation needs, truly non-potable uses, the potable water demand has been reduced from approximately 300 gpd/du to approximately 242 gpd/du. These numbers are averages based on SCWC 2006 actual water demands/production. In other words, of the 3.74 MGD average demand, 0.72 MGD was met with reclaimed water delivery, a 19% reduction in potable water demand.

The production capacity required for the design of our facilities is based on 0.17 gpm/du, derived from our average daily flow demand of 242 gpd/du divided by 1,440 minutes, which equals 0.168 gpm/du, rounded to 0.17 gpm/du. This is the rate used in the cost calculations for this application, as shown in Exhibit 8 of the initial application filing. Global has been consistent its CC&N extension applications for its water utilities, utilizing between 245 – 256 gpd/du, where the range of 11 gpd/du developed from rounding interpretations, which is insignificant when

calculating infrastructure requirements for the purposes of then developing cost estimates.

Source and justification of 480 gpd/du in Conceptual Master Plan
Wes Shonerd, Program Manager, Subdivision Infrastructure & Planning Program, MCESD has directed the developers in the West Valley to use planning number of 150 gpcd and 3.2 persons/du, or 480 gpd/du, for their Master Plans. Since we are formally preparing the backbone Master Plans for WUGT in the extension area, we instructed our engineers to use the demand numbers that have been approved by MCESD. By requiring planning at this 480 gpd/du rate, MCESD is able to ensure sufficient pipe, booster and storage capacity is considered for all peak flows. This rate, however, more realistically represents worst case scenario – approximately maximum day continuously for all time – when in fact both maximum day (1.8 times average daily flow) and peak hourly demands, (1.7 times max day flow), are fully considered in the modeling used for design. Thus for Approval To Construct permits in Maricopa and Pinal County, Global uses the demand of 250 gpd/du Avg Daily Flow, and a 495 gpd/du maximum day flow, and a peak hour flow of 0.58 GPM/DU which meet needs for steady state and instantaneous demand in the water infrastructure. This approach is based on several years of operating experience, and more recently on the actual potable demand reductions seen by using reclaimed water in its place.

We respectfully do not believe the infrastructure cost estimates need to be recalculated, and represent that the costs submitted are more realistic.

Source of HUC wastewater production rate
Wes Shonerd has directed to the utility and development community that a rate of 320-350 gpd/du be used in the 208 Plan Amendments ("Amendments"), i.e., 100 gpcd and 3.2 -3.5 persons per du.. Typically the smaller Amendments are from developer-owned utilities and only serve one development. In these cases, for planning purposes, MCESD assumes that there is potential to include other lands to be served by the wastewater

treatment facility proposed in the Amendment, so that there is sufficient land available as well as thought given to the disposition of the effluent. In large-scale 208s, as is the case of the pending HUC Amendments in the West Valley, a majority of the proposed service area is under development by multiple developers who have requested wastewater service from HUC, and thus the wastewater plants are planned as regional facilities from day one.

Global has 5 years of operating data at its Palo Verde Utilities Company (PVUC) in Maricopa, AZ. In 2006, the production rate averaged 140 gpd/du. Global has been designing its collection systems and receiving approvals from ADEQ based on 187.2 gpd/du, a conservative rate that is a third more than our actuals; ADEQ's standard rate has been 234 gpd/du, a third lower than the planning demand of 320-350 gpd/du. The HUC infrastructure costs in the CC&N application were based on the 187 gpd/du rate, which we believe best represents what will be needed to serve the regional service area. Global estimated the WRF expansion costs based on this rate as well, but as is the case for PVUC, Global closely monitors its flowrates and hook-ups to predict when additional capacity is needed such that design and construction of the added capacity occurs before the flows outpace the existing capacity

RESPONDENT: Graham S. Symmonds, SVP
Operations and Compliance

Water Utility of Greater Tonopah's Responses to
Engineering 2nd List of Deficiencies
Docket No. W-02450A-06-0626
February 2, 2007

4. Pursuant to the Exhibit 8, please provide a justification for estimated Arsenic Treatment Unit Cost of $1,500,000 and Surface Water Treatment Unit Cost of 4,800,000.

RESPONSE: Based on our engineering experience and a review of the current literature, the following breakdown of anticipated costs for treating the groundwater for arsenic is provided as the basis for the costs of infrastructure that was presented in the original submission.

Global Water Resources

Groundwater Filtration/IX Treatment Plant Budgetary Estimate

	Quantity	Unit	Unit Price	Price
2000 gpm system including	1	ea	$ 1,690,000	$1,690,000
As-V Dual media pressure filters (3 at 10 ft diam x 25 ft)				
NO3 selective Anion Exchange (3 at 11 ft diam)				
Brine Make-up System				
Valves, Chem feed systems, control panels				
Equipment Subtotal				$1,690,000
Pre-Engineered Building	600	sf	$ 75	$45,000
Electrical Service	1	ea	$ 30,000	$30,000
Paving	8000	sf	9.13	$73,040
Perimeter Walls	3200	sy	$ 20	$64,000
Generator	1	ea	$ 130,000	$130,000
******Brine Disposal Not Included*****				
Subtotal				$2,032,040
Electrical and Instrumentation	percent of equipment		15%	$253,500
Mechanical Piping and Equip Install	percent of equipment		25%	$422,500
Site Work (equip pads, grading, yard piping)	percent of subtotal		17%	$345,447
Raw Cost				$3,183,487
Engineering Design and Permitting			12%	$382,018
Construction Mark-up			23%	$732,202
Construction Administration			7%	$222,844
Construction & Permitting Cost				$4,297,707
Tax on 65% of construction	8%			$227,671
Total Construction Cost w/tax				$4,525,378
Unit Price	1	$/gpd	$1.50	

Water Utility of Greater Tonopah's Responses to
Engineering 2nd List of Deficiencies
Docket No. W-02450A-06-0626
February 2, 2007

Based upon a current design project for constructing a surface water treatment plant for Global's Santa Cruz Water Company and a check of the current literature, the following breakdown of costs form the basis of the costs presented in the original application.

Global Water Resources

Surface Water Treatment Plant Budgetary Estimate

	Quantity	Unit	Unit Price	Price
Intake Trashrack/Headwall, 60 cfs	1	ea	1000000	$1,000,000
Submersible PS in Precast Wetwell	1	ea	500000	$500,000
Pre-sedimentation system	2	ea	1000000	$2,000,000
Pall MF Train (from MGWTP Procurement Contract)	9	ea	780000	$7,020,000
Installation	1	ea	1250000	$1,250,000
Strainer	2	ea	50000	$100,000
CIP System	1	ea	500000	$500,000
Reverse Flush Pumps	8	ea	6900	$55,200
Backwash recovery/equalization	1	ea	400000	$400,000
Granular Activated Carbon	4	ea	500000	$2,000,000
Magnetic Flow Meters, 24 inch	4	ea	12000	$48,000
Chemical dosing systems, coagulant, CO2 and disinfectant	2	ea	750000	$1,500,000
CIP Chemical Transfer Pump Systems	3	ea	5000	$15,000
Chemical Storage Tanks, 5000 gal HDPE	4	ea	30000	$120,000
Generator	2	ea	300000	$600,000
Equipment Subtotal				$17,108,200
Building /Laboratory/Office	12000	sf	180	$2,160,000
Electrical Service	1	ea	300000	$300,000
Paving	40000	sf	9.13	$365,200
Perimeter Walls	22400	sf	20	$448,000
Subtotal				$20,381,400
Design and Permitting	percent of Construction Cost		12%	$2,372,294
Construction Administration	percent of Construction Cost		7%	$1,415,724

Water Utility of Greater Tonopah's Responses to
Engineering 2nd List of Deficiencies
Docket No. W-02450A-06-0626
February 2, 2007

Electrical and Instrumentation	percent of Construction Cost		25%	$4,859,376
Mechanical Piping and Equip Install	percent of Construction Cost		34%	$6,562,070
Site Work (equip pads, grading, yard piping)	percent of subtotal		22%	$4,285,434
Raw Cost				$39,876,297
Construction Mark-up			24%	$9,370,930
Construction Cost				$49,247,226
Tax on 65% of construction	8%			$2,608,872
Total Construction Cost w/tax				$51,856,098
Unit Price	1	$/gpd	$4.71	

RESPONDENT: Graham S. Symmonds, SVP
Operations and Compliance

5. Provide detailed information for **Initial Development** within the requested extension area:

Identify the subdivision where the initial development activity will occur.

Number of dwelling units.

Water infrastructure components including description (water production, treatment, storage, booster and distribution) location (layout plans) capacities (including wells) costs projected date of operation

RESPONSE: To assist with the context of this extension request in relation to the water and wastewater CC&N in this area, as well as to provide relation to the Town of Buckeye and Global's two water companies in and around the Town of Buckeye area, attached please find an updated exhibit that shows the following:

WUGT existing CC&N
WUGT proposed CC&N
HUC existing CC&N
HUC proposed CC&N
Balterra Sewer Corporation CC&N
WUGT proposed Balterra CC&N extension
Valencia Water Company existing CC&N
WUGB existing CC&N
Town of Buckeye incorporated boundary
Named Developments

Table 4-2 of the draft Conceptual Water Master Plan has been revised to indicate that the number of customers shown in the table are reflected as dwelling units. The table contains sufficient information to respond to the number of additional dwelling units anticipated per year and the developments where that activity will occur. The schedule provided in Table 4-2 reflects the anticipated construction of homes by development based on agreements and discussions with the various developers in regards to the current pace of their developments.

Table 4-2. Existing and Proposed Customers

Water System/Development	PWS No.	Existing Customers, DU	Year 1, DU	Year 2, DU	Year 3, DU	Year 4, DU	Year 5, DU
Buckeye Ranch System	07-618	94	114	134	154	174	194
Dixie System	07-030	27	30	33	36	39	42
WPE #6	07-733	23	23	23	23	23	23
Tufte WPE #7 System	07-617	6	6	6	6	6	6
Garden City/Big Horn System	07-037	16	17	18	19	20	21
Rose View System	07-082	16	18	20	22	24	26
WPE #1 System	N/A	2	3	4	5	6	7
Sunshine System	07-071	121	159	197	235	273	311
Copperleaf		0	220	220	240	300	300
Silver Water Ranch		0		90	180		
Belmont		0	1840	1840	2820	2820	2820
339th Avenue		0	220	175	240	300	300
Desert Whisper		0	120	75	120	180	180
Silver Springs Ranch		0	220	220	240	300	300
Hassayampa Ranch		0	220	220	240	300	300
	Total	**305**	**3,210**	**3,275**	**4,580**	**4,765**	**4,830**

1. Where "DU" represents the number of existing or new service connections.

The water infrastructure components are described in Sections 4.3 and 4.4 of the master plan. The text from these sections is provided in the following paragraphs.

4.3 Water Storage/Booster Facilities

Two water distribution centers are required to serve the initial phases of the proposed developments. Exhibit 4.1 illustrates the location of the proposed water distribution centers. Typical water campus layouts will consist of two (2) reservoirs totaling 5.0 million gallons, booster pumping capable of 15,000 gpm, treatment facilities (if required), disinfection, standby generators, and a control building. Each water distribution center will screened from view by earthen berms and CMU walls.

4.4 Pipelines

Several miles of pipelines are required to supply the proposed service area with water. Typically these pipelines will range in size from 24" transmission mains to 8" distribution lines. The conceptual location and preliminary sizes for the mains are shown in Exhibit 4.1.

The location of the facilities was provided in Exhibit 4.1 of the master plan.

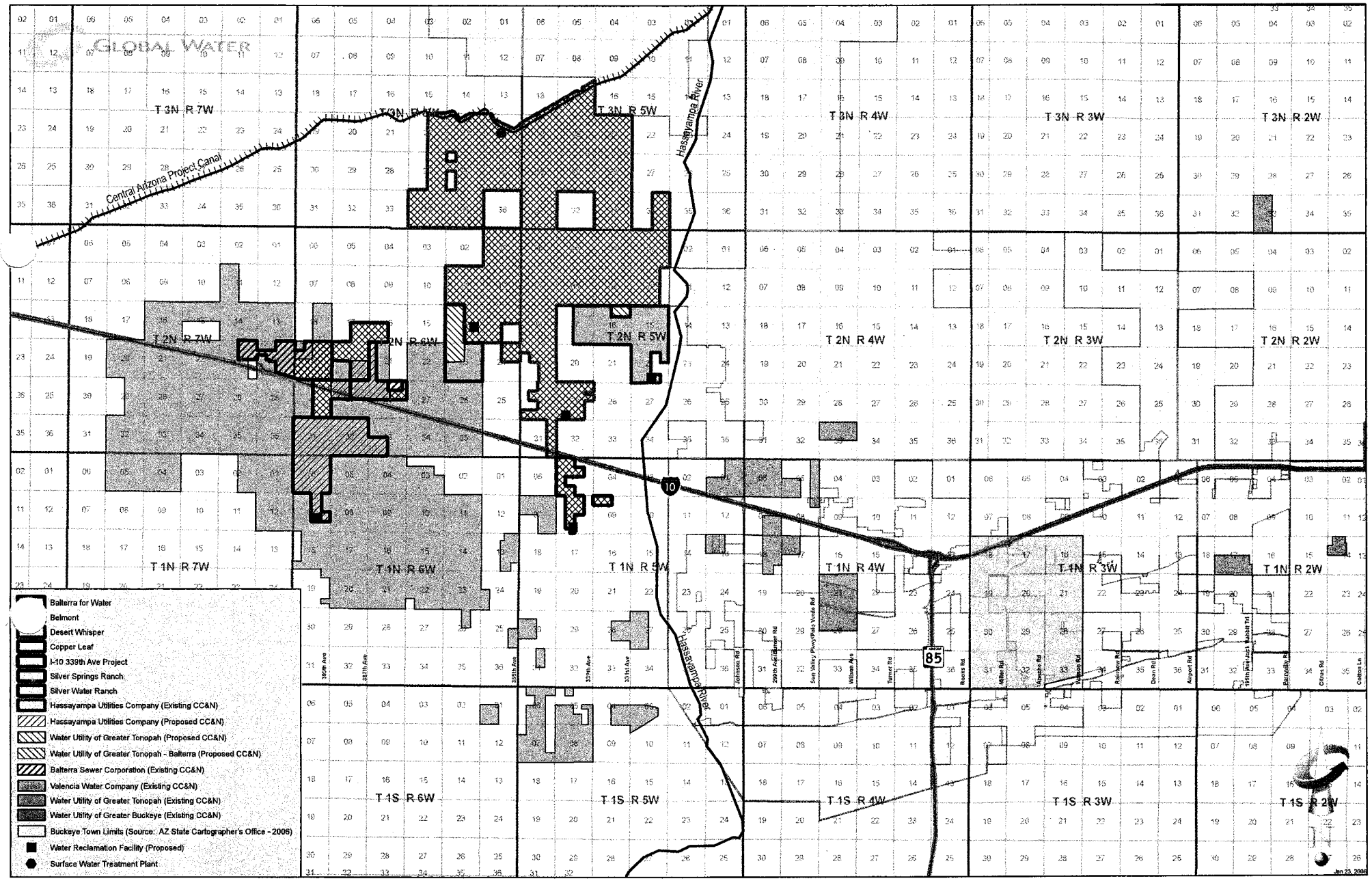
The well capacities in the development areas are estimated to range from 800 to 1,000 gallons per minute (gpm). The master plan will be revised to include this information.

The costs associated with the installation of the infrastructure components was included as part of the original CC&N extension application. This type of detailed cost estimate would not typically be included as part of the master planning effort.

The projected date of operation for the facilities included in the master plan, that is, "Year 1" in Table 4-2, is 2009. The projected costs are based on design phase demands, per the discussion above in question No. 3 response, and are found in the initial application, Exhibit 8.

Finally, please note that a typical groundwater treatment plant and appurtenant major facilities, also known as a water distribution center, has been included in the revised Conceptual Master Plan as requested. Specific layout of the WUGT facilities requires a more advanced stage of design, and of course will be prepared, submitted, and proceed through the various permitting and design reviews in order to obtain Certificates of Construction.

RESPONDENT: Graham S. Symmonds, SVP
Operations and Compliance


GLOBAL WATER
Central Arizona Project Canal
Hassayampa River
T 3N R 7W
T 3N R 6W
T 3N R 5W
T 3N R 4W
T 3N R 3W
T 3N R 2W
T 2N R 7W
T 2N R 6W
T 2N R 5W
T 2N R 4W
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T 1N R 3W
T 1N R 2W
T 1S R 6W
T 1S R 5W
T 1S R 4W
T 1S R 3W
T 1S R 2W
10
85
Balterra for Water
Belmont
Desert Whisper
Copper Leaf
I-10 339th Ave Project
Silver Springs Ranch
Silver Water Ranch
Hassayampa Utilities Company (Existing CC&N)
Hassayampa Utilities Company (Proposed CC&N)
Water Utility of Greater Tonopah (Proposed CC&N)
Water Utility of Greater Tonopah - Balterra (Proposed CC&N)
Balterra Sewer Corporation (Existing CC&N)
Valencia Water Company (Existing CC&N)
Water Utility of Greater Tonopah (Existing CC&N)
Water Utility of Greater Buckeye (Existing CC&N)
Buckeye Town Limits (Source: AZ State Cartographer's Office - 2006)
Water Reclamation Facility (Proposed)
Surface Water Treatment Plant
Jan 23, 2006

WATER UTILITY OF GREATER TONOPAH
CONCEPTUAL WATER MASTER PLAN
PHASE 1

Prepared for:

Global Water Resources, LLC
21410 North 19th Avenue, Suite 201
Phoenix, Arizona 85027
Phone (623) 580-9600

Prepared by:

Damon S. Williams Associates
2355 E. Camelback Road, Suite 700
Phoenix, Arizona 85016
Phone (602) 265-5400

January 2007

TABLE OF CONTENTS

		Page
1.0	INTRODUCTION	1-1
2.0	BACKGROUND	2-1
3.0	EXISTING CONDITIONS	3-1
3.1	Existing Water Systems	3-1
3.2	Geohydrology	3-1
4.0	PROPOSED IMPROVEMENTS	4-1
4.1	Water Demands	4-1
4.2	Wells	4-3
4.3	Water Storage/Booster Facilities	4-3
4.4	Pipelines	4-3
4.5	Pressure Zones	4-3
4.6	Water Quality	4-3
5.0	CONCLUSIONS	5-1

LIST OF TABLES

		Page
Table 3-1.	Existing WUGT Water Systems and Customers	3-1
Table 4-1.	Water Demand Projections	4-1
Table 4-2.	Existing and Proposed Customers	4-2

LIST OF EXHIBITS

		Follows Page
Exhibit 2.1	Vicinity Map	2-1
Exhibit 3.1	WUGT Existing Water Systems Location Map	3-1
Exhibit 3.2	Well Location Map	3-2
Exhibit 4.1	CC&N Extension Water System	4-3
Exhibit 4.2	Typical Site Layout System	4-3
Exhibit 4.3	Proposed Service Areas Location Map Showing Pressure Zones	4-3

1.0 INTRODUCTION

Global Water recently acquired the Water Utility of Greater Tonopah (WUGT) as a new subsidiary. The WUGT is the major water provider in this area of Maricopa County to the west of the Hassayampa River. As such, they are responsible for providing water services to the existing and proposed communities in this area. Global and WUGT recognize the need to provide a regional planning document that will aid them in implementing future capital improvement projects. The purpose of this document is to provide Phase 1 of a regional water plan for Global Water's (Global) existing and proposed service area in western Maricopa County, focusing on seven developments which are in relatively advanced stages of planning and have requested service from WUGT.

The WUGT is currently in the process of extending their Certificate of Convenience and Necessity (CC&N) to cover various subdivisions or portions thereof that are not included in their existing CC&N. This document is intended to be used for discussion purposes, but does not necessarily encompass the final version of the full-scale master planning effort.

2.0 BACKGROUND

The area to be regionally planned for the WUGT is located in western Maricopa County and in total comprises approximately one hundred and seventy five (175) square miles. The proposed service area is bounded by the Central Arizona Project canal on the north, 443rd Avenue on the west, Salome Highway on the south, and the Hassayampa River on the east. Exhibit 2.1 provides a vicinity map of the area. WUGT's current service area covers approximately 61 square miles, or close to 39,000 acres.

Global filed an application for an extension of Certificate of Convenience and Necessity (CC&N) with the Arizona Corporation Commission (ACC) for water (WUGT) Docket No. W-02450A-06-0626. The proposed extension area is approximately 22,000 acres and includes the Belmont and 339th Avenue developments, and a portion of Copperleaf, Desert Willow, Silver Water Ranch and Hassayampa Ranch (the balance is already in the existing CC&N), currently in development master planning with Maricopa County. All of these developments have requested service from WUGT or its parent company, Global Water. Currently, Global is responding to comments provided on October 26, 2006. This master plan will focus on serving the developments included in this CC&N extension area, as well as those portions already in the existing CC&N area, for an approximate total of 25,000 acres; thus this master plan is to be considered Phase 1. None of the developments have existing service as they are all in the planning stages and have not reached final plat.

Water for the region will be provided by groundwater and CAP water. Groundwater will be chlorinated prior to distribution and other treatment including blending for arsenic, fluoride or nitrate removal will be provided as well if required to meet drinking water quality standards. CAP water cannot be utilized until capacity is secured, which is not expected until 2010. Treatment technologies for the CAP water will consist of conventional sedimentation and filtration or membrane filtration. The water will be treated to drinking water quality as prescribed by the Arizona Administrative Code (A.A.C.).

3.0 EXISTING CONDITIONS

The area to be regionally planned is located in western Maricopa County and in total, comprises approximately one hundred and seventy five (175) square miles. The proposed service area is bounded by the Central Arizona Project canal on the north, 443rd Avenue on the west, the WUGT boundary to the south, and the Hassayampa River on the east. WUGT's current service area covers approximately 61 square miles, or close to 39,000 acres.

3.1 Existing Water Systems

As indicated in Table 3.1, the existing water delivery system for Water Utility of Greater Tonopah (WUGT) serves approximately 300 customers. These customers are spread out over several miles. Exhibit 3.1 shows the approximate locations of the existing customers. Typically, these existing systems are characterized by small diameter pipelines and small wells. Of the seven systems within the WUGT, three of them provide fire hydrants on the system.

Table 3-1. Existing WUGT Water Systems and Customers

Water System	PWS No.	Existing Customers
Buckeye Ranch System	07-618	94
Dixie System	07-030	27
WPE #6	07-733	23
Tufte WPE #7 System	07-617	6
Garden City/Big Horn System	07-037	16
Rose View System	07-082	16
Sunshine System	07-071	121
	Total	**303**

3.2 Geohydrology

The proposed service area is located in the western portion of the Phoenix Active Management Area and the Hassayampa Subbasin. The Hassayampa Subbasin comprises approximately 1,200 square miles. The basin is bounded to the north by the Vulture Mountains, to the east by the White Tank Mountains, to the south by the Gila Bend Mountains and Buckeye Hills, and west by the Palo Verde Hills, Belmont Mountains, and Big Horn Mountains. The Hassayampa Subbasin is drained by the Hassayampa River, which with the Gila River to the east.

Two cones of depression have developed in this subbasin due to extensive groundwater pumping for agricultural use. These depressions have created a decline in water levels of between 70 and 90 feet in the Tonopah Desert and Centennial Wash areas, respectively.

The depth to water ranges from approximately 20 feet below land surface near the Gila River and to over 700 feet below land surface to the north portion of the subbasin.

The Arizona Department of Water Resources (ADWR) Groundwater Site Inventory (GWSI) and Well Registry databases indicate that there are up to 357 wells located within the proposed service. GWSI indicates that the wells located within the proposed service are used for drinking water, irrigation, stock, and monitoring purposes.

The specific conductance across the proposed service, as reported by the ADWR, ranged from 400 to 4,650 microsiemens per centimeter (uS/cm) with the higher values recorded in the southeast where agricultural use is high. The calculated total dissolved solids (TDS) concentration ranged from 240 to 2,790 mg/L, respectively. The TDS concentration was calculated by multiplying the specific conductance by 0.6 to obtain milligrams per liter (mg/L) of dissolved solids. The fluoride and arsenic concentrations exceed Aquifer Water Quality Standards generally on the south side of proposed service area.

Presently, all water services for the proposed service area are provided by groundwater wells. Exhibit 3.2 provides a well location map showing existing wells throughout the proposed service area.

4.0 PROPOSED IMPROVEMENTS

4.1 Water Demands

Table 4-1 shows the water demand projections developed for the seven proposed developments considered in this Phase 1 conceptual master plan.

Table 4-1. Water Demand Projections

Development	Area of Existing CC&N (acres)	Area of Proposed CC&N (acres)	[1]Dwelling Units at Buildout	Projected Water Demand, mgd
Belmont	-	19,893	80,048	38.42
Copperleaf	302	914	4,000	1.92
Silver Water Ranch	433	96	1,877	0.90
Silver Springs Ranch	2,229	-	8,200	3.94
339th Avenue	-	1,273	2,127	1.02
Desert Whisper	474	474	2,900	1.39
Hassayampa Ranch	1,989	78	6,744	3.24
Totals	**3,198**	**22,718**	**97,696**	**46.89**

1. Dwelling units and acreages taken from development master plans prepared by others.

Water demands were developed based on the following criteria:

- 150 gallons per day per capita
- 3.2 persons per residential dwelling unit
- Initially, groundwater will supply all of the calculated demands

The projected water demand for the service area is 46.89 mgd. Global intends to meet the water initial demands through two water distribution centers and future treatment facilities for CAP water. One water distribution center will be located near 403rd Avenue and Camelback in the Balterra development and one will be located in the Belmont development near the pressure zone boundary along Camelback. This water distribution center will be a dual zone site thereby supplying water to two separate zones.

It is unlikely that the new water distribution system will be interconnected with the existing system due to the limited groundwater pumping capabilities at each of the

existing well sites. WUGT will use the existing wells to provide future construction water needs. Table 4-2 shows the proposed use of the existing water system for services to existing customers and limited future customers in the immediate vicinity of these systems in the next five years.

In addition, Table 4-2 shows the estimated addition of new customers over the next five years for the proposed master planned developments in the area of the CC&N extension. The information is broken down by the number of additional dwelling units anticipated per year and the developments where that activity will occur. The schedule provided in Table 4-2 reflects the anticipated construction of homes by development based on agreements and discussions with the various developers in regards to the pace of their developments.

Table 4-2. Existing and Proposed Customers

Water System/ Development	PWS No.	Existing Customers, DU	Year 1, DU	Year 2, DU	Year 3, DU	Year 4, DU	Year 5, DU	Total End of Year 5
Buckeye Ranch System	07-618	94	114	134	154	174	194	194
Dixie System	07-030	27	30	33	36	39	42	42
WPE #6	07-733	23	23	23	23	23	23	23
Tufte WPE #7 System	07-617	6	6	6	6	6	6	6
Garden City/Big Horn System	07-037	16	17	18	19	20	21	21
Rose View System	07-082	16	18	20	22	24	26	26
Sunshine System	07-071	121	159	197	235	273	311	311
Belmont		0	1,840	1,840	2,820	2,820	2,820	12,140
Copperleaf		0	220	220	240	300	300	1,280
Silver Water Ranch		0		90	180			270
Silver Springs Ranch		0	220	220	240	300	300	1,280
339th Avenue		0	220	175	240	300	300	1,235
Desert Whisper		0	120	75	120	180	180	675
Hassayampa Ranch		0	220	220	240	300	300	1,280
	Total	**303**	**2,904**	**2,904**	**4,144**	**4,264**	**4,264**	**18,783**

1. Where "DU" represents the number of existing or new service connections.

The future CAP treatment plant will be located near 355th Avenue and the CAP. This plant should be operational by Year 2012.

4.2 Wells

GWSI indicates that there are several high production wells available that would be suitable for rehabilitation and outfitting as domestic supply wells. The groundwater pumping capacity ranges from 800 to 1,000 gallons per minute (gpm) based on information collected from the Arizona Department of Water Resources.

Groundwater production wells will be drilled near the water distribution centers. Raw water will be conveyed to the distribution centers for disinfection and treatment via raw water pipe networks. Specific well locations will be developed by hydrogeologists and will be sited and screened to maximize groundwater quality.

4.3 Water Storage/Booster Facilities

Two water distribution centers are required to serve the initial phases of the proposed developments. Exhibit 4.1 illustrates the location of the proposed water distribution centers. Typical water campus layouts will consist of two (2) reservoirs totaling 5.0 million gallons, booster pumping capable of 15,000 gpm, treatment facilities (if required), disinfection, standby generators, and a control building. Each water distribution center will screened from view by earthen berms and CMU walls. A typical site layout is shown in Exhibit 4.2. The projected date of operation for the facilities included in the master plan, that is, "Year 1" in Table 4-2, is 2009.

4.4 Pipelines

Several miles of pipelines are required to supply the proposed service area with water. Typically these pipelines will range in size from 24" transmission mains to 8" distribution lines. The conceptual location and preliminary sizes for the mains are shown in Exhibit 4.1.

4.5 Pressure Zones

The initial evaluation of the proposed service area indicates that four separate pressures zones can be implemented. As illustrated in Exhibit 4.3, the zones would be located between elevations; +/- 970 to 1,070, 1,070 to 1,170, 1,170 to 1,270, and 1,270 to 1,370 feet above mean sea level. Connections between pressure zones will be limited. Typically, a pressure reducing valve (PRV) station will include a low flow valve and a high flow valve to accommodate the varying flow conditions.

4.6 Water Quality

Global maintains the following strategies with respect to groundwater quality:

1. Identify and rehabilitate high quality wells in the proposed service area.

2. Develop blending mechanisms and control strategies to blend high quality water with poorer quality groundwater to ensure compliance with the Safe Drinking Water Act and AAC R18-4.
3. Modify existing wells to isolate areas of high concentrations or access higher quality water.
4. Provide slipstream treatment processes which in conjunction with an effective blending plan will meet the requirements.
5. Provide full scale treatment of groundwater.

A three phased approach to the evaluation of wells is employed by Global:

1. Phase 1 – Review available ADWR and ADEQ data, and physical assessment of wells;
2. Phase 2 – Analytical sampling of flow rates and quality (depth specific sampling, spinner logs);
3. Phase 3 – Rehabilitation. Installation of sanitary seal, re-screening, renewal of electrical control system, installation of SCADA control system, and obtain New Source Approval.

During Phase 2 of the evaluation program, a full suite of analytical data is taken from the groundwater including:

- Metals
- Inorganics
- Synthetic Organic Compounds
- Volatile Organic Compounds
- Nutrients
- Bacteriological Analyses
- Radiochemical constituents

The results of these analyses will determine any groundwater treatment requirements. The selection of wells for potable water production will take into account the water quality data, so investment into the conversion is made prudently. Global is prepared to install, operate and maintain any treatment processes that may be required. Global is considering three (3) alternative type of treatment methods for removal of Arsenic and Flouride from the groundwater. These facilities will be located on the water distribution centers.

5.0 CONCLUSIONS

The master planned area will require new pipelines and water distribution centers to adequately serve the proposed developments with potable water. The maximum pressure in the system will be 80 psi. The minimum pressure in the system during peak hour conditions is 40 psi. As new development plans become available and as construction begins, this master plan should be updated and revised accordingly. Ultimately, a complete hydraulic model of the system will be created and maintained to accurately assess the distribution and delivery system.

Water Utility of Greater Tonopah's Responses to
Engineering 2nd List of Deficiencies
Docket No. W-02450A-06-0626
February 2, 2007

6. Provide an up-dated Drinking Water Compliance Reports for water systems #07618 & # 07-733 demonstrating full compliance status.

RESPONSE: Please see the attached updated Reports that demonstrate full compliance.

RESPONDENT: Graham S. Symmonds, SVP
Operations and Compliance

Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: B & D Water Company
PWS ID#: 07-618

Type of System: Community Number of POE's: 2 Surface Water: n/a
Number of Service Connections: 76 Population Served: 235

Assigned Monitoring Dates - Initial: 1/1/98 Phase II: 1/1/98 Phase V: 1/1/98

Does the water system have a Certified Operator? Yes

Does the system have major treatment plant deficiencies? No
Please describe: _____

Date of last inspection: February 13, 2004

Does the system have major O & M deficiencies? No
Please describe: _____

Does the system have water quality monitoring/reporting deficiencies? No
Please describe: _____

General Public Water System Compliance Status? **Compliant**

Date of compliance review: **01/26/2007** By: **Duncan Wright** Initials: **dw**
Phone: **(602) 506-5173**

Requested By: Robyn Wymer Fax Number/ Contact: _____ Tracking Number: 1233
Supervisor Initials: GY Date: 1/26/06

Drinking Water Program
John Kolman, Manager
1001 N. Central Ave., Suite 150Phoenix, Arizona 85004-1940 Phone: (602) 506-6666 Fax: (602) 506-6925

Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: 07-733
PWS ID#: WPE #6

Type of System: Number of POE's: 1 Surface Water: no
Number of Service Connections: 23 Population Served: 71

Assigned Monitoring Dates - Initial: 2002 Phase II: 2002 Phase V: 2002

Does the water system have a Certified Operator? yes

Does the system have major treatment plant deficiencies? no
Please describe: ___

Date of last inspection: 8/25/05

Does the system have major O & M deficiencies? no
Please describe: ___

Does the system have water quality monitoring/reporting deficiencies? no
Please describe: ___

General Public Water System Compliance Status?

Date of compliance review: **1/23/07** By: **Laura Moorhead** Initials: ___
Phone: **(602) 506-6631**

Requested By: ACC Fax Number/ Contact: ___ Tracking Number: 1234
Supervisor Initials: GY Date: 1/24/07

EXHIBIT A-18

FILE COPY

ROSHKA DEWULF & PATTEN

ROSHKA DEWULF & PATTEN, PLC
ATTORNEYS AT LAW
ONE ARIZONA CENTER
400 EAST VAN BUREN STREET
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PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800

May 1, 2007

Via hand delivery

Ms. Linda A. Jaress
Executive Consultant III
Utilities Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Re: **Response to 3rd Insufficiency Letter**
Water Utility of Greater Tonopah CC&N Extension
Docket No. W-02450A-06-0626

Dear Ms. Jaress:

Attached, please find Water Utility of Greater Tonopah's Response to your Insufficiency Letter dated March 2, 2007. Please let me know if you have any questions.

Very truly yours,

Timothy J. Sabo

TJS:da
Enclosures

cc: Docket Control
Del Smith
Brian Bozzo
Lyn Farmer, Chief ALJ
Christopher C. Kempley, Chief Legal Counsel
Mr. Graham Symmonds, Global Water Management

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AZ CORP COMMISSION
DOCUMENT CONTROL

EXHIBIT
A18
admitted

Water Utility of Greater Tonopah's Responses to
Staff's 3rd List of Deficiencies
Docket No. W-02450A-06-0626
May 1, 2007

1. Provide the current arsenic concentration of each well currently serving WUGT existing systems.

RESPONSE:

Arsenic sampling has been performed for each of the WUGT wells. The wells and arsenic concentrations are listed below:

Water Utility of Greater Tonopah – Arsenic Concentrations		
Well Description	**Arsenic Concentration (parts per billion)**	**Date Sampled**
Sunshine	13.0	12/28/06
Buckeye Ranch	17.0	2/14/07
B&D (System being shut-down)	11.0	2/14/07
Rose View	24.0	2/14/07
Dixie	8.5	2/14/07
West Phx 1	18.0	2/14/07
West Phx 7, Tufte	26.0	
West Phx 4,5,6	12.0	2/14/07
Garden City	3.8	2/14/07

RESPONDENT: Graham S. Symmonds, SVP
Operations and Compliance

2. Provide the status of loan funds for which approval was received in Decision No. 68452, dated February 2, 2006.

RESPONSE:

The Water Utility of Greater Tonopah has expended $220,924.24 of the $500,000.00 loan. The funds were expended as follows:

Design & Engineering	$15,753.37
Legal/Debt Authorization	$6,213.40
Equipment/Materials	$23,369.44
Construction/Installation/Improvement	$175,588.03
Total	**$220,924.24**

The Water Utility of Greater Tonopah does not intend to incur further debt under the WIFA loan process.

RESPONDENT: Graham S. Symmonds, SVP
Operations and Compliance

Water Utility of Greater Tonopah's Responses to
Staff's 3rd List of Deficiencies
Docket No. W-02450A-06-0626
May 1, 2007

3. Provide a list of the arsenic-related assets purchased with those funds or other funds.

RESPONSE:

The WIFA funds were used to finance the following activities.

Sunshine Arsenic Treatment	
100,000 Gallon Blending Tank	$68,450.00
West Phoenix #3 Arsenic	
Engineering Plans for Well and Pipeline	$9,024.01
Garden City Well # 2 (Replacement Well for High Arsenic Well)	
Garden City Well	$123,094.40
General Arsenic Treatment, Point of Use and Legal Fees	
Point of Use Treatment Units	$3,714.10
WIFA Legal Fees	$6,213.40
General	$10,428.33

No additional arsenic related assets have been purchased by the WUGT. WUGT is under contract with McBride Engineering Solutions to provide design and management services for the implementation of both the point of use program and media treatment systems required throughout the utility.

RESPONDENT: Graham S. Symmonds, SVP
Operations and Compliance

4. Based on the data submitted by WUGT, Staff concludes that three existing water systems (Dixie/PWS#07-030, Garden City/PWS#07-037 and Sunshine PWS#07-071) lack adequate storage capacity to serve the existing customer base. Provide information showing that this does not violate previous Commission decisions and provide the Company's plans to resolve the storage capacity problems.

RESPONSE:

We have discussed fire flow requirement with Scott Benbow ([623] 386-5906) of the Buckeye Valley Fire District and Bob Costello of the Town of Buckeye Fire Department. The WUGT does not currently provide fire flow within its service area. Any hydrants that exist within the WUGT are used only for flushing lines and maintenance purposes. As such we have based the review of storage capacity on providing average day demand within the peak month.

Water System	Peak Mth Usage 2006 (1000 gal/mth)	Average Daily Peak Mth Use 2006 (gal/day)	Available Storage (gal)	Current Excess Storage
Sunshine	1,611	51,968	100,000	48,032
Buckeye Ranch	2,035	65,645	150,000	84,355
Rose View	246	7,935	10,000	2,065
Dixie	245	7,903	10,000	2,097
West Phx 1	37	1,194	5,000	3,806
West Phx 7	58	1,871	5,000	3,129
West Phx 4,5,6	191	6,161	7,500	1,339
Garden City	205	6,613	45,000	38,387

The Dixie system is expected to experience additional customers in 2007, which may require additional storage. As such, McBride Engineering Solutions has been retained to project demands into the future and identify necessary capacity upgrades. Once these upgrades have been identified, it is our intent to retain McBride Engineering Solutions to design the necessary upgrades.

RESPONDENT: Graham S. Symmonds, SVP
Operations and Compliance

5. Please reconcile the following:

   a. The application states the acreage of the extension area is 22, 127 acres. Table 4-1 of the master Plan indicates there are 22, 728 acres.

   b. The application Exhibits 7 & 8 indicates 88, 264 DU in the extension area. Table 4-1 of the Master Plan indicates that there will be 105,915 units, assuming that there are 8,219 DU in Silver Spring Ranch referenced in the application for a CC&N extension for Hassayampa Utility CC&N Extension. Please revise the Engineering Memorandum accordingly.

RESPONSE:

The revised master plan has been updated with the proper information. The acreage of the extension is 22,049 acres, per the revised legal description dated December 9, 2006. The engineering memorandum has been updated with the proper DU in the extension area. The DU's are as provided below:

Extension area DU = 88,264
Silver Spring Ranch DU = 8,219

RESPONDENT: Graham S. Symmonds, SVP
Operations and Compliance

Water Utility of Greater Tonopah's Responses to
Staff's 3rd List of Deficiencies
Docket No. W-02450A-06-0626
May 1, 2007

6. Please submit Exhibit 4.2 (Typical Site Layout System) referenced in the Master Plan and a map that clearly shows layout of the proposed water infrastructure.

RESPONSE:

The figure is attached as requested in the revised master plan, page 4-4. Proposed waterline infrastructure will not be available until the modeling work is completed.

RESPONDENT: Graham S. Symmonds, SVP
Operations and Compliance

GLOBAL WATER

MEMORANDUM

Date: September 5, 2006 ***Revised May 1, 2007***

Re: Water Utility of Greater Tonopah Service Area Extension
Water Service

This memorandum defines the service requirements of the extension of the **Water Utility of Greater Tonopah (WUGT)** Service Area CC&N for water. The WUGT currently has an approved service area of approximately 65 sections and serves 305 customers. Growth in WUGT's service area has been limited to date, but with the advent of the recent housing boom for planned communities, there are a number of large master planned developments that are in rather aggressive planning and permitting, that will impact our existing service area and have created the urgency to extend our service area. The extension service area includes approximately 22,049 acres (35 sections) with an estimated 88,264 additional dwelling units. As seen in the attached exhibits, the extension areas include the Belmont and 339th Avenue developments, and a portion of Copperleaf, Desert Willow, Silver Water Ranch and Hassayampa Ranch (the balance is already in the existing CC&N), currently in development master planning with Maricopa County. All of these developments have requested service from WUGT or its parent company, Global Water. Proposed water infrastructure is shown along with the location and relationship to the existing CC&N service area system. Hassayampa Utility Company (HUC), also owned by Global Water, currently has a CC&N for all of Hassayampa Ranch development and has filed an extension SW-20422-06-0566 to serve the remainder of the developments included in WUGT's extension, with the exception of Desert Willow which has not requested wastewater service from HUC.

Absorption Rates

For years 1 and 2, 200 dwelling units per month are anticipated, or 2,400 per year. For years 3-5, 300 dwelling units per month are anticipated, or 3,600 per year. Note that the buildout dwelling units are based on the master planning completed for the Belmont, Copperleaf, Silver Water Ranch, Desert Willow, Hassayampa Ranch and 339th Avenue developments.

Water Servicing Approach

At 2,400 dwelling units per year and 245 GPD/DU, it is expected that the Year 1 flow will be 0.59 MGD, 3.82 (approximately 4) MGD after 5 years, and 22 MGD at buildout. The WUGT currently has wells, necessary treatment, and distribution to its existing customers, and these facilities will be utilized in the overall water master planning to serve these new developments. Additionally, WUGT will construct centralized groundwater distribution centers and treatment beginning in year one, as well as a CAP surface water treatment plant in Belmont in Year 4, to meet the needs of this extension area with active development.

The location and construction of wells, treatment and distribution centers are dependant on the rate and location of development. In addition to the existing wells located within and serving existing WUGT customers, other existing wells in the area will be evaluated to determine their suitability for use or rehabilitation for use. Where suitable existing wells do not exist, WUGT will work with registered hydrologists to identify locations for new wells as well as treatment that may be required to meet the State Drinking Water Standards. For the purposes of our cost estimation and based on water quality data available from the developers' planning documents, arsenic treatment has been assumed to be required for 70% of the groundwater developed into potable water.

21410 North 19th Avenue, Suite 201, Phoenix, Arizona 85027 Phn 623.580.9600
Fax 623.580.9659

gwresources.com

GLOBAL WATER

Due to the proximity of the CAP Canal and the prudence of providing a renewable water supply in addition to groundwater, the first phase of a surface water treatment plant is projected to begin construction Year 4 and 5. At buildout the surface water plant will provide half the water production demand, 11 MGD.

A table of infrastructure to be added to serve the extension areas is included. The total, build-out estimated cost of this infrastructure is $143 million. Please see the attached spreadsheets with the breakdown of costs for each of years one through five, as follows:

Year 1: $3.9 M
Year 2: $5.7 M
Year 3: $10.3M
Year 4: $11.1 M
Year 5: $8.8 M

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Water Utility of Greater Tonopah
Conceptual Water Master Plan
Phase 1

April 29, 2007

Prepared for:
Global Water Resources, LLC
21410 North 19th Avenue, Suite 201
Phoenix, Arizona 85027
Phone (623) 580-9600
Fax: (623) 580-9659

Registered Professional Engineer (Civil)
CERTIFICATE NO.
34572
CHRISTINE H.
CLOSE
Date Signed 4-29-07
ARIZONA, U.S.A.

DSWA

GLOBAL WATER

WATER UTILITY OF GREATER TONOPAH
CONCEPTUAL WATER MASTER PLAN
PHASE 1

***Prepared for*:**

Global Water Resources, LLC
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Phoenix, Arizona 85027
Phone (623) 580-9600

***Prepared by*:**

Damon S. Williams Associates
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April 29, 2007

TABLE OF CONTENTS

		Page
1.0	INTRODUCTION	1-1
2.0	BACKGROUND	2-1
3.0	EXISTING CONDITIONS	3-1
3.1	Existing Water Systems	3-1
3.2	Geohydrology	3-1
4.0	PROPOSED IMPROVEMENTS	4-1
4.1	Water Demands	4-1
4.2	Wells	4-3
4.3	Water Storage/Booster Facilities	4-4
4.4	Pipelines	4-6
4.5	Pressure Zones	4-6
4.6	Water Quality	4-6
5.0	CONCLUSIONS	5-1

LIST OF TABLES

		Page
Table 3-1.	Existing WUGT Water Systems and Customers	3-1
Table 4-1.	Water Demand Projections	4-1
Table 4-2.	Existing and Proposed Customers	4-3

LIST OF EXHIBITS

		Follows Page
Exhibit 2.1	Vicinity Map	2-1
Exhibit 3.1	WUGT Existing Water Systems Location Map	3-1
Exhibit 3.2	Well Location Map	3-2
Exhibit 4.1	CC&N Extension Water System	4-4
Exhibit 4.2	Typical Water Distribution Center Site Layout System	4-4
Exhibit 4.3	Proposed Service Areas Location Map Showing Pressure Zones	4-4

1.0 INTRODUCTION

Global Water recently acquired the Water Utility of Greater Tonopah (WUGT) as a new subsidiary. The WUGT is the major water provider in this area of Maricopa County to the west of the Hassayampa River. As such, they are responsible for providing water services to the existing and proposed communities in this area. Global and WUGT recognize the need to provide a regional planning document that will aid them in implementing future capital improvement projects. The purpose of this document is to provide Phase 1 of a regional water plan for Global Water's (Global) existing and proposed service area in western Maricopa County, focusing on seven developments which are in relatively advanced stages of planning and have requested service from WUGT.

The WUGT is currently in the process of extending their Certificate of Convenience and Necessity (CC&N) to cover various subdivisions or portions thereof that are not included in their existing CC&N. This document is intended to be used for discussion purposes, but does not necessarily encompass the final version of the full-scale master planning effort.

2.0 BACKGROUND

The area to be regionally planned for the WUGT is located in western Maricopa County and in total comprises approximately one hundred and sixty (160) square miles. The proposed service area is bounded by the Central Arizona Project canal on the north, 443rd Avenue on the west, Van Buren Street, Broadway Road, Lower Buckeye Road and Buckeye Road on the south, and the Hassayampa River on the east. Exhibit 2.1 provides a vicinity map of the area. WUGT's current service area covers approximately 61 square miles, or close to 39,000 acres.

Global filed an application for an extension of Certificate of Convenience and Necessity (CC&N) with the Arizona Corporation Commission (ACC) for water (WUGT Docket No. W-02450A-06-0626). The proposed extension area is approximately 22,049 acres and includes the Belmont and 339th Avenue developments, and a portion of Copperleaf, Desert Willow, Silver Water Ranch and Hassayampa Ranch (the balance of Hassayampa Ranch is already in the existing CC&N) developments, which are currently in development master planning with Maricopa County.

All of these developments have requested service from WUGT or its parent company, Global Water. Currently, Global is responding to comments provided on October 26, 2006. This master plan will focus on serving the developments included in this CC&N extension area, as well as those portions already in the existing CC&N area, for an approximate total of 27,480 acres; thus this master plan is to be considered Phase 1. None of the developments have existing service as they are all in the planning stages and have not reached final plat.

Water for the region will be provided by groundwater and CAP water. Groundwater will be chlorinated prior to distribution and other treatment including blending for arsenic, fluoride or nitrate removal will be provided as well if required to meet drinking water quality standards. CAP water cannot be utilized until capacity is secured, which is not

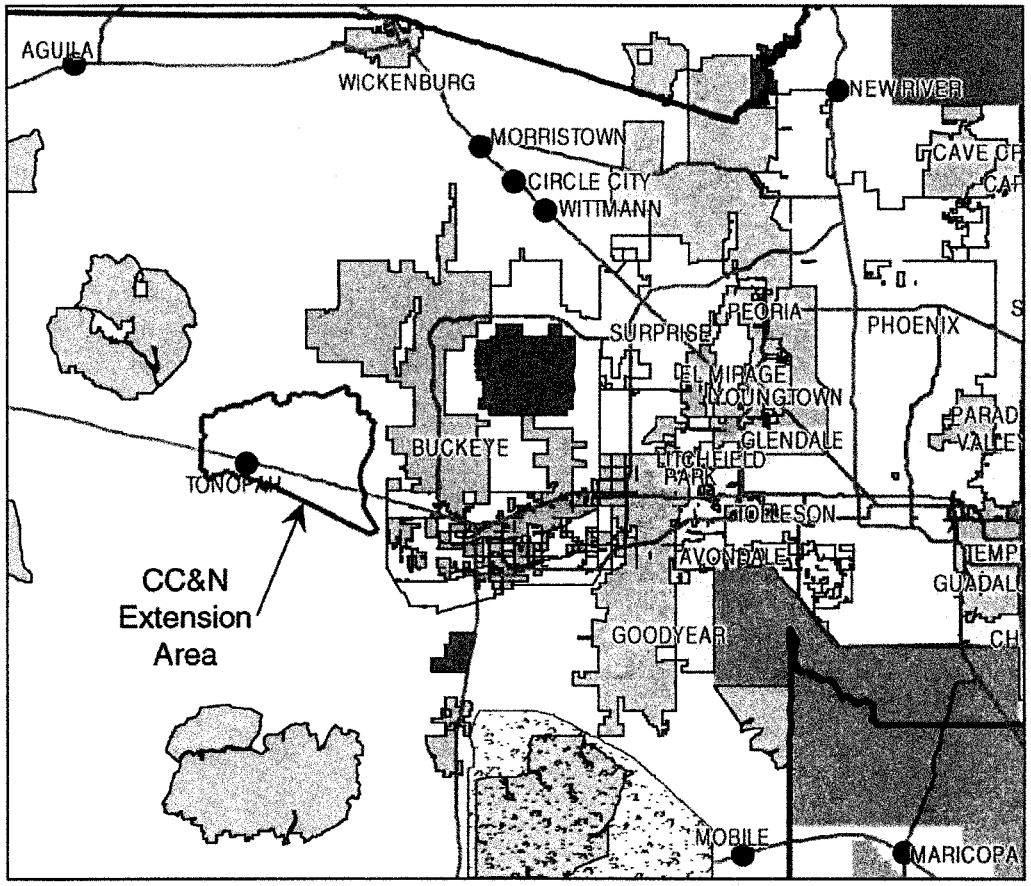


Exhibit 2.1 Vicinity Map

expected until 2010. Treatment technologies for the CAP water will consist of conventional sedimentation and filtration or membrane filtration. The water will be treated to drinking water quality as prescribed by the Arizona Administrative Code (A.A.C.).

3.0 EXISTING CONDITIONS

The area to be regionally planned is located in western Maricopa County and in total, comprises approximately one hundred and sixty (160) square miles. The proposed service area is bounded by the Central Arizona Project canal on the north, 443rd Avenue on the west, the WUGT boundary to the south, and the Hassayampa River on the east. WUGT's current service area covers approximately 61 square miles, or close to 39,000 acres.

3.1 Existing Water Systems

As indicated in Table 3.1, the existing water delivery system for Water Utility of Greater Tonopah (WUGT) serves approximately 300 customers. These customers are spread out over several miles. Exhibit 3.1 shows the approximate locations of the existing customers. Typically, these existing systems are characterized by small diameter pipelines and small wells. Of the seven systems within the WUGT, three of them provide fire hydrants on the system.

Table 3-1. Existing WUGT Water Systems and Customers

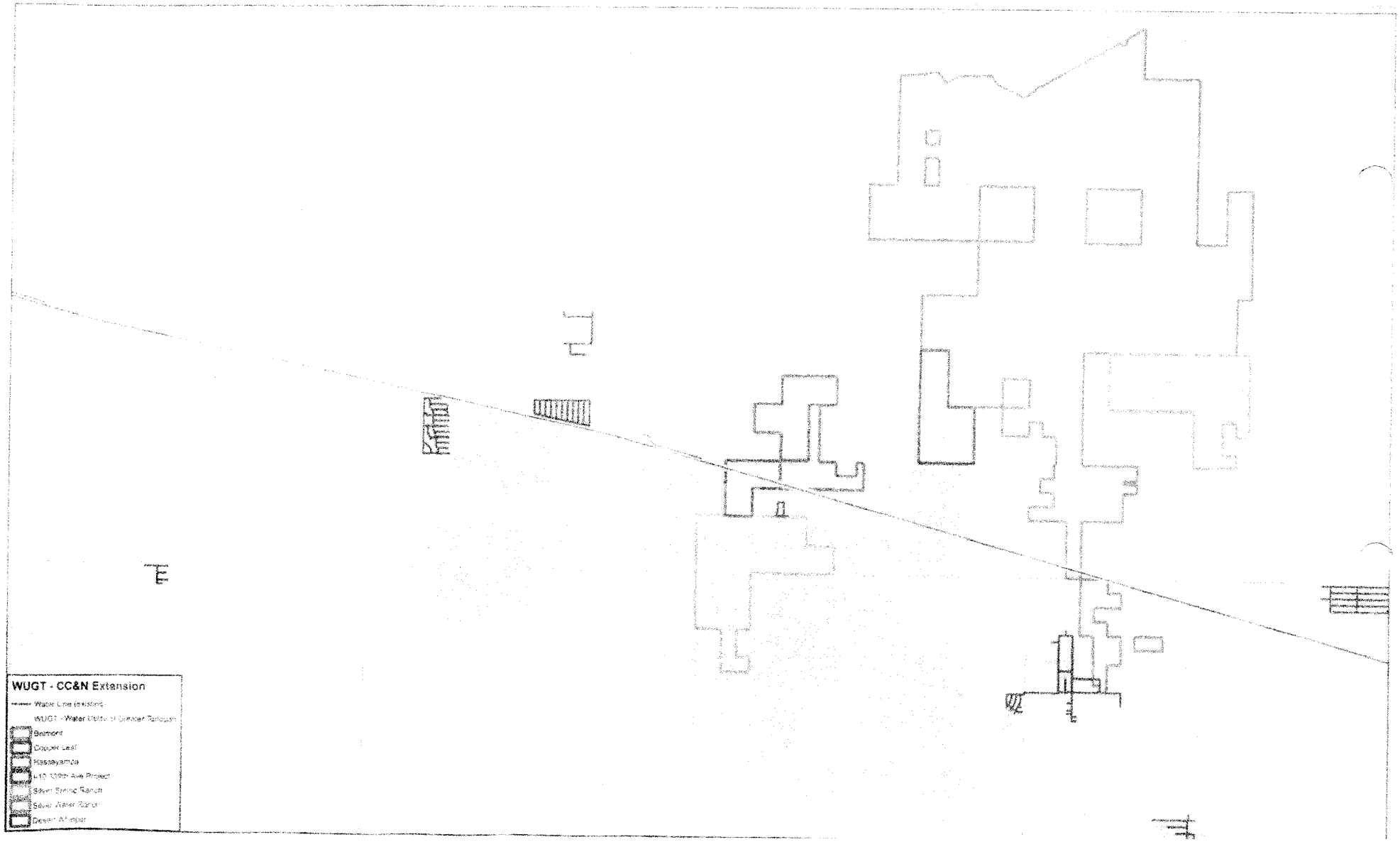
Water System	PWS No.	Existing Customers
Buckeye Ranch System	07-618	94
Dixie System	07-030	27
WPE #6	07-733	23
Tufte WPE #7 System	07-617	6
Garden City/Big Horn System	07-037	16
Rose View System	07-082	16
Sunshine System	07-071	121
	Total	**303**

3.2 Geohydrology

The proposed service area is located in the western portion of the Phoenix Active Management Area and the Hassayampa Subbasin. The Hassayampa Subbasin comprises approximately 1,200 square miles. The basin is bounded to the north by the Vulture

GLOBAL WATER

WUGT Developments in CC&N Extension



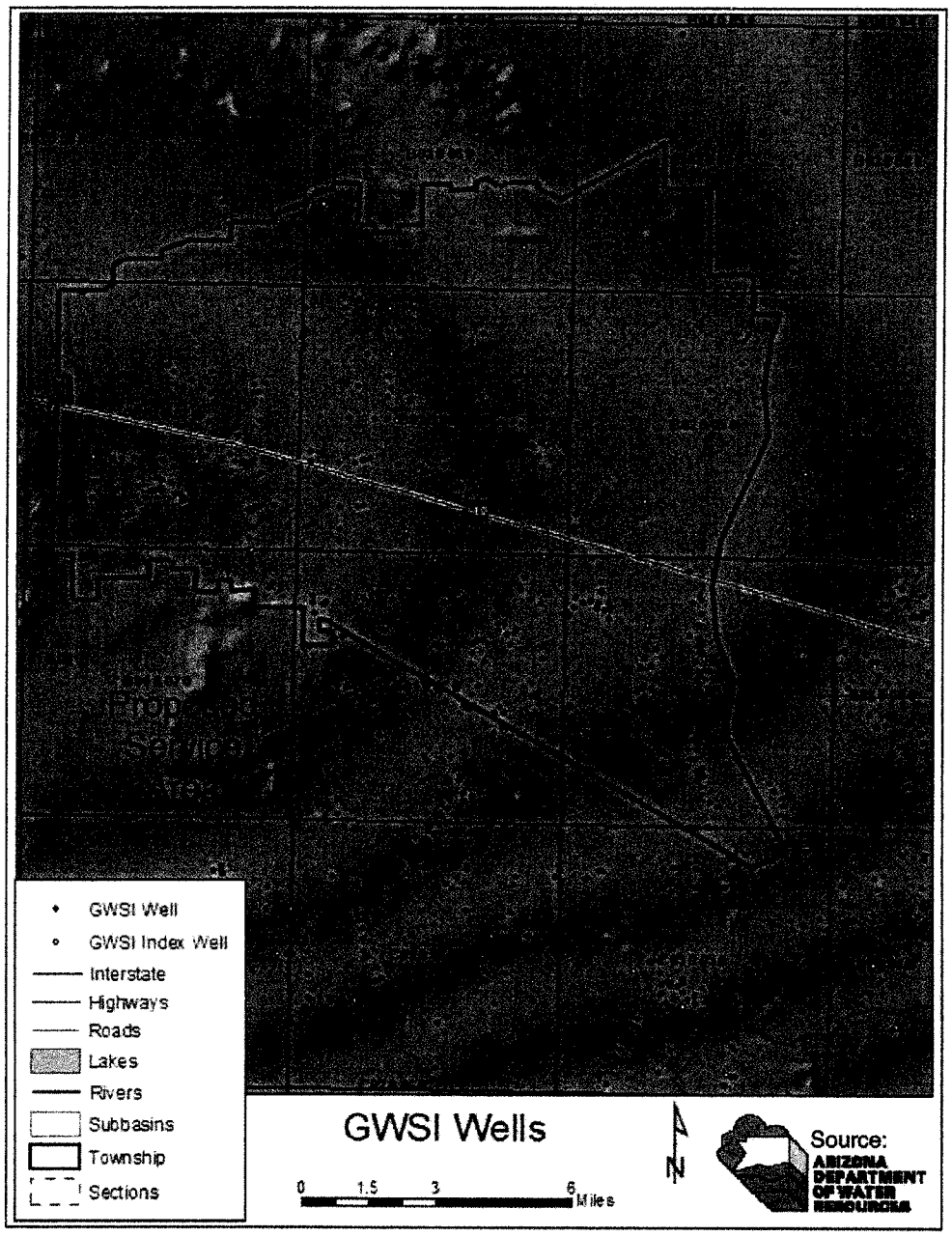


Exhibit 3.2 Well Location Map

Mountains, to the east by the White Tank Mountains, to the south by the Gila Bend Mountains and Buckeye Hills, and west by the Palo Verde Hills, Belmont Mountains, and Big Horn Mountains. The Hassayampa Subbasin is drained by the Hassayampa River, which with the Gila River to the east.

Two cones of depression have developed in this subbasin due to extensive groundwater pumping for agricultural use. These depressions have created a decline in water levels of between 70 and 90 feet in the Tonopah Desert and Centennial Wash areas, respectively. The depth to water ranges from approximately 20 feet below land surface near the Gila River and to over 700 feet below land surface to the north portion of the subbasin.

The Arizona Department of Water Resources (ADWR) Groundwater Site Inventory (GWSI) and Well Registry databases indicate that there are up to 357 wells located within the proposed service. GWSI indicates that the wells located within the proposed service are used for drinking water, irrigation, stock, and monitoring purposes.

The specific conductance across the proposed service, as reported by the ADWR, ranged from 400 to 4,650 microsiemens per centimeter (uS/cm) with the higher values recorded in the southeast where agricultural use is high. The calculated total dissolved solids (TDS) concentration ranged from 240 to 2,790 mg/L, respectively. The TDS concentration was calculated by multiplying the specific conductance by 0.6 to obtain milligrams per liter (mg/L) of dissolved solids. The fluoride and arsenic concentrations exceed Aquifer Water Quality Standards generally on the south side of proposed service area.

Presently, all water services for the proposed service area are provided by groundwater wells. Exhibit 3.2 provides a well location map showing existing wells throughout the proposed service area.

4.0 PROPOSED IMPROVEMENTS

4.1 Water Demands

Table 4-1 shows the water demand projections developed for the seven proposed developments considered in this Phase 1 conceptual master plan.

Table 4-1. Water Demand Projections

Development	Area of Future Development in Existing CC&N (acres)	Area of Future Development in Proposed CC&N (acres)	Dwelling Units in Proposed CC&N	[1]Dwelling Units at Buildout	Projected Water Demand, mgd
Belmont	-	19,822.74	80,048	80,048	38.42
Copperleaf	302	934.38	2,880	4,000	1.92
Silver Water Ranch	433	99.11	309	1,877	0.90
Silver Springs Ranch	2,229	-	(2)	8,219	3.94
339th Avenue	-	631.47	2,127	2,127	1.02
Desert Whisper	479.98	481.30	2,900	2,900	1.39
Hassayampa Ranch	1,989	80.31	(2)	6,744	3.24
Totals	**5,432.98**	**22,049.31**	**88,264**	**105,915**	**50.83**

1. Dwelling units and acreages taken from development master plans prepared by others.
2. Areas are included in existing CC&N.

Water demands were developed based on the following criteria:

- 150 gallons per day per capita
- 3.2 persons per residential dwelling unit
- Initially, groundwater will supply all of the calculated demands

The projected water demand for the service area is 50.83 mgd. Global intends to meet the water initial demands through two water distribution centers and future treatment facilities for CAP water. One water distribution center will be located near 403rd Avenue and Camelback in the Balterra development and one will be located in the Belmont

development near the pressure zone boundary along Camelback. This water distribution center will be a dual zone site thereby supplying water to two separate zones.

It is unlikely that the new water distribution system will be interconnected with the existing system due to the limited groundwater pumping capabilities at each of the existing well sites. WUGT will use the existing wells to provide future construction water needs. Table 4-2 shows the proposed use of the existing water system for services to existing customers and limited future customers in the immediate vicinity of these systems in the next five years.

In addition, Table 4-2 shows the estimated addition of new customers over the next five years for the proposed master planned developments in the area of the CC&N extension. The information is broken down by the number of additional dwelling units anticipated per year and the developments where that activity will occur. The schedule provided in Table 4-2 reflects the anticipated construction of homes by development based on agreements and discussions with the various developers in regards to the pace of their developments.

Table 4-2. Existing and Proposed Customers

Water System/ Development	PWS No.	Existing Customers, DU	Year 1, DU	Year 2, DU	Year 3, DU	Year 4, DU	Year 5, DU	Total End of Year 5
Buckeye Ranch System	07-618	94	114	134	154	174	194	194
Dixie System	07-030	27	30	33	36	39	42	42
WPE #6	07-733	23	23	23	23	23	23	23
Tufte WPE #7 System	07-617	6	6	6	6	6	6	6
Garden City/Big Horn System	07-037	16	17	18	19	20	21	21
Rose View System	07-082	16	18	20	22	24	26	26
Sunshine System	07-071	121	159	197	235	273	311	311
Belmont		0	1,840	1,840	2,820	2,820	2,820	12,140
Copperleaf		0	220	220	240	300	300	1,280
Silver Water Ranch		0		90	180			270
Silver Springs Ranch		0	220	220	240	300	300	1,280
339th Avenue		0	220	175	240	300	300	1,235
Desert Whisper		0	120	75	120	180	180	675
Hassayampa Ranch		0	220	220	240	300	300	1,280
	Total	**303**	**2,904**	**2,904**	**4,144**	**4,264**	**4,264**	**18,783**

1. Where "DU" represents the number of existing or new service connections.

The future CAP treatment plant will be located near 355th Avenue and the CAP. This plant should be operational by Year 2012.

4.2 Wells

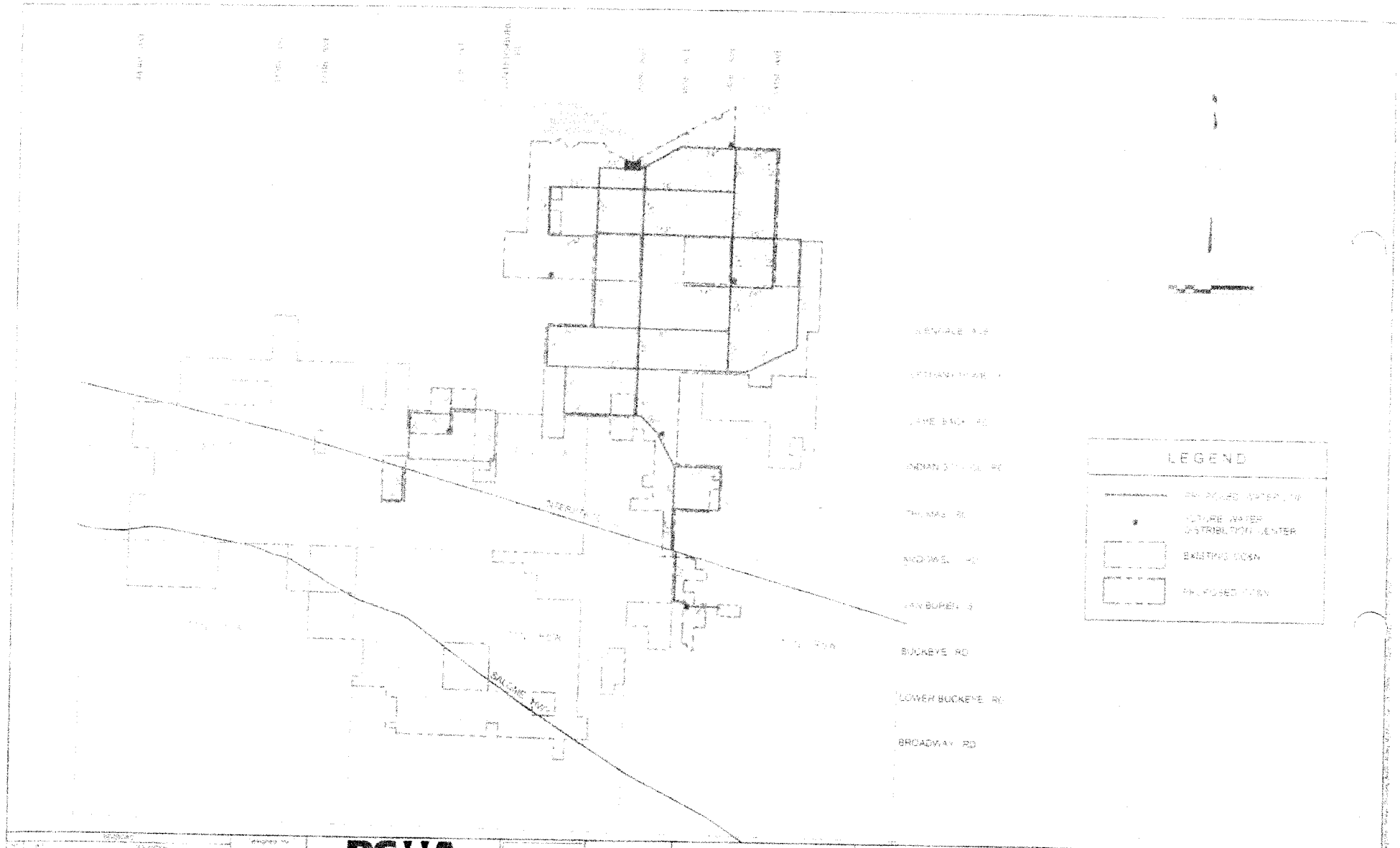
GWSI indicates that there are several high production wells available that would be suitable for rehabilitation and outfitting as domestic supply wells. The groundwater pumping capacity ranges from 800 to 1,000 gallons per minute (gpm) based on information collected from the Arizona Department of Water Resources.

Groundwater production wells will be drilled near the water distribution centers. Raw water will be conveyed to the distribution centers for disinfection and treatment via raw

water pipe networks. Specific well locations will be developed by hydrogeologists and will be sited and screened to maximize groundwater quality.

4.3 Water Storage/Booster Facilities

Two water distribution centers are required to serve the initial phases of the proposed developments. Exhibit 4.1 illustrates the location of the proposed water distribution centers. Typical water distribution center layouts will consist of two (2) reservoirs totaling 5.0 million gallons, booster pumping capable of 15,000 gpm, treatment facilities (if required), disinfection, standby generators, and a control building. Each water distribution center will screened from view by earthen berms and CMU walls. A typical site layout is shown in Exhibit 4.2. The projected date of operation for the facilities included in the master plan, that is, "Year 1" in Table 4-2, is 2009.



DSWA

PRELIMINARY
NOT FOR CONSTRUCTION

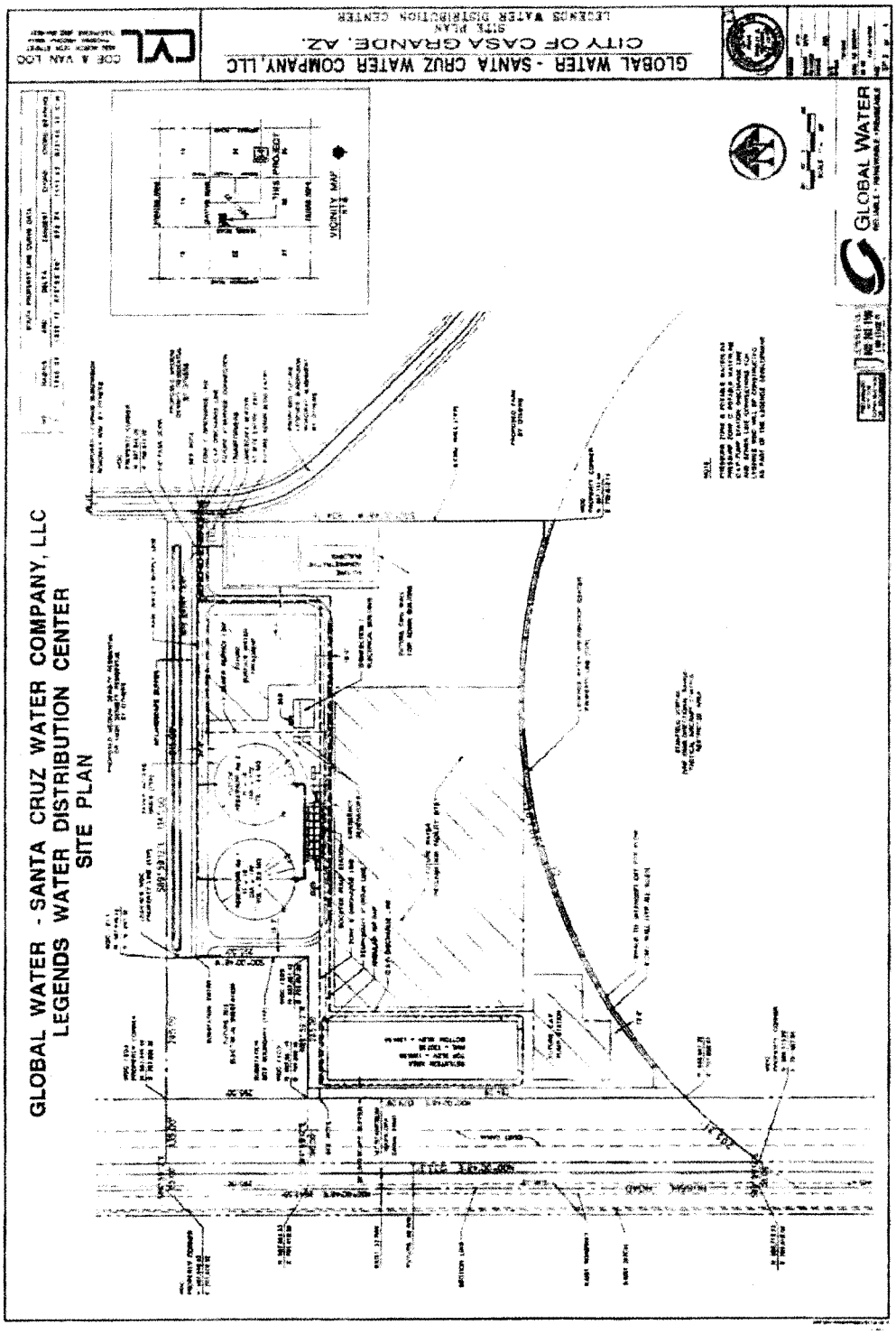
GLOBAL WATER

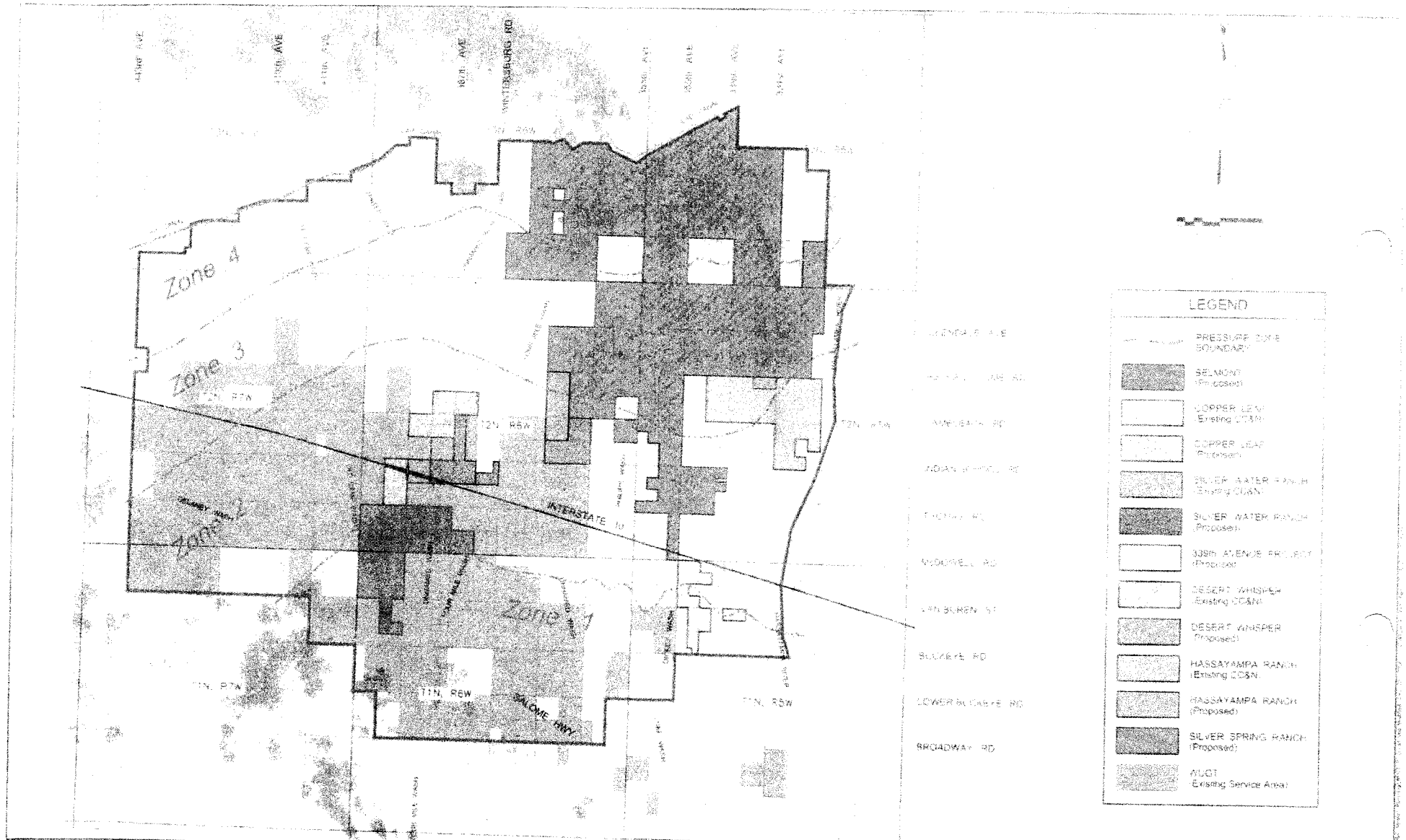
GLOBAL WATER
WATER UTILITY
OF GREATER TONOPAH

CC&N EXTENSION
WATER SYSTEM

EXHIBIT 4-1

Exhibit 4.2 Typical Water Distribution Center Site Layout





DSWA
SIMON S. WILKINS ASSOCIATES, LLC

PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING

GLOBAL WATER

GLOBAL WATER
WATER UTILITY
OF GREATER TONOPAH

PROPOSED SERVICE AREAS
LOCATION MAP
SHOWING PRESSURE ZONES

EXHIBIT 4.3

4.4 Pipelines

Several miles of pipelines are required to supply the proposed service area with water. Typically these pipelines will range in size from 24" transmission mains to 8" distribution lines. The conceptual location and preliminary sizes for the mains are shown in Exhibit 4.1.

4.5 Pressure Zones

The initial evaluation of the proposed service area indicates that four separate pressures zones can be implemented. As illustrated in Exhibit 4.3, the zones would be located between elevations; +/- 970 to 1,070, 1,070 to 1,170, 1,170 to 1,270, and 1,270 to 1,370 feet above mean sea level. Connections between pressure zones will be limited. Typically, a pressure reducing valve (PRV) station will include a low flow valve and a high flow valve to accommodate the varying flow conditions.

4.6 Water Quality

Global maintains the following strategies with respect to groundwater quality:

1. Identify and rehabilitate high quality wells in the proposed service area.
2. Develop blending mechanisms and control strategies to blend high quality water with poorer quality groundwater to ensure compliance with the Safe Drinking Water Act and AAC R18-4.
3. Modify existing wells to isolate areas of high concentrations or access higher quality water.
4. Provide slipstream treatment processes which in conjunction with an effective blending plan will meet the requirements.
5. Provide full scale treatment of groundwater.

A three phased approach to the evaluation of wells is employed by Global:

1. Phase 1 – Review available ADWR and ADEQ data, and physical assessment of wells;
2. Phase 2 – Analytical sampling of flow rates and quality (depth specific sampling, spinner logs);
3. Phase 3 – Rehabilitation. Installation of sanitary seal, re-screening, renewal of electrical control system, installation of SCADA control system, and obtain New Source Approval.

During Phase 2 of the evaluation program, a full suite of analytical data is taken from the groundwater including:

- Metals
- Inorganics
- Synthetic Organic Compounds
- Volatile Organic Compounds
- Nutrients
- Bacteriological Analyses
- Radiochemical constituents

The results of these analyses will determine any groundwater treatment requirements. The selection of wells for potable water production will take into account the water quality data, so investment into the conversion is made prudently. Global is prepared to install, operate and maintain any treatment processes that may be required. Global is considering three (3) alternative type of treatment methods for removal of Arsenic and Flouride from the groundwater. These facilities will be located on the water distribution centers.

5.0 CONCLUSIONS

The master planned area will require new pipelines and water distribution centers to adequately serve the proposed developments with potable water. The maximum pressure in the system will be 85 psi. The minimum pressure in the system during peak hour conditions is 40 psi. As new development plans become available and as construction begins, this master plan should be updated and revised accordingly. Ultimately, a complete hydraulic model of the system will be created and maintained to accurately assess the distribution and delivery system.

Water Infrastructure Finance Authority Requisition 2, Page 2 of 4
Cost Incurred Report and Disbursement Request
Water Utility of Greater Tonopah
920104-06

Type of Request: ☐ Final ☒ Partial

Period Covered: from (m/d/y) 2/24/06 to (m/d/y) 6/16/06

Borrower Contact & Address:

Water Utility of Greater Tonopah
3800 North Central Ave. #770
Phoenix, Arizona 85012

Contact: John Milhik Jr. CFO
Phone #: (602) 224-0711
FAX #: (602) 224-5455

Payee *(If other than Borrower Contact. Must have WIFA pre-approval & W-9 on file with WIFA)*:
Payee:
Address:

Contact:
Phone #:
FAX #:

Attach statements, invoices, or other proof that the amount requested below is currently due or has been advanced by the Borrower.

Request by Budget Item (1)	Budget as per Loan (2)	Previously Disbursed (3)	This Request (4)	Total To Date (5) = (4) + (3)	Total as % of Budget (6) = (5) / (2)
Planning	0.00				%
Design & Engineering	40,000.00	3,224.17	12,529.20	15,753.37	39 %
Legal/Debt Authorization	0.00		6,213.40	6,213.40	+100 %
Financial Advisor	0.00				%
Land/System Acquisition	0.00				%
Equipment/Materials	60,000.00	12,230.24	11,139.20	23,369.44	39 %
Construction/Installation/ Improvement	400,000.00	104,432.52	71,155.51	175,588.03	44 %
Inspection & Construction Management	0.00				%
Project Officer	0.00				%
Administration	0.00				%
Staff Training	0.00				%
Capitalized Interest	0.00				%
Other	0.00				%
Total Requested	500,000.00	119,886.93	101,037.31	220,924.24	44 %

Water Infrastructure Finance Authority Requisition 2, Page 3 of 4
MBE/WBE/SBRA Report
Water Utility of Greater Tonopah
920104-06

Reporting Requirements *(data entered in Columns A and B in the table below)*

- Report on any procurement related to this disbursement request. "Procurement" means the acquisition through order, purchase, lease or barter of supplies, equipment, construction, or other services.
- Within Column A of the table below, report on any contractor, subcontractor, or vendor that provided goods or services related to this disbursement request.
- The total amount entered at the bottom of Column B must total the amount requested on page 2 of this request.

Product/Service Codes *(codes for Column C in the table below)*

3 = Construction 4 = Manufacturing 5 = Transportation 6 = Supplies & Equipment, Wholesale
7 = Supplies & Equipment, Retail 9a = Business Services 9b = Professionals Services
9c = Other Services 10 = Other/Misc

Definitions *(definitions for terms in Columns D, E, and F in the table below)*

- MBE - Minority Business Enterprise: A business concern that is at least 51% owned by one or more minority individuals **and** whose daily business operations are managed and directed by one or more of the minority owners.
- WBE - Women Business Enterprise: A business concern that is at least 51% owned by one or more women **and** whose daily business operations are managed and directed by one or more of the women owners.
- SBRA - Small business in a Rural Area: A business concern that is physically located outside any standard metropolitan statistical area.

Disbursement Request by Contractor/Subcontractor/Vendor

Contractor/Subcontractor/Vendor Name & Address (A)	$ Amount (B)	Product/ Service Code (See Codes above) (C)	MBE (D)	WBE (E)	SBRA (F)
Fluid Solutions	5,844.20	9b			
Maricopa County Environmental Services	5,750-	9c			
Integra Engineering	435.00	9b			
Arsenic Remediation Coalition	500.00	10			
McPhee Environmental	6,584.40	6			
Watts Premier	3,714.10	6			
Siemens	840.70	6			
Cashion Tank + Steel	67,250.00	3			
Monument Electric	1,468.51	3			
Legend Tech. Services	2,437.00	3			
Legal - WIFA app	6,213.40	9b			
Total of Column B must equal request on Page 2, Column 4 of this Requisition	101,037.31				

Water Infrastructure Finance Authority Requisition 2, Page 4 of 4
Project Status Report
Water Utility of Greater Tonopah
920104-06

Section 1: Overall Project Progress

1. Describe work completed since previous requisition:

   Received bid from Cashion Tank for 100,000 gal. storage tank for Sunshine Water System. Engineering plans for Sunshine to Dixie Pipeline. Garden City Well #2 drilled. Engineering plans for WPE #3 well and pipeline.

2. Delays or Stop Work Notices? *(select one)* ☒ No ☐ Yes *(If yes, explain)*

3. Change Orders? *(select one)* ☒ No ☐ Yes *(If yes, explain)*

4. Is the project on schedule with the project design? *(select one)* ☒ Yes ☐ No *(If No, explain)*

5. Have you contacted WIFA for required observations? ☒ Yes ☐ No *(If No, explain)*

   Available for inspection.

Section 2: Materials or Equipment

1. Did you request loan proceeds on Page 2 of this Requisition for equipment or materials?
   ☐ No ☒ Yes *(If yes, describe equipment or materials.)*

   Arsenic treatment equipment.

2. Is project progress affected by a lack of equipment or materials? ☒ No ☐ Yes *(If yes, explain.)*

3. Will you request equipment or materials on the next Requisition? ☐ No ☒ Yes *(If yes, describe equipment or materials.)*

   Pipelines, storage tanks, arsenic treatment equipment

Water Utility of Greater Tonopah, Inc.
WIFA Draw #2
Categorized by Project

#	Date	Sunshine System Arsenic	
2	1/30/06	MCES	1,200.00
7	6/16/06	Cashion Tank & Steel	67,250.00
		Subtotal	**$68,450.00**
		Arsenic Treatment	
8	1/6/05	Arsenic Remediation Coalition	500.00
9	9/7/05	MCES	300.00
10	9/8/05	MCES	150.00
11	9/8/05	MCES	150.00
12	9/8/05	MCES	150.00
13	9/23/05	McPhee Environmental	6,584.40
14	10/4/05	MCES	1,500.00
15	10/25/05	Fluid Solutions	697.50
16	12/13/05	Watts Premier	3,714.10
17	3/10/06	Legal Fees-permits	5,000.00
18	3/31/06	Legal Fees-WIFA app	330.00
19	3/31/06	Legal Fees-WIFA app	762.00
20	4/10/06	Fluid Solutions	396.43
21	4/30/06	Legal Fees-WIFA app	121.40
		Subtotal	**$20,355.83**
		WPE #3 Arsenic	
22	2/23/04	Integra Engineering	435.00
23	3/4/04	MCES	1,550.00
24	4/21/04	Fluid Solutions	4,029.80
25	8/11/04	Fluid Solutions	100.00
26	4/18/05	Monument Electric	1,468.51
27	6/30/05	Siemens	840.70
28	4/30/06	MCES	600.00
		Subtotal	**$9,024.01**
		Garden City Well #2	
29	3/23/06	Legend Tech. Services	2,437.00
30	4/3/06	MCES	150.00
31	4/25/06	Fluid Solutions	620.47
		Subtotal	**3,207.47**
		Total	**$101,037.31**

Water Utility of Greater Tonopah, Inc.
WIFA Draw #2
Categorized by Vendor

	Design & Engineering	
10/25/05	Fluid Solutions	697.50
4/10/06	Fluid Solutions	396.43
4/21/04	Fluid Solutions	4,029.80
8/11/04	Fluid Solutions	100.00
4/25/06	Fluid Solutions	620.47
1/30/06	MCES	1,200.00
9/7/05	MCES	300.00
9/8/05	MCES	150.00
9/8/05	MCES	150.00
9/8/05	MCES	150.00
10/4/05	MCES	1,500.00
3/4/04	MCES	1,550.00
4/30/06	MCES	600.00
4/3/06	MCES	150.00
2/23/04	Integra Engineering	435.00
1/6/05	Arsenic Remediation Coalition	500.00
	Subtotal	**12,529.20**
	Legal/Debt Authorization	
3/10/06	Legal Fees-permits	5,000.00
3/31/06	Legal Fees-WIFA app	330.00
3/31/06	Legal Fees-WIFA app	762.00
4/30/06	Legal Fees-WIFA app	121.40
	Subtotal	**6,213.40**
	Equipment/Materials	
9/23/05	McPhee Environmental	6,584.40
12/13/05	Watts Premier	3,714.10
6/30/05	Siemens	840.70
	Subtotal	**11,139.20**
	Construction/Installation	
6/16/06	Cashion Tank & Steel	67,250.00
4/18/05	Monument Electric	1,468.51
3/23/06	Legend Tech. Services	2,437.00
	Subtotal	**71,155.51**
	Total	**101,037.31**

L6072861

Maricopa County
Environmental Services Departme
Revenue Receipt

Amount: 1200.00

Cash: _____

Check#: 1489

** ORDER# 0006 **
KP # 2
001 DRINK 1200.00
CLERK 5 02/02/2006 09:31 001 105277

Name: Dixie Water System

ENVIRONMENTAL HEALTH REVENUES

- ☐ Permit Fee
- ☐ Plan Review
- ☐ Food Handlers
- ☐ Family Day/Seasonal
- ☐ Special Events
- ☐ Pools
- ☐ Solid Waste
- ☐ On-site WW
- ☐ Subdivisions
- ☐ W/WW Trtmnt.
- ☑ Drinking Water
- ☐ List/Code/Copy
- ☐ Fines
- ☐ Grants
- ☐ Misc.
- ☐ Telephone

AIR QUALITY REVENUES

- ☐ Annual/Late Fee
- ☐ Vapor Recovery
- ☐ Erthmving
- ☐ Non-Title V
- ☐ NESHAP Fee/Burn
- ☐ Title V
- ☐ General Permit
- ☐ Fines & Forfeits
- ☐ AQ Revisions
- ☐ Emissions
- ☐ Copies/Rules
- ☐ Grants
- ☐ Misc.
- ☐

Permit # 07030 **Application #** _____

Memo: #2011315

Rec'd by: MM

White - Customer Goldenrod - Permit File Hard Copy - Office

7.

AZ LISC NO. 075820
CLASS L-05

CASHION TANK & STEEL CO.

SPECIALIZING IN TANK CONSTRUCTION & ERECTION

(623)932-3380
(623)932-1116 FAX

P O BOX 306
CASHION, AZ 85329

May 16, 2006

Water Utility of Greater Tonopah

ATTN: John Mihlik

Gentlemen: Phone 602-224-0711 Fax 602-224-5455

We propose to furnish labor and material to build 100,000 water storage tank to AWWA 33' x 16' high built on your prepared site at near Tonopah, Arizona.

The tank will include the following:

1/4" plate bottom	3/16" plate shell
3/16" plate roof	30" shell manway
Fittings to first flange	24 " top manway
Ladders in & out	Gaugeboard

Gravel ring 3/16 x 8" customer to haul & install

The tank will be sandblasted and painted to AWWA Inside System #1 Epoxy and Outside System # 1 color of your choice. **We must have access to at least three sides of the tank and room for a 40' trailer and crane and be able to drive to the site with the same.**

Price on the tank will be $67,250 with 40% to be paid down. On completion of the erection 85% of the balance is to be paid and the remainder on completion of the painting or as billed.

Cashion Tank & Steel will have liability insurance for at least $1,000,000 and workmen's compensation as required by the state. Customer will supply all permits and clearances.

Thank you for the opportunity to quote on this project.

Sincerely,
Shirley Olson
SHIRLEY OLSON
CASHION TANK & STEEL CO.

ACCEPTED BY
DATE 5/16/06

Price is subject to price and availability of steel at time of order

8.

Invoice

Arsenic Remediation Coalition, LLC

C/O Big Park Water Company
45 Castle Rock Road
Suite 4
Sedona, AZ 85361

Date	Invoice #
1/11/2005	102

Bill To
Water Utility of Greater Tonopah, Inc. 3800 N Central Ave, Suite 500 Phoenix, AZ 85012

Description	Amount
Arsenic Remediation Coalition Membership Dues	500.00

PAID
JAN 1 1 2005

Please Remit to ARC at the above address	**Total**	$500.00

E 057279

Maricopa County
Environmental Services Departme
Revenue Receipt

Amount: 300.00

Cash: _____

Check#: 1410

** ORDER# 0130 **
KP # 2
001 DRINK 300.00
CLERK 4 09/08/2005 13:42 001 099712

Name: Sunshine Water Co.

ENVIRONMENTAL HEALTH REVENUES

☐ Permit Fee	☐ Special Events	☐ Subdivisions	☐ Fines
☐ Plan Review	☐ Pools	☐ W/WW Trtmnt.	☐ Grants
☐ Food Handlers	☐ Solid Waste	☑ Drinking Water	☐ Misc.
☐ Family Day/Seasonal	☐ On-site WW	☐ List/Code/Copy	☐ Telephone

AIR QUALITY REVENUES

☐ Annual/Late Fee	☐ NESHAP Fee/Burn	☐ General Permit	☐ Copies/Rules
☐ Vapor Recovery	☐ Title V	☐ Fines & Forfeits	☐ Grants
☐ Erthmving		☐ AQ Revisions	☐ Misc.
☐ Non-Title V		☐ Emissions	☐

Permit # 07021 **Application #** _____

Memo: #2011233

Rec'd by: [illegible]

White - Customer Goldenrod - Permit File Hard Copy - Office

ES057606

Maricopa County
Environmental Services Department
Revenue Receipt

Amount: 150.00

Cash: _____

Check#: 1412

** ORDER# 0135 **
KP # 2
001 DRINK 150.00
CLERK 4 09/13/2005 14:10 001 090149

Name: Garden City Water Co.

ENVIRONMENTAL HEALTH REVENUES

- ☐ Permit Fee
- ☐ Plan Review
- ☐ Food Handlers
- ☐ Family Day/Seasonal
- ☐ Special Events
- ☐ Pools
- ☐ Solid Waste
- ☐ On-site WW
- ☐ Subdivisions
- ☐ W/WW Trtmnt.
- ☒ Drinking Water
- ☐ List/Code/Copy
- ☐ Fines
- ☐ Grants
- ☐ Misc.
- ☐ Telephone

AIR QUALITY REVENUES

- ☐ Annual/Late Fee
- ☐ Vapor Recovery
- ☐ Erthmving
- ☐ Non-Title V
- ☐ NESHAP Fee/Burn
- ☐ Title V
- ☐ General Permit
- ☐ Fines & Forfeits
- ☐ AQ Revisions
- ☐ Emissions
- ☐ Copies/Rules
- ☐ Grants
- ☐ Misc.
- ☐

Permit # 07037 Application # _____

Memo: #201237

Rec'd by: My

White - Customer Goldenrod - Permit File Hard Copy - Office

10

ES 057604

Maricopa County
Environmental Services Department
Revenue Receipt

Amount: 150.00

Cash: _____

Check#: 1411

** ORDER# 0133 **
KP # 2
001 DRINK 150.00
CLERK 4 09/13/2005 14:09 001 090147

Name: Roseview Water Co.

ENVIRONMENTAL HEALTH REVENUES

- ☐ Permit Fee
- ☐ Plan Review
- ☐ Food Handlers
- ☐ Family Day/Seasonal
- ☐ Special Events
- ☐ Pools
- ☐ Solid Waste
- ☐ On-site WW
- ☐ Subdivisions
- ☐ W/WW Trtmnt.
- ☑ Drinking Water
- ☐ List/Code/Copy
- ☐ Fines
- ☐ Grants
- ☐ Misc.
- ☐ Telephone

AIR QUALITY REVENUES

- ☐ Annual/Late Fee
- ☐ Vapor Recovery
- ☐ Erthmving
- ☐ Non-Title V
- ☐ NESHAP Fee/Burn
- ☐ Title V
- ☐ General Permit
- ☐ Fines & Forfeits
- ☐ AQ Revisions
- ☐ Emissions
- ☐ Copies/Rules
- ☐ Grants
- ☐ Misc.
- ☐

Permit # 07082 Application # _____

Memo: #2011235

Rec'd by: MY

White - Customer Goldenrod - Permit File Hard Copy - Office

E 057605

Maricopa County
Environmental Services Department
Revenue Receipt

Amount: 150.00
Cash:
Check#: 1413

** ORDER# 0134 **
KP # 2
001 DRINK 150.00
CLERK 4 09/13/2005 14:09 001 090140

Name: West Phoenix Estates

ENVIRONMENTAL HEALTH REVENUES

- ☐ Permit Fee
- ☐ Plan Review
- ☐ Food Handlers
- ☐ Family Day/Seasonal
- ☐ Special Events
- ☐ Pools
- ☐ Solid Waste
- ☐ On-site WW
- ☐ Subdivisions
- ☐ W/WW Trtmnt.
- ☑ Drinking Water
- ☐ List/Code/Copy
- ☐ Fines
- ☐ Grants
- ☐ Misc.
- ☐ Telephone

AIR QUALITY REVENUES

- ☐ Annual/Late Fee
- ☐ Vapor Recovery
- ☐ Erthmving
- ☐ Non-Title V
- ☐ NESHAP Fee/Burn
- ☐ Title V
- ☐ General Permit
- ☐ Fines & Forfeits
- ☐ AQ Revisions
- ☐ Emissions
- ☐ Copies/Rules
- ☐ Grants
- ☐ Misc.
- ☐

Permit # 07733 Application #

Memo: 2011234

Rec'd by: MY

White - Customer Goldenrod - Permit File Hard Copy - Office

13

McPhee
Environmental Supply, LLC

11460 N. CAVE CREEK ROAD SUITE 1
PHOENIX, AZ 85020
(602) 943-9565 FAX (602) 943-3194

Invoice

DATE	INVOICE #
9/16/2005	21424

BILL TO	SHIP TO
Water Utility of Greater Tonopah, Inc. 3800 N. CENTRAL AVENUE, SUITE 770 PHOENIX, AZ 85012	Water Utility of Greater Tonopah, Inc. BUCKEYE RANCH

P.O. NUMBER	TERMS	REP	SHIP	VIA	F.O.B.
WSC	Due on receipt	GA	9/16/2005		

QTY	ITEM CODE	DESCRIPTION	PRICE EA.	AMOUNT
1	SPECIAL	Task 1 Total $10,974 Initial Payment due $6,584.40 MCDES Approval $3,292.20 Final Payment $1,097.40	6,584.40	6,584.40

Thank you for your business.

Total $6,584.40

ES062498

Maricopa County
Environmental Services Department
Revenue Receipt

Amount: 1500.00

Cash: _____

Check#: 1425

** ORDER# 0106 **
KP # 2
001 DRINK 1500.00
CLERK 5 10/26/2005 15:31 001 095016

Name: Water Utility of Greater Tonopah

ENVIRONMENTAL HEALTH REVENUES

- ☐ Permit Fee
- ☐ Plan Review
- ☐ Food Handlers
- ☐ Family Day/Seasonal
- ☐ Special Events
- ☐ Pools
- ☐ Solid Waste
- ☐ On-site WW
- ☐ Subdivisions
- ☐ W/WW Trtmnt.
- ☑ Drinking Water
- ☐ List/Code/Copy
- ☐ Fines
- ☐ Grants
- ☐ Misc.
- ☐ Telephone

AIR QUALITY REVENUES

- ☐ Annual/Late Fee
- ☐ Vapor Recovery
- ☐ Erthmving
- ☐ Non-Title V
- ☐ NESHAP Fee/Burn
- ☐ Title V
- ☐ General Permit
- ☐ Fines & Forfeits
- ☐ AQ Revisions
- ☐ Emissions
- ☐ Copies/Rules
- ☐ Grants
- ☐ Misc.
- ☐

Permit # 07618 Application # _____

Memo: #20 11 287

Rec'd by: MJ

White - Customer Goldenrod - Permit File Hard Copy - Office

F

15

Fluid Solutions

Water • Wastewater • Engineering • Environmental Services

1121 East Missouri Ave., #100
Phoenix, AZ 85014
(602) 274-6725

Invoice

DATE	INVOICE#
9/30/2005	3241

BILL TO
Water Utility of Greater Tonopah, Inc. 3800 N. Central Ave., #770 Phoenix, AZ 85012

CLIENT NO.	TERMS	PROJECT
207-05753	Net 30	Waterline Extension Plans-Sunshine/Dixie

DATE	STAFF	ITEM	DESCRIPTION	HRS/QTY	RATE	AMOUNT
8/22/2005	Senior Engi...	Consulting	map for waterline	2.13	115.00	244.95
8/26/2005	Senior Engi...	Consulting	blending plan for Dixie/Sunshine water companies	0.33	115.00	37.95
8/31/2005	Senior Engi...	Consulting	Dixie and Sunshine schedule	1.93	115.00	221.95
9/1/2005	Senior Engi...	Consulting	Dixie and Sunshine w/l	0.16	115.00	18.40
9/6/2005	Senior Engi...	Consulting	Dixie and Sunshine	0.33	115.00	37.95
9/8/2005	Senior Engi...	Consulting	Dixie and Sunshine blending plan	0.08	115.00	9.20
9/9/2005	Senior Engi...	Consulting	Dixie and Sunshine blending plan	0.75	115.00	86.25
9/12/2005	Senior Engi...	Consulting	Dixie and Sunshine blending plan	0.08	115.00	9.20
9/16/2005	Senior Engi...	Consulting		0.08	115.00	9.20
9/29/2005	Senior Engi...	Consulting	Dixie and Sunshine - review County comments	0.16	115.00	18.40
		Mileage 0...	to County	10	0.405	4.05

INTERNAL
OK
Jm. 10/13/05
Work for Proposed Pipeline - Sunshine/Dixie

Transfer work

Approved by Kathleen Mills

Total $697.50

16

1725 W. Williams Dr. C-20
Phoenix, Arizona 85027
(623) 931-1977
Fax (623) 931-0191
(888) 754-8396

WATTS Premier

REMIT TO:
Watts Premier, Inc.
Dept. LA 21490
Pasadena, CA 91185-1490

VALENCIA WATER COMPANY INC
401 E. JACKSON

BUCKEYE, AZ 85326

INVOICE

VALENCIA WATER COMPANY INC
401 E. JACKSON

BUCKEYE, AZ 85326

DATE	NUMBER	PAGE	DUE DATE
11/21/05	290889	1	SEE TERMS

SHIP VIA	F.O.B.	TERMS	YOUR REF.	OUR REF.
G1 PREPAID	Prepaid	NET 30 DAYS	VERBAL	VAL100

DESCRIPTION	ORDERED	SHIPPED	UNIT PRICE	EXTENDED PRICE
ARSENIC QUICK II TEST KIT ITEM #: 173003	PX 1	1	179.00	179.00
ZRO-4-RETAIL/E-COM ITEM #: 500029	PX 12	12	289.00	3,468.00
GAC/KDF 8 OZ-10"-CTG ITEM #: 100037	PX 12	12	.00	.00
FAUCET-AG-CHR-W/TDS & TIME ITEM #: 116058	PX 12	12	.00	.00

WWGT - CIP Arsenic POU
P.O.U. Program
500 ea

SALESPERSON 008

SHIPPING\HANDLING	$67.10
PRODUCT TOTAL	$3,647.00
TAX	$.00
TOTAL	$3,714.10
NET TO PAY	$3,714.10

A 1.5% monthly interest charge will be made on all invoices over 30 days past due.

Thank You For Your Business!

www.wattspremier.com

See reverse side for terms and conditions.

CUSTOMER COPY

Valencia Water Company, Inc.
Water Utility of Greater Buckeye, Inc.
Water Utility of Greater Tonopah, Inc.
401 E. Jackson, P.O. Box 36, Buckeye, AZ 85326
Willow Valley Water Co., Inc.
1430 E. Commercial Street, P. O. Box 5620, Mohave Valley, AZ 86446
Water Utility of Northern Scottsdale, Inc.

West Maricopa Combine, Inc. 3800 N. Central Ave., Suite 770 Phoenix, AZ 85012

17

CHECK REQUEST

Date: 3/9/06

Company: WMC WVC WGB (WGT) WNS WVW

To Whom: BARL, CHALEY & LAGARDE, P.C.
3101 N. CENTRAL AVE, STE 1000
PHX AZ 85012

Amount: $5,000

For: retainer fee to obtain the special use permits for two well sites - Buckeye Ranch & Sanchez Ranch. for Arsenic Treatment.

Requested by:

Authorized by:

Title:

To be paid by:

17

EARL, CURLEY & LAGARDE, P.C.
ATTORNEYS AT LAW

Telephone (602) 265-0094
Fax (602) 265-2195

3101 North Central Avenue
Suite 1000
Phoenix, Arizona 85012

March 9, 2006

John Mihlik, President & Chairman
West Maricopa Combine, Inc.
3800 N. Central Ave. #770
Phoenix, AZ 85012

Re: Arsenic Treatment Facilities In Maricopa County WATER UTILITY OF GRATON BUCKEYE, INC SPECIAL USE PERMIT FOR TWO WELL SITE

Dear John:

This is to confirm that you wish to retain our law firm to represent West Maricopa Combine, Inc. in the entitlements for the above-referenced project. Legal services rendered on your behalf in this case will be billed at the following hourly rates:

Michael J. Curley	$425/hour
Stephen C. Earl	$425/hour
Lynne A. Lagarde	$400/hour
Andrew E. Moore	$275/hour

(In House Professional Planners)

Gary V. King	$ 210/hour
Ricardo Toris	$ 210/hour
Stella Sheridan	$ 190/hour
Adrian Williamson	$ 190/hour
Adam Pruett	$ 190/hour

It is difficult to predict legal fees involved in a matter such as this, because the amount of work and time incurred can vary widely depending upon the extent of meetings with Staff, neighborhood work, lobbying efforts, as well as the number of hearings involved. Thus, we can give you only an estimated range of attorney's fees. If the case is relatively straight forward and non-controversial, we would estimate that the fees will be approximately in the $25,000 range. If the case becomes controversial, these fees

17

will increase. We will contact the County to confirm that these should be straight forward cases.

It is our firm's policy to obtain a retainer prior to the commencement of work on cases and, thus, we would request a retainer of $5,000 for the above-mentioned consultation work so that we may proceed. This retainer will be applied to your final bill and any remaining amount refunded at that time. Please return an executed copy of this letter with the retainer.

We look forward to working with you on this matter and appreciate the opportunity to represent your interests.

Sincerely,

for Michael J. Curley

MJC/drm

Acknowledged and agreed to
this 9th day of March, 2006

By: _____, PRESIDENT

O:\INDEX\[illegible]\Ltr 3-6-06.doc

18

Goodson and Manley, PLC

Attorneys at Law
Brookstone Building, Suite 200
2025 North Third Street
Phoenix, Arizona 85004-1488
Phone: (602) 252-5110 (800) 442-8057 Fax: (602) 257-1883 E-Mail: billing@gmdlaw.com

Monthly Status Report and Billing Invoice

OK
3/22/06

West Maricopa Combine, Inc.
c/o J. John Mihlik, President
3800 N. Central Avenue, Suite 770
Phoenix,AZ 85012

Phone 1: 602-504-8757
Phone 2: 602-224-0711
Phone 3:
Fax: 602-224-5455
E-Mail:
Law Firm Contact Person:
Judy Mihlik

February 28, 2006
Invoice # 45315

Billing Summary

Previous Balance	$160.00
Current Legal Fees	$2,880.00
Current out-of-pocket Costs	$0.00
Interest Charges	$0.00
Payments Received	($160.00)
Other Credits	$0.00
Total Due on the 20th of the month	**$2,880.00**
Total amount remaining in Client Fund Account	$0.00

Please communicate all questions regarding this statement to the Business Office within 15 days, so that we may deal with any questions while they are fresh in your mind. Uncommunicated issues are deemed to be waived.

Amounts unpaid after 30 days are subject to a $15.00 rebilling fee and 2% monthly interest.

For your convenience, you may e-mail us at billing@gmdlaw.com.

Professional services

			Hours	Amount
2/4/2006	JFG	Senior Attorney reading miscellaneous emails. (Director's duties).	0.60	NO CHARGE
2/7/2006	JFG	Senior Attorney analysis of new offer and Board conference. (Director's duties).	1.50	NO CHARGE
2/8/2006	JM	Senior Legal Assistant time to clean up work pending, file all loose and completed documents for previous month in appropriate sub-files.	0.50	75.00
	JM	Senior Legal Assistant time to prepare updated Opinion Letter for WIFA loan and process same. File note	0.50	75.00
2/16/2006	JFG	Senior Attorney review of miscellaneous emails. (Director's duties).	1.00	NO CHARGE
2/21/2006	JFG	Senior Attorney analysis of emails and telephone conference with John Mihlik regarding final deal. (Director's Duties).	1.10	NO CHARGE
2/27/2006	JFG	Senior Attorney lunch conference for update. (Director's Duties).	1.50	NO CHARGE
	JFG	Senior Attorney review of document for Water infrastructure finance for two loans.	1.20	360.00
✓	JFG	Senior Attorney preparation of attorney's opinion for Water Utility of Greater Buckeye Inc. to give to water infrastructure finance and proofing.	1.10	330.00
✓	JFG	Senior Attorney preparation of attorney's opinion for Water Utility of Tonopah Inc. to give to water infrastructure finance and proofing.	1.10	330.00
✓	JFG	Senior Attorney review of document required to be examined as basis for opinion for Water Utility of Greater Buckeye and value of assumption of legal responsibility for transaction .	2.60	780.00
✓	JFG	Senior Attorney review of document required to be examined as basis for opinion for Water Utility of Tonopah and value of assumption of legal responsibility	2.60	780.00

Please visit our website at www.gmdlaw.com

19

The Law Offices of
Curtis, Goodwin, Sullivan,
Udall & Schwab, P.L.C.
2712 North Seventh Street
Phoenix, Arizona 85006-1090
Telephone (602) 393-1700
Facsimile (602) 393-1703

February 9, 2006
Invoice # 11410

West Maricopa Combine, Inc
John Mihlik, President
3800 N. Central Avenue Suite 770
Phoenix, AZ 85012

Re: WUGT - 2005 WIFA Financing
I.D. 1284-50701- WPS

For Services Rendered Through January 31, 2006

Previous Balance		$ 1,488.40
Net Payments		<1,488.40>
Current Fees	720.00	
Current Disbursements	42.00	
Total Due		$ 762.00

OK
WUGT
WIFA
funding

The Law Offices of

Curtis, Goodwin, Sullivan, Udall & Schwab, P.L.C.

February 9, 2006
Invoice # 11410

West Maricopa Combine, Inc

Re: WUGT - 2005 WIFA Financing
I.D. 1284-50701- WPS

Date	Description of Services	Hours
01-03-06	Review of Staff Report; communication with client regarding whether Comments to Staff Report should be filed;	0.7
01-10-06	Conference with J. Mihlik regarding Recommended Order;	0.2
01-18-06	Preparation of Exceptions to Recommended Order; conference with J. Mihlik; revise, finalize and file exceptions; provide copy to K. Layton;	1.8
01-25-06	Preparation for and attend Open Meeting; listen to Arizona Corporation Commission Open Meeting to determine when to appear (shared);	0.8
01-30-06	Communication with client regarding need to prepare and file rate case and equity plan;	0.1
	Total Fees	$ 720.00

Date	Disbursement Description	Amount
	Inside Document Reproduction	42.00
	Total Disbursements	$ 42.00

20

Fluid Solutions

Water • Wastewater • Engineering • Environmental Services

1121 East Missouri Ave., #100
Phoenix, AZ 85014
(602) 274-6725

Invoice

DATE	INVOICE#
11/25/2005	3397

OK

C. Work IN Progress will be reimbursed with WIFA loan.

JN 12/28/05

BILL TO
Water Utility of Greater Tonopah, Inc. 3800 N. Central Ave., #770 Phoenix, AZ 85012

CLIENT NO.	TERMS	PROJECT
207-05753	Net 30	Waterline Extension Plans-Sunshine/Dixie

DATE	STAFF	ITEM	DESCRIPTION	HRS/QTY	RATE	AMOUNT
11/7/2005	Senior Tec...	Design	Redlines from Field Visit	1.76	65.00	114.40
11/8/2005	Senior Tec...	Design	Editing Contour Lines	3.95	65.00	256.75
		Reimb Gr...	Thomas Reprographics			25.28

Approved by Kathy Mell

Total $396.43

21

The Law Offices of
Curtis, Goodwin, Sullivan,
Udall & Schwab, P.L.C.
2712 North Seventh Street
Phoenix, Arizona 85006-1090
Telephone (602) 393-1700
Facsimile (602) 393-1703

March 16, 2006
Invoice # 11512

West Maricopa Combine, Inc
John Mihlik, President
3800 N. Central Avenue Suite 770
Phoenix, AZ 85012

Re: WUGT - 2005 WIFA Financing
I.D. 1284-50701- WPS

For Services Rendered Through February 28, 2006

Previous Balance		$	762.00 -paid CK #61
Current Fees	105.00		
Current Disbursements	16.80		
Total Due	$121.80 -due	$	883.80

21

The Law Offices of

Curtis, Goodwin, Sullivan, Udall & Schwab, P.L.C.

March 16, 2006
Invoice # 11512

West Maricopa Combine, Inc

Re: WUGT - 2005 WIFA Financing
I.D. 1284-50701- WPS

Date	Description of Services	Hours
02-07-06	Review file and final order; draft letter regarding complaince items per Decision No. 68452;	0.5
02-08-06	Finalize letter to client;	0.3
	Total Fees	$ 105.00

Date	Disbursement Description	Amount
	Inside Document Reproduction	16.80
	Total Disbursements	$ 16.80

22

INTEGRA ENGINEERING, INC.

713 South Dodge Street
Gilbert, Arizona 85233
480-558-0158

Invoice

DATE	INVOICE #
2/5/2004	524

BILL TO
West Maricopa Combine, Inc. 3800 North Central Avenue Suite 770 Phoenix, Arizona 85012

WUGT

JOB NAME	P.O. No.	DUE DATE
	n/a	3/6/2004

ITEM	DESCRIPTION	SERVICED	W.A.F.#	HOURS	RATE	AMOUNT
Field Time	Survey work-Set Property Pins for West Phoenix Estates Unit 3 Lot 273	1/9/2004	n/a	3	145.00	435.00
Field Time	Survey work-Set Property Pins for West Phoenix Estates Unit 6 Lot 858	1/9/2004	n/a	2	145.00	290.00
Field Time	Survey work-West Phoenix Estates Tract A - out of Lot 157 Note: No monuments for Surveying found			1	145.00	145.00

Thank you for your business.

Total $870.00

REFERENCE NO.	DESCRIPTION	INVOICE DATE	INVOICE AMOUNT	DISCOUNT TAKEN	AMOUNT PAID
	WPE#3 - Permits for				1,550.0

23

CHECK DATE	CHECK NO.	PAYEE	DISCOUNTS TAKEN	CHECK AMOUNT
3/4/04	1168	Maricopa County Env Serv Dept		$1,550.0

WATER UTILITY OF GREATER TONOPAH, INC
3800 N. CENTRAL AVE. STE. 500
PHOENIX, AZ 85012
602-224-0711

BANK ONE
PHOENIX, AZ 85001
91-2/1221

1168

Memo :WPE#3 & WPE#6

CHECK NO.	DATE	AMOUNT
1168	Mar 4, 2004	****$1,550.00

One Thousand Five Hundred Fifty and 00/100 Dollars

PAY TO THE ORDER OF:
Maricopa County Env Serv Dept
1001 North Central Ave.
Ste. 150
Phoenix, AZ 85004

AUTHORIZED SIGNATURE

SECURITY FEATURES INCLUDED. DETAILS ON BACK.

⑈001168⑈ ⑆122100024⑆ 2908⑈3815⑈

WATER UTILITY OF GREATER TONOPAH, INC

1168

REFERENCE NO.	DESCRIPTION	INVOICE DATE	INVOICE AMOUNT	DISCOUNT TAKEN	AMOUNT PAID
	WPE#3 - Permits for				1,550.00

CHECK DATE	CHECK NO.	PAYEE	DISCOUNTS TAKEN	CHECK AMOUNT
3/4/04	1168	Maricopa County Env Serv Dept		$1,550.00

PWLA20 (9/95)

EONC21 (11/98) 1086

Valencia Water Company, Inc.
Water Utility of Greater Buckeye, Inc.
Water Utility of Greater Tonopah, Inc.
401 E. Jackson, P.O. Box 36, Buckeye, AZ 85326
Willow Valley Water Co., Inc.
1430 E. Commercial Street, P.O. Box 5620, Mohave Valley, AZ 86446
Water Utility of Northern Scottsdale, Inc.

West Maricopa Combine, Inc. 3800 N. Central Ave., Suite 770 Phoenix, AZ 85012

23

CHECK REQUEST

Date: 3/4/04

Company: WMC VWC WGB (WGT) WNS WWW

To Whom: Maricopa County Environmental Service

Amount: $1550

WEST PHOENIX EXPORT WATERLINE AND IMPROVEMENT CONNECTING WPE 3 TO WPE 6.

For:
350 - Well
350 - STORAGE
350 - BOOSTER PUMP
350 - PIPELINE
150 - CONTROLS
1550

Requested by:

Authorized by: [signature]

Title:

To be paid by:

24

Fluid Solutions
Water • Wastewater • Engineering • Environmental Services

MEMORANDUM

To: Mr. J. John Mihlik

From: Sheryl Harden

Date: April 14, 2004

Subject: Water Utility of Greater Tonopah – As/F WIFA Project

---

My original plan was to inform you once we received payment from WIFA for its portion of the invoices. However, we were informed today that WIFA will only issue payment after the Utility has paid its portion.

The Utility's portion is detailed in the breakdown below:

Total billings to date:	$9799.60
Utility's portion of total billings:	$4899.80
Utility's previous payment to Integra:	($870.00)
Utility's remaining responsibility:	$4029.80

Copies of the original invoices are enclosed. If you have any questions, please call me.

Thank you.

24

Fluid Solutions

Water • Wastewater • Engineering • Environmental Services

1121 East Missouri Ave., #100
Phoenix, AZ 85014

(602) 274-6725

Invoice

DATE	INVOICE#
3/29/2004	2392

COPY

BILL TO
Water Utility of Greater Tonopah, Inc. 3800 N. Central Ave., #770 Phoenix, AZ 85012

CLIENT NO.	TERMS	PROJECT
207-03462	Net 30	As/F WIFA Project

DATE	STAFF	ITEM	DESCRIPTION	HRS/QTY	RATE	AMOUNT
			TA DW 003-2004 Grant No. 880009-04			
			Obtain Information ($180 budget)			
1/7/2004	Senior Engi...	Consulting	pipe route	0.33	120.00	39.60
1/14/2004	Senior Engi...	Consulting	pipeline route	1.17	120.00	140.40

Approved by Kathy Mell

Total $180.00

24

Fluid Solutions

Water • Wastewater • Engineering • Environmental Services

1121 East Missouri Ave., #100
Phoenix, AZ 85014

(602) 274-6725

Invoice

DATE	INVOICE#
3/29/2004	2393

COPY

BILL TO
Water Utility of Greater Tonopah, Inc. 3800 N. Central Ave., #770 Phoenix, AZ 85012

CLIENT NO.	TERMS	PROJECT
207-03462	Net 30	As/F WIFA Project

DATE	STAFF	ITEM	DESCRIPTION	HRS/QTY	RATE	AMOUNT
			TA DW 003-2004 Grant No. 880009-04 Suvery & Site Visit ($5,100 budget)			
1/6/2004	Technician	Drafting		5.4	60.00	324.00
1/6/2004	Senior Engi...	Consulting	survey review	0.7	120.00	84.00
1/7/2004	Technician	Drafting		4.95	60.00	297.00
1/14/2004	Senior Engi...	Consulting	site visit	3.83	120.00	459.60
1/20/2004	Senior Engi...	Design	waterline route	3.76	120.00	451.20
1/21/2004	Technician	Drafting	redlines	6	60.00	360.00
1/22/2004	Technician	Drafting	redlines	5	60.00	300.00
1/23/2004	Senior Engi...	Design	redlines	2.46	120.00	295.20
1/23/2004	Senior Engi...	Design	model of waterline	1.33	120.00	159.60
1/24/2004	Technician	Drafting	redlines	5	60.00	300.00
1/25/2004	Technician	Drafting	redlines	6	60.00	360.00
1/26/2004	Technician	Drafting	redlines	2	60.00	120.00
1/29/2004	Technician	Drafting	redlines	7.18	60.00	430.80
1/30/2004	Technician	Drafting	redlines	3.03	60.00	181.80
2/12/2004	Technician	Drafting	redlines	1.21	60.00	72.60
		Outside ...	Integra Engineering: survey work	6	145.00	870.00
		Mileage 03	to West Phx Estates #6	95	0.36	34.20

Approved by Katherine Mills

Total $5,100.00

24

Fluid Solutions
Water • Wastewater • Engineering • Environmental Services

1121 East Missouri Ave., #100
Phoenix, AZ 85014

Credit Memo

DATE	CREDIT NO.
3/29/2004	2397

BILL TO
Water Utility of Greater Tonopah, Inc. 3800 N. Central Ave., #770 Phoenix, AZ 85012

COI

CLIENT NO.	PROJECT
207-03462	As/F WIFA Project

DESCRIPTION	QTY	RATE	AMOUNT
Credit against Invoice #2393: Greater Tonopah paid Integra bill directly		870.00	-870.00

Approved by

Total $-870.00

24

Fluid Solutions

Water • Wastewater • Engineering • Environmental Services

1121 East Missouri Ave., #100
Phoenix, AZ 85014

(602) 274-6725

Invoice

DATE	INVOICE#
3/29/2004	2394

COF

BILL TO
Water Utility of Greater Tonopah, Inc. 3800 N. Central Ave., #770 Phoenix, AZ 85012

CLIENT NO.	TERMS	PROJECT
207-03462	Net 30	As/F WIFA Project

DATE	STAFF	ITEM	DESCRIPTION	HRS/QTY	RATE	AMOUNT
			TA DW 003-2004 Grant No. 880009-04 Preliminary Design & Plan ($1,100 budget)			
1/30/2004	Senior Engi...	Design	relines	1.38	120.00	165.60
1/31/2004	Technician	Drafting	redlines	5	60.00	300.00
2/1/2004	Technician	Drafting	redlines	3.1	60.00	186.00
2/2/2004	Senior Engi...	Design	REDLINES	1.1	120.00	132.00
2/9/2004	Technician	Drafting	redlines - fluoride/arsenic removal automation	3.27	60.00	196.20
2/17/2004	Senior Engi...	Design	redlines and details	1	120.00	120.00

Approved by Kathryn Mull

Total $1,099.80

Fluid Solutions
Water • Wastewater • Engineering • Environmental Services

1121 East Missouri Ave., #100
Phoenix, AZ 85014

(602) 274-6725

Invoice

DATE	INVOICE#
3/29/2004	2395

BILL TO
Water Utility of Greater Tonopah, Inc. 3800 N. Central Ave., #770 Phoenix, AZ 85012

CLIENT NO.	TERMS	PROJECT
207-03462	Net 30	As/F WIFA Project

DATE	STAFF	ITEM	DESCRIPTION	HRS/QTY	RATE	AMOUNT
			TA DW 003-2004 Grant No. 880009-04 Detailed Plans & Specs ($3,000 budget)			
2/13/2004	Technician	Drafting	redlines	3.83	60.00	229.80
2/17/2004	Technician	Drafting	redlines	4.38	60.00	262.80
2/18/2004	Technician	Drafting	redlines	3.61	60.00	216.60
2/19/2004	Senior Engi...	Design	control design/spec	0.75	120.00	90.00
2/20/2004	Technician	Drafting	redlines	4.01	60.00	240.60
2/23/2004	Technician	Drafting	redlines	2.8	60.00	168.00
2/24/2004	Technician	Drafting	redlines	3.09	60.00	185.40
2/24/2004	Senior Engi...	Consulting	redlines	0.17	120.00	20.40
2/25/2004	Senior Engi...	Design	well pump calcs and design memo	2.81	120.00	337.20
2/26/2004	Senior Engi...	Consulting	memo report	0.36	120.00	43.20
2/27/2004	Senior Engi...	Design	redlines	3.43	120.00	411.60
3/1/2004	Senior Engi...	Design		2.1	120.00	252.00
3/2/2004	Prn. Engin...	Design		1.21	120.00	145.20
3/2/2004	Senior Engi...	Design	redlines	3.31	120.00	397.20

Approved by Kathleen Mills

Total $3,000.00

24

Fluid Solutions

Water • Wastewater • Engineering • Environmental Services

1121 East Missouri Ave., #100
Phoenix, AZ 85014

(602) 274-6725

Invoice

DATE	INVOICE#
3/29/2004	2396

COF

BILL TO
Water Utility of Greater Tonopah, Inc. 3800 N. Central Ave., #770 Phoenix, AZ 85012

CLIENT NO.	TERMS	PROJECT
207-03462	Net 30	As/F WIFA Project

DATE	STAFF	ITEM	DESCRIPTION	HRS/QTY	RATE	AMOUNT
			TA DW 003-2004 Grant No. 880009-04 Submittal to County ($420 budget)			
3/1/2004	Prn. Engin...	Design	final review	1.59	150.00	238.50
3/2/2004	Clerical	Consulting	Copies 5 sets	0.97	40.00	38.80
3/2/2004	Senior Engi...	Design	production	0.5	120.00	60.00
		Reimb Gr...	Thomas Reprographics: 6 sets			82.50

Approved by Kathleen Hill

Total $419.80

25

Fluid Solutions
Water • Wastewater • Engineering • Environmental Services

MEMORANDUM

To: Mr. J. John Mihlik

From: Sheryl Harden Sheryl

Date: August 6, 2004

Subject: Water Utility of Greater Tonopah – As/F WIFA Project

---

Hello, Mr. Mihlik!

Enclosed is what should be the final invoice under the WIFA grant for the above project. The Utility's portion is $100. Although we have received the Approval to Construct from the County, we cannot submit final paperwork to WIFA until we also receive the permit approval letter from Dept of Transportation. Once we receive the DOT approval letter, I will forward the WIFA payment requisition form for your signature.

Call me if there are any questions. As always, thank you.

25

Fluid Solutions

Water • Wastewater • Engineering • Environmental Services

1121 East Missouri Ave., #100
Phoenix, AZ 85014

(602) 274-6725

Invoice

DATE	INVOICE#
7/30/2004	2524

BILL TO
Water Utility of Greater Tonopah, Inc. 3800 N. Central Ave., #770 Phoenix, AZ 85012

CLIENT NO.	TERMS	PROJECT
207-03462	Net 30	As/F WIFA Project

DATE	STAFF	ITEM	DESCRIPTION	HRS/QTY	RATE	AMOUNT
			TA DW 003-2004 Grant No. 880009-04			
			Follow-up with County ($200 budget)			
6/7/2004	Senior Engi...	Consulting	County response letter	0.51	120.00	61.20
6/28/2004	Senior Engi...	Consulting	response to County - treatment	0.16	120.00	19.20
		Reimb Gr...	Thomas Reprographics: copies			119.60

OK. Pay @100 per attached letter
8/9/04

Approved by Kathryn Mills

Total $200.00

26

MONUMENT ELECTRIC, LLC

1182 S. 232nd Lane
Buckeye, AZ 85326
Phone 623.386.1277 Fax 623.386.3292
L-11 No. 160259 K-5 No. 185375

INVOICE

DATE	INVOICE #
4/6/2005	0406-061

BILL TO:

Valencia Water Company
c/o Jack Meister
3800 N. Central Avenue, Ste. 500
Phoenix, AZ 85012

PROJECT: SERVICE UPGRADE WPE#3 CAMELBACK & 427TH AVENUE
PARTIAL BILLING

ITEM	DESCRIPTION	QTY	AMOUNT
1	PERMIT, MATERIALS AND LABOR TO DATE	LS	$ 1,396.19
		SUBTOTAL	$ 1,396.19
		TAX	$ 72.32
		TOTAL	$ 1,468.51

Due upon receipt.
Send remittance to:
Monument Electric, LLC
1182 S. 232nd Lane
Buckeye, AZ 85326-7162

OK: WPE #3 ELECT.
JBM

SIEMENS

INVOICE

Additional Copy

Siemens Energy & Automation Inc.
3333 Old Milton Parkway
Alpharetta, GA 30005

Order Date	Invoice Date	SO Number	Invoice No.
05/19/05	06/06/05	9562271	9562271003
Customer No.	**Salesman**	**Purchase Order No.**	**Page No.**
880094AB	9957	51805-02	1

CPCU

Invoice To: VALENCIA WATER COMPANY INC
401 E. JACKSON
PO BOX 36
BUCKEYE AZ 85326

Sold To: VALENCIA WATER COMPANY INC.
401 E JACKSON
BUCKEYE AZ 85326

Remit To: SIEMENS ENERGY & AUTM INC
P.O. BOX 371-034
PITTSBURGH PA 15251-7034

Shipped To: VALENCIA WATER CO
401 E. JACKSON AVE.
BUCKEYE AZ 85326

Spec. Markings/Instr: SEE SPECIAL INSTRUCTIONS BELOW

Shipping Point	Carrier	PRO Number	Shipped	Freight Terms
POMONA, CA	G.I. TRUCKING	509-5324020	06/06/05	PREPAID / NO FRT CHG

Line No	Catalog No. & Description	UPC Item	Qty Ordered	Qty SO	Scheduled Ship Date	Qty Shipped	Qty UM	Unit Net Price	Amount (Net)	Requested Date Ship From
	GET YOUR INVOICES & CREDIT MEMOS FASTER LOG ONTO ONLINE CUSTOMER SERVICE SITES.PARTNERS.SIEMENS.COM									
	PB P1 MAIN PANEL						EA			
2	PB P1 SUBPANEL		1			1	EA			
	660C PB BOX - FRONT MAIN PANEL						EA			
4	660C		1			1	EA			
	PB BOX - UPPER SUBPANEL									
	CARTONS SHIPPED 4									
	WEIGHT 210.00 LBS									
	CITY TAX	#14	WP	#3	-4/Low	Sort	up.		.00	
	COUNTY TAX								.00	
	STATE TAX								.00	

Correspondence to: SIEMENS ENERGY & AUTM INC
10855 BUSINESS CENTER DRIVE
SUITE C-1 P O BOX 6020
CYPRESS CA 90630
714-252-3000

Total Quantity:

PROJECT ORDER (SPACE)

Total:	840.70
Taxes:	.00
Freight:	.00
Invoice Total:	840.70

** LAST PAGE **

Order Status: INVOICED Payment Terms: NET 30 DAYS If Paid By: Deduct:

Original - White
Duplicate - Pink

Thank you for your order, described above. Your request continues a definite and reasonable expression of acceptance of our Proposal, including the Standard Terms and Conditions of sale on the reverse of our Order Acknowledgement. Any additional or different terms set forth in your order or any other document are hereby objected to and shall not become a part of our contract unless specifically assented to by us in this Order Acknowledgement. The material included in this invoice was produced in Accordance with the applicable provisions of the "Fair Labor Standards Act" [illegible]

VALENCIA WATER COMPANY, INC.

609

REFERENCE NO.	DESCRIPTION	INVOICE DATE	INVOICE AMOUNT	DISCOUNT TAKEN	AMOUNT PAID
	Permit fee to renew permit				600.

28

CHECK DATE	CHECK NO.	PAYEE	DISCOUNTS TAKEN	CHECK AMOUNT
4/26/06	6097	Maricopa Cnty. Env. Serv. Dept		$600.

ORIGINAL DOCUMENT PRINTED ON CHEMICAL REACTIVE PAPER WITH MICROPRINTED BORDER - SEE REVERSE SIDE FOR COMPLETE SECURITY FEATURES

BANK ONE

609

VALENCIA WATER COMPANY, INC.
3001 N. CENTRAL AVE. SUITE 770
PHOENIX, ARIZONA 85012
(602) 224-0711

91-7/1221

Memo:

CHECK NO.	DATE	AMOUNT
6097	Apr 26, 2006	******$600.00

PAY THE ORDER OF Six Hundred and 00/100 Dollars

Maricopa Cnty. Env. Serv. Dept
1001 N. Central Avenue
Suite 150
Phoenix, AZ 85004

MP

THIS DOCUMENT CONTAINS HEAT SENSITIVE INK. TOUCH OR PRESS HERE - RED IMAGE DISAPPEARS WITH HEAT.

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VALENCIA WATER COMPANY, INC.

6097

REFERENCE NO.	DESCRIPTION	INVOICE DATE	INVOICE AMOUNT	DISCOUNT TAKEN	AMOUNT PAID
	Permit fee to renew permit				600.00

CHECK DATE	CHECK NO.	PAYEE	DISCOUNTS TAKEN	CHECK AMOUNT
4/26/06	6097	Maricopa Cnty. Env. Serv. Dept		$600.00

SFMS00061-1

TO REORDER, CALL YOUR LOCAL SAFEGUARD DISTRIBUTOR AT 480-892-7527

SAFEGUARD. LITHO USA SFSL20S 007508112S

G35WB10040009 M025F005008

Valencia Water Company, Inc.
Water Utility of Greater Buckeye, Inc.
Water Utility of Greater Tonopah, Inc.
401 E. Jackson, P.O. Box 36, Buckeye, AZ 85326
Willow Valley Water Co., Inc.
1430 E. Commercial Street, P.O. Box 5620, Mohave Valley, AZ 86446
Water Utility of Northern Scottsdale, Inc.

West Maricopa Combine, Inc. 3800 N. Central Ave., Suite 770 Phoenix, AZ 85012

CHECK REQUEST

Date: 4/26/06.

Company: WMC (WVC) WGB WGT WNS WVW

To Whom: [redacted] MARICOPA County

Amount: $600.

For: Permit fees for review permit to Construct pipeline from WP05 3 TO WP05 6

Requested by:

Authorized by: J Miller

Title:

To be paid by:

29

LEGEND
Technical Services, Inc.
www.legend-group.com

INVOICE

Remit To:
Accounts Receivable
Legend Technical Services of Arizona, Inc
17631 North 25th Avenue
Phoenix, AZ 85023

Invoice To: Leonard Scheid
Valencia Water Company
201 E. Coronado
Buckeye, AZ 85326

Invoice Number 0602872
Client Number: 00-0000265
Invoiced On: 02/28/06
Terms: NET 30

Client Contact: Robert Garcia
Valencia Water Company
Project Name: 2006 New Source
Legend Contact: Lisa Sutherland
Work Order(s) Invoiced: 6020826

PO Number:
Received: 02/15/06
Project Number: ~~2006 New Source~~/ Garden City (2/15/06)
WWGT

Quantity	Analysis/Description	Matrix	Unit Cost	Extended Cost
1	Sulfate	Drinking Water	$16.00	$16.00
1	Asbestos	Drinking Water	$160.00	$160.00
1	Cadmium GFAA	Drinking Water	$14.00	$14.00
1	Mercury by EPA 245.1	Drinking Water	$32.00	$32.00
1	Lead GFAA	Drinking Water	$14.00	$14.00
1	Langlier Package	Drinking Water	$51.00	$51.00
1	Gross Alpha	Drinking Water	$55.00	$55.00
1	Fluoride	Drinking Water	$16.00	$16.00
1	Cyanide, Total	Drinking Water	$44.00	$44.00
1	Chromium, Total	Drinking Water	$9.00	$9.00
1	pH	Drinking Water	$0.00	$0.00
1	Beryllium, Total	Drinking Water	$9.00	$9.00
1	Barium, Total	Drinking Water	$9.00	$9.00
1	Arsenic, GFAA	Drinking Water	$14.00	$14.00
1	Antimony, GFAA	Drinking Water	$14.00	$14.00
1	547-Glyphosate	Drinking Water	$120.00	$120.00
1	Copper, Total	Drinking Water	$9.00	$9.00
1	Total Hardness	Drinking Water	$14.00	$14.00
1	Nickel, Total	Drinking Water	$9.00	$9.00
1	Turbidity-Metals	Drinking Water	$16.00	$16.00
1	Nitrogen 1: Nitrate & Nitrite	Drinking Water	$20.00	$20.00
1	Total Coliform	Drinking Water	$15.00	$15.00
1	Thallium GFAA	Drinking Water	$14.00	$14.00
1	Sodium, Total	Drinking Water	$9.00	$9.00
1	Selenium GFAA	Drinking Water	$14.00	$14.00
	Radium 228	Drinking Water	$100.00	$100.00
1	Radium 226	Drinking Water	$75.00	$75.00

29

LEGEND
Technical Services, Inc.
www.legend-group.com

INVOICE

Remit To:
Accounts Receivable
Legend Technical Services of Arizona, Inc.
17631 North 25th Avenue
Phoenix, AZ 85023

Invoice To: Leonard Scheid
Valencia Water Company
201 E. Coronado
Buckeye, AZ 85326

Invoice Number 0602872
Client Number: 00-0000265
Invoiced On: 02/28/06
Terms: NET 30

Client Contact: Robert Garcia
Valencia Water Company
Project Name: 2006 New Source
Legend Contact: Lisa Sutherland
Work Order(s) Invoiced: 6020826

PO Number:
Received: 02/15/06
Project Number: 2006 New Source/ Garden City (2/15/06)

Quantity	Analysis/Description	Matrix	Unit Cost	Extended Cost
1	1613-Subcontract	Drinking Water	$450.00	$450.00
1	549-Subcontract	Drinking Water	$140.00	$140.00
1	504-Subcontract	Drinking Water	$100.00	$100.00
1	505-Subcontract	Drinking Water	$150.00	$150.00
1	515-Subcontract	Drinking Water	$175.00	$175.00
1	525-Subcontract	Drinking Water	$290.00	$290.00
1	531-Subcontract	Drinking Water	$120.00	$120.00
1	548-Subcontract	Drinking Water	$140.00	$140.00

Invoice Total: **$2,437.00**

Thank you for your Business!

WATER UTILITY OF GREATER TONOPAH, INC.

30 15

REFERENCE NO.	DESCRIPTION	INVOICE DATE	INVOICE AMOUNT	DISCOUNT TAKEN	AMOUNT PAID
	Garden City approval for				150.

CHECK DATE	CHECK NO.	PAYEE	DISCOUNTS TAKEN	CHECK AMOUNT
4/3/06	1526	Maricopa County Env Serv Dept		$150.00

ORIGINAL DOCUMENT PRINTED ON CHEMICAL REACTIVE PAPER WITH MICROPRINTED BORDER - SEE REVERSE SIDE FOR COMPLETE SECURITY FEATURES

152

BANK ONE
BANK ONE, N.A.
Phoenix, Arizona

WATER UTILITY OF GREATER TONOPAH, INC.
3800 N. CENTRAL AVE., SUITE 770
PHOENIX, ARIZONA 85012
(602) 224-0711

91-2/1221

Memo Garden City

CHECK NO. 1526

DATE Apr 3, 2006

AMOUNT ******$150.00

One Hundred Fifty and 00/100 Dollars

THE ORDER OF

Maricopa County Env Serv Dept
1001 North Central Ave.
Ste. 100
Phoenix, AZ 85004

SAFEGUARD

THIS DOCUMENT CONTAINS HEAT SENSITIVE INK. TOUCH OR PRESS HERE - RED IMAGE DISAPPEARS WITH HEAT.

⑈001526⑈ ⑆122100024⑆ 2908⑈3815⑈

WATER UTILITY OF GREATER TONOPAH, INC.

152(

REFERENCE NO.	DESCRIPTION	INVOICE DATE	INVOICE AMOUNT	DISCOUNT TAKEN	AMOUNT PAID
	Garden City approval for				150.00

CHECK DATE	CHECK NO.	PAYEE	DISCOUNTS TAKEN	CHECK AMOUNT
4/3/06	1526	Maricopa County Env Serv Dept		$150.00

30

WEST MARICOPA COMBINE, INC
3800 NORTH CENTRAL, SUITE 770
PHOENIX, AZ 85012

CHECK REQUEST

DATE: 4/3/06

COMPANY: WMC VWC WUGB (WUGT) WUNS WVW

TO WHOM: MCES
Environmental Services Department
1001 N. Central Ave
Ste 150
Phoenix, AZ 85004-1940

AMOUNT: $150.00

FOR: Approval of Construction (Gardan City)
Project Description change.
Application submitted had incorrect
Project name. submitted by McPhee

REQUESTED BY: Robyn [signature]

AUTHORIZED BY:

31

Fluid Solutions

Water • Wastewater • Engineering • Environmental Services

1121 East Missouri Ave., #100
Phoenix, AZ 85014
(602) 274-6725

Invoice

DATE	INVOICE#
3/31/2006	3577

BILL TO
Water Utility of Greater Tonopah, Inc. 3800 N. Central Ave., #770 Phoenix, AZ 85012

WIFA
OK
4/21/06

CLIENT NO.	TERMS	PROJECT
207-06815	Net 30	Garden City Well - New Source Submittal

DATE	STAFF	ITEM	DESCRIPTION	HRS/QTY	RATE	AMOUNT
2/1/2006	Prn. Hydrol...	Proj. Mgmt.		0.5	150.00	75.00
3/6/2006	Environ. Sc...	Proj. Mgmt.	Application	3.86	60.00	231.60
3/17/2006	Environ. Sc...	Consulting		0.8	60.00	48.00
3/22/2006	Environ. Sc...	Consulting		0.56	60.00	33.60
3/27/2006	Environ. Sc...	Proj. Mgmt.		1.93	60.00	115.80
3/28/2006	Clerical	Consulting	2 sets of copies/binding	0.25	40.00	10.00
3/28/2006	Environ. Sc...	Proj. Mgmt.		0.48	60.00	28.80
3/28/2006	Environ. Sc...	Travel	getting Mihlik signatures/p/u check/submitting new source	1.25	60.00	75.00
		Mileage 06	to MCESD	6	0.445	2.67

Approved by MJ

Total $620.47

Water Infrastructure Finance Authority Requisition 1, Page 1 of 4
Certifications & Signatures
Water Utility of Greater Tonopah
920104-06

This disbursement request is made in accordance with the Loan Agreement between the Water Infrastructure Finance Authority and the Borrower.

Borrower Certifications

The Borrower hereby states as follows:

1. The amount requested is a proper cost of the project, which is unpaid or unreimbursed and which has not been the basis of any previous request.
2. The materials, equipment, labor or services represented by this request have been satisfactorily purchased, performed, or received and applied to the project and under the terms and provisions of the contracts related to the project, the Borrower is required to make such payments.
3. As of the date of this request, there does not exist any Event of Default under the Loan Agreement nor any condition which, with the passage of time, would constitute an Event of Default thereunder.
4. The undersigned are dully authorized to submit this disbursement request.

By _____ By _____

Dated 4/10/06 Dated _____

Engineer Certifications

The Engineer certifies that the amounts requested constitute proper costs of the project; that the materials, equipment, labor, and services represented by the invoices have been satisfactorily purchased, received, and applied to the project in accordance with contract documents; that payment is in accordance with the contract provisions and that the construction, to date, complies with the contract documents. This certification is not applicable to administrative costs.

By _____ Engineer's Seal Title Member

Dated 12 April 06 Firm Fluid Solutions

Registered Professional Engineer (Civil) CERTIFICATE NO. 25969 NORMAN W. FAIN, III Date Signed 4/12/06 ARIZONA, U.S.A.

Approvals by the Water Infrastructure Finance Authority

By _____ By _____

Controller Environmental Program Specialist

Date _____ Date _____

Water Infrastructure Finance Authority Requisition 1, Page 2 of 4
Cost Incurred Report and Disbursement Request
Water Utility of Greater Tonopah
920104-06

Type of Request: ☐ Final ☒ Partial

Period Covered: from (m/d/y) 8/25/05 to (m/d/y) 2/24/06

Borrower Contact & Address:

Water Utility of Greater Tonopah
3800 North Central Ave. #770
Phoenix, Arizona 85012

Contact: John Milhik Jr. CFO
Phone #: (602) 224-0711
FAX #: (602) 224-5455

Payee *(If other than Borrower Contact. Must have WIFA pre-approval & W-9 on file with WIFA):*
Payee:
Address:

Contact:
Phone #:
FAX #:

Attach statements, invoices, or other proof that the amount requested below is currently due or has been advanced by the Borrower.

Request by Budget Item (1)	Budget as per Loan (2)	Previously Disbursed (3)	This Request (4)	Total To Date (5) = (4) + (3)	Total as % of Budget (6) = (5) / (2)
Planning	0.00				%
Design & Engineering	40,000.00		3,224.17	3,224.17	.08 %
Legal/Debt Authorization	0.00				%
Financial Advisor	0.00				%
Land/System Acquisition	0.00				%
Equipment/Materials	60,000.00		12,230.24	12,230.24	20.40 %
Construction/Installation/ Improvement	400,000.00		104,432.52	104,432.52	26.0 %
Inspection & Construction Management	0.00				%
Project Officer	0.00				%
Administration	0.00				%
Staff Training	0.00				%
Capitalized Interest	0.00				%
Other	0.00				%
Total Requested	500,000.00		119,886.93	119,886.93	24.0 %

Water Infrastructure Finance Authority Requisition 1, Page 3 of 4
MBE/WBE/SBRA Report
Water Utility of Greater Tonopah
920104-06

Reporting Requirements *(data entered in Columns A and B in the table below)*

- Report on any procurement related to this disbursement request. "Procurement" means the acquisition through order, purchase, lease or barter of supplies, equipment, construction, or other services.
- Within Column A of the table below, report on any contractor, subcontractor, or vendor that provided goods or services related to this disbursement request.
- The total amount entered at the bottom of Column B must total the amount requested on page 2 of this request.

Product/Service Codes *(codes for Column C in the table below)*

3 = Construction 4 = Manufacturing 5 = Transportation 6 = Supplies & Equipment, Wholesale
7 = Supplies & Equipment, Retail 9a = Business Services 9b = Professionals Services
9c = Other Services 10 = Other/Misc

Definitions *(definitions for terms in Columns D, E, and F in the table below)*

- MBE - Minority Business Enterprise: A business concern that is at least 51% owned by one or more minority individuals **and** whose daily business operations are managed and directed by one or more of the minority owners.
- WBE - Women Business Enterprise: A business concern that is at least 51% owned by one or more women **and** whose daily business operations are managed and directed by one or more of the women owners.
- SBRA - Small business in a Rural Area: A business concern that is physically located outside any standard metropolitan statistical area.

Disbursement Request by Contractor/Subcontractor/Vendor

Contractor/Subcontractor/Vendor Name & Address (A)	$ Amount (B)	Product/ Service Code (See Codes above) (C)	MBE (D)	WBE (E)	SBRA (F)
Fluid Solutions	3,224.17	9b			
ADT Drilling	104,432.52	3			
Laveen Pump	12,230.24	6			
Total of Column B must equal request on Page 2, Column 4 of this Requisition	119,886.93				

Water Infrastructure Finance Authority Requisition 1, Page 4 of 4
Project Status Report
[WD1]
[WD6]

Section 1: Overall Project Progress

1. Describe work completed since previous requisition:

Well drilled, well given pump equipment, waterline and power line connected from existing facilities to new well.

2. Delays or Stop Work Notices? *(select one)* X No o Yes *(If yes, explain)*

3. Change Orders? *(select one)* X No o Yes *(If yes, explain)*

4. Is the project on schedule with the project design? *(select one)* X Yes o No *(If No, explain)*

5. Have you contacted WIFA for required inspections? o Yes X No *(If No, explain)*

We just now got WIFA Loan - First request - now available for inspection

Section 2: Materials or Equipment

1. Did you request loan proceeds on Page 2 of this Requisition for equipment or materials? o No X Yes *(If yes, describe equipment or materials.)*

Please refer to ADT Drilling Invoices.

2. Is project progress affected by a lack of equipment or materials? X No o Yes *(If yes, explain.)*

3. Will you request equipment or materials on the next Requisition? o No X Yes *(If yes, describe equipment or materials.)*

Fencing, concrete seal, plumbing, and electrical tubing, and well equipment

LAVEEN PUMP

Po Box 5932
Goodyear Az. 85338
PH# 623-386-3600
FX#623-386-5560

Invoice

DATE	INVOICE #
11/15/2005	2015

BILL TO
WATER UTILITY OF GREATER TONOPHA INC ATTN:JACK M 602-224-0711/602-224-5455FX CASING REPAIR JOB GARDEN CITY WELL

P.O. NO.	TERMS	PROJECT
	Due on receipt	

QUANTITY	DESCRIPTION	RATE	AMOUNT
1	BASKI PACKER	7,815.60	7,815.60T
2	15X20 FASTNER	651.00	1,302.00T
500	2000 PSI 1/4" AIR LINE	0.60	300.00T
2	2.5" X 2" BELL REDUCERS	12.00	24.00T
2	2.5" X 4" GALV. NIPPLES	6.50	13.00T
1	FREIGHT FOR SHIPPING	500.00	500.00
12	LABOR TO INSTALL/TRAVEL	140.00	1,680.00
	Sales Tax	6.30%	595.64

OK
11/16/05

All work is complete!

Total $12,230.24

TAX

OK But no specs? Send Computer form

ADT Drilling, Inc.
28150 N. Alma School Rd. #103
PMB #440
Scottsdale, AZ. 85262
Ph. 480-471-1177
Fax 480-471-1116

Invoice

To: Water Utilities of Greater Tonopah, Inc.	Location: Garden City well
Address: 3800 N. Central Ave. Ste. 770	Date: 12-18-05
City: Phoenix State: AZ	Zip:85012
Phone: 602-224-0711	Fax: 602-224-5455
Attn: John Mihlik	

We hereby submit the invoice for: 1006' -10" x 6" steel cased well

-14" Surface seal		$ 1,000.00
-10" Drilling and Advancing 10 3/4" steel casing	$120.00 x 160'	$19,200.00
-10 ¾" Steel casing	$ 27.50 x 160'	$ 4,400.00
-10" Casing shoe		$ 365.00
-9 7/8" Open hole drilling	$90.00 x 340'	$ 30,600.00
-6" Drilling and Advancing 6 5/8" steel casing Price per foot including steel casing.	$36.00 x 506'	$18,216.00
-6" heavy duty casing shoe		$ 165.00
-6 5/8" steel casing from 0 to 500'	$12.00 x 500'	$ 6,000.00
-Air perforate 6" casing		$ 4,800.00
-Air develop perforations		$ 4,800.00
-Gravel, bentonite pellets and tremie cement from 500' Back to surface		$ 9,800.00
Sub total		$ 99,346.00
Maricopa county sales tax		$ 5,0086.52
Total		$104,432.52
Less deposit check #1449		<$ 47,765.00>
Total amount due		$ 56,667.52

5,508.65
51,159.87

Pay

Fluid Solutions

Water • Wastewater • Engineering • Environmental Services

1121 East Missouri Ave., #100
Phoenix, AZ 85014
(602) 274-6725

Invoice

DATE	INVOICE#
7/1/2005	3086

BILL TO
Water Utility of Greater Tonopah, Inc. 3800 N. Central Ave., #770 Phoenix, AZ 85012

CLIENT NO.	TERMS	PROJECT
207-03394	Net 30	General Services

DATE	STAFF	ITEM	DESCRIPTION	HRS/QTY	RATE	AMOUNT
5/18/2005	Staff Geolo...	Consulting	well permitting	0.25	60.00	15.00
6/6/2005	Staff Geolo...	Consulting	well permits	0.88	60.00	52.80
6/7/2005	Staff Geolo...	Consulting	well permits	0.23	60.00	13.80
6/16/2005	Staff Geolo...	Consulting	well permit issues	0.48	60.00	28.80
6/27/2005	Staff Geolo...	Consulting	revise WUGT Permit	1.05	60.00	63.00
7/5/2005	Staff Geolo...	Consulting	WUGT well issues	0.88	60.00	52.80
			Permitting of New Well #55-208175 Sect 10, T1N, R9W			
			CIP-New Garden City Well			

Approved by

Total $226.20

Fluid Solutions

Water • Wastewater • Engineering • Environmental Services

1121 East Missouri Ave., #100
Phoenix, AZ 85014
(602) 274-6725

Invoice

DATE	INVOICE#
2/24/2006	3501

BILL TO

Water Utility of Greater Tonopah, Inc.
3800 N. Central Ave., #770
Phoenix, AZ 85012

GARDEN CITY
NOW WELL
O.K.
JN 3/27/06

CLIENT NO.	TERMS	PROJECT
207-05773	Net 30	Well Drilling Oversight & Sampling

DATE	STAFF	ITEM	DESCRIPTION	HRS/QTY	RATE	AMOUNT
10/25/2005	Prn. Hydrol...	Proj. Mgmt.	Well spec re-do with Jay, Josh & John	1.7	150.00	255.00
11/7/2005	Prn. Hydrol...	Proj. Mgmt.		0.3	150.00	45.00
11/18/2005	Staff Hydro...	Consulting	analyze discharge route	0.55	60.00	33.00
11/30/2005	Prn. Hydrol...	Proj. Mgmt.	jay cons. re: drilling status + lab follow up, ect.	1.2	150.00	180.00
12/1/2005	Prn. Hydrol...	Proj. Mgmt.	Sample bottle pick up	0.6	150.00	90.00
12/2/2005	Prn. Hydrol...	Proj. Mgmt.	jay, leonard cons. + follow up memo to FS staff & JJM	0.35	150.00	52.50
12/4/2005	Prn. Hydrol...	Field Act.	Rt Travel, drill site activity	4.8	150.00	720.00
12/5/2005	Proj. Mana...	Consulting	drilling status and prep for sampling and training for Robin	0.5	100.00	50.00
12/6/2005	Proj. Mana...	Field Act.	review well logs; prep for site visit; meet with driller on site, review cuttings; travel	0.2	100.00	20.00
12/6/2005	Prn. Hydrol...	Proj. Mgmt.		0.8	150.00	120.00
12/8/2005	Staff Hydro...	Field Act.	Well drilling, collect samples, well log, rt travel	6.1	60.00	366.00
12/8/2005	Prn. Hydrol...	Proj. Mgmt.	garden city driller cons., Mihlik cons., + PM re: final sample & field coord	1.36	150.00	204.00
12/9/2005	Staff Hydro...	Consulting	Well Log	1.23	60.00	73.80
12/14/2005	Prn. Hydrol...	Proj. Mgmt.	perforation plan + cons. w/ JJM & ADT	1.1	150.00	165.00
12/16/2005	Staff Hydro...	Consulting	Update well log	0.63	60.00	37.80
		Reimb Gr...	Legend Technical: analysis of 12/5 & 12/7 samples			503.42
		Mileage 0...	to site	170	0.485	82.45

Approved by

Total $2,997.97

EXHIBIT A-19

FILE COPY

BEFORE THE ARIZONA CORPORATION COMMISSION

RECEIVED

2007 MAY 18 P 4: 04

AZ CORP COMMISSION
DOCKET CONTROL

COMMISSIONERS
Mike Gleason, Chairman
William A. Mundell
Jeff Hatch-Miller
Kristin K. Mayes
Gary Pierce

IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF GREATER TONOPAH, INC., AN ARIZONA CORPORATION, FOR AN EXTENSION OF ITS EXISTING CERTIFICATE OF CONVENIENCE AND NECESSITY.	Docket No. W-02450A-06-0626 **NOTICE OF FILING**

The Water Utility of Greater Tonopah ("Tonopah") provides notice of filing of the attached compliance status reports from the Maricopa County Environmental Services Department (MCESD). The reports are for the following systems:

System	PWS No.	Status
Garden City	07-037	Compliant
Dixie	07-030	Compliant
Sunshine	07-071	Compliant
Roseview	07-082	Compliant
B&D	07-618	Complaint
WPE # 6	07-733	Complaint

Tonopah has a seventh system, WPE # 7 that is not a community system and is therefore not regulated by MCESD. Therefore, no report can be provided for that system. Thus, all six systems regulated by MCESD are considered "compliant" by MCESD.

...

...

...

...

EXHIBIT
A19
admitted

RESPECTFULLY SUBMITTED this 18th day of May 2007.

ROSHKA DEWULF & PATTEN, PLC

By _____
Timothy J. Sabo
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

Original + 13 copies of the foregoing filed this 18th day of May 2007, with:

Docket Control
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Copies of the foregoing hand-delivered/mailed this 18th day of May 2007, to:

Lyn A. Farmer, Esq.
Chief Administrative Law Judge
Hearing Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Christopher C. Kempley, Esq.
Chief Counsel, Legal Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Ernest G. Johnson, Esq.
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

By _____

ROSHKA DEWULF & PATTEN, PLC
ONE ARIZONA CENTER
400 EAST VAN BUREN STREET - SUITE 800
PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800

Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: Water Utilities of Tonopah
PWS ID#: 07-037

Type of System: Community Number of POE's: 1 Surface Water: n/a
Number of Service Connections: 16 Population Served: 51

Assigned Monitoring Dates - Initial: 1/1/98 Phase II: 1/1/98 Phase V: 1/1/98

Does the water system have a Certified Operator? Yes

Does the system have major treatment plant deficiencies? No
Please describe: _____

Date of last inspection: November 15, 2007

Does the system have major O & M deficiencies? No
Please describe: _____

Does the system have water quality monitoring/reporting deficiencies? No
Please describe: _____

General Public Water System Compliance Status? **Compliant**

Date of compliance review: **4/11/2007** By: **Duncan Wright** Initials: **dw**
Phone: **(602) 506-5173**

Requested By: Global Fax Number/ Contact: _____ Tracking Number: 1298
Supervisor Initials: GY Date: 4/11/07

Drinking Water Program
John Kolman, Manager
1001 N. Central Ave., Suite 150Phoenix, Arizona 85004-1940 Phone: (602) 506-6666 Fax: (602) 506-6925

Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: Water Utility of Greater Tonopah – Dixie Water
PWS ID#: 07-030

Type of System: Community Number of POE's: 1 Surface Water: no
Number of Service Connections: 26 Population Served: 81

Assigned Monitoring Dates - Initial: 1/1/99 Phase II: 1/1/99 Phase V: 1/1/99

Does the water system have a Certified Operator? yes

Does the system have major treatment plant deficiencies? no
Please describe: _____

Date of last inspection: 3/6/07

Does the system have major O & M deficiencies? no
Please describe: _____

Does the system have water quality monitoring/reporting deficiencies? no
Please describe: _____

General Public Water System Compliance Status? **Compliant**

Date of compliance review: **3/21/07** By: **Laura Moorhead** Initials: _____
Phone: **(602) 506-6631**

Requested By: ACC Fax Number/ Contact: _____ Tracking Number: 1280
Supervisor Initials: GY Date: 3/23/07

Drinking Water Program
John Kolman, Manager
1001 N. Central Ave., Suite 150Phoenix, Arizona 85004-1940 Phone: (602) 506-6666 Fax: (602) 506-6925

Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: WUGT - Sunshine Water Company
PWS ID#: 07-071

Type of System: Community Number of EPDS's: 1 Surface Water: N/A
Number of Service Connections: 117 Population Served: 362

Assigned Monitoring Dates - Initial: 1/1/94 Phase II: 1/1/94 Phase V: 1/1/94

Does the water system have a Certified Operator? yes

Does the system have major treatment plant deficiencies? No
Please describe: _____

Date of last Sanitary Survey: November 15, 2005

Does the system have major O & M deficiencies? No
Please describe: _____

Does the system have water quality monitoring/reporting deficiencies? No
Please describe: System is reporting arsenic levels that may be higher than MCL after further submittal and quarterly averaging. System has submitted a blending plan to address high arsenic levels but has not fulfilled requirements for approval of the plan.

General Public Water System Compliance Status? **Compliant**

Date of compliance review: **March 28, 2006** By: **Rob Collins** Initials: _____
Phone: **(602) 506-0719**

Requested By:Dorothy Hains, ACC Fax Number/ Contact: :602 542 0766 Tracking Number:1284
Supervisor Initials:GY Date: 3/30/07

Drinking Water Program
John Kolman, Manager
1001 N. Central Ave., Suite 150Phoenix, Arizona 85004-1940 Phone: (602) 506-6666 Fax: (602) 506-6925

Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: WUGT- Rose View Water
PWS ID#: 07- 082

Type of System: Community Number of POE's: 1 Surface Water: No
Number of Service Connections: 51 Population Served: 16

Assigned Monitoring Dates - Initial: 1/1/02 Phase II: 1/1/02 Phase V: 1/1/02

Does the water system have a Certified Operator? Robert Garcia: 623-386-4252 x-106

Does the system have major treatment plant deficiencies? N/A
Please describe: _____

Date of last inspection: November 15, 2005

Does the system have major O & M deficiencies? None
Please describe: All deficiencies from 11/15/05 inspection corrected per system letter in file dated: 12/21/05

Does the system have water quality monitoring/reporting deficiencies? Note:
Please describe: System has arsenic levels which will violate the new standard eff 12/31/07

General Public Water System Compliance Status? **Compliant**

Date of compliance review: **03/21/07** By: **Mike Mallette** Initials: **MKM**
Phone: **(602) 506-6644**

Requested By: Dorothy Haines
Fax Number/ Contact: 602-542-7274 Tracking Number: 1282
Supervisor Initials: GY Date: 3/23/07

Drinking Water Program
John Kolman, Manager
1001 N. Central Ave., Suite 150Phoenix, Arizona 85004-1940 Phone: (602) 506-6666 Fax: (602) 506-6925

Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: B&D/Buckeye Ranch
PWS ID#: 07-618

Type of System: Community Number of POE's: 2 Surface Water: no

Number of Service Connections: 92 Population Served: 285

Assigned Monitoring Dates – Initial: 1998 Phase II: 1998 Phase V: 1998

Does the water system have a Certified Operator? D. Blain Harold

Does the system have major treatment plant deficiencies? no
Please describe:

Date of last inspection: 2/20/07

Does the system have major O & M deficiencies? minor
Please describe: Buckeye Ranch site booster 2 has leak that needs repair

Does the system have water quality monitoring/reporting deficiencies? no
Please describe:

General Public Water System Compliance Status? **Compliant**

Date of compliance review: 2/21/07 By: **Laura Moorhead** Initials: _____
Phone: **(602) 506-6631**

Requested By: post-insp Fax Number/ Contact: _____ Tracking Number: 1268
Supervisor Initials: GY Date: 2/22/07

Drinking Water Program
John Kolman, Manager
1001 N. Central Ave., Suite 150Phoenix, Arizona 85004-1940 Phone: (602) 506-6666 Fax: (602) 506-6925

Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: West Phoenix Estates #6
PWS ID#: 07-733

Type of System: Community Number of POE's: 1 Surface Water: no
Number of Service Connections: 23 Population Served: 71

Assigned Monitoring Dates - Initial: 1/1/02 Phase II: 1/1/02 Phase V: 1/1/02

Does the water system have a Certified Operator? yes

Does the system have major treatment plant deficiencies? no
Please describe: _____

Date of last inspection: August 19, 2005

Does the system have major O & M deficiencies? no
Please describe: _____

Does the system have water quality monitoring/reporting deficiencies? no
Please describe: _____

General Public Water System Compliance Status? **Compliant**

Date of compliance review: **3/20/07** By: **Laura Moorhead** Initials: _____
Phone: **(602) 506-0462**

Requested By: ACC Fax Number/ Contact: _____ Tracking Number: 1281
Supervisor Initials: GY Date: 3/21/07

Drinking Water Program
John Kolman, Manager
1001 N. Central Ave., Suite 150Phoenix, Arizona 85004-1940 Phone: (602) 506-6666 Fax: (602) 506-6925

EXHIBIT A-20

FILE COPY

BEFORE THE ARIZONA CORPORATION COMMISSION

RECEIVED

2007 JUN 12 P 4: 13

AZ CORP COMMISSION
DOCKET CONTROL

COMMISSIONERS
MIKE GLEASON - CHAIRMAN
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
KRISTIN K. MAYES
GARY PIERCE

IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF GREATER TONOPAH, INC., AN ARIZONA CORPORATION, FOR AN EXTENSION OF ITS EXISTING CERTIFICATE OF CONVENIENCE AND NECESSITY.	Docket No. W-02450A-06-0626 **NOTICE OF FILING**

The Water Utility of Greater Tonopah ("Tonopah") files the attached storage calculations which have previously been provided to Staff. The calculations demonstrate that 7 out of 8 Tonopah systems meet Arizona Department of Environmental Quality ("ADEQ") storage requirements, as set out in A.A.C. R18-5-503. The remaining system (Dixie) has well capacity almost 4 times higher then peak month demand. In addition, Tonopah plans to add a 4,000 gallon storage tank to the Dixie system as soon as possible (3-6 months).

RESPECTFULLY SUBMITTED this 12th day of June 2007.

ROSHKA DEWULF & PATTEN, PLC

By _____

Michael W. Patten
Timothy J. Sabo
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

EXHIBIT
A20
admitted

Original + 13 copies of the foregoing filed this 12th day of June 2007, with:

Docket Control
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Copies of the foregoing hand-delivered/mailed this 12th day of June 2007, to:

Lyn A. Farmer, Esq.
Chief Administrative Law Judge
Hearing Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Christopher C. Kempley, Esq.
Chief Counsel, Legal Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Ernest G. Johnson, Esq.
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

By Debbie Amen

ROSHKA DEWULF & PATTEN, PLC
ONE ARIZONA CENTER
400 EAST VAN BUREN STREET - SUITE 800
PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800

Water Utility of Greater Buckeye/Water Utility of Greater Tonopah
Storage and Well Capacity Evaluation

A.A.C. R18-5-503 Storage Requirements
Minimum Storage Capacity = Average Daily Demand during Peak Month

Assumed 20 hour/day maximum pump run time

								Storage Capacity			Well Pump Capacity			
Water System	Actual Average Day Use 2006 (gpd)	# Customers (Average 2006)	Average Day Use per Customer (gpd)	Actual Peak Mth Use 2006 (gpd)	# Customers (Peak Month 2006)	Average Day Peak Mth Use per Customer (gpd)	# Customers (March 2007)	Average Day Use 2007 (gpd)	Average Day Peak Mth Use 2007 (gpd)	Available Storage (gal)	Average Day Demand (gpm)	Peak Month Demand (gpm)	Available Pump Capacity (gpm)	Max # Customers @ Peak Mth Demand
Water Utility of Greater Tonopah														
Sunshine	32,989	120	276	53,700	136	395	143	39,476	56,464	100,000	33	47	50	152
Buckeye Ranch	25,910	89	291	67,833	92	737	99	28,821	72,995	150,000	24	61	125	203
Rose View	4,501	16	286	7,935	16	496	17	4,859	8,431	10,000	4	7	30	73
Dixie	6,208	26	235	8,167	26	314	42	9,870	13,192	10,000	8	11	40	153
West Phx 1	345	2	143	1,233	2	617	4	571	2,467	5,000	0	2	20	39
West Phx 7	1,227	6	202	1,933	6	322	6	1,211	1,933	5,000	1	2	20	74
West Phx 4,5,6	4,611	23	199	6,161	23	268	23	4,578	6,161	7,500	4	5	20	90
Garden City	4,123	17	247	6,833	16	427	20	4,948	8,542	45,000	4	7	30	84

WATER USE DATA SHEET

NAME OF COMPANY →	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. →	Garden City/Big Horn System PWS #07-037

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
12/05	15	101
01/06	15	91
02/06	15	85
03/06	16	117
04/06	16	107
05/06	16	144
06/06	16	205
07/06	16	144
08/06	16	124
09/06	18	147
10/06	18	107
11/06	19	150
12/06	19	84
Total		**1,606**

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
20,000	1	55-804131	30
25,000	1		

Other Water Sources in Gallons per Minute →	**GPM** -
Fire Hydrants on System →	**Yes** X **No**
***Total Water Pumped Last 13 Months (Gallons in Thousands)** →	#REF!

* Well casing damaged in 2005. New well in production. High water usage due to flushing of lines and tank.

WATER USE DATA SHEET

NAME OF COMPANY →	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. →	WPE #1 System PWS # N/A

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
12/05	2	5
01/06	2	4
02/06	2	4
03/06	2	5
04/06	2	5
05/06	2	6
06/06	2	37
07/06	2	6
08/06	2	5
09/06	3	13
10/06	3	20
11/06	3	11
12/06	4	10
Total		**131**

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
5,000	1	55-600209	20

Other Water Sources in Gallons per Minute →	**GPM** -
Fire Hydrants on System →	**Yes** **No X**
Total Water Pumped Last 13 Months (Gallons in Thousands) →	#REF!

* High water usage due to the construction of a new well in 2005.

WATER USE DATA SHEET

NAME OF COMPANY →	Water Utility of Greater Tonopah.
ADEQ Public Water System No. →	WPE #6 System PWS #07-733

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	G
12/05	23	
01/06	23	
02/06	23	
03/06	23	
04/06	23	
05/06	23	
06/06	23	
07/06	23	
08/06	23	
09/06	24	
10/06	24	
11/06	23	
12/06	23	
Total		

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER
7,500	1	55-802145

Other Water Sources in Gallons per Minute →	
Fire Hydrants on System →	
Total Water Pumped Last 13 Months (Gallons in Thousands) →	

, Inc.

;ALLONS SOLD (Thousands)
86
94
97
105
137
185
191
191
175
187
127
110
84
1,769

WELL PRODUCTION (Gallons per Minute)
20

▸ **GPM**	-
Yes	**No X**
▸	#REF!

WATER USE DATA SHEET

NAME OF COMPANY →	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. →	Tufte WPE #7 System PWS #07-617

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
12/05	6	28
01/06	6	30
02/06	6	26
03/06	6	33
04/06	6	37
05/06	6	37
06/06	6	58
07/06	6	50
08/06	6	36
09/06	7	46
10/06	6	29
11/06	6	34
12/06	6	32
Total		**476**

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
5,000	1	55-802144	20

Other Water Sources in Gallons per Minute →	**GPM** -
Fire Hydrants on System →	**Yes** **No** **X**
Total Water Pumped Last 13 Months (Gallons in Thousands) →	#REF!

WATER USE DATA SHEET

NAME OF COMPANY →	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. →	Dixie System PWS #07-030

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
12/05	23	129
01/06	23	143
02/06	23	135
03/06	23	140
04/06	24	154
05/06	24	209
06/06	26	245
07/06	26	227
08/06	27	211
09/06	28	225
10/06	28	156
11/06	32	168
12/06	33	253
Total		**2,395**

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
10,000	1	55-639586	40

Other Water Sources in Gallons per Minute →	**GPM** -
Fire Hydrants on System →	**Yes** **No X**
Total Water Pumped Last 13 Months (Gallons in Thousands) →	#REF!

WATER USE DATA SHEET

NAME OF COMPANY →	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. →	Rose View System PWS #07-082

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
12/05	14	118
01/06	15	139
02/06	15	169
03/06	15	97
04/06	15	120
05/06	15	118
06/06	15	191
07/06	16	246
08/06	16	139
09/06	16	114
10/06	17	107
11/06	17	130
12/06	17	73
Total		**1,761**

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
10,000	1	55-802143	30

Other Water Sources in Gallons per Minute →	**GPM** -
Fire Hydrants on System →	**Yes** **No** **X**
Total Water Pumped Last 13 Months (Gallons in Thousands) →	#REF!

WATER USE DATA SHEET

NAME OF COMPANY →	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. →	B&D/Buckeye Ranch System PWS #07-618

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
12/05	75	336
01/06	76	339
02/06	77	343
03/06	85	394
04/06	85	432
05/06	91	1,117
06/06	92	2,035
07/06	92	1,014
08/06	94	786
09/06	94	865
10/06	94	725
11/06	95	651
12/06	93	756
Total		**9,793**

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
150,000	1	55-802962	125
5,000	1	55-803811	20

Other Water Sources in Gallons per Minute →	**GPM** -
Fire Hydrants on System →	**Yes** X **No**
Total Water Pumped Last 13 Months (Gallons in Thousands) →	#REF!

WATER USE DATA SHEET

NAME OF COMPANY →	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. →	Sunshine System PWS #07-071

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)	
12/05	92	698	
01/06	91	463	
02/06	104	744	
03/06	107	625	
04/06	110	914	
05/06	116	1,250	
06/06	117	1,170	
07/06	116	1,352	
08/06	121	818	
09/06	136	1,611	
10/06	140	1,286	1061583
11/06	139	1,023	127.1667
12/06	137	785	8347.969
Total		**12,739**	278.2656

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
100,000	1	55-802141	130

Other Water Sources in Gallons per Minute →	GPM -
Fire Hydrants on System →	Yes X No
Total Water Pumped Last 13 Months (Gallons in Thousands) →	#REF!

EXHIBIT A-21

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS
MIKE GLEASON, Chairman
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
KRISTIN K. MAYES
GARY PIERCE

IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF GREATER TONOPAH, INC., AN ARIZONA CORPORATION, FOR AN EXTENSION OF ITS EXISTING CERTIFICATE OF CONVENIENCE AND NECESSITY.	Docket No. W-02450A-06-0626
IN THE MATTER OF THE APPLICATION OF HASSAYAMPA UTILITY COMPANY, INC., AN ARIZONA CORPORATION, FOR AN EXTENSION OF ITS EXISTING CERTIFICATE OF CONVENIENCE AND NECESSITY.	Docket No. SW-~~02~~20422A-06-0566 **NOTICE OF FILING AFFIDAVIT OF PUBLICATION AND MAILING**

The Water Utility of Greater Tonopah ("Tonopah") and Hassayampa Utility Company, Inc. ("Hassayampa") (collectively "Global Utilities") submit the attached affidavit of publication and affidavit of mailing.

RESPECTFULLY SUBMITTED this 19th day of September 2007.

ROSHKA DEWULF & PATTEN, PLC

RECEIVED
2007 SEP 19 P 2: 00
AZ CORP COMMISSION
DOCKET CONTROL

By [signature]
Michael W. Patten
Timothy J. Sabo
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

EXHIBIT
A21
admitted

Original + 15 copies of the foregoing
Notice was filed this 19th day of September 2007, with:

Docket Control
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Copies of the foregoing were hand-delivered/mailed
this 19th day of September 2007, to:

Lyn A. Farmer, Esq.
Chief Administrative Law Judge
Hearing Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Ernest Johnson, Esq.
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Christopher C. Kempley, Esq.
Chief Counsel, Legal Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

By Debbie Manal

ROSHKA DEWULF & PATTEN, PLC
ONE ARIZONA CENTER
400 EAST VAN BUREN STREET - SUITE 800
PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800

WEST VALLEY BUSINESS

200 W. Wigwam Blvd., Litchfield Park, Az. 85340-4636 ❖ (623) 535-8439 ❖ Fax: (623) 935-2103

AFFIDAVIT OF PUBLICATION

State of Arizona

County of Maricopa

I, Elliott Freireich, publisher of West Valley View and West Valley Business, newspapers of general circulation in Avondale, Buckeye, Goodyear, Litchfield Park and Tolleson, Arizona, attest that the legal advertisement for

Public Notice - Hearing on the Applications of Water Utility of Greater Tonopah, Inc., and Hassayampa Utility Company, Inc., for an extension of their certificates of Convenience and Necessity. (W-02450A-06-0626 et. al). November 1, 2007 at 2:00pm.

will be / has been published on September 14, 2007.

Elliott Freireich
President, West Valley View Inc.

September 13, 2007.
Date

SUBSCRIBED AND SWORN TO BEFORE ME ON THE 13 DAY OF September (Month), 2007 (YEAR)

NOTARY SIGNATURE: Rene Leeann Hartmann

NOTARY PUBLIC
STATE OF ARIZONA
Maricopa County
RENE LEEANN HARTMANN
My Appointment Expires 09/30/07

W:\WV_BIZ\WVBiz Content\SBAFFIDAV.INDD

PUBLIC[illegible]E OF HEARING ON THE APPLICATI[illegible] OF WATER UTILITY C[illegible]EATER TONAPAH, INC., AND HASS[illegible]PA UTILITY COMPANY, INC., FOR AN EXTENSION OF THEIR CERTIFICATES OF CONVENIENCE AND NECESSITY (W-02450A-06-0626 et. al)

On September 7, 2006, Hassayampa Utility Company, Inc., ("Hassayampa" or "Applicant") filed with the Arizona Corporation Commission ("Commission") an application for an extension of its Certificate of Convenience and Necessity ("Certificate" or "CC&N") to provide wastewater utility service in various parts of Maricopa County. On September 29, 2006, Water Utility of Greater Tonopah, Inc., ("WUGT" or "Applicant") filed with the Commission an application for an extension of its Certificate to include an additional 22,217 acres to its existing CC&N in Maricopa County, Arizona. On August 8, 2007, by Procedural Order, the matters were consolidated. The Commission's Utilities Division ("Staff') has not yet made recommendations regarding the consolidated applications, and the Commission is not bound by the proposals made by Hassayampa or WUGT, Staff, or any intervenors. The Commission will issue a decision regarding the above-captioned applications following consideration of testimony and evidence presented at an evidentiary hearing. Copies of the applications are available at the Applicant's offices at 21410 N. 19th Avenue, Suite 201, Phoenix, AZ 85027 and the Commission's offices at 1200 West Washington, Phoenix, Arizona, for public inspection during regular business hours and on the internet via the Commission website (www.azcc.gov) using the e-docket function.

The Commission will hold a hearing on this matter beginning **November 1, 2007, at 2:00 p.m.,** at the Commission's offices, 1200 West Washington, Phoenix, Arizona. Public comments will be taken on the first day of the hearing. Written public comments may be submitted via email (visit http://www.azcc.gov/utility/cons/index.htm for instructions), or by mailing a letter referencing Docket Number W-2450A-06-0626 et al to: Arizona Corporation Commission, Consumer Services Section, 1200 West Washington, Phoenix, AZ 85007.

The law provides for an open public hearing at which, under appropriate circumstances, interested parties may intervene. Any person or entity entitled by law to intervene and having a direct and substantial interest in the matter will be permitted to intervene. If you would like to intervene, you must file a written motion to intervene with the Commission, and you must send copies of the motion to the Company or its counsel, and to all parties of record in the case. Your motion to intervene must contain the following:

1. Your name, address, and telephone number, and the name, address, and telephone number of any party upon whom documents are to be served in your place, if desired.

2. A short statement of your interest in the proceeding (e.g., a customer of the Company, a shareholder of the Company, etc.).

3. A statement certifying that a copy of your motion to intervene has been mailed to the Company or its counsel and to all parties of record in the case.

The granting of motions to intervene shall be governed by A.A.C. R14-3-105, except that all motions to intervene must be filed on or before **October 12, 2007.** The granting of intervention, among other things, entitles a party to present sworn evidence at hearing and to cross-examine other witnesses. However, failure to intervene will not preclude any customer from appearing at the hearing and making a statement on such customer's own behalf.

If you have any questions about this application, you may contact the Company at (623) 580-9600. If you wish to file written comments on the application or want further information on intervention you may contact the Consumer Services Section of the Commission at 1200 W. Washington St., Phoenix, AZ 85007, or call 1800-222-7000.

The Commission does not discriminate on the basis of disability in admission to its public meetings. Persons with a disability may request a reasonable accommodation such as a sign language interpreter, as well as request this document in an alternative format, by contacting the ADA Coordinator Linda Hogan, E-mail Lhogan@azcc.gov, voice phone number 602/542-3931. Requests should be made as early as possible to allow time to arrange the accommodation.

AFFIDAVIT OF PROOF OF MAILING
DOCKET NUMBER W-02450A-06-0626 et.al

STATE OF ARIZONA)
) ss.
County of Maricopa)

I, Graham Symmonds, states as follows:

1. I am the CTO and Senior Vice President Compliance & Regulatory Affairs for Global Water.

2. I certify that a copy of the attached notice, pursuant to Procedural Order issued September 31, 2007 in Docket Number W-02450A-06-0626 et.al was mailed via U.S. First-Class Mail on September 14, 2007 to each property owner in the requested areas.

Graham Symmonds

SUBSCRIBED AND SWORN to before me by Graham Symmonds, this 18th day of September, 2007.

Notary Public

My Commission Expires: 4/18/2009

Jennie L Critchfield
Notary Public - Arizona
Maricopa County
My Commission Expires
April 18, 2009

EXHIBIT A-22

FILE COPY

BEFORE THE ARIZONA CORPORATION COMMISSION

RECEIVED

2007 OCT 26 P 3: 50

AZ CORP COMMISSION
DOCKET CONTROL

COMMISSIONERS
MIKE GLEASON, Chairman
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
KRISTIN K. MAYES
GARY PIERCE

IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF GREATER TONOPAH, INC., AN ARIZONA CORPORATION, FOR AN EXTENSION OF ITS EXISTING CERTIFICATE OF CONVENIENCE AND NECESSITY.	Docket No. W-02450A-06-0626
IN THE MATTER OF THE APPLICATION OF HASSAYAMPA UTILITY COMPANY, INC., AN ARIZONA CORPORATION, FOR AN EXTENSION OF ITS EXISTING CERTIFICATE OF CONVENIENCE AND NECESSITY.	Docket No. SW-02422A-06-0566

NOTICE OF FILING FRANCHISE APPROVAL DOCUMENTS

The Water Utility of Greater Tonopah ("Tonopah") and Hassayampa Utility Company, Inc. ("Hassayampa") (collectively "Global Utilities") submit the attached Maricopa County Franchises.

RESPECTFULLY SUBMITTED this 26th day of October 2007.

ROSHKA DEWULF & PATTEN, PLC

By Timothy J. Sabo

Michael W. Patten
Timothy J. Sabo
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

EXHIBIT
A22
admitted

Original + 15 copies of the foregoing
Notice was filed this 26th day of October 2007, with:

Docket Control
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Copies of the foregoing were hand-delivered/mailed
this 26th day of October 2007, to:

Lyn A. Farmer, Esq.
Chief Administrative Law Judge
Hearing Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Ernest Johnson, Esq.
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Christopher C. Kempley, Esq.
Chief Counsel, Legal Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

By Debbie Amaro

ROSHKA DEWULF & PATTEN, PLC
ONE ARIZONA CENTER
400 EAST VAN BUREN STREET - SUITE 800
PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800

Maricopa County

Clerk of the Board of Supervisors

301 W. Jefferson St, 10th Fl.
Phoenix, Arizona 85003-2148
Phone: (602) 506-3767
Fax: (602) 506-6402

Date: October 23, 2007

To: Robin Bain
Hassayampa Utility Company

From: Lupe Lerma, Assistant Deputy Clerk of the Board

Subject: Franchise Approval Documents and Requirements

Please find attached the following documentation regarding the approval of your franchise application:

- Clerk's Certification certifying the decision by the Board of Supervisors regarding your franchise application, and
- Franchise Resolution, signed by the Board.

The attached Resolution requires that the Certificate of Convenience and Necessity procured from the Corporation Commission of the State of Arizona be submitted to our office no later than June 30, 2008.

Facilities may not be installed until this Certificate is received by our office. In addition, if this Certificate is not received in our office by the date noted above, then this franchise approval is null and void.

COUNTY OF MARICOPA

State of Arizona

Office of the Clerk

Board of Supervisors

State of Arizona ***)*** ***ss.***
County of Maricopa ***)***

I, Lupe Lerma, Assistant Deputy Clerk of the Board of Supervisors, do hereby certify that the attached is a true and correct excerpt from the minutes of the meeting of the Board of Supervisors held on October 1, 2007. These minutes are currently pending approval by the Board:

HASSAYAMPA UTILITY COMPANY – PUBLIC SERVICE FRANCHISE, APPROVED

(Attached)

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Official Seal of the County of Maricopa. Done at Phoenix, the County Seat, on October 23, 2007.

Assistant Deputy Clerk of the Board of Supervisors

cc: ***Hassayampa Water Company***
File (F23217)

HASSAYAMPA UTILITY COMPANY PUBLIC UTILITY FRANCHISE - APPROVED

Chairman Brock called for a public hearing to solicit comments on the application filed by Hassayampa Utility Company for a public service franchise for a domestic sewage system. The Board considered whether the applicant is able to adequately maintain facilities in county rights-of-way. The franchise is granted with such conditions and restrictions the Board of Supervisors deems best for public safety and welfare including the express condition that the Certificate of Convenience and Necessity be procured from the Corporation Commission of the State of Arizona no later than June 30, 2008, and that no facilities will be installed prior to the granting of the Certificate of Convenience and Necessity. The Franchisee shall bear all expenses relating to the granted franchise including damage and compensation for any alteration of the direction, surface, grade or alignment of any county road for the purpose of the franchise. The public utility franchise is granted to construct, maintain and operate a sewage system consisting of lines, connections, manholes and all necessary equipment for a period not to exceed twenty-five (25) years or for a period of one year after the franchised area or a portion thereof is annexed by a municipality, whichever is shorter, for the transmission and delivery of water for domestic use along, upon, under and across public highways, roads, alleys and thoroughfares (excepting State highways) within that portion of Maricopa County, Arizona, known and described as follows, to-wit:

TOWNSHIP 1 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

ALL OF SECTION 6, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

THE WEST HALF OF THE NORTHEAST QUARTER AND THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 7, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THAT PORTION OF THE FOLLOWING DESCRIBED PARCEL OF LAND LYING WITHIN A 200 FOOT STRIP, BEING 100 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:
BEGINNING AT A POINT NORTH 07 DEGREES 7 MINUTES 30 SECONDS EAST, 1223.03 FEET FROM THE SOUTHEAST CORNER OF SECTION 16, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA;
THENCE NORTH 56 DEGREES 07 MINUTES 30 SECONDS WEST, 1783.55 FEET TO THE POINT OF CURVE OF A 0 DEGREES 15 MINUTES CURVE TO THE RIGHT, HAVING A RADIUS OF 22,918.3 FEET;
THENCE ALONG THE ARC. OF SAID CURVE, A DISTANCE OF433.33 FEET TO THE POINT OF TANGENT OF SAID CURVE;
THENCE NORTH 55 DEGREES 02 MINUTES 30 SECONDS WEST, 9949.29 FEET TO THE POINT OF CURVE OF A 4 DEGREES 00 MINUTES CURVE TO THE LEFT, HAVING A RADIUS OF 1432.69 FEET;
THENCE ALONG THE ARC OF SAID CURVE, 417.29 FEET TO THE POINT OF TANGENT OF SAID CURVE;
THENCE NORTH 71 DEGREES 44 MINUTES WEST, 4963.49 FEET TO THE POINT OF CURVE OF A 2 DEGREES 00 MINUTES CURVE TO THE RIGHT HAVING A RADIUS OF 2864.79 FEET;
THENCE ALONG THE ARC OF SAID CURVE, 489.17 FEET TO THE POINT OF TANGENT OF SAID CURVE;
THENCE NORTH 61 DEGREES 57 MINUTES WEST, 211.49 FEET TO A POINT ON THE WEST LINE OF SECTION 7, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, SAID POINT BEING SOUTH 0 DEGREES 16 MINUTES WEST, 394.03 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 7.

TOWNSHIP 2 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOTS 1 THROUGH 4, INCLUSIVE; THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 1, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

ALL OF SECTION 11, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

ALL OF SECTION 12, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE NORTH HALF AND THE SOUTHWEST QUARTER OF SECTION 13, TOWNSHIP 2 NORTH, RANGE 6 WEST OFTHE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

THE NORTHEAST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 14, TOWNSHIP 2 NORTH, RANGE 6 WEST OFTHE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE NORTH 282.91 FEET OF THE SOUTH 305.26 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, AND

EXCEPT THE SOUTH 282.91 FEET OF THE NORTH 478.97 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN. MARICOPA COUNTY. ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY ARIZONA.

PARCEL 10

THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE WEST HALF OF SECTION 21, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE EAST 200 ACRES THEREOF.

PARCEL 12

THE NORTHEAST QUARTER OF SECTION 24, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 13

THE NORTHWEST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 14

THE WEST HALF OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE SOUTHEAST QUARTER OFTHE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 15

THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER, AND THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OFTHE GILA AND SALT RIVER MERIDIANS MARICOPA COUNTY, ARIZONA.

PARCEL 16

THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OFTHE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 17

THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE EAST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 18

THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OFTHE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SAID SECTION 29, WHICH POINT BEARS SOUTH 0 DEGREES 00 MINUTES 38 SECONDS WEST, 1476.85 FEET FROM THE NORTHWEST CORNER OFSAID SECTION 29;
THENCE SOUTH 75 DEGREES 04 MINUTES 23 SECONDS EAST, 5470.76 FEET TO A POINT ON THE EAST LINE OF SAID SECTION 29, WHICH POINT BEARS SOUTH 0 DEGREES 03 MINUTES 23 SECONDS WEST, 243 12 FEET FROM THE EAST QUARTER CORNER OF SAID SECTION 29, AS CONVEYED TO STATE OF ARIZONA BY AND THROUGH ITS HIGHWAY COMMISSION BY WARRANTY DEED RECORDED IN DOCKET 6586, PAGE 69.

PARCEL 19

THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION OF SAID EAST HALF OF THE NORTHWEST QUARTER OF SAID SECTION 29 WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SAID SECTION 29, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 29;
THENCE S75°04'23"E, 5470.76 FEET TO A POINT ON THE EAST LINE OF SAID SECTION 29, WHICH POINT BEARS S00°03'23"W, 243.12 FEET FROM THE EAST QUARTER CORNER OF SAID SECTION 29.

PARCEL 20

THE WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S 00° 00' 05" SECONDS WEST, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990 74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23'E; THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38" W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29, AND

EXCEPT THEREFROM THOSE PORTIONS LYING WITHIN THE FOLLOWING DESCRIBED PARCELS OF LAND:

TRACT NO. 1

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, 33.00 FEET;
THENCE S08°19'27"W, 809 17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET,
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507,51 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

TRACT NO. 2

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS N00°00'38"E, 2805.94 FEET FROM THE CORNER COMMON TO SECTIONS 29, 30, 31 AND 32;
THENCE N89°59'22'W, 33.00 FEET;
THENCE N07°33'28"W. 888.33 FEET TO THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310 42 FEET;
THENCE S08°19'27"W, 809.17 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

PARCEL 21

THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 22

THE SOUTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA,

PARCEL 23

THE EAST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MER1DIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S 00° 00' 05" SECONDS WEST, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990 74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23'E; THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38" W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29; AND,

EXCEPT THEREFROM THOSE PORTIONS LYING WITHIN THE FOLLOWING DESCRIBED PARCELS OF LAND:

TRACT NO. 1

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, 33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310 42 FEET;
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507 51 FEET;
THENCE N89°59'22"W, 33 00 FEET TO THE POINT OF BEGINNING.

TRACT NO. 2

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS N00°00'38"E, 2805.94 FEET FROM THE CORNER COMMON TO SECTIONS 29, 30, 31 AND 32;
THENCE N89°59'22"W, 33.00 FEET;
THENCE N07°33'28"W, 888.33 FEET TO THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET;
THENCE S08°19'27"W, 809.17 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING; AND

EXCEPT THEREFROM ANY PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING.

PARCEL 24

THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA. DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING,

EXCEPT THAT PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, .33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET,
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507.51 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

PARCEL 25

THE WEST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S00°00'05"W, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23"E;
THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF' SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29.

PARCEL 26

THE SOUTH HALF AND THE NORTHWEST QUARTER OF SECTION 31 TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 27

THE NORTHEAST QUARTER OF SECTION 31, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 28

ALL OF SECTION 32, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA;

PARCEL 29

THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 3 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOT 3 OF SECTION 14, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

THE SOUTH HALF OF THE NORTHEAST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

LOTS 1 THROUGH 3, INCLUSIVE; THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 23, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

LOTS 2 THROUGH 4, INCLUSIVE, THE SOUTH HALF OF THE NORTHWEST QUARTER AND THE SOUTH HALF OF SECTION 24, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 25, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE EAST HALF AND THE EAST HALF OF THE WEST HALF OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE EAST HALF OF SECTION 27, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 35, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 1 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOTS THREE (3) AND FOUR (4) AND THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION FIVE (5), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION LYING WITHIN THE PHOENIX-EHRENBERG HIGHWAY (I-10) DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 3;
THENCE SOUTH 00 DEGREES 08 MINUEW 55 SECONDS EAST 187.60 FEET (SOUTH 187.18 FEET RECORD) ALONG THE EAST LINE OF SAID LOT 3 TO THE SOUTH RIGHT-OF-WAY OF SAID HIGHWAY;
THENCE NORTH 75 DEGREES 01 MINUES 17 SECONDS WEST (NORTH 75 DEGREES 01 MINUTES 36 SECONDS WEST 725.36 FEET RECORD) ALONG SAID RIGHT-OF-WAY TO THE NORTH LINE OF SAID LOT 3;
THENCE SOUTH 89 DEGREES 59 MINUTES 34 SECONDS EAST 700.57 FEET (EAST 700.80 FEET RECORD) TO THE POINT OF BEGINNING.

PARCEL 2

THE WEST HALF OF THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, AIRZONA.

PARCEL 3

THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE WEST HALF OF THE NORTHEAST QUARTER AND THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION EIGHT (8), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

THE WEST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE SOUTH 701.62 FEET THEREOF.

PARCEL 6

THE SOUTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE NORTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP I NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 2 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOTS 1 THROUGH 4, INCLUSIVE; THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 3, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

LOTS 1 THROUGH 4, INCLUSIVE; THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 4, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

LOTS 1 THROUGH 4, INCLUSIVE, THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 5, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

LOTS 1 THROUGH 7, INCLUSIVE; THE SOUTH HALF OF THE NORTHEAST QUARTER, THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE SOUTHEAST QUARTER AND THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 6, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 7, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 8, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 9, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE WEST HALF OF THE EAST HALF AND THE WEST HALF OF SECTION 10, TOWNSHIP 2 NORTH, RANGE 5 WEST OFTHE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 15, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE NORTH HALF OF THE NORTHEAST QUARTER OF SAID SECTION.

PARCEL 11

THE NORTH HALF OF THE NORTHEAST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 12

THE EAST HALF OF SECTION 17, TOWNSHIP 2 NORTH, RANGE 5 WEST. OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 13

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 18, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 14

LOT 1, THE EAST HALF OF THE NORTHWEST QUARTER AND THE EAST HALF OF SECTION 19, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 15

THE EAST HALF OF THE NORTHEAST QUARTER, THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER, THE WEST HALF, AND THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 16

THE WEST HALF, THE WEST HALF OF THE EAST HALF, THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER AND THE SOUTH HALF OF PTHE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

> EXCEPT COMMENCING AT THE NORTHEAST CORNER OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 29; THENCE SOUTH 00 DEGREES 11 MINUTES 16 SECONDS WEST, ALONG THE EAST LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 1291.13 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 00 DEGREES 11 MINUTES 16 SECONDS WEST, 26.41 FEET; THENCE NORTH 89 DEGREES 25 MINUTES 24 SECONDS WEST, ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER OFTHE NORTHEAST QUARTER, 808.80 FEET; THENCE NORTH 01 DEGREES 25 MINUTES 28 SECONDS WEST, 101.26 FEET; THENCE SOUTH 84 DEGREES 09 MINUTES 42 SECONDS EAST, 815.59 FEET TO THE POINT OF BEGINNING.

PARCEL 17

THE NORTHEAST QUARTER, THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE NORTH HALF OF THE SOUTHEAST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 18

GLO LOT (FRACTIONAL SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER) AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 19

THE EAST HALF OF THE EAST HALF OF SECTION 31, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 3 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOT 1, LOTS 4 THROUGH 7, INCLUSIVE; THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

LOTS 9 AND 10 OF SECTION 18, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

LOTS 2 THROUGH 6, INCLUSIVE; THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE EAST HALF OF THE SOUTHWEST QUARTER AND THE EAST HALF OF SECTION 19, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

ALL OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 21, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 28, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 29, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 30, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 31, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 33, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE EAST HALF OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

CONTAINING APPROXIMATELY 26,411 ACRES, MORE OR LESS. THIS AREA IS NOT BASED ON A FIELD SURVEY, BUT BASED ON CALCULATIONS DERIVED FROM SCANNED IMAGES OF 7.5 MINUTES SERIES NGS QUAD MAPS AND OTHER SCANNED MATERIALS WORKING WITHIN AN AUTOCAD DRAWING FILE.

No protests having been received, motion was made by Supervisor Wilson, seconded by Supervisor Stapley, and unanimously carried to grant the said franchise as applied for and to impose such restrictions and limitations upon said applicant as to the use of such public highways, roads, alleys and thoroughfares as may be deemed best for the public safety and welfare and to include in such franchise the statutory provisions set forth in Title 40, Chapter 2, Article 4, A.R.S., 1956, requiring the grantee of said franchise to pay such expenses, damages and compensations, if any, as may result from the use and operation of said franchise and as in said statute specified. (C0608023700) (F23217)

BEFORE THE BOARD OF SUPERVISORS

OF

MARICOPA COUNTY, STATE OF ARIZONA

IN THE MATTER OF THE APPLICATION OF	)	
	)	
	)	
	)	
Hassayampa Utility Company	)	FRANCHISE
	)	
	)	
	)	
	)	
FOR A FRANCHISE		

BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF MARICOPA COUNTY, STATE OF ARIZONA, THAT:

WHEREAS, Hassayampa Utility Company hereinafter designated as the Grantee, doing business in Maricopa County, Arizona, bearing date of August 6, 2007, praying for the right, privilege, license and franchise to construct, maintain and operate a sewage system consisting of lines, connections, manholes and all necessary equipment for a period not to exceed twenty-five (25) years or for a period of one (1) year after the franchised area or a portion thereof is annexed by a municipality, whichever is shorter, for the supplying of this service, along, upon, under and across public highways, roads, alleys and thoroughfares (excepting State Highways), within that portion of Maricopa County, Arizona, known and described as follows, to-wit:

TOWNSHIP 1 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

ALL OF SECTION 6, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

THE WEST HALF OF THE NORTHEAST QUARTER AND THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 7, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THAT PORTION OF THE FOLLOWING DESCRIBED PARCEL OF LAND LYING WITHIN A 200 FOOT STRIP, BEING 100 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:
BEGINNING AT A POINT NORTH 07 DEGREES 7 MINUTES 30 SECONDS EAST, 1223.03 FEET FROM THE SOUTHEAST CORNER OF SECTION 16, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA;
THENCE NORTH 56 DEGREES 07 MINUTES 30 SECONDS WEST, 1783.55 FEET TO THE POINT OF CURVE OF A 0 DEGREES 15 MINUTES CURVE TO THE RIGHT, HAVING A RADIUS OF 22,918.3 FEET;
THENCE ALONG THE ARC. OF SAID CURVE, A DISTANCE OF433.33 FEET TO THE POINT OF TANGENT OF SAID CURVE;

THENCE NORTH 55 DEGREES 02 MINUTES 30 SECONDS WEST, 9949.29 FEET TO THE POINT OF CURVE OF A 4 DEGREES 00 MINUTES CURVE TO THE LEFT, HAVING A RADIUS OF 1432.69 FEET;
THENCE ALONG THE ARC OF SAID CURVE, 417.29 FEET TO THE POINT OF TANGENT OF SAID CURVE;
THENCE NORTH 71 DEGREES 44 MINUTES WEST, 4963.49 FEET TO THE POINT OF CURVE OF A 2 DEGREES 00 MINUTES CURVE TO THE RIGHT HAVING A RADIUS OF 2864.79 FEET;
THENCE ALONG THE ARC OF SAID CURVE, 489.17 FEET TO THE POINT OF TANGENT OF SAID CURVE;
THENCE NORTH 61 DEGREES 57 MINUTES WEST, 211.49 FEET TO A POINT ON THE WEST LINE OF SECTION 7, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, SAID POINT BEING SOUTH 0 DEGREES 16 MINUTES WEST, 394.03 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 7.

TOWNSHIP 2 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOTS 1 THROUGH 4, INCLUSIVE; THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 1, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

ALL OF SECTION 11, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

ALL OF SECTION 12, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE NORTH HALF AND THE SOUTHWEST QUARTER OF SECTION 13, TOWNSHIP 2 NORTH, RANGE 6 WEST OFTHE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

THE NORTHEAST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 14, TOWNSHIP 2 NORTH, RANGE 6 WEST OFTHE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE NORTH 282.91 FEET OF THE SOUTH 305.26 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, AND

EXCEPT THE SOUTH 282.91 FEET OF THE NORTH 478.97 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN. MARICOPA COUNTY. ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY ARIZONA.

PARCEL 10

THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE WEST HALF OF SECTION 21, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE EAST 200 ACRES THEREOF.

PARCEL 12

THE NORTHEAST QUARTER OF SECTION 24, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 13

THE NORTHWEST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 14

THE WEST HALF OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE SOUTHEAST QUARTER OFTHE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 15

THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER, AND THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OFTHE GILA AND SALT RIVER MERIDIANS MARICOPA COUNTY, ARIZONA.

PARCEL 16

THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OFTHE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 17

THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE EAST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 18

THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OFTHE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SAID SECTION 29, WHICH POINT BEARS SOUTH 0 DEGREES 00 MINUTES 38 SECONDS WEST, 1476.85 FEET FROM THE NORTHWEST CORNER OFSAID SECTION 29;
THENCE SOUTH 75 DEGREES 04 MINUTES 23 SECONDS EAST, 5470.76 FEET TO A POINT ON THE EAST LINE OF SAID SECTION 29, WHICH POINT BEARS SOUTH 0 DEGREES 03 MINUTES 23 SECONDS WEST, 243 12 FEET FROM THE EAST QUARTER CORNER OF SAID SECTION 29, AS CONVEYED TO STATE OF ARIZONA BY AND THROUGH ITS HIGHWAY COMMISSION BY WARRANTY DEED RECORDED IN DOCKET 6586, PAGE 69.

PARCEL 19

THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION OF SAID EAST HALF OF THE NORTHWEST QUARTER OF SAID SECTION 29 WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SAID SECTION 29, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 29;
THENCE S75°04'23"E, 5470.76 FEET TO A POINT ON THE EAST LINE OF SAID SECTION 29, WHICH POINT BEARS S00°03'23"W, 243.12 FEET FROM THE EAST QUARTER CORNER OF SAID SECTION 29.

PARCEL 20

THE WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S 00° 00' 05" SECONDS WEST, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990 74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23'E; THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38" W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29, AND

EXCEPT THEREFROM THOSE PORTIONS LYING WITHIN THE FOLLOWING DESCRIBED PARCELS OF LAND:

TRACT NO. 1

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, 33.00 FEET;
THENCE S08°19'27"W, 809 17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET,
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507,51 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

TRACT NO. 2

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS N00°00'38"E, 2805.94 FEET FROM THE CORNER COMMON TO SECTIONS 29, 30, 31 AND 32;
THENCE N89°59'22'W, 33.00 FEET;
THENCE N07°33'28"W. 888.33 FEET TO THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310 42 FEET;
THENCE S08°19'27"W, 809.17 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

PARCEL 21

THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 22

THE SOUTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA,

PARCEL 23

THE EAST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MER1DIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S 00° 00' 05" SECONDS WEST, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990 74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23'E; THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38" W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29; AND,

EXCEPT THEREFROM THOSE PORTIONS LYING WITHIN THE FOLLOWING DESCRIBED PARCELS OF LAND:

TRACT NO. 1

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, 33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310 42 FEET;
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507 51 FEET;
THENCE N89°59'22"W, 33 00 FEET TO THE POINT OF BEGINNING.

TRACT NO. 2

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS N00°00'38"E, 2805.94 FEET FROM THE CORNER COMMON TO SECTIONS 29, 30, 31 AND 32;
THENCE N89°59'22"W, 33.00 FEET;
THENCE N07°33'28"W, 888.33 FEET TO THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET;
THENCE S08°19'27"W, 809.17 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING; AND

EXCEPT THEREFROM ANY PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING.

PARCEL 24

THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA. DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING,

EXCEPT THAT PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, .33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET,
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507.51 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

PARCEL 25

THE WEST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S00°00'05"W, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23"E;
THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF' SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29.

PARCEL 26

THE SOUTH HALF AND THE NORTHWEST QUARTER OF SECTION 31 TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 27

THE NORTHEAST QUARTER OF SECTION 31, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 28

ALL OF SECTION 32, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA;

PARCEL 29

THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 3 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOT 3 OF SECTION 14, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

THE SOUTH HALF OF THE NORTHEAST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

LOTS 1 THROUGH 3, INCLUSIVE; THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 23, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

LOTS 2 THROUGH 4, INCLUSIVE, THE SOUTH HALF OF THE NORTHWEST QUARTER AND THE SOUTH HALF OF SECTION 24, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 25, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE EAST HALF AND THE EAST HALF OF THE WEST HALF OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE EAST HALF OF SECTION 27, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 35, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 1 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOTS THREE (3) AND FOUR (4) AND THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION FIVE (5), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION LYING WITHIN THE PHOENIX-EHRENBERG HIGHWAY (I-10) DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 3;
THENCE SOUTH 00 DEGREES 08 MINUEW 55 SECONDS EAST 187.60 FEET (SOUTH 187.18 FEET RECORD) ALONG THE EAST LINE OF SAID LOT 3 TO THE SOUTH RIGHT-OF-WAY OF SAID HIGHWAY;

THENCE NORTH 75 DEGREES 01 MINUES 17 SECONDS WEST (NORTH 75 DEGREES 01 MINUTES 36 SECONDS WEST 725.36 FEET RECORD) ALONG SAID RIGHT-OF-WAY TO THE NORTH LINE OF SAID LOT 3;
THENCE SOUTH 89 DEGREES 59 MINUTES 34 SECONDS EAST 700.57 FEET (EAST 700.80 FEET RECORD) TO THE POINT OF BEGINNING.

PARCEL 2

THE WEST HALF OF THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, AIRZONA.

PARCEL 3

THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE WEST HALF OF THE NORTHEAST QUARTER AND THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION EIGHT (8), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

THE WEST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE SOUTH 701.62 FEET THEREOF.

PARCEL 6

THE SOUTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE NORTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP I NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 2 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOTS 1 THROUGH 4, INCLUSIVE; THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 3, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

LOTS 1 THROUGH 4, INCLUSIVE; THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 4, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

LOTS 1 THROUGH 4, INCLUSIVE, THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 5, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

LOTS 1 THROUGH 7, INCLUSIVE; THE SOUTH HALF OF THE NORTHEAST QUARTER, THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE SOUTHEAST QUARTER AND THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 6, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 7, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 8, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 9, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE WEST HALF OF THE EAST HALF AND THE WEST HALF OF SECTION 10, TOWNSHIP 2 NORTH, RANGE 5 WEST OFTHE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 15, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE NORTH HALF OF THE NORTHEAST QUARTER OF SAID SECTION.

PARCEL 11

THE NORTH HALF OF THE NORTHEAST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 12

THE EAST HALF OF SECTION 17, TOWNSHIP 2 NORTH, RANGE 5 WEST. OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 13

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 18, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 14

LOT 1, THE EAST HALF OF THE NORTHWEST QUARTER AND THE EAST HALF OF SECTION 19, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 15

THE EAST HALF OF THE NORTHEAST QUARTER, THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER, THE WEST HALF, AND THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 16

THE WEST HALF, THE WEST HALF OF THE EAST HALF, THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER AND THE SOUTH HALF OF PTHE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPT COMMENCING AT THE NORTHEAST CORNER OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 29; THENCE SOUTH 00 DEGREES 11 MINUTES 16 SECONDS WEST, ALONG THE EAST LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 1291.13 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 00 DEGREES 11 MINUTES 16 SECONDS WEST, 26.41 FEET; THENCE NORTH 89 DEGREES 25 MINUTES 24 SECONDS WEST, ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER OFTHE NORTHEAST QUARTER, 808.80 FEET; THENCE NORTH 01 DEGREES 25 MINUTES 28 SECONDS WEST, 101.26 FEET; THENCE SOUTH 84 DEGREES 09 MINUTES 42 SECONDS EAST, 815.59 FEET TO THE POINT OF BEGINNING.

PARCEL 17

THE NORTHEAST QUARTER, THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE NORTH HALF OF THE SOUTHEAST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 18

GLO LOT (FRACTIONAL SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER) AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 19

THE EAST HALF OF THE EAST HALF OF SECTION 31, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 3 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOT 1, LOTS 4 THROUGH 7, INCLUSIVE; THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

LOTS 9 AND 10 OF SECTION 18, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

LOTS 2 THROUGH 6, INCLUSIVE; THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE EAST HALF OF THE SOUTHWEST QUARTER AND THE EAST HALF OF SECTION 19, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

ALL OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 21, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 28, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 29, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 30, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 31, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 33, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE EAST HALF OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

CONTAINING APPROXIMATELY 26,411 ACRES, MORE OR LESS. THIS AREA IS NOT BASED ON A FIELD SURVEY, BUT BASED ON CALCULATIONS DERIVED FROM SCANNED IMAGES OF 7.5 MINUTES SERIES NGS QUAD MAPS AND OTHER SCANNED MATERIALS WORKING WITHIN AN AUTOCAD DRAWING FILE.

And not within the confines of any incorporated city or town, and under such restrictions and limitations and upon such terms as the Board of Supervisors may provide, not inconsistent with the laws of the State of Arizona, or the orders and rules of the Corporation Commission of the State of Arizona, and that the Board take such proceedings herein as is provided by laws of the State of Arizona; and

WHEREAS, upon filing said application, the said Board of Supervisors on September 5, 2007 ordered that public notice of the intention of said Board to make such grants be given by publishing a notice in the official newspaper of Maricopa County, published in the County of Maricopa, State of Arizona, and that 9:00 a.m., on the 1st day of October, 2007, at the meeting room of said Board of Supervisors located at 205 West Jefferson Street, in the City of Phoenix, Arizona, be set as the time and place of hearing the said application; and

WHEREAS, the said application coming on regularly for hearing on said day and it appearing by the affidavit of the duly authorized agent of the said time and place set for the consideration of such application has been published for at least once a week for the three-week period prior to said date set forth herein, to-wit:

In the issues of the said newspaper on September 13, 20, and 27, 2007, and it appearing that no sufficient protest has been filed by the qualified electors of the said County petitioning said Board of Supervisors to deny such license and franchise, and it further appearing the best interests of Maricopa County will be served by the granting of said application and the franchise referred to therein;

NOW, THEREFORE, the Board of Supervisors of Maricopa County, State of Arizona, acting on behalf of said County does hereby grant unto Hassayampa Utility Company, doing business in Maricopa County, Arizona, subject to the terms, conditions and limitations hereinafter contained, the right, privilege, license and franchise to construct, maintain and operate a sewage system, for a period of not to exceed twenty-five (25) years or for a period of one (1) year after the franchised area is annexed by a municipality, whichever is shorter, for the supplying of this service along, upon, under and across the pubic highways, roads, alleys and thoroughfares (excepting State highways) within that portion of Maricopa County, Arizona, hereinabove described, under such restrictions and limitations and upon such terms as this Board at any time may provided, not inconsistent with the laws of the State of Arizona, or the orders and rules of the Corporation Commission of the State of Arizona, specifically providing, however, that:

1) All rights hereunder are granted under the express condition that the Board of Supervisors of said Maricopa County shall have the power at any time to impose such restrictions and limitations and to make such regulations on such highways, roads, and thoroughfares as may be deemed best for the public safety, health, welfare and convenience.

2) All rights hereby granted shall be exercised so as to not interfere or conflict with any easements or rights-of-way heretofore granted by said Board of Supervisors and now in force.

3) All rights hereby granted shall be exercised so as not to interfere or conflict with any easement, either public or private, of whatsoever nature, which has been acquired in or to the proper use of said highway, roads, and thoroughfares, or any portion thereof.

4) All rights hereby granted shall be exercised so as not to interfere or conflict with or endanger in any way the proper use by the public of said highways, roads, and thoroughfares, or any portion thereof.

5) That the said Grantee shall bear all expenses incurred including damages and compensation for the alteration of the course, direction, surface, grade or alignment of any of the said highways, roads and thoroughfares necessarily made by the said grantee for the purpose of this franchise; that said grantee will maintain his equipment from time to time as may be needed, without the necessity of notice from Maricopa County. In the event the said grantee shall fail to make any repairs within ten days from the time same becomes necessary, then Maricopa County may cause the same to be made, and said grantee agrees to pay Maricopa County the cost thereof.

6) That all property of the franchise be installed and operated by the said grantee and shall be placed, removed or relocated, initially and throughout the term of this franchise, along, in, over, under and across the said highway, roads and thoroughfares, in such a manner and location as the Board of Supervisors or its duly authorized agents may designate. Such placement, removal or relocation shall be done at the sole expense of the grantee upon a determination by the Board of Supervisors of Maricopa County that such placement, removal or relocation is necessary.

If the grantee fails or refuses to so remove or relocate, Maricopa County may so remove or relocate, at the sole expense of grantee, such expense to include any and all damages and compensation of whatsoever nature arising therefrom.

In this section the term "property" includes conduits, pipe, wires, poles, or other structures and appliances used to supply or deal in gas, electricity, lights, water, heat, refrigeration, power, telephones, telegraph, television and other public utilities.

Any finding or determination made by the Board of Supervisors pursuant hereto shall be final and binding upon the grantee whether or not such findings or determinations relates to the requirements of public safety or welfare, the use of public roads or the need for proposed improvements, and whether or not the function to be served by such removal or relocation is of a governmental or proprietary nature.

7) That said grantee shall indemnity and save harmless, the said County of Maricopa from all costs, expense and liabilities in connection with the granting of this franchise and exercise of the same by them.

8) That the rights of any person claiming to be injured in any manner by the maintenance of said projects and equipment shall not be affected hereby.

9) That the terms and conditions of this franchise shall inure to the benefit of, and be binding upon, all the heirs and assigns of the said Grantee.

10) That the franchise and privilege herein granted shall not be deemed to be exclusive and the said Board of Supervisors hereby expressly reserves the right and power to grant from time to time similar franchises and privileges over the same territory and highways, roads and thoroughfares.

11) This franchise is granted upon the express condition that the Certificate of Convenience and Necessity be procured from the Corporation Commission of the State of Arizona no later than June 30, 2008, and proof thereof submitted to the Board of Supervisors; and if such Certificate is not granted by June 30, 2008, then this franchise may be declared void.

12) That no facilities shall be installed until the Certificate of Convenience and Necessity be procured from the Corporation Commission of the State of Arizona and such Certificate has been delivered to the Board of Supervisors.

13) This franchise is granted upon the express condition that all of the Property Tax obligations of the franchisee shall remain current and if such taxes are not current, then this franchise extension is deemed void.

14) All materials and construction methods used with the public right-of-way shall conform to the applicable standards, specifications and special provisions currently in effect in Maricopa County.

15) The Franchise holder shall obtain a construction permit from the Office of the County Engineer prior to construction of any facilities in the public right-of-way.

DATED this 1st day of October 2007.

Chairman, Board of Supervisors

ATTEST:

Clerk, Board of Supervisors

Maricopa County

Clerk of the Board of Supervisors

301 W. Jefferson St, 10th Fl.
Phoenix, Arizona 85003-2148
Phone: (602) 506-3767
Fax: (602) 506-6402

Date: October 23, 2007

To: Robin Bain
Water Utility of Greater Tonopah, Inc.

From: Lupe Lerma, Assistant Deputy Clerk of the Board

Subject: Franchise Approval Documents and Requirements

Please find attached the following documentation regarding the approval of your franchise application:

- Clerk's Certification certifying the decision by the Board of Supervisors regarding your franchise application, and
- Franchise Resolution, signed by the Board.

The attached Resolution requires that the Certificate of Convenience and Necessity procured from the Corporation Commission of the State of Arizona be submitted to our office no later than June 30, 2008.

Facilities may not be installed until this Certificate is received by our office. In addition, if this Certificate is not received in our office by the date noted above, then this franchise approval is null and void.

COUNTY OF MARICOPA

State of Arizona

Office of the Clerk

Board of Supervisors

State of Arizona ***) ss.***
County of Maricopa ***)***

I, Lupe Lerma, Assistant Deputy Clerk of the Board of Supervisors, do hereby certify that the attached is a true and correct excerpt from the minutes of the meeting of the Board of Supervisors held on October 1, 2007. These minutes are currently pending approval by the Board:

WATER UTILITY OF GREATER TONOPAH, INC.– PUBLIC SERVICE FRANCHISE, APPROVED

(Attached)

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Official Seal of the County of Maricopa. Done at Phoenix, the County Seat, on October 23, 2007.

Lupe Lerma

Assistant Deputy Clerk of the Board of Supervisors

cc: ***Water Utility of Greater Tonopah, Inc.***
File (F21283)

WATER UTILITY OF GREATER TONOPAH, INC. PUBLIC UTILITY FRANCHISE - APPROVED

Chairman Brock called for a public hearing to solicit comments on the application filed by Water Utility of Greater Tonopah, Inc. for an extension to an existing public service franchise for a domestic water distribution system. The Board considered whether the applicant is able to adequately maintain facilities in county rights-of-way. The franchise is granted with such conditions and restrictions the Board of Supervisors deems best for public safety and welfare including the express condition that the Certificate of Convenience and Necessity be procured from the Corporation Commission of the State of Arizona no later than June 30, 2008, and that no facilities will be installed prior to the granting of the Certificate of Convenience and Necessity. The Franchisee shall bear all expenses relating to the granted franchise including damage and compensation for any alteration of the direction, surface, grade or alignment of any county road for the purpose of the franchise. The public utility franchise is granted to construct, maintain and operate domestic water distribution system consisting of pipe lines, meters, connections and all necessary equipment for a period not to exceed twenty-five (25) years or for a period of one year after the franchised area or a portion thereof is annexed by a municipality, whichever is shorter, for the transmission and delivery of water for domestic use along, upon, under and across public highways, roads, alleys and thoroughfares (excepting State highways) within that portion of Maricopa County, Arizona, known and described as follows, to-wit:

TOWNSHIP 2 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOTS 1 THROUGH 4, INCLUSIVE; THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 1, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

ALL OF SECTION 11, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

ALL OF SECTION 12, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE NORTH HALF AND THE SOUTHWEST QUARTER OF SECTION 13, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 14, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE NORTH 282.91 FEET OF THE SOUTH 305.26 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, AND

EXCEPT THE SOUTH 282.91 FEET OF THE NORTH 478.97 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN. MARICOPA COUNTY. ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY ARIZONA.

PARCEL 10

THE NORTHWEST QUARTER OF SECTION 23, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE NORTHEAST QUARTER OF SECTION 24, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 12

THE WEST HALF OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 13

THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER, AND THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIANS MARICOPA COUNTY, ARIZONA.

PARCEL 14

THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 15

THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE EAST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 16

THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 17

THE SOUTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA,

PARCEL 18

THE EAST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MER1DIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S 00° 00' 05" SECONDS WEST, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990 74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23'E; THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38" W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29; AND,

EXCEPT THEREFROM THOSE PORTIONS LYING WITHIN THE FOLLOWING DESCRIBED PARCELS OF LAND:

TRACT NO. 1

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, 33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310 42 FEET;
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507 51 FEET;
THENCE N89°59'22"W, 33 00 FEET TO THE POINT OF BEGINNING.

TRACT NO. 2

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS N00°00'38"E, 2805.94 FEET FROM THE CORNER COMMON TO SECTIONS 29, 30, 31 AND 32;

THENCE N89°59'22"W, 33.00 FEET;
THENCE N07°33'28"W, 888.33 FEET TO THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET;
THENCE S08°19'27"W, 809.17 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING; AND

EXCEPT THEREFROM ANY PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING.

PARCEL 19

THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA. DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING,

EXCEPT THAT PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, .33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET,
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507.51 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

PARCEL 20

THE WEST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S00°00'05"W, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23"E;
THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF' SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29.

TOWNSHIP 3 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOT 3 OF SECTION 14, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

THE SOUTH HALF OF THE NORTHEAST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

LOTS 1 THROUGH 3, INCLUSIVE; THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 23, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

LOTS 2 THROUGH 4, INCLUSIVE, THE SOUTH HALF OF THE NORTHWEST QUARTER AND THE SOUTH HALF OF SECTION 24, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 25, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE EAST HALF AND THE EAST HALF OF THE WEST HALF OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE EAST HALF OF SECTION 27, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 35, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 1 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOTS THREE (3) AND FOUR (4) AND THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION FIVE (5), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION LYING WITHIN THE PHOENIX-EHRENBERG HIGHWAY (I-10) DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 3;
THENCE SOUTH 00 DEGREES 08 MINUTES 55 SECONDS EAST 187.60 FEET (SOUTH 187.18 FEET RECORD) ALONG THE EAST LINE OF SAID LOT 3 TO THE SOUTH RIGHT-OF-WAY OF SAID HIGHWAY;
THENCE NORTH 75 DEGREES 01 MINUTES 17 SECONDS WEST (NORTH 75 DEGREES 01 MINUTES 36 SECONDS WEST 725.36 FEET RECORD) ALONG SAID RIGHT-OF-WAY TO THE NORTH LINE OF SAID LOT 3;
THENCE SOUTH 89 DEGREES 59 MINUTES 34 SECONDS EAST 700.57 FEET (EAST 700.80 FEET RECORD) TO THE POINT OF BEGINNING.

PARCEL 2

THE WEST HALF OF THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE WEST HALF OF THE NORTHEAST QUARTER AND THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION EIGHT (8), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

THE WEST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE SOUTH 701.62 FEET THEREOF.

PARCEL 6

THE SOUTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE NORTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP I NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 2 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOTS 1 THROUGH 4, INCLUSIVE; THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 3, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

LOTS 1 THROUGH 4, INCLUSIVE; THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 4, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

LOTS 1 THROUGH 4, INCLUSIVE, THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 5, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

LOTS 1 THROUGH 7, INCLUSIVE; THE SOUTH HALF OF THE NORTHEAST QUARTER, THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE SOUTHEAST QUARTER AND THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 6, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 7, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 8, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 9, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE WEST HALF OF THE EAST HALF AND THE WEST HALF OF SECTION 10, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 15, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE NORTH HALF OF THE NORTHEAST QUARTER OF SAID SECTION.

PARCEL 11

THE NORTH HALF OF THE NORTHEAST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 12

THE EAST HALF OF SECTION 17, TOWNSHIP 2 NORTH, RANGE 5 WEST. OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 13

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 18, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 14

LOT 1, THE EAST HALF OF THE NORTHWEST QUARTER AND THE EAST HALF OF SECTION 19, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 15

THE EAST HALF OF THE NORTHEAST QUARTER, THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER, THE WEST HALF, AND THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 16

THE WEST HALF, THE WEST HALF OF THE EAST HALF, THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER AND THE SOUTH HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

> EXCEPT COMMENCING AT THE NORTHEAST CORNER OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 29; THENCE SOUTH 00 DEGREES 11 MINUTES 16 SECONDS WEST, ALONG THE EAST LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 1291.13 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 00 DEGREES 11 MINUTES 16 SECONDS WEST, 26.41 FEET; THENCE NORTH 89 DEGREES 25 MINUTES 24 SECONDS WEST, ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 808.80 FEET; THENCE NORTH 01 DEGREES 25 MINUTES 28 SECONDS WEST, 101.26 FEET; THENCE SOUTH 84 DEGREES 09 MINUTES 42 SECONDS EAST, 815.59 FEET TO THE POINT OF BEGINNING.

PARCEL 17

THE NORTHEAST QUARTER, THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE NORTH HALF OF THE SOUTHEAST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 18

GLO LOT (FRACTIONAL SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER) AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 19

THE EAST HALF OF THE EAST HALF OF SECTION 31, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 3 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOT 1, LOTS 4 THROUGH 7, INCLUSIVE; THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

LOTS 9 AND 10 OF SECTION 18, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

LOTS 2 THROUGH 6, INCLUSIVE; THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE EAST HALF OF THE SOUTHWEST QUARTER AND THE EAST HALF OF SECTION 19, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

ALL OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 21, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 28, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 29, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 30, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 31, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 33, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE EAST HALF OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

CONTAINING APPROXIMATELY 24,117 ACRES, MORE OR LESS. THIS AREA IS NOT BASED ON A FIELD SURVEY, BUT BASED ON CALCULATIONS DERIVED FROM SCANNED IMAGES OF 7.5 MINUTES SERIES NGS QUAD MAPS AND OTHER SCANNED MATERIALS WORKING WITHIN AN AUTOCAD DRAWING FILE.

No protests having been received, motion was made by Supervisor Wilson, seconded by Supervisor Stapley, and unanimously carried to grant the said franchise as applied for and to impose such restrictions and limitations upon said applicant as to the use of such public highways, roads, alleys and thoroughfares as may be deemed best for the public safety and welfare and to include in such franchise the statutory provisions set forth in Title 40, Chapter 2, Article 4, A.R.S., 1956, requiring the grantee of said franchise to pay such expenses, damages and compensations, if any, as may result from the use and operation of said franchise and as in said statute specified. (C0608022700) (F21283)

BEFORE THE BOARD OF SUPERVISORS

OF

MARICOPA COUNTY, STATE OF ARIZONA

IN THE MATTER OF THE APPLICATION OF	)	
	)	
	)	
	)	
Water Utility of Greater Tonopah, Inc.	)	FRANCHISE
	)	
	)	
	)	
_____	)	
FOR A FRANCHISE		

BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF MARICOPA COUNTY, STATE OF ARIZONA, THAT:

WHEREAS, Water Utility of Greater Tonopah hereinafter designated as the Grantee, doing business in Maricopa County, Arizona, bearing date of August 6, 2007, praying for the right, privilege, license and franchise to construct, maintain and operate a domestic water distribution system consisting of pipe lines, meters, connections and all necessary equipment for a period not to exceed twenty-five (25) years or for a period of one (1) year after the franchised area or a portion thereof is annexed by a municipality, whichever is shorter, for the supplying of this service, along, upon, under and across public highways, roads, alleys and thoroughfares (excepting State Highways), within that portion of Maricopa County, Arizona, known and described as follows, to-wit:

TOWNSHIP 2 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOTS 1 THROUGH 4, INCLUSIVE; THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 1, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

ALL OF SECTION 11, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

ALL OF SECTION 12, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE NORTH HALF AND THE SOUTHWEST QUARTER OF SECTION 13, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 14, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE NORTH 282.91 FEET OF THE SOUTH 305.26 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, AND

EXCEPT THE SOUTH 282.91 FEET OF THE NORTH 478.97 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN. MARICOPA COUNTY. ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY ARIZONA.

PARCEL 10

THE NORTHWEST QUARTER OF SECTION 23, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE NORTHEAST QUARTER OF SECTION 24, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 12

THE WEST HALF OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 13

THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER, AND THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIANS MARICOPA COUNTY, ARIZONA.

PARCEL 14

THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 15

THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE EAST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 16

THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 17

THE SOUTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA,

PARCEL 18

THE EAST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MER1DIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S 00° 00' 05" SECONDS WEST, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990 74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23'E; THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38" W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29; AND,

EXCEPT THEREFROM THOSE PORTIONS LYING WITHIN THE FOLLOWING DESCRIBED PARCELS OF LAND:

TRACT NO. 1

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, 33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310 42 FEET;
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507 51 FEET;
THENCE N89°59'22"W, 33 00 FEET TO THE POINT OF BEGINNING.

TRACT NO. 2

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS N00°00'38"E, 2805.94 FEET FROM THE CORNER COMMON TO SECTIONS 29, 30, 31 AND 32;
THENCE N89°59'22"W, 33.00 FEET;
THENCE N07°33'28"W, 888.33 FEET TO THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET;
THENCE S08°19'27"W, 809.17 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING; AND

EXCEPT THEREFROM ANY PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING.

PARCEL 19

THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA. DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING,

EXCEPT THAT PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, .33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET,
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507.51 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

PARCEL 20

THE WEST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S00°00'05"W, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23"E;
THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF' SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29.

TOWNSHIP 3 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOT 3 OF SECTION 14, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

THE SOUTH HALF OF THE NORTHEAST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

LOTS 1 THROUGH 3, INCLUSIVE; THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 23, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

LOTS 2 THROUGH 4, INCLUSIVE, THE SOUTH HALF OF THE NORTHWEST QUARTER AND THE SOUTH HALF OF SECTION 24, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 25, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE EAST HALF AND THE EAST HALF OF THE WEST HALF OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE EAST HALF OF SECTION 27, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 35, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 1 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOTS THREE (3) AND FOUR (4) AND THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION FIVE (5), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION LYING WITHIN THE PHOENIX-EHRENBERG HIGHWAY (I-10) DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 3;
THENCE SOUTH 00 DEGREES 08 MINUTES 55 SECONDS EAST 187.60 FEET (SOUTH 187.18 FEET RECORD) ALONG THE EAST LINE OF SAID LOT 3 TO THE SOUTH RIGHT-OF-WAY OF SAID HIGHWAY;

THENCE NORTH 75 DEGREES 01 MINUTES 17 SECONDS WEST (NORTH 75 DEGREES 01 MINUTES 36 SECONDS WEST 725.36 FEET RECORD) ALONG SAID RIGHT-OF-WAY TO THE NORTH LINE OF SAID LOT 3;
THENCE SOUTH 89 DEGREES 59 MINUTES 34 SECONDS EAST 700.57 FEET (EAST 700.80 FEET RECORD) TO THE POINT OF BEGINNING.

PARCEL 2

THE WEST HALF OF THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE WEST HALF OF THE NORTHEAST QUARTER AND THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION EIGHT (8), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

THE WEST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE SOUTH 701.62 FEET THEREOF.

PARCEL 6

THE SOUTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE NORTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP I NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 2 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOTS 1 THROUGH 4, INCLUSIVE; THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 3, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

LOTS 1 THROUGH 4, INCLUSIVE; THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 4, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

LOTS 1 THROUGH 4, INCLUSIVE, THE SOUTH HALF OF THE NORTH HALF AND THE SOUTH HALF OF SECTION 5, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

LOTS 1 THROUGH 7, INCLUSIVE; THE SOUTH HALF OF THE NORTHEAST QUARTER, THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE SOUTHEAST QUARTER AND THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 6, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 7, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 8, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 9, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE WEST HALF OF THE EAST HALF AND THE WEST HALF OF SECTION 10, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 15, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE NORTH HALF OF THE NORTHEAST QUARTER OF SAID SECTION.

PARCEL 11

THE NORTH HALF OF THE NORTHEAST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 12

THE EAST HALF OF SECTION 17, TOWNSHIP 2 NORTH, RANGE 5 WEST. OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 13

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 18, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 14

LOT 1, THE EAST HALF OF THE NORTHWEST QUARTER AND THE EAST HALF OF SECTION 19, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 15

THE EAST HALF OF THE NORTHEAST QUARTER, THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER, THE WEST HALF, AND THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 16

THE WEST HALF, THE WEST HALF OF THE EAST HALF, THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER AND THE SOUTH HALF OF THE SOUTHEAST QUARTER OF THE

NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPT COMMENCING AT THE NORTHEAST CORNER OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 29; THENCE SOUTH 00 DEGREES 11 MINUTES 16 SECONDS WEST, ALONG THE EAST LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 1291.13 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 00 DEGREES 11 MINUTES 16 SECONDS WEST, 26.41 FEET; THENCE NORTH 89 DEGREES 25 MINUTES 24 SECONDS WEST, ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 808.80 FEET; THENCE NORTH 01 DEGREES 25 MINUTES 28 SECONDS WEST, 101.26 FEET; THENCE SOUTH 84 DEGREES 09 MINUTES 42 SECONDS EAST, 815.59 FEET TO THE POINT OF BEGINNING.

PARCEL 17

THE NORTHEAST QUARTER, THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE NORTH HALF OF THE SOUTHEAST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 18

GLO LOT (FRACTIONAL SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER) AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 19

THE EAST HALF OF THE EAST HALF OF SECTION 31, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 3 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

LOT 1, LOTS 4 THROUGH 7, INCLUSIVE; THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

LOTS 9 AND 10 OF SECTION 18, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

LOTS 2 THROUGH 6, INCLUSIVE; THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE EAST HALF OF THE SOUTHWEST QUARTER AND THE EAST HALF OF SECTION 19, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

ALL OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 21, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 28, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 29, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 30, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

LOTS 1 THROUGH 4, INCLUSIVE; THE EAST HALF OF THE WEST HALF AND THE EAST HALF OF SECTION 31, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 33, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE EAST HALF OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

CONTAINING APPROXIMATELY 24,117 ACRES, MORE OR LESS. THIS AREA IS NOT BASED ON A FIELD SURVEY, BUT BASED ON CALCULATIONS DERIVED FROM SCANNED IMAGES OF 7.5 MINUTES SERIES NGS QUAD MAPS AND OTHER SCANNED MATERIALS WORKING WITHIN AN AUTOCAD DRAWING FILE.

And not within the confines of any incorporated city or town, and under such restrictions and limitations and upon such terms as the Board of Supervisors may provide, not inconsistent with the laws of the State of Arizona, or the orders and rules of the Corporation Commission of the State of Arizona, and that the Board take such proceedings herein as is provided by laws of the State of Arizona; and

WHEREAS, upon filing said application, the said Board of Supervisors on September 5, 2007 ordered that public notice of the intention of said Board to make such grants be given by publishing a notice in the official newspaper of Maricopa County, published in the County of Maricopa, State of Arizona, and that 9:00 a.m., on the 1st day of October, 2007, at the meeting room of said Board of Supervisors located at 205

West Jefferson Street, in the City of Phoenix, Arizona, be set as the time and place of hearing the said application; and

WHEREAS, the said application coming on regularly for hearing on said day and it appearing by the affidavit of the duly authorized agent of the said time and place set for the consideration of such application has been published for at least once a week for the three-week period prior to said date set forth herein, to-wit:

In the issues of the said newspaper on September 13, 20, and 27, 2007, and it appearing that no sufficient protest has been filed by the qualified electors of the said County petitioning said Board of Supervisors to deny such license and franchise, and it further appearing the best interests of Maricopa County will be served by the granting of said application and the franchise referred to therein;

NOW, THEREFORE, the Board of Supervisors of Maricopa County, State of Arizona, acting on behalf of said County does hereby grant unto Water Utility of Greater Tonopah, doing business in Maricopa County, Arizona, subject to the terms, conditions and limitations hereinafter contained, the right, privilege, license and franchise to construct, maintain and operate an extension to an existing domestic water distribution system, for a period of not to exceed twenty-five (25) years or for a period of one (1) year after the franchised area is annexed by a municipality, whichever is shorter, for the supplying of this service along, upon, under and across the pubic highways, roads, alleys and thoroughfares (excepting State highways) within that portion of Maricopa County, Arizona, hereinabove described, under such restrictions and limitations and upon such terms as this Board at any time may provided, not inconsistent with the laws of the State of Arizona, or the orders and rules of the Corporation Commission of the State of Arizona, specifically providing, however, that:

1) All rights hereunder are granted under the express condition that the Board of Supervisors of said Maricopa County shall have the power at any time to impose such restrictions and limitations and to make such regulations on such highways, roads, and thoroughfares as may be deemed best for the public safety, health, welfare and convenience.

2) All rights hereby granted shall be exercised so as to not interfere or conflict with any easements or rights-of-way heretofore granted by said Board of Supervisors and now in force.

3) All rights hereby granted shall be exercised so as not to interfere or conflict with any easement, either public or private, of whatsoever nature, which has been acquired in or to the proper use of said highway, roads, and thoroughfares, or any portion thereof.

4) All rights hereby granted shall be exercised so as not to interfere or conflict with or endanger in any way the proper use by the public of said highways, roads, and thoroughfares, or any portion thereof.

5) That the said Grantee shall bear all expenses incurred including damages and compensation for the alteration of the course, direction, surface, grade or alignment of any of the said highways, roads and thoroughfares necessarily made by the said grantee for the purpose of this franchise; that said grantee will maintain his equipment from time to time as may be needed, without the necessity of notice from Maricopa County. In the event the said grantee shall fail to make any repairs within ten days from the time same becomes necessary, then Maricopa County may cause the same to be made, and said grantee agrees to pay Maricopa County the cost thereof.

6) That all property of the franchise be installed and operated by the said grantee and shall be placed, removed or relocated, initially and throughout the term of this franchise, along, in, over, under and across the said highway, roads and thoroughfares, in such a manner and location as the Board of Supervisors or its duly authorized agents may designate. Such placement, removal or relocation shall be done at the sole expense of the grantee upon a determination by the Board of Supervisors of Maricopa County that such placement; removal or relocation is necessary.

If the grantee fails or refuses to so remove or relocate, Maricopa County may so remove or relocate, at the sole expense of grantee, such expense to include any and all damages and compensation of whatsoever nature arising therefrom.

In this section the term "property" includes conduits, pipe, wires, poles, or other structures and appliances used to supply or deal in gas, electricity, lights, water, heat, refrigeration, power, telephones, telegraph, television and other public utilities.

Any finding or determination made by the Board of Supervisors pursuant hereto shall be final and binding upon the grantee whether or not such findings or determinations relates to the requirements of public safety or welfare, the use of public roads or the need for proposed improvements, and whether or not the function to be served by such removal or relocation is of a governmental or proprietary nature.

7) That said grantee shall indemnity and save harmless, the said County of Maricopa from all costs, expense and liabilities in connection with the granting of this franchise and exercise of the same by them.

8) That the rights of any person claiming to be injured in any manner by the maintenance of said projects and equipment shall not be affected hereby.

9) That the terms and conditions of this franchise shall inure to the benefit of, and be binding upon, all the heirs and assigns of the said Grantee.

10) That the franchise and privilege herein granted shall not be deemed to be exclusive and the said Board of Supervisors hereby expressly reserves the right and power to grant from time to time similar franchises and privileges over the same territory and highways, roads and thoroughfares.

11) This franchise is granted upon the express condition that the Certificate of Convenience and Necessity be procured from the Corporation Commission of the State of Arizona no later than June 30, 2008, and proof thereof submitted to the Board of Supervisors; and if such Certificate is not granted by June 30, 2008, then this franchise may be declared void.

12) That no facilities shall be installed until the Certificate of Convenience and Necessity be procured from the Corporation Commission of the State of Arizona and such Certificate has been delivered to the Board of Supervisors.

13) This franchise is granted upon the express condition that all of the Property Tax obligations of the franchisee shall remain current and if such taxes are not current, then this franchise extension is deemed void.

14) All materials and construction methods used with the public right-of-way shall conform to the applicable standards, specifications and special provisions currently in effect in Maricopa County.

15) The Franchise holder shall obtain a construction permit from the Office of the County Engineer prior to construction of any facilities in the public right-of-way.

DATED this 1st day of October 2007.

Chairman, Board of Supervisors

ATTEST:

Clerk, Board of Supervisors

EXHIBIT A-23

BEFORE THE ARIZONA CORPORATION COMMISSION

RECEIVED

2007 AUG -6 P 4: 28

AZ CORP COMMISSION
DOCKET CONTROL

COMMISSIONERS
MIKE GLEASON, Chairman
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
KRISTIN K. MAYES
GARY PIERCE

IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF GREATER TONOPAH, INC., AN ARIZONA CORPORATION, FOR AN EXTENSION OF ITS EXISTING CERTIFICATE OF CONVENIENCE AND NECESSITY.	Docket No. W-02450A-06-0626 **RESPONSE TO STAFF REPORT**

The Water Utility of Greater Tonopah ("Tonopah") provides this brief response to the Staff Report filed on July 23, 2007. Tonopah requests that the deadline for filing the "Approval of Construction" or "AOC" be extended to three years. Staff Condition No. 3 recommends a deadline of two years for the AOC. However, Tonopah believes that a deadline of three years would be more realistic. Tonopah has no other objections to the Staff Report.

RESPECTFULLY SUBMITTED this 6th day of August 2007.

ROSHKA DEWULF & PATTEN, PLC

By _____
Michael W. Patten
Timothy J. Sabo
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

EXHIBIT
A23
admitted

Original + 13 copies of the foregoing
Notice was filed this 6th day of August 2007, with:

Docket Control
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Copies of the foregoing were hand-delivered/mailed
this 6th day of August 2007, to:

Lyn A. Farmer, Esq.
Chief Administrative Law Judge
Hearing Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Ernest Johnson, Esq.
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Kevin Torrey, Esq.
Legal Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

By _____

ROSHKA DEWULF & PATTEN, PLC
ONE ARIZONA CENTER
400 EAST VAN BUREN STREET - SUITE 800
PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800

EXHIBIT A-24

BEFORE THE ARIZONA CORPORATION COMMISSION

RECEIVED

2008 OCT 12 P 4: 03

AZ CORP COMMISSION
DOCKET CONTROL

COMMISSIONERS
MIKE GLEASON, Chairman
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
KRISTIN K. MAYES
GARY PIERCE

IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF GREATER TONOPAH, INC. FOR APPROVAL OF AN EXTENSION OF ITS CERTIFICATE OF CONVENIENCE AND NECESSITY TO PROVIDE WATER UTILITY SERVICE IN MARICOPA COUNTY, ARIZONA	Docket No. W-02450A-06-0626
IN THE MATTER OF THE APPLICATION OF HASSYAMPA UTILITY COMPANY, INC., FOR APPROVAL OF AN EXTENSION OF ITS CERTIFICATE OF CONVENIENCE AND NECESSITY TO PROVIDE WASTEWATER UTILITY SERVICE IN MARICOPA COUNTY, ARIZONA	Docket No. SW-20422A-06-0566

RESPONSE TO STAFF REPORT

Water Utility of Greater Tonopah, Inc. ("WUGT" or "Tonopah") and Hassayampa Utility Company ("HUC" or "Hassayampa")(collectively, the "Global Utilities") respectfully submit these responses to the September 28, 2008 Staff Report in this matter regarding Hassayampa.

I. Condition No. 2 (Franchise).

This condition is not necessary because Hassayampa will have a franchise by the time of the hearing. Accordingly, this condition should be deleted once evidence of the franchise is submitted at the hearing.

II. Condition No. 3 (Water Reclamation Facility ATC).

This condition requires Hassayampa to obtain an "Approval to Construct" or "ATC" for the planned Campus 1 Water Reclamation Facility ("WRF"). Hassayampa suggests that the condition not specify the exact facility to be constructed. Instead, HUC suggests that the condition be modified to require Hassayampa to file an ATC for a WRF with capacity sufficient to meet the

EXHIBIT A24 admitted

requirements of the initial phase of development. The key point is that sufficient capacity be available to serve customers, not the identity or location of the WRF. Hassayampa's master plan for the region includes several WRFs. Although at this time, Hassayampa plans to construct the Campus 1 WRF first, those plans may change. Depending on where development occurs first, it may be prudent to construct one of the other WRF first. In addition, Hassayampa's parent company, Global Water, Inc., recently signed an agreement to acquire a neighboring wastewater utility, Balterra Sewer Corp. The Balterra transaction will not close without an approval or waiver from the Commission. If the Commission allows the Balterra transaction to go forward, Hassayampa's regional plans could change. It may be more efficient and economical for HUC to purchase capacity from Balterra, or to construct a shared facility with Balterra. Or it may be better for Hassayampa to construct one of the other WRFs first. Hassayampa should follow the most practical and efficient method of obtaining the needed capacity – an approach that will benefit the ratepayers in the long run. The alternative approach of specifying the exact facility and its location is too rigid and therefore may result in less-than-optimal facilities being constructed simply to comply with the requirement. Hassayampa believes that the public interest requires that sufficient capacity be available, but does not require that specific plants be constructed in a specific sequence. The same Maricopa County Environmental Services Department and Arizona Department of Environmental Quality approvals are required regardless of the location associated with the initial treatment site.

In addition, based on current estimates of development activity and permitting process times, Hassayampa recommends that this requirement be due in two years from the effective date of the Commission's order.

Therefore, Hassayampa proposes the following alternative condition: "To require Hassayampa to file with Docket Control, as a compliance item in this docket, a copy of the ATC issued by MCESD for a WRF with sufficient capacity to serve the initial phase of development of the extension area."

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III. Condition No. 4 (ATC for sewer tie-in).

The proposed Campus 1 WRF is not located in the extension area. Thus, this condition requires an ATC for a sewer tie-in between Campus 1 WRF and the extension area. However, as noted above, constructing Campus 1 first may or may not be the best approach. HUC requests flexibility as to this condition. If a WRF is constructed within this extension area, then no tie-in is necessary. And if one of the other WRFs is constructed first, or a WRF is built in the Balterra area, then the tie-in would be with a different facility. In addition, as with condition 3, Hassayampa believes that two years is a better deadline for this condition. Thus, Hassayampa proposes that this condition be modified as follows: "To require Hassayampa to file with Docket Control, as a compliance item in this docket, a copy of the ATC issued by MCESD for the sewer tie-in between the extension area and the WRF specified in condition 3 within two years of the effective date of this decision, unless the WRF is constructed within the extension area, in which case Hassayampa shall file a notice to that effect with Docket Control, as a compliance item in this docket, within two years of the effective date of this decision."

IV. Condition No. 5 (APP or AZPDES).

This condition requires Hassayamapa to file an APP and/or AZPDES "for the WRF Campus No. 1." As discussed above, Hassayamapa requests the flexibility to not proceed with Campus 1 right away if other alternatives prove more economical and are better suited to the regional plan. Therefore, Hassayampa requests that this condition be modified as follows: "to require Hassayampa to file with Docket Control as a compliance item in this docket, copies of the APP and/or AZPDES issued by the Arizona Department of Environmental Quality for the WRF specified in Condition No. 3."

V. Condition No. 6 (previous decisions).

This condition requires that Hassayampa follow the requirements and conditions in Decision No. 68922 (August 29, 2006), as modified by the Commission's Procedural Order dated June 18, 2007 in that docket. This is an unusual condition. Staff has not specified any unusual circumstances which would require this condition. The previous decision can stand on its own

feet, and there is therefore no need to incorporate it by reference in this case. Moreover, it may create unnecessary complexity and confusion. For example, will Hassayamapa be required to file proof of compliance in both dockets?

VI. Additional comments regarding July 23, 2007 Staff Report.

WUGT makes the following additional points regarding the July 23, 2007 Staff Report. Regarding the first condition, the concept is fine, but the wording does have a minor technical problem. The phrase "stating that there is adequate water for the area being requested" does not match the wording used by ADWR in its DAWS. The DAWS will instead mention a specific quantity of water. However, the DAWS will typically include a reference to the Commission Decision Number(s) that it applies to. The quoted language should be replaced with "relating to this CC&N extension." In addition, WUGT requests the flexibility to submit either a DAWS or a Certificate of Assured Water Supply ("CAWS").

Regarding Condition 3, as noted in WUGT's August 6 response, WUGT requests that the deadline be set at three years. In addition, WUGT has discovered a potential ambiguity in this condition regarding the definition of "Phase I". Staff's engineering memorandum refers to Phase I on page 4, and notes that certain facilities are anticipated to be operational in 2009, and other facilities in Phase I are expected to be operational by 2012 (e.g. the surface water treatment plant). The 2009 facilities may be referred to as "Phase I.A" and the 2012 facilities as "Phase I.B." The staff report recommends that an AOC be filed for Phase I within two years. WUGT believes that Staff is referring to Phase I.A, because Phase I.B will not be operational until 2012. Thus, this condition should be clarified. And again, WUGT requests that the deadline for AOC for Phase I.A be three years, not two years.

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RESPECTFULLY SUBMITTED this 12th day of October 2006.

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By _____
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Original + 15 copies of the foregoing
filed this 12th day of October 2007, with:

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Copies of the foregoing hand-delivered/mailed
This 12th day of October 2007, to:

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EXHIBIT A-25

BEFORE THE ARIZONA CORPORATION COMMISSION

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DOCKET CONTROL

COMMISSIONERS
MIKE GLEASON, Chairman
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
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GARY PIERCE

IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF GREATER TONOPAH, INC., AN ARIZONA CORPORATION, FOR AN EXTENSION OF ITS EXISTING CERTIFICATE OF CONVENIENCE AND NECESSITY.	Docket No. W-02450A-06-0626
IN THE MATTER OF THE APPLICATION OF HASSAYAMPA UTILITY COMPANY, INC., AN ARIZONA CORPORATION, FOR AN EXTENSION OF ITS EXISTING CERTIFICATE OF CONVENIENCE AND NECESSITY.	Docket No. SW-~~0242~~204A-06-0566

REVISED RESPONSE TO STAFF REPORT

The Water Utility of Greater Tonopah ("WUGT") and Hassayampa Utility Company, Inc. ("HUC") (collectively "Global Utilities") respectfully submit a revised Response to Staff Report in this matter. This Revised Response replaces the Response to Staff Report filed on October 12, 2007. The Global Utilities also are submitting information identified in the November 14, 2007, Procedural Order with regard to the Supplemental Staff Report to be filed on December 10, 2007.

I. <u>Response to September 28, 2007 Staff Report regarding HUC.</u>

A. Condition No. 2 (Franchise).

This condition is no longer necessary because HUC filed proof of the required franchises in this docket on October 26, 2007.

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admitted

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B. Condition No. 3 (Water Reclamation Facility ATC).

1. Summary.

This condition requires HUC to obtain an "Approval to Construct" or "ATC" for the planned Campus 1 Water Reclamation Facility ("WRF") – the WRF located in the Hassayampa Ranch development. Although HUC previously requested modification of this condition, HUC is now withdrawing the request for modification of the condition in light of its discussions with Staff. Although HUC is still proposing a regional plan for service to this requested CC&N area, consistent with the 208 Plan that has been recommended by the Maricopa Association of Governments ("MAG"), HUC intends to seek approvals for the Campus 1 WRF as set forth in its original September 5, 2006 engineering memorandum submitted as part of the Application in this docket. Therefore, HUC is also withdrawing the revised engineering memorandum submitted in this docket on November 5, 2007 (as corrected on November 15, 2007).

2. Proposed HUC Service Plan for CC&N Extension Area.

The original September 5, 2006 engineering memorandum contemplates a regional approach to the development of water reclamation facilities. While there has been significant discussion over the timing and sequence of the three facilities specifically identified in the September 5, 2006 memorandum, the servicing concept always included the potential for construction of lift stations in advance of treatment facilities depending on the rate and location of growth.

This approach is also consistent with the MAG 208 Plan amendments for the area. However, Buckeye's now-rescinded objections to the necessary MAG 208 Plan amendments, including the Hassayampa Ranch Water Reclamation facility ("HRWRF"), delayed approval of the necessary MAG 208 amendments for almost two and a half years. The significant delay in the MAG 208 Plan amendment process has resulted in delays associated with the ability to meet timelines for the entire area, including permitting and development activities for the Hassayampa Ranch development, as well as the other developments within the requested CC&N extension.

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In light of these facts and in an effort to effectuate its regional plan in a manner to accommodate the large and dynamic development landscape in the CC&N extension area, HUC submitted a response to the September 28, 2007 Staff Report requesting latitude and flexibility with the location and timing of the infrastructure to be built to service the extension area requested in Docket 06-0566. In response to discussions with Staff, HUC then submitted a revised engineering service memorandum (dated November 5, 2007) to support HUC's requested modifications to certain proposed conditions included related to construction of WRFs.

HUC met with Staff after the submission of the November 5, 2007 engineering report. Staff continued to express interest in understanding which WRF would be constructed first. During the discussions, Staff suggested that HUC contact the developers requesting service in this docket and revisit its servicing plan in order to assess HUC's ability to comply with Decision 68922, which requires an ATC for the HRWRF by July 31, 2008, or whether HUC believed another WRF would be constructed first.

In order to clarify and update its servicing plan, HUC discussed options internally and with the land owners/developers and has decided that the original *September 5, 2006 engineering servicing memorandum is still valid.* With ADEQ approval of the 208 Plan amendments due in the next month, permitting activities (APP, AzPDES, SUP, ATC), as well as development related activities such as platting, can resume in early 2008.

3. Overview of HUC Service Planning.

Finally, in order to provide context for HUC's revised position, HUC has set forth below an overview of the evolution of its planned wastewater treatment service for the entire CC&N area, including the interplay of the MAG 208 process with the CC&N process.

a. Initial HUC CC&N

On September, 19 2005, Hassayampa Utility Company ("HUC") filed an application for a new CC&N to serve the Hassayampa Ranch development, comprising approximately 2050 acres. This application (Docket 05-0659) was approved by the Commission in Decision No. 68922 on August 26, 2006. As a condition of this CC&N approval, HUC was to file an approved MAG 208

Water Quality Management Plan ("MAG 208 Plan") identifying the Hassayampa Ranch Water Reclamation Facility ("HRWRF") as the treatment facility for the development.

HUC had in fact submitted its application for a MAG 208 Plan amendment in June 2005. However, due to the proximity of the Town of Buckeye ("Buckeye") to the proposed MAG 208 Plan amendment area, Maricopa County Environmental Services Department ("MCESD") required that a "Letter of No Objection" be obtained from Buckeye prior to sponsorship. At the time, Buckeye had significant annexation plans in the area and would not provide the Letter of No Objection. As discussed below, Buckeye's position effectively stalled the MAG 208 Plan amendment activity – precluding its completion until late 2007.

b. Current HUC/WUGT Application for CC&N Expansion

In late 2005/early 2006, HUC was approached by a number of larger developers in the West Valley, most notably Belmont, who requested HUC participate in providing integrated water, wastewater and recycled water services. Concurrently, HUC's parent company, Global Water Resources ("Global") had been in negotiations to acquire the West Maricopa Combine utilities, which included WUGT, the CC&N holder for a significant portion of the area under consideration by the development community.[1] This acquisition activity was completed July 11, 2006 and HUC and WUGT will be able to provide integrated water, wastewater and recycled water service to the developments.

In September 2006, HUC applied for a CC&N extension to incorporate those developments requesting service (Belmont, 339th Avenue, Silver Springs Ranch, Copper Leaf, etc.). As part of its Application, HUC submitted an engineering memorandum setting forth the following proposed servicing schedule:[2]

- Year 1: The Campus 1 WRF will be operational and expanded as necessary to accept the additional 0.45 MGD flows generated in the service area in Year 1. The tie-in between

[1] WUGT was the approved water service provider for the Hassayampa Ranch development (Decision No. 68307, dated November 14, 2005).

[2] The timelines were based on development schedules provided by landowners/developers.

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Campus 1 WRF (initially serving Hassayampa Ranch) and Belmont will be constructed. The main trunk sewer line will be constructed in the Silver Springs Ranch development to accommodate development in Silver Springs Ranch and the southern portion of Copperleaf. The majority of the sewer lines will be constructed within the 339th Avenue development.

- Year 2: The first phase of Campus 2 WRF in the 339th Avenue development will be constructed. The remaining sewer lines in the 339th Avenue development will be constructed. The sewer collection systems in the eastern Belmont area, Silver Springs Ranch, Copperleaf and Silver Water Ranch will be expanded.
- Year 3: The Campus 3 WRF in the Silver Water Ranch development will be constructed. A boring beneath I-10 will be constructed to convey wastewater from the southern portion of the Belmont development to Campus 2 WRF. The sewer collection systems in the eastern Belmont area, Silver Springs Ranch, Copperleaf and Silver Water Ranch will be expanded. The main trunk sewer line in the western portion of the Belmont development will be constructed.
- Year 4: A boring beneath I-10 boring will be constructed to convey flows from the Copperleaf development to the Campus 3 WRF in Silver Springs Ranch.
- During Years 4 and 5, the sewer collection system will be expanded in all developments (except 339th Avenue which should be completed in year 3 in line with anticipated development for these years.

c. Amended MAG 208 Plan

In June 2006, HUC prepared a revised MAG 208 Plan amendment which subsumed the original application of June 2005, and included the areas associated with the proposed developments covered by the CC&N extension in this docket. In conjunction with MCESD, this MAG 208 Plan amendment was delineated not on property boundaries, but on definable "sewer-sheds" which allowed for the greatest flexibility of treatment plant location and maximizing gravity sewer services. In order to prevent conflict with the existing Balterra Sewer Corp

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("Balterra") MAG 208 Plan amendment, MCESD requested the HUC application be divided into two sections: Northeast and Southwest. The Northeast MAG 208 Plan amendment included the original HRWRF facility, and proposed an additional three water reclamation facilities to service the region in a consolidated manner.

Between February 2007 and November 2007, the HUC Northeast MAG 208 Plan Amendment (which includes HRWRF) proceeded through the MAG approval process, with significant attempts by the Town of Buckeye to defeat or delay its approval. After an overall delay of more than two years due to Buckeye's objections (which related to water issues, not 208 planning issues), the Northeast 208 finally achieved MAG approval on October 24, 2007. The catalyst in the reversal by Buckeye was the execution of a memorandum of understanding, designed to assure shared stewardship of the water resource management of the Hassayampa Sub-Basin (unrelated to 208 issues, but nonetheless important to both parties). The next step of approval at the State Water Quality Working Group is scheduled for 3 December 2007, and then onto ADEQ for certification early next year.

d. Extension of Original HUC Compliance Dates

HUC recognized that compliance items from Decision 68922 were compromised by the delays caused by Buckeye's objections to the HUC 208s - first the June 2005, then the May 2006, and finally the October 2006 version. An extension request was filed April 20, 2007 and approved in July 2007. The new deadline for submitting the MAG 208 Plan covering the Hassayampa Ranch CC&N area is April 30 2008.

e. HRWRF ATC due July 31, 2008

Now that the MAG HUC NE 208 approval is on track, HUC is diligently pursuing the ATC for the HRWRF and intends to submit it by its compliance date of July 31, 2008 (as required by Decision No. 68922), subject to any delays at the jurisdictional authority (MCESD).

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f. Acquisition of Balterra Sewer Company

HUC's parent, Global Water, recently entered into an agreement to acquire Balterra Sewer Company, subject to Commission approval. The potential addition of this service area also affected HUC's service planning analysis between September 2006 and October 2007.

C. Condition Nos. 4 and 5.

HUC had previously requested modifications to these two conditions. However, given its position on Condition No. 3, as set forth above, HUC now agrees with this condition.

D. Condition No. 6 (previous decisions).

This condition requires that HUC follow the requirements and conditions in Decision No. 68922 (August 29, 2006), as modified by the Commission's Procedural Order dated June 18, 2007 in that docket. Although HUC may be required to file the same proof of compliance for each Decision, HUC does not object to this condition.

II. Supplemental Comments to July 23, 2007 Staff Report regarding WUGT.

As previously set forth in the October 12, 2007 Response to Staff Report, WUGT reiterates the following additional points regarding the July 23, 2007 Staff Report on the WUGT CC&N extension. Regarding the first condition, the concept is fine, but the wording does have a minor technical problem. The phrase "stating that there is adequate water for the area being requested" does not match the wording used by ADWR in its DAWS. The DAWS will instead mention a specific quantity of water. However, the DAWS will typically include a reference to the Commission Decision Number(s) that it applies to. The quoted language should be replaced with "relating to this CC&N extension." In addition, WUGT requests the flexibility to submit either a DAWS or a Certificate of Assured Water Supply ("CAWS").

Regarding Condition 3, as noted in WUGT's August 6, 2007 response, WUGT requests that the deadline be set at three years. In addition, WUGT has discovered a potential ambiguity in

this condition regarding the definition of "Phase I". Staff's engineering memorandum refers to Phase I on page 4, and notes that certain facilities are anticipated to be operational in 2009, and other facilities in Phase I are expected to be operational by 2012 (e.g. the surface water treatment plant). The 2009 facilities may be referred to as "Phase I.A" and the 2012 facilities as "Phase I.B." The staff report recommends that an AOC be filed for Phase I within two years. WUGT believes that Staff is referring to Phase I.A, because Phase I.B will not be operational until 2012. Thus, this condition should be clarified. And again, WUGT requests that the deadline for AOC for Phase I.A be three years, not two years.

III. Information Responding to November 14, 2007 Procedural Order.

HUC and WUGT submit the following information in response to the November 14, 2007 procedural order.

1. HUC and WUGT are in compliance with Decision Nos. 68922 and 68307, respectively.

2. HUC has no infrastructure permitted, constructed or operating in the original CC&N area due to the substantive delays in the MAG 208 process. To date, no hard infrastructure has been installed, and the number of customers in the original CC&N is zero.

RESPECTFULLY SUBMITTED this 27th day of November 2007.

ROSHKA DEWULF & PATTEN, PLC

By _____

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EXHIBIT A-26

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

JEFF HATCH-MILLER, Chairman
WILLIAM A. MUNDELL
MIKE GLEASON
KRISTIN K. MAYES
BARRY WONG

Arizona Corporation Commission
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AUG 29 2006
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IN THE MATTER OF THE APPLICATION OF HASSAYAMPA UTILITIES COMPANY, INC. FOR A CERTIFICATE OF CONVENIENCE AND NECESSITY.

DOCKET NO. SW-20422A-05-0659

DECISION NO. 68922

OPINION AND ORDER

DATE OF HEARING: June 22, 2006

PLACE OF HEARING: Phoenix, Arizona

ADMINISTRATIVE LAW JUDGE: Amy Bjelland

APPEARANCES: Michael Patten, ROSHKA, DeWULF & PATTEN, on behalf of Hassayampa Utilities; and

Linda Fisher, Staff Attorney, Legal Division, on behalf of the Utilities Division for the Arizona Corporation Commission.

BY THE COMMISSION:

On September 19, 2005, Hassayampa Utilities Company, Inc. ("Hassayampa", "Applicant", or "Company") filed with the Arizona Corporation Commission ("Commission") an application for a Certificate of Convenience and Necessity ("Certificate") to provide wastewater service to the Hassayampa Ranch development in Maricopa County, Arizona ("Application").

On October 19, 2005, the Commission's Utilities Division ("Staff") issued an insufficiency letter.

On October 21, 2005 and January 10, 2006, Hassayampa filed responses to Staff's insufficiency letter.

On March 27, 2006, the Commission's Utilities Division ("Staff") filed a sufficiency letter[1].

[1] This letter was inadvertently filed under an incorrect docket number. A duplicate sufficiency letter was filed in the correct docket on April 11, 2006.

EXHIBIT A26 admin notice

On April 11, 2006, by Procedural Order, the hearing in this matter was rescheduled for June 22, 2006[2].

On April 26, 2006, Hassayampa filed its notices of filing affidavit of mailing and of publication.

On May 26, 2006, Staff docketed its Staff Report, recommending approval of the Application subject to several conditions.

On June 9, 2006, Hassayampa filed its Objections to Staff Report.

On June 22, 2006, a hearing convened before a duly authorized Administrative Law Judge of the Commission. Both parties were represented by counsel. At the conclusion of the hearing, the matter was taken under advisement pending issuance of a Recommended Opinion and Order.

On June 30, 2006, Staff filed a Notice of Errata to make corrections to an exhibit it entered at hearing.

* * * * * * * * * *

Having considered the entire record herein and being fully advised in the premises, the Commission finds, concludes, and orders that:

FINDINGS OF FACT

1. Applicant is a corporation formed for the purpose of providing wastewater utility service within portions of Maricopa County, Arizona to the Hassayampa Ranch development ("Hassayampa Ranch"). Hassayampa Ranch is located west of the Town of Buckeye and three miles north of Interstate 10, and consists of approximately 2,050 acres. Applicant is a wholly owned subsidiary of Global Water Resources, Inc.

2. Harvard Investments, Inc. is the developer of Hassayampa Ranch, and it is expected that by the end of the fifth year of operations, Hassayampa will serve approximately 3,000 residential customers and 1 irrigation customer. Hassayampa Ranch Ventures, LLC, requested wastewater service from Applicant. Water utility service will be provided by the Water Utility of Greater Tonopah.

[2] By Procedural Order on March 28, 2006, a hearing was scheduled for June 29, 2006. On April 7, 2006, Hassayampa filed a Motion to Reschedule Hearing Date stating that counsel would be unavailable for the hearing and that counsel for Staff agreed with the rescheduling of the hearing to either June 22 or June 23, 2006.

3. Hassayampa will install an enclosed sequential batch reactor wastewater treatment plant in two phases. The plant will have an ultimate capacity of 3.2 million gallons per day ("MGD") of wastewater flow. Staff concluded that the Company will have adequate treatment capacity to service the expected growth in the requested area.

4. The treated effluent will be disposed of in surface water impoundment systems such as irrigation and ponds. Graham Symmonds, Senior Vice President of Operations and Compliance for Global Water Resources, Inc., testified that initially there will be a one MGD treatment plant. Mr. Symmonds stated that Hassayampa has 19.7 acres set aside for the treatment facility, with the option of acquiring additional land if necessary to facilitate a regional approach to providing wastewater utility services. Mr. Symmonds also testified that Global Water Resources, Inc., has a "very high mandate for reclaimed water use," and therefore requires developers to use reclaimed water to the largest possible extent. Tr. at 20. Mr. Symmonds further testified that for golf courses and irrigation of any boulevard areas throughout the development, Hassayampa will provide reclaimed water. Tr. at 25.

5. The Maricopa County Environmental Services Department ("MCESD") requires the proposed treatment plant and sewage collection system to obtain Certificates of Approval to Construct ("ATC") and Approval of Construction ("AOC"). Staff recommended that Hassayampa file with Docket Control, as a compliance item in this docket, copies of the ATC issued by MCESD for the proposed Phase I treatment plant and sewer collection system no later than July 1, 2007. Staff further recommended that Hassayampa file with Docket Control, as a compliance item in this docket, copies of the AOC issued by MCESD for the proposed Phase I treatment plant and sewer collection system no later than April 30, 2008.

6. At hearing, Dorothy Hains, Utility Engineer for Commission Staff, recommended that Hassayampa file a pretreatment tariff with the Commission when it becomes available. Tr. at 28. Mr. Symmonds testified that Hassayampa supports the pretreatment tariff concept. Tr. at 23. He explained that a pretreatment tariff relates to the Clean Water Act and is for industrial wastewater utility customers. Tr. at 23. Mr. Symmonds stated that a pretreatment tariff ensures that if such a customer discharges something into the sewer that causes a permit violation or fails to maintain

permit compliance, Hassayampa could shut that customer down. Tr. at 24.

7. Sewer companies are required by the Arizona Department of Environmental Quality ("ADEQ") to obtain an Aquifer Protection Permit ("APP") and/or Arizona Pollutant Discharge Elimination System ("AZPDES") permit before the plant can be placed in service. Approval by the Maricopa Association of Governments ("MAG") for Section 208 Plan amendment will also be necessary. Hassayampa has applied for, but not yet received, its 208 Plan approval. Staff recommended that Hassayampa file with Docket Control, as a compliance item in this docket, a copy of the MAG approved 208 Plan with a map of Hassayampa's 208 Master Plan boundary no later than April 30, 2007. Staff further recommended that Hassayampa file with Docket Control, as a compliance item in this docket, a copy of the notice issued by ADEQ showing Hassayampa's APP and/or AZPDES has been approved no later than April 30, 2008.

8. Hassayampa has estimated costs of the plant to serve Hassayampa Ranch at year five to be $16,058,300. Staff concluded that the estimated costs are reasonable and appropriate for this project. However, no "used and useful" determination of the proposed plant in service was made, and no conclusions should be inferred for rate making or rate base purposes.

9. Staff estimated that Applicant's fair value rate base would be $4,464,201 in its fifth year. We find Staff's projected fair value rate base for Hassayampa to be reasonable and appropriate.

10. Staff has developed typical and customary depreciation rates within a range of anticipated equipment life, reflected in Table 1 of Exhibit 2, attached to the Staff Report. Staff recommended that Hassayampa be ordered to adopt the depreciation rates by individual National Association of Regulatory Utility Commissioners ("NARUC") category, as shown on Table 1 of Exhibit 2 (Engineering Memorandum).

11. Hassayampa's advances-in-aid-of-construction ("AIAC") are estimated at the end of year 5 to be $9,255,920, representing approximately 57 percent of estimated gross capital expenditures of $16,058,300. For the same period, Hassayampa projects a net balance of $0.00 for contributions-in-aid-of-construction ("CIAC"). Generally, the total AIAC and CIAC should not exceed 25 to 30 percent of the related estimated capital expenditures. Over-reliance on AIAC and CIAC can lead to improperly capitalized private water and wastewater companies. However, Staff

noted that Hassayampa will have approximately 46 percent in equity capital at the end of year 5. The total equity balance at that time is estimated to be $7,976,530. A 46 percent equity balance will provide some assurance as to Hassayampa's continued access to capital markets for further expansion beyond year 5. In its Staff Report, Staff recommended that Hassayampa be required to make its initial equity investment of $7,150,000 in year one as indicated in its Pro Forma Balance Sheet (Sewer), Attachment C to Hassayampa's Application. At hearing, Staff revised its recommendation to require the Company to have no less than $7,150,000 in equity by the end of the first year of operations; that the Company should be required to file a notice that this condition has been satisfied 90 calendar days after the end of the first year of operations; and that the Company agrees that subsequent equity contributions may be governed by any decision reached in Docket No. W-00000C-06-0149[3]. Staff testified that it anticipates that the Company's conformance to Docket No. W-00000C-06-0149 will be evaluated in the Company's next general rate filing. Hassayampa concurred with Staff's language as proposed at hearing. Tr. at 14. We concur with Staff's original recommendation that Staff's recommended rates be amended, if necessary, to conform with the Commission decision in Docket No. W-00000C-06-0149.

12. Staff analyzed the Company's projected revenues and expenses for five years, but concentrated on the fifth year of operation when breakeven or profitability is usually expected. In year five, Staff projected that Hassayampa would have total revenues of $1,928,427; total operating expenses of $1,570,480; and operating income of $357,947. Staff recommended that the Company be ordered to file a rate case in its sixth year of operations, using the fifth year as the test year.

13. Hassayampa requested rates based upon water usage. However, Staff recommended adoption of a flat monthly fee of $54.25 for 5/8 x ¾ inch and ¾ inch meter customers. Staff also recommended a non-sufficient funds ("NSF") check charge of $25.00, as this is consistent with the industry standard. Hassayampa objected to Staff's proposed revenues, arguing that revenues should be increased to reflect Staff's proposed depreciation rates. Hassayampa also argued that Staff's rate

[3] Generic docket for investigating different mechanisms for financing water and wastewater facilities and related issues.

multiples for larger meters do not reflect the extra capacity required to serve customers that require larger meters.

14. At hearing, Jamie Moe, Public Utility Analyst V, provided a revised schedule of recommended rates and charges that modified the rates and charges for larger meters. Cindy Liles, Chief Financial Officer and Senior Vice President for Growth Management for Hassayampa's parent company, Global Water Resources, Inc., testified that the revised rates and changes were acceptable to Hassayampa. Applicant's proposed rates and charges for initial wastewater service and Staff's recommendations as revised at hearing are as follows:

Monthly Wastewater Service	Company Proposed	Staff Recommended
Residential & Commercial Service		
5/8 x 3/4 inch	$52.00	$54.25
3/4 inch	52.00	54.25
One inch	130.00	135.00
1-1/2 inch	260.00	270.00
Two inch	416.00	430.00
Three inch	832.00	860.00
Four inch	1,300.00	1,350.00
Six inch	2,600.00	2,700.00
Effluent Sales		
General Irrigation (Per Acre Foot)	$400.00	$400.00
General Irrigation (Per 1,000 gallons)	1.23	1.23
Other Rates and Charges		
Establishment of Service – Regular Hours	$30.00	$30.00
Re-establishment of Service (Within 12 Months)	*	*
Reconnection (delinquent)	50.00	50.00
Customer Deposit	**	**
Deposit Interest	3.50%	**
NSF Check Charge	35.00	25.00
Late Payment Charge (per month on unpaid balance)	1.50%	1.50%
Deferred Payment Interest – Per Month	1.50%	1.50%
Main Extensions/Additional Facilities	Cost	Cost
Revenue Taxes & Assessments	***	***

* Per A.A.C. R14-2-603(D)
** Per A.A.C. R14-2-603(B)
*** Per A.A.C. R14-2-608(D)

15. The revised Staff recommended rates and charges, as agreed to by Hassaympa, are

reasonable and appropriate.

16. Hassayampa must obtain a franchise from Maricopa County. Staff recommended that Applicant file the franchise agreement with Docket Control, as a compliance item in this docket, within one year of this Decision.

Staff's Recommendations

17. Based on its review, Staff recommended that the Commission grant Hassayampa's Application for a Certificate to provide wastewater services, subject to the conditions as discussed above and the following additional conditions:

(1) Hassayampa should file in Docket Control, as a compliance matter, a schedule of its approved rates and charges within 30 days after the Decision in this matter is issued.

(2) Hassayampa should notify the Commission within 15 days of serving its first customer through a memo to this docket in Docket Control as a compliance filing.

(3) Hassayampa should be authorized to collect from its customers a proportionate share of any privilege, sales or use tax pursuant to A.A.C. R-14-2-409(D)(5).

18. Staff's recommendations in Findings of Fact Nos. 5, 6, 7, 9, 10, 11, 12, 16, and 17 are reasonable and appropriate.

CONCLUSIONS OF LAW

1. Applicant is a public service corporation within the meaning of Article XV of the Arizona Constitution and A.R.S. §40-281 *et seq.*

2. The Commission has jurisdiction over Applicant and the subject matter of the application.

3. Notice of the application was provided in accordance with law.

4. There is a public need and necessity for wastewater utility service in the proposed service territory as set forth in Exhibit A attached hereto.

5. Applicant is a fit and proper entity to receive a wastewater CC&N to include the service area more fully described in Exhibit A attached hereto, subject to compliance with the conditions set forth herein.

6. Staff's recommendations contained in Findings of Fact Nos. 5, 6, 7, 9, 10, 11, 12, 16, and 17 are reasonable and appropriate and should be approved.

7. Staff's recommendation for approval of the application with the conditions herein is reasonable and should be adopted.

8. The rates and charges adopted herein are reasonable and appropriate.

ORDER

IT IS THEREFORE ORDERED that Hassayampa Utilities Company, Inc.'s application for a Certificate of Convenience and Necessity to provide wastewater service to the area more fully described in attached Exhibit A, shall be, and hereby is, approved, subject to the conditions enumerated in the following ordering paragraphs.

IT IS FURTHER ORDERED that Hassayampa Utilities Company, Inc. shall file with Docket Control, as a compliance item in this docket, copies of the Approval to Construct from Maricopa County Environmental Services Department for the proposed Phase I treatment plant and sewer collection system no later than July 31, 2007.

IT IS FURTHER ORDERED that Hassayampa Utilities Company, Inc. shall file with Docket Control, as a compliance item in this docket, copies of the Approval of Construction Maricopa County Environmental Services Department issues for the proposed Phase I treatment plant and sewer collection system no later than April 30, 2008.

IT IS FURTHER ORDERED that Hassayampa Utilities Company, Inc. shall file with Docket Control, as a compliance item in this docket, a copy of the Maricopa Association of Governments approved 208 Plan with a map of Hassayampa Utilities Company, Inc.'s 208 Master Plan boundary no later than April 30, 2007.

IT IS FURTHER ORDERED that Hassayampa Utilities Company, Inc. shall file with Docket Control, as a compliance item in this docket, a copy of the notice issued by the Arizona Department of Environmental Quality that Hassayampa Utilities Company, Inc.'s Aquifer Protection Permit and/or Arizona Pollutant Discharge Elimination System has been approved no later than April 30, 2008.

IT IS FURTHER ORDERED that Hassayampa Utilities Company, Inc. shall have no less

than $7,150,000 in equity by the end of the first year of operations and Hassayampa Utilities Company, Inc. shall file a notice that this condition has been satisfied 90 calendar days after the end of the first year of operations.

IT IS FURTHER ORDERED that subsequent equity contributions may be governed by any decision reached in Docket No. W-00000C-06-0149.

IT IS THEREFORE ORDERED that Staff's recommended rates shall be amended, if necessary, to conform with the Commission decision in Docket No. W-00000C-06-0149.

IT IS FURTHER ORDERED that Hassayampa Utilities Company, Inc. may collect from its customers a proportionate share of any privilege, sales or use tax pursuant to A.A.C. R-14-2-409(D)(5).

IT IS FURTHER ORDERED that Hassayampa Utilities Company, Inc. shall file a rate case in its sixth year of operations, using the fifth year as the test year.

IT IS FURTHER ORDERED that Hassayampa Utilities Company, Inc. shall adopt the depreciation rates as shown in Table 1 of Exhibit 2 (Staff Report Engineering Memorandum).

IT IS FURTHER ORDERED that Hassayampa Utilities Company, Inc. shall file its franchise agreement with Maricopa County with Docket Control, as a compliance item in this docket, within one year of the Commission's decision in this case.

IT IS FURTHER ORDERED that Hassayampa Utilities Company, Inc. shall file a pre-treatment tariff when it is available.

IT IS FURTHER ORDERED the following rates and charges are approved:

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Monthly Wastewater Service	
Residential & Commercial Service	
5/8 x 3/4 inch	$54.25
3/4 inch	54.25
One inch	135.00
1-1/2 inch	270.00
Two inch	430.00
Three inch	860.00
Four inch	1,350.00
Six inch	2,700.00
Effluent Sales	
General Irrigation (Per Acre Foot)	$400.00
General Irrigation (Per 1,000 gallons)	1.23
Other Rates and Charges	
Establishment of Service – Regular Hours	$30.00
Re-establishment of Service (Within 12 Months)	*
Reconnection (delinquent)	50.00
Customer Deposit	**
Deposit Interest	**
NSF Check Charge	25.00
Late Payment Charge (per month on unpaid balance)	1.50%
Deferred Payment Interest – Per Month	1.50%
Main Extensions/Additional Facilities	Cost
Revenue Taxes & Assessments	***

* Per A.A.C. R14-2-603(D)
** Per A.A.C. R14-2-603(B)
*** Per A.A.C. R14-2-608(D)

IT IS FURTHER ORDERED that the Hassayampa Utilities Company, Inc. shall file with Docket Control, as a compliance matter, a schedule of its approved rates and charges within 30 days after this Decision.

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IT IS FURTHER ORDERED that Hassayampa Utilities Company, Inc. shall notify the Commission within 15 days of serving its first customer through a memo to this docket in Docket Control, as a compliance filing.

IT IS FURTHER ORDERED that this Decision shall become effective immediately.

BY ORDER OF THE ARIZONA CORPORATION COMMISSION.

CHAIRMAN COMMISSIONER

COMMISSIONER COMMISSIONER COMMISSIONER

IN WITNESS WHEREOF, I, BRIAN C. McNEIL, Executive Director of the Arizona Corporation Commission, have hereunto set my hand and caused the official seal of the Commission to be affixed at the Capitol, in the City of Phoenix, this 24th day of August, 2006.

BRIAN C. McNEIL
EXECUTIVE DIRECTOR

DISSENT

DISSENT

SERVICE LIST FOR: HASSAYAMPA UTILITIES

DOCKET NO.: SW-20422A-05-0659

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ROSHKA, DeWULF & PATTEN
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Ernest G. Johnson, Director
Utilities Division
ARIZONA CORPORATION COMMISSION
1200 West Washington
Phoenix, AZ 85007

No. 773-111755-PHX3

EXHIBIT "A"

PARCEL NO. 1:

ALL OF SECTION 15, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN COUNTY, ARIZONA.

PARCEL NO. 2:

THE EAST HALF OF THE NORTHEAST QUARTER, THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER, THE WEST HALF AND THE SOUTHWEST QUARTER OF OF THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL NO. 3

ALL OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN COUNTY, ARIZONA;

EXCEPT THE NORTH HALF OF THE NORTHEAST QUARTER OF SAID SECTION; AND

EXCEPT ALL THE MINERAL INTEREST RESERVED TO THE STATE OF ARIZONA IN AND TO THE FOLLOWING LAND BY THE FOLLOWING INSTRUMENT;

AS TO THE SOUTH HALF OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 5 WEST BY DEED DATED NOVEMBER 12, 1941 AND RECORDED AT BOOK 366 OF DEEDS, PAGE 563, RECORDS OF MARICOPA COUNTY, ARIZONA; AND

EXCEPT ALL THE MINERAL INTEREST RESERVED TO THE STATE OF ARIZONA IN AND TO THE FOLLOWING LAND BY THE FOLLOWING INSTRUMENT;

AS TO THE NORTHEAST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 5 WEST BY DEED DATED MARCH 3, 1939 AND RECORDED AT BOOK 331 OF DEEDS, PAGE 569, RECORDS OF MARICOPA COUNTY, ARIZONA; AND

EXCEPT ALL THE MINERAL INTEREST RESERVED TO THE STATE OF ARIZONA IN AND TO THE FOLLOWING LAND BY THE FOLLOWING INSTRUMENT;

AS TO THE NORTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 5 WEST, BY DEED DATED MAY 11, 1949 AND RECORDED AT DOCKET 401, PAGE 326, RECORDS OF MARICOPA COUNTY, ARIZONA.

PARCEL NO. 4:

THE EAST HALF OF SECTION 17, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, RECORDS OF MARICOPA COUNTY, ARIZONA.

PARCEL NO. 5 (BYU Parcel):

THE NORTH HALF OF THE NORTHEAST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXHIBIT A-27

ORIGINAL

BEFORE THE ARIZONA CORPORATION COMMISSION

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COMMISSIONERS

MIKE GLEASON - Chairman
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
KRISTIN K. MAYES
GARY PIERCE

IN THE MATTER OF THE APPLICATION OF HASSAYAMPA UTILITIES COMPANY, INC. FOR A CERTIFICATE OF CONVENIENCE AND NECESSITY.

DOCKET NO. SW-20422A-05-0659

PROCEDURAL ORDER

BY THE COMMISSION:

On August 29, 2006, the Arizona Corporation Commission ("Commission") issued Decision No. 68922 which approved the application of Hassayampa Utilities Company, Inc. ("Company" or "Applicant") for a Certificate of Convenience and Necessity ("Certificate") to provide public wastewater utility service to the Hassayampa Ranch subdivision, which is being developed by Hassayampa Ranch Ventures, L.L.C. ("HRV"). Hassayampa Ranch is located west of the Town of Buckeye ("Town") and three miles north of Interstate 10 in Maricopa County, Arizona. The Commission's approval was conditional upon the Company filing copies of the following documents in a timely fashion:

- A copy of the Maricopa Association of Governments' ("MAG") approved Section 208 Plan Amendment ("208 Plan") by April 30, 2007;
- A copy of an Approval to Construct ("ATC") issued by the Maricopa County Environmental Services Department ("MCESD") for the proposed Phase I wastewater treatment plant by July 31, 2007;
- A copy of an Approval of Construction ("AOC") issued by MCESD for the proposed Phase I wastewater treatment plant by April 30, 2008; and
- A copy of an Aquifer Protection Permit ("APP") and/or Arizona Pollutant Discharge Elimination System ("AZPDES") permit issued by the Arizona Department of Environmental Quality ("ADEQ") by April 30, 2008.

On April 30, 2007, the Company filed a Motion to Extend Time ("Motion") for filing the above-referenced documents as follows:

EXHIBIT A27 admin notice

- MAG approval of the 208 Plan from April 30, 2007 to April 30, 2008;
- MCESD approval of the ATC from July 31, 2007 to July 31, 2008;
- MCESD approval of the AOC from April 30, 2008 to April 30, 2009; and
- ADEQ approval of the APP and/or AZPDES permit from April 30, 2008 to April 30, 2009.

The Company's Motion describes how the ATC, AOC and APP cannot be issued until the Company's 208 Plan is approved. The Company has experienced unexpected delays in obtaining 208 Plan approval and is requesting all four deadlines be extended by one year.

The Company's Motion states that because Hassayampa Ranch is located in unincorporated Maricopa County, MCESD must sponsor the 208 Plan to MAG before MAG will further consider it. The sponsor typically must also request a "letter of no objection" from any municipality within three miles of the proposed 208 Plan service area and so this request was made to the Town.

MCESD, the developer, HRV, and the Company attempted repeatedly to obtain a no objection letter from the Town. However, the Town has refused to issue such a letter and ultimately it issued an objection letter late last summer. This objection was based on Hassayampa Ranch's decision to not be annexed into the Town.

At that time, MCESD was not ready to sponsor the Company's original MAG 208 Plan (dated September 30, 2005) without the Town's support. Applicant was coincidentally in a position to expand and regionalize its 208 Plan to include two other developments, Belmont and the 339th Avenue development. With MCESD's input, the Company submitted a revised 208 Plan in October 2006, which consolidated the Company's Hassayampa Ranch service area with these two other developments into a regional plan termed the Northeast 208 Plan ("NE 208 Plan"). As of February 27, 2007, the Company has MCESD sponsorship, despite the Town's repeated objections to the Company's NE 208 Plan. A copy of the MCESD sponsorship letter is attached as an exhibit to the Motion. The Company is now working with MAG to prepare a final draft version to be brought to the public and MAG committees. A copy of the Company's revised March 2007, NE 208 Plan application was provided directly to the Utilities Division's engineering section ("Staff") for their review.

The Company anticipates obtaining local approval with MAG by September 2007. The Company hopes to have ADEQ certification by October 2007. The Company's NE 208 Plan would then be sent to the Unified States' Environmental Protection Agency, which has 120 days to review and approve it. If these timeframes are achieved, the Company's NE 208 Plan will be fully approved in February 2008. Once the NE 208 Plan approval is obtained, the ATC, AOC and APP can be processed which can take 12 to 15 months, and for these reasons, the Company requests that the Commission grant the extensions described above.

On May 23, 2007, Staff filed its response recommending approval of the Company's Motion indicating that the delays experienced by the Company had been verified and the requested extensions were reasonable under the circumstances. Staff also recommended that the Company not be granted any further extensions.

Accordingly, the Company's Motion is reasonable and should be granted in accordance with Staff's recommendations.

IT IS THEREFORE ORDERED that the Motion to Extend Time by Hassayampa Utilities Company, Inc. is hereby granted as follows:

- Approval to file the MAG 208 Plan by April 30, 2008;
- Approval to file Approval to Construct by July 31, 2008;
- Approval to file Approval of Construction by April 30, 2009; and
- Approval to file Aquifer Protection Permit and/or AZPDES by April 30, 2009.

IT IS FURTHER ORDERED that no further extensions shall be granted if these deadlines are not met.

DATED this 18th day of June, 2007

MARC E. STERN
ADMINISTRATIVE LAW JUDGE

Copies of the foregoing mailed/delivered
this 18th day of June 2007 to:

Timothy J. Sabo
ROSHKA DeWULF & PATTEN, PLC
One Arizona Center
400 East Van Buren Street, Suite 800
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Attorneys for Hassayampa Utilities Company, Inc.

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Ernest Johnson, Director
Utilities Division
ARIZONA CORPORATION COMMISSION
1200 West Washington Street
Phoenix, Arizona 85007

By: _____
Debra Broyles
Secretary to Marc E. Stern

EXHIBIT A-28

MCBRIDE ENGINEERING SOLUTIONS, INC.
7305 W. Boston Street, Chandler, AZ 85226

MEMORANDUM

TO: JASON BETHKE (GWR)
CC: WES SMITH, RON FLEMING, ROBIN BAIN, LEONARD SCHEID (GWR)
BRIAN MCBRIDE (MES)
FROM: DEANNE KINCADE
SUBJECT: DIXIE WDC STORAGE UPGRADE
DATE: 12/13/2007

INTRODUCTION

Global Water is currently petitioning the Arizona Corporation Commission (ACC) to expand service areas in targeted regions of the west Phoenix valley. To consider the request, the ACC is requiring documentation that all the existing water distribution facilities are in compliance with current regulatory standards. When Global Water was compiling this information it was determined that one of the sites, known as the Dixie Water Distribution Center, does not meet the current standard for reserve storage. Therefore in May 2007 Global Water asked McBride Engineering Solutions (MES) to evaluate the site and propose short and long term options for bringing the site into compliance. This memorandum is a summary of the analysis and recommendations by MES regarding this issue.

The Dixie Water Distribution Center currently consists of a 40-gpm well pump, a 10,000–gallon water storage tank, a booster pump, and a hydropneumatic tank. The Dixie service area currently consists of 42 customers and the storage requirement, calculated as average daily demand during peak month (in accordance with A.A.C R18-5-503), is 13,000 gallons. The anticipated number of customers at buildout is 70 and this corresponds to a storage requirement of 22,000 gallons. The existing well pump has sufficient capacity to serve the buildout condition of the service area.

Based on the requirements versus the existing storage capacity at least 3,000 gallons of additional storage is required for compliance. Given this, MES has evaluated three options for a storage upgrade at the Dixie site:

- Relocation of a 7,000-gallon storage tank from Sweetwater I to meet storage requirements for up to 60 customers,
- Construction of a new 12,000-gallon storage tank to meet buildout requirements, and
- Rental of a 5,000-gallon tank to meet immediate need.

EXHIBIT A28 admitted

STORAGE TANK RELOCATION

Global Water owns several water storage tanks, ranging in size from 2,000 to 50,000 gallons that are not currently being used. The first option evaluated by MES for adding storage to the Dixie site was relocation of an existing tank. The Sweetwater I site has a 7,000 gallon storage tank that would provide approximately 5,300 gallons of additional storage at the Dixie site when floated with the existing tank. The added storage capacity would meet existing requirements and allow for the addition of 8 customers to the service area. Estimates for the cost of relocating the tank from the Sweetwater I site to the Dixie site 8 miles away ranged from $13,000 to $26,000. This option would allow for the immediate storage problem to be solved quickly, but is not cost effective compared to new tank construction cost and does not provide a long term storage solution.

NEW STORAGE TANK CONSTRUCTION

The second option evaluated by MES for the addition of storage to the Dixie site was the construction of a new welded steel storage tank. The new tank would be sized at 12,000 gallons, which, in addition to the existing 10,000 gallon tank, would satisfy for the buildout storage requirement of 22,000 gallons. The budgetary cost of a new 12,000 gallon welded steel tank is $30,000 and the design, permitting and construction process would take approximately 3 to 4 months. This option provides a cost-effective, long-term solution for storage at Dixie, but does not satisfy the immediate need for storage.

STORAGE TANK RENTAL

MES researched companies that provide rentals of potable water storage tanks in the Phoenix area. Jim's Water Truck Service was recommended as a reliable and affordable provider. The estimated cost of a 5,000 gallon, NSF-approved, potable water storage tank rental is $600 per month, with a minimum 3 month rental, and an additional delivery and pick-up fee. This is a very cost-effective and timely temporary solution to the immediate need for additional storage. The rental tank will provide the needed storage while a permanent storage tank is being designed, permitted and constructed at the Dixie site.

RECOMMENDATION

MES recommends proceeding with the rental of a 5,000 gallon storage tank to satisfy immediate storage requirements for the existing customers, and to move forward with the CC&N expansion activities. MES also recommends initiating the design for the addition of a 12,000 gallon water storage tank to be constructed at the Dixie site to meet the long-term storage requirements.

A-29

AGREEMENT REGARDING THE WATER RESOURCE MANAGEMENT OF THE LOWER HASSAYAMPA SUB-BASIN

By and Between
TOWN OF BUCKEYE
And
GLOBAL WATER RESOURCES, LLC

PURPOSE OF THE AGREEMENT: Acknowledging the shared use of the Lower Hassayampa Sub-Basin ("Sub-Basin") by the Town of Buckeye and Global Water Resources, LLC and to support the long-term water demands of the residents in the Sub-Basin, this Agreement serves to facilitate cooperation and the coordination of the management of the water resources in the Sub-Basin by the Town of Buckeye and Global Water Resources, LLC (collectively, the "Parties") in their respective service areas to result in management practices and facility locations that serve the common interests of the respective service areas and the Sub-Basin. Individual management practices and facility locations will be evaluated as to their effectiveness on a local and regional scale, based on physical boundaries and limitation of the aquifer system. Nothing in this Agreement is deemed to be a waiver by the Parties of any regulatory approvals (ADWR or otherwise) that are required to implement any of the goals or terms of this Agreement.

GOALS OF THE PARTIES: To employ best reasonable management practices to:

- manage the water resources in the Sub-Basin;
- encourage positive aquifer impacts;
- minimize and/or mitigate negative hydrologic interference;
- maximize recharge and reuse of reclaimed water;
- reduce or eliminate discharge of reclaimed water;
- promote local replenishment to offset depletion.

DEVELOPMENT OF MANAGEMENT CRITERIA AND PROCESSES:

To carry out the purpose of cooperative and coordinated regional management of the water resources in the Sub-Basin, the Parties agree to:

- Identify criteria for location of groundwater withdrawal, recovery, and recharge sites;

EXHIBIT
A-29
admitted

- Define general criteria to be used in assessing whether the modeled impacts are negative, positive, neutral:
  - Drawdown in wells
  - Depth to water
  - Water quality implications
  - Timeline for impacts
- Identify critical impact areas in the Sub-Basin;
- Recharge and reuse reclaimed water as a method of achieving the goal of water budget balance. Focus on conservation and reuse to reduce/limit groundwater withdrawals and reduce/limit discharge.
- Develop a process for non-binding dispute resolution

HASSAYAMPA SUB-BASIN MODEL: The Parties agree that the scientific basis of the Sub-Basin Model (including underlying geology and hydrogeology) prepared by Brown and Caldwell and delivered to ADWR November 2006 (the "Model") is sound. The Parties agree that they will use the Model to assess regional impacts of each party's management practices and facility locations. An assessment of localized impacts may need a higher resolution model derived from the Model.

- The Model will be used by the Parties to provide a basis for evaluating management practices and facility locations. The Model will be used by the Parties to evaluate the impacts of future well fields, recharge sites, reuse plans, and recovery wells in accordance with the Management Criteria;
- The Model will be used by the Parties to produce different simulations to analyze deviations in demand, recharge, well sites, timing, and other factors which could impact the water balance in the Model area. Examples include:
  - Reuse of reclaimed water instead of recharge or using a combination of recharge and reuse
  - New well fields or even single wells in sensitive areas
  - Recovery well siting
  - New groundwater pumping demand in the Sub-Basin ("new" being defined as not currently included in Model simulations)
  - New recharge sites in the Sub-Basin that are in regions of shallow groundwater

- The Parties agree that deviations from the baseline assumptions of the Model may trigger Model revisions/reruns in order to assess impacts on the Sub-Basin;

- The Parties agree to meet at least semi-annually to discuss changes in planning assumptions that could impact the Sub-Basin water balance and therefore require updates to the Model.

SIGNATURES ON FOLLOWING PAGE

DATED this 22nd day of October 2007.

Town of Buckeye, an Arizona municipal corporation

By: Bobby Bryant Jr.
Its Mayor

Attest:

Linda Hansen
Town Clerk

Global Water Resources, LLC*

By
Title: President

* Global Water Resources, LLC is signing and delivering this Agreement conditioned on the Town of Buckeye agreeing to not oppose, directly or indirectly, the HUC Proposed MAG Amendment (as defined in the Memorandum of Understanding signed by the Parties October 2, 2007) which is scheduled as an agenda item for the Maricopa Association of Governments Regional Council meeting on October 24, 2007. Global Water Resources' execution of this Agreement shall be null and void absent the Town of Buckeye executing this Agreement as written (before 10/24/07) and the Town not opposing, directly or indirectly, the HUC Proposed MAG 208 Amendment at the Regional Council meeting on October 24, 2007 or as may thereafter be heard by the Regional Council.

SBS:pdc 774760.2 10/18/2007

ORIGINAL

MEMORANDUM

30

TO: Docket Control
Arizona Corporation Commission

FROM: Ernest G. Johnson
Director
Utilities Division

Date: July 23, 2007

RE: STAFF REPORT FOR THE APPLICATION FOR THE APPLICATION OF THE WATER UTILITY OF GREATER TONOPAH, INC. FOR AN EXTENSION OF ITS CERTIFICATE OF CONVENIENCE AND NECESSITY (DOCKET NO. W-02450A-06-0626)

Attached is the Staff Report for the Water Utility of Greater Tonopah, Inc. application for approval to extend its Certificate of Convenience and Necessity. Staff recommends approval with conditions.

EGJ:LAJ:red

Originator: Linda A. Jaress

Attachment: Original and 13 Copies

RECEIVED
2007 JUL 23 P 4: 35
AZ CORP COMMISSION
DOCKET CONTROL

Arizona Corporation Commission
DOCKETED
JUL 23 2007
DOCKETED BY nr

EXHIBIT
S-1
admitted

Service List for: Water Utility of Greater Tonopah, Inc.
Docket No. W-02450A-06-0626

Mr. Tim Sabo
Roshka, Dewulf & Patten
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

Mr. Christopher C. Kempley
Chief, Legal Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Mr. Ernest G. Johnson
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Ms. Lyn Farmer
Chief, Hearing Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

STAFF REPORT
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

WATER UTILITY OF GREATER TONOPAH, INC.
DOCKET NO. W-02450A-06-0626

APPLICATION FOR EXTENSION
OF CERTIFICATE OF
CONVENIENCE & NECESSITY

JULY 23, 2007

STAFF ACKNOWLEDGMENT

The Staff Report for Water Utility of Greater Tonopah, Inc., Docket No. W-02450A-06-0626 was prepared by the Staff members signed below. Linda Jaress prepared the Staff Report and Katrin Stukov prepared the Engineering Report.

Linda A. Jaress
Executive Consultant

Katrin Stukov
Utilities Engineer

EXECUTIVE SUMMARY
WATER UTILITY OF GREATER TONOPAH, INC.
DOCKET NO. W-02450A-06-0626

On September 29, 2006, the Water Utility of Greater Tonopah ("WUGT" or "Company") filed an application with the Arizona Corporation Commission ("ACC" or "Commission") for the extension of its Certificate of Convenience and Necessity ("CC&N") to provide water service. The 2006 annual report to the Commission reports that the Company serves 332 customers.

The extension area is located in the vicinity of 395th Avenue and Camelback and is comprised of most of six proposed subdivisions known as Belmont, Copperleaf, Silver Water Ranch, Silver Springs Ranch, the 339th Avenue Project, and Desert Whisper. At build-out, the developments are expected to contain approximately 88,000 dwelling units.

WUGT operates eight individual water systems of varying sizes. Staff concluded that the Dixie System, which serves 33 customers, has inadequate storage. Arsenic levels in the WUGT's systems, except the Dixie and the Garden City systems, exceed the new arsenic standard of 10 parts per billion. However, all the systems are in compliance with Maricopa County Environmental Services Department ("MCESD"), the Arizona Department of Environmental Quality ("ADEQ") and Arizona Department of Water Resources ("ADWR").

The costs of the water plant facilities proposed to be built during the first five years of development are expected to reach $39.2 million. These facilities will be financed by a combination of equity and advances in aid of construction.

1. Staff recommends that the Company file with Docket Control, as a compliance item in this docket, a copy of the ADWR's Designation of Assured Water Supply, stating that there is adequate water for the area being requested, within two years of the effective date of the decision in this case.

2. WUGT should resolve the storage and production deficiencies in the Dixie System before entering any new Main Extension Agreements or CC&N extensions involving the Dixie System.

3. WUGT should file within two years of the decision, as a compliance item in this docket, a copy of the Certificates of Approval of Construction for its water source, treatment plant, storage tanks and water distribution system for the proposed Phase 1 of the water system issued by MCESD.

4. WUGT should file with Docket Control as a compliance item in this docket, within one year of the decision, a copy of the franchise agreement with the county in which the extension area is located.

5. The decision approving this extension should be deemed null and void after due process if WUGT does not comply with the above requirements in the time ordered.

TABLE OF CONTENTS

Page

INTRODUCTION 1

EXISTING WATER SYSTEMS 1

PROPOSED WATER SYSTEM 2

MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT 2

ARIZONA DEPARTMENT OF WATER RESOURCES 2

CONCLUSIONS AND RECOMMENDATIONS 3

ATTACHMENT(S)

ENGINEERING REPORT ..... A

ENGINEERING MAP ..... B

INTRODUCTION

On September 29, 2006, the Water Utility of Greater Tonopah ("WUGT" or "Company") filed an application with the Arizona Corporation Commission ("ACC" or "Commission") for the extension of its water Certificate of Convenience and Necessity ("CC&N") to a large area in the west valley in Maricopa County. The Company's service territory encompasses various locations between 331st Avenue and 555th Avenue and between Elliot Road and Glendale Avenue. The 2006 annual report to the Commission reports that the Company serves 332 customers.

A map and legal description of the extension area is attached as Exhibit 1. The extension area is located in the vicinity of 395th Avenue and Camelback and is comprised of all or portions of six proposed subdivisions known as Belmont, Copperleaf, Silver Water Ranch, Silver Springs Ranch, the 339th Avenue Project, and Desert Whisper. At build-out, the developments are expected to contain approximately 88,000 dwelling units. The developments are adjacent to, or in the vicinity of the northeast portion of WUGT's existing service area. Sewer service for most of the requested area will be provided by Hassayampa Utility Company, another Global subsidiary.

WUGT operates under rates and charges effective January 1, 2002. The Company was formed by the combination of several other water companies which accounts for its eight distinct water systems. During 2006, the Company was acquired by Global Water Resources, L.L.C. ("Global"). Global has several years of experience owning and operating Arizona water and wastewater companies and employs certified operators to operate them. Global's subsidiaries serve over 30,000 water and wastewater customers in Arizona.

The Company is a corporation in good standing with the Corporations Division of the Commission and has no outstanding compliance issues in the records of the Compliance Section of the Utilities Division.

EXISTING WATER SYSTEMS

WUGT operates eight water systems. The smallest system, WPE No. 1, serves 2 customers while the largest system, the Sunshine System, serves 137 customers. Attached as Exhibit 2 is Staff's Engineering Report which further describes the current and proposed systems and the estimated costs of the extension.

Staff concluded that the Dixie System, which serves 33 customers, has inadequate storage and recommends that WUGT take action to correct the production and storage problem. Such action could include the installation of a well, a storage tank, a combination of the two, or interconnection with another system. Staff recommends that the Commission require WUGT to resolve the storage deficiencies in the Dixie System before the Company enters any new Main Extension Agreements or CC&N extensions involving the Dixie System.

PROPOSED WATER SYSTEM

The costs of the water plant facilities proposed to be built during the first five years of development are expected to reach $39.2 million. These facilities will be financed by a combination of equity and advances in aid of construction.

Phase 1 of the development will occur in the Belmont and 339th Avenue developments. For Phase 1 of the water infrastructure, WUGT will purchase and install wells with a total production capacity of 3.8 MGD, arsenic treatment facilities, a 2.5 MGD surface water treatment plant, 5 million gallon storage facilities, booster stations and water lines.

Staff concludes that the Company's proposed water plant's planned production and storage capacities appear to be appropriate and adequate to serve the requested extension area for the first five years and the estimated costs of the plant to serve the extension area are reasonable.

MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT

The Maricopa County Environmental Services Department ("MCESD") has determined that all WUGT's regulated systems are delivering water that meets the water quality standards set forth in the Arizona Administrative Code, Title 18, Chapter 4. Two of the systems are not regulated by MCESD due to their small size.

Arsenic levels in the WUGT's systems, except the Dixie and the Garden City systems, exceed the new arsenic standard of 10 parts per billion. The compliance date for meeting the arsenic standard is December 31, 2007. MCESD has issued an Approval to Construct for the arsenic removal plant for one system, the WPE No. 6 system.

Staff recommends that WUGT file with Docket Control Section a copy of the Certificates of Approval of Construction for its Phase 1 water plant facilities issued by MCESD or the Arizona Department of Environmental Quality ("ADEQ") within two years of the effective date of the final decision issued in this docket.

ARIZONA DEPARTMENT OF WATER RESOURCES

WUGT is located in the Phoenix Active Management Area ("AMA"), as designated by the Arizona Department of Water Resources ("ADWR"). ADWR has indicated that the Company is in compliance with the Phoenix AMA requirements. WUGT intends to apply to ADWR for a Designation of Assured Water Supply. Staff recommends that WUGT file with Docket Control, as a compliance item in this docket, a copy of ADWR's Designation of Assured Water Supply stating that there is adequate water for the area being requested and/or a copy of the Certificate of Water Assured Supply for the Phase I water plant facilities within two years of the date of the decision in this case.

CONCLUSIONS AND RECOMMENDATIONS

Based upon WUGT's and its affiliates' experience operating water and wastewater utilities in Arizona and their compliance record with Arizona regulatory agencies, Staff believes that WUGT is a fit and proper entity to serve the extension area. Based upon the documented need for service, Staff also believes it is in the public interest for WUGT to serve the extension area. Staff recommends approval of the requested CC&N extension.

Staff also recommends that the Company be ordered to complete the following:

1. Staff recommends that the Company file with Docket Control, as a compliance item in this docket, a copy of ADWR Designation of Assured Water Supply, stating that there is adequate water for the area being requested, within two years of the effective date of the decision in this case.

2. WUGT should resolve the storage and production deficiencies in the Dixie System before entering any new Main Extension Agreements or CC&N extensions involving the Dixie System.

3. WUGT should file within two years of the decision, as a compliance item in this docket, a copy of the Certificates of Approval of Construction for its water source, treatment plant, storage tanks and water distribution system for the proposed Phase 1 of the water system issued by MCESD.

4. WUGT should file with Docket Control as a compliance item in this docket, within one year of the decision, a copy of the franchise agreement with the county in which the extension area is located.

5. The decision approving this extension should be deemed null and void after due process if WUGT does not comply with the above requirements in the time ordered.

MEMORANDUM

DATE: June 14, 2007

TO: Linda Jaress
Executive Consultant III

FROM: Katrin Stukov
Utilities Engineer KS

RE: Water Utility of Greater Tonopah, Inc.
Docket No. W-2450A-06-0626 (CC&N Extension)

Introduction

Water Utility of Greater Tonopah, Inc. ("WUGT" or "Company") has applied to extend its Certificate of Convenience and Necessity ("CC&N"). The requested extension area is located in western Maricopa County and is bounded by the Central Arizona Project ("CAP") canal on the north, 443rd Avenue on the west, and the Hassayampa River on the east, and is adjacent to, or in the vicinity of the Company's existing service area. The requested area will add an additional 22,049 acres to the existing 39,000 acres. The total expanded CC&N will include an area of about 68,049 acres.

The Company described the requested extension area as six (6) subdivisions which will include the Belmont and 339th Avenue developments, and portions of Copperleaf, Desert Whisper, Silver Water Ranch and Hassayampa Ranch developments (the balance of Copperleaf, Desert Whisper, Silver Water Ranch and Hassayampa Ranch developments are already in the existing CC&N).

At full build-out, the Company anticipates an additional 88,264 dwelling units ("DU") for the proposed extension area, resulting in a projected total customer base of over 103,000 DU within the expanded CC&N at build out.

Existing Utility Plant

The Company currently operates eight (8) water systems and serves approximately 300 customers. The Table I below lists specific information about each system[1].

Table I

System Name	B&D/Buckeye Ranch	Roseview	Tufte WPE #7	Garden City/Big Horn	Dixie	WPE #6	Sunshine	WPE#1
PWS ID#	07-618	07-082	07-617	07-037	07-030	07-733	07-071	N/A[2]
# of wells	2	1	1	1	1	1	1	1
Total production (gallons per minute "GPM")	145	30	20	30	40	20	130	20
# of storage tank	2	1	1	2	1	1	1	1
Total storage capacity (gallons)	155,000	10,000	5,000	45,000	10,000	7,500	100,000	5,000
Existing # of customers	94	16	6	16	27	23	121	2
Does system provides fire flow?	Yes	No	No	Yes	No	No	Yes	NO
Is a storage capacity adequate	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Is a production capacity adequate? MCESD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Compliance Status Date	Compliant 2/21/07	Compliant 3/21/07	N/A[2]	Compliant 4/11/07	Compliant 3/21/07	Compliant 3/20/07	Compliant 3/28/07	N/A[2]
Arsenic levels (parts per billion "ppb")[3]	17	24	26	3.8	8.5	12	13	18

[1] Based on the Water Use Data submitted on September 29, 2006 and Maricopa County Environmental Services Department's ('MCESD') Compliance Status Reports

[2] Water system that serve less than 15 connections is not regulated by MCESD/ADEQ

[3] Per Company's response dated May 1, 2007

Based on the submitted Water Use Data, Staff concludes that out of eight existing water systems in the WUGT, seven of those systems have adequate production and storage capacities to serve the existing customer base and limited growth[4]. However, based on the Capacity Analysis, Staff concludes that the Dixie water system (PWS#07-030) has adequate production, but lacks adequate storage capacity to serve the existing customer base. In Commission Decision No. 68307, WUGT was ordered to correct its systems capacity deficiencies. By Procedural Order dated May 3, 2007, the Commission approved a time extension for the Company to correct its systems capacity deficiencies by December 31, 2007.

The Company indicated that its existing water systems will continue to provide service to existing customers and will only serve limited future customers in the immediate vicinity of these systems in the next five years. The Company also indicated that it is unlikely that these existing water systems will be interconnected with the future water plant facilities.

With regard to the new arsenic standard, out of eight existing water systems in the WUGT, six of those systems' arsenic level exceed the new 10 ppb arsenic standard.[5]
In Commission Decision No. 68307, WUGT was ordered to correct its systems arsenic deficiencies. By Procedural Order dated May 3, 2007, the Commission approved a time extension for the Company to correct its systems arsenic deficiencies by December 31, 2007.

Future Water Plant Facilities

The Company submitted an Engineering Memorandum which discusses the future water plant facilities planned to serve the Extension Area and the projected costs. Also, the Company submitted a Conceptual Water Master Plan Phase 1 prepared by Damon S. Williams Associates for the proposed facilities.

The proposed water plant facilities will be constructed in phases designed to meet the needs of developments growth patterns. The Company estimates that during its first two years of operation in the requested extension area, it will add 200 DU per month and for the following three years it will add 300 DU per month. Accordingly, the Company is projecting 2,400 DU and 0.59 million gallons per day ("MGD") water demand[6] in the first year, and 15,600 DU and 3.82 MGD water demand in fifth year.

Water for new developments will be provided by groundwater and surface Central Arizona Project ("CAP") water. The Company anticipates that approximately 70% of

[4] The Company indicated that its existing water systems will continue to provide service to existing customers and will only serve limited future customers in the immediate vicinity of these systems in the next five years. The Company also indicated that it is unlikely that these existing water systems will be interconnected with the future water plant facilities.
[5] See Table I in this report for more details
[6] The Company's estimated average water demand for a typical dwelling unit is 245 gallons per day ("GPD").

groundwater will require arsenic treatment. The treatment technologies for the surface water will consist of conventional sedimentation and filtration or membrane filtration. Initially, groundwater will supply all water demands for initial phase of the development[7].

Phase 1 of the proposed water infrastructure will include wells (with a total production capacity of 3.82 MGD), arsenic treatment facilities, 2.5 MGD surface water treatment plant, 5 million gallon storage facilities, booster stations, and water lines. The Company projects that initial water plant facilities should be operational by Year 2009. The Company projects that the first phase of the future 2.5 MGD surface treatment plant[8] should be operational by Year 2012.

Construction Cost Estimate

The submitted Engineering Memorandum included spreadsheets with the breakdown of the proposed water plant facilities cost for the first five years, at a total projected cost of $39.2 million.

The summary of costs for each year follows:

Year 1:	$ 3.9 million
Year 2:	$ 5.7 million
Year 3:	$10.3 million
Year 4:	$11.1 million
Year 5:	$ 8.8 million

The Company indicated that the construction of the proposed water facilities for the requested extension area will be financed through a combination of equity and advances in aid of construction. The equity, provided by the Company's shareholders, will be used to construct the off-site backbone plant facilities. Advances in aid of construction, provided by main extension agreements, will be used to construct the on-site plant facilities.

Staff has reviewed the proposed water infrastructure along with the Company's cost estimates and concludes that the plant facilities and cost appears to be reasonable and appropriate for the requested extension area. However, approval of this CC&N extension application does not imply any particular future treatment for determining the rate base. No "used and useful" determination of the proposed plant-in-service was made, and no conclusions should be inferred for rate making or rate base purposes in the future.

[7] The Company projects that the initial development activity in the requested extension area will occur in Belmont and 339th Avenue developments

[8] The Company projects the surface treatment plant location in Belmont (near 355th Avenue and the CAP).

Arizona Department of Environmental Quality ("ADEQ") Issues

Compliance Status

Out of seven existing water systems in the WUGT, six of those systems are considered Community Water Systems for which ADEQ or its formally delegated agent, the Maricopa County Environmental Services Department ("MCESD") monitors for compliance. Tufte water system (PWS # 07-617) has less than 15 connections and is not considered a community system at this time. MCESD has determined that the Company's six systems are currently delivering water that meets water quality standards required by Arizona Administrative Code, Title 18, Chapter 4.

The Company's proposed water infrastructure does not have any plant facilities yet; therefore, the MCESD compliance status is not applicable at this time.

Approval of Construction ("AOC")

The Company has not yet obtained the AOC for the proposed water plant facilities from the MCESD.

Arizona Department of Water Resources ("ADWR") Compliance

Compliance Status

The Company is located in the Phoenix Active Management Area ("AMA"), as designated by ADWR. ADWR has indicated that the Company is in compliance with the Phoenix AMA reporting and conservation requirements.

Designation of Assured Water Supply

The Company has not yet received a copy of ADWR's Designation of Assured Water Supply, stating that there is adequate water for the area being requested.

Arizona Corporation Commission Compliance

A check with Utilities Division Compliance Section showed that there are currently no delinquencies for the Company[9].

Curtailment Tariff

The Company has an approved Curtailment Tariff that has been in effect since January 26, 2005.

[9] Per ACC Compliance status check dated May 17, 2007

Summary

Conclusions

1. Based on the submitted Water Use Data, Staff concludes that out of eight existing water systems in the WUGT, seven of those systems have adequate production and storage capacities to serve the existing customer base and limited growth. However, based on the Capacity Analysis, Staff concludes that the Dixie water system (PWS#07-030) has adequate production capacity, but lacks adequate storage capacity to serve the existing customer base. In Commission Decision No. 68307, WUGT was ordered to correct its systems capacity deficiencies. By the Procedural Order dated May 3, 2007, the Commission approved a time extension for the Company to correct its systems capacities deficiencies by December 31, 2007.

2. Out of eight existing water systems in the WUGT, six of those systems arsenic level exceed the new 10 ppb arsenic standard. By Commission Decision No. 68307, WUGT was ordered to correct its systems arsenic deficiencies in. By the Procedural Order dated May 3, 2007, the Commission approved a time extension for the Company to correct its systems arsenic deficiencies by December 31, 2007.

3. MCESD has determined that the Company's six systems are currently delivering water that meets water quality standards required by Arizona Administrative Code, Title 18, Chapter 4.

4. The Company's proposed water infrastructure does not have any plant facilities yet; therefore, a MCESD compliance status is not applicable at this time.

5. Staff concludes that the Company's proposed water plant's planned production and storage capacities appear to be appropriate and adequate to serve the requested extension area for the first five years.

6. Staff concludes that the proposed water plant facilities and cost estimates totaling $39.2 million at year five are reasonable and appropriate. However, no "used and useful" determination of this plant-in-service was made, and no particular future treatment should be inferred for rate making or rate base purposes in the future.

7. The Company has not yet received a copy of the ADWR's Designation of Assured Water Supply, stating that there is adequate water for the area being requested.

8. A check with Utilities Division Compliance Section showed that there are currently no delinquencies for the Company.

Recommendations

1. Staff recommends that any approval in this docket be conditional on the Company complying with all requirements and conditions set forth in Decision No. 68307 dated November 14, 2005 and Procedural Order dated May 3, 2007.

   Staff further recommends that any approval of Main Extension Agreements for the Dixie water system (PWS#07-030) be conditional to correction of the storage capacity deficiency.

2. Staff recommends that the Company file with Docket Control, as a compliance item in this docket, a copy of the AOC issued by MCESD for the Phase I water plant facilities, needed to serve the requested extension area, within two years after the effective date of the decision in this case.

4. Staff recommends that the Company file with Docket Control, as a compliance item in this docket, a copy of the ADWR's Designation of Assured Water Supply, stating that there is adequate water for the area being requested, within two years after the effective date of the decision in this case.

MEMORANDUM

TO: Linda Jaress
Executive Consultant III
Utilities Division

FROM: Barb Wells
Information Technology Specialist
Utilities Division

THRU: Del Smith
Engineering Supervisor
Utilities Division

DATE: December 18, 2006

RE: **WATER UTILITY OF GREATER TONOPAH, INC. (DOCKET NO. W-02450A-06-0626)**
AMENDED LEGAL DESCRIPTION

The area requested by Tonopah for an extension has been plotted with no complications using an amended legal description, which has been docketed. This legal description is attached and should be used in place of the original description submitted with the application.

Also attached are copies of the maps for your files.

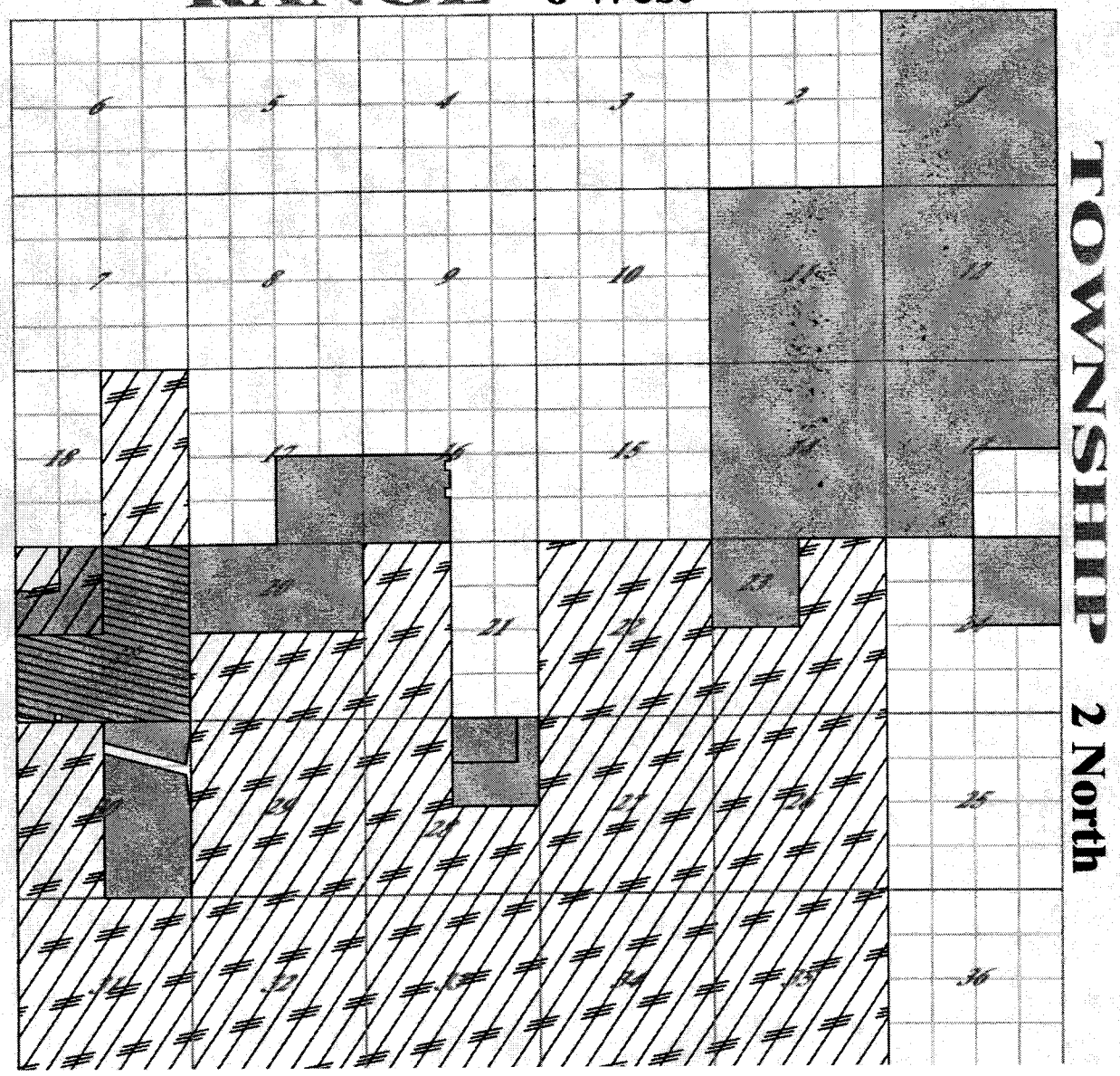
:bsw

Attachments

cc: Mr. Timothy J. Sabo
Ms. Deb Person (Hand Carried)
File

COUNTY: *Maricopa*

RANGE 6 West



W-2450 (11)
Water Utility of Greater Tonopah, Inc.
(West Phoenix)

SW-20403 (2)
Balterra Sewer Corporation

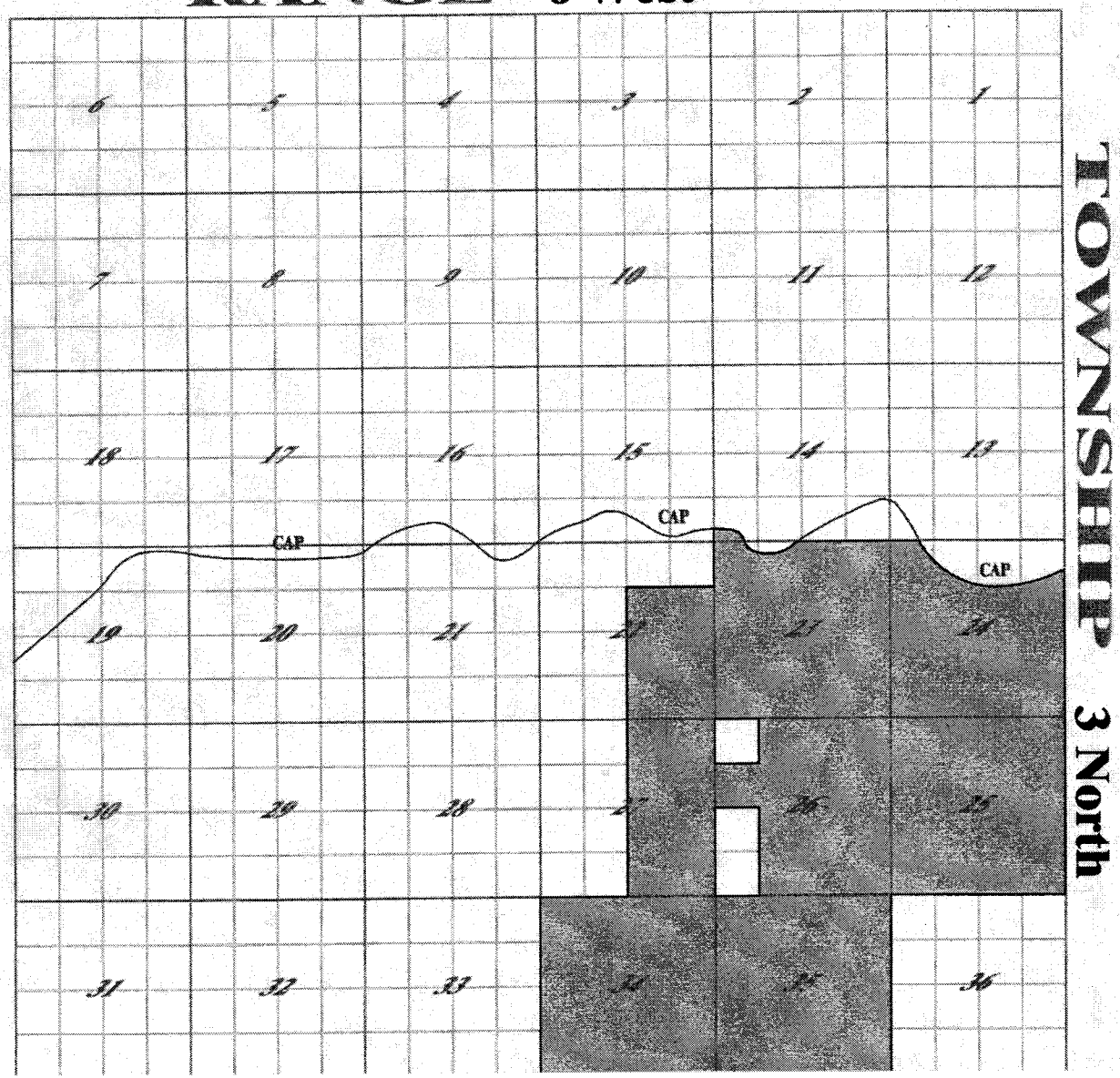
(1)
Water Utility of Greater Tonopah, Inc.
Docket No. W-02450A-06-0253
Application for Extension

(5)
Water Utility of Greater Tonopah, Inc.
Docket No. W-02450A-06-0626
Application for Extension

TR2N6W 05 JUN 2006

COUNTY: *Maricopa*

RANGE 6 West



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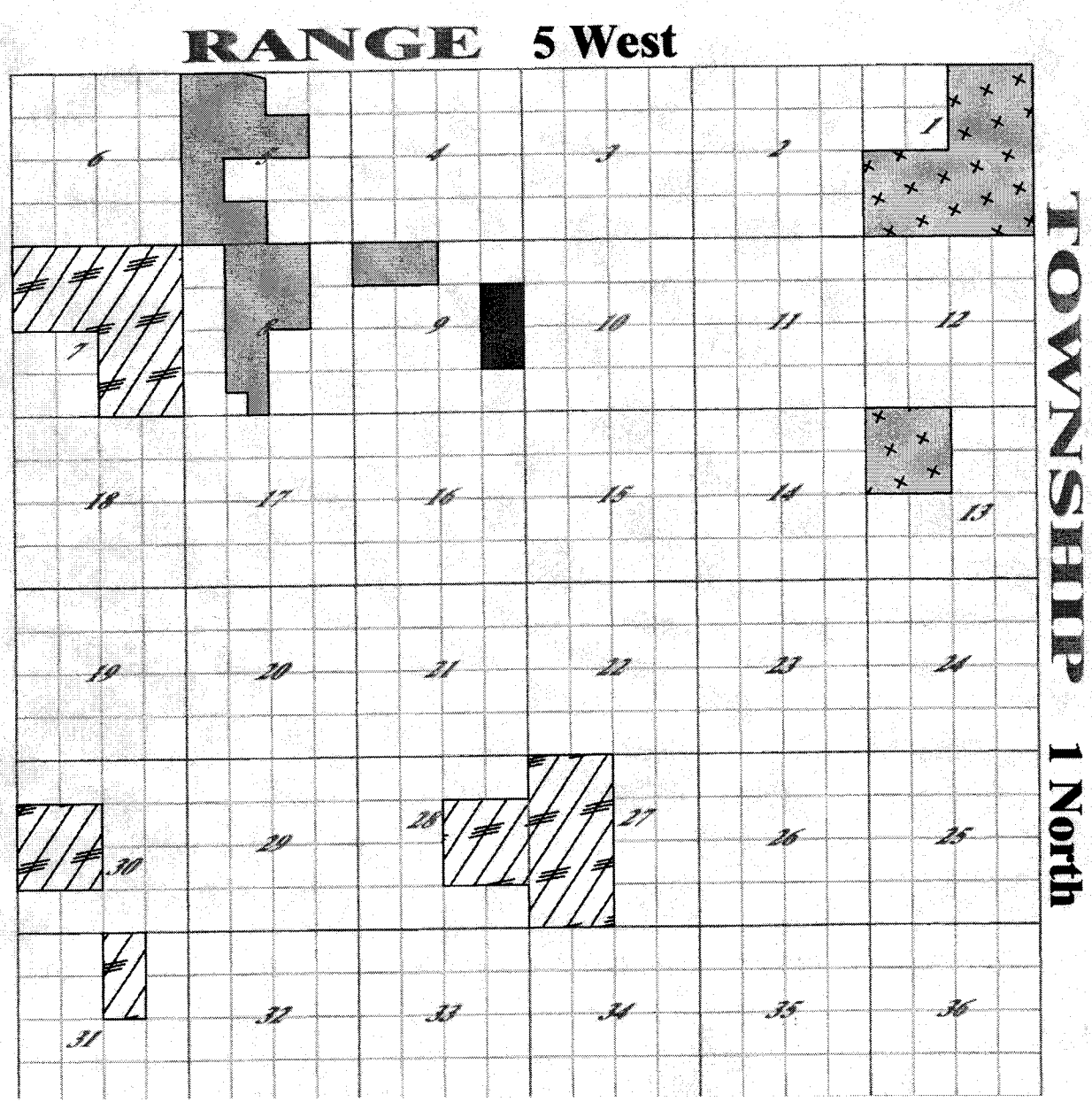
Water Utility of Greater Tonopah, Inc.
Docket No. W-02450A-06-0626
Application for Extension

TR3N6W 04 NOV 1991

COUNTY: *Maricopa*



W-2451 (5)
Water Utility of Greater Buckeye, Inc.

W-2450 (11)
Water Utility of Greater Tonopah, Inc.
(Sunshine)

Hassayampa Water Co-op
Adjudicated 'Not a Public Service Corporation'

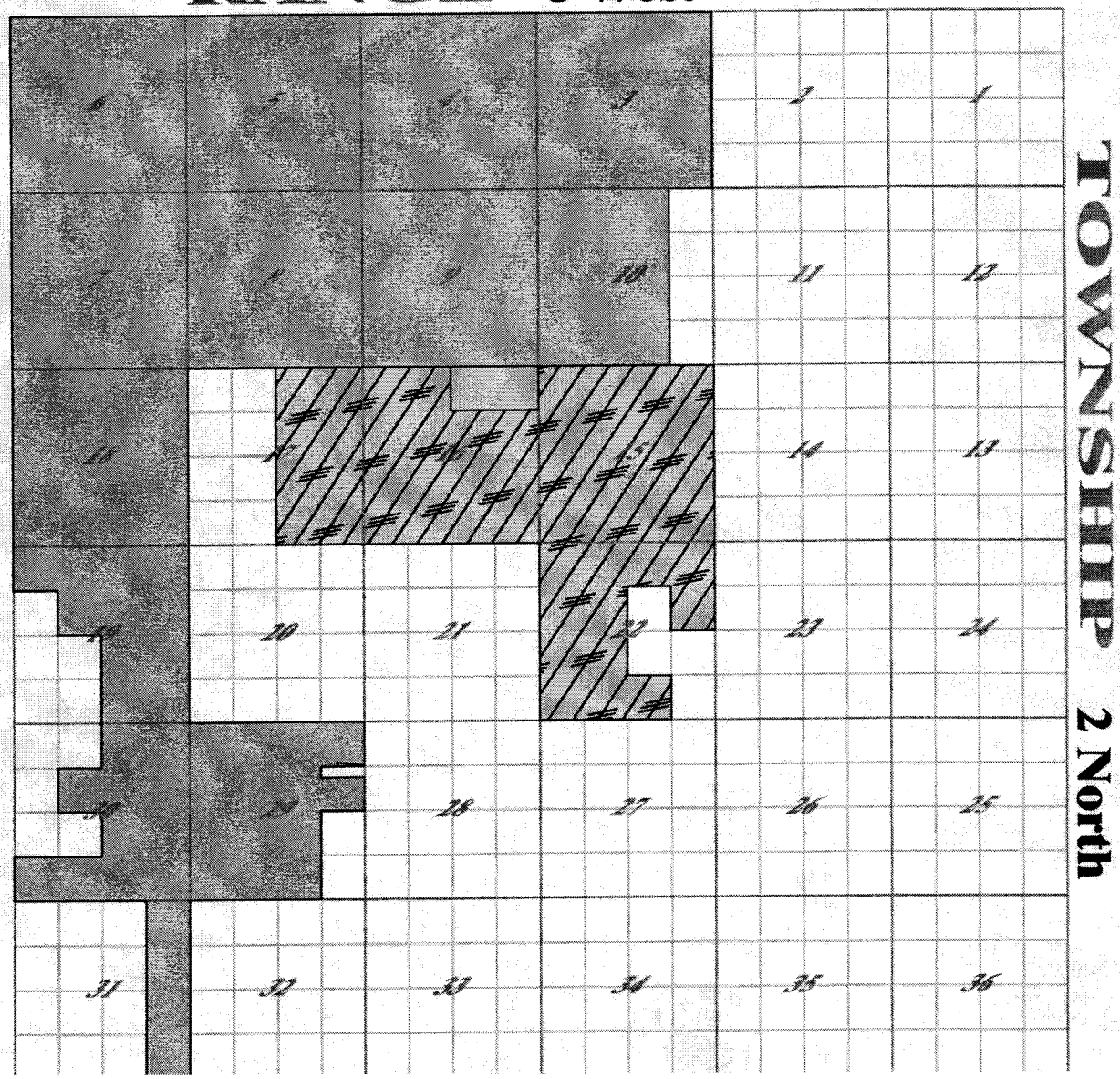
(5)
Water Utility of Greater Tonopah, Inc.
Docket No. W-02450A-06-0626
Application for Extension

Water Utility of Greater Buckeye, Inc.
Docket No. W-02451A-06-0666
Application to Transfer to
Valencia Water Company
Docket No. W-01212A-06-0666

TR1N5W 11 OCT 1991

COUNTY: *Maricopa*

RANGE 5 West



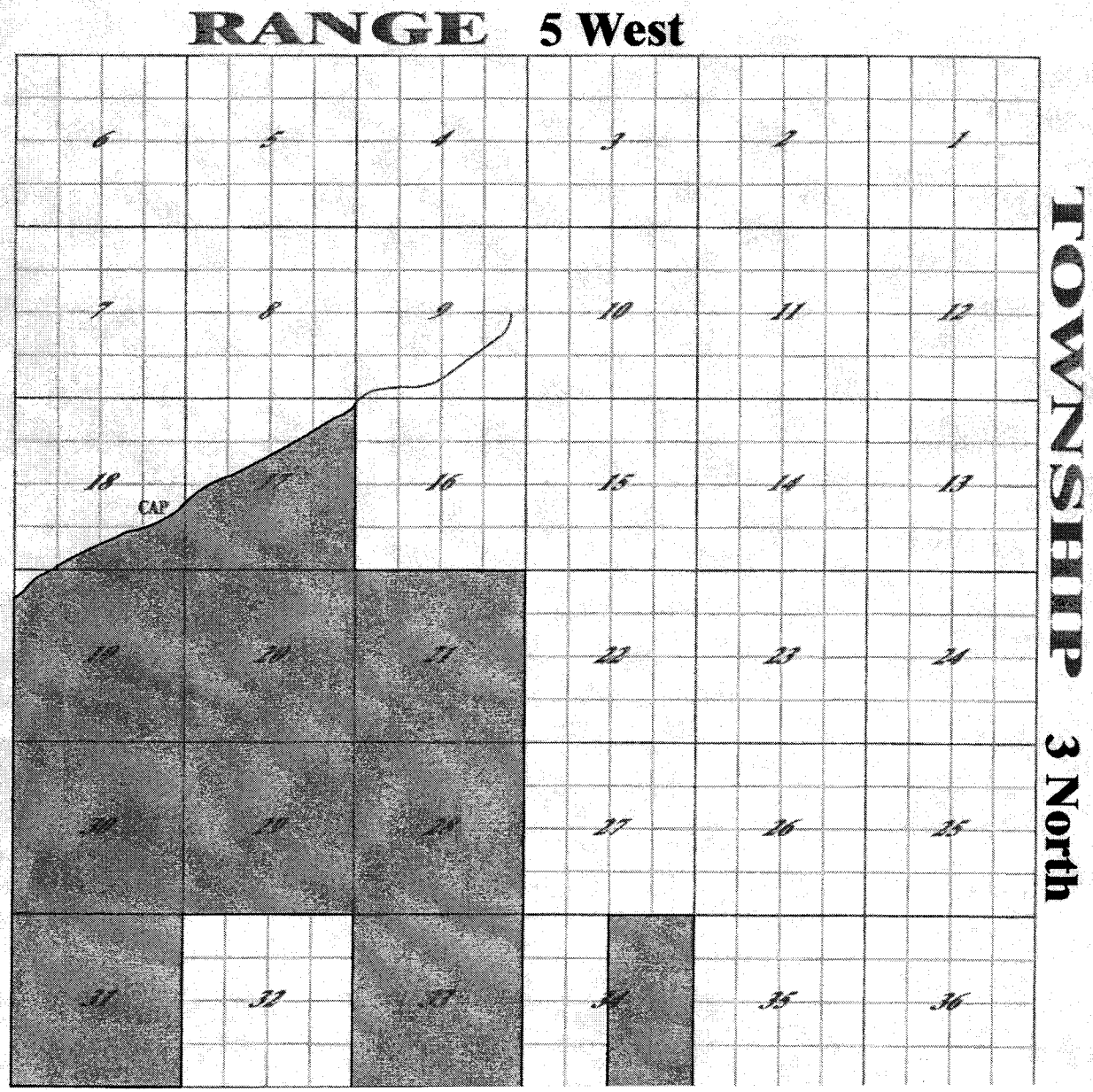
W-2450 (12)
Water Utility of Greater Tonopah, Inc.

SW-20422 (1)
Hassayampa Utilities Company, Inc.

(5)
Water Utility of Greater Tonopah, Inc.
Docket No. W-02450A-06-0626
Application for Extension

TR2N5W 29 AUG 2006

COUNTY: *Maricopa*



(5)
Water Utility of Greater Tonopah, Inc.
Docket No. W-02450A-06-0626
Application for Extension

W-2451
Water Utility of Greater Buckeye, Inc.

W-2450
Water Utility of Greater Tonopah, Inc.

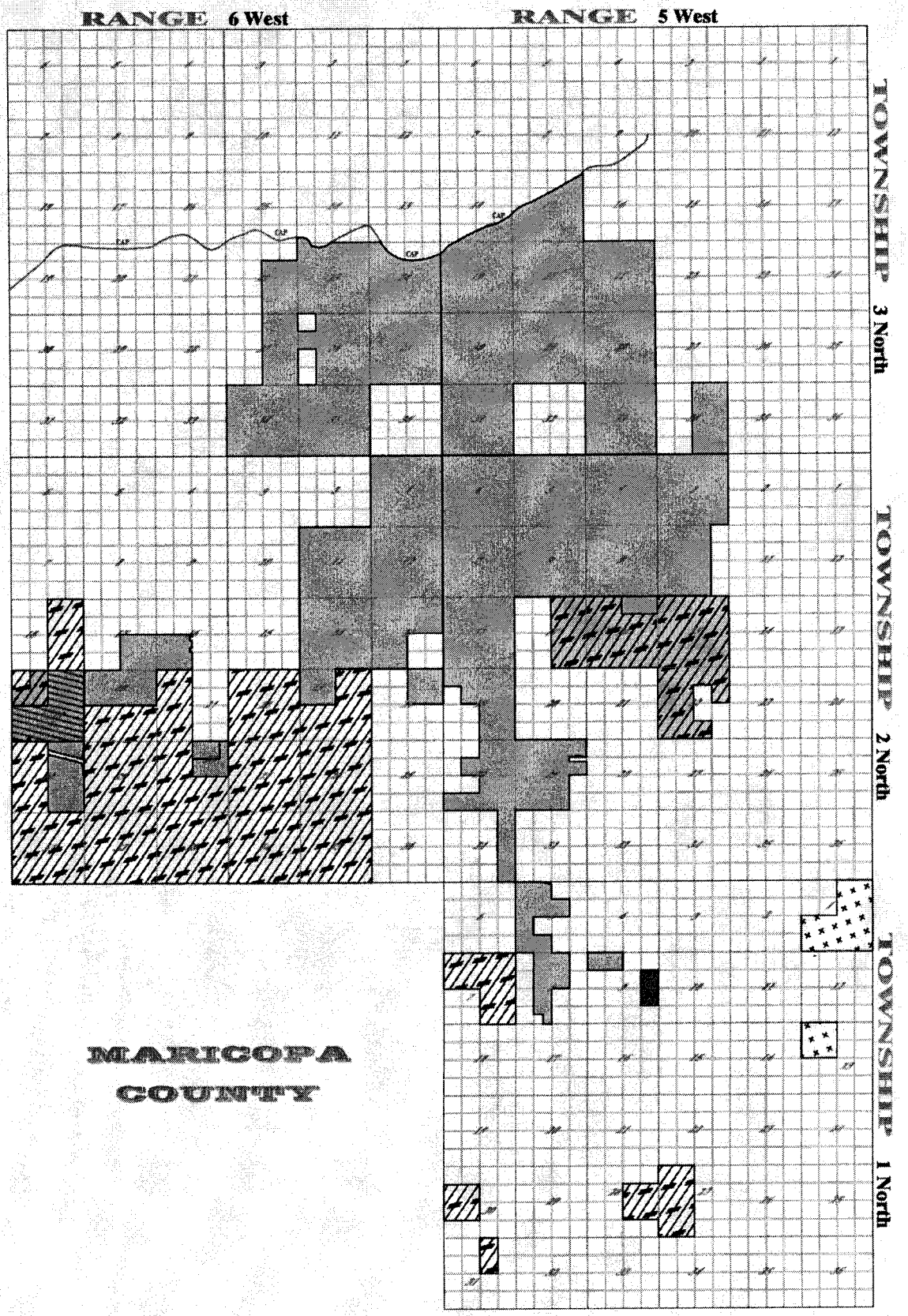
SW-20403
Balterra Sewer Corporation

SW-20422
Hassayampa Utilities Company, Inc.

Hassayampa Water Co-op
Adjudicated 'Not a Public Service Corp'

Water Utility of Greater Tonopah, Inc.
Docket No. W-02450A-06-0253
Application for Extension

Water Utility of Greater Tonopah, Inc.
Docket No. W-02450A-06-0626
Application for Extension



LEGAL DESCRIPTION
CC&N EXPANSION AREA FOR
WATER UTILITY OF GREATER TONOPAH
MARICOPA COUNTY, ARIZONA

TOWNSHIP 2 NORTH, RANGE 6 WEST, G&SRB&M, MARICOPA COUNTY, ARIZONA

PARCEL 1

ALL OF SECTION 1, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

ALL OF SECTION 11 , TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

ALL OF SECTION 12, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE NORTH HALF AND THE SOUTHWEST QUARTER OF SECTION 13, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 14, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE NORTH 282.91 FEET OF THE SOUTH 305.26 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, AND

EXCEPT THE SOUTH 282.91 FEET OF THE NORTH 478.97 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN. MARICOPA COUNTY. ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY ARIZONA.

PARCEL 10

THE NORTHWEST QUARTER OF SECTION 23, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE NORTHEAST QUARTER OF SECTION 24, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 12

THE WEST HALF OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 13

THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER, AND THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIANS MARICOPA COUNTY, ARIZONA.

PARCEL 14

THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 15

THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE EAST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 16

THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 17

THE SOUTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA,

PARCEL 18

THE EAST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S 00° 00' 05" SECONDS WEST, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23'E; THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38" W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29; AND,

EXCEPT THEREFROM THOSE PORTIONS LYING WITHIN THE FOLLOWING DESCRIBED PARCELS OF LAND:

TRACT NO. 1

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, 33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET;
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507.51 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

TRACT NO. 2

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS N00°00'38"E, 2805.94 FEET FROM THE CORNER COMMON TO SECTIONS 29, 30, 31 AND 32;
THENCE N89°59'22"W, 33.00 FEET;
THENCE N07°33'28"W, 888.33 FEET TO THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET;
THENCE S08°19'27"W, 809.17 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING; AND

EXCEPT THEREFROM ANY PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING.

PARCEL 19

THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA. DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING,

EXCEPT THAT PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, .33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET,
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507.51 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

PARCEL 20

THE WEST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S00°00'05"W, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23"E;
THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF' SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29.

TOWNSHIP 3 NORTH, RANGE 6 WEST, G&SRB&M, MARICOPA COUNTY, ARIZONA

PARCEL 1

THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 14, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 2

THE SOUTH HALF OF THE NORTHEAST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

ALL OF SECTION 23, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 4

ALL OF SECTION 24, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 5

ALL OF SECTION 25, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE EAST HALF AND THE EAST HALF OF THE WEST HALF OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE EAST HALF OF SECTION 27, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 35, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA..

TOWNSHIP 1 NORTH, RANGE 5 WEST, G&SRB&M, MARICOPA COUNTY, ARIZONA

PARCEL 1

THE NORTHWEST QUARTER OF SECTION FIVE (5), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION LYING WITHIN THE PHOENIX-EHRENBERG HIGHWAY (I-10) DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTH QUARTER CORNER OF SECTION 5;
THENCE SOUTH 00 DEGREES 08 MINUTES 55 SECONDS EAST 187.60 FEET (SOUTH 187.18 FEET RECORD) ALONG THE EAST LINE OF THE NORTHWEST QUARTER OF SECTION 5 TO THE SOUTH RIGHT-OF-WAY OF SAID HIGHWAY;
THENCE NORTH 75 DEGREES 01 MINUES 17 SECONDS WEST (NORTH 75 DEGREES 01 MINUTES 36 SECONDS WEST 725.36 FEET RECORD) ALONG SAID RIGHT-OF-WAY TO THE NORTH LINE OF SECTION 5;
THENCE SOUTH 89 DEGREES 59 MINUTES 34 SECONDS EAST 700.57 FEET (EAST 700.80 FEET RECORD) TO THE POINT OF BEGINNING.

PARCEL 2

THE WEST HALF OF THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5

WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE WEST HALF OF THE NORTHEAST QUARTER AND THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION EIGHT (8), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

THE WEST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE SOUTH 701.62 FEET THEREOF.

PARCEL 6

THE SOUTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE NORTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP I NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 2 NORTH, RANGE 5 WEST, G&SRB&M, MARICOPA COUNTY, ARIZONA

PARCEL 1

ALL OF SECTION 3, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

ALL OF SECTION 4, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

ALL OF SECTION 5, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

ALL OF SECTION 6, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 7, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 8, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 9, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE WEST HALF OF THE EAST HALF AND THE WEST HALF OF SECTION 10, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF THE NORTHEAST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 18, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER, THE EAST HALF OF THE NORTHWEST QUARTER AND THE EAST HALF OF SECTION 19, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 12

THE WEST HALF, THE WEST HALF OF THE EAST HALF, THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER AND THE SOUTH HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

> EXCEPT COMMENCING AT THE NORTHEAST CORNER OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 29; THENCE SOUTH 00 DEGREES 11 MINUTES 16 SECONDS WEST, ALONG THE EAST LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 1291.13 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 00 DEGREES 11 MINUTES 16 SECONDS WEST, 26.41 FEET; THENCE NORTH 89 DEGREES 25 MINUTES 24 SECONDS WEST, ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 808.80 FEET; THENCE NORTH 01 DEGREES 25 MINUTES 28 SECONDS WEST, 101.26 FEET;

THENCE SOUTH 84 DEGREES 09 MINUTES 42 SECONDS EAST, 815.59 FEET TO THE POINT OF BEGINNING.

PARCEL 13

THE NORTHEAST QUARTER, THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE NORTH HALF OF THE SOUTHEAST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP *2* NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 14

THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 15

THE EAST HALF OF THE EAST HALF OF SECTION 31, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 3 NORTH, RANGE 5 WEST, G&SRB&M, MARICOPA COUNTY, ARIZONA

PARCEL 1

ALL OF SECTION 17, TOWNSHIP 3 NORTH, RANGE *5* WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 2

THE SOUTHEAST QUARTER, AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 18, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 3

ALL OF SECTION 19, , TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 4

ALL OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 21 , TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 28, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 29, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

ALL OF SECTION 30, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 31, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 33, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE EAST HALF OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

CONTAINING APPROXIMATELY 22,049 ACRES, MORE OR LESS. THIS AREA IS NOT BASED ON A FIELD SURVEY, BUT BASED ON CALCULATIONS DERIVED FROM SCANNED IMAGES OF 7.5 MINUTES SERIES NGS QUAD MAPS AND OTHER SCANNED MATERIALS WORKING WITHIN AN AUTOCAD DRAWING FILE.

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21071
MARY F.
KENNEDY
Date Signed 12/9/06
ARIZONA, U.S.A.

FILE COPY

LEGAL

MEMORANDUM

RECEIVED

2007 SEP 28 A 9:19

AZ CORP COMMISSION
DOCKET CONTROL

TO: Docket Control

FROM: Ernest G. Johnson
Director
Utilities Division

Date: September 28, 2007

RE: STAFF REPORT FOR WATER UTILITY OF GREATER TONOPAH, INC. AND HASSAYAMPA UTILITY COMPANY, INC. – APPLICATION FOR EXTENSION OF CERTIFICATE OF CONVENIENCE AND NECESSITY FOR WATER SERVICE (DOCKET NOS. W-02450A-06-0626 AND SW-20422A-06-0566)

Attached is the Staff Report for Hassayampa Utility Company, Inc.'s application for extension of its existing Certificate of Convenience and Necessity for wastewater services. Staff is recommending approval with conditions. The Staff Report for Water Utility of Greater Tonopah was filed in Docket No. W-02450A-06-0626, which has been consolidated with Docket No. SW-20422-06-0566.

EGJ:BNC:red

Originator: Blessing Chukwu

RECEIVED

SEP 28 2007

LEGAL DIV.
ARIZ. CORPORATION COMMISSION

EXHIBIT
S-2
admitted

Service List for: Water Utility of Greater Tonopah, Inc. and Hassayampa Utility Company, Inc.
Docket Nos. W-02450A-06-0626 and SW-20422A-06-0566

Mr. Michael W. Patton
Mr. Timothy J. Sabo
Roshka DeWulf & Patten, PLC
One Arizona Center
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Chief, Legal Division
Arizona Corporation Commission
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Mr. Ernest G. Johnson
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Ms. Lyn Farmer
Chief, Hearing Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

STAFF REPORT
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

HASSAYAMPA UTILITY COMPANY, INC.

DOCKET NO. SW-20422A-06-0566

APPLICATION FOR EXTENSION
OF EXISTING CERTIFICATE OF
CONVENIENCE AND NECESSITY

SEPTEMBER 28, 2007

STAFF ACKNOWLEDGMENT

The Staff Report for Hassayampa Utility Company, Inc. (Docket No. SW-20422A-06-0566) was the responsibility of the Staff members signed below. Blessing Chukwu was responsible for the review and analysis of the Company's application. Katrin Stukov was responsible for the engineering and technical analysis.

Blessing Chukwu
Executive Consultant

Katrin Stukov

Katrin Stukov
Utilities Engineer

EXECUTIVE SUMMARY
HASSAYAMPA UTILITYCOMPANY, INC.
DOCKET NO. SW-20422A-06-0566

On September 18, 2006, Hassayampa Utility Company, Inc. ("Hassayampa" or "Company") filed an application (Docket No. SW-20422A-06-0566) with the Arizona Corporation Commission ("ACC" or "Commission") for an extension of its Certificate of Convenience and Necessity ("CC&N") to provide wastewater services in Maricopa County, Arizona. On September 18, 2006, Water Utility of Greater Tonopah, Inc. ("WUGT") filed an application (Docket No. W-02450A-06-0626) with the Commission for an extension of its CC&N to provide water service in Maricopa County, Arizona. On August 8, 2007, by Procedural Order, WUGT and Hassayampa dockets were consolidated.

Staff filed its Staff Report in the WUGT docket (Docket No. W-02450A-06-0626) on July 23, 2007. This Staff Report addresses Hassayampa's application in Docket No. SW-20422A-06-0566.

By this application, Hassayampa is seeking Commission authority to add approximately 24,340 acres to the Company's existing certificated area of approximately 2,050 acres. Hassayampa's certificated area consists of Hassayampa Ranch Development, located west of the Town of Buckeye and three miles north of Interstate 10. The requested area consists of five subdivisions, namely: Belmont (80,048 dwelling units ("DU")), Copperleaf (4,000 DU), Silver Spring Ranch (8,219 DU), Silver Water Ranch (1,877 DU), and 339th Avenue (2,127 DU). Hassayampa has not yet started providing wastewater services. WUGT is the water provider for the extension area. Much of the extension area is already in the CC&N area of WUGT. The portion of the extension area that is not currently within the CC&N area of WUGT is the subject of WUGT's application in Docket No. W-02450A-06-0626 mentioned above.

Based on Staff's review and analysis of the application, Staff believes that the proposed wastewater infrastructure planned capacity of 3 million gallons per day appears to be appropriate and adequate to serve the requested extension area for the first five years. Staff also believes that the Company's proposed plant facilities and cost estimates totaling $62.3 million at year five are reasonable and appropriate. However, no "used and useful" determination of this plant-in-service was made, and no particular future treatment should be inferred for rate making or rate base purposes in the future.

Staff recommends the Commission approve Hassayampa's application for an extension of its CC&N within portions of Maricopa County, Arizona, to provide wastewater services, subject to compliance with the following conditions:

1. To require Hassayampa to charge its authorized rates and charges in the extension area.

2. To require Hassayampa to file with Docket Control, as a compliance item in this docket, a copy of the franchise agreement from Maricopa County for the requested area, within 365 days of the decision in this matter.

3. To require Hassayampa to file with Docket Control, as a compliance item in this docket, a copy of the ATC issued by Maricopa County Environmental Services Department ("MCESD") for Hassayampa Ranch Water Reclamation Facilities ("WRF") Campus No. 1, needed to serve the initial phase of the development in the requested area by July 31, 2008.

4. To require Hassayampa to file with Docket Control, as a compliance item in this docket, a copy of the ATC issued by MCESD for the sewer tie-in between Hassayampa Ranch WRF Campus No. 1 and the initial phase of the development in the requested extension area by April 30, 2009.

5. To require Hassayampa to file with Docket Control, as a compliance item in this docket, copies of the APP and AZPDES issued by Arizona Department of Environmental Quality for the Hassayampa Ranch WRF Campus No. 1, needed to serve the initial phase of the development in the requested area by April 30, 2009.

6. To require Hassayampa to comply with all requirements and conditions set forth in Decision No. 68922 (August 29, 2006) and Procedural Order issued on June 18, 2007, in Docket No. SW-20422A-05-0659.

Staff further recommends that the Commission's Decision granting the requested CC&N extension to Hassayampa be considered null and void, after due process, should Hassayampa fail to meet Conditions No. 2, 3, 4, 5, and 6 listed above within the time specified.

TABLE OF CONTENTS

Page

INTRODUCTION 1

BACKGROUND 1

THE WASTEWATER SYSTEM 2

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY ("ADEQ") COMPLIANCE 4

ACC COMPLIANCE 4

PROPOSED RATES 4

FRANCHISE 4

RECOMMENDATIONS 5

ATTACHMENT(S)

ENGINEERING REPORT ..... A

ENGINEERING MAP ..... B

Introduction

On September 18, 2006, Hassayampa Utility Company, Inc. ("Hassayampa" or "Company") filed an application (Docket No. SW-20422A-06-0566) with the Arizona Corporation Commission ("ACC" or "Commission") for an extension of its Certificate of Convenience and Necessity ("CC&N") to provide wastewater service in Maricopa County, Arizona.

On September 18, 2006, Water Utility of Greater Tonopah, Inc. ("WUGT") filed an application (Docket No. W-02450A-06-0626) with the Commission for an extension of its CC&N to provide water service in Maricopa County, Arizona.

On January 3, 2007, Staff filed a Sufficiency Letter indicating that Hassayampa's application had met the sufficiency requirements of the A.A.C.

On January 19, 2007, by Procedural Order, the timeframe in the Hassayampa docket was suspended pending the issuance of a notice of sufficiency in the WUGT docket and a determination whether the two dockets should be consolidated.

On June 27, 2007, Staff filed a Sufficiency Letter indicating that WUGT application had met the sufficiency requirements of the A.A.C.

On June 27, 2007, a Procedural Order was issued setting the procedural schedule for the WUGT docket.

On July 23, 2007, Staff filed its Staff Report in the WUGT docket.

On August 8, 2007, by Procedural Order, WUGT and Hassayampa dockets were consolidated.

Background

As mentioned above, Staff filed its Staff Report in the WUGT docket (Docket No. W-02450A-06-0626) on July 23, 2007. The WUGT Staff Report is hereby incorporated by reference. This Staff Report addresses Hassayampa's application in Docket No. SW-20422A-06-0566.

Hassayampa Utility Company, Inc. is an Arizona Corporation, in good standing with the Commission's Corporation Division, authorized to provide wastewater utility services within portions of Maricopa County, Arizona to Hassayampa Ranch development pursuant to authority granted by the Commission in Decision No. 68922 (August 29, 2006). Hassayampa was incorporated on July 6, 2005.

The immediate parent company of Hassayampa is Global Water Resources, LLC. ("Global"). Global is also the ultimate parent of West Maricopa Combine, Inc. ("WMC"). WMC owns WUGT, Valencia Water Company, Inc., Willow Water Company, Water Utility of Greater Buckeye, Inc., and Water Utility of Northern Scottsdale, Inc. Global's subsidiaries serve more than 30,000 Arizona water and wastewater customers. Hassayampa's Officers are Mr. Trevor Hill (the President) and Ms. Cindy Liles (the Secretary and Treasurer). Both Mr. Hill and Ms. Liles are the Directors.

By this application, Hassayampa is seeking Commission authority to add approximately 24,340 acres to the Company's existing certificated area of approximately 2,050 acres. Hassayampa's certificated area consists of Hassayampa Ranch Development ("Hassayampa Ranch")[1], located west of the Town of Buckeye and three miles north of Interstate 10. The requested area consists of five subdivisions, namely: Belmont (80,048 dwelling units ("DU")), Copperleaf (4,000 DU), Silver Spring Ranch (8,219 DU), Silver Water Ranch (1,877 DU), and 339th Avenue (2,127 DU). At full build-out, the Company anticipates an additional 96,271 DU for the proposed extension area, resulting in a projected total customer base of approximately 103,015 within the expanded CC&N at build out. Hassayampa has not yet started providing wastewater services. WUGT is the water provider for the extension area. A minor portion of the extension area is already in the CC&N area of WUGT. The portion of the extension area that is not currently within the CC&N area of WUGT is the subject of WUGT's application in Docket No. W-02450A-06-0626 mentioned above.

The Wastewater System

Using a 20-year planning period, the Company is proposing to construct five (5) Water Reclamation Facilities ("WRF", defined as WRF Campuses No. 2 thru No. 6) in addition to the Hassayampa Ranch WRF (WRF Campus No. 1)[2], with a total wastewater treatment capacity of 19.26 million gallons per day ("MGD") at a total projected cost of $245 million at build-out.

All proposed WRFs will utilize Sequencing Batch Reactor ("SBR") technology combined with filtration and disinfection. Effluent (reclaimed water) disposal will be accomplished primarily by irrigation. Any excess reclaimed water will be recharged, or, as a last resort, discharged to the washes.

The proposed WRFs will be constructed in phases designed to meet the needs of development growth patterns. The Company estimates that during its first two years of operation in the requested extension area, it will add 200 DU per month and for the following three years it will add 300 DU per month. Accordingly, the Company is projecting 2,400 DU and 0.45 MGD

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[1] The Company anticipates 3,000 DU by the end of the fifth year of operation and 6,744 DU at build-out in Hassayampa Ranch.

[2] As per Procedural Order of June 18, 2007, the Company must file a copy of the MCESD Approval of Construction ("AOC") and a copy of the ADEQ Aquifer Protection Permit ("APP) and/or Arizona Pollutant Discharge Elimination System ("ASPDES) for the Phase 1 WRF Campus #1 by April 30, 2009.

flow[3] in the first year and 15,600 DU and 3 MGD flow in fifth year. The Company anticipates that by April 2009 the Hassayampa Ranch 1.0 MGD WRF (Campus No. 1) will be operational and expanded as necessary to accept 0.45 MGD flows from initial phase of the development[4] in the requested extension area in addition to flows from Hassayampa Ranch. For the first five years in the requested extension area, the Company expects to construct two 1.0 MGD WRFs (Campus No. 2 and No. 3) in addition to the Hassayampa Ranch 1.0 MGD WRF (Campus No. 1), which will provide a total wastewater treatment capacity of 3 MGD.

The Company submitted spreadsheets with a breakdown of the proposed infrastructure costs for the first five years. Total projected cost for this period was $62.3 million. The proposed wastewater infrastructure includes WRFs[5] (with a total capacity of 3 MGD), sewer collection lines and reclaimed water lines. The cost per year is as follows:

Year 1:	$13.3 million
Year 2:	$11.2 million
Year 3:	$12.8 million
Year 4:	$15.8 million
Year 5:	$ 9.2 million
Total:	$62.3 million

According to the Application, shareholder equity and advances in aid of construction will fund the cost of the construction of facilities needed to serve the extension area.

Staff has reviewed the proposed wastewater infrastructure along with the Company's cost estimates and concludes that the plant facilities and cost appears to be reasonable and appropriate for the requested extension area. However, approval of this CC&N extension application does not imply any particular future treatment for determining the rate base. No "used and useful" determination of the proposed plant-in-service was made, and no conclusions should be inferred for rate making or rate base purposes in the future.

Staff recommends that any approval in this docket be conditional on the Company complying with all requirements and conditions set forth in Decision No. 68922 (August 29, 2006) and Procedural Order issued on June 18, 2007, in Docket No. SW-20422A-05-0659.

The Company has not yet obtained the Certificate of Approval to Construct ("ATC") for the proposed wastewater plant facilities from the Maricopa County Environmental Services Department ("MCESD"). Therefore, Staff recommends that the Company file with Docket Control, as a compliance item in this docket, a copy of the ATC issued by MCESD for Hassayampa Ranch WRF Campus No. 1, needed to serve the initial phase of the development in the requested area by July 31, 2008. Staff also recommends that the Company file with Docket

[3] The Company's estimated wastewater flow from a typical dwelling unit is 187 GPD/DU.
[4] According to the Company's Master Plan, the initial development activity in the requested extension area will occur in Belmont.
[6] The Company's estimated WRF Unit Cost for a new 1 MGD WRF is $10 million.

Control, as a compliance item in this docket, a copy of the ATC issued by MCESD for the sewer tie-in between Hassayampa Ranch WRF Campus No. 1 and the initial phase of the development in the requested extension area by April 30, 2009.

Hassayampa has not yet obtained an Aquifer Protection Permit ("APP") and/or Arizona Pollutant Discharge Elimination System ("AZPDES") permit for the proposed wastewater plant facilities from Arizona Department of Environmental Quality. Therefore, Staff recommends that the Company file with Docket Control as a compliance item in this docket, copies of the APP and AZPDES issued by Arizona Department of Environmental Quality for the Hassayampa Ranch WRF Campus No. 1, needed to serve the initial phase of the development in the requested area by April 30, 2009.

Arizona Department of Environmental Quality ("ADEQ") Compliance

The Company's proposed wastewater infrastructure does not have any plant facilities yet; therefore, compliance status from ADEQ or its delegated agent, the MCESD, is not applicable at this time.

ACC Compliance

According to the Utilities Division Compliance Section, Hassayampa has no outstanding ACC compliance issues.[5]

Proposed Rates

Hassayampa will provide wastewater and reclaimed water service to the extension area under its authorized rates and charges.

Franchise

Every applicant for a CC&N and/or CC&N extension is required to submit to the Commission evidence showing that the applicant has received the required consent, franchise or permit from the proper authority. If the applicant operates in an unincorporated area, the company has to obtain the franchise from the County. If the applicant operates in an incorporated area of the County, the applicant has to obtain the franchise from the City/Town.

Staff recommends that Hassayampa be required to file with Docket Control, as a compliance item in this docket, a copy of the franchise agreement from Maricopa County for the requested area, within 365 days of the decision in this matter.

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[5] Per ACC Compliance check dated October 3, 2006.

Recommendations

Staff recommends the Commission approve Hassayampa's application for an extension of its CC&N within portions of Maricopa County, Arizona, to provide wastewater services, subject to compliance with the following conditions:

1. To require Hassayampa to charge its authorized rates and charges in the extension area.

2. To require Hassayampa to file with Docket Control, as a compliance item in this docket, a copy of the franchise agreement from Maricopa County for the requested area, within 365 days of the decision in this matter.

3. To require Hassayampa to file with Docket Control, as a compliance item in this docket, a copy of the ATC issued by MCESD for Hassayampa Ranch WRF Campus No. 1, needed to serve the initial phase of the development in the requested area by July 31, 2008.

4. To require Hassayampa to file with Docket Control, as a compliance item in this docket, a copy of the ATC issued by MCESD for the sewer tie-in between Hassayampa Ranch WRF Campus No. 1 and the initial phase of the development in the requested extension area by April 30, 2009.

5. To require Hassayampa to file with Docket Control, as a compliance item in this docket, copies of the APP and/or AZPDES issued by Arizona Department of Environmental Quality for the Hassayampa Ranch WRF Campus No. 1, needed to serve the initial phase of the development in the requested area by April 30, 2009.

6. To require Hassayampa to comply with all requirements and conditions set forth in Decision No. 68922 (August 29, 2006) and Procedural Order issued on June 18, 2007, in Docket No. SW-20422A-05-0659.

Staff further recommends that the Commission's Decision granting the requested CC&N extension to Hassayampa be considered null and void, after due process, should Hassayampa fail to meet Conditions No. 2, 3, 4, 5, and 6 listed above within the time specified.

MEMORANDUM

DATE: August 20, 2007

TO: Blessing Chukwu
Executive Consultant III

FROM: Katrin Stukov KS
Utilities Engineer

RE: Hassayampa Utility Company, Inc.
Docket No. SW-20422A-06-0566 (CC&N Extension)

Introduction

Hassayampa Utility Company, Inc. ("the Company") has applied to extend its Certificate of Convenience and Necessity ("CC&N"). The requested service area will add an additional 24,340 acres immediately adjacent to the Company's existing 2,050 acres[1] located west of the Town of Buckeye and three miles north of Interstate 10. The total expanded CC&N will include an area of about 26,390 acres. The Company's existing 2,050 acres have been identified as Hassayampa Ranch[2], in this application the Company described the proposed 24,340 acres as including five (5) subdivisions which will be identified and developed as:

1.	Belmont	80,048 dwelling units ("DU")
2.	Copperleaf	4,000 DU
3.	Silver Spring Ranch	8,219 DU
4.	Silver Water Ranch	1,877 DU
5.	339th Avenue	2,127 DU

At full build-out, the Company anticipates an additional 96,271 DU for the proposed extension area, resulting in a projected total customer base of approximately 103,015 within the expanded CC&N at build out.

Company's Proposed Wastewater Infrastructure

Using a 20-year planning period, the Company is proposing to construct five (5) Water Reclamation Facilities ("WRF", defined as WRF Campuses No. 2 thru No. 6) in addition

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[1] Wastewater CC&N was granted on August 29, 2006 in Decision No. 68922.

[2] The Company anticipates 3,000 DU by the end of the fifth year of operation and 6,744 DU at build-out in Hassayampa Ranch.

to the Hassayampa Ranch WRF (WRF Campus No. 1)[3], with a total wastewater treatment capacity of 19.26 million gallons per day ("MGD") at a total projected cost of $245 million at build-out.

All proposed WRFs will utilize Sequencing Batch Reactor ("SBR") technology combined with filtration and disinfection. Effluent (reclaimed water) disposal will be accomplished primarily by irrigation. Any excess reclaimed water will be recharged, or, as a last resort, discharged to the washes.

The proposed WRFs will be constructed in phases designed to meet the needs of development growth patterns. The Company estimates that during its first two years of operation in the requested extension area, it will add 200 DU per month and for the following three years it will add 300 DU per month. Accordingly, the Company is projecting 2,400 DU and 0.45 MGD flow[4] in the first year and 15,600 DU and 3 MGD flow in fifth year. The Company anticipates that by April 2009 the Hassayampa Ranch 1.0 MGD WRF (Campus No. 1) will be operational and expanded as necessary to accept 0.45 MGD flows from initial phase of the development[5] in the requested extension area in addition to flows from Hassayampa Ranch.

For the first 5 years in the requested extension area, the Company expects to construct two 1.0 MGD WRFs (Campus No. 2 and No. 3) in addition to the Hassayampa Ranch 1.0 MGD WRF (Campus No. 1), which will provide a total wastewater treatment capacity of 3 MGD.

Cost Analysis

The Company submitted spreadsheets with a breakdown of the proposed infrastructure costs for the first five years. Total projected cost for this period was $62.3 million. The proposed wastewater infrastructure includes WRFs[5] (with a total capacity of 3 MGD), sewer collection lines and reclaimed water lines. The cost per year is as follows:

Year 1:	$13.3 million
Year 2:	$11.2 million
Year 3:	$12.8 million
Year 4:	$15.8 million
Year 5:	$ 9.2 million
Total:	$62.3 million

According to the Company, shareholder equity and advances in aid of construction will fund the cost of facilities needed to serve the requested extension area.

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[3] As per Procedural Order of June 18, 2007, the Company must file a copy of the MCESD Approval of Construction ("AOC") and a copy of the ADEQ Aquifer Protection Permit ("APP) and/or Arizona Pollutant Discharge Elimination System ("ASPDES) for the Phase 1 WRF Campus #1 by April 30, 2009.

[4] The Company's estimated wastewater flow from a typical dwelling unit is 187 GPD/DU.

[5] According to the Company's Master Plan, the initial development activity in the requested extension area will occur in Belmont.

[6] The Company's estimated WRF Unit Cost for a new 1 MGD WRF is $10 million.

Staff has reviewed the proposed wastewater infrastructure along with the Company's cost estimates and concludes that the plant facilities and cost appears to be reasonable and appropriate for the requested extension area. However, approval of this CC&N extension application does not imply any particular future treatment for determining the rate base. No "used and useful" determination of the proposed plant-in-service was made, and no conclusions should be inferred for rate making or rate base purposes in the future.

Arizona Department of Environmental Quality ("ADEQ") Issues

Compliance Status

The Company's proposed wastewater infrastructure does not have any plant facilities yet; therefore, compliance status from ADEQ or its delegated agent, the Maricopa County Environmental Services Department ("MCESD"), is not applicable at this time.

Approval to Construct ("ATC")

The Company has not yet obtained the ATC for the proposed wastewater plant facilities from the MCESD.

Aquifer Protection Permit ("APP"), and Arizona Pollutant Discharge Elimination System ("AZPDES") permit for discharge

The Company has not yet obtained APP or AZPDES permits for the proposed wastewater plant facilities from ADEQ.

Arizona Corporation Commission Compliance

A check with the Utilities Division Compliance Section showed no delinquent compliance issues for the Company[6].

Summary

Conclusions

1. Staff concludes that the Company's proposed wastewater infrastructure planned capacity of 3 MGD appears to be appropriate and adequate to serve the requested extension area for the first five years.

2. Staff concludes that the Company's proposed plant facilities and cost estimates totaling $62.3 million at year five are reasonable and appropriate. However, no "used and useful" determination of this plant-in-service was made, and no particular future treatment should be inferred for rate making or rate base purposes in the future.

[6] Per ACC Compliance check dated October 3, 2006.

3. Staff concludes that the Company's proposed Hassayampa Ranch WRF Campus No. 1 infrastructure will serve initial development in the requested extension area.

4. The Company's proposed wastewater infrastructure does not have any plant facilities yet; therefore, the compliance status from the MCESD is not applicable at this time.

Recommendations

1. Staff recommends that any approval in this docket be conditional on the Company complying with all requirements and conditions set forth in Decision No. 68922 dated August 29, 2006 and Procedural Order dated June 18, 2007.

2. Staff recommends that the Company file with Docket Control as a compliance item in this docket, a copy of the ATC issued by MCESD for Hassayampa Ranch WRF Campus No. 1, needed to serve the initial phase of the development in the requested area by July 31, 2008.

3. Staff recommends that the Company file with Docket Control as a compliance item in this docket, a copy of the ATC issued by MCESD for the sewer tie-in between Hassayampa Ranch WRF Campus No. 1 and the initial phase of the development in the requested extension area by April 30, 2009.

4. Staff recommends that the Company file with Docket Control as a compliance item in this docket, copies of the APP and AZPDES issued by ADEQ for the Hassayampa Ranch WRF Campus No. 1, needed to serve the initial phase of the development in the requested area by April 30, 2009.

MEMORANDUM

TO: Blessing Chukwu
Executive Consultant III
Utilities Division

FROM: Barb Wells
Information Technology Specialist
Utilities Division

THRU: Del Smith
Engineering Supervisor
Utilities Division

DATE: January 12, 2007

RE: **HASSAYAMPA UTILITY COMPANY, INC. (DOCKET NO. SW-20422A-06-0566)**
REVISED LEGAL DESCRIPTION

The area requested by Hassayampa for an extension has been plotted with no complications using a revised legal description, which was docketed on December 20, 2006. This legal description is attached and should be used in place of all previous revisions as well as the original description submitted with the application.

Also attached are copies of the maps for your files.

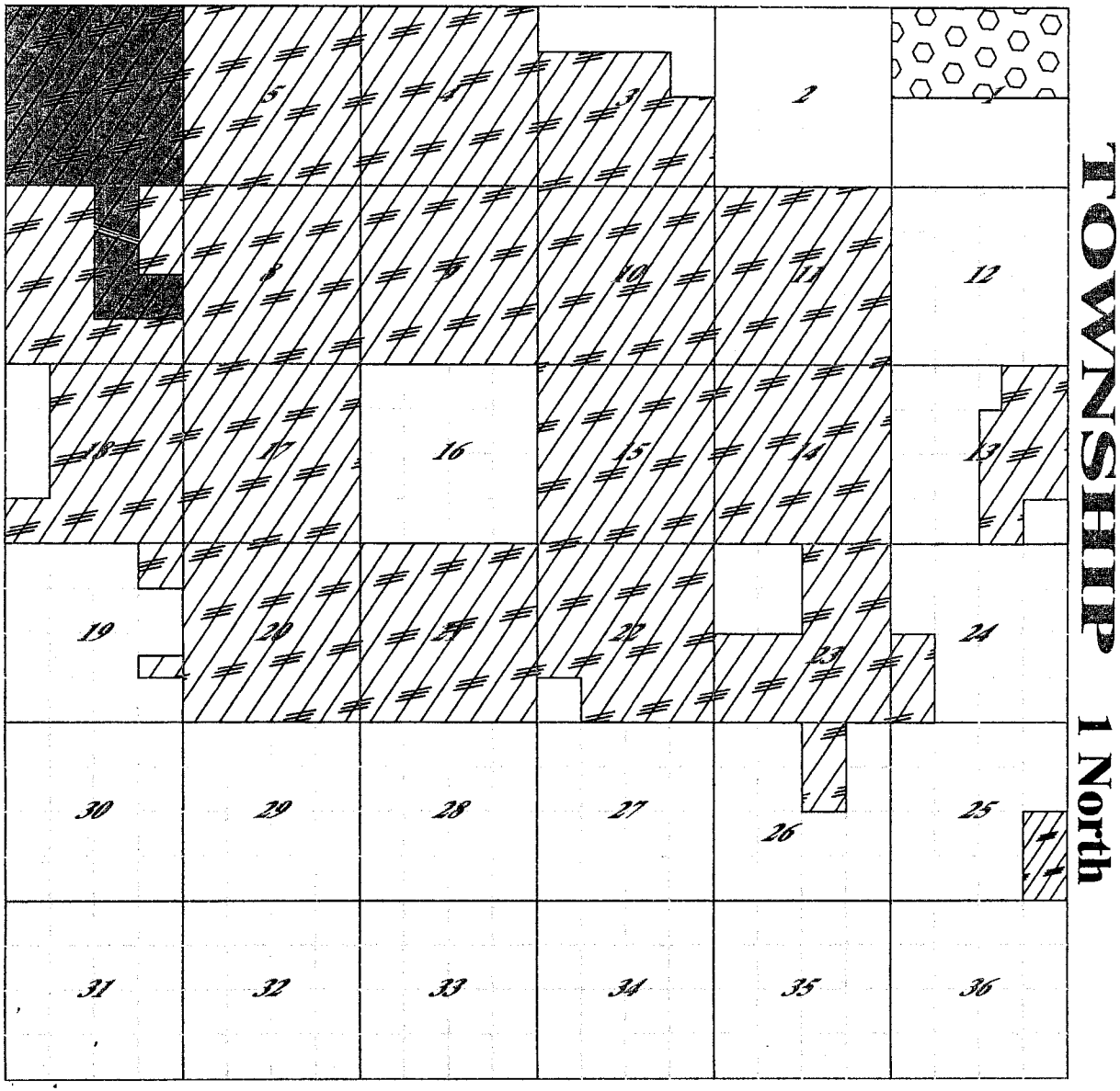
:bsw

Attachments

cc: Mr. Graham Symmonds
Ms. Deb Person (Hand Carried)
File

COUNTY: *Maricopa*

RANGE 6 West



W-2148 (1)
Valley View Water Company, Inc.

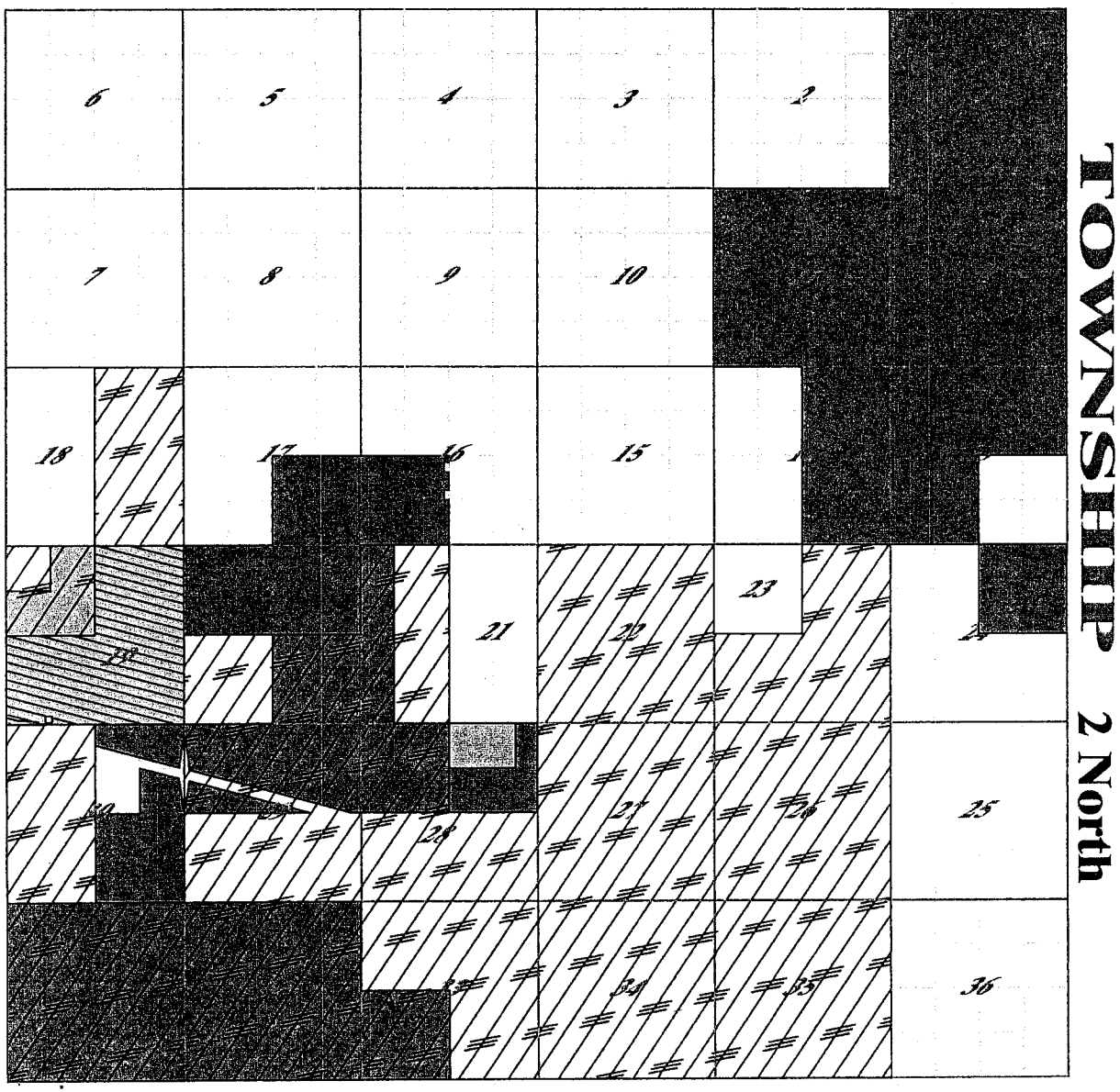
W-2450 (11)
Water Utility of Greater Tonopah, Inc.
(West Phoenix)

(6)
Hassayampa Utility Company, Inc.
Docket No. SW-20422A-06-0566
Application for Extension

TR1N6W 08 APR 1998

COUNTY: *Maricopa*

RANGE 6 West



W-2450 (11)
Water Utility of Greater Tonopah, Inc.
(West Phoenix)

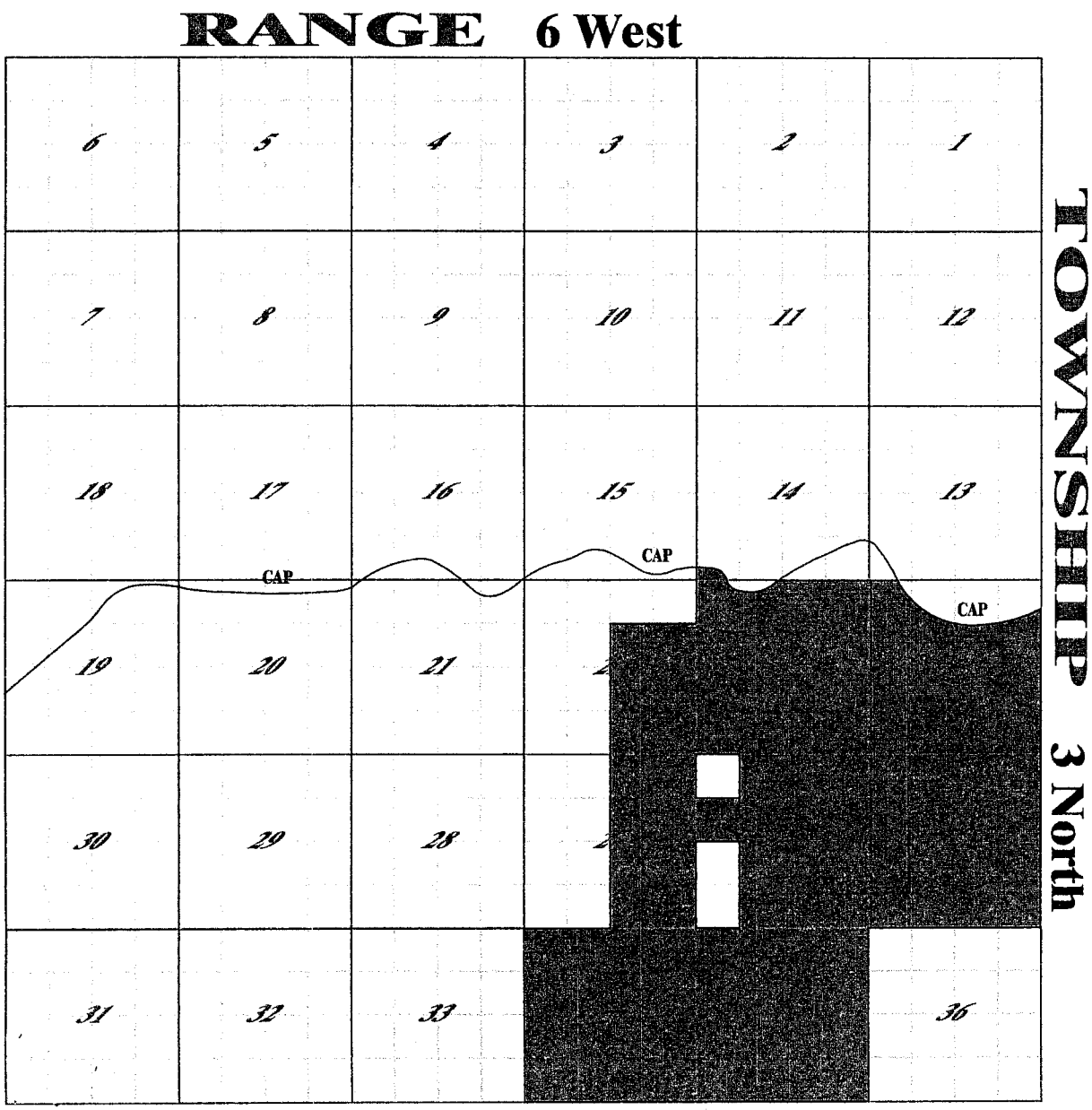
SW-20403 (2)
Balterra Sewer Corporation

(1)
Water Utility of Greater Tonopah, Inc.
Docket No. W-02450A-06-0253
Application for Extension

(6)
Hassayampa Utility Company, Inc.
Docket No. SW-20422A-06-0566
Application for Extension

TR2N6W 05 JUN 2006

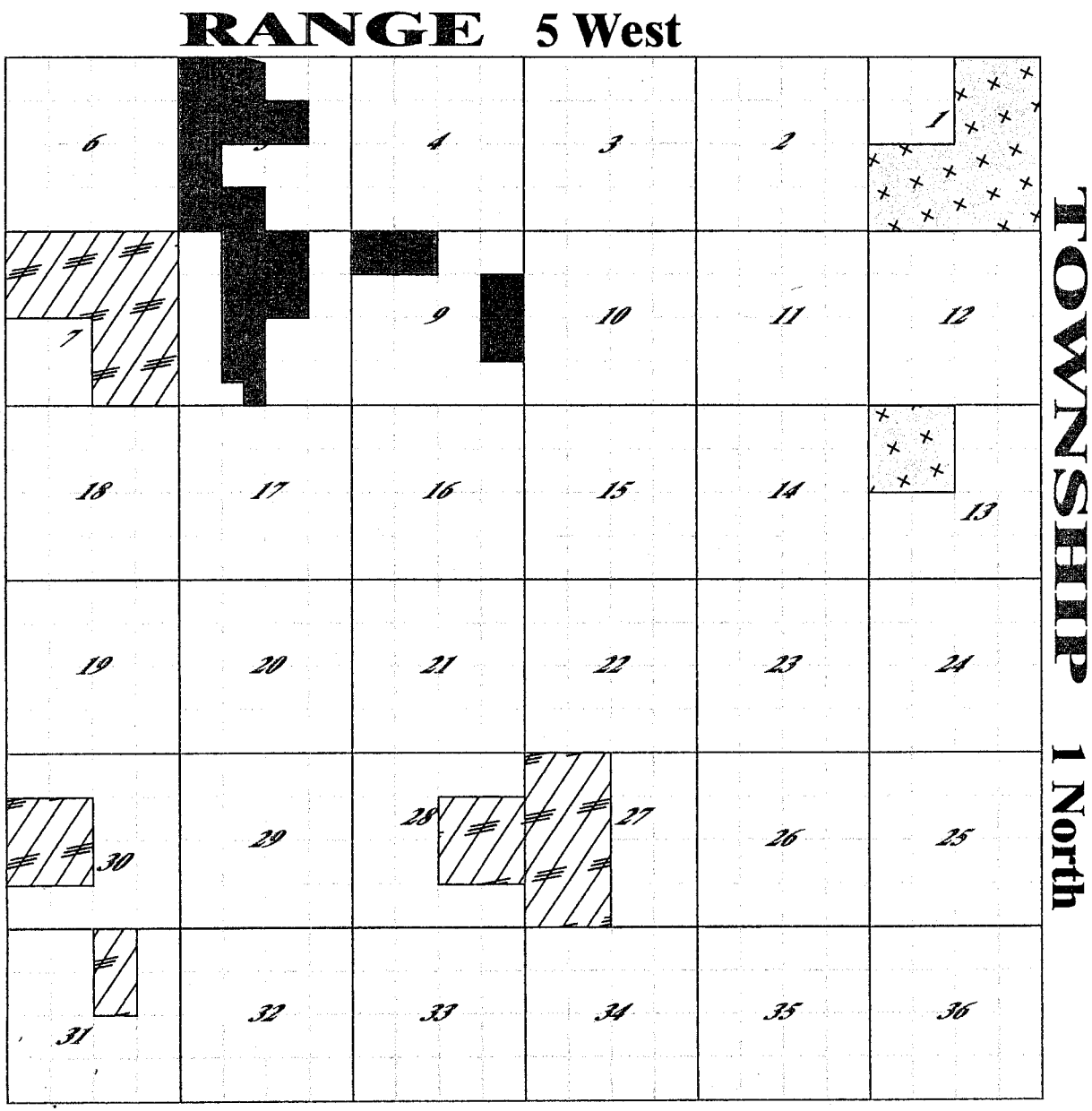
COUNTY: *Maricopa*



(6)
Hassayampa Utility Company, Inc.
Docket No. SW-20422A-06-0566
Application for Extension

TR3N6W 04 NOV 1991

COUNTY: *Maricopa*



W-2451 (5)
Water Utility of Greater Buckeye, Inc.

W-2450 (11)
Water Utility of Greater Tonopah, Inc.
(Sunshine)

Hassayampa Water Co-op
Adjudicated 'Not a Public Service Corporation'

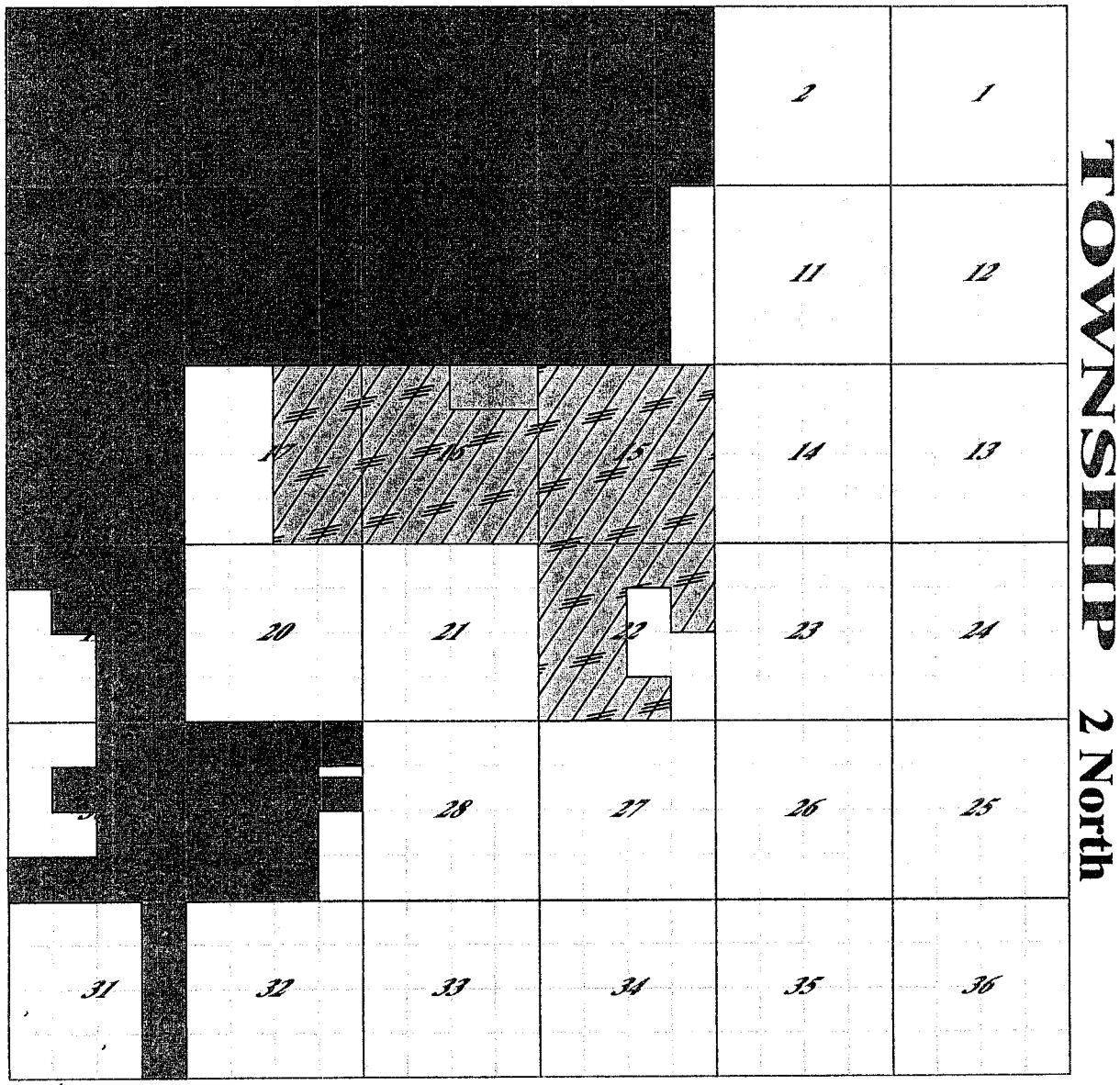
Water Utility of Greater Buckeye, Inc.
Docket No. W-02451A-06-0666
Application to Transfer to
Valencia Water Company
Docket No. W-01212A-06-0666

(6)
Hassayampa Utility Company, Inc.
Docket No. SW-20422A-06-0566
Application for Extension

TR1N5W 11 OCT 1991

COUNTY: *Maricopa*

RANGE 5 West



W-2450 (12)
Water Utility of Greater Tonopah, Inc.

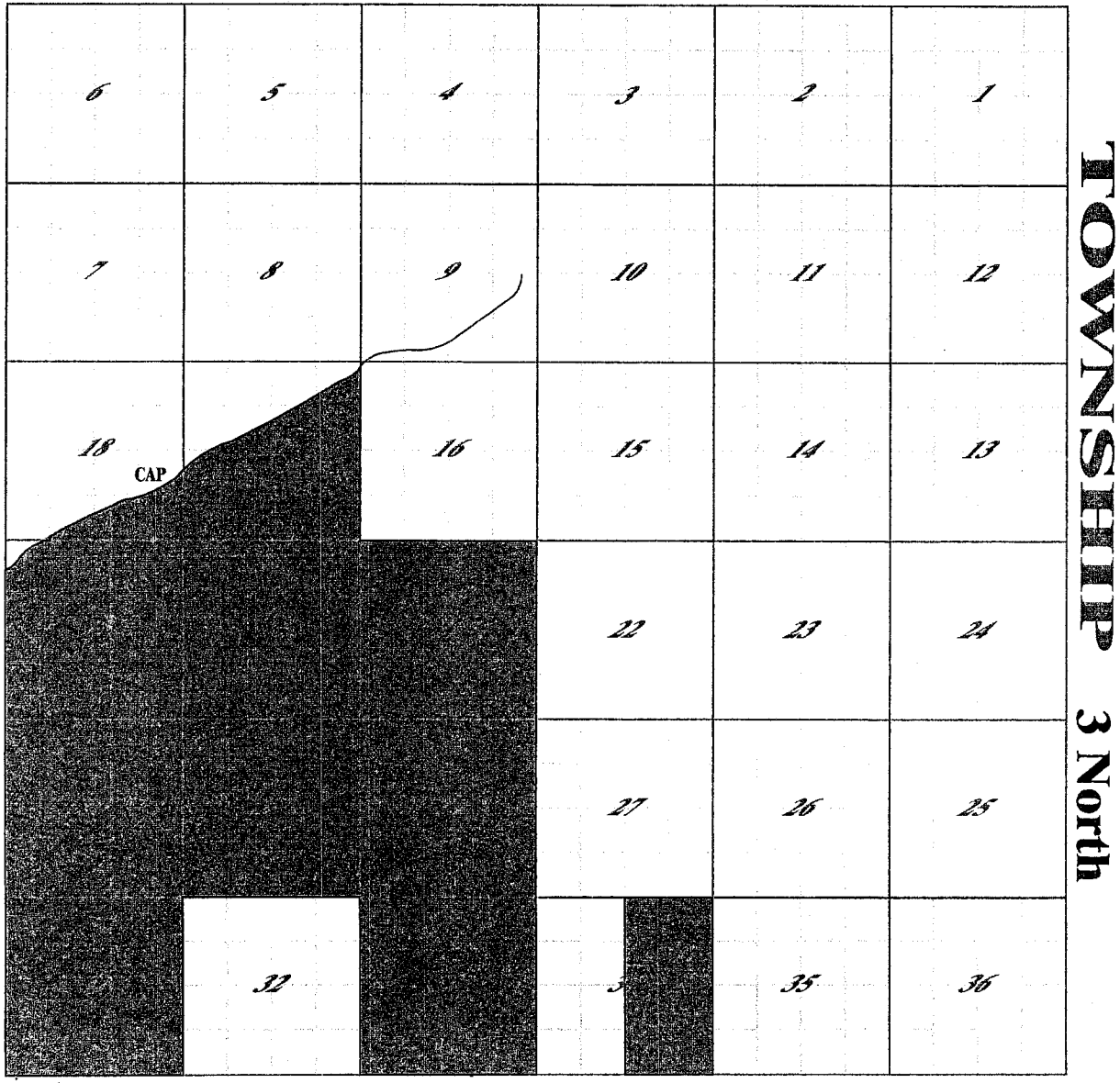
SW-20422 (1)
Hassayampa Utilities Company, Inc.

(6)
Hassayampa Utility Company, Inc.
Docket No. SW-20422A-06-0566
Application for Extension

TR2N5W 29 AUG 2006

COUNTY: *Maricopa*

RANGE 5 West



(6)
Hassayampa Utility Company, Inc.
Docket No. SW-20422A-06-0566
Application for Extension

TR3N5W 04 NOV 1991

W-2451
Water Utility of Greater Buckeye, Inc.

W-2450
Water Utility of Greater Tonopah, Inc.

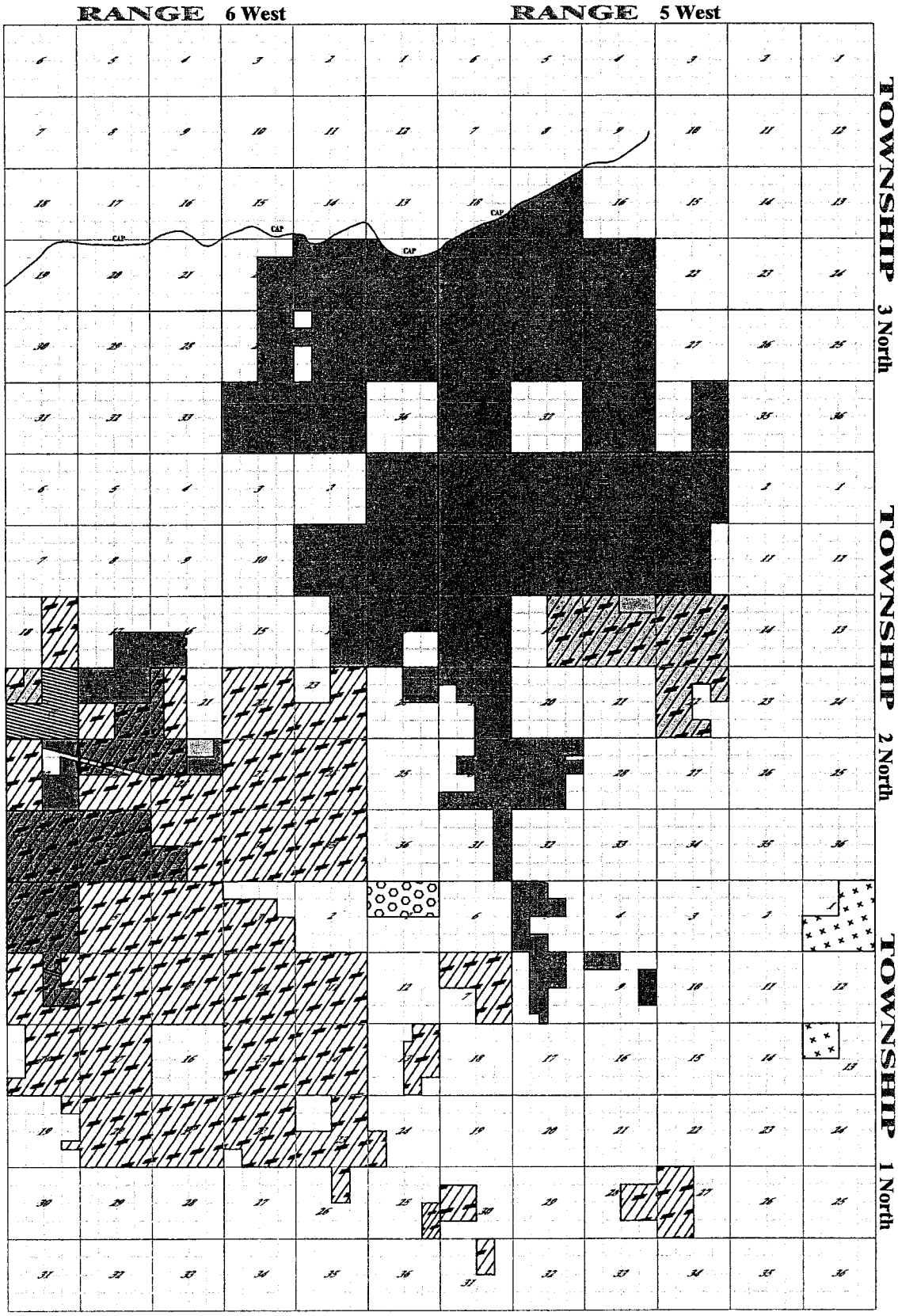
SW-20403
Balterra Sewer Corporation

SW-20422
Hassayampa Utilities Company, Inc.

Hassayampa Water Co-op
Adjudicated 'Not a Public Service Corp'

Water Utility of Greater Tonopah, Inc.
Docket No. W-02450A-06-0253
Application for Extension

Hassayampa Utility Company, Inc.
Docket No. SW-20422A-06-0566
Application for Extension



MARICOPA COUNTY

LEGAL DESCRIPTION
CC&N EXPANSION AREA FOR
HASSAYAMPA UTILITY COMPANY
MARICOPA COUNTY, ARIZONA

TOWNSHIP 1 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

ALL OF SECTION 6, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

THE WEST HALF OF THE NORTHEAST QUARTER AND THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 7, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THAT PORTION OF THE FOLLOWING DESCRIBED PARCEL OF LAND LYING WITHIN A 200 FOOT STRIP, BEING 100 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:
BEGINNING AT A POINT NORTH 07 DEGREES 7 MINUTES 30 SECONDS EAST, 1223.03 FEET FROM THE SOUTHEAST CORNER OF SECTION 16, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA;
THENCE NORTH 56 DEGREES 07 MINUTES 30 SECONDS WEST, 1783.55 FEET TO THE POINT OF CURVE OF A 0 DEGREES 15 MINUTES CURVE TO THE RIGHT, HAVING A RADIUS OF 22,918.3 FEET;
THENCE ALONG THE ARC OF SAID CURVE, A DISTANCE OF 433.33 FEET TO THE POINT OF TANGENT OF SAID CURVE;
THENCE NORTH 55 DEGREES 02 MINUTES 30 SECONDS WEST, 9949.29 FEET TO THE POINT OF CURVE OF A 4 DEGREES 00 MINUTES CURVE TO THE LEFT, HAVING A RADIUS OF 1432.69 FEET;
THENCE ALONG THE ARC OF SAID CURVE, 417.29 FEET TO THE POINT OF TANGENT OF SAID CURVE;
THENCE NORTH 71 DEGREES 44 MINUTES WEST, 4963.49 FEET TO THE POINT OF CURVE OF A 2 DEGREES 00 MINUTES CURVE TO THE RIGHT HAVING A RADIUS OF 2864.79 FEET;
THENCE ALONG THE ARC OF SAID CURVE, 489.17 FEET TO THE POINT OF TANGENT OF SAID CURVE;
THENCE NORTH 61 DEGREES 57 MINUTES WEST, 211.49 FEET TO A POINT ON THE WEST LINE OF SECTION 7, TOWNSHIP 1 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, SAID POINT BEING SOUTH 0 DEGREES 16 MINUTES WEST, 394.03 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 7.

TOWNSHIP 2 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

ALL OF SECTION 1, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

ALL OF SECTION 11 , TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

ALL OF SECTION 12, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE NORTH HALF AND THE SOUTHWEST QUARTER OF SECTION 13, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

THE NORTHEAST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 14, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE NORTH 282.91 FEET OF THE SOUTH 305.26 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, AND

EXCEPT THE SOUTH 282.91 FEET OF THE NORTH 478.97 FEET OF THE EAST 154.00 FEET OF THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN. MARICOPA COUNTY. ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY ARIZONA.

PARCEL 10

THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE WEST HALF OF SECTION 21, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE EAST 200 ACRES THEREOF (OR APPROXIMATELY THE EAST 1650 FEET OF SAID WEST HALF OF SECTION 21).

PARCEL 12

THE NORTHEAST QUARTER OF SECTION 24, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 13

THE NORTHWEST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 14

THE WEST HALF OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE WEST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST

QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 15

THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER, AND THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIANS MARICOPA COUNTY, ARIZONA.

PARCEL 16

THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 17

THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; AND THE EAST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 18

THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SAID SECTION 29, WHICH POINT BEARS SOUTH 0 DEGREES 00 MINUTES 38 SECONDS WEST, 1476.85 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 29;
THENCE SOUTH 75 DEGREES 04 MINUTES 23 SECONDS EAST, 5470.76 FEET TO A POINT ON THE EAST LINE OF SAID SECTION 29, WHICH POINT BEARS SOUTH 0 DEGREES 03 MINUTES 23 SECONDS WEST, 243.12 FEET FROM THE EAST QUARTER CORNER OF SAID SECTION 29, AS CONVEYED TO STATE OF ARIZONA BY AND THROUGH ITS HIGHWAY COMMISSION BY WARRANTY DEED RECORDED IN DOCKET 6586, PAGE 69.

PARCEL 19

THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION OF SAID EAST HALF OF THE NORTHWEST QUARTER OF SAID SECTION 29 WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SAID SECTION 29, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 29;
THENCE S75°04'23"E, 5470.76 FEET TO A POINT ON THE EAST LINE OF SAID SECTION 29, WHICH POINT BEARS S00°03'23"W, 243.12 FEET FROM THE EAST QUARTER CORNER OF SAID SECTION 29.

PARCEL 20

THE WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S 00° 00' 05" SECONDS WEST, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23'E; THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38" W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29, AND

EXCEPT THEREFROM THOSE PORTIONS LYING WITHIN THE FOLLOWING DESCRIBED PARCELS OF LAND:

TRACT NO. 1

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, 33.00 FEET;

THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET,
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507.51 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

TRACT NO. 2

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS N00°00'38"E, 2805.94 FEET FROM THE CORNER COMMON TO SECTIONS 29, 30, 31 AND 32;
THENCE N89°59'22'W, 33.00 FEET;
THENCE N07°33'28"W, 888.33 FEET TO THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET;
THENCE S08°19'27"W, 809.17 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

PARCEL 21

THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 22

THE SOUTH HALF OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA,

PARCEL 23

THE EAST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MER1DIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S 00° 00' 05" SECONDS WEST, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23'E; THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6

WEST, WHICH POINT BEARS S00°00'38" W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29; AND,

EXCEPT THEREFROM THOSE PORTIONS LYING WITHIN THE FOLLOWING DESCRIBED PARCELS OF LAND:

TRACT NO. 1

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, 33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET;
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507.51 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

TRACT NO. 2

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS N00°00'38"E, 2805.94 FEET FROM THE CORNER COMMON TO SECTIONS 29, 30, 31 AND 32;
THENCE N89°59'22"W, 33.00 FEET;
THENCE N07°33'28"W, 888.33 FEET TO THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET;
THENCE S08°19'27"W, 809.17 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING; AND

EXCEPT THEREFROM ANY PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING.

PARCEL 24

THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA. DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 30;
THENCE WEST ALONG THE NORTH SECTION LINE 511 FEET;
THENCE SOUTH 90 FEET;
THENCE WEST 50 FEET;
THENCE SOUTH 1098 FEET;
THENCE EAST ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE 10 (EHRENBERG-PHOENIX HIGHWAY) TO A POINT COMMON TO SECTIONS 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;
THENCE NORTH ALONG THE EAST SECTION LINE TO THE POINT OF BEGINNING,

EXCEPT THAT PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT A POINT ON THE LINE COMMON TO SAID SECTIONS 29 AND 30, WHICH POINT BEARS S00°00'38"W, 476.85 FEET FROM THE CORNER COMMON TO SECTIONS 19, 20, 29 AND 30;
THENCE N89°59'22"W, 33.00 FEET;
THENCE S08°19'27"W, 809.17 FEET TO THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 10 (EHRENBERG-PHOENIX HIGHWAY);
THENCE S75°04'23"E, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 310.42 FEET,
THENCE N04°29'47"W, 381.77 FEET;
THENCE N09°51'36"W, 507.51 FEET;
THENCE N89°59'22"W, 33.00 FEET TO THE POINT OF BEGINNING.

PARCEL 25

THE WEST HALF OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THEREFROM THAT PORTION WHICH LIES WITHIN A STRIP OF LAND 308 FEET IN WIDTH, BEING 154 FEET WIDE ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 30, WHICH POINT BEARS S00°00'05"W, 76.94 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 30;
THENCE S75°07'10"E, 2990.74 FEET TO A BEARING EQUATION POINT, AT WHICH POINT S75°07'10"E = S75°04'23"E;
THENCE S75°04'23"E, 2445.44 FEET TO A POINT ON THE LINE COMMON TO SAID SECTION 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST, WHICH POINT BEARS S00°00'38"W, 1476.85 FEET FROM THE SECTION CORNER COMMON TO SECTIONS 19, 20, 29 AND 30, TOWNSHIP 2 NORTH, RANGE 6 WEST;

THENCE CONTINUING S75°04'23"E TO THE EAST LINE OF SAID WEST HALF OF THE NORTHWEST QUARTER OF SECTION 29.

PARCEL 26

THE SOUTH HALF AND THE NORTHWEST QUARTER OF SECTION 31 TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 27

THE NORTHEAST QUARTER OF SECTION 31, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 28

ALL OF SECTION 32, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA;

PARCEL 29

THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 2 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 3 NORTH, RANGE 6 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 14, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 2

THE SOUTH HALF OF THE NORTHEAST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

ALL OF SECTION 23, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 4

ALL OF SECTION 24, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 5

ALL OF SECTION 25, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

THE EAST HALF AND THE EAST HALF OF THE WEST HALF OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE EAST HALF OF SECTION 27, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 35, TOWNSHIP 3 NORTH, RANGE 6 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA..

TOWNSHIP 1 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

THE NORTHWEST QUARTER OF SECTION FIVE (5), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THAT PORTION LYING WITHIN THE PHOENIX-EHRENBERG HIGHWAY (I-10) DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTH QUARTER CORNER OF SECTION 5;
THENCE SOUTH 00 DEGREES 08 MINUTES 55 SECONDS EAST 187.60 FEET (SOUTH 187.18 FEET RECORD) ALONG THE EAST LINE OF THE NORTHWEST QUARTER OF SECTION 5 TO THE SOUTH RIGHT-OF-WAY OF SAID HIGHWAY;
THENCE NORTH 75 DEGREES 01 MINUES 17 SECONDS WEST (NORTH 75 DEGREES 01 MINUTES 36 SECONDS WEST 725.36 FEET RECORD) ALONG SAID RIGHT-OF-WAY TO THE NORTH LINE OF SECTION 5;
THENCE SOUTH 89 DEGREES 59 MINUTES 34 SECONDS EAST 700.57 FEET (EAST 700.80 FEET RECORD) TO THE POINT OF BEGINNING.

PARCEL 2

THE WEST HALF OF THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, AIRZONA.

PARCEL 3

THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 5, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

THE WEST HALF OF THE NORTHEAST QUARTER AND THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION EIGHT (8), TOWNSHIP ONE (1) NORTH, RANGE FIVE (5) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

THE WEST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT THE SOUTH 701.62 FEET THEREOF.

PARCEL 6

THE SOUTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

THE SOUTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE NORTH HALF OF THE NORTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

THE NORTH HALF OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PARCEL:

THE EAST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 1 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP I NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 2 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

ALL OF SECTION 3, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 2

ALL OF SECTION 4, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 3

ALL OF SECTION 5, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 4

ALL OF SECTION 6, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 7, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 8, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 9, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

THE WEST HALF OF THE EAST HALF AND THE WEST HALF OF SECTION 10, TOWNSHIP 2 NORTH, RANGE 5 WEST OFTHE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 18, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER, THE EAST HALF OF THE NORTHWEST QUARTER AND THE EAST HALF OF SECTION 19, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE WEST HALF, THE WEST HALF OF THE EAST HALF, THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTH HALF OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER AND THE SOUTH HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPT COMMENCING AT THE NORTHEAST CORNER OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 29; THENCE SOUTH

00 DEGREES 11 MINUTES 16 SECONDS WEST, ALONG THE EAST LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 1291.13 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 00 DEGREES 11 MINUTES 16 SECONDS WEST, 26.41 FEET; THENCE NORTH 89 DEGREES 25 MINUTES 24 SECONDS WEST, ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER OFTHE NORTHEAST QUARTER, 808.80 FEET; THENCE NORTH 01 DEGREES 25 MINUTES 28 SECONDS WEST, 101.26 FEET; THENCE SOUTH 84 DEGREES 09 MINUTES 42 SECONDS EAST, 815.59 FEET TO THE POINT OF BEGINNING.

PARCEL 12

THE NORTHEAST QUARTER, THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, THE NORTH HALF OF THE SOUTHEAST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 13

THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER, AND THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 14

THE EAST HALF OF THE EAST HALF OF SECTION 31, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

TOWNSHIP 3 NORTH, RANGE 5 WEST, G&SRB&M, PINAL COUNTY, ARIZONA

PARCEL 1

ALL OF SECTION 17, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 2

THE SOUTHEAST QUARTER, AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 18, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 3

ALL OF SECTION 19, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA,

EXCEPT ANY PORTION THEREOF LYING WITHIN, OR NORTH OF, THE CENTRAL ARIZONA PROJECT CANAL.

PARCEL 4

ALL OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. MARICOPA COUNTY, ARIZONA.

PARCEL 5

ALL OF SECTION 21 , TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 6

ALL OF SECTION 28, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 7

ALL OF SECTION 29, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 8

ALL OF SECTION 30, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 9

ALL OF SECTION 31, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 10

ALL OF SECTION 33, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL 11

THE EAST HALF OF SECTION 34, TOWNSHIP 3 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

CONTAINING APPROXIMATELY 24,262 ACRES, MORE OR LESS. THIS AREA IS NOT BASED ON A FIELD SURVEY, BUT BASED ON CALCULATIONS DERIVED FROM SCANNED IMAGES OF 7.5 MINUTES SERIES NGS QUAD MAPS AND OTHER SCANNED MATERIALS WORKING WITHIN AN AUTOCAD DRAWING FILE.

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21071
MARY F.
KENNEDY
Date Signed 12/18/06
ARIZONA, U.S.A.

W-2451
Water Utility of Greater Buckeye, Inc.

W-2450
Water Utility of Greater Tonopah, Inc.

SW-20403
Balterra Sewer Corporation

SW-20422
Hassayampa Utilities Company, Inc.

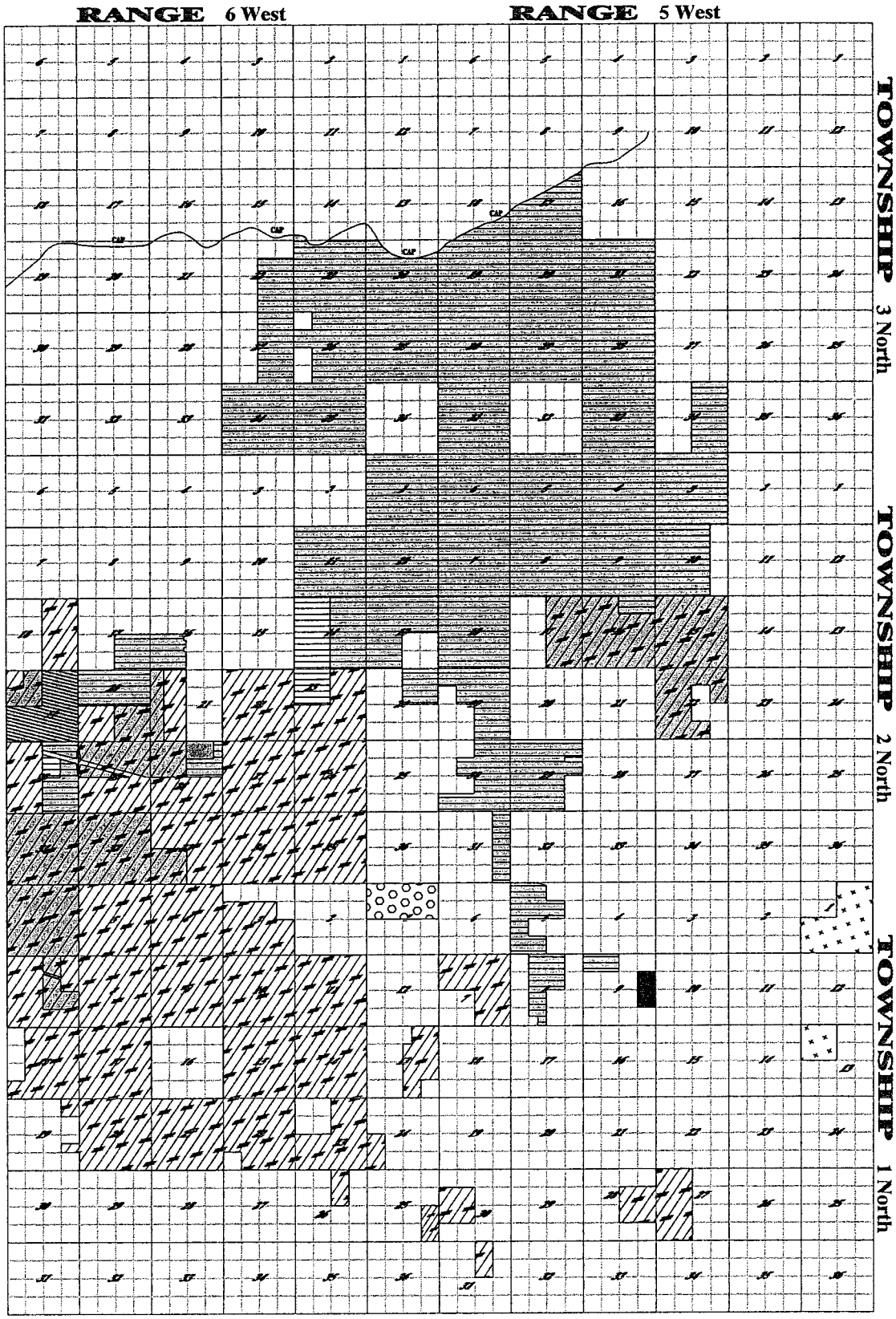
Hassayampa Water Co-op
Adjudicated 'Not a Public Service Corp'

Water Utility of Greater Tonopah, Inc.
Docket No. W-02450A-06-0253
Application for Extension

Water Utility of Greater Tonopah, Inc.
Docket No. W-02450A-06-0626
Application for Extension

Hassayampa Utility Company, Inc.
Docket No. SW-20422A-06-0566
Application for Extension

MARICOPA COUNTY



LEGAL

MEMORANDUM

RECEIVED

2007 DEC 10 P 3: 57

AZ CORP COMMISSION
DOCKET CONTROL

TO: Docket Control

FROM: Ernest G. Johnson
Director
Utilities Division

Date: December 10, 2007

RE: **SUPPLEMENTAL** STAFF REPORT FOR WATER UTILITY OF GREATER TONOPAH, INC. AND HASSAYAMPA UTILITY COMPANY, INC. – APPLICATION FOR EXTENSION OF CERTIFICATE OF CONVENIENCE AND NECESSITY FOR WATER SERVICE (DOCKET NOS. W-02450A-06-0626 AND SW-20422A-06-0566)

Attached is the Supplemental Staff Report, as required by Procedural Order, for Hassayampa Utility Company, Inc.'s application for extension of its existing Certificate of Convenience and Necessity for wastewater services. Staff is recommending approval with conditions. The Staff Report for Water Utility of Greater Tonopah was filed in Docket No. W-02450A-06-0626, which has been consolidated with Docket No. SW-20422-06-0566.

EGJ:BNC:red

Originator: Blessing Chukwu

RECEIVED

DEC 1 0 2007

LEGAL DIV.
ARIZ. CORPORATION COMMISSION

EXHIBIT
tabbies
admitted

Service List for: Water Utility of Greater Tonopah, Inc. and Hassayampa Utility Company, Inc.
Docket Nos. W-02450A-06-0626 and SW-20422A-06-0566

Mr. Michael W. Patton
Mr. Timothy J. Sabo
Roshka DeWulf & Patten, PLC
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Arizona Corporation Commission
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Mr. Ernest G. Johnson
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Ms. Lyn Farmer
Chief, Hearing Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

SUPPLEMENTAL STAFF REPORT
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

HASSAYAMPA UTILITY COMPANY, INC.

DOCKET NO. SW-20422A-06-0566

APPLICATION FOR EXTENSION
OF EXISTING CERTIFICATE OF
CONVENIENCE AND NECESSITY

DECEMBER 10, 2007

STAFF ACKNOWLEDGMENT

The Supplemental Staff Report for Hassayampa Utility Company, Inc. (Docket No. SW-20422A-06-0566) was prepared by the Staff member signed below.

Blessing Chukwu
Executive Consultant

SUPPLEMENTAL STAFF REPORT
HASSAYAMPA UTILITY COMPANY, INC.
DOCKET NO. SW-20422A-06-0566

On September 18, 2006, Hassayampa Utility Company, Inc. ("Hassayampa" or "Company") filed an application (Docket No. SW-20422A-06-0566) with the Arizona Corporation Commission ("ACC" or "Commission") for an extension of its Certificate of Convenience and Necessity ("CC&N") to provide wastewater services in Maricopa County, Arizona. On September 18, 2006, Water Utility of Greater Tonopah, Inc. ("WUGT") filed an application (Docket No. W-02450A-06-0626) with the Commission for an extension of its CC&N to provide water service in Maricopa County, Arizona. On August 8, 2007, by Procedural Order, WUGT and Hassayampa dockets were consolidated.

Staff filed its Staff Report in the WUGT docket (Docket No. W-02450A-06-0626) on July 23, 2007. On September 28, 2007, Staff filed its Staff Report on Hassayampa docket (Docket No. SW-20422A-06-0566). Hassayampa filed its Response to the Staff Report on October 12, 2007, and its Maricopa County Franchise for the extension area on October 26, 2007.

Hearing was scheduled for December 1, 2007. A few days before the hearing, Hassayampa informed Staff that it was changing its service plan for the requested CC&N area and would be filing a revised engineering memorandum to replace the original September 5, 2006 engineering memorandum. On November 5, 2007, Hassayampa filed a revised engineering memorandum and on November 15, 2007, filed a correction to the revised engineering memorandum. Due to the revision, by Procedural Order issued November 14, 2007, Staff was ordered, among other things, to file a Supplemental Staff Report on or before December 10, 2007.

On November 27, 2007, Hassayampa filed a revised response to the Staff Report. In the revised response to the Staff Report, the Company stated "HUC intends to seek approval for Campus 1 WRF as set forth in its original September 5, 2006 engineering memorandum submitted as part of the Application in this docket....., HUC is also withdrawing the revised engineering memorandum submitted in this docket on November 5, 2007 (as corrected on November 15, 2007)." Also in the revised response to the Staff Report, Hassayampa now agrees to withdraw its request for modification of the conditions recommended by Staff or has no objections to the conditions.

This Supplemental Staff Report addresses Hassayampa's application in Docket No. SW-20422A-06-0566.

Pursuant to ARS 40-282.B, every applicant for a CC&N and/or CC&N extension is required to submit to the Commission evidence showing that the applicant has received the required consent, franchise or permit from the proper authority. If the applicant operates in an unincorporated area, the Company has to obtain the franchise from the County. If the applicant

operates in an incorporated area of the County, the applicant has to obtain the franchise from the City/Town.

Staff has previously recommended that the Commission approve Hassayampa's application for an extension of its CC&N within portions of Maricopa County, Arizona, to provide wastewater services, subject to compliance with certain conditions. Among the conditions is a requirement that Hassayampa be required to file with Docket Control, as a compliance item in this docket, a copy of the franchise agreement from Maricopa County for the requested area, within 365 days of the decision in this matter. Hassayampa, on October 26, 2007, filed its Maricopa County Franchise for the extension area in the docket. As such, Staff believes that the franchise filing is complete, therefore, this condition is no longer necessary.

Staff since filing its Staff Report has considered changing its recommendation in this docket to an Order Preliminary to the issuance of a CC&N because of the initial indecisiveness of Hassayampa's plans regarding which facilities would come on line first. Because of the procedural status of this case, Staff has elected not to recommend an Order Preliminary. Had Staff not filed its Staff Report, Staff would most likely have recommended an Order Preliminary to the issuance of a CC&N. Since Hassayampa has withdrawn its revised engineering memorandum submitted in this docket on November 5, 2007 (as corrected on November 15, 2007) and reverted back to its original September 5, 2006 engineering memorandum submitted as part of the Application in this docket, Staff's recommendations remain unchanged, except in regards to the Maricopa County Franchise, which is no longer necessary. Hassayampa currently has no objections to Staff's recommendations in Docket No. SW-20422A-06-0566. (See Hassayampa's revised response to Staff Report filed November 27, 2007).

With regards to compliance with Decision No. 68922 and Decision No. 68307, according to the Utilities Division Compliance Section, there are no outstanding ACC compliance issues. It is Staff's understanding that Hassayampa intends to comply as ordered. According to the Applicants "Revised Response to Staff Report" filed on November 27, 2007, "HUC intends to seek approvals for the Campus 1 WRF." If Hassayampa fails to comply with Decision No. 68922, specifically as it relates to Campus 1 Water Reclamation Facilities ("WRF"), it would adversely affect the CC&N extension areas that are the subject of this application. Staff's review, analysis, and recommendations of this application are based on Campus 1 WRF, being that the WRF would serve the initial phase of the development in the CC&N extension area. Hassayampa has not installed any infrastructure and has no customers in the original CC&N area.

Staff recommends the Commission approve Hassayampa's application for an extension of its CC&N within portions of Maricopa County, Arizona, to provide wastewater services, subject to compliance with the following conditions:

1. To require Hassayampa to charge its authorized rates and charges in the extension area.

2. To require Hassayampa to file with Docket Control, as a compliance item in this docket, a copy of the ATC issued by Maricopa County Environmental Services Department ("MCESD") for Hassayampa Ranch WRF Campus No. 1, needed to serve the initial phase of the development in the requested area by July 31, 2008.

3. To require Hassayampa to file with Docket Control, as a compliance item in this docket, a copy of the ATC issued by MCESD for the sewer tie-in between Hassayampa Ranch WRF Campus No. 1 and the initial phase of the development in the requested extension area by April 30, 2009.

4. To require Hassayampa to file with Docket Control, as a compliance item in this docket, copies of the APP and AZPDES issued by Arizona Department of Environmental Quality for the Hassayampa Ranch WRF Campus No. 1, needed to serve the initial phase of the development in the requested area by April 30, 2009.

5. To require Hassayampa to comply with all requirements and conditions set forth in Decision No. 68922 (August 29, 2006) and Procedural Order issued on June 18, 2007, in Docket No. SW-20422A-05-0659.

Staff further recommends that the Commission's Decision granting the requested CC&N extension to Hassayampa be considered null and void, after due process, should Hassayampa fail to meet Conditions No. 2, 3, 4, and 5 listed above within the time specified.