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Transcript Exhibit(s)

Docket#(s): WS-20543A-07-0435

Exhibit # : A1-A7, S1

Arizona Corporation Commission
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DEC 14 2007
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EXHIBIT
A-1
Admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

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COMMISSIONERS
MIKE GLEASON - CHAIRMAN
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KRISTIN K. MAYES
GARY PIERCE

IN THE MATTER OF THE APPLICATION OF DOUBLE DIAMOND UTILITIES, INC. FOR A CERTIFICATE OF CONVENIENCE AND NECESSITY TO PROVIDE WATER SERVICE AND WASTEWATER SERVICE	Docket No. WS-20543-07-0435 **APPLICATION FOR CERTIFICATE OF CONVENIENCE AND NECESSITY**

Pursuant to Ariz. Rev. Stat. § 40-281 and Ariz. Admin. Code R14-2-402 and R14-2-602, Double Diamond Utilities, Inc. ("Double Diamond" or "Applicant"), through undersigned counsel, hereby applies to the Arizona Corporation Commission ("Commission") for approval of a Certificate of Convenience and Necessity ("CC&N"), for water and wastewater service for a master planned community that is being developed in Mohave County. Applicant is qualified and prepared to provide the necessary facilities and service to the area. In support of this Application, Applicant states as follows:

I. Description of Applicant.

Double Diamond is an Arizona C Corporation. A copy of its articles of incorporation are attached as **Exhibit 1**. Double Diamond's bylaws are attached as **Exhibit 2**. Double Diamond is currently in good standing. A Certificate of Good Standing is attached as **Exhibit 3**.

II. Description of Service Area Covered by CC&N.

Double Diamond seeks a certificate of convenience and necessity to provide water and wastewater treatment service to the initial phase of The Ranch at White Hills development north of Kingman, Mohave County, Arizona. The Ranch at White Hills development is a proposed master planned community that will ultimately encompass approximately 25,167 acres of privately owned

lands in and around the White Hills area of Mohave County, located halfway between Las Vegas and Kingman, on the east side of U.S. Highway 93. The initial phase covered by the requested CC&N comprises one section of land (640 acres) of the ultimate development. This initial phase of the development is located within a single groundwater basin and will be served by integrated water, wastewater and reclaimed water facilities. The legal description for the portion of The Ranch at White Hills development covered by this CC&N application, including a map setting forth the location of the CC&N area, is attached as **Exhibit 4**.

III. Request for Service from Property Owner.

Leonard and Susan Mardian, through their wholly-owned entities, own the land that comprises The Ranch at White Hills. Mr. Mardian is an experienced real estate developer who has successfully developed numerous commercial projects in California and Nevada. The Mardians have owned property for The Ranch at White Hills development for over six years and have been in the process of planning the development for over five years. Presently, there are no certificated water and wastewater providers in close proximity to The Ranch at White Hills that have the financial or technical ability to provide integrated water and wastewater utility service to the development. A request for water and wastewater service to Double Diamond from the entity that owns the property covered by this Application is attached at **Exhibit 5**.

IV. Ownership and Management of Double Diamond.

Leonard and Susan Mardian are the sole shareholders of Double Diamond.[1] Through the Mardians, Double Diamond has the necessary financial and operational support to provide the requested service. Mr. Mardian has been involved in the development business for almost 50 years and the combined holdings, assets and development experience of the Applicant's ownership are sufficient to meet the short and long term obligations of the Applicant to serve The Ranch at White Hills development.

[1] As set forth in its most recent corporate annual report, Applicant is authorized to issue 5000 shares of common stock and has issued 5000 shares of common stock.

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The Mardians have substantial financial resources to support the Applicant and have the ability to obtain financing for construction and operations. Their current Arizona real estate holding are significant -- over 45,000 acres of land in Mohave County. The Mardians' additional successful development projects include a Holiday Inn Express in Las Vegas, the Milano Residences, a 100 unit condominium building, also in Las Vegas, the Blackjack Lodge Restaurant and Tavern, Hurricane Tavern, and two Storage One Self Storage facilities. The Mardians also have extensive real estate holdings in Nevada, including an executive commercial office building in Las Vegas.

Through the planning processes for the White Hills development and in preparation for this Application, the Mardians have funded extensive water study and well drilling costs (which resulted in obtaining a Physical Availability Determination from the Arizona Department of Water Resources (ADWR)) as well as on-going engineering and surveying design contracts for the design of the project infra-structure, including roadways, water, wastewater and reclaimed water facilities.

The current officers of the Applicant are: Leonard Mardian, President; Susan Mardian, Vice President, Secretary and Treasurer; and Kathy Tackett-Hicks, Vice President, Operations. The current directors of the Applicant are Leonard Mardian and Susan Mardian.

This management team has extensive development experience. For example, the Mardians have completed numerous development projects in Nevada, including the Wal-Mart and Sam's Club center on Spring Mountain Road, two commercial shopping centers, hotels, and several self storage facilities and apartment complexes. In California, the Mardians have developed many apartment complexes, industrial buildings, self storage facilities, hotels, and restaurants. In connection with these developments, the Mardians have overseen the design and construction of offsite and onsite utility lines, extensions and connections. Thus, the Mardians have extensive experience in construction and development and have retained -- or will retain -- the necessary professionals and consultants to design, construct and operate the utility facilities.

Ms. Tackett-Hicks is a long-time resident of Mohave County with extensive and substantial experience in developing, permitting, financing and constructing projects. She has

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specialized in delivering highly complex land development services for utility regulatory compliance, land planning, strategies and construction management services for the past ten years.

Previously Ms Tackett-Hicks was the Community Development Director, Assistant City Manager, and Interim City Manager for the City of Bullhead City. While at the City, she was directly responsible for budgeting, O & M, expansion efforts and regulatory compliance issues for the City's sewer system. As the City's appointed legislative lobbyist, she helped develop modified improvement district legislation which allowed the City to address ADEQ compliance issues and provide for a suitable financing mechanism for the City's massive sewer expansion programs.

Ms. Tackett-Hicks is also a licensed, residential contractor and has been working a part of the Mardian team for the past five years.

V. Overview of The Ranch at White Hills Development.

Because the developers of The Ranch at White Hills, Leonard and Susan Mardian, are also the owners of Double Diamond, they are able to craft an environmentally conscientious community that focuses on water conservation and preservation of the natural beauty of the area. Attached as **Exhibit 6** is a copy of the Area Plan for the Ranch at White Hills that has been approved by Mohave County. This Area Plan sets forth the details of the development.

At build out, The Ranch at White Hills development is planned for 20,500 single family units and 4,500 multi-family units, as well as schools, public facility sites, open space areas and commercial development. The requested service area for Double Diamond's initial CC&N covers 640 acres, with current site plans for approximately 1800 single family units, 700 multi-family units, a school site (approximately 20 acres), approximately 80 acres of commercial development and two community parks. The first homes in the initial phase of the development are planned to be completed and require water and wastewater service in the first quarter of 2009.

The community park areas and common landscape areas will be designed to minimize water consumption and eventually, after there are sufficient residents in the area, will utilize reclaimed water from the community wastewater treatment facilities for irrigation and watering purposes. The initial phase of the development covered by the CC&N will not include a golf

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course. The development will include an entry feature but that feature will not include a water element until there is sufficient reclaimed water for the element.

As part of the utility infrastructure, reclaimed water mains will extend along segments of the roadway to ensure that reclaimed water will be available for irrigation of parks and common landscaping.

VI. Provision of Water Service and Wastewater.

Double Diamond has retained Stantec Engineering to design the backbone water production and distribution facilities and the backbone wastewater collection and treatment facilities, and the reclaimed water mains for the development. Stantec is a national engineering and consulting firm that provides professional design and consulting services in planning, engineering, architecture, surveying, economics, and project management, including water and wastewater projects. Stantec has offices in Phoenix, Flagstaff and Las Vegas. Stantec has completed an Engineering Report for water and wastewater facilities to serve the initial phase of The Ranch at White Hills. The Engineering Report is attached as **Exhibit 7**. Although the initial phase of the development will be served by a smaller wastewater treatment plant, Double Diamond ultimately intends to construct a regional wastewater treatment to serve the entire development.

Double Diamond estimates that it will have 500 residential customers in the first year of operation and 2000 residential customers by the fifth year. At this time, Double Diamond does not anticipate any significant commercial or industrial customers for the first five years of operation.

Double Diamond anticipates utilizing reclaimed water for irrigation of community parks and school playgrounds as soon as, and to the full extent, practicable. The water element of the development entry way will use reclaimed water. The initial phase of development covered by this CC&N application will not include a golf course. In subsequent phases of the development, and related CC&N extensions, the development of certain areas such as golf courses, water features or other open spaces, will be delayed until there are sufficient residents to provide an adequate amount of reclaimed water for irrigation and watering purposes.

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Double Diamond intends to contract with a qualified company to operate both the water and wastewater systems. The contract operator will provide the necessary certified operators for the water and wastewater systems. Double Diamond is in contract discussions for the operation services but has not yet formally retained an operator.

VII. Water Conservation and Reuse Strategies.

The goal of The Ranch at White Hills is to ensure a sustainable water available as the project develops. To that end, The Ranch at White Hills has been planned to maximize water conservation options, including: (1) use of reclaimed water for irrigation and watering purposes; (2) collection and storage of rainwater from rooftops of homes and commercial buildings for use in watering landscape plants and gardens; (3) use of moderate to low water use plants for landscaping; (4) use of water and energy efficient hot water systems in all homes; (5) design of retention/recharge basins to collect runoff; (6) design of small retention/recharge basins within open space to maximize depression storage for recharge and control flooding; and (7) potential surface management of the 246 square miles project area of the Detrital watershed for an improved water cycle and direct recharge option. For example, community parks and common landscaping will be irrigated with reclaimed water from the wastewater reclamation plant once there are sufficient residences for a sufficient supply of reclaimed water.

VIII. Initial Proposed Rates.

Schedules of the estimated operating revenue, operating expenses, plant in service, balance sheet, income statement, and related schedules for Double Diamond for years one through five are included in **Exhibits 8 and 9**.

Double Diamond's proposed initial water rates are set forth in **Exhibit 8**, Schedules DDW-7 and DDW-8. Those rates include an inverted block tier structure to promote conservation.

Double Diamond's proposed initial wastewater rates are set forth in **Exhibit 9**, Schedules DDWW-7 and DDWW-8. The rate design includes a flat monthly rate for residential service.

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IX. Financing of Facilities.

Double Diamond will initially finance the required water and wastewater facilities using a combination of equity provided by the Mardians, advances in aid of construction and contributions in aid of construction. The pro forma balance sheet attached as **Exhibit 10** sets forth the initial equity infusion by the shareholders.

Double Diamond intends on entering into main extension agreements with each of the individual builders for each of the subdivisions within The Ranch at White Hills. Double Diamond intends to require the builders to construct the required on site lines for water and wastewater service and then assign the lines to Double Diamond when construction is complete.

Double Diamond is also requesting approval of a $1,500 per connection hook up fee for wastewater treatment capacity. This hook up fee will be paid by the home builders in addition to the costs under the main extension agreements.

X. Required Permits and Authorizations.

A. Adequate Water Supply

The Arizona Department of Water Resources ("ADWR") has issued a Physical Availability Determination for The Ranch at White Hills in which it finds that water supplies in the area are physically available for at least 100 years. *See* ADWR Analysis of Adequate Water Supply, dated April 11, 2006, attached hereto as **Exhibit 11**. Specifically, ADWR determined that "the applicant has demonstrated that 7,537 acre-feet per year of groundwater and 2,734 acre-feet per year of treated effluent projected at build-out will be physically available, which exceeds the applicant's projected build-out demands for the development of 7,976 acre-feet per year." *Id.* (footnotes omitted). It is Double Diamond's belief that water usage will be even less than ADWR estimates because of water conservation efforts. However, even under ADWR's higher estimate, there is more than enough water to serve the area.

B. Section 208 Designation

Mohave County recently was delegated Section 208 designation responsibilities for the area. However, Mohave County has not yet implemented its own process for Section 208

designations. Therefore, applications for Section 208 designations in Mohave County are still submitted to ADEQ, which then coordinates with Mohave County concerning the designation. Double Diamond is in the process of preparing its application for a Section 208 designation for The Ranch at White Hills and anticipates submitting the application to ADEQ and Mohave County in the near future. Double Diamond will work with both ADEQ and Mohave County to obtain the necessary Section 208 designation regarding provision of wastewater service to The Ranch at White Hills.

C. Aquifer Protection Permit

Double Diamond is in the process of preparing an application for an Aquifer Protection Permit ("APP"). As set forth in the Engineering Report, Double Diamond has identified the location of the wastewater treatment plant and identified treatment methods that will be used for the initial phase of the development. Final treatment methods can now be determined and site design and geotechnical evaluations will be initiated for inclusion in the APP application.

D. County Franchises

Double Diamond has received its franchises form Mohave County for both water service and wastewater service at The Ranch at White Hills. Copies of the franchises are attached as **Exhibits 12 and 13**.

XI. Applicant's Contact Information.

The management contact for Applicant is:

Kathy Tackett-Hicks
Vice President of Operations
Double Diamond Utilities. Inc.
9510 West Sahara Ave., Suite 130
Las Vegas, Nevada 89117

The Applicant's attorneys are:

Michael W. Patten
Roshka DeWulf & Patten, PLC
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004
(602) 256-6100
mpatten@rdp-law.com

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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
mpatten@rdp-law.com

With a copy to:

Kathy Tackett-Hicks
Vice President of Operations
Double Diamond Utilities. Inc.
9510 West Sahara Ave., Suite 130
Las Vegas, Nevada 89117

XII. Conclusion.

The Ranch at White Hills will require water and wastewater service in the near future and there is no other utility in the area to provide integrated water and wastewater services and achieve the levels of water conservation possible through the use of reclaimed water. Applicant has the technical and financial abilities and resources to provide water and wastewater service and is a fit and proper entity to provide water and wastewater service to The Ranch at White Hills. Applicant submits that this Application is in the public interest and should be granted.

WHEREFORE, Double Diamond Utilities Company respectfully request that the Commission:

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

B. Issue an Order granting the application for a CCN; and;

C. Grant any such other and further relief as may be appropriate under the circumstances herein.

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RESPECTFULLY submitted this 20th day of July, 2007.

ROSHKA DEWULF & PATTEN, PLC

By _____

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

Attorney for Double Diamond Utilities, Inc.

Original and 13 copies of the foregoing filed this 20th day of July, 2007, with:

Docket Control
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

By _____

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List of Exhibits

1. Articles of Incorporation of Double Diamond Utilities, Inc.
2. Bylaws of Double Diamond Utilities, Inc.
3. Certificate of Good Standing for Double Diamond Utilities, Inc.
4. Legal Description of CC&N and related map
5. Landowner Request for Water and Wastewater Service
6. Approved Area Plan for the Ranch at White Hills
7. Engineering Report
8. Schedules of estimated operating revenue, operating expenses, plant in service, balance sheet, income statement and related schedules for years one through five for Water Service
9. Schedules of estimated operating revenue, operating expenses, plant in service, balance sheet, income statement and related schedules for years one through five for Wastewater Service
10. Pro Forma Balance Sheet for Double Diamond Utilities, Inc.
11. ADWR Analysis of Adequate Water Supply Letter, dated April 11, 2006.
12. County Franchise for Water Service
13. County Franchise for Wastewater Service

EXHIBIT

"1"

8.5
06/25/02

ARTICLES OF INCORPORATION

OF

DOUBLE DIAMOND UTILITIES, INC.

1034869-6

KNOW ALL MEN BY THESE PRESENTS:

That we, the undersigned, have associated ourselves together for the purpose of forming a corporation under and by virtue of the laws of the State of Arizona, hereby adopt the following Articles of Incorporation:

ARTICLE I

The name of the corporation is Double Diamond Utilities, Inc. 550K

ARTICLE II

The purpose for which this corporation is organized is the transaction of any and all lawful business for which corporations may be incorporated under the laws of the State of Arizona, as they may be amended from time to time. The character of business which the corporation initially intends to conduct in the State of Arizona is to construct, own, operate and maintain a public utility company and to engage in any and all activities related thereto. The description of the business initially intended to be conducted by this Corporation shall not in any way limit the character of business hereafter to conducted by this Corporation or the generality of the first sentence of this Article II.

ARTICLE III

The corporation shall have perpetual existence.

ARTICLE IV

The corporation shall have the authority to issue Five Thousand (5000) shares of common stock, with a par value of One Dollar ($1.00) per share.

ARTICLE V

The street address of the known place of business of the corporation is:

3707 North Seventh Street, Suite 250
Phoenix, AZ 85014-5057

ARTICLE VI

The name and address of the initial statutory agent of the corporation is: William H. Anger, 3707 North Seventh Street, Suite 250, Phoenix, Maricopa County, Arizona 85014-5057.

ARTICLE VII

The Corporation shall indemnify any person who incurs expenses or liabilities by reason of the fact he or she is or was an officer, director, employee or agent of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another Corporation, partnership, joint venture, trust or other enterprise. This indemnification shall be mandatory in all circumstances in which indemnification is permitted by law unless such indemnification is disapproved by a majority of the Board of Directors.

ARTICLE VIII

To the fullest extent permitted by the Arizona Revised Statutes as the same exists or may hereafter be amended, a director of the Corporation shall not be liable to the Corporation or its stockholders for monetary damages for any action taken or any failure to take any action as a director. No repeal, amendment or modification of this article, whether direct or indirect, shall

eliminate or reduce its effect with respect to any act or omission of a director of the Corporation occurring prior to such repeal, amendment or modification.

ARTICLE IX

The initial Board of Directors of the corporation shall consist of two (2) directors, and the names and addresses of the persons who are to serve as directors until the first annual meeting of shareholders or until their successors are elected and qualify are:

Leonard K. Mardian
4132 So. Rainbow Blvd, PMB #324
Las Vegas, NV 89103

Susan Mardian
4132 So. Rainbow Blvd, PMB#324
Las Vegas, NV 89103

The initial officers of the corporation, who shall serve at the pleasure of the Board of Directors, are:

Leonard K. Mardian, President
Susan Mardian, Vice-President, Secretary and Treasurer

ARTICLE VIII

The names and addresses of the incorporators are:

Leonard K. Mardian
4132 So. Rainbow Blvd, PMB #324
Las Vegas, NV 89103

Susan Mardian
4132 So. Rainbow Blvd, PMB#324
Las Vegas, NV 8910312211 N. 63rd

EXECUTED this 7 day of June 2002 by all of the incorporators.

Leonard K. Mardian

Susan Mardian

Susan Mardian

ACCEPTANCE OF STATUTORY AGENT

William H. Anger, having been designated to act as Statutory Agent of Double Diamond Utilities, Inc. hereby consents to act in that capacity until resignation is submitted in accordance with the Arizona Revised Statutes.

By _____
William H. Anger

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THE RECORD REPORTER

~ SINCE 1914 ~

1505 N. Central Avenue, Suite 200, Phoenix, Arizona 85004-1725
Telephone (602) 417-9900 / Fax (602) 417-9910

WILLIAM H. ANGER
ULRICH & ANGER, PC
3700 N 7TH ST #250
PHOENIX, AZ 85014-5059

COPY OF NOTICE

(Not an Affidavit of Publication. Do not file.)

Reference #: 2204.03

Notice Type: AI Articles of Incorporation

Ad Description: DOUBLE DIAMOND UTILITIES, INC.

To the right is a copy of the notice you sent to us for publication in THE RECORD REPORTER. Thank you for using our newspaper. Please read this notice carefully and fax us with any corrections. If required, the Affidavit of Publication will be filed with the Arizona Corporation Commission, Probate Court or Domestic Relations Court, and mailed to you after the last date below. Publication date(s) for this notice is (are):

07/22/02, 07/24/02, 07/26/02

The charge(s) for this order is as follows. An invoice will be sent after the last date of publication. If you prepaid this order in full, you will not receive an invoice.

Publication	$ 127.08
Arizona Sales Tax	$ 0.64
NetTotal	$ 127.72

RR#: 419961

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ARTICLES OF INCORPORATION
OF
DOUBLE DIAMOND UTILITIES, INC.

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EXECUTED this 7 day of June, 2002 by all of the incorporators.

/s/Leonard K. Mardian
/s/Susan Mardian

07/22/02, 07/24/02, 07/26/02
RR- 419961#

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ARIZONA CORP. COMMISSION
CORPORATIONS DIVISION

WILLIAM H. ANGER
ULRICH & ANGER, PC
3700 N 7TH ST #250
PHOENIX, AZ 85014-5059

AFFIDAVIT OF PUBLICATION

Reference #: 2204.03

Notice Type: AI Articles of Incorporation

Ad Description: DOUBLE DIAMOND UTILITIES, INC.

WENDY COOPER, am authorized by the publisher as agent to make this affidavit. Under oath, I state that the following is true and correct.

THE RECORD REPORTER is a newspaper of general circulation published Monday, Wednesday and Friday except legal holidays, in the County of Maricopa, State of Arizona. The copy hereto attached is a true copy of the advertisement as published on the following dates:

07/22/02, 07/24/02, 07/26/02

Wendy Cooper

Subscribed and sworn to before me on the 26th day of July, 2002

Diane M Kent

OFFICIAL SEAL
DIANE M. KENT
NOTARY PUBLIC-ARIZONA
MARICOPA COUNTY
My Comm. Expir. Oct. 30, 2002

RR#: 419961

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The name and address of the initial statutory agent of the corporation is: William H. Anger, 3707 North Seventh Street, Suite 250, Phoenix, Maricopa County, Arizona 85014-5057.

ARTICLE VII
The Corporation shall indemnify any person who incurs expenses or liabilities by reason of the fact he or she is or was an officer, director, employee or agent of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another Corporation, partnership, joint venture, trust or other enterprise. This indemnification shall be mandatory in all circumstances in which indemnification is permitted by law unless such indemnification is disapproved by a majority of the Board of Directors.

ARTICLE VIII
To the fullest extent permitted by the Arizona Revised Statutes as the same exists or may hereafter be amended, a director of the Corporation shall not be liable to the Corporation or its stockholders for monetary damages for any action taken or any failure to take any action as a director. No repeal, amendment or modification of this article, whether direct or indirect, shall eliminate or reduce its effect with respect to any act or omission of a director of the Corporation occurring prior to such repeal, amendment or modification.

ARTICLE IX
The initial Board of Directors of the corporation shall consist of two (2) directors, and the names and addresses of the persons who are to serve as directors until the first annual meeting of shareholders or until their successors are elected and qualify are:
Leonard K. Mardian
4132 So. Rainbow Blvd,
PMB #324
Las Vegas, NV 89103
Susan Mardian
4132 So. Rainbow Blvd,
PMB#324
Las Vegas, NV 89103
The initial officers of the corporation, who shall serve at the pleasure of the Board of Directors, are:
Leonard K Mardian, President
Susan Mardian, Vice President, Secretary and Treasurer

ARTICLE VIII
The names and addresses of the incorporators are:
Leonard K .Mardian
4134 So. Rainbow Blvd,
PMB #324
Las Vegas, NV 89103
Susan Mardian
4132 So. Rainbow Blvd,
PMB#324
Las Vegas, NV 89103
EXECUTED this 7 day of June, 2002 by all of the incorporators.
/s/Leonard K. Mardian
/s/Susan Mardian
07/22/02, 07/24/02, 07/26/02
RR- 419961#

EXHIBIT

"2"

BYLAWS

OF

DOUBLE DIAMOND UTILITIES, INC.

ARTICLE I

Conduct of Business

1.1 Principal Office. The statutory principal office of the corporation in the State of Arizona shall be located in **Maricopa County** unless and until changed by resolution of the Board of Directors. The corporation may have such other offices, either within or without the State of Arizona as the Board of Directors may designate or as the business of the corporation may from time to time require.

1.2 Corporation Seal. The Board shall provide a suitable seal, circular in design, bearing on its outer rim the name of the corporation, and in the center the words, "Corporate Seal," "Arizona," and the year of incorporation, which seal shall be in the charge of the Secretary, to be used as directed by the Board and as required by law. A corporate seal shall not be requisite to the validity of any instrument executed by or on behalf of the corporation.

1.3 Fiscal Year. The fiscal year of the corporation shall begin on **January 1 and end on December 31** of each year unless otherwise provided by the Board of Directors.

1.4 Checks. The monies of the corporation shall be deposited in the name of the corporation in such bank or banks or trust company or trust companies as the Board of Directors shall designate, and shall be drawn out only by check signed by such persons as may be designated from time to time by resolution of the Board of Directors.

ARTICLE II

Shareholders

2.1 Annual Meetings. Annual meeting of the shareholders shall be held at such places within or without the State of Arizona as shall be designated by the Board of Directors on the First Thursday in January, or at such other date and time as may be set and stated in the notice of meeting. A meeting of the shareholders shall be for the purpose of electing directors and for the transaction of any other business that may properly come before it. If no location is specified by the Board, the President or Secretary may designate the place or if none is so specified, then the meetings shall be at the principal office of the corporation.

2.2 Special Annual Meetings. Whenever from any cause an annual meeting of the shareholders be not held on the day provided, a special annual meeting may be called by the

Board or by the President or Secretary in its stead, in the manner and at such place as is prescribed for the holding of annual meetings of shareholders, at which special annual meeting directors shall be elected and other business may be transacted.

2.3 Special Meetings. Special meetings of the shareholders for any purpose or purposes may be called by the President, or by the Board upon a vote of **the majority**, and shall be called by the President upon written application to him by shareholders owning one-tenth of the common stock issued and outstanding, such application stating the purpose or purposes of such meeting. The business transacted at any special meeting shall be limited to the purposes stated in the notice of such meeting.

2.4 Notice of Meetings. Written notice of annual and special meetings of shareholders shall be deposited in the U.S. Mail not more than **fifty** and not less than **ten** days prior to the meeting, addressed to the last known address of each shareholder as the same appears by the records of the corporation. Whenever all of the shareholders meet in person or by proxy, such meetings shall be valid for all purposes without notice, and at such meetings any corporate action may be taken. No notice of any meeting of shareholders shall be necessary if waiver of notice is signed by shareholders representing all the issued and outstanding stock entitled to vote for which no shareholder or proxy is present at the meeting.

2.5 Organization. The President, or in his absence the Chairman of the Board or a Vice President, shall call meetings of shareholders to order and shall act as chairman thereof. The Secretary shall act as Secretary at all meetings of the shareholders, or in his absence, the presiding officer may appoint any person to act as secretary.

2.6 Quorum. Except as otherwise required by law, the Articles of Incorporation or these Bylaws, the holders of not less than a majority of the voting stock issued and outstanding, present either in person or by proxy, shall constitute a quorum at all meetings of shareholders.

2.7 Adjournment. If at any annual or special meeting a quorum shall fail to attend in person or by proxy, the holders of a majority of the voting stock then represented in person or by proxy at such meeting may, at the end of an hour, adjourn the meeting from time to time without further notice until a quorum shall attend, and thereupon any business may be transacted which might have been transacted at the meeting as originally called. No single adjournment shall exceed 30 days, nor shall all such adjournments be longer than 90 days.

2.8 List of Shareholders. At such time as the total number of shareholders exceeds **15**, when a record date for a meeting is determined by the directors or the president or these bylaws, the officer who has charge of the stock ledger of the shareholders of record entitled to vote at the meeting arranged in alphabetical order, showing the address and the number of shares registered in the name of each shareholder, and certified by the officer or counsel. A shareholder list may be prepared at any other time, and shall be prepared upon order of the President or the Secretary. When prepared, such list shall be open to the examination of any shareholder, for any purpose germane to the meeting, during ordinary business hours prior to

the meeting, either at a place within the city where the meeting is to be held. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any shareholder present.

2.9 Voting, Proxies and Determination Date. At all annual and special meetings of shareholders, every holder of voting stock, either in person or by proxy, shall have one vote for each share of stock so held and represented at such meetings; provided, treasury stock held by the corporation for its own account shall not be voted. The following shall apply to all shareholder voting.

A. In all elections for directors of this corporation, each holder of voting stock shall have the right to cast as many votes in the aggregate as is equal to the number of shares held multiplied by the number of directors to be elected at such election. Each shareholder may distribute such votes among one or more such candidates as he wishes.

B. When a quorum is present at any meeting, the vote of the holders of a majority of the voting stock present, whether in person or represented by proxy, shall decide any question brought before such meeting unless the question is one upon which, by express provision of law or of the Articles of Incorporation or of these bylaws, a different vote is required, in which case such express provision shall govern and control the decision of such question.

C. Should the Board of Directors not establish a record date as provided in these bylaws for determination of persons entitled to vote at a shareholders meeting, then the President may set a record date as of not more than 10 days before such meeting. In the absence of a determination by the Board or the President, the record date for all shareholder meetings shall be close of business on the tenth calendar day before such meeting. If, upon adjournment of a meeting from one time to another, a new record date is fixed for the adjourned meeting, a written notice of the adjourned meeting shall be given to each shareholder of record entitled to vote at the meeting.

D. All proxies shall be in writing, shall be dated and signed by the shareholder, shall designate the person selected as proxy and shall set forth the nature of the powers granted to the proxy. Such proxy shall be filed with the Secretary before or at the time of the meeting, and shall be placed in the minute book. No proxy shall be valid after eleven months from the date of its execution unless otherwise provided in the proxy or by law.

2.10 Financial Statements. When the corporation shall have more than 15 shareholders, a copy of the financial statements of the corporation for the preceding fiscal year shall be delivered to each shareholder at the annual meeting.

2.11 Objections and Waiver. All informalities and/or irregularities in call, notices of meetings and in the matter of voting, form of proxies, credentials, and method of ascertaining those present, shall be deemed waived if no objection is made at the meeting. Attendance of

a shareholder at a meeting shall constitute waiver of notice of such meeting, except when such attendance at the meeting is for the express purpose of objecting to the transaction of any business because the meeting is not lawfully called or convened.

2.12 Action Without Meeting. Any action required or permitted to be taken by the shareholders may validly be done without a meeting, without prior notice, and without a vote, if a consent in writing setting forth the action so taken shall be signed by the holders of all of the outstanding shares entitled to vote with respect to the subject matter of the action.

ARTICLE III

Board of Directors

3.1 Power and Size. The business and affairs of the corporation shall be managed and controlled by a Board of not less than one director (referred to in these bylaws as the Board), as may be determined from time to time by resolution of the Board.

3.2 Term. The directors shall be elected at the annual meeting of shareholders, except as provided in the next succeeding section, and each director shall hold office until the next annual meeting of shareholders and until his successor shall have been duly elected and qualified.

3.3 Removal of Directors. At a meeting of shareholders called expressly for that purpose, directors may be removed in the manner provided in Arizona Revised Statutes. Any director or the entire board of directors may be removed, with or without cause, by a vote of the holders of a majority of the shares then entitled to vote at an election of directors.

3.4 Vacancies. In case of any vacancy among the directors through death, resignation, disqualification, increase in the Board or other cause, a majority of the remaining directors, whether or not constituting a quorum, may at any regular or special meeting elect a successor to hold office for the unexpired portion of the term of office.

3.5 Regular Meetings and Organization. The Board shall hold an annual organizational meeting at such place as it shall designate immediately after the adjournment of each annual shareholders meeting, at which it shall elect corporation officers for the ensuing year and conduct such other business as is required or appears appropriate. The Board shall also meet at such other times at regular intervals as it may from time to time by resolution provide, without necessity of notice other than the resolution.

3.6 Special Meetings. Special meetings of the Board may be called by the President, and shall be called by the Secretary on the written request of a majority of the Board. Unless otherwise specified in the notice thereof, any and all business may be transacted at a special meeting.

3.7 Notice of Meetings. No notice shall be required to be given of any regular Board meeting unless held outside the **City of Las Vegas or Mohave County**. The Secretary shall give notice to each director of each regular meeting held outside that City, and each special meeting by depositing the same in the U.S. Mail at least **five** days before the time of each meeting or by telegraphing or telephoning not less than two days before the time of the meeting. Whenever all of the directors meet in person or by proxy, such meetings shall be valid for all purposes without notice, and at such meetings any corporate action may be taken. Notice of a special meeting of the Board of Directors need not contain a statement of the purpose of such special meeting. No notice of any meeting of directors shall be necessary if waiver of notice is signed by all directors not present at the meeting.

3.8 Place of Meeting. The directors shall hold their meeting, both regular and special, at such places either within or without the State of Arizona, as the Board may from time to time determine.

3.9 Quorum. A majority of the Board in office at the time shall constitute a quorum for the transaction of business, but a majority of those present at the time and place of any regular or special meeting, although less than a quorum, may adjourn from time to time, without notice, until a quorum be obtained. The vote of a majority of the directors present at any meeting in favor of or against any proposition shall prevail.

3.10 Telephone Meetings. The directors may conduct a meeting by telephone conference call or other electronic communication means, so long as the means provide continuous communication among those present, and such meeting shall be valid for the same purposes as a meeting in person at one geographic location.

3.11 Action by Resolution. Except as otherwise provided by law, the Board shall have power to act in the following manner: A resolution in writing signed by all the members of the Board, shall be deemed to be action by the Board to the effect therein expressed, with the same force and effect as if the same had been duly passed by the same vote at a duly convened meeting, and it shall be the duty of the Secretary to record such resolution in the minute book of the corporation under its proper date.

3.12 Committees. From time to time, the Board may appoint committees for any purpose or purposes, whose powers shall be specified in the resolution of appointment. The committees shall keep regular minutes of their proceedings and report the same to the Board.

3.13 Presumption of Assent. A director of the corporation who is present at a meeting of the board of directors or of any committee at which action is taken on any corporate matter will be presumed to have assented to the action taken unless his dissent is entered in the minutes of the meeting, or unless he filed his written dissent of such action with the person acting as secretary of the meeting before the adjournment of the meeting, or forwards his dissent by registered mail to the Secretary of the corporation immediately after the adjournment of the

meeting. The right to dissent will not be available to a director who voted in favor of the action.

3.14 Compensation. The directors of the corporation and all members of committees shall serve in such capacity without salary, except as may be determined by the Board, and except that they shall be reimbursed for reasonable expenses incurred.

3.15 Transactions with Directors. No contract or other transaction between the corporation and any other corporation shall be affected or invalidated by the fact that any one or more of the directors or officers of the corporation is interested in, or is a director or officer of such other corporation, and no contract or other transaction between the corporation and any other person or firm shall be affected or invalidated by the fact that any one or more directors of this corporation is a party to, or interested in, such contract or transaction; provided that in each such case the nature and extent of the interest of such director or officer in such contract or other transaction, and/or the fact that such director or officer is a director or officer of such other corporation, is known to the Board or is disclosed at the meeting of the Board at which such contract or other transaction is authorized.

ARTICLE IV

Officers

4.1 Executive Officers. The officers of this corporation shall be a President, a Vice President, a Secretary, a Treasurer, and such additional officers as the Board may determine, who shall be elected by the Board at its annual meeting. One person may hold more than one office. Officers need not be directors, nor directors be officers.

4.2 Subordinates. The Board may appoint such other officers, including one or more assistants in each office except President, as it shall deem necessary, who shall have such authority and shall perform such duties as may be prescribed by the Board from time to time.

4.3 Tenure of Officers. All officers and agents shall be subject to removal at any time, with or without cause, as determined by the Board. The term of each officer shall in any case expire upon the adjournment of the annual meeting of directors next succeeding his election, and upon the election and qualification of his successor.

4.4 Chairman of the Board. The Chairman of the Board, if one shall have been appointed and be serving, shall preside at all meetings of the Board of Directors, and shall perform such other duties as from time to time may be assigned to him.

4.5 President. The President shall preside at all meetings of the shareholders. Subject to the control and direction of the Board, he shall have general and active management of the business and affairs of the corporation, and shall see that all orders and resolutions of the Board are carried into effect. He shall execute on behalf of the corporation, and may affix the

corporate seal or cause it to be affixed to all instruments requiring such execution, except to the extent the signing and execution thereof shall be expressly delegated by the Board to some other officer or agent of the corporation.

4.6 Vice President. In case of the absence, disability, inability or refusal to act of the President, the duties of the office shall be performed by the Vice President.

4.7 Secretary. The secretary shall keep the minutes of all proceedings of the Board and of all meetings of the shareholders; he shall attend to the giving and serving of all notices for the corporation when directed by the President or required by these bylaws; when necessary or appropriate, he shall sign with the President or the Vice President, in the name of the corporation, contracts authorized by the Board, and may affix the seal of the corporation thereto; he shall have charge of the corporate seal, stock and certificate books, and such other books and papers as the Board may direct; and he shall in general perform all the duties traditionally incident to the office of secretary, subject to the control and direction of the Board.

4.8 Treasurer. The Treasurer shall have custody of all funds and securities of the corporation that may come into his hands; he shall endorse, on behalf of the corporation for collection, checks, notes and other obligations, and shall deposit the same to the credit of the corporation in such bank or banks, or other depositories, as the Board may designate; he may sign receipts and vouchers for payment made to the corporation; he shall sign checks made by the corporation and pay out and dispose of the same under the direction of the Board; he shall sign with the President of such other person or persons as may be designated by the Board, all authorized promissory notes and bills of exchange of the corporation; Whenever required by the Board, he shall render a statement of his cash accounts; he shall enter regularly, in the books of the corporation to be kept by him for that purpose, full and accurate accounts of all monies received and paid by him on account of the corporation; and he shall perform all other duties traditionally incident to the position of treasurer, subject to the control and direction of the Board. If required by the directors, the treasurer shall give a bond for the faithful discharge of his duties in such sum and with such surety or sureties as the directors shall determine.

4.9 Powers and Duties of Other Officers. All other officers shall have such duties and exercise such powers as generally pertain to their respective offices as well as such duties and powers as from time to time may be prescribed by the President and the Board of Directors.

4.10 Salaries. The salaries of the officers shall be fixed from time to time by the Board of Directors, and no officer shall be prevented from receiving such salary by reason of the fact that he is also a Director of the corporation. The salaries of the officers or the rate of basis by which salaries are fixed shall be set forth in the minutes of the Board of Directors.

ARTICLE V

Capital Stock Issuance and Transfer

5.1 Classes of Stock. Each certificate for shares of the capital stock of this corporation shall indicate plainly the class and series of stock and number of shares which it represents and that it is fully paid and nonassessable. The seal of the corporation, which may be a facsimile, shall be affixed to each certificate.

5.2 Stock Certificates. Every holder of stock in the corporation shall be entitled to have a certificate signed by or in the name of the corporation by the President or the Vice president, and by the Secretary or an Assistant Secretary or the Treasurer of an Assistant Treasurer of the corporation, certifying the number of shares owned by him in the corporation. Where such certificate is countersigned (1) by a transfer agent or an assistant transfer agent, or (2) by a transfer clerk acting on behalf of the corporation and a registrar, the signature of any such President, Vice President, Secretary of Assistant Secretary, Treasurer or Assistant Treasurer may be a facsimile. In case any officer who has signed, or whose facsimile signature has been used on any such certificate, shall cease to be such officer of the corporation, whether because of death, resignation or otherwise, before such certificate has been delivered by the corporation, such certificate may nevertheless be adopted by the corporation and be issued and delivered as though the person who signed such certificate or whose facsimile signature has been used thereon had not ceased to be such officer of the corporation.

5.3 Record of Certificates. All certificates for shares of the capital stock of this corporation shall be consecutively numbered within each class and series, and the names of the owners, the number of shares owned, and the date of issue shall be entered in the corporation's books. Any officer may require a shareholder to execute a receipt for delivery of his certificate.

5.4 Cancellation of Certificates. Except in case of lost or destroyed certificates, no new certificate shall be issued until the original certificate for the shares of stock represented thereby shall be surrendered and cancelled. The Board may direct a new certificate or certificates to be issued in place of certificates theretofore issued by the corporation that are alleged to have been lost or destroyed, upon the making of an affidavit of that fact by the person so claiming, and at the Board's discretion giving a satisfactory bond.

5.5 Transfer of Shares. Transfers of shares will be made on the books of the Corporation only at the direction of the person named on the certificate therefor (or by such person's duly authorized attorney-in-fact) and upon surrender of such certificate duly endorsed or accompanied by proper evidence of succession, assignment, or authority to transfer. Upon such surrender, it shall be the duty of the corporation or its transfer agent to issue a new certificate to the person entitled thereto, to cancel the old certificate and to record the transaction on its books. The Board may make such rules and regulations from time to time as it may deem expedient concerning the issue, transfer, and registration of certificates.

Upon the death of any shareholder, the corporation shall have one (1) year from the date of the death of such shareholder within which to purchase his common stock. The value of such common stock upon such sale and purchase shall be the proportionate value of such stock to the net assets of the corporation as net asset is defined herein, plus appreciation of value of tangible assets over their value as reflected in the books of the corporation. Net assets means the amount by which the total assets of the corporation exceed the total debts of the corporation as reflected by the corporation's books on the last day of its preceding fiscal year. If such option is not exercised within one (1) year from the date of the death of the deceased stockholder of the corporation, then the personal representative or devisees of the deceased stockholder shall offer such stock to the surviving stockholders as provided in this section and at the prices provided in this paragraph. Should there be a disputed about the evaluation of the stock, the matter shall be resolved by an appropriate arbitrator appointed by the American Institute of Arbitration.

A shareholder may pledge a stock as security for loans through a bank only, without complying with the foregoing requirements before bringing any suit, action or proceeding or otherwise attempting to foreclose the pledge.

5.6 Stock Record Conclusive. The corporation shall be entitled to treat the holder of record on its stock books of any share as the holder in fact thereof, and accordingly shall not be bound to recognize any equitable or other claim to or interest in such share on the part of any other person, whether or not it shall have express or other notice thereof, except as is expressly provided otherwise by the laws of Arizona.

5.7 Record Date. The Board of Directors may close the stock transfer books of the corporation for a period not exceeding fifty days preceding the date of any meeting of shareholders, or the date for payment of any dividend or the date for the allotment of rights, or the date when any change or conversion or exchange of capital stock shall go into effect, or for a period not exceeding fifty days in connection with obtaining the consent of shareholders for any purpose. In lieu of closing the stock transfer books as above provided, the Board may fix in advance a date, not exceeding fifty days preceding the date of any of the described meetings or actions, as a record date for the determination of the shareholders entitled to notice of and to vote at any such meeting and any adjournment thereof, or entitled to receive payment or exercise any rights, and in that case only such shareholders as shall be shareholders of record on the date so fixed shall be entitled to such notice, to vote, or to exercise such rights as are above described, notwithstanding any transfer of any stock on the books of the corporation after any such record date.

5.8 Dividends. From time to time and on such dates as may be expedient, the Board shall declare dividends upon the capital stock of this corporation to be paid from the corporation's surplus capital or net profits, or as otherwise permitted by law and the Articles of Incorporation.

ARTICLE VI

Miscellaneous Provisions

6.1 Indemnification. The corporation may indemnify persons acting on its behalf a provided in this section.

A. The corporation shall indemnify any and all of the directors or former directors of the corporation, their personal representatives and heirs, and any and all of the officers, employees and agents, or former officers, employees and agents of the corporation, their personal representatives and heirs, against expenses incurred by them or judgments or penalties rendered or levied against any such person in a legal action (whether civil, criminal, administrative or other) brought against any such person for actions or omissions alleged to have been committed by any such person while acting within the scope of his employment as a director, officer, or employee of the corporation as provided in Arizona Revised Statutes § 10-005, as amended. Provided however, that in all cases the Board shall determine in good faith that such person did not act, fail to act, or refuse to act willfully or with gross negligence or with fraudulent or criminal intent with regard to the matter involved in the action. (If the Board determines in good faith that such person did act, failed to act, or refused to act willfully or with gross negligence or with fraudulent or criminal intent with regard to the matter involved in the action, the corporation shall have no obligation to indemnify such person notwithstanding any other provision of these Bylaws). If such person is both a director and an officer, he shall be entitled to indemnity as a matter of right only if the alleged actions or omissions pertain to his position as a director or as both a director and an officer. A member of any committee appointed by the Board shall have the same right of indemnification as a director with respect to alleged acts or omissions by him as a member of such committee.

B. The term "expenses" as used herein shall include all obligations incurred by such person for the payment of money, including without limitation legal fees and amounts paid in settlement of any such action. A judgment or conviction (whether based on a plea of guilty or nolo contendere or its equivalent, or after trial) shall not be conclusive as to whether the person against whom judgment is rendered acted, or failed to act, or refused to act willfully or with gross negligence or with fraudulent or criminal intent with regard to the matter involved in the action.

C. Any determination with respect to indemnity shall be made by resolution adopted by a majority and quorum any directors who have incurred expenses, judgments or penalties in connection with such action; and if there is no quorum of directors who are not so excluded, then by resolution adopted by a majority of a committee of non-excluded directors and/or shareholders, appointed by the Board (all directors being eligible to participate in such appointment). The right of indemnification provided herein shall be addition to any other right which such directors, officers, employees and agents of the corporation may have or hereafter acquire.

6.2 Power to Vote Stock Held by the Corporation. In the event that this corporation owns stock of another corporation, the President of this corporation shall be authorized to vote that stock on behalf of this corporation. In the event of the absence or unavailability of the President, a Vice President or other executive officer may vote the stock. A certified copy of this Bylaw shall be sufficient authority at any stockholders' meeting that the President attends for purposes of voting stock on behalf of this corporation, or a certified copy of this Bylaw shall be attached to any proxy that the President may execute for the purpose of permitting another person to act as his proxy to vote the stock of another corporation.

6.3 Construction and Definitions. Unless the context requires otherwise, the general provisions, rules of construction and definitions in the General Corporation Law of the State of Arizona and the Articles of Incorporation shall govern the construction of these Bylaws.

ARTICLE VII

Amendment

7.1 Amendments; How Effected. These Bylaws may be amended, added to or repealed by the affirmative vote of a majority of the shares entitled to vote at any regular or special meeting of the shareholders if notice of the proposed amendment, addition or repeal be contained in the notice of the meeting (unless such notice shall be waived) or by the affirmative vote of a majority of the Board of Directors at any regular or special meeting of the Board if notice of the proposed amendment, addition or repeal be contained in the notice of the meeting (unless such notice shall be waived) or if the amendment, addition or repeal be proposed at a prior regular or special meeting of the Board; provided, however, that no change of the date for the annual meeting of shareholders shall be made within thirty days next before the day on which such meeting is to be held unless consented to in writing, or by a resolution adopted at a meeting, by all shareholders entitled to vote at the annual meeting; and provided, further, that the Board shall not adopt, amend or repeal any Bylaw provision impairing the rights of the shareholders under this Article 7.1 or affecting the voting rights, powers or procedures of the shareholders or changing the number of directors or fixing the qualifications, classification or term of any member or members of the then existing Board; and provided, further, that this Article 7 of these Bylaws shall not be amended, added to, or repealed except with the written approval or consent (not merely the affirmative vote) of all the then existing shareholders.

KNOW ALL MEN BY THESE PRESENTS:

I, the undersigned duly elected Secretary of **Double Diamond Utilities, Inc.**, an Arizona corporation, do hereby certify that the above and foregoing Bylaws were duly adopted as the Bylaws of said corporation at a meeting of directors held on April __, 2002, and the same do now constitute the Bylaws of said corporation.

Certified and dated this __ day of April, 2002 .

_____
Susan Mardian
Secretary

MINUTES OF THE FIRST (ORGANIZATIONAL) MEETING
OF THE BOARD OF DIRECTORS
OF
DOUBLE DIAMOND UTILITIES, INC.

The first meeting of the Board of Directors of Double Diamond Utilities, Inc. ("White Hills"), was held on April __, 2002 at 4132 So. Rainbow Blvd., PMB #324, Las Vegas, NV 89103. Those present were:

Leonard K. Mardian and Susan Mardian.

Leonard K. Mardian served as Chairman and Susan Mardian served as Secretary of the meeting. The entire membership of the Board was present at the meeting thereby constituting a quorum and the following resolutions were unanimously adopted by the Board:

RESOLVED that the following named persons hereby are elected to the offices indicated after the names of each:

Leonard K. Mardian - President
Susan Mardian - Vice President, Secretary and Treasurer

RESOLVED that this corporation shall maintain a minute book containing the minutes of this meeting and all subsequent meetings of the Board of Directors of this corporation, and such other documents as the corporation, the Board of Directors and the shareholders thereof shall from time to time direct. That Susan Mardian shall be responsible for maintaining the minutes of the meeting.

RESOLVED that a copy of the Articles of Incorporation of this corporation, duly certified by the Secretary of the State of Arizona, shall be inserted in the minute book of this corporation and the contents of said Articles of Incorporation are hereby ratified by the Board of Directors.

RESOLVED that the Bylaws presented to and at this meeting are adopted as the Bylaws of this corporation.

RESOLVED that the directors, by their signatures affixed to the minutes of this first meeting of the Board of Directors, and by this resolution, do hereby waive notice of the time and place of this meeting, consent to this meeting, approve of the contents of the minutes of this meeting and direct that the original minutes of this meeting shall be maintained in the minute book of the corporation.

RESOLVED that this corporation hereby adopts that certain form of share certificate presented to this meeting by the attorney for the corporation as the form of certificate that will be used to evidence ownership of shares of the corporation, and the Secretary is directed to attach a specimen copy of such certificate shall be attached to the minutes of this meeting.

RESOLVED that _____ is selected as the depository of funds of this corporation and the name of the persons authorized to sign checks on behalf of this corporation are Leonard K. Mardian and Susan Mardian.

RESOLVED that the principal executive office for the transaction of business of this corporation is hereby fixed at: 4132 So. Rainbow Blvd., PMB #324, Las Vegas, NV 89103.

RESOLVED that this corporation, pursuant to Internal Revenue Code § 1244, shall issue to the following person the number of shares indicated after his name at $1 per share:

Leonard K. Mardian 5000 shares for $5000.00

There being no further business, the said meeting was adjourned.

_____
Leonard K. Mardian

_____
Susan Mardian

MINUTES OF THE ANNUAL MEETING
OF THE BOARD OF DIRECTORS
OF
DOUBLE DIAMOND UTILITIES, INC.

The annual meeting of the Board of Directors of DOUBLE DIAMOND UTILITIES, INC., was held on April __, 2002 at 4132 So. Rainbow Blvd., PMB #324, Las Vegas, NV 89103. Those present were:

Leonard K. Mardian and Susan Mardian.

Leonard K. Mardian served as Chairman and Susan Mardian served as Secretary of the meeting. The entire membership of the Board was present at the meeting thereby constituting a quorum and the following resolutions were unanimously adopted by the Board:

RESOLVED that the following named persons hereby are elected to the offices indicated after the names of each:

Leonard K. Mardian - President
Susan Mardian - Vice President, Secretary and Treasurer.

RESOLVED, that the directors, by their signatures affixed to the minutes of this meeting of the Board of Directors, and by this resolution, do hereby waive notice of the time and place of this meeting, consent to this meeting, approve of the contents of the minutes of this meeting and direct that the original minutes of this meeting shall be maintained in the minute book of the corporation.

There being no further business, the said meeting was adjourned.

_____
Leonard K. Mardian
President/Director

_____
Susan Mardian
Vice-President/Secretary/Treasurer/Director

WAIVER OF ANNUAL MEETING
OF
DOUBLE DIAMOND UTILITIES, INC.
AND
CONSENT BY SHAREHOLDERS

Pursuant to § 2.12 of the Bylaws of the corporation, the undersigned shareholders, representing all the issued and outstanding shares of the corporation entitled to vote, waive notice and attendance at the annual meeting of the shareholders of Double Diamond Utilities, Inc. and hereby ratify and consent to the following actions of the Board of Directors.

Election of the following individuals as directors for the 2002-2003 term:

Leonard K. Mardian
Susan Mardian

All actions taken, and to be taken, by the Board of directors as set forth in the minutes of the First Meeting of the Board of Directors (Organizational meeting) dated April __, 2002 and the annual meeting of the Board of Directors dated April __, 2002, are hereby ratified and approved.

Dated this ____ day of _____, 2002.

_____
Leonard K. Mardian

_____
Susan Mardian

MINUTES OF THE FIRST (ORGANIZATIONAL) MEETING
OF THE BOARD OF DIRECTORS
OF
DOUBLE DIAMOND UTILITIES, INC.

The first meeting of the Board of Directors of Double Diamond Utilities, Inc. ("White Hills"), was held on June 7, 2002 at 4132 So. Rainbow Blvd., PMB #324, Las Vegas, NV 89103. Those present were:

Leonard K. Mardian and Susan Mardian.

Leonard K. Mardian served as Chairman and Susan Mardian served as Secretary of the meeting. The entire membership of the Board was present at the meeting thereby constituting a quorum and the following resolutions were unanimously adopted by the Board:

RESOLVED that the following named persons hereby are elected to the offices indicated after the names of each:

Leonard K. Mardian - President
Susan Mardian - Vice President, Secretary and Treasurer

RESOLVED that this corporation shall maintain a minute book containing the minutes of this meeting and all subsequent meetings of the Board of Directors of this corporation, and such other documents as the corporation, the Board of Directors and the shareholders thereof shall from time to time direct. That Susan Mardian shall be responsible for maintaining the minutes of the meeting.

RESOLVED that a copy of the Articles of Incorporation of this corporation, duly certified by the Secretary of the State of Arizona, shall be inserted in the minute book of this corporation and the contents of said Articles of Incorporation are hereby ratified by the Board of Directors.

RESOLVED that the Bylaws presented to and at this meeting are adopted as the Bylaws of this corporation.

RESOLVED that the directors, by their signatures affixed to the minutes of this first meeting of the Board of Directors, and by this resolution, do hereby waive notice of the time and place of this meeting, consent to this meeting, approve of the contents of the minutes of this meeting and direct that the original minutes of this meeting shall be maintained in the minute book of the corporation.

RESOLVED that this corporation hereby adopts that certain form of share certificate presented to this meeting by the attorney for the corporation as the form of certificate that will be used to evidence ownership of shares of the corporation, and the Secretary is directed to attach a specimen copy of such certificate shall be attached to the minutes of this meeting.

RESOLVED that Wells Fargo is selected as the depository of funds of this corporation and the name of the persons authorized to sign checks on behalf of this corporation are Leonard K. Mardian and Susan Mardian.

RESOLVED that the principal executive office for the transaction of business of this corporation is hereby fixed at: 4132 So. Rainbow Blvd., PMB #324, Las Vegas, NV 89103.

RESOLVED that this corporation, pursuant to Internal Revenue Code § 1244, shall issue to the following person the number of shares indicated after his name at $1 per share:

Leonard K. Mardian	5000 shares for $5000.00

There being no further business, the said meeting was adjourned.

Leonard K. Mardian

Susan Mardian

Susan Mardian

MINUTES OF THE ANNUAL MEETING
OF THE BOARD OF DIRECTORS
OF
DOUBLE DIAMOND UTILITIES, INC.

The annual meeting of the Board of Directors of DOUBLE DIAMOND UTILITIES, INC., was held on April __, 2002 at 4132 So. Rainbow Blvd., PMB #324, Las Vegas, NV 89103. Those present were:

Leonard K. Mardian and Susan Mardian.

Leonard K. Mardian served as Chairman and Susan Mardian served as Secretary of the meeting. The entire membership of the Board was present at the meeting thereby constituting a quorum and the following resolutions were unanimously adopted by the Board:

RESOLVED that the following named persons hereby are elected to the offices indicated after the names of each:

Leonard K. Mardian - President
Susan Mardian - Vice President, Secretary and Treasurer.

RESOLVED, that the directors, by their signatures affixed to the minutes of this meeting of the Board of Directors, and by this resolution, do hereby waive notice of the time and place of this meeting, consent to this meeting, approve of the contents of the minutes of this meeting and direct that the original minutes of this meeting shall be maintained in the minute book of the corporation.

There being no further business, the said meeting was adjourned.

Leonard K. Mardian
President/Director

Susan Mardian
Susan Mardian
Vice-President/Secretary/Treasurer/Director

WAIVER OF ANNUAL MEETING
OF
DOUBLE DIAMOND UTILITIES, INC.
AND
CONSENT BY SHAREHOLDERS

Pursuant to § 2.12 of the Bylaws of the corporation, the undersigned shareholders, representing all the issued and outstanding shares of the corporation entitled to vote, waive notice and attendance at the annual meeting of the shareholders of Double Diamond Utilities, Inc. and hereby ratify and consent to the following actions of the Board of Directors.

Election of the following individuals as directors for the 2002-2003 term:

Leonard K. Mardian
Susan Mardian

All actions taken, and to be taken, by the Board of directors as set forth in the minutes of the First Meeting of the Board of Directors (Organizational meeting) dated April __, 2002 and the annual meeting of the Board of Directors dated April __, 2002, are hereby ratified and approved.

Dated this ____ day of _____, 2002.

Leonard K. Mardian

Susan Mardian

Susan Mardian

DEPARTMENT OF THE TREASURY
INTERNAL REVENUE SERVICE
PHILADELPHIA PA 19255

DATE OF THIS NOTICE: 08-16-2002
NUMBER OF THIS NOTICE: CP 575 A
EMPLOYER IDENTIFICATION NUMBER: 71-0898636
FORM: SS-4
0533749021 B

FOR ASSISTANCE CALL US AT:
1-800-829-1040

DOUBLE DIAMOND UTILITIES INC
3707 N SEVENTH ST NO 250
PHOENIX AZ 85014

OR WRITE TO THE ADDRESS
SHOWN AT THE TOP LEFT.

IF YOU WRITE, ATTACH THE
STUB OF THIS NOTICE.

WE ASSIGNED YOU AN EMPLOYER IDENTIFICATION NUMBER (EIN)

Thank you for your Form SS-4, Application for Employer Identification Number (EIN). We assigned you EIN 71-0898636. This EIN will identify your business account, tax returns, and documents, even if you have no employees. Please keep this notice in your permanent records.

Use your complete name and EIN shown above on all federal tax forms, payments and related correspondence. If you use any variation in your name or EIN, it may cause a delay in processing and incorrect information in your account. It also could cause you to be assigned more than one EIN.

Based on the information shown on your Form SS-4, you must file the following forms(s) by the date we show.

Form 1120 03/15/2003

Your assigned tax classification is based on information obtained from your Form SS-4. It is not a legal determination of your tax classification and is not binding on the IRS. If you want a determination on your tax classification, you may seek a private letter ruling from the IRS under the procedures set forth in Rev. Proc. 98-01, 1998-1 I.R.B. 7 (or the superceding revenue procedure for the year at issue).

If you need help in determining what your tax year is, you can get Publication 538, Accounting Periods and Methods, at your local IRS office.

If you have questions about the forms shown or the date they are due, you may call us at 1-800-829-1040 or write to us at the address shown above.

If you're required to deposit for employment taxes (Forms 941, 943, 940, 945, CT-1, or 1042), excise taxes (Form 720), or income taxes (Form 1120), we will send an initial supply of Federal Tax Deposit (FTD) coupon books within six weeks. You can use the enclosed coupons if you need to make a deposit before you receive your supply.

DEAN HELLER
Secretary of State
202 North Carson Street
Carson City, Nevada 89701-4201
(775) 684 5708

Qualification to do Business in Nevada
(PURSUANT TO NRS 80)

Office Use Only:

Important: Read instructions before completing

1. Name of Corporation: *(must be the same as shown on the certificate of existence)*	DOUBLE DIAMOND UTILITIES, INC.
2. State of Incorporation:	ARIZONA
3. Resident Agent Street Address: *(where process may be served)*	Name: WOODBURY, MORRIS & BROWN Physical Street Address: 701 N. Green Valley Parkway, Suite 125 — City: Henderson — NEVADA — Zip Code: 89074 Additional Mailing Address: — City: — State: — Zip Code:
4. Shares: *(number of shares corporation authorized to issue; please attach documents)*	Total authorized stock: 5,000 (a) Number of shares with par value: 5,000 (b) Par value of each share: $ 1.00 (c) Number of shares without par value: --
5. Purpose:	The purpose of this Corporation shall be: Any and all lawful business
6. Name, Title & Signature of Officer Making Statement:	Leonard K. Mardian — Name President — Title Signature
7. Certificate of Acceptance of Appointment of Resident Agent:	I hereby accept appointment as Resident Agent for the above named corporation. Rodney Woodbury, President — Authorized Signature of R.A. or On Behalf of R.A. Company 10/6/03 — Date

This form must be accompanied by appropriate fees. See fee schedule.

ANNUAL LIST OF OFFICERS, DIRECTORS AND AGENTS OF:

DOUBLE DIAMOND UTILITIES, INC.

FILE NUMBER

25602-2003

FOR THE PERIOD OCT 2004 TO 2005. DUE BY OCT 31, 2004.

The Corporation's duly appointed resident agent in the State of Nevada upon whom process can be served is:

RA# 152403

WOODBURY MORRIS & BROWN LTD

701 N GREEN VALLEY PKWY STE 125
HENDERSON NV 89074

FOR OFFICE USE ONLY

FILED (DATE)

FILING FEE: $125

☐ IF THE ABOVE INFORMATION IS INCORRECT, PLEASE CHECK THIS BOX AND A CHANGE OF RESIDENT AGENT/ADDRESS FORM WILL BE SENT.

PLEASE READ INSTRUCTIONS BEFORE COMPLETING AND RETURNING THIS FORM.

1. Include the names and addresses, either residence or business, for all officers and directors. A President, Secretary, Treasurer, or equivalent of and all Directors must be named. There must be at least one director. Last year's information may have been preprinted. If you need to make changes, cross out the incorrect information and insert the new information above it. An officer must sign the form. FORM WILL BE RETURNED IF UNSIGNED.
2. If there are additional directors, attach a list of them to this form.
3. Return the completed form with the filing fee shown above. A $75 penalty must be added for failure to file this form by the deadline. An annual list received more than 90 days before its due date shall be deemed an amended list for the previous year.
4. Make your check payable to the Secretary of State. To receive a certified copy, enclose an additional $30.00 and appropriate instructions.
5. Return the completed form to: Secretary of State, 202 N. Carson St., Carson City, NV 89701-4201. (775) 684-5708.
6. Form must be in the possession of the Secretary of State on or before the last day of the month in which it is due. (Postmark date is not accepted as receipt date.) Forms received after due date will be returned for additional fees and penalties.

FILING FEE - AS SHOWN ABOVE PENALTY: $75.00

Check all that apply:

☐ This corporation is a publicly-traded corporation. If so, Central Index Key number is: _____

☐ This publicly-traded corporation is not required to have a Central Index Key number.

NAME	TITLE(S)	P.O. BOX	ADDRESS	CITY	ST.	ZIP
LEONARD K MARDIAN	PRESIDENT (OR EQUIVALENT OF)		4132 S RAINBOW BLVD, PMB #32	LAS VEGAS	NV	89103
SUSAN MARDIAN	SECRETARY (OR EQUIVALENT OF)		4132 S RAINBOW BLVD, PMB #32	LAS VEGAS	NV	89103
SUSAN MARDIAN	TREASURER (OR EQUIVALENT OF)		4132 S RAINBOW BLVD, PMB #32	LAS VEGAS	NV	89103
LEONARD K. MARDIAN	DIRECTOR		4132 S RAINBOW BLVD. PMB #32	LAS VEGAS	NV	89103

declare, to the best of my knowledge under penalty of perjury, that the above mentioned entity has complied with the provisions of NRS 360.780 and acknowledge that, pursuant to NRS 239.330, it is a category C felony to knowingly offer any false or forged instrument for filing in the Office of the Secretary of State.

Susan Mardian 9/21/04

DOUBLE DIAMOND UTILITIES, INC.
a Nevada corporation

2004 Consent in Lieu of
Annual Meetings of Directors and Shareholders

The undersigned, being all of the directors and shareholders of DOUBLE DIAMOND UTILITIES, INC., a Nevada corporation (the "Corporation"), acting pursuant to Nevada Revised Statutes Sections 78.315 and 78.320, do hereby consent to the adoption of, and do hereby adopt, the following resolutions and declare them to be in full force and effect as if they were adopted at the regularly scheduled 2004 annual meetings of the directors and shareholders of the Corporation:

RESOLVED, that the following named persons be, and hereby are, elected to serve as directors of the Corporation until the next annual meeting of the shareholders or until their successors are duly elected and qualified:

Leonard K. Mardian
Susan Mardian

RESOLVED, that the following named persons be, and hereby are, elected to serve as officers of the Corporation until the next annual meeting of the directors or until their successors are duly elected and qualified:

President:	Leonard K. Mardian
Secretary:	Susan Mardian
Treasurer:	Susan Mardian

RESOLVED, that each and every act and decision of the directors and officers of the Corporation in managing the affairs of the Corporation during the

preceding year that have not heretofore otherwise been acted upon be, and hereby are, in all respects ratified, approved, and confirmed.

DATED this 21st day of September, 2004.

DIRECTORS

LEONARD K. MARDIAN

SUSAN MARDIAN

SHAREHOLDERS

LEONARD K. MARDIAN

SUSAN MARDIAN

H:\Corporations\WMB\Mardian\dd Consent.wpd

ADDENDUM to

Annual List of Officers, Directors and Agents of
DOUBLE DIAMOND UTILITIES, INC.

TITLE: DIRECTOR

SUSAN MARDIAN, 4132 South Rainbow Blvd., PMB 32, Las Vegas, Nevada 89103

DOUBLE DIAMOND UTILITIES, INC.

a Arizona corporation

Unanimous Consent in Lieu of Meeting of Board of Directors

The undersigned, being all of the Directors of Double Diamond Utilities, Inc., an Arizona corporation (the "Corporation"), acting pursuant to the Bylaws of the Corporation (the "Bylaws"), do hereby consent to the adoption of, and do hereby adopt, the following resolutions and declare them to be in full force and effect as if they were adopted at a regularly scheduled meeting of the Board of Directors of the Corporation (the "Board").

RESOLVED, that the Resignations of the following Officers and Directors of the Corporation attached hereto as Exhibit "A" are hereby accepted, effective immediately:

President: Susan Mardian

FURTHER RESOLVED, that, pursuant to Article III, Section 12 of the Bylaws, the following person is hereby appointed, effective immediately, to fill all of the vacancies created by the foregoing Resignations until their successor(s) are duly appointed and qualified:

President: Leonard Mardian
Vice President: Susan Mardian
Secretary: Susan Mardian
Treasurer: Susan Mardian

Director: Leonard Mardian
Director: Susan Mardian

FURTHER RESOLVED, that the President and Secretary of the Corporation is authorized and directed for and on behalf of the Corporation to take all actions and to prepare, execute, file and submit all documents as may be necessary or appropriate in their discretion to carry into effect the foregoing resolutions.

DATED this 30th day of November, 2005.

DIRECTOR

Susan Mardian
Director

DIRECTOR

Leonard Mardian
Director

Exhibit "A"

Resignations

(See Attached)

RESIGNATION

I, Susan Mardian, hereby resign as President of Double Diamond Utilities, Inc., an Arizona corporation, effective immediately.

DATED this 30th day of November, 2005.

Susan Mardian

Susan Mardian

EXHIBIT

"3"

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

****DOUBLE DIAMOND UTILITIES, INC.****

a domestic corporation organized under the laws of the State of Arizona, did incorporate on June 18, 2002.

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 10th Day of July, 2007, A. D.

Executive Director

Order Number: 157687

EXHIBIT

"4"

Legal Description

T28N, R19W, Section 31

Mohave County, Arizona

COUNTY	SECTION	TOWNSHIP	RANGE
MOHAVE	31	T28N	R19W

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Type or Print Description Here:

See Attached

EXHIBIT

"5"

June 10, 2007

Double Diamond Utilities, Inc.
4132 South Rainbow Blvd, PMB 324
Las Vegas, NV 89103

RE: Request for Utility Service
T28N, R19W, Section 31

Dear Utility Provider,

Arizona Acreage, LLC is the Owner of Record for Section 31, T28N, R19W. We are preparing to develop this land with mixed uses including residential, commercial, park, and school sites. Please be advised that we am requesting central water service and central sewer service from Double Diamond Utility Company as part of the development of this property.

Should you require additional information, or have any questions concerning this request for service, please contact us directly.

Respectfully Submitted,

Arizona Acreage, LLC

Leonard Mardian
Susan Mardian

EXHIBIT

"6"

The Ranch at White Hills

Master Planned Properties

AREA PLAN

February, 2004 (Modified August 2, 2004)

Project Applicant:

Arizona Acreage, LLC
4132 S. Rainbow Blvd
PMB # 324
Las Vegas, NV 89103

Project Contact Person:

Kathy Tackett-Hicks
(928) 757-9315

Prepared by:

Rangeland Consulting Service
Mr. Elno Roundy
P.O. Box 3222
Kingman, AZ 86402

Del Rayo International, Inc
Mr. Luis Vega
Registered Consultant Geologist
P.O. Box 4045
Kingman, AZ 86401

Rick Harrison Site Design/Studio's
8832 7th Avenue North
Minneapolis, Minnesota 55427

KTH Consulting
Kathleen A. Tackett-Hicks
3751 Martingale Drive
Kingman, AZ 86401

In consultation with

Allen, Stephenson & Associates
Phoenix, Arizona 85014

Hydrogeophysycs Inc.
Tucson, Arizona 85745

Schmidt-Curley Design, Inc.
Scottsdale, Arizona 85258

Executive Summary
The Ranch at White Hills

The Ranch at White Hills is a proposed master planned area encompassing 25,167 acres of privately owned lands in and around the White Hills area of Mohave County, AZ. The vast holdings involve over 43 different sections of property located approximately half way between Las Vegas and Kingman, on the east side of U.S. Highway 93. In addition to these sections, the project also identifies 80 acres of proposed commercial development at White Hills Road and Highway 93, and further site-specific commercial development property along Pierce Ferry Road.

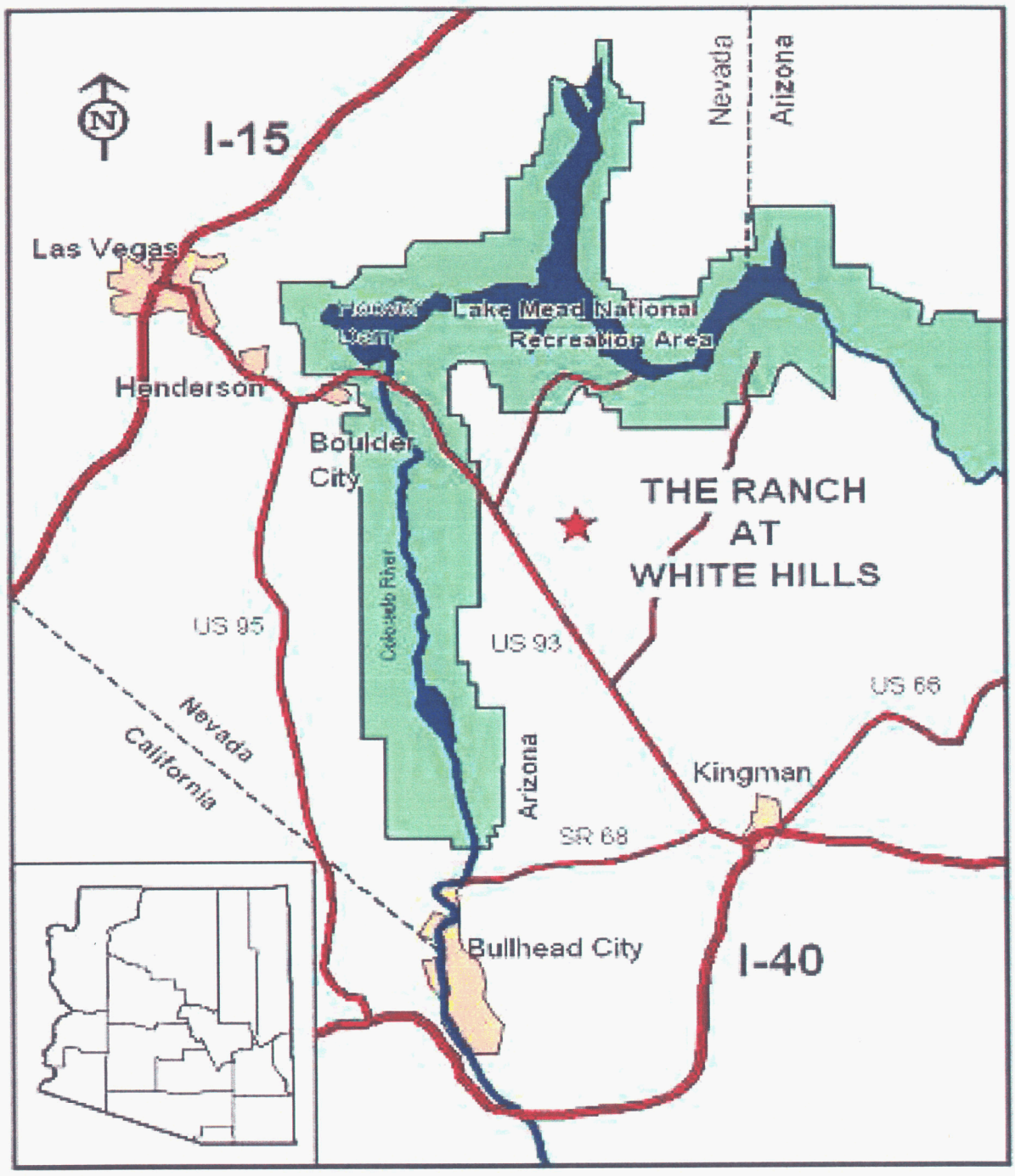
The sheer size of the planned area allows for a multitude of development approaches, variables, and opportunities. U.S. Highway 93 is the major commercial corridor between the states of Arizona, Utah, and Nevada and is also a part of the North American Free Trade Agreement corridor from Mexico to Canada. These Area Plan properties can be accessed directly from U.S. Highway 93 at four (4) major routes including; White Hills Road, Pierce Ferry Road, mile marker 24.5, and from Temple Bar Road to the north. The diverse, natural topography and expanse of the properties allows for high and low density urban development areas, scenic recreational resources and opportunities, as well as spectacular, secluded guest ranch sites. To help protect the scenic vistas, the natural vegetation, and the raw beauty of the area, the Plan Area is intended to develop in a staged manner, with varying densities, varying development standards, environmentally sensitive recreational and transportation alternatives and opportunities, and responsible natural resource management and use.

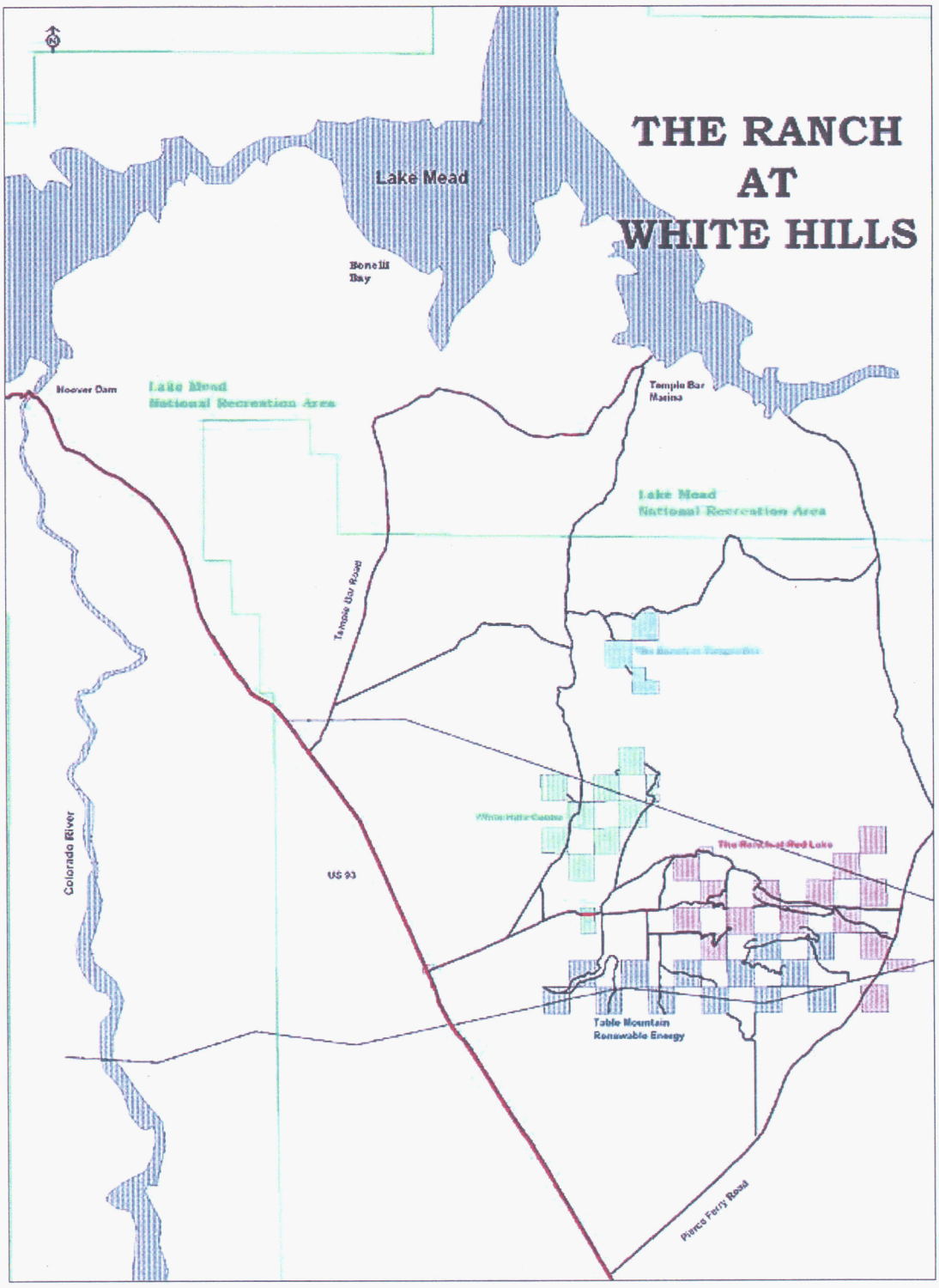
This new Area Plan proposal and the accompanying General Plan amendment are necessary to modify the existing Outlying Community / Rural Development Area designations, to supercede the existing area plan for this area, and to expand the Urban Development Area designations in and around the White Hills area. The most significant modification to the plan involves the deletion of all of the BLM properties, and the inclusion of additional land owned by Arizona Acreage, LLC. This major modification has become necessary to insure Arizona Acreage, LLC will have the ability to develop their properties in the White Hills area in the coming year.

"There can be no doubt...that, in all our modern civilization, as in that of the ancients, there is a strong drift Townward." *- Frederick Law Olmsted (1877)*

A realistic appraisal of the existing development issues, property locations, market generators, and a further assessment of the future possibilities and opportunities, make it clear that planned development in this area will be successful. The Ranch at White Hills Area Plan accentuates the diversity of the properties, melds the topographical and site design elements in an inter-connected fashion, and provides for distinct development objectives which highlight and characterize strong community objectives. The long term vision of The Ranch at White Hills will emphasize dynamic quality standards and the development of a "Sense of Community" – a place where people can work near where they live.

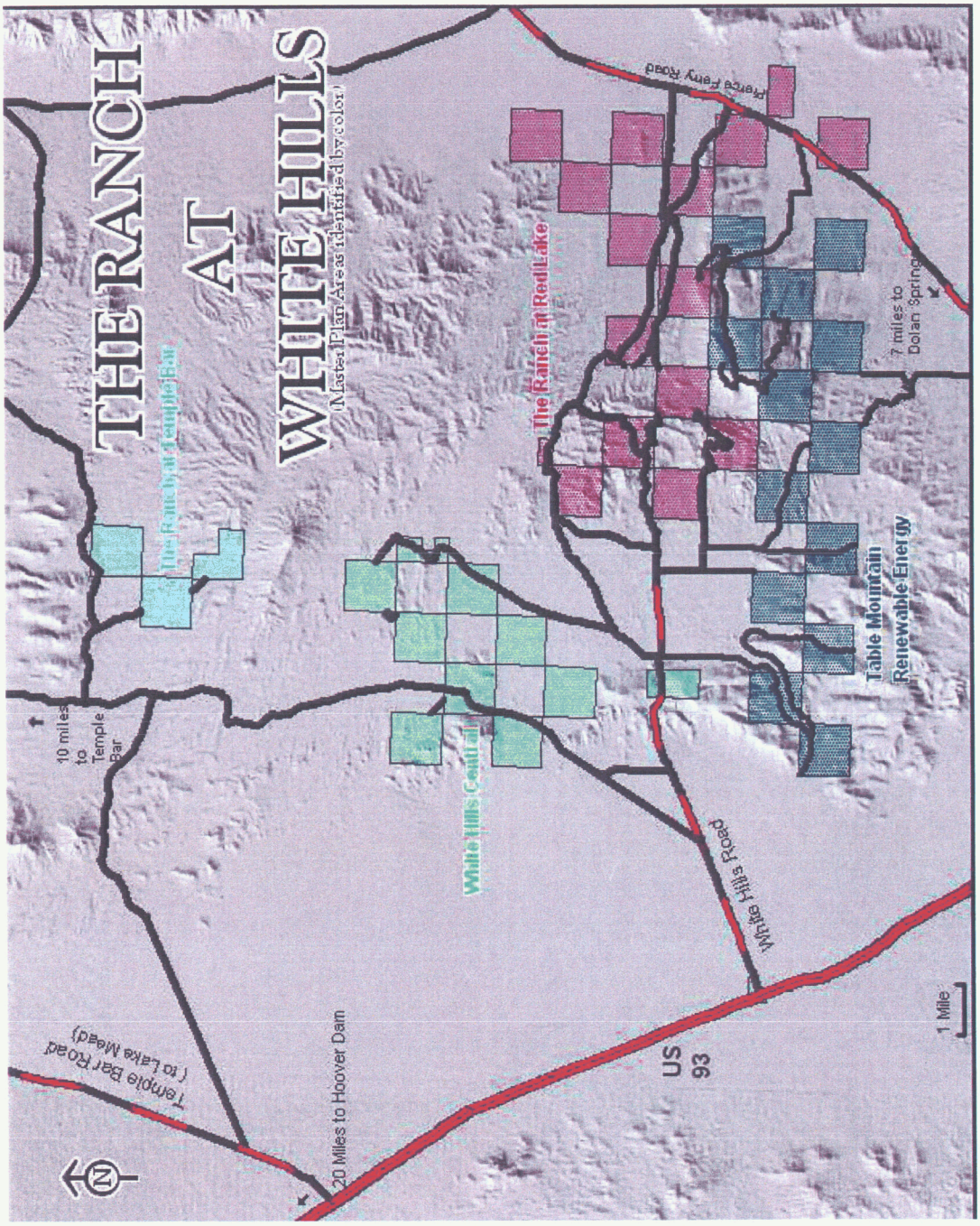
GENERAL LOCATION MAP





VICINITY MAP

SITE SPECIFIC MAP



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1. **3.0-1** Legal descriptions of sections, ***The Ranch at White Hills***
2. **4.1-1** Existing roadway chart, T***he Ranch at White Hills*** Area Plan
3. **4.1-2** Proposed interconnecting new roadway chart ***The Ranch at White Hills*** Area Plan
4. Additional Tables from Section 5- Water Element

ATTACHMENTS

1. Report- Capturing Rainwater for Recharge of Groundwater Aquifers
2. Report- Gravity Survey for the Detrital Valley- Hydrogeophysics
3. Report- Preliminary Hydrologic Assessment- ASA

MAPS

1. Land Use Plan Maps Sheet 1 & 2
2. Geologic Map of the White Hills

1.0 INTRODUCTION AND PURPOSE

The Ranch at White Hills properties cover a large geographic area which allows for tremendous opportunities in design, infrastructure, land-use, marketing, and economic and community development approaches. To balance the overall dynamics of the project boundaries and goals for *The Ranch at White Hills*, the project has been further divided into four (4) distinct planning groups, identified as White Hills Central, The Ranch at Temple Bar, The Ranch at Red Lake, and the Table Mountain Renewable Energy properties. The overall residential units proposed in the initial *The Ranch at White Hills* Area Plan remains the same as this modified version, with the fundamental difference being found in the geographic dispersal of the residential units.

The majority of the project density proposed in this area plan is to be located within the White Hills Central region. This area shall foster development of a true urban area and plans for all of the required infrastructure, public sites, recreational and commercial opportunities are identified for this area. The second plan area involves The Ranch at Temple Bar properties. This area covers the northern most Ranch properties and is accessed by Temple Bar Road. The promulgating feature of this planned area includes a 220 acre guest ranch site. The third development area includes the properties within The Ranch at Red Lake plan area. These properties constitute the eastern half of the overall *Ranch at White Hills* Area Plan, and have additional access directly from Pierce Ferry Road. In addition, The plans for the Ranch at Red Lake area include site-specific commercial development along Pierce Ferry Road, which also supports the adjacent Dolan Springs Area Plan / service area. The fourth planning area involves properties specifically designated for renewable energy opportunities. The Table Mountain plan area encompasses the entire southern region of *The Ranch at White Hills* and is intended to be used for potential solar, wind, and water recharge opportunities.

The vision and introduction of an enhanced community proposal for this area is based upon economic feasibility, regional opportunities and trends, site dynamics, transportation alternatives and existing networks, and the ability of the property resources to support the intended land uses. The development of this comprehensive, planned area is based upon the following site dynamics and design principles:

- ✓ Self sufficient service levels including sanitary sewer service, centralized water service, and re-use / recycling for the majority of the project areas.
- ✓ Extreme topographical feature sites include additional hillside development standards and alternatives.
- ✓ Physical organization of the project supported by a framework of transportation access points from the east, west, north and south.
- ✓ A variety of life cycle housing opportunities. Diverse mix of low

density, medium density, and high density residential units

- ✓ Scenic, environmentally rich reserve areas for guest ranch opportunities
- ✓ Extensive land set-asides for renewable energy opportunities
- ✓ Efficient, connective multi-use transportation systems and utility patterns.
- ✓ Water use efficiency and ecologically sound ways of managing water quality and quantity.
- ✓ Compliance with Mohave County goals and policies.
- ✓ Development approach compatible with surrounding areas, planning documents, and communities.

This Area Plan document is a specific request for approval to allow for an Urban Development Area designation for 25,167 acres of land in Mohave County, AZ. To proceed with development of the proposed properties, known as *The Ranch at White Hills*, a modified Area Plan proposal and a major General Plan amendment are necessary. This document specifically addresses the requirements of the County for a major plan amendment, outlines the unique perspectives and opportunities of the proposal, and further identifies the consistency of the development with the County's Planning objectives.

2.0 OPPORTUNITIES AND CONSTRAINTS SUMMARY

2.1 PROPERTY OWNERSHIP

On November 13, 2001, Arizona Acreage, LLC purchased 32,147 acres of private land in the White Hills north of Dolan Springs, Arizona from the J. M. Smith Land and Cattle Company. Subsequently, Arizona Acreage, LLC has purchased an additional 5,549 acres of private land from Dale D. Smith. *The Ranch at White Hills* Area Plan includes 25,167 acres of this property.

2.2 HISTORY OF DEVELOPMENT AREA

In the 1890's, the town of White Hills was established in the low range of hills immediately to the south of the present-day development area. The town once boasted close to 1,500 citizens and was supported with mining activities. When the mines played out in 1899, the town was abandoned. The only evidence that remains are rock foundations, head frames, shafts and rusty tin cans. Current mining activity in the general area is limited to a gravel pit on federal land in Detrital Wash three miles north of the proposed commercial development, and three decorative rock pits in Senator Valley on the north boundary of the area plan. Stockmen moved in to the area in the late 1800's to provide meat for the miners. Active cattle

ranching continues to this day.

In 1925, the government deeded alternate odd numbered 640 acre sections of land to the Santa Fe Pacific Railroad Company as part of land grants issued as incentive and compensation for building the railroad. This created a "checkerboard" land pattern of federal and private land for a distance of 40 miles on either side of the railroad track that crosses northern Arizona. This Area Plan is on the northern limits of the 40 mile swath. The land to the northwest of *The Ranch at White Hills* is largely federal with the exception of a large block of state land in Detrital Wash along the Temple Bar Road, approximately 5 miles north of where *The Ranch* intersects U.S. 93, at mile marker 24.5.

The overall properties of *The Ranch at White Hills* are bisected by two major power lines / easements. The northerly transmission easement is referred to as the Mead-Liberty 345 KV Transmission Line. This large power line sits within a 150' easement and extends across *The Ranch* in a northwesterly / southeasterly direction. The southerly power easement crosses *The Ranch* properties largely through the Table Mountain Renewable Energy parcels to the south, and runs in a primarily east/west direction. This is referred to as the Four Corners Power Line and it is 500KV strong. The existing easement is 460' wide.

2.3 EXISTING LAND USE

All of the properties which make up *The Ranch at White Hills* are currently vacant and zoned AR/36 (agricultural / residential, 36 acre minimum). To the north and west of The Ranch at Temple Bar plan area are predominantly federal lands. In addition, the Lake Mead National Recreation Area boundary lies to the north of this plan area and extends west to Temple Bar Road. Property in and around The Ranch at Temple Bar has not been developed, although there is an adjacent subdivision composed of 460, one acre lots platted under the name Mead-O-Rama Ranchos. This subdivision was platted in 1960 and is located within Section 27, just east of the Plan Area.

The White Hills Central planning area is intended to be the urban center of the project and is located nearest the existing development in the White Hills area. Subdivided properties to the east of the White Hills Central planning area include sections 9, 15, and 33. Portions of these particular sections have been further subdivided into 40 acre parcels. The existing Sunny Lakes Ranchos subdivision lies due north of this same planning area in section 13, and contains an additional 571 one acre lots, although the lots have never been developed. Property to the northeast in Section 9 has also been further subdivided into 40 acre parcels. Adjacent lands to

the south, southeast, and southwest of the White Hills Central area have been extensively subdivided and comprise the most developed areas of the existing White Hills community. Subdivided properties include all of the Golden Horseshoe Ranchos subdivisions, Units 1-6, along with numerous individually split and partially developed properties. Five of the six sections of land which make up the Golden Horseshoe Rancho subdivisions are located to the east of the low range of hills where the old town of White Hills was located. The sixth section of land is to the west of the White Hills Central plan area. Each of these six sections were subdivided into one acre lots. Many of the lots were never sold; however, a small community has developed over the years in Units 3 & 4, (Sections 9 & 17, T27N, R19W). In 1997, White Hills Equestrian Estates purchased Unit 1 (Section 9, T27N, R20W) and Unit 2 (Section 7, T27N, R19W) and began providing water, graded roads, and electricity to the lots. With these new services, the area has been generating more interest and the total number of residences has been increasing. The Golden Horseshoe Ranchos subdivision Units 3 & 6 also border the western edges of the Ranch at Red Lake plan area.

The Ranch at Red Lake plan area reflects a consistent, low density residential development approach. The plan area includes a second Guest Ranch site, located in the scenic mountains of section 11. Surrounding subdivisions in this area include Lake Mohave Ranchos, Units 12 & 13A, all of which are one acre lots. Aside from these lots, and the proximity to the Golden Horseshoe Ranchos subdivisions to the west, parcels in and around The Ranch at Red Lake plan area have not been further subdivided.

The Table Mountain Renewable Energy plan area falls atop the most prominent mountain and the most prominent drainage-ways in the southern portion of *The Ranch at White Hills* planning area. These property areas abut The Lake Mohave Ranchos Subdivisions, Kemo Ranches 40 acre parcels, and numerous individually subdivided parcels.

Commercial development in the area is limited. Boulder Inn (Rosie's Den), a long time bar and restaurant on the west side of U.S. 93 just north of the White Hills Road Junction, has been in business since the 1930's. Sometime in the 1960's, another restaurant and gas station were established a few miles north of Rosie's along the east side of the highway. This gas station and restaurant have since been closed and the site is now the home to a wild animal park, deli and gift shop. Adjacent to the wild animal park, across Highway 93, is a new small gift shop. The previously identified gravel pit and decorative rock quarry sites to the north of the property make up additional commercial ventures in the area. The nearest commercial planning areas along the east side of *The Ranch at White Hills* include a strip parcel along Pierce Ferry Road which is

identified as part of the recently approved Dolan Springs Area Plan. This commercial area is located south of The Ranch at Red Lake area along Pierce Ferry Road in section 8, T26N, R18W.

2.4 ENVIRONMENTAL FEATURES

Mohave County is fortunate to have wide vistas of unspoiled desert terrain, rugged mountains and clean air.

Climate, Soils, Vegetation and Wildlife

The Ranch at White Hills lies on the eastern edge of the Mojave Desert Floristic Region. This region has a rich diversity of plant species characterized by their shrubby nature. The exception is the Joshua tree which is considered the symbol of the Mojave Desert. Winters are relatively mild with daytime high temperatures typically over 40-50 degrees F. with over 280 frost free days per year. Summer daytime high temperatures are typically 95 to 100 degrees + with low humidity. The precipitation pattern on the Mojave is bimodal with approximately 60% coming consistently during the winter months and 40 % coming in erratic summer thundershowers. Elevations on *The Ranch* rise from a low of 2300 feet above sea level in Detrital Wash on the west side of the property, to 4600 feet in the White Hills near the divide between the Detrital and Hualapai ground water basins, then rising to a high of 5175 feet on the top of Table Mountain Plateau. Continuing east the elevation drops to 3000 feet along Pierce Ferry road on the eastern edge of the Ranch. Annual rainfall varies with a 6" to 9" zone at the lower elevations and a 9" to 12" zone at the higher elevations. The Joshua tree characterizes the difference in elevation and moisture. The lower rainfall zone has less density and diversity of vegetation and is dominated by a Creosote Bush (Larrea divaricata)-Bursage (Ambrosia dumosa) Association. The higher rainfall zone has a greater density and diversity of vegetation, dominated by a Joshua tree (Yucca brevifolia)-Golden Head (Acamptopappus spherocephalus)-Creosote Bush-Mixed Shrub Association; and a Joshua Tree-Black Brush (Coleogyne ramosissima) Association. (Brown, Lowe & Pace, 1979).

The soils of *The Ranch* are predominately Sandy Loams which are well drained with moderate to rapid permeability. About 12% of the soil acreage has a hardpan which restricts water penetration into the subsurface (NRCS Draft Soil Survey, 2002).

Typical wildlife in the area includes the Cactus Mouse, Desert Cottontail, Jack Rabbit, Red-tail Hawk, Cactus Wren, Gopher Snake, Rattlesnake, Coyotes and Kit Fox. Desert Mule Deer have moved in to the area after

livestock water was developed in 2002.

Domestic livestock currently include 240 head of cattle licensed on the Big Ranch Grazing Allotment and 75 on the Gold Basin Grazing Allotment.

No listed threatened or endangered plants or animals occur within the boundary of the area plan.

Topographic Setting

Western Mohave County lies in the Basin and Range geomorphologic province. This province is typified by north-south trending mountain ranges separated by wide, relatively flat valleys. The valleys are basins, filled with thousands of feet of alluvium. The White Hills are situated between the Detrital Valley to the west and Hualapai Valley to the east and are made up of two ranges separated by a small valley. The main range is to the east, White Hills-east. This range is separated by a narrow north-south running valley, herein called Senator Valley, from the low range of hills called White Hills-west. The west side of White Hills-west is an erosional surface developed on the mountain pediment forming a broad "bajada" emptying into Detrital Wash.

Detrital Valley Basin, as defined by the Arizona Department of Water Resources, covers an area of approximately 875 square miles. The basin boundaries are formed by the Black Mountains to the west, the drainage divide with Sacramento Valley to the south, the northern Cerbat Mountains and White Hills to the east and the Colorado River to the north.

Detrital Wash, the main drainage in Detrital Valley, slopes from south to north going from an elevation of 3,400 at the drainage divide with Sacramento Valley to 1,200 feet above sea level where Detrital Wash meets Lake Mead.

Hualapai Valley, as defined by the Arizona Department of Water Resources, covers an area of approximately 1,820 square miles. The basin boundaries are formed by the White Hills and Cerbat Mountains on the west, the Grand Wash Cliffs and Music Mountains on the east and the drainage divide with Big Sandy Valley-Peacock Mountains and Hualapai Mountains to the south.

Senator Valley, a sub-basin of Detrital Valley Basin, covers an area of approximately 63 square miles. This valley slopes to the west and to the south with ephemeral streams that drain the western flank of White Hills-east. These washes drain runoff through gaps in the low range of hills called White Hills-west, form alluvial fans with braided stream channels

on the pediment of White Hills-west and eventually empty into Detrital Wash.

The Ranch at White Hills development will be located in the White Hills and will include portions of both the Detrital and Hualapai Hydrologic Basins (see Site Specific Map). Elevations of the development range from a high of 4,600 feet at the crest of the White Hills to a low of 2,840 feet at the southwestern portion of the development in the White Hills-west.

The topography slopes gently from the mountain flanks to the valley floors with moderate to steep sided canyons and gullies in the mountains.

Geology

The geology of the White Hills is very interesting. Lithologically, the area is relatively simple but structurally it is very complex. The oldest rock units include Precambrian gneiss and monzogranite. The structural relationships within the Precambrian rocks are complex because of several low angle structures. These low angle structures appear to be Tertiary in age and have lower plates of Precambrian rocks and upper plates of both Precambrian rocks and Tertiary age volcanic and sedimentary rocks. The low angle structures are visible at the Cyclopic Mine, Owens Mine, Senator Mine and along the entire length of White Hills-east.

A very distinctive Cretaceous age two-mica monzogranite has intruded the Precambrian sequence. This unit is also in low-angle fault contact with the overlying Tertiary sedimentary and volcanic units.

Overlying the Precambrian and Cretaceous rocks, in low-angle fault contact, is a series of Tertiary age volcanic rocks, presently thought to be the Mount Davis Volcanic Formation. This formation includes a very distinctive basal massive vesicular andesite unit. Overlying this formation, again in low-angle fault contact, are the different phases of the Tertiary age Muddy Creek Formation.

The youngest units are the Quaternary age locally derived fanglomerates that do not contain fragments of Rapakivi granite and sand and gravel in active stream channels.

It is important to note that the Tertiary age sedimentary units contain fragments of Rapakivi granite. This distinctive granite is not found locally in the White Hills nor in the Cerbat Mountains but it is found in the Black Mountains. The fact that the Tertiary sediments contain Rapakivi granite suggests that their source was to the west of Detrital

Wash and that movement along a low-angle fault has transported the Muddy Creek Formation and possibly the underlying Precambrian and Cretaceous rocks. The low-angle structures are important to the understanding of the size and shape of both Detrital Valley Basin and Senator Valley.

Table 2.3-1. Rock Units in the White Hills and Senator Valley:

Geologic Period	Formation	Description
Quaternary	Qs	Sand & gravel along active stream channels.
	Qtg	Locally derived fanglomerate deposits that do not contain Rapakivi granite clasts.
Tertiary	Muddy Creek Fm Tmb	Basalt flows of upper part of Muddy Creek Fm.
	Tmf	Alluvial fanglomerate deposits with local lenses of rhyolitic tuff.
	Tbx	Gravity slide breccia composed of clasts from all Precambrian rock types interbedded with basalt flows.
	Mtn Davis Volcanic Tv	Includes massive vesicular hornblende andesite, basalt, reddish brown sandstone and sedimentary breccia.
Cretaceous	Km	Medium grained white two-mica monzogranite.
Precambrian	Xpm	Coarse grained hematite stained porphyritic monzogranite.
	Xgn	Includes gneiss of various compositions, amphibolite, quartz-feldspar and garnet.

3.0 LAND USE ELEMENT

The Ranch at White Hills Area Plan is designed to guide planning, development and preservation of the 25,167 acre property (see Table 3.0-1, on page 78 in Additional Tables). The plan's long-term vision establishes the general land use, major transportation networks, community facility needs, open space objectives, recreational opportunities, and infrastructure requirements for the anticipated development. The Area Plan also guides more detailed planning and design objectives for an extended period of time. *The Ranch at White Hills* Area Plan is driven to create a "sense of place" and foster connections among people and the environment. The physical characteristics of the urban villages are intended to draw people together and encourage an atmosphere of peace, security, and pride among residents of the community. The less dense areas and the proposed guest ranch sites are intended to offer homeowners and guests an opportunity to enjoy the raw beauty and the serene setting of the mountainous areas. Numerous hillside development areas will require special site-specific design elements to

protect the integrity of the areas. These will include determination of maximum building pad sites, slope considerations, erosion protection, road improvements, and feasible infrastructure requirements.

3.1 LAND USE INVENTORY

The intent of the Area Plan for *The Ranch at White Hills* is to create a true community and sense of place.

The property that makes up *The Ranch at White Hills* is completely zoned for AR/36 uses (agricultural / residential uses – 36 acre minimum lot size). This zoning designation is similar to many of the existing surrounding property designations in the area. These properties are, to a large degree, vacant and undeveloped. Over the past 75 years there have been subdivisions platted and hundreds of lots created near the proposed *Ranch at White Hills* project. The total number of lots originally created in the Golden Horseshoe Ranchos, Flannery & Allen, Sunny Lakes Ranchos, Kemo Ranches, Lake Mohave Ranchos, (Units 12, 12A, 13A & 15 only) and Mead-O-Rama Ranchos subdivisions is 6,718. A review of the Mohave County Building permit files, field inspections, and review of the Mohave County Assessors rolls, verifies that less than 5% of these lots have been developed since original platting. This 5% development ratio for this area over 75 years is significantly less than the County's median annual growth rate over the same 75 years. The limited, haphazard growth in the area is likely due to several factors including lot locations, access issues, infrastructure availability and land market values. The zoning designations for these largely vacant lots are primarily residential.

(AR-1A	5,253 lots
(R1-1A) (single-family, residential lots)	0 lots
RM-1A (single-family / mobile home lots	188 lots
C2-1A (General Commercial)	121 lots
SD-M (Special District – Manufacturing)	17 lots
RE (Residential Recreation)	1,139 lots
TOTAL SUBDIVIDED LOTS	6,718 LOTS

A further look at these numbers verifies that close to 98% of the lots are zoned for residential uses, with less than 3% allotted for commercial and manufacturing uses. This fact, feathered in with the knowledge that there are no public facility, recreation, or community use parcels set aside for such uses, has created a severe imbalance in existing land uses. The immersion of *The Ranch at White Hills* Area Plan objectives will provide more land use balance and the essential framework for maximizing the opportunities available to the existing lots in the area.

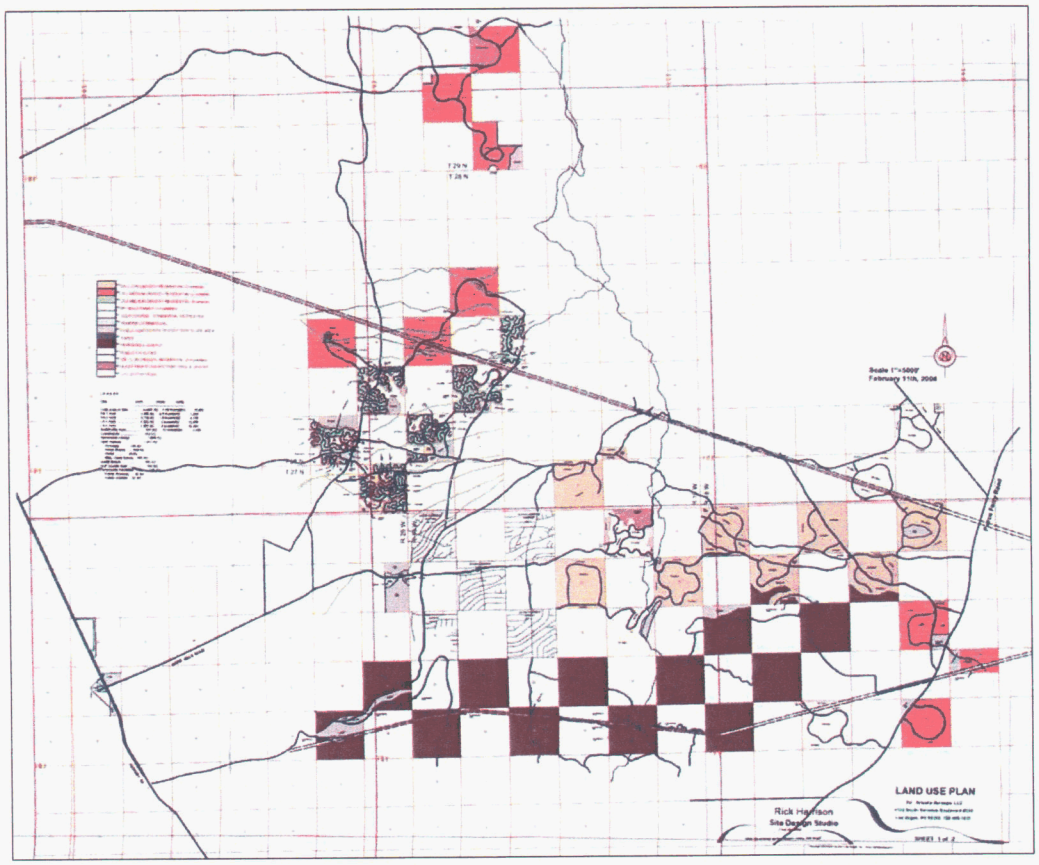
The Mohave County General Plan groups distinctive geographic parts of the County into four (4) broad planning area types. These types describe the density of residential developments anticipated and the expected non-residential uses within each, as well as the expected services and facilities needed to support such services. The goals and policies of the Mohave County General Plan allow for distinctive community character, provide guidance and flexibility within the framework of general and area plan approvals, and gives property owners flexibility in designing development proposals that meet the County's goals.

The original White Hills community site and the sparsely populated areas of the region today have been collectively identified as an Outlying Community, per the Mohave County General Plan. This designation is given to outlying areas with limited and varied growth patterns and allows for the development of urban, suburban or rural densities and uses, dependent upon the communities characteristics, opportunities, and abilities.

The Area Plan will guide the detailed plans and designs over the life of the project

The County also has three additional land use designations for general planning purposes. These include the RDA (Rural Development Area, 5 acre minimum lot size); SDA (Suburban Development Area, 1-5 acre minimum lot size); and UDA (Urban Development Area – less than 1 acre lot size). In addition to the Outlying Community designation, other properties in and around the project site are currently designated as UDA (Urban Development), SDA (Suburban Development), and RDA (Rural Development). In addition to those properties included in the initial *The Ranch at White Hills* Area Plan the following properties are also currently designated as Urban Development Areas: T27N, R20W, Sections 30, 19,

20 & 21 and a portion of Section 25, T27N, R21W. T27N, R20W, Sections 16, 17, 23, 27, 29 and a portion of section 15 are all designated as Suburban Development Areas. The remaining sections in the area are designated as Rural Development Areas.



Per Mohave County requirements, a request to modify and enhance the existing *Ranch at White Hills* area plan for development at urban / suburban densities requires an Area Plan proposal and a major general plan amendment. In addition to the area plan request and general plan amendments, it is recognized that each individual development proposal will also need to process a rezone request to modify the underlying zoning designations of AR/36.

3.2 PLAN DESCRIPTION AND DESIGN PHILOSOPHY

The Area Plan for *The Ranch at White Hills* represents a vision for a carefully planned community of the highest design standards. The intent is to create a true community and a sense of place, both in the highest density urban settings and the less dense hillside developments. This is accomplished through a mutually supportive mix of land uses, a variety of price levels and housing types, the preservation of natural open space, the development of suitable hillside development ordinances, the inclusion of commercial opportunities, public safety facilities, and numerous recreational offerings. The native landscape, the surrounding areas, and the site topography form the basis and the nexus of the design parameters for the project. The interior roads, the residential project locations, the hillside options, open spaces and utilities have been primarily planned based upon the site topography and the existing access options.

The fundamental development of The Ranch at White Hills is founded upon two major design approaches. The underlying urban community design theme is fashioned upon Connective Neighborhood Design (CND) theory. The second design approach involves the utilization of hillside development standards, consistent with prominent hillside developments. In a CND, large setbacks and higher forms of housing are showcased along arterial streets and more attainable priced homes are set in villages behind them. This approach works best in the high, medium and low residential areas. Larger lots, consistent with suburban residential lot sizes and hillside projects in general are not as benefited by the CND, and specific hillside ordinances shall be formulated for these areas. The hillside lots shall still maintain their inter-connective facets with trails, open space and park areas. These two approaches will enhance the visual image and property values of the overall community.

Within a CND traditional barriers between residential and commercial zones are substantially reduced, creating a neighborhood that limits visual negatives such as screening walls and loading docks. The Connective Neighborhood Design approach highlights pedestrian and bicycle friendly paths and centers, and links the residential areas with the recreational and commercial areas. Each of the urban residential and commercial villages will be linked through parkways, collector roads, trails and open space areas. The multi-use transportation strategy is designed to minimize conflicts between streets, drainage washes, and pedestrians. The meandering street pattern reduces overall linear feet of street by as much as 50% when compared to a standard grid pattern. Impervious surfaces and street maintenance costs are significantly reduced, as well as reductions in the initial construction costs of the infrastructure.

Carefully designed curving streets enhance the visual image and property values of the community.

The Ranch at White Hills Area Plan locates specific regional / community scale commercial properties at the intersection of White Hills Road and Highway 93, and along Pierce Ferry Road at the east end of the project. The project also includes additional commercial sites, primarily within the White Hills Central plan area, for major employment and service areas for the residents. *The Ranch* Area Plan strives for a job / housing balance to sustain community and economic development initiatives, to encourage alternate transportation modes, and to develop a stronger sense of community. This is achieved through the thoughtful placement of residential sites in proximity to commercial centers, with a choice available to the residents to use either the walkways / bike paths or a traditional vehicle.

The Ranch at White Hills can easily be accessed from the north, south, east, and/or the west. Highway 93 provides this access directly from four sites; at mile marker 24.5, at White Hills Road, Pierce Ferry Road, and at Temple Bar Road. Preliminary discussions have already occurred with the Arizona Dept. of Transportation (ADOT) District Engineer, ADOT staff members, and the ADOT design engineers for the Hwy 93 widening project for this area. A review of the traffic issues along Hwy 93 verifies that ADOT has no objection to an interim at-grade crossing at milepost marker 24.5. The access will require an ADOT permit and submittal of a Traffic Impact Analysis. In addition, ADOT indicates that another

potential traffic interchange location is being considered at White Hills Road. Discussions on the ultimate traffic interchange locations, costs, and construction timing will preliminarily occur at the access permit issuance. Final discussions concerning these interchange issues will occur when the interchange is actually warranted for such improvements.

The Area Plan concept is based upon creating distinct residential villages with unique entry designs, landscape themes, parks, trails and support facilities. All of the villages will be linked to adjacent parks, adjacent commercial areas, and/or adjacent open space areas. The central part of the property will be developed with a mix of residential housing. The housing offers a variety of unit types and prices, although most of the housing stock is expected to be detached, single-family homes. The highest density residences will consist of condominiums, senior housing and apartments.

The housing areas are organized around residential villages and each village will be comprised of development tracts or "super-pads". These super-pads are anticipated to be sold to local and national builders to construct the home sites. Supporting infrastructure will be provided to the super-pad tracts by the individual Developers of the lots, and required services shall be extended during construction.

The Developer intends to process the project phases through the Mohave County standard development process utilizing the preliminary plat, final plat, and commercial site plan processes, in most cases. The creation of master drainage, street, utility and parks, and open space plans will also be necessary to guide the ultimate development and construction of the project.

Due to the enormous size of the overall development, the master plans shall also be developed in a phased manner, to coincide with the first area of residential development. The first phase of these master plans shall be initiated and approved, concurrent with the first phase of development - final plat approvals. The first, significant urban residential phase of construction will also include the necessary infrastructure development to provide for wastewater treatment and the provision of a central water delivery system to each of the lots. In addition, each phase of development shall complete the required street improvements and the preliminary plat document shall reflect the connecting bike paths, trails, walking paths, setbacks, design requirements, and open space needs to achieve the connective neighborhood design objectives.

The Ranch at Temple Bar, the Ranch at Red Lake, White Hills Central, and the Table Mountain Renewable Energy properties all contain liberal percentages of hilly, mountainous properties. All of these four (4)

planning areas will utilize hillside development standards for some of their respective development areas; except the Table Mountain Renewable Energy area, which has no residential development proposed at this time. The hillside areas within the project development boundaries are more rugged than the balance of the site and are planned for larger, suburban residential lots.

The west end of The Ranch at Red Lake maintains a multi-use, equestrian trail that connects the guest ranch site, crosses section 3 on the north, and drops into the existing Golden Horseshoe Ranchos unit 3 subdivision for general public use. This trail outlet is intended to benefit the new residents, as well as the surrounding, existing homeowners in the White Hills area.

The Ranch at White Hills Area Plan also supports two (2) golf courses in the White Hills Central plan area. These courses have been located to fit with the natural terrain and to preserve the native vegetation and drainage. The golf courses and park / landscape areas will be designed to minimize water consumption and are anticipated to utilize effluent from the community wastewater treatment facilities for irrigation and watering purposes. This option will become available once a sufficient number of residents are utilizing the wastewater system.

3.3 LAND USE SUMMARY

The Area Plan illustrates a concept for the entire development. The Area Plan is to act as a guide for more detailed planning and design as phases are developed. The maximum number of homes for the entire 25,167 acre site is identified as 34,727, and shall ultimately govern the development of the project.

The developers intend to use a mix of residential density projects to develop the 34,727 homes, and the land use summary shown on the table below reflects the initial projections for the entire development. It is acknowledged that there will likely be differences in the actual percentages of homes within the low, medium, and high density developments, yet this Area Plan approval request is for allowance of the aforementioned 34,727 homes only. Any future residential development requests within *The Ranch at White Hills* project area which exceed the 34,727 home-limit, shall require additional review and approval by Mohave County.

The following is the projected land use summary for the Area Plan.

Land Use Designation	Description	Area (acres)	% of Site	# of Homes	Density Range
Open Space	Natural areas and preserves	2,511	10%		
Parks	Neighborhood and community parks and trails	1,008	4.0%		
Commercial Recreation	Guest ranches and golf courses	552	2.2%		
Public Facilities	Schools, police, fire stations, utility facilities, civic buildings and churches	680	2.7%		
Suburban Residential	Suburban style lots of 1 acre	4,060	16.1%	4,060	
Suburban Residential	Suburban style lot of 2 acres	4,090	16.3%	2,045	
Low Density Residential	Single family homes	2,290	9%	7,353	1-5 units per acre
Medium Density Residential	Single family, Patio homes, manor homes and town homes.	2,496	10%	15,799	5 -10 units per acre
High Density Residential	Condominiums and apartments.	547	2.2%	5,470	10+units per acre
Neighborhood / General Commercial / Industrial	Retail, services and offices oriented to meeting the local / sub-regional neighborhood needs.	1,201	4.7%		
Renewable energy	Wind, solar, water recharge	4,584	18.2%		
Roads	Rights-of-way	1,148	4.6%		
TOTALS		25,167	100%		Average units/acre

3.4 DEVELOPMENT AREA DEFINITIONS

Renewable Energy opportunities represent 18.2% of the overall project

Conservation and Open Space Areas

The location of development areas, roads and conservation areas is based on the topography, slopes and drainage patterns of the site. The majority of the commercial, civic and high-density residential uses are located in The White Hills Central region of the property. Linear parks and open space protect drainage washes while providing areas for wildlife habitat

and passive recreation. Steep slopes and mountainous areas limit development and provide more spectacular open space areas.

All four of the plan areas have steep slope areas identified that have been set-aside as open space areas. The region with the most intense slopes and mountain top areas is the Table Mountain Renewable Energy Region, which is ideally suited for potential wind and solar uses. Each of the other regions contain rolling hills, mountainous areas, and areas of rangelands.

Lower density housing is planned for the areas outside the guest ranch site in the Ranch at Temple Bar region. The guest ranch sites proposed for the Ranch at Temple Bar, as well as the guest ranch proposed in The Ranch at Red Lake are presented as a way to preserve the scenic vistas, natural vegetation, and raw beauty of the area, and as a way to protect environmentally unique lands. White Hills Central maintains similar topographical issues, yet proposes to develop the property utilizing residential cluster approaches. This allows for the desired densities, without impacting an excessive amount of the land, and further allows for the CND development to be the most beneficial. The White Hills Central region also sports two golf courses that have been feathered in with the natural terrain and will also increase the amount of open space in the development.

The Ranch at Red Lake properties offers the highest percentage of gently sloping lands, highly suitable for residential developments. The Area Plan proposes the least dense options for this area including low-density residential lots and suburban residential lots. These larger lots are intended to meld more efficiently and appropriately with the abutting properties, which are largely undeveloped, federal areas, or existing, vacant one-acre lots. Significant slope areas and major drainage washes are preserved. 10% of the site is protected open space in the form of natural areas and preserves. The project site is further enhanced by its proximity to the vast expanses of unspoiled desert vistas and the surrounding natural resource areas.

Housing at *The Ranch at White Hills* is designed to meet a variety of needs, desires and levels of affordability.

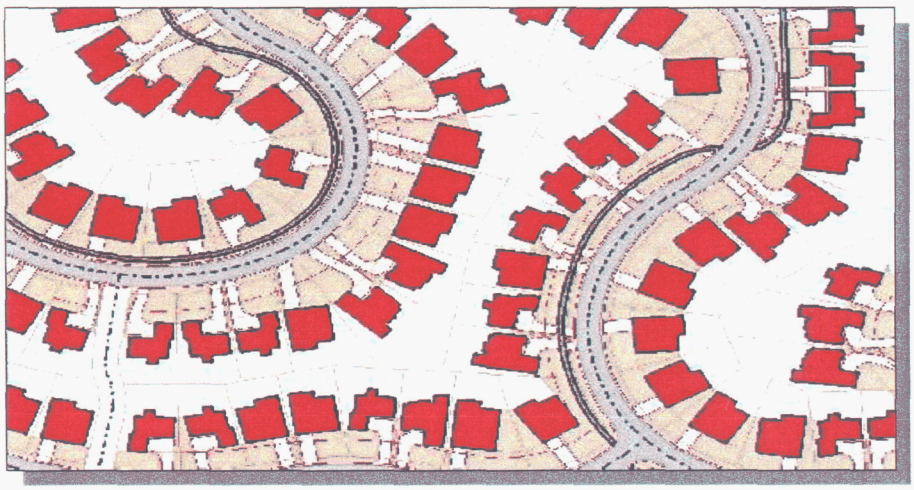
Mix of Land Uses

The Ranch at White Hills is envisioned as a true community with opportunities to live, work and play. The carefully selected mix and location of uses is designed to meet a variety of needs, desires, existing conditions, and levels of affordability. The variety and range of services combined with the unique site create a sense of community for residents, workers and visitors. The major land use areas are described below:

Residential Villages

Curving streets create pleasing views and enhance the quality of neighborhoods and the community.

The Area Plan envisions the development of several residential villages in a phased and planned manner, particularly in the White Hills Central region. The residential villages have a variety of housing designs, parks, trails and open space along with access to neighborhood commercial services. The village areas have three general land use designations: low density, medium density, and high density. All of these land uses will have paved streets, central water service, sewer service, utilities, trail systems, park access, etc. The fourth residential land use is identified as the suburban residential lot. Smaller suburban residential areas located in gently sloping terrain will likely have full urban improvements. Suburban residential lots which are located in hillside development areas shall comply with Mohave County approved hillside ordinance regulations for any and all infrastructure requirements. A majority of the residential areas are anticipated to be designed with curved streets. This unique, meandering street pattern is designed to eliminate the monotony found in typical grid street layouts. The curving streets reduce overall linear feet of street by as much as 50% when compared to a standard grid pattern, thereby reducing impervious surfaces, street construction and maintenance costs. Curving streets establish a pleasing diversity of setbacks and varying house locations that enhance the quality of neighborhoods in the community.



The Ranch at White Hills is designed to incorporate a mix of residential uses

Low Density Residential

The Mohave County General Plan identifies Low Density Residential uses as those with development densities between one (1) and five (5) units per acre. *The Ranch at White Hills* Area Plan identifies 9% of the new lots to be within this residential density category. A majority of these low density

housing opportunities are within The Ranch at Temple Bar. Consistent with this identification, planned developments within these areas may also be requesting neighborhood commercial uses, as the market and the community develops. The approval for this overall Area Plan development is proposed at 34,727 homes. All development proposals which modify the land use projections shall still be compliant with the 34,727 housing cap proposed. Lot sizes, home sizes, differing types and price ranges will vary from entry level starter homes to executive level prestige homes. Low density residential areas comprise 9% of this Area Plan. The average density has been forecasted at 3-4 dwelling units per acre, and the Plan identifies a total of 7,353 lots with this designation.

Medium Density Residential

Medium-density housing allows a range of affordability and design options.

A range of affordability and housing options is a goal at *The Ranch at White Hills*. Medium density housing allows for a wider range of housing design options with densities of 5-10 dwelling units per acre. The housing designs include single-family residential, patio homes, town homes and manor homes, among others. These types of housing are popular for entry-level buyers, empty nesters, retirees and those who do not want or have the time for exterior and lot maintenance. Lot sizes are anticipated to range from 4,000 to 6,000 square feet to an acre. A majority of the medium density land uses are reflected in the White Hills Central portion of the Plan. These types of housing options frequently offer private recreation facilities such as swimming pools, community centers, tennis courts and other amenities. Medium density residential areas are planned for 10% of the Area Plan area. Consistent with the General Plan,

urban services will be provided in these densities and neighborhood commercial uses will be requested for approval as the community develops. Average density for these Medium Density Residential lots has been forecast at 5 & 6 dwelling units per acre, and the Plan identifies a total 15,799 lots.

High Density Residential

Higher density housing also has a range of unit types, amenities and price ranges, and there is a mix of rental and owner occupied units. Many of these have residential amenities such as swimming pools, spas, exercise facilities, community centers, and tennis courts. *The Ranch at White Hills* Area Plan reflects an overall 2.2 % planned area for High density uses. All proposed high density land uses are within the White Hills Central plan area.

The Mohave County General Plan identifies this use as the highest available density for development. The density range, for this Area Plan proposal is identified from ten (10) to twenty-five (25) units per acre with the average density being forecast at 10 dwelling units per acre. Full urban services will be provided in these areas and mixed uses may be requested, including office and retail space. The Plan projects a total of 5,470 high density units, although future market determinations may adjust this total.

Suburban Residential

Mohave County General Plan identifies the Suburban Residential use as the highest density non-urban land use category, with densities ranging from one (1) to one-half (1/2) lots per acre. *The Ranch at White Hills* reflects these types of uses primarily in the Ranch at Red Lake area.

The site selections for these uses are based, in part to, proximity to undeveloped, adjacent properties, rugged terrain, and anticipated later stages of development for this project. These areas will retain the suburban character with the inter-connecting road networks and the larger lot subdivisions. Homes built on these lots are in the moderate to upper price bracket and will have sufficient space for barns, horses, etc. The proposed loop equestrian trail from the guest ranch at The Ranch at Red Lake will enhance the appeal of this part of the development. The suburban residential areas comprise 32.4% of the overall *The Ranch at White Hills* Area Plan document. The total lot count for this use is 6,105.

Commercial

The provision of adequate, well planned commercial and industrial property is essential to the short and long term growth and prosperity of any region. The Area Plan for *The Ranch at White Hills* supplies a total of 1,201 acres for the combined commercial and industrial uses; a total of 4.7% of the planning area. The project offers a unique opportunity in these regards due to its proximity to the Canamex Highway, (Highway 93), and three (3) major corridors including White Hills Road, Pierce Ferry Road, and Temple Bar Road. The convenient access to and from Highway 93 will allow for this major commercial corridor interchange to become host to a variety of traveling service needs.

Commercial areas are designed to serve the retail and service needs of residents and nearby employees and the traveling public.

To capitalize on these advantages, commercial properties for *The Ranch at White Hills* have been located to: provide suitable employment centers, ensure adequate traffic patterns for truck traffic, limit the impact to residential areas, draw economic exposure and impact from the thousands of vehicles traveling Highway 93, and provide for a logical extension of the community driven commercial needs. The commercial designations used for these purposes include Neighborhood Commercial, Community / General Commercial, and Commercial Recreation.

Community / General Commercial

The Mohave County General Plan identifies the General Commercial uses as those uses which serve an entire region or community. In the case of

The Ranch at White Hills, the General Commercial will be designed to provide for the regional needs, as well as the community needs. The Area Plan has two significant locations to meet these ends. One site is at the intersection of White Hills Road and Highway 93, and the other site is along Pierce Ferry Road, as shown on the Area Plan map. This Pierce Ferry location also supports the adjacent Dolan Springs Area Plan, as the nearest commercial area is to the south of this proposed location. These two regional locations will allow for the greatest exposure from Highway 93, as well as serving the motoring public as they head towards the Grand Canyon. These commercial sites will likely provide the initial employment bases for the community.

Neighborhood Commercial

Neighborhood Commercial designations are given to uses including small-scale retail and service establishments and small office buildings. These uses are specifically designed to meet the needs of the neighborhood, and will be located in *The Ranch at White Hills* Area Plan to ensure convenience and suitability. Similar uses will include gas stations, restaurants, coffee shops, bakeries, hardware, gift shops, dental, etc.

This Area Plan currently identifies neighborhood commercial sites within the White Hills Central Area, and also provides for specific neighborhood commercial property within section 13. These nodes will provide gathering places, many within walking distance, and will help to develop and perpetuate a strong sense on Community.

3.5 LAND USE GOALS AND POLICIES

GOAL 1. Create orderly, efficient, and functional development patterns

Policy 1.1 Utilize Connective Neighborhood Design (CND) theory for a majority of the site to connect the commercial, residential and park systems.

Policy 1.2 Identify major drainage ways and other significant topographical features which will need to be feathered into the planning efforts, and may be set aside as open space.

Policy 1.3 Prepare master concept plans for the streets, water, sewer, drainage, parks and open space elements, when needed and as required under the Mohave County Land Division Regulations.

Implementation measure:

LU1 The Developer for the first significant residential development shall complete the first phase of the master plan for the street system and the utility options. The Developer shall pay for the master plan and such master plan shall be completed concurrent with the first phase of the platted area.

LU2 The developer shall acquire the necessary topographical surveys to identify the major drainage ways, etc. The Developer shall complete such topographic surveys at or before the preliminary plat stage, and shall pay for such surveys, if needed.

GOAL 2. Compatible land use relationships with existing adjacent property owners.

Policy 2.1 Ensure proposed land use designations are not in direct conflict with existing, developed property.

Policy 2.2 Encourage spatial design, instead of block wall design to minimize the impacts of non compatible uses.

Implementation measure:

LU3 Develop a pattern of land use which maximizes spatial separations with trails, streets, and other natural features, instead of block wall use.

LU4 Make request to the Planning & Zoning Commission to allow for greater spatial separations, instead of the standard block wall division.

LU5 Any proposed trails should be shown on the Preliminary Plat.

GOAL 3. A logical network of community support systems.

Policy: 3.1 Provide sufficient community facility sites and plan for efficient locations for placement of the safety response agencies.

Policy: 3.2 Encourage neighborhood commercial uses in

close proximity to the village centers.

Policy 3.3 Plan for future transit needs.

Implementation measure:

LU5 Villages shall be designed to ensure neighborhood commercial land uses are in close proximity. Commercial centers should be linked with the trail systems. Developers for each area shall be responsible for the trails system development.

LU6 Public safety, public buildings and community centers shall be located in areas where there are adequate roadways and trail systems to access the sites. These sites shall be located more in-line with their regional community services, as opposed to the individual village services.

LU7 Provide expanded widths for rights-of-way for bus utilization, and widened width of right-of-ways to allow for bus stop benches as required.

LU8 Assist Mohave County staff in assembling data, assimilating data, and presenting hillside development ordinances for review and approval by the Mohave county Board of Supervisors.

4.0 TRANSPORTATION ELEMENT

4.1 EXISTING ROADWAY INVENTORY

The interior roadways of *The Ranch at White Hills* properties do not contain any paved roads at this time, although all of the major corridor access roads are paved including: Temple Bar Road, White Hills Road, Pierce Ferry Road, and Highway 93, at mile marker 24.5. The myriad of trails, gravel roads and utility access roads on the site have been utilized to traverse the area for an untold number of years and provide the only vehicular access at this time (see Table 4.1-1 on pages 79-82). Additional roads are proposed to enhance access and create a coherent road network (see Table 4.1-2 on pages 83-89).

The nearest crossing point along U.S. Highway 93 towards the center of this project is the White Hills Road intersection. This intersection is also

close to the Hwy 93 west side frontage access to the long-standing Boulder Inn (Rosie's Den).

White Hills Road is a paved roadway and it extends east approximately 8 miles to the Golden Horseshoe Ranchos Subdivision, Units 3 & 4. The Pierce Ferry Road access will allow you to access the far east end of the project boundary. Along with White Hills Road, Pierce Ferry Road is also paved, and is maintained by County road crews. Temple Bar Road is likewise paved and provides the ultimate access to The Ranch at Temple Bar. Further, there are many existing roads, rights of way, and easements existing in and around the White Hills area which allow access to and from the sites with ease.

The Area Plan for *The Ranch at White Hills* further anticipates connecting a roadway from the far west of the project to the far east, ie: from White Hills Road / White Hills Central to Pierce Ferry Road / The Ranch at Red Lake.

4.2 HIGHWAY 93 ACCESS

The area plan proposed shows direct access from U.S. Highway 93 to the project at four (4) major collector road points. These basic entry points are necessary of carry the flow of vehicular traffic to, thru, and out of the urban areas. The location of the major commercial uses at these sites are consistent with sound planning practices as they limit the impact of large commercial vehicles in the residential areas, and ensures there is adequate roadway facilities for turnarounds, parking, etc. Several discussions have already taken place with ADOT officials, and the design engineers for ADOT, to incorporate *The Ranch at White Hills* development access points with the widening of Hwy 93. ADOT intends to fully widen U.S. Highway 93 as a limited, controlled access highway and will be including *The Ranch* entries within their planning efforts. ADOT has no objection to the placement of the initial, at-grade crossing at mile marker 24.5 for this project, and discussions will also be held to discuss a possible traffic interchange at this location. As a part of the at-grade crossing at the entryway, ADOT will also require the appropriate permit, and a Traffic Impact Analysis study be completed. The potential for a traffic interchange at this site will also require a warrant study be performed. It is known that the Highway 93 traffic counts will increase significantly when the Dam by-pass improvements are completed. This will also provide justification for the interchange, as the trucks will need to make safe on and off-ramp exits at the commercial centers.

4.3 COLLECTOR AND LOCAL STREETS

An extensive network of collector and local paved streets is planned for, and will be required. The overall Land Use Chart reflects the total property set aside for right-of-way development at 1,148 acres, a total of 4.6% of the site. The collector network is shown on the Area Plan and uses curving street patterns to provide efficient traffic movement, at reasonable speeds. The curving streets create visual interest and a more pleasant driving and neighborhood environment. This slowing down of the traffic, or traffic calming greatly improves the quality of life in the community and is gaining respect in several other countries. Studies have proven that homes which front speeding traffic have very little quality of life, in terms of utilizing their front yard areas and meeting their neighbors. Residents who are isolated behind fences or in cars do not meet or watch out for their neighbors. *The Ranch at White Hills* will utilize these natural slowing techniques to encourage the residents to not be fearful of high speed traffic on their streets and provide an opportunity for the residents to interact with their community and other neighbors in the area. These simple inclusions of design will help develop and support a greater quality of life in the Community.

There are numerous access points to the boundaries of this development. The four (4) major collector road access points include White Hills Road, Pierce Ferry Road, Temple Bar Road, and the access directly from Highway 93 at mile marker 24.5. One extension is north along the east section line of 19, T27N, R20W, the other is also north along the east section line of Section 15, T27N, R20W. The road systems are planned to create an efficient regional road network and to provide access options for adjoining property. Collector road rights of way widths will be planned to allow for through lanes, turn lanes, trails, sidewalks and landscaping.

Local streets are anticipated to be two-lane, paved roadways within a 50 foot wide right of way. Most local streets are anticipated to employ a curving alignment to allow for greater safety, improved infrastructure efficiency, and a higher quality residential environment. The curved nature of the roadways is consistent with the Connective Neighborhood Design theory and will also directly link the neighborhoods with paths, trails, and/or open space opportunities.

4.4 TRAILS

Trails are integrated throughout the Area Plan

Self-sustaining communities require energy efficient transportation opportunities, and integrated transportation and land use planning efforts. The inclusion of a dynamic trail system which links the community

gathering centers and parks together is a rich feature of *The Ranch at White Hills* Area Plan.

Trails are the most popular recreation element for people of all ages. Trails contribute to the sense of community and allow non-motorized transportation alternatives. *The Ranch at White Hills* is designed to create a multitude of trail opportunities. Each neighborhood is connected by trails to other neighborhoods and to parks and open spaces. Bike and walking trails will be located throughout the development allowing for a leisurely ¼ mile long stroll or an active 30 mile bike ride. Another unique feature of the trail system will be the development of equestrian trails towards the west end of The Ranch at Red Lake area. Although this trail system will not be exclusive to equestrian uses it will be a complimentary use to the surrounding property owners within the developed Golden Horseshoe Ranchos subdivisions. Many of the open space corridors are also envisioned to include varied types of wildlife, habitat, and/or recreational trails. The surrounding development in the Golden Horseshoe Ranchos subdivisions currently caters to equestrian owners and the overwhelming interest in this type of activity is very apparent. The trail system can also be used by pedestrians and bicycle enthusiasts.

Horse trails are an important part of the Area Plan.

This type of recreation / special use park is complimentary to the surrounding property owners, is environmentally sensitive, and further provides for a unique facility which enhances the quality of life for the residents. The equestrian trails and facilities encompass 195 acres of land.

4.5 TRANSPORTATION GOALS AND POLICIES

GOAL 1. Provide for the mobility of all segments of the population.

Policy 1.1 Develop a diverse multi-modal transportation network which can be utilized by all community members.

Policy 1.2 Develop a transportation network that gets the population to shopping facilities, medical offices, restaurants, etc.

Policy 1.3 Develop infrastructure which can accommodate future public transit needs.

Implementation measure:
T1 Develop equestrian, pedestrian, and bicycle trails in an inter-related fashion to connect the necessary support

facilities.

T2 Plan the road network to provide for easy, uninterrupted travel to and from the employment centers.

T3 Design for extra-width rights of way on the major collectors to accommodate future bus turnouts if required.

GOAL 2. Work with ADOT for completion of a traffic interchange

Policy 2.1 Keep working with ADOT to ensure they have what they need for permitting and review purposes.

Policy 2.2 Provide for the completion of a warrant study when traffic counts are justified.

Implementation measure:

T4 Complete a traffic impact analysis and complete necessary permit application for the initial at-grade access at mile marker 24.5.

T5 Meet with ADOT officials to plan for and finalize a proposed interchange at US 93, when and if needed.

GOAL 3. Develop roadways systems which are cost effective and energy efficient.

Policy 3.1 Utilize the Connective Neighborhood Design Theory of curving streets to minimize asphalt use and long term maintenance of the facilities.

Implementation measure:

T6 Design efficient road systems which minimize conflict with drainage ways and maximize multi-modal transport.

GOAL 4. Minimize the impact of excessive automobile travel on the County's air, natural environment

Policy 4.1 Highlight and develop adequate and attractive alternate transportation modes.

Policy 4.2 Create sufficient commercial development areas to support the community residents, which would limit the off-site vehicular traffic miles used.

Implementation measures:

T7 Market the vast trail and path system to the homeowners, encourage their uses.

T8 Encourage commercial development at the Hwy 93 interchange location as one of the initial developments for *The Ranch*. Encourage commercial development for local resident employment opportunities.

5.0 WATER RESOURCES ELEMENTS

The Mojave Desert covers a vast area of southeastern California, southern Nevada and northwestern Arizona. Detrital Valley, the White Hills and Hualapai Valley are in the eastern portion of the desert before the land rises to the Colorado Plateau. Neither of these areas have running surface water except for runoff during infrequent storms and minor springs in the higher parts of the surrounding Mountains. This runoff is the main source of recharge for the groundwater found in the alluvial sediments that fill the basins between the mountain ranges.

The Ranch at White Hills is located on portions of two adjacent groundwater basins, Detrital Basin and Hualapai Basin. The two basins have many similarities. Much more is known about the geology and hydrology of Hualapai Valley because of the studies performed by the City of Kingman, in relation to ensuring adequate water supplies for Kingman, and by private companies studying the possibilities of developing underground natural gas storage in the salt dome beneath Red Lake. Less is known about Detrital Valley due to the lack of past development in the basin.

Recent field studies in both Detrital and Hualapai Valleys have contributed to a better understanding of the basins and the characteristics of the different aquifers. Studies completed within the last two years include:

Hualapai Valley

a) City of Kingman- Study to determine potential water well sites for water production wells for the City by Clear Creek & Associates, 2003.

b) Aquila, Inc.- Various studies related to the application for operating permit from the Federal Energy Regulatory Commission

(FERC) for an underground natural gas storage project, 2001-2003.

Detrital Valley

c) Arizona Acreage, LLC.- Initial hydrologic, geophysical and geologic studies in preparation for application for an assessment of water adequacy form ADWR- 2000-2004.

Published hydrologic and related reports of Detrital Valley Basin, Hualapai Valley Basin and surrounding area include:

1. Gillespie, J.B. and Bentley, C.B., 1971, Geohydrology of Hualapai and Sacramento Valleys. Mohave County, Arizona; Geological Survey Water-Supply Paper 1899-H.
2. Laney, R.L., 1973, Geohydrologic reconnaissance of Lake Mead National Recreation Area- Hoover Dam to Temple Bar, Arizona; Open File Report 79-689, U.S.G.S.
3. Pierce, H.W., 1976, Tectonic significance of Basin and Range thick evaporite deposits; AZ Geol. Soc. Digest, Vol. 10, pp. 325-339.
4. Oppenheimer, J. and Sumner, J. S., 1980, Depth to bedrock map, basin and range province, Arizona, Published by the Laboratory of Geophysics, Department of Geosciences, University of Arizona, Tucson, Arizona.
5. Pierce, H.W., 1981b, Natural gas storage in Arizona salt; in Fieldnotes, Arizona Bureau of Geol. and Min. Tech., Vol. 11, No. 3, p. 8.
6. Lysonski, J.C., Aiken, C.L.V., and Sumner, J.S., 1981, The Complete residual bouger gravity anomaly map- Kingman; Arizona Geological Survey (81-24 #9).
7. Geo/Resources Consultants, Inc. 1982, Groundwater resources and water quality of Detrital and Hualapai Basins, Mohave County, Arizona, Final Report
8. Theodore, T. G., Blair and W.N., Nash, J. T., 1982, Preliminary report on the geology and gold mineralization of the Gold Basin – Lost Basin Mining District, Mohave County, Arizona; U.S.G.S. Open File Report 82-1052
9. Dillenburg, R.A., 1987, Map showing groundwater conditions in Detrital Wash Basin, Mohave County, Arizona- 1987; Department of Water Resources Hydrologic Map Series Report Number 14.
10. Wilson, R. P. and Owen-Joyce, S.J., 1994, Method to identify wells that yield water that will be replaced by Colorado River water in Arizona, California, Nevada, and Utah; U.S.G.S. Water – Resources Investigations Report 94-4005.

11. Robson, S.G. and Banta, E. R., 1995, Ground Water Atlas of the United States; U.S.G.S. Hydrologic Investigation Atlas 730-C.
12. Manera , Inc., 1998, Pump Test Data Analysis of the BLM Detrital Wash Well, NE ¼, SW ¼, NW ¼ of Section 27, T. 26 N., R. 20 W., Mohave County, Arizona.

For a summary of published hydrologic data for Detrital Valley, please refer to Table 5.0-1 on page 90.

5.1 BASIN / AQUIFER CHARACTERISTICS

Based on recent detailed gravity studies, Hualapai Valley, Detrital Valley and Senator Valley have complex shapes not apparent from surface indications. The subsurface of the basins are actually formed by several depressions connected by low bedrock divides concealed beneath alluvium (to view a report defining the sub-basins, the reader is directed to the reports contained in the Aquila studies filed with the Federal Energy Regulatory Commission- FERC). Hualapai Valley has three identified basins, the Airport Basin, Red Lake Basin and the basin dropping toward the Colorado River. Detrital Valley has two identified basins, the Dolan Springs Basin and the basin dropping toward the Colorado River.

Gravity survey results show that the deepest bedrock part of the Dolan Springs Basin of Detrital Valley is near the intersection of U.S. 93 and Pierce Ferry Road. The basement gradient is up toward the north, opposite of the surface gradient. There is a bedrock gradient-divide at Latitude 35.800 N, Longitude 114.475 W. This gradient-divide separates the southern part of Detrital Basin from the northern part that flows into Lake Mead. This shape, several closed sub-basins within a larger basin, is similar to the shape of Hualapai Basin and correlates well with the postulated closed-drainage of the older basins that resulted in the deposition of evaporite deposits.

Detrital and Hualapai Valleys are filled with clastic sediments, evaporite deposits and Tertiary age volcanic rocks. The clastic sediments have been divided into lithologic units named, from bottom to top, older, intermediate and younger sediments. Using geophysical studies from 1980, Oppenheimer and Sumner estimated total depth to bedrock in Detrital Valley to exceed 6,000 feet below land surface. In Hualapai Valley, they estimated total depth to bedrock to exceed 6,400 feet below land surface

The evaporite deposits in northern Detrital Valley include a salt body that is reported to reach a thickness of 715 feet (Geo/Resource Consultants,

1982). Along the eastern pediment and extending northward are gypsum deposits. These evaporite deposits suggest that Detrital Valley was historically a closed basin and has not always drained northward.

Table5.1-1. Hualapai and Detrital Valley Basin Stratigraphy

Geologic Period	Formation	Description
Quaternary	Younger Alluvium	Piedmont, playa and stream deposits of sand, gravel, silt and clay. Low permeability, usually dry.
Tertiary-Pleistocene	Intermediate Alluvium Chemehuevi Fm	Extensive near surface deposits 200 to 300 feet thick of granite, schist, gneiss and volcanic rocks. Low to high permeability.
Tertiary	Older Alluvium	Moderately consolidated fragments of granite, schist, gneiss and volcanic rocks. Moderate to high permeability.
Tertiary	Muddy Creek Fm	Moderately consolidated fragments of granite, schist, gneiss and volcanic rocks with thick evaporite deposits of halite and gypsum. Moderate to high permeability.

The Red Lake portion of Hualapai Valley has closed surface drainage forming a dry playa lake. During heavy rains, the playa may contain water from the mountain runoff for a few weeks but usually it is dry. What has been described as the largest salt mass in Arizona is located at depth in the Red Lake portion of the valley. This salt mass has been the object of recent studies by private industry in relation to building an underground natural gas storage facility.

Due to groundwater pumping by the City of Kingman, subsurface water in the Airport Sub-basin portion of Hualapai Valley flows to the south. Groundwater flow in the Red Lake portion is to the north, over the covered divide between Red Lake and the northern basin, ultimately reaching Lake Mead.

Water in Storage

Various studies including the ones by Gillespie and Bentley and Aquila Inc., have estimated the total amount of water in storage in Hualapai Valley to range from between 5 and 19 million acre feet.

The principal user of water from Hualapai Valley, pumping over 8,000 acre feet per year from the Airport Sub-basin, is the City of Kingman. This pumping exceeds annual recharge to the sub-basin and the static water level is dropping an average of 1.5 feet per year. Clear Creek Associates estimates (2003 study for the City of Kingman) that there is sufficient water above the 1,200 foot level below ground surface to supply the needs of Kingman for the next 100 years.

The Arizona Department of Water Resources (ADWR, 1988) estimated that there was a total of 1 million acre-feet in storage in Detrital Valley Basin. Based on 1985 pumping rates for Detrital Basin of 190 acre-feet/ yr and historic groundwater data that showed little change in water levels, it was determined that the basin was in a steady-state condition.

Recharge rates for groundwater in Hualapai Valley are estimated by Gillespie and Bently (1971) and Freethey & Anderson (1986) at 4,000 acre feet per year.

Freethey and Anderson (1986) estimated recharge of groundwater for Detrital Valley at less than 1,000 acre- feet per year. Geo / Resource Consultants (1982) estimated recharge rates to be 2,600 to 3,900 acre-feet per year. These figures are several times more than the recharge rates estimated by Freethey and Anderson. Geo / Resource Consultants also estimated groundwater outflow to Lake Mead from Detrital Basin to be "on the order of 2,100 to 3,400 acre-feet per year."

The consulting firm of Allen, Stephenson and Associates of Phoenix, Arizona, was contracted to initiate an in-depth hydrologic study for submission to ADWR for an analysis of water adequacy for this project. The study proposal will include the drilling of several new wells, down-hole geophysical logging, test pumping and the gathering of data from existing wells in the surrounding areas. Allen, Stephenson and Associates' preliminary hydrologic report, dated 11/14/2000, indicates a conservative estimate of 5 million acre-feet of water stored in the Detrital Valley Basin of which approximately one half (1/2) is not subject to Bureau of Reclamation control as Colorado River water.

Recent work by Allen, Stephenson and Associates and the geologic consulting firm of Del Rayo International has developed new information

that details the shape, basin-fill stratigraphy and potential storage capacity of Detrital Basin.

Stratigraphic work, based on recently drilled wells, indicates that the water bearing formations in Detrital Valley are separated by an impervious clay and gypsum layer. This data indicates that there are two aquifers. Only the upper aquifer is being utilized by existing wells. Previous studies of the upper aquifer include pump tests of the BLM well in Sec. 27, T26N, R20W, near the center of Detrital Valley. The tests were completed in 1998 by the consulting firm Manera, Inc. The results of the tests were incomplete because they were not able to stress the aquifer with a pump having a capacity of only 250 gallons per minute. The following is an excerpt of the Manera study.

> "The conclusions reached on the basis of the available data and the data generated by the pump test are:
>
> - the subject well, NE ¼ , SW ¼, NW ¼ of Section 27, T.26N.,R.20W., is capable of yielding two hundred and fifty (250) gpm on a long term basis with only minimal impact on the aquifer;
> - continuous withdrawal of two hundred and fifty (250) gpm will impact the nearest well less than one (1) foot at the end of twenty five (25) years;
> - the aquifer was not stressed by the withdrawal of two hundred fifty (250) gpm;
> - to properly stress the aquifer in the area would require a withdrawal rate far exceeding the two hundred fifty (250) gpm pumped in this test. The volume of production necessary cannot be accomplished in this eight (8) inch diameter, shallow well;
> - the inorganic chemical constituents fall within the primary drinking water standards, and;
> - a deeper well can be drilled at this site or nearby sites with the expectation of developing a larger yield well."

There have been no tests conducted on the lower aquifer because there are no wells that have gone that deep. On-going studies by contract hydrologic consultants will attempt to define the hydraulic characteristics of the lower aquifer through staged and constant rate pump tests. These tests will determine the water carrying capacity of this newly identified aquifer not included in previous basin evaluations.

Water Quality

There are extensive water quality studies in Hualapai Valley but limited studies in Detrital Valley. The water quality investigations in Detrital Valley have been limited in scope because of the low number of wells in the valley. Published studies that include water quality data are:

1. Geo/Resources Consultants, Inc. 1982, Groundwater resources and water quality of Detrital and Hualapai Basins, Mohave County, Arizona, Final Report (see Tables 5.1-2, page 91 and 5.1-3 on page 92).

2. Dillenburg, R.A., 1987, Map showing groundwater conditions in Detrital Wash Basin, Mohave County, Arizona-1987; Department of Water Resources Hydrologic Map Series Report Number 14.

There are unpublished reports on water quality for Hualapai Valley contained in studies performed by Aquila, Inc. relating to the underground natural gas storage proposal and by the City of Kingman. These reports show generally good water quality in the upper aquifers, less than 1,500 feet below the surface, with total dissolved solids in the range of 200 to 2,000 milligrams per liter (ADWR, 1999). Below a depth of 1,500 feet, the quality of the water decreases with increasing chloride content. At the depths of the salt body, the chloride content of the groundwater reaches 70,000 mg/l (Aquila, Resource Report 2, Water Use and Quality, 2002).

For Detrital Valley, Dillenburg (1987) reports that "Most of the groundwater is of suitable quality for domestic and other purposes with only isolated areas containing high dissolved solids and fluoride concentrations."

Arizona Department of Environmental Quality has completed and published a regional water-sampling program to establish back-ground values in Detrital Valley, ADEQ Open File Report 2003-03.

5.2 EXISTING GROUNDWATER USE INVENTORY

All water used in Detrital and Hualapai Valleys is from wells. In Detrital Valley, the wells have been drilled into either the upper aquifer of the main basin area or the Senator Valley area. This water is used for stock watering, residential, commercial and dust control for the gravel pit and the decorative rock quarries. As contained in Table 5.2-1 on page 90, the total groundwater use in Detrital Valley in 2000, as estimated by ADWR, was 196 acre-ft.

In Hualapai Valley, the wells are mostly drilled into the water-bearing older sediments. Production rates range from 10 gallons per minute to over 3,000 gallons per minute (ADWR, 1999).

The ADWR well inventory data base has a total of 68 water wells listed in the Detrital Valley portion of the area covered by this Area Plan; T27N, R19, 20 & 21W; T28N, R19 & 20W (see Table 5.2-2 on pages 93-94). These wells service the Golden Horseshoe Ranchos, White Hills Equestrian Estates, Flannery and Allen Subdivision, individual lots, the retail commercial establishments along highway U.S. 93 and the rock quarries.

The ADWR well inventory data base has a total of 57 water wells listed in the Hualapai Valley portion of the area covered by this Area Plan; T27N, R 18 & 19W; T28N, R 18 & 19W (see Table 5.2-3 on pages 95-96).

The only water company authorized by the Corporation Commission in the White Hills area is the White Hills Water Company. This company services Golden Horseshoe Ranchos Units 3, 4, & 6 and has approximately 72 hookups in their 2000 annual report to the Corporation Commission. Golden Horseshoe Ranchos Unit 2 is serviced by the Golden Horseshoe Ranchos Water Cooperative, Inc. Most wells service single housing-unit lots.

The Bureau of Reclamation is responsible for monitoring the water of the Colorado River. This monitoring includes surface water and water considered to be sub-flow from the river. Sub-flow is the water that infiltrates from the Colorado River and Colorado River reservoirs into alluvial sediments in valleys that join the Colorado River. The Bureau of Reclamation has defined a specific elevation for each body of Colorado River water. The specific elevation is called the "accounting surface" and any water below this surface is classified as Colorado River water.

According to Bureau of Reclamation Resources Investigations Report 94-4005, the water in the northern part of Detrital Basin, below an elevation of 1,205 feet above mean sea level, is part of the "accounting surface" and its use restricted as allocated Colorado River water. Their conclusion is based on a very general understanding of the basin shape. A recent gravity survey shows data that is contrary to this conclusion. This survey shows a gradient divide that would restrict sub-flow from the Colorado River and supports the conclusion that the water in the main Detrital Basin is not part of the "accounting surface" but rather runoff from the surrounding mountains. Under this conclusion, the water available for development in the main Detrital Basin would not be restricted to the water above the "accounting surface," 1,205 feet above mean sea level.

One of the objectives of the geologic and hydrologic studies presently underway is to resolve the issue of the extent of the Colorado River "accounting surface."

5.3 WATER DEMAND AND BUDGET

Water quality implementation measures on page 51 of the Mohave County General Plan support efforts to maintain a water budget for individual drainage basins and require development of a water budget in accordance with ADWR procedures when area plans are reviewed and updated. ADWR requires an analysis of: 1) the current water demand consistent with past water use in the specific area and 2) an evaluation of the impact on the basin aquifer by projecting water demands of current, committed and new project needs in the area of review.

A water budget was developed for the Detrital portion of the Area Plan using various assumption to accommodate for the expected growth and projected water use. The factors and data used to perform the calculations are contained in an attachment.

For the Hualapai Valley portion of the Area Plan, the current and committed water demands were evaluated only for the immediate impact area in Hualapai Valley.

The annual growth rate for Mohave County in 2001 was 4.4% (US Census Bureau). The U.S. Census Bureau has population figures for the CDP of Dolan Springs (census designated places). This figure is assumed to include all of Detrital Valley. The population of the CDP of Dolan Springs is shown on Table 5.3-1, page 45.

Current Water Demand- Detrital Valley

Based on a review of Arizona Corporation Commission and county records, there is one water company that services the White Hills area, White Hills Water Company, Inc., and formerly two, now merged into one, that serviced the Dolan Springs area, Dolan Springs Water Company and Mount Tipton Water Company.

Table 5.3-1. Basic data on population and water use, Detrital Valley Basin.

	1985	1990	1999	2000
Water use for all of Detrital Valley Basin as per, ADWR	190 acre-ft	No Data	No Data	196 acre-ft
Population of Dolan Springs (CDP), data from U.S. Census & AZ Dept. of Commerce	No Data	1,090	1,667	1,867
Water use White Hills Water Co.	No Data	No Data	No Data	9.69 acre-ft
Water use Dolan Springs Water Co.	No Data	No Data	No Data	56.01 acre-ft
Water use Mount Tipton Water Co.	No Data	No Data	No Data	91.3 acre-ft

Current water use in the specific area of the White Hills is limited to the White Hills Water Company service area which includes T 27 N, R 19 W, sections 9, 17 and 21, Golden Horseshoes Ranchos Unit 5 and Golden Horseshoe-Equestrian Estates servicing T 27 N, R 19 W section 7 and T 27 N R 20 section 9. The total number of lots serviced is 192.

Table 5.3-2. Water service providers for the White Hills area.

Water provider- 2000 Annual Rpts.	**Number of customer hook-ups**	**Amount of water used, gal/yr**	**Amount of water, acre-ft/yr**
White Hills Water Company, Inc.	72	3,157,154	9.69
Golden Horseshoes-Equestrian Estates Cooperative	120	11,727,450	36

Available data for water services in the Dolan Springs area are listed for the two water service providers, Dolan Springs Water Company and Mount Tipton Water Company. As mentioned, within the last year. 2002, these entities have merged into the Mount Tipton Water Company. By state law the Mount Tipton Water Company has the rights to transfer water from the Hualapai Groundwater Basin to the Detritial Valley Basin.

Table 5.3-3. Water service providers for the remainder of Detrital Valley Basin (Dolan Springs CDP).

Water provider- 2000 Annual Rpts.	Number of customer hook-ups	Amount of water used, gal/yr	Amount of water, acre-ft/yr
Dolan Springs Water Co., Inc.	154 + un-metered use	18,276,710	56.01
Mount Tipton Water Co., Inc.	646	29,749,350	91.30

Based on Arizona Corporation Commission annual reports and interviews with other water service providers, the current water use for the White Hills area is 45.69 acre-feet per year and the water use for the remainder of the basin is 147.31 acre- feet per year, for a total of 193 acre-feet per year. This number is very close to the estimation of 196 acre-feet per year made by ADWR.

Committed Water- Detrital Valley

As defined by ADWR (Hydrologic Studies for Assured and Adequate Water Supplies Guidebook, p 4), "Committed demand is the demand of all recorded, but not yet served, lots in the Certificate of Convenience and Necessity (CC&N) area. The total number of lots in the CC&N of the White Hills Water Company and other lots in the Golden Horseshoe-Equestrian Estates, Golden Horseshoe Unit 5 and Sunny Lakes is 4,108. In addition, projections are included for a possible development that is included in the Mohave County General Plan but where the lots have not yet been subdivided. This area is owned by Mr. Bill Eversole.

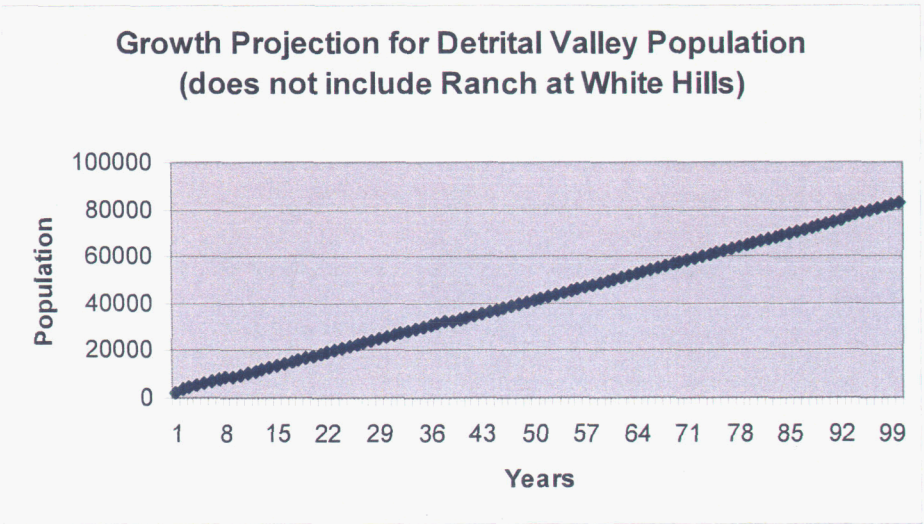
Table 5.3-4. Lots in area of White Hills- Detrital Valley portion.

Water provider or other lots	Total lots in service area	Lots currently served	Lots not being served
White Hills Water Co.	1,685	72	1,613
GH-Equestrian Estates	1,316	120	1,196
Sunny Lakes	582	0	582
Golden Horseshoe Unit 5	525	0	525
B. Eversol Development	11,400	0	11,400
TOTALS	**15,508**	**192**	**15,316**

Table 5.3-5. Lots in Dolan Springs CDP.

Water provider	Total lots in Dolan Spgs. CDP area	Lots currently served	Lots not being served
Dolan Spgs. Water Co. + Mount Tipton Water Co.	17,613	154 + 647	16,812

The projected population of the entire Detrital Valley, excluding *The Ranch at White Hills*, assuming full occupancy in 100 years of all lots platted as of this report date, is shown on the following graph.



It is anticipated that maximum build-out of all platted lots in Detrital Valley would not be achieved in the 100 year projection period because of factors that would impact growth. These factors include the higher cost of drilling and pumping water on individual lots. As the population grows and individual-lot water-use impacts the upper aquifer, the cost of pumping water from deeper wells will place an economic limit on development outside of planned communities. A second factor is lot availability. If the population grows faster than the projected figures, it would ultimately be limited by the available lots and the percentage of land that can actually be developed, taking into account the amount of land needed for improvements such as roads, schools, etc. The same is true for the Dolan Springs CDP.

Table 5.3-6. Population projections and committed water, Detrital Valley.

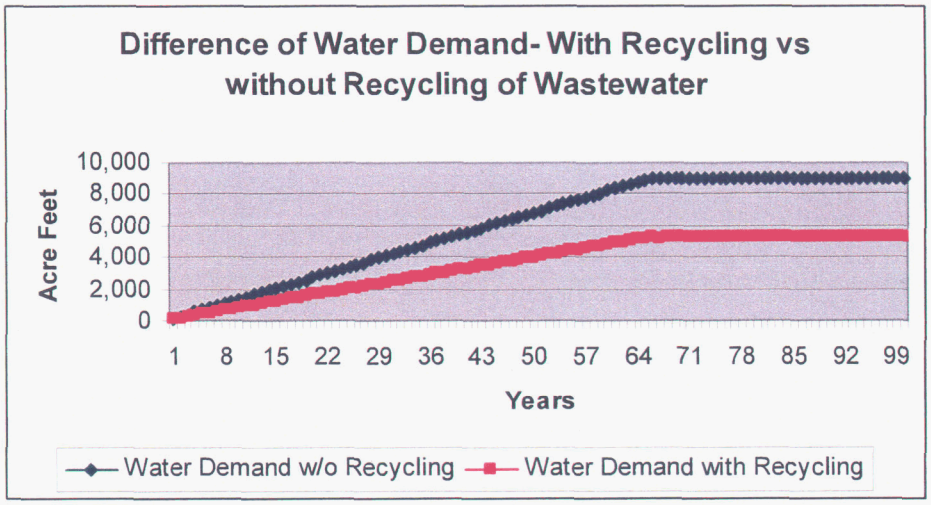
Area	Population Projection	Committed Water Demand in Acre Feet
White Hills	4,213	34,474
GH-Equestrian Estates	3,290	28,303
Sunny Lakes	1,455	5,341
GH Unit 5	1.313	4,820
Dolan Springs	44,033	363,644
Eversole	28,500	225,703
TOTAL	**82,804**	**662,285**

Projected Water Demand and Reuse of Effluent- Detrital Valley

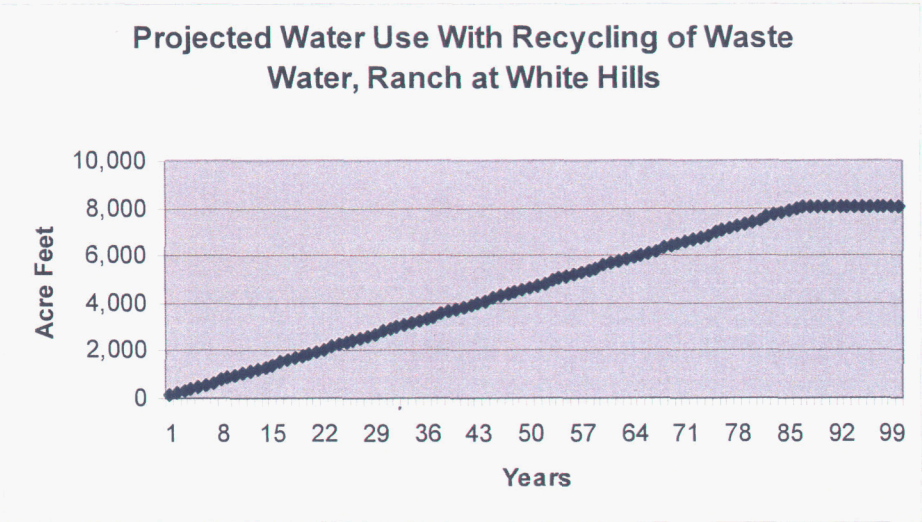
To assess the impact of the new subdivision water demands on the basin, "the projected demand of the subdivision must always be presented on top of the current and committed demands of the area of review or the provider's certificated area (certificate of convenience and necessity, also know as a CC&N, granted by the ACC which allows a private water company to sell and provide water to customers within a designated area)."

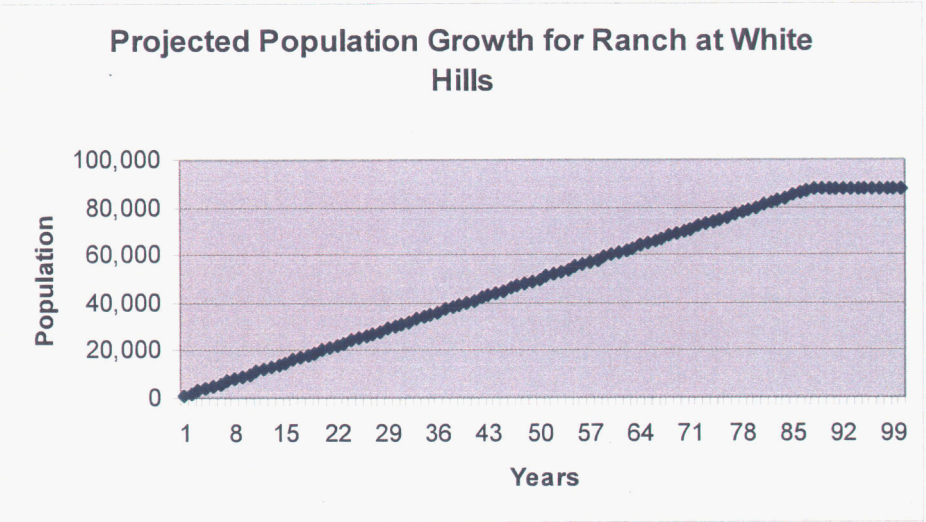
The Ranch at White Hills development is strongly committed to reducing its projected water demand through wastewater recycling, as detailed in Section 7.2 of this General Plan. Allen, Stephenson and Associates estimate that 70% of the water used by the White Hills Central portion of the project can be recycled. This recycling of wastewater effectively reduces the gross demand. Recycled water will be used for large scale irrigation in parks, golf courses and other appropriate applications.

As seen on the following graph, a marked decline in the water demand is achieved for the White Hills-Central portion of *The Ranch at White Hills* with wastewater recycling.



The net water demand, gross demand less the amount recycled from the previous year and the projected population of White Hills-Central portion of *The Ranch at White Hills*, is shown on the following graph. The second graph shows projected population growth.





Note that the water demand does not rise as fast as the population growth. This is due to the fact that as the gross water demand increases and more water is pumped from the aquifer, the amount of wastewater available for reclaiming increases. The net effect is to slow the rate at which new water is drawn from the aquifer.

Water Budget for Detrital Valley Basin

The water budget for Detrital Valley Basin consists of several factors including available water, current use and projected demand.

The available water consists of water in storage and recharge water. ADWR reports 1 million acre-feet in storage for Detrital Basin. Recent work by Allen, Stephenson and Associates indicates approximately 2.5 million acre-feet of usable water in storage. On-going hydrologic studies will raise the confidence level of this new estimate, and once verified by ADWR, this new estimate should be used in future water-budget projections.

Recharge is estimated by Freethey and Anderson (1986) at less than 1,000 acre-feet per year and by Geo / Resource Consultants at 2,600 to 3,900 acre-feet per year. These figures are based on standard estimates using data available at the time of the work. New data is being developed that will be used to formulate more reliable recharge estimates. In addition, techniques to enhance recharge will be incorporated in the project development.

Based on the average of the recharge estimates found in published literature, 2,125 acre-feet per year, and the water in storage based on published literature, the available water over a projected 100 year period in Detrital Valley Basin is 1,210,350 acre-feet.

Table 5.3-7 is a summary of the different components of the water budget projection from published literature and recent studies for Detrital Valley.

Component Area	**Water in Acre Feet**
Current water use for Detrital Valley Basin	196
Committed water- White Hills- 100 yrs	34,474
Committed water- GH-Equestrian Estates- 100 yrs	28,303
Sunny Lakes- 100 yrs	5,341
GH Unit 5- 100 yrs	4,820
Dolan Springs CDP- 100 yrs	363,644
Eversole Development- 100 yrs	225,703
The Ranch at White Hills Areas 1&2- 100 yrs	415,910
TOTAL WATER DEMAND FOR 100 YRS	**1,078,391**

To develop a comprehensive water balance for Detrital Basin, numerous factors must be included in addition to the newly developed storage water estimates. These factors include the efforts to enhance recharge, which will increase available water, and the recycling of wastewater, which will have the effect of reducing gross water demand.

Groundwater Recharge- Detrital Valley

The idea of capturing rainfall to enhance groundwater recharge is not a new idea (see attached report, Capturing Rainwater for Recharge of Groundwater Aquifers by Elno Roundy). However, the present-day availability of groundwater and the lack of awareness about this important resource have masked the urgency of planning for the future. To our knowledge, this is the only area plan that addresses this important aspect of prudent water management.

The total water resource includes the stored water in the basin and the amount of rainfall on the basin. There are various methods to maximize the use of the water resource including deeper wells, high production wells and other methods to fully develop the stored water. In our opinion, using

only these methods is short-sighted and will eventually lead to mining of the water resource. The important aspect that is missing from many area plans is the capture of rainfall to recharge the groundwater aquifer for future use.

The Ranch at White Hills is committed to an overall approach of water conservation that includes a number of different facets, from wastewater recycling to watershed management. It is only through a fully integrated approach that the future of the water resource can be maintained.

Table 5.3-8. Natural recharge as per published reports.

Source	**Date**	**Acre-Ft/Yr**
Geo/Resource Consultants	1982	2,600-3,900
Arizona Dept. of Water Resources	1988	1,000
	Weighted Average	**2,125**

The Detrital Basin watershed includes 875 square miles with an average annual precipitation of 8 inches per year. This amounts to 122 billion gallons (375,200 acre-feet) of rainfall per year.

The area to be developed at *The Ranch at White Hills* covers a total of 39 square miles and the surrounding watershed, over which *The Ranch at White Hills* has an impact, is 246 square miles. Of these totals 22 square miles and 173 square miles respectively are in the Detrital Basin. This Area Plan includes aggressive water management actions that will enhance the capture of rainfall on the area over which it has influence.

Table 5.3-9. Volume of precipitation and run-off on open range at *The Ranch.*

Acres of 6-9" Precipitation Zone	**Acres of 9-12" Precipitation Zone**	**Average Annual Precipitation in inches**	**Gallons (in billions)**	**Acre-Feet Per Year**	**Acre-Feet of Run-off per Year**
0		7.5			
	25,167	10.5	7.175	22,021	3,303
		TOTAL	**7.175**	**22,021**	**3,303**

Additional capture of rainfall will be accomplished through innovative storm-water retention methods and prudent rangeland management as

contained in the attached Capturing Rainwater for Recharge of Groundwater Aquifers report. The potential additional water available for groundwater recharge is shown on Table 5.3-10.

Table 5.3-10. Available volume of rainwater and run-off for recharge.

Source of Water	**Acre-Ft/Year Detrital Basin**	**Acre-Ft/Year Hualapai Basin**	**Total Acre-Ft per year Recharged**
Mountain front	425	102	527
Run-off, *The Ranch at White Hills*	1,029	1,248	2,277
Runoff from land adjacent to *The Ranch at White Hills*	1,008	1,428	2,436
Flash floods, roofs, roads & parking lots	2,005	664	2,669
Open Rangeland	2,280	840	3,120
TOTALS	**6,747**	**4,282**	**11,029**

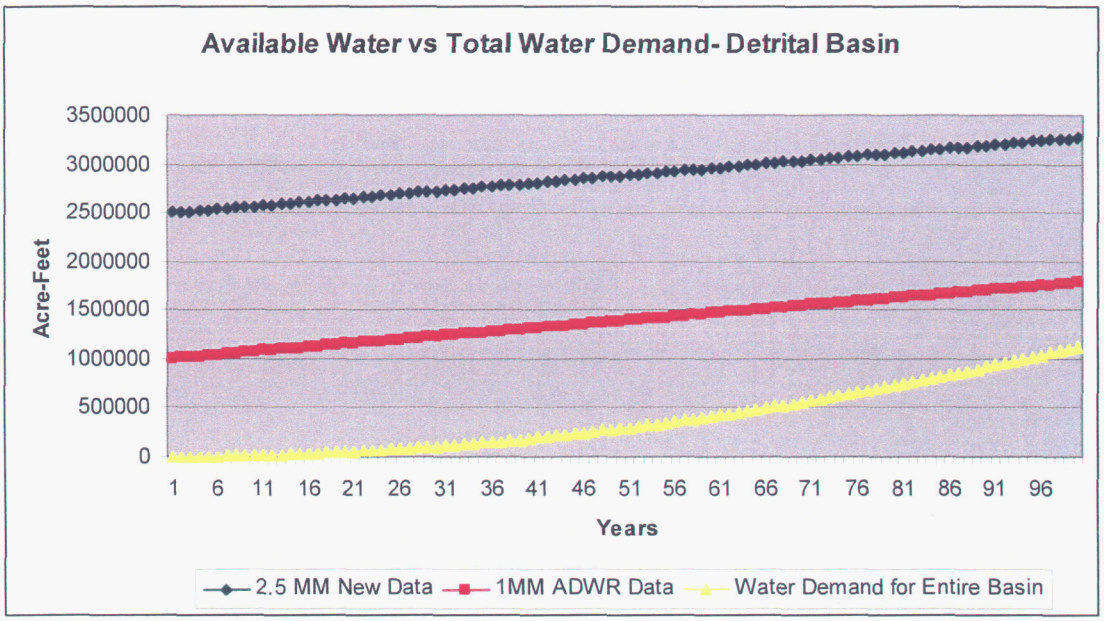
Through aggressive programs to capture rainwater and enhance groundwater recharge, we anticipate increasing the natural recharge. The present recharge of the entire Detrital basin is 2,125 acre-feet per year. Over the area of *The Ranch at White Hills,* the recharge is estimated to be 6747 acre-feet per year as a result of an enhanced recharge program. This figure has been used in the water budget calculations in this Area Plan.

The following is a new water budget that compares the previous data for Detrital Basin with the revised water storage estimates, increased water recharge and wastewater recycling.

Table 5.3-11. Hydrologic data for Detrital Basin.

	Previous Data	**New Data**
Water in storage	1 million acre-feet	2.5 million acre-feet
Water recharge	2,125 acre-feet per year	6,747 acre-feet per year
Reclaimed effluent	0	70% of net water use per year

The projected water budget for Detrital Valley Basin is presented in two scenarios, the first using 1 million acre-feet of stored water and the second using 2.5 million acre-feet of stored water. Both scenarios include enhanced water recharge and wastewater recycling for *The Ranch at White Hills* but not for the demand on the rest of the basin.



It is evident from the above graph that the ADWR requirement of Water Adequacy for a 100 year planning period is met in both scenarios. In addition, this Area Plan makes significant progress toward the goal of the Mohave County General Plan to manage groundwater resources in perpetuity and provides a framework for future water planning throughout the county.

NOTES: Factors used in calculations.

1. 2.5 million acre-feet of stored water, revised estimates
2. 1 million acre-feet, previous estimates
3. Projected growth to full build-out
4. Average number of persons per housing unit- 2.5 (Allen, Stephenson Associates report dated 1-3-03)
5. Gallons per capita per day (gpcd)- 140 –(Allen, Stephenson Associates report dated 1-3-03)
6. Gallons per acre-foot- 325,851
7. Recharge of 6,747 acre-feet per year
8. Reclaim of 70 % of the previous year's net water use

Current Water Demand- Hualapai Valley

Based on a review of Arizona Corporation Commission and county records, there are no water companies that service the Hualapai side of the White Hills except for those lots near Dolan Springs that are serviced by

the Dolan Springs-Mount Tipton Water Company. No data was found to document the amount of water used for the Hualapai Valley side of the White Hills.

The current water demand for the immediate area of *The Ranch at White Hills* - Hualapai Valley portion includes the occupied lots in those sections within *The Ranch at White Hills* impact area, assumed to be within two miles of the exterior boundary of the individual sections.

Committed Water- Hualapai Valley

As defined by ADWR (Hydrologic Studies for Assured and Adequate Water Supplies Guidebook, p 4), "Committed demand is the demand of all recorded, but not yet served, lots in the Certificate of Convenience and Necessity (CC&N) area. The total number of lots in the immediate vicinity of the Area Plan is 3,090. These lots are not within a CC&N area.

Table 5.3-12. Lots in area of White Hills- Hualapai Valley portion.

Water provider or other lots	Total lots in service area	Lots currently served	Lots not being served
None	0	0	3,090

It is anticipated that maximum build-out would not be achieved in the 100 year projection period because of factors that would impact growth. These factors include the higher cost of drilling and pumping water on individual lots.

Water Budget for Hualapai Valley Basin

Estimating a water budget for the Hualapai Valley Basin is beyond the scope of this report. The high volume users such as the City of Kingman and the potential development of the underground natural gas storage facilities at Red Lake are in the southern and central portions of the basin and considerable distance from *The Ranch at White Hills* property. In addition, the amount of water used by the Hualapai portion of *The Ranch at White Hills* is minor compared to the major users. Details on available water will be within the Analysis of Water Adequacy report to be submitted to ADWR.

Groundwater Recharge- Hualapai Valley

As was detailed in the section on Groundwater Recharge- Detrital Valley, *The Ranch at White Hills* is committed to enhancing the groundwater

recharge over all of its area.

Table 5.3-13. Natural recharge in Hualapai Valley as per published reports.

Source	Date	Acre-Ft/Yr
Freethey & Anderson	1986	4000
Gillespie & Bentley	1971	4000

The entire Hualapai Basin watershed covers 1820 square miles with an average annual precipitation of 10 inches per year. This amounts to 315 billion gallons (966,784 acre-feet) of rainfall per year.

As previously mentioned, Hualapai Valley is much too large to be covered in this report, therefore, only the area impacted by *The Ranch at White Hills* is discussed in this section.

The area to be developed at *The Ranch at White Hills* covers a total of 39 square miles and the surrounding watershed, over which *The Ranch at White Hills* has an impact, is 246 square miles. Of these totals 17 square miles and 73 square miles respectively are in the Hualapai Basin. This Area Plan includes aggressive water management actions that will enhance the capture of rainfall on the area over which it has influence.

Natural rainwater capture will be accomplished through innovative storm-water retention methods and prudent rangeland management as discussed in the section on Detrital Basin and contained in the attached Capturing Rainwater for Recharge of Groundwater Aquifers report. The potential additional water available for groundwater recharge is shown on Table 5.3-10 on page 53.

5.4 WATER CONSERVATION / RECHARGE / REUSE

The Ranch at White Hills is planned to maximize water conservation measures including 1) reuse of effluent and gray water 2) collection and storage of rainwater from rooftops for use in watering landscape plants and gardens 3) use of moderate to low water use plants for landscaping 4) design of detention/recharge basins to collect runoff, 5) design of small detention/recharge basins within open space to maximize depression storage for recharge and control flooding, and 6) surface management of the 246 square miles project area of the Detrital watershed for an improved water cycle.

5.5 GOALS AND POLICIES FOR WATER RESOURCES

To ensure a sustainable level of water the goals and policies for the development include:

Goal 1. Quantify and characterize the water resources of Detrital and Senator Valleys and that portion of the Hualapai Valley affected by this project.

Policy 1.1 Conduct geologic, hydrologic and geophysical studies to quantify water resources.

Policy 1.2 Test the scientific conclusions through invasive methods.

Policy 1.3 Coordinate studies with *state, federal and local agencies* to ensure regulatory mandates are achieved.

Implementation measure:

WR1 Develop an area geologic map that demonstrates the geologic relationships of the different lithologic and alluvial units and how they impact basin geometry.

WR2 Conduct remote sensing studies to develop a three dimensional picture of basin shape.

WR3 Drill test borings

WR4 Conduct hydrologic tests to develop basic aquifer data.

WR5 Interpret field data and conduct numerical analysis of aquifer hydrology.

WR6 File the required reports with governing agencies.

Goal 2. The development infrastructure and population density will be in harmony with the capabilities of the local aquifer and its recharge potential to preserve groundwater resources.

Policy 2.1 Residential densities not to exceed an amount compatible with a sustainable level of water use.

Policy 2.2 Project design and land use will incorporate mechanisms to enhance water recharge to the aquifer and reduce water loss from evaporation.

Policy 2.3 Wastewater treatment facilities will be designed to recycle effluent.

Policy 2.4 Preserve major drainages as open-space within the development.

Policy 2.5 Encourage the use of low water-consumptive vegetation in landscaping.

Implementation measure:

WR7 Developer will design the total project densities to maintain a balance between the available water and the water use.

WR8 Developer intends to provide designs that will include detention basins in small drainages to enhance recharge by increasing the depression storage capacity of the land surface and allow for increased infiltration of rain runoff. CC & R's will require maintenance of basins.

WR9 Treated waste water effluent will be recycled and used to water golf courses and park areas.

WR10 Substantial numbers of residential and commercial buildings will have rainwater collection and storage systems. Stored water will be used for landscape purposes.

Goal 3. Preserve groundwater quality.

Policy 3.1 All residential parcels less than one acre in size shall be connected to a central

wastewater system.

Policy 3.2 Encourage compliance with disposal protocol through public awareness.

Implementation measure:

WR13 The waste treatment facilities will meet or exceed all agencies' requirements

6.0 PARKS, OPEN SPACE AND RECREATION

Parks are a key element within the White Hills Area Plan

Parks, trails and open space are key unifying elements of this Area Plan. Parks and open space areas are multi-functional, offering a wide range of opportunities for recreation, education, naturalistic activities, wildlife habitat, and indigenous species planting. Aside from all of the ecological benefits of parks and open spaces, there are many social and psychological benefits associated with these urban amenities also. These spaces provide places to play, meditate, gather, rest, and rejuvenate and strengthen communities by creating opportunities to know your neighbors. The abundance of parks and open space areas in this plan provide the cohesive fibers to strengthen the community's sense of place.

The design of the Area Plan is based on preserving the unique aspects and character of the land. Over 3000 acres of the area is being preserved for open space and parks. This will allow every resident, worker or visitor to see natural areas from most any spot within the development, and to be no more than 1/2 mile (less than an eight minute walk) from a park, trail or open space area. The Area Plan identifies over 30 park sites utilizing 1,008 acres, exclusive of the golf courses. The extended vision for the park system produces approximately 50 acres of park, trail and open space land for every 1,000 residents. This is a significantly higher ratio than most communities and exceeds national recommendations of 6-10 acres of park / open space per 1,000 residents.

6.1 REGIONAL, COMMUNITY AND NEIGHBORHOOD PARK SYSTEMS

Community Parks

Two types of community parks are planned. Active parks, that contain fields and facilities for organized sports, are typically located on flatter terrain to accommodate soccer, softball, and baseball fields. They vary in size from 25 to 50 acres and may also include a swimming pool. Passive community parks are also provided. Passive parks are natural resource

based and typically include multi-use trails, picnic facilities and opportunities for nature study. Community parks will be a part of the linking mechanisms between villages and commercial centers.

Neighborhood Parks

Neighborhood parks form the backbone of the local recreation systems. Each neighborhood will have a neighborhood park that ranges in size from 3 to 10 acres. Neighborhood parks typically contain children's play equipment, an open turf play space, a small ball field, a park shelter, small picnic area and courts for tennis, basketball etc.

Golf courses create open space, offer recreation and are attractive amenities.

6.2 SPECIAL USE PARKS – golf courses

Golf Courses

Two golf courses are planned for *The Ranch at White Hills*. Both of the golf courses will be located in the White Hills Central region of the plan area. The golf course locations have been specifically designed to emulate the natural drainage-way areas on the site and will be used to carry surface water drainage, as well as provide areas for recharge purposes. Further, the golf courses are anticipated to be irrigated and watered with treated effluent from the wastewater treatment facilities.

These golf courses will be designed to meld with the natural terrain and plant materials and allow residents and visitors a variety of golfing experiences and challenges. The golf courses will be integrated into the surrounding housing and commercial service areas, and will enhance the feeling of open space for the development. The golf course areas are quite extensive and encompass at least 197 acres of land.

6.3 LANDSCAPING

Native landscaping is featured throughout *The Ranch at White Hills*. The development is designed with preservation of nature in mind. As such, it is anticipated that Joshua trees and possibly Spanish Dagger will be preserved and transplanted from development pads to open space and common areas. Native vegetation may be supplemented with desert-friendly trees and plants such as Paloverde and Acacia. Parks, some rights-of-way, and other development areas will be landscaped based upon coordinated design themes. The landscaping themes will focus on xeric species native plants and desert friendly landscaping with minimal reliance on irrigation. All park areas and public landscaping areas are planned to be watered with treated effluent.

6.4 PARK SYSTEM STANDARDS

Park Type	Function	Park Size	Typical Facilities	Service Area
Mini-park	Small parks to serve portions of neighborhoods	1acre	Play equipment, open play space	.25 –.50 ac/1,000, ¼ mile radius
Neighborhood park	Neighborhood level recreation	3-10 acres	Play equipment, open play space, informal ball fields, tennis courts, basketball, volleyball.	1-2 ac./1,000, ½ mile radius
Community park – active	Organized sports facilities	25-50 acres	Softball, baseball, soccer, football fields, basketball, tennis, volleyball	5-8 ac./1,000 2 mile radius
Community park - passive	Picnic, trails, nature study, natural resource based recreation	25-50 acres	Trails, nature study, picnicking	5-8 ac./1,000 2 mile radius
Open space	Protection and management of natural areas, trails, wildlife habitat	Varies	Varies	Based on natural resources.

6.5 PARKS, RECREATION AND OPEN SPACE GOALS AND POLICIES

GOAL 1. Develop master planned, inter-connecting trail system

Policy 1.1 Connect neighborhoods, schools, and park systems with a trail system.

Policy 1.2 Review each preliminary plat and identify areas which will be designated for trails and open space.

Policy 1.3 Develop a coordinated policy of joint uses for open space areas, drainage ways, right-of-way areas, etc. for extended paths and trails.

Implementation measure:

POR1 Develop specific trail systems for pedestrians, equestrians and bicyclists. Identify improvements and / or areas needed on each preliminary plat.

POR2 Request County approval to utilize some areas of the right-of-way as extensions of the trail and path systems.

GOAL 2. Develop comprehensive parks and open space plans to serve all residents.

Policy 2.1 Provide park facilities with a mix of passive and active opportunities.

Policy 2.5 Strive for balanced distribution of parks and recreational facilities in population centers.

Policy 2.6 Develop a master plan of the necessary parks, trails, paths and open space areas for each major segment of development.

Implementation measure:

POR 3 Provide community parks in conjunction with school construction, (policy meets a minimum population threshold.)

POR 4 Build parks within the village centers as the developments are constructed. Developers of the Village area Super-pads shall construct facilities as a part of the overall development improvements.

POR5 Identify park and open space requirements / improvements during the preliminary plat stage for each development project. Developer shall be responsible to construct improvements as reflected on the preliminary plat.

7.0 PUBLIC INFRASTRUCTURE AND FACILITIES ELEMENT

The ultimate planning, development, and construction efforts to make *The Ranch at White Hills* vision come to life, will require a long term, as well as short term, strategy for success. Water efficiency and ecologically responsible ways of managing water quality and wastewater are keys to sustainable development. The efficient use of water also improves water quality by helping reduce loads on the sewage wastewater treatment facility. Source reduction also translates into lower costs for wastewater services and less burden on local landfills.
The Ranch at White Hills is currently in an area where central water and sewer service are not available. In addition, although dry utility service lines are "in the area" there will still be service extensions required to adequately serve the build-out community.

In order to have some control over the efficient management of the water and wastewater utility providers, the Owners of the property have created a utility provider company for the area, which shall be known as the Double Diamond Utility Company. This company shall be responsible to provide both water and sewer to the new residents of *The Ranch at White Hills.*

7.1 WASTEWATER FACILITIES

The utility systems will be operated by Double Diamond Utilities.

The Ranch at White Hills will receive centralized sewer service from the Double Diamond Utility company. The short term strategy for development of an overall wastewater treatment facility for this area includes the use of package wastewater treatment plants. These facilities meet and/or exceed the state requirements for sewage waste and provide reasonable and economically feasible alternatives to massive regional facilities, at the start. It is anticipated that the facilities will have the ability to expand with the community's development and will be utilized until they no longer are feasible. The phased approach with the facilities will also allow for the more efficient generation of effluent for the

community parks and golf courses, which will greatly lessen the use of groundwater for the parks areas. In addition, the ability to efficiently utilize the water resources will also lessen the burden on the package treatment plants, which results in lower maintenance and utility costs at the plant. This type of energy savings strategy is coined as an "economic multiplier", because for each dollar that is saved on the cost of treatment and power, that same dollar can be re-invested many times over in the local economy.

The long term strategy is to have potentially four (4) regional wastewater treatment facility sites for the overall development of the planned area.. The use of the package treatment facilities would be phased out, or expanded to a much larger degree to meet the needs of the community as a whole. In addition, there would ultimately be sufficient piping to provide for the effluent transmission and use to all parks and golf course areas.

Due to the extreme topographical variations across *The Ranch at White Hills* properties, it is anticipated that some of the hillside properties, with larger lots, may not be able to be served by the central sewer system. The logistics of adding pump stations, extended service lines, construction of main lines, etc. will not be technically sound, practical, reasonable, efficient, or desired. When reviewing these particular hillside development areas, the Developer shall work with the Mohave County Health Department and the Arizona Department of Environmental Quality to address any and all wastewater related considerations. Assuming all compliance issues can and would be met, other wastewater options for these areas may include alternative systems and/or the perpetual use of package wastewater systems in hillside, cluster development areas.

7.2 CENTRALIZED WATER SERVICE, RECYCLING AND CONSERVATION

Double Diamond Utility Company shall be the certificated water service provider for *The Ranch at White Hills* communities. The provision of water service shall be to each urban developed lot and will be drawn from existing wells and/or new wells within the property boundaries. The central water system will include treatment facilities, water mains and

Water mains and laterals will provide local connection points for housing and commercial and industrial areas

laterals, storage tanks, the well systems, and all other required facilities. The use of direct groundwater for residential and commercial uses will be supplemented with the use of recycled and recaptured water. It is anticipated that roof-top collection systems will be used in a significant portion of the overall area plan project area. Rain-water collected from roof systems will be used for individual irrigation purposes. The wastewater treatment facilities will generate treated effluent to assist in large area irrigation efforts, including parks and golf course areas. Xeri-scape (low water demand) landscaping and rain gardens (shallow basins where water concentrates) will be used throughout the development to minimize additional groundwater water needs, while leaving the development with some greenery. Should there be extra treated effluent available, then the commodity could be further developed, in economic terms, by joint partnering with industrial users for cooling and processing utilization, etc.

The overall development of *The Ranch at White Hills* lies atop both the Detrital and the Hualapai groundwater basins. More specifically, all of the White Hills Central area, the Ranch at Temple Bar area, and two-thirds of the western sections of the Renewable Energy areas are within the Detrital Basin boundaries. The four western sections of property comprising The Ranch at Red Lake are also atop the Detrital Basin. The eastern 5 ½ sections of the Table Mountain Renewable Energy area and the remaining sections within The Ranch at Red Lake are all within the Hualapai Basin area. Statistically speaking, approximately three-quarters of the proposed residential properties will be located within the Detrital Basin area. The remaining one quarter of the proposed population is planned to be within the Hualapai Basin area.

It is formally recognized that there are approximately 1,000,000 acre ft. of water in the underlying Detrital Basin, based upon previously recognized and approved reports and data. Recent studies by Allan, Stephenson & Associates, indicate that there are actually 2.5 million acre feet of water in

the underlying aquifer. In addition, it is known that there are over 5 million acre feet of water within the Hualapai Basin. This information makes it clear that there are sufficient supplies of groundwater to support this development proposal, as well as provide for all of the existing lots that draw water from the basin. The Developer has initiated extensive groundwater testing, well drilling, and analysis on the underlying basin and strata to verify these reports. The process of the groundwater testing has also been coordinated with the Arizona Dept. of Water Resources.

7.3 EDUCATION FACILITIES

The Area Plan for *The Ranch at White Hills* provides for public school sites providing education for grades K-12. These site locations were selected based upon reasonableness and proximity to the residential epicenters. The actual number of, construction of, and selection of the school facilities will be based upon the development of the community. More advanced planning of the school facilities shall be coordinated with the local School Board and the Superintendent of Schools jointly. Until such time as a school building is constructed, children will be attending the Mount Tipton Elementary School and High School in Dolan Springs. The project further identifies a potential college / research center. The College site is clearly geared for the later stages of community development, although educational resources are identified in this area plan as being important for several reasons: to maintain youth in the area, the training of a qualified work force, economic potential, and quality of life issues. Colleges are often identified as one of the Community's landmark identifiers, and the synergy and energy associated with a college campus enhances the vitality of, and sense of community.

7.4 COMMUNITY FACILITIES

The vision of *The Ranch at White Hills* includes a full service community which emphasizes an excellent quality of life, adequate public safety, sufficient medical facilities, local employment, business opportunities, libraries, places of worship, and other community facilities. The community as a whole needs all of these facilities, and more to capture the eyes and hearts of its residents, to help create this "sense of community". *The Ranch* area plan identifies 680 acres for these uses.

The initial development will not have all of these amenities, yet the Area Plan has preliminarily identified several sites for these purposes. The police and fire sites have been located near community gathering areas, to help transcend a sense of peace, and to provide for quicker response times. There are also sites for these services located near the commercial areas, for the safety of the business community and shoppers. The precise

locations of these safety facilities will be coordinated with members of the County Sheriff's Department and the Fire Department to ensure the agencies needs are met.

The team members for *The Ranch* project have attended meetings with the Mohave County Assessors office staff and members of the Lake Mohave Ranchos Volunteer Fire Department. These meetings were initiated to discuss the idea of expanding the Fire District service area to include *The Ranch* properties. This Developer, as well as other interested property owners in and around The Ranch properties, has expressed interest in proceeding with this option. The County Assessors office has been working with the Lake Mohave Ranchos Volunteer Fire Department staff to coordinate and prepare for this possibility. Should this expansion option not be feasible, the Project Owner may pursue the option of creating a new fire district to serve the residents of *The Ranch.*

Public facilities sites have been placed in various locations within the three residential plan areas for *The Ranch* properties. To meet the all-purpose needs of this community, the Area Plan provides for several parcels set-aside for these purposes, with a majority of the public facility sites being located within the White Hills Central area to meet the expected needs of this highly urban area. Less intense public facility sites have also been placed within the Ranch at Temple Bar plan area, and The Ranch at Red Lake plan area. The final disposition of the community facility sites shall be dependent upon the facility and community needs and the ultimate development directions. Coordination with all effected agencies shall be pursued when determining these items.

7.5 PUBLIC INFRASTRUCTURE & FACILITIES GOALS AND POLICIES

GOAL 1. Each phase of the project shall be developed with properly approved water and wastewater systems.

Policy 1.1 The Double Diamond Utility Company shall provide for central sewer service and central water service to residents and businesses, where required.

Policy 1.2 The short term strategy for development of the projects may include the use of package wastewater treatment plants

Policy 1.3 Regional wastewater treatment facilities will be required to provide for effluent reuse capabilities.

Policy 1.4 High density urban developed areas shall be required to provide for central sewer service, per the Mohave County Ordinances. Less dense areas, topographically challenged parcels, and other unique, or isolated site considerations will allow for alternative wastewater systems to be considered.

Implementation measure:

PIF1 Supporting infrastructure will be provided to each phase of the development, as required. The Developer shall provide for the required infrastructure as each phase of the project is constructed.

PIF2 The Developer shall work with the Mohave County Health Department and the Arizona Department of Environmental Quality to secure the necessary approvals for the development of the sewer service, individual septic systems, alternative systems, central water systems, and/or the use of individual wells for the diverse development areas.

GOAL 2. Provide community facility and educational facility sites to meet the needs of the overall development.

Policy 2.1 Locate potential school sites and education facilities based upon reasonableness and proximity to the residential epicenters.

Policy 2.2 Identify anticipated community facility parcels near community gathering areas with sufficient access, and in concert with the commercial property development areas.

Implementation measure:

PIF 3 The Developers should work with the fire, police, local School Board, and other community service providers for the final disposition of the sites.

8.0 COMMUNITY / ECONOMIC DEVELOPMENT ELEMENT

8.1 DEVELOPMENT CONCEPT

The concept of Area Planning is very much related to the community and economic prosperity of development. It is used as a tool to plan for future growth and as a tool to address the constant change and evolution of a community. *The Ranch at White Hills* Area Plan has several opportunities to grow and evolve at varying rates and at numerous locations. The overall site dynamics allow for tremendous diversity relating to transportation and access, recreational aspects, residential development options, marketing, and commercial offerings and investments. Development in this fashion is often confused with growth, but it is not the same. Growth is simply replication, or more of the same,(e.g., jobs, income, houses, businesses). Development is distinguished by its attention to the distribution aspects of growth (e.g., housing, jobs, income, for whom,) and the interface of growth with other dimensions of the community (e.g., land uses, water quality, conservation, etc). The Ranch at White Hills has taken great considerations in the deliberate distribution of residential areas, anticipated service areas, and the planning for community-based requirements and resources.

Development implies qualitative as well as quantitative improvements. Ultimately, community development is more than just market determined issues; it involves social and cultural amenities also. The vitality and sustainability of any new community will be fundamentally based upon its ability to be responsive to community needs, as well as its ability to stimulate economic growth in an efficient, coordinated manner. Proper, deliberate development occurs when sound planning objectives, sufficient financial resources, and secure development resources meet market driven demands for expansions and services.

The Ranch at White Hills Area Plan includes significant retail, office, services and commercial and industrial designations. This mixed-use approach is designed to provide for a balance between the job market and site locations, and the housing stock within the Community. The development concept provides for the short-term and long-term planning objectives to allow for the creation of a viable community. With the limited resources of the County government, the ultimate goal of this potentially thriving community will most likely be to incorporate sometime in the future.

Therefore the development concept, the infrastructure needs, the land use balances, and all the other factors of this area plan have been geared toward the ability of this community to be self-sustaining, for incorporation purposes. This local self-reliance does not infer isolation, it means diversification of a local economy to support local needs, it encourages cohesiveness, reduces waste, and enables more sustainable trade with other communities. The diverse transportation networks and the numerous, existing access points in to the development areas offers several options when offering these trades and services.

This major area plan proposal addresses compatibility issues between various uses of land, management and preservation of natural resources, preservation of significant environmental features and drainage-ways, and the conceptual planning for the overall infrastructure and community needs.

The Community Development plan element builds upon the vision, goals, objectives and policies presented earlier. The development brings into proximity a broad spectrum of public and private uses to support an economy that benefits people of all incomes. *The Ranch at White Hills* planning efforts are structured around the four identified plan areas, the

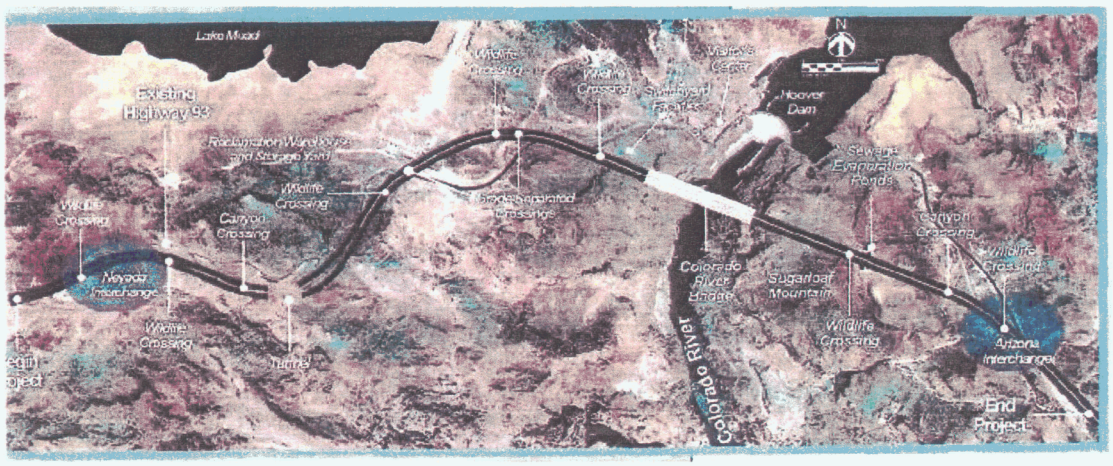
flow of development in and around these areas, and are further organized into numerous villages to develop a suitable jobs / housing balance. The physical organization of the development is supported by a framework of transportation alternatives. Transit, pedestrian, equestrian, and bicycle systems maximize access and mobility throughout the region while reducing dependence on the automobile, and providing for recreational opportunities. With the incorporated design, many activities of daily living can occur within walking distance, allowing independence to those who do not drive especially the elderly and the young. Interconnected networks of streets and trails are designed to encourage walking, reduce the number and length of automobile trips, and conserve energy. Revenues and resources are shared more cooperatively with rational coordination of transportation, recreation, public services, housing and community centers.

Within the designed villages, a broad range of housing types will bring diverse people into daily interaction, strengthening the personal and civic bonds essential to an authentic community. Combining the commercial and business opportunities with the social and recreational aspects of the plan makes the vision for creation of a "sense of community" complete. The Area Plan contains approximately 1,201 acres of employment and service oriented land uses for community and commercial development.

The Ranch at White Hills Area Plan assumes that a service commercial building will be the first construction project within the Plan Area. This building is anticipated to be constructed at, or near the US 93 / White Hills Road intersection. The access point is a prime location for commercial business opportunities and the area is in great need of a gas station with a small convenience mart. The existing homeowners in the area, and the traffic generated public along Hwy 93 will provide the necessary patrons to the venture. The Developers of *The Ranch* properties are currently working with ADOT staff to coordinate this precise development location. The ultimate expansion of Highway 93 at this location, including the proposed interchange, involves a taking of some of this property.

All development ventures shall be reviewed and approved through the Mohave County review processes, at the subdivision stage, or the commercial site plan stage. Developer's will be required to provide for all improvements as they are proposed and approved. Standard subdivision processing requires Developer's to post assurrances for the improvements, or to "as-built" the project. The same development standards shall apply to development within *The Ranch at White Hills*. All associated improvements for any given development shall be provided for by the Developer. Constructed improvements to this Area Plan are anticipated to be paid for as each development area is developed. The exception to this "build as you go" philosophy will be at the start of the first significant

residential development proposal, whereby coordination with the Double Diamond Utility Company will be required to provide for central water service and wastewater treatment to the development. This initial burden will not be borne by the Developer of *The Ranch* properties, but will be borne jointly by the utility company and the Developer of the initial phase of *The Ranch* properties. Other options for financing these utility improvements will also be reviewed. A standard financial resource assessment will be developed and analyzed prior to the first phase of development to review all options available including; standard improvement districts, facility improvement districts, Public investor capital, State and Federal revolving loans, etc.



8.2 HOOVER DAM BYPASS

The Ranch at White Hills has a dynamic opportunity to take advantage of the increased vehicular traffic along U.S. Highway 93 with the anticipated completion of the Hoover Dam Bypass. Currently, Hwy 93 is identified as the major commercial corridor between the states of Arizona, Nevada, and Utah. As a part of the National Highway System Designation Act of 1995, U.S. Highway 93 was identified as a high priority corridor. This designation was the result of the effects of the North American Free Trade Agreement (NAFTA) which identified U.S. 93 a part of the Canamex Highway (the route from Mexico to Canada). A major part of the Canamex Highway success is based upon the ability to build the Hoover Dam bypass so that increased traffic can cross unencumbered, and the trade route will not be delayed in any manner. The Departments of Transportation in both Arizona and Nevada have prioritized the project. The bridge work is still on schedule and is expected to be complete in 2007.

As an economic boost, this increased traffic near and through *The Ranch* commercial properties will create a demand for trade and manufacturing services, gasoline, restaurants, small retail services, etc. The land use designations on the Area Plan support the use of the frontage properties on both Highway 93 and Pierce Ferry Road for these uses and assume service oriented commercial businesses will be the first to develop. The distribution opportunities growing from the NAFTA trade route will be a constant economic impulse for this development. It is anticipated that the initial commercial ventures will draw strictly from the traffic generated business, but commercial ventures will expand exponentially as the population grows in *The Ranch* properties. This two-fold effect will assist in generating the local employment necessary to begin the rotation of self-supporting existence. The expansion of the commercial business opportunities also creates a necessary tax base for possible incorporation attempts in the future.

8.3 LAND AVAILABILITY

Another advantageous, regional impact to this development is the surrounding development trends. To the north of the project lies the City of Boulder, NV. This town maintains a controlled growth initiative and specifically limits residential and commercial permits. Any proposed drastic increases in growth will be limited in this area. This controlled growth initiative will significantly limit any potential competition from the Boulder housing market area.

Competition from the Las Vegas market is also decreasing. New projections concerning the Las Vegas market were released by Home Builders Research in March, 2004. A breakdown of all of the available land, development trends, and existing and expected market conditions clearly identify a fracture in the Las Vegas market – they are running out of private land for development, and they are completely out of affordable land for entry level housing. The market in the Clark County / Las Vegas / Henderson area has become so difficult that the cost of land has catapulted to astronomical rates. These land prices have pushed the median costs for single family residential homes in the Las Vegas market to over $210,000; far beyond the financing capabilities of the average homebuyer. Affordable housing in this market is close to obsolete, which is why *The Ranch* location is so favorable. *The Ranch* intends to provide a range of affordable housing options within the Area Plan area, and this project site is within 45 minutes of the Las Vegas Metro area. Unspoiled vistas, no air pollution, and a growing opportunity to "work near where they live", will make *The Ranch at White Hills* a viable option for potential homebuyers in the Las Vegas and Boulder City area.

The Southern Nevada Resource Planning Coalition identifies several Las Vegas growth options, including a proliferation of BLM land trade options and purchases for the alleviation of the land shortage. Although presented as a workable solution to the problem, the BLM land trade auctions have become big, greedy business options which will not result in the ability to provide for reasonably priced homes. Previous BLM land trade auctions in Clark County have resulted in the costs per acre soaring over $160,000.

The idea that the private sector can purchase property at these accelerated prices and turn any sort of profit on development of entry level housing, or even reasonably priced single family residential homes is not sound. The latest projections indicate that there are less than 60,000 acres of developable land in the Las Vegas, Henderson, and Clark County areas. Further projections by the Homebuilders Research Group indicated that at the current rate of growth and development (including minor market adjustments) it would allow for continued development of these lands for an additional, approximate 11-12 years. The idea of expanding into the Searchlight area for the expansion of the Vegas area is also filled with hurdles. The Searchlight area properties are rich with mining claims throughout, which makes development proposals extremely difficult to complete, due to the encumbrances associated with the claims. These issues, and more, make *The Ranch at White Hills* a viable option for growth and spill-over homebuyers from the Nevada markets. *The Ranch* intends to provide reasonable priced homes, with full-service community facilities, in a beautiful setting, for this robust homeowners market.

Aside from the benefits of close proximity to the Las Vegas market and the growth restricted Boulder City, this project is able to function as an extension of the White Hills culture and surrounding developments. The Area Plan proposal can succeed with the Canamex designation and the increased traffic exposure. The need for service to the traveling public, the transfer of goods and services along Hwy 93, and the existing need for services in this area all point to a degree of success without the Las Vegas Market.

8.4 RESIDENTIAL HOUSING STANDARDS

In accordance with energy policies of the Federal, State and County governments, *The Ranch at White Hills* will promote the use of renewable energy sources for home power generation. As a part of the construction of the new homes, the Developer shall ensure that the homes are all "solar ready", and that the fixtures used will be low water use fixtures. These initiatives shall be enforced through an approved set of Conditions, Covenants, and Restrictions which shall be recorded on the property. In addition, the homes shall be energy efficient and shall conform to the Star

Standard, at a minimum. Fireplace use will also be subject to clean air requirements.

The Certificated Service provider for power in the White Hills area is Unisource Energy Services. *The Ranch* Team members have previously met with Unisource staff to discuss the provision of power to this site area. Unisource intends to provide power for this site development.

8.5 COMMUNITY / ECONOMIC DEVELOPMENT GOALS AND POLICIES

Goal 1. Create a sense of Community

Policy 1.1 Recognize that the entry points and local streets will give residents, tourists, and other drive-by traffic occupants a first look and impression of this community.

Policy 1.2 Support the local Homeowners associations to highlight the unique characteristics of each of the villages, develop respect and pride for the differences.

Policy 1.3 Provide opportunities for the residents to connect with their neighbors and friends.

Policy 1.4 Provide for suitable gathering places and community facilities.

Implementation measure:

CE1 Provide limited lighting near public areas and possibly near the access to all of the residential units. Developer shall identify locations for such lighting at the preliminary plat stage.

CE2 Set up the underlying CC & R's for the development to insure equity, yet flexibility, in the development of the villages.

CE3 Initiate Community pride by insuring the "gateways" into the area are kept clean and free of unsightly debris.

GOAL 2. Capitalize on the existing business and trade traffic on U.S. 93.

Policy 2.1 Encourage Commercial development opportunities at U.S 93 and near White Hills Road.

Policy 2.2 Provide sufficient signage along the Hwy to advertise the interchange area and the services available at the off-ramp.

Implementation measure:

CE4 Investigate possibility of placing advertisement along Hwy 93 for the purposes of notifying the public of the off-ramp services.

CE5 Design sufficient width roadways and parking areas to accommodate large truck traffic.

CE6 Secure ADOT access permit for the off-ramp location.

CE7 Sufficient utilities shall be provided as the construction of the commercial facilities expand.

9.0 AREA PLAN DEVELOPMENT

The completion of a Major General Plan Amendment and the proposal of a new Area Plan Amendment require a public hearing be held at, or near the location of the property to be amended. This public hearing shall be held 15 days prior to, and in addition to the required hearings at the Planning & Zoning Commission meeting and the Board of Supervisor's meeting.

ADDITIONAL TABLES

Table 3.0-1 Legal description of sections, ***The Ranch at White Hills***

TOWNSHIP	RANGE	SECTION	DESCRIPTION	ACRES
27	18	3	ALL	640.40
27	18	7	ALL	626.28
27	18	9	ALL	640.00
27	18	11	ALL	640.00
27	18	15	ALL	640.00
27	18	17	ALL	640.00
27	18	19	ALL	628.96
27	18	21	ALL	640.00
27	18	23	ALL	636.97
27	18	25	N1/2	320.00
27	18	29	ALL	640.00
27	18	31	ALL	630.96
27	18	33	ALL	640.00
27	18	35	ALL	632.80
27	19	3	ALL	642.28
27	19	11	ALL	640.00
27	19	13	ALL	640.00
27	19	15	ALL	640.00
27	19	23	ALL	640.00
27	19	25	ALL	640.00
27	19	27	ALL	640.00
27	19	29	ALL	640.00
27	19	31	ALL	628.80
27	19	33	ALL	640.00
27	19	35	ALL	640.00
27	20	1	ALL	640.64
27	20	13	E1/2	313.69
27	20	25	ALL	640.00
27	20	35	ALL	640.00
27	21	25	Mohave County Records Bk 317 Map 49 Parcels 29, 53, 54, 55, 56, 79, 80, 82, 83, 84, & 85	84.44
28	18	35	ALL	640.00
28	19	17	ALL	640.00
28	19	19	ALL	621.08
28	19	21	ALL	280.00
28	19	29	ALL	640.00
28	19	31	ALL	640.00
28	19	35	S1/2SW1/4	80.00
28	20	23	ALL	640.00
28	20	25	ALL	640.00
28	20	35	ALL	640.00
29	19	21	ALL	640.00
29	19	29	ALL	640.00
29	19	33	W1/2, SE1/4	480.00
			TOTAL ACRES	**25167.30**

Table 4.1-1 Existing roadways chart ***THE RANCH AT WHITE HILLS*** Area Plan. Unless otherwise specified, all roads have a minimum width of 66 feet, as per ARS 28-7042.

MAP NUMBER	ROAD NAME	LENGTH (MILES)	MAINTENANCE STATUS	LAND STATUS	LEGAL STATUS	MAP SOURCE	COMMENTS
1	White Hills	10.9	Paved County Road Maintained	Federal Private	Dedicated County Road	Production County Map (Web)	Southern access to White Hills Central
2	Fairway Drive	2.33	Graded County Road Maintained	Federal Private	Dedicated County Road	Production County Map (Web)	None
3	Pierce Ferry	19.81	Paved County Road Maintained	Federal Private	Dedicated County Road	Production County Map (Web)	Access to the eastern portion of The Ranch at Red Lake
4	Temple Bar	8.82	Paved County Road Maintained	Federal State	Dedicated County Road	Production County Map (Web)	Access to Temple Bar
5	Temple Bar Park Service Road #131	4.4	Paved Federal Road Maintained	Lake Mead National Recreation Area	Federal Road	BLM Boulder City 1:100,000	Access to Temple Bar
6	Temple Bar Park Service Road #132	12.52	Paved Federal Road Maintained	Lake Mead National Recreation Area	Federal Road	BLM Boulder City 1:100,000	Access to Temple Bar

Table 4.1-1 continued

MAP NUMBER	ROAD NAME	LENGTH (MILES)	MAINTENANCE STATUS	LAND STATUS	LEGAL STATUS	MAP SOURCE	COMMENTS
7	Temple Bar South – Park Service Road #134	4.64	Dirt Federal Road Maintained	Lake Mead National Recreation Area	Federal Road	BLM Boulder City 1:100,000	Access from Temple Bar to The Ranch at Temple Bar
8	Old Temple Bar South	18.87	Dirt County Road Not Maintained	Federal State Private	FLPMA ROW Public I & E RS 2477 Grant BOS Resolution No. 95-27 ARS 28-7041C	1916 Cadastral Plat 1954 AMS Photo Prod. County Map	Access between The Ranch at Temple Bar And White Hills Central
9	Senator Valley	11.6	Dirt County Road Not Maintained	Federal Private	RS 2477 Grant BOS Resolution No. 95-27 ARS 28-7041C	1954 AMS Photo	Primary access to White Hills Central from MP 24.5 on Highway 93
10	Squaw Peak	10	Dirt County Road Not Maintained	Federal State	RS 2477 Grant BOS Resolution No. 95-27 ARS 28-7041C	1954 AMS Photo 1976 BLM Photo	Primary access to The Ranch at Temple Bar from the Temple Bar Road
11	Temple Bar Back	7.12	Dirt County Road Not Maintained	Federal Private	RS 2477 Grant BOS Resolution No. 95-27 ARS 28-7041C	1954 AMS Photo 1976 BLM Photo Prod. County Map	Primary access to The Ranch at Temple Bar

Table 4.1-1 continued

MAP NUMBER	ROAD NAME	LENGTH (MILES)	MAINTENANCE STATUS	LAND STATUS	LEGAL STATUS	MAP SOURCE	COMMENTS
12	Senator Mine	4.9	Dirt County Road Not Maintained	Federal Private	FLPMA ROW Public I & E RS 2477 Grant BOS Resolution No. 95-27 ARS 28-7041C	1916 Cadastral Plat 1954 AMS Photo Prod. County Map	Primary access to White Hills Central from White Hills Road
13	Cyclopic Pumping Station	12.41	Dirt County Road Not Maintained	Federal State Private	Public I & E RS 2477 Grant BOS Resolution No. 95-27 ARS 28-7041C	1916 Cadastral Plat 1954 AMS Photo	Primary access from White Hills Central to The Ranch at Red Lake
14	White Hills Boulevard	4	Dirt County Road Not Maintained	Federal Private	RS 2477 Grant BOS Resolution No. 95-27 ARS 28-7041C	1916 Cadastral Plat 1954 AMS Photo Prod. County Map	Access from end of White Hills Road to Cyclopic Pumping Station Road
15	Butcher Windmill	4.72	Dirt County Road Not Maintained	Federal Private	RS 2477 Grant BOS Resolution No. 95-27 ARS 28-7041C	1916 Cadastral Plat 1954 AMS Photo	Access for The Ranch at Red Lake
16	Cyclopic Boulevard	6.19	Dirt County Road Not Maintained	Federal Private	Public I & E RS 2477 Grant BOS Resolution No. 95-27 ARS 28-7041C	1916 Cadastral Plat 1954 AMS Photo Prod. County Map	Normal Maintenance for dirt road Access to Renewable Energy Parcels

Table 4.1-1 continued

MAP NUMBER	ROAD NAME	LENGTH (MILES)	MAINTENANCE STATUS	LAND STATUS	LEGAL STATUS	MAP SOURCE	COMMENTS
17	Skipper Boulevard	3.41	Dirt County Road Not Maintained	Federal Private	Public I & E RS 2477 Grant BOS Resolution No. 95-27 ARS 28-7041C	1954 AMS Photo 1976 BLM Photo Prod. County Map	Normal Maintenance for dirt road Access to Renewable Energy Parcels
18	Malco Mine	2.42	Dirt Road Not Maintained	Federal Private	RS 2477 Grant BOS Resolution No. 95-27 ARS 28-7041C	1954 AMS Photo	Normal Maintenance for dirt road Access for The Ranch at Red Lake

Table 4.1-2 Proposed interconnecting new roadway chart, ***THE RANCH AT WHITE HILLS*** Area Plan. Unless otherwise specified, all roads will have a minimum width of 66 feet.

ROAD NAME	LENGTH (MILES)	AREA (ACRES)	LAND STATUS	LOCATION	PLANNED IMPROVEMENTS
Ranch at Temple Bar Connector	.05		Federal	SE1/4SE1/4 SECTION 16, T29N R19W	NEW ROAD FLPMA APPLICATION
Ranch at Temple Bar Connector	.23		Federal	NE1/4NE1/4 SECTION 32, T29N R19W	NEW ROAD FLPMA APPLICATION
White Hills Central Connector	.65		Federal	SW1/4 SECTION 16, T28N R19W	NEW ROAD FLPMA APPLICATION
White Hills Central Connector	.37		Federal	SW1/4SW1/4 SECTION 24, T28N R20W	NEW ROAD FLPMA APPLICATION
White Hills Central Connector	.03		Federal	NE1/4NE1/4 SECTION 6, T27N R19W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	SE CORNER SECTION 8, T28N R19W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	NW CORNER SECTION 16, T28N R19W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	SE CORNER SECTION 18, T28N R19W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	NW CORNER SECTION 20, T28N R19W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	SW CORNER SECTION 18, T28N R19W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	NE CORNER SECTION 24, T28N R20W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	NW CORNER SECTION 24, T28N R20W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	SE CORNER SECTION 14, T28N R20W	NEW ROAD FLPMA APPLICATION

Table 4.1-2 continued

ROAD NAME	LENGTH (MILES)	AREA (ACRES)	LAND STATUS	LOCATION	PLANNED IMPROVEMENTS
White Hills Central Corner Crossing		.25	Federal	SW CORNER SECTION 24, T28N R20W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	NE CORNER SECTION 26, T28N R20W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	SE CORNER SECTION 26, T28N R20W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	NE CORNER SECTION 36, T28N R20W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	NW CORNER SECTION 36, T28N R20W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	SW CORNER SECTION 30, T28N R19W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	SE CORNER SECTION 30, T28N R19W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	NW CORNER SECTION 32, T28N R19W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	NE CORNER SECTION 32, T28N R19W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	SW CORNER SECTION 28, T28N R19W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	NW CORNER SECTION 28, T28N R19W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	SE CORNER SECTION 20, T28N R19W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	SW CORNER SECTION 36, T28N R20W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	NE CORNER SECTION 2, T27N R20W	NEW ROAD FLPMA APPLICATION

Table 4.1-2 continued

ROAD NAME	LENGTH (MILES)	AREA (ACRES)	LAND STATUS	LOCATION	PLANNED IMPROVEMENTS
White Hills Central Corner Crossing		.25	Federal	SW CORNER SECTION 18, T27N R19W	NEW ROAD FLPMA APPLICATION
White Hills Central Corner Crossing		.25	Federal	NE CORNER SECTION 24, T27N R20W	NEW ROAD FLPMA APPLICATION
White Hills Corner Crossing		.25	Federal	SE CORNER SECTION 36, T28N R20W	CURRENT FLPMA APPLICATION
White Hills Corner Crossing		.25	Federal	NW CORNER SECTION 6, T27N R19W	CURRENT FLPMA APPLICATION
White Hills Corner Crossing		.25	Federal	SW CORNER SECTION 6, T27N R19W	CURRENT FLPMA APPLICATION
White Hills Corner Crossing		.25	Federal	NE CORNER SECTION 12, T27N R20W	CURRENT FLPMA APPLICATION
Renewable Energy Connector	1.05		Federal	E1/2 SECTION 30, T27N R19W	NEW ROAD FLPMA APPLICATION
Renewable Energy Connector	.66		Federal	NE1/4 SECTION 28, T27N R19W	NEW ROAD FLPMA APPLICATION
Renewable Energy Connector	.76		Federal	SW1/4 SECTION 26, T27N R19W	NEW ROAD FLPMA APPLICATION
Renewable Energy Connector	.74		Federal	SE1/4 SECTION 36, T27N R19W	NEW ROAD FLPMA APPLICATION
Renewable Energy Connector	1.3		Federal	E1/2 SECTION 24, T27N R19W	NEW ROAD FLPMA APPLICATION
Renewable Energy Connector	.4		Federal	SW1/4 SECTION 16, T27N R18W	NEW ROAD FLPMA APPLICATION
Renewable Energy Connector	1.1		Federal	N1/2 SECTION 20, T27N R18W	NEW ROAD FLPMA APPLICATION
Renewable Energy Connector	.88		Federal	N1/2 SECTION 28, T27N R18W	NEW ROAD FLPMA APPLICATION

Table 4.1-2 continued

ROAD NAME	LENGTH (MILES)	AREA (ACRES)	LAND STATUS	LOCATION	PLANNED IMPROVEMENTS
Renewable Energy Connector	1.4		Federal	SECTION 30, T27N R18W	NEW ROAD FLPMA APPLICATION
Renewable Energy Corner Crossing		.25	Federal	SW CORNER SECTION 26, T27N R20W	NEW ROAD FLPMA APPLICATION
Renewable Energy Corner Crossing		.25	Federal	NE CORNER SECTION 34, T27N R20W	NEW ROAD FLPMA APPLICATION
Renewable Energy Corner Crossing		.25	Federal	SE CORNER SECTION 26, T27N R20W	NEW ROAD FLPMA APPLICATION
Renewable Energy Corner Crossing		.25	Federal	NW CORNER SECTION 36, T27N R20W	NEW ROAD FLPMA APPLICATION
Renewable Energy Corner Crossing		.25	Federal	NE CORNER SECTION 30, T27N R19W	NEW ROAD FLPMA APPLICATION
Renewable Energy Corner Crossing		.25	Federal	SW CORNER SECTION 20, T27N R19W	NEW ROAD FLPMA APPLICATION
Renewable Energy Corner Crossing		.25	Federal	SE CORNER SECTION 20, T27N R19W	NEW ROAD FLPMA APPLICATION
Renewable Energy Corner Crossing		.25	Federal	NW CORNER SECTION 28, T27N R19W	NEW ROAD FLPMA APPLICATION
Renewable Energy Corner Crossing		.25	Federal	SW CORNER SECTION 34, T27N R19W	NEW ROAD FLPMA APPLICATION
Renewable Energy Corner Crossing		.25	Federal	NE CORNER SECTION 4, T26N R19W	NEW ROAD FLPMA APPLICATION
Renewable Energy Corner Crossing		.25	Federal	NW CORNER SECTION 2, T26N R19W	NEW ROAD FLPMA APPLICATION
Renewable Energy Corner Crossing		.25	Federal	SE CORNER SECTION 34, T27N R19W	NEW ROAD FLPMA APPLICATION
Renewable Energy Corner Crossing		.25	Federal	NW CORNER SECTION 36, T27N R19W	NEW ROAD FLPMA APPLICATION

Table 4.1-2 continued

ROAD NAME	LENGTH (MILES)	AREA (ACRES)	LAND STATUS	LOCATION	PLANNED IMPROVEMENTS
Renewable Energy Corner Crossing		.25	Federal	SE CORNER SECTION 26, T27N R19W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Connector	.14		Federal	NE1/4NE1/4 SECTION 14 T27N R18W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Connector	1.25		Federal	SECTION 26, T27N R18W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Connector	.7		Federal	S1/2 SECTION 34, T27N R18W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Connector	.19		Federal	SE1/4 SECTION 14, T27N R19W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Connector	.2		Federal	NE1/4 SECTION 14, T27N R19W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	NW CORNER SECTION 22, T27N R19W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	SE CORNER SECTION 16, T27N R19W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	SW CORNER SECTION 14, T27N R19W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	NE CORNER SECTION 22, T27N R19W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	NE CORNER SECTION 4, T27N R19W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	SW CORNER SECTION 34, T28N R19W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	SE CORNER SECTION 12, T27N R19W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	NW CORNER SECTION 18, T27N R18W	NEW ROAD FLPMA APPLICATION

Table 4.1-2 continued

ROAD NAME	LENGTH (MILES)	AREA (ACRES)	LAND STATUS	LOCATION	PLANNED IMPROVEMENTS
Ranch at Red Lake Corner Crossing		.25	Federal	NW CORNER SECTION 16, T27N R18W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	SE CORNER SECTION 8, T27N R18W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	NE CORNER SECTION 16, T27N R18W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	SW CORNER SECTION 10, T27N R18W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	NW CORNER SECTION 10, T27N R18W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	SE CORNER SECTION 10, T27N R18W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	NE CORNER SECTION 10, T27N R18W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	SE CORNER SECTION 4, T27N R18W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	NW CORNER SECTION 14, T27N R18W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	SW CORNER SECTION 12, T27N R18W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	SW CORNER SECTION 2, T27N R18W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	NW CORNER SECTION 2, T27N R18W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	SE CORNER SECTION 34, T28N R18W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	SW CORNER SECTION 24, T27N R18W	NEW ROAD FLPMA APPLICATION

Table 4.1-2 continued

ROAD NAME	LENGTH (MILES)	AREA (ACRES)	LAND STATUS	LOCATION	PLANNED IMPROVEMENTS
Ranch at Red Lake Corner Crossing		.25	Federal	NE CORNER SECTION 26, T27N R18W	NEW ROAD FLPMA APPLICATION
Ranch at Red Lake Corner Crossing		.25	Federal	SE CORNER SECTION 34, T27N R18W	NEW ROAD FLPMA APPLICATION

Table 5.0-1. Published Detrital Basin Hydrology Data

SOURCE	STORAGE acre-ft	RE CHARGE acre-ft /yr	OUT FLOW acre-ft/yr	HYDRAULIC GRADIENT ft / ft	DEPTH TO WATER ft	WELL YIELDS gal/min	SPECIFIC YIELD %	WATER USED acre-ft/ yr	DECLINE RATE ft / yr
Geo/Res. Cons., 1982	No Data	2,600–3,900	2,100 – 3,400	0.001 – 0.004	40 - 780	10 - 130	No Data	500	No Data
ADWR, 1988	1 MM	1,000 (from Freethly)	No Data	No Data	No Data	No Data	5	See table below	0
Freethly, et al, 1986	No Data	1,000	No Data	No Data	No Data	No Data	No Data	No Data	No Data

Table 5.2-1. Groundwater Use

SOURCE	1985 GROUNDWATER USE acre-ft/yr	2000 GROUNDWATER USE acre-ft/yr	TOTAL DISSOLVED SOLIDS MG/L
DWR	190	196	204 – 1530

Table 5.1-2. Water quality samples taken from wells in Detrital Valley

Concentrations of Major Ions- Data by Geo/Resource Consultants- 1982

Well Site T, R, S	Depth Sampled	Temp. degree C	K (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	Fe (ug/l)	B (ug/l)	Si (mg/l)	Cl (mg/l)	F (mg/l)	Sulfate (mg/l)	Carbonate (mg/l)	Non-Carbonate (mg/l)	Total Dissolved Solids
27-19-07	55	19.2	12	63	61	84	<9	320	41	200	3.9	87	210	200	752
27-19-11	53	19.5	2.3	56	54	43	4	170	78	45	0.5	42	360	12	514
27-19-12	50	19.2	6.7	40	51	26	21	130	68	39	2.2	27	280	30	423
27-19-16	690	22	4.5	17	27	50	<9	170	18	32	1.5	45	150	0	290
27-19-35	62	19.2	4.5	70	66	76	120	370	59	100	1.5	79	390	57	739
27-20-14	600	24.7	4.7	34	23	69	12	230	31	49	1.9	35	180	0	385
27-21-24	480	29.7	3.6	27	11	53	10	100	26	40	1	63	110	3	298
27-21-25b	464	19.8	4.1	23	9.7	51	10	100	28	35	1.2	43	97	0	272
27-21-25d	380	27.7	4.4	18	9.3	59	10	100	29	36	1.1	41	83	0	278
27-21-29	77	18.7	35	640	210	98	30	300	10	34	1.1	2400	2500	2200	3930
28-21-20	365	24.8	3.7	20	8.4	87	<5	300	20	38	1.8	100	85	0	364
28-21-26	235	26.4	4	42	17	49	10	150	26	25	0.8	92	170	55	379

Table 5.1-3 Water quality samples taken from wells in Detrital Valley

Heavy Metal Concentrations- Data by Geo/Resource Consultants- 1982

Well Site T, R, S	Depth Sampled	Temp. degree C	Al (ug/l)	Sb (ug/l)	As (ug/l)	Ba (ug/l)	Be (ug/l)	Bi (ug/l)	Cd (ug/l)	Cr (ug/l)	Co (ug/l)	Cu (ug/l)
27-21-24	480	29.7	<50	<30	12	70	<1	<1000	<1	<50	<5	<10
27-21-25b	464	19.8	<50	<30	10	70	<1	<1000	<1	<50	<5	<10
27-21-25d	380	27.7	<50	<30	8	30	<1	<1000	<1	<50	<5	<10

Well Site T, R, S	Ga (ug/l)	Ge (ug/l)	Pb (ug/l)	Li (ug/l)	Mn (ug/l)	Mo (ug/l)	Ni (ug/l)	Ag (ug/l)	Sr (ug/l)	Sn (ug/l)	Ti (ug/l)	V (ug/l)	Zn (ug/l)	Zr (ug/l)
27-21-29	77	18.7	70	50	2000	10	<1	<1000	3	<50	<5	10		
28-21-20	365	24.8	<50	<30	21	50	<1	<1000	<1	<50	<5	<10		
28-21-26	235	26.4	<50	<30	7	70	<1	<1000	<1	<50	<5	<10		
27-21-24	<30	30	<30	50	<1	10	<50	<10	100	100	<5	10	10	<5
27-21-25b	<30	30	<30	50	3	10	<50	<10	300	100	<5	10	50	<5
27-21-25d	<30	30	<30	50	7	10	<50	<10	100	50	<5	10	30	<5
27-21-29	100	500	50	100	10	50	<50	<10	1000	1000	10	10	50	<5
28-21-20	<30	30	<30	50	3	50	<50	<10	1000	100	<5	10	300	<5
28-21-26	<30	70	<30	50	3	10	<50	<10	1000	100	<5	10	70	<5

Table 5.2-2. Existing Water Wells in Township 27 North, Ranges 19, 20 and 21 West, and Township 28 North, Ranges 19 and 20 West- Detrital Valley portion. Data excerpted from the ADWR data base on February 24, 2003

ARIZONA DEPARTMENT OF WATER RESOURCES WELL DATA										
				Note: N/D = No Data						
						COLLAR	WATER		WELL	WATER
WELL_ID	T	R	S	Z11UTMX	Z11UTMY	ELEV.	ELEV.	WATERUSE	DEPTH	LEVEL
805903	28	19	16	742900	3966200	4090	3930	STOCK	200	160
614907	28	19	16	742900	3966200	4090	N/D	N/D	N/D	N/D
562690	28	19	27	744753	3963257	4403	4053	DOMESTIC	400	350
637013	28	19	35	745100	3961100	4240	4220	STOCK	40	20
805904	28	19	12	747237	3968361	4030	3940	STOCK	100	90
581698	28	19	21	743080	3965550	4120	3870	COMMERCIAL	705	250
805902	28	20	25	737800	3963300	3440	2990	STOCK	600	450
512241	27	19	9	741900	3957700	3690	3040	DOMESTIC	750	650
562082	27	19	7	739300	3958300	3415	2855	DOMESTIC	735	560
573971	27	19	9	741800	3958500	3720	N/D	N/D	N/D	N/D
576840	27	19	17	741904	3956090	3570	2990	DOMESTIC	665	580
587083	27	19	9	742380	3958210	3765	2885	DOMESTIC	930	740
587342	27	19	17	741120	3957480	3580	2815	N/D	830	533
587712	27	19	9	742500	3958070	3775	2915	N/D	905	705
614906	27	19	2	746100	3960800	4363	4311	STOCK	80	52
621791	27	19	35	745825	3952528	3985	N/D	STOCK	N/D	N/D
621796	27	19	11	746100	3958800	4287	N/D	STOCK	N/D	N/D
621797	27	19	11	746500	3958000	4312	N/D	STOCK	N/D	N/D
637012	27	19	35	745400	3952200	3985	3925	STOCK	100	60
642196	27	19	17	741000	3956800	3525	2945	MUNICIPAL	750	580
642298	27	19	12	747600	3958650	4130	N/D	N/D	N/D	N/D
805900	27	19	12	747600	3958640	4130	4105	N/D	N/D	N/D
805901	27	19	12	747900	3959100	4090	4090	STOCK	N/D	N/D
805905	27	19	2	746200	3960900	4390	4330	STOCK	80	60
807718	27	19	2	746000	3960800	4400	4398	N/D	24	2
807719	27	19	2	745000	3960900	4300	4290	N/D	32	10
528273	27	20	20	730700	3954200	2480	N/D	TEST	N/D	N/D
528471	27	20	19	730500	3955600	2435	N/D	TEST	N/D	N/D
528746	27	20	29	732200	3954100	2560	N/D	DOMESTIC	N/D	N/D
528853	27	20	21	732400	3955700	2520	N/D	TEST	N/D	N/D
531417	27	20	28	733800	3952700	2715	N/D	IRRIGATION	N/D	N/D
531418	27	20	18	730500	3657200	2435	N/D	IRRIGATION	N/D	N/D
531419	27	20	30	730600	3952600	2500	N/D	IRRIGATION	N/D	N/D
531420	27	20	16	733700	3957300	2645	N/D	IRRIGATION	N/D	N/D
532064	27	20	20	730700	3954200	2480	N/D	IRRIGATION	N/D	N/D
532210	27	20	19	730500	3955600	2440	N/D	IRRIGATION	N/D	N/D
532454	27	20	29	732200	3954100	2565	N/D	IRRIGATION	N/D	N/D
532515	27	20	21	732400	3955700	2520	N/D	IRRIGATION	N/D	N/D
534869	27	20	28	733800	3952700	2715	N/D	COMMERCIAL	N/D	N/D

Table 5.2-1 continued

WELL_ID	T	R	S	Z11UTMX	Z11UTMY	COLLAR ELEV.	WATER ELEV.	WATERUSE	WELL DEPTH	WATER LEVEL
534870	27	20	16	733700	3957300	2640	N/D	COMMERCIAL	N/D	N/D
534872	27	20	18	730500	3957200	2434	N/D	COMMERCIAL	N/D	N/D
536066	27	20	20	730700	3954200	2475	N/D	IRRIGATION	N/D	N/D
536362	27	20	29	732200	3954100	2565	N/D	COMMERCIAL	N/D	N/D
536473	27	20	21	732300	3955700	2515	N/D	IRRIGATION	N/D	N/D
538468	27	20	15	735300	3956800	2780	N/D	COMMERCIAL	N/D	N/D
538470	27	20	21	733000	3955500	2550	N/D	COMMERCIAL	1000	N/D
551185	27	20	9	733000	3958300	2640	2070	COMMERCIAL	835	570
576054	27	20	29	731627	3953970	2540	2000	N/D	635	540
583406	27	20	21	732350	3954220	2570	2016	N/D	655	554
583552	27	20	9	733656	3958264	2695	2005	N/D	730	690
585092	27	20	29	730790	3953180	2506	2066	N/D	600	538
601764	27	20	14	736700	3956800	2960	2470	MINING	615	490
621781	27	20	25	738430	3952810	3130	N/D	DOMESTIC	N/D	N/D
637020	27	20	25	738530	3952930	3130	2680	STOCK	600	450
539173	27	21	25	728000	3952800	2475	N/D	DOMESTIC	N/D	N/D
542957	27	21	25	728000	3953400	2460	N/D	DOMESTIC	N/D	N/D
550438	27	21	25	728200	3953300	2455	2009	DOMESTIC	540	446
575891	27	21	25	727970	3953190	2467	2007	N/D	520	460
584114	27	21	25	728605	3953509	2434	2014	N/D	870	320
606080	27	21	13	727600	3955900	2400	N/D	DOMESTIC	550	0
637008	27	21	8	721100	3957700	2950	2800	STOCK	200	150
641388	27	21	24	727900	3955000	2395	1995	DOMESTIC	460	400
642308	27	21	8	721500	3957700	3000	N/D	STOCK	N/D	N/D
642309	27	21	35	727300	3951000	2605	N/D	STOCK	N/D	N/D
803813	27	21	25	728100	3954000	2430	N/D	DOMESTIC	485	N/D
803912	27	21	24	727800	3954500	2430	2000	DOMESTIC	465	430
805897	27	21	25	728800	3952600	2450	2410	STOCK	600	40

Table 5.2-3. Existing Water Wells in Township 27 North, Ranges 18 and 19 West, and Township 28 North, Ranges 18 and 19 West- Hualapai Valley portion. Data excerpted from the ADWR data base on February 24, 2003.

Well ID	T	R	S	UTMX	UTMY	WATERUSE1	WELLDEPTH	WATERLEVEL
642318	27	18	5	207817.8	3961768	STOCK	51	32
532836	27	18	4	209623.2	3961514	NONE	0	0
529783	27	18	4	209623.2	3961514	NONE	0	0
544556	27	18	4	209623.2	3961514	NONE	0	0
522600	27	18	6	205898	3960919	MINING	145	16
637016	27	18	7	206158.5	3959804	STOCK	120	80
642299	27	18	12	214189.7	3959561	STOCK	0	0
805901	27	19	12	205284.6	3960534	STOCK	30	0
642298	27	19	12	204976.3	3960242	STOCK	0	0
805900	27	19	12	205074	3960138	STOCK	60	25
527864	28	18	8	208282.6	3969589	NONE	0	0
527859	28	18	17	208235	3967986	NONE	0	0
533237	28	18	21	209791.4	3966338	NONE	0	0
533238	28	18	22	211398.8	3966284	NONE	0	0
544131	28	18	30	206647	3965128	MONITORING	0	0
548556	28	18	30	206834.8	3964921	MONITORING	600	0
562650	28	18	30	206539.4	3964830	NONE	0	0
525161	28	18	30	206539.4	3964830	NONE	250	0
510959	28	18	30	206539.4	3964830	NONE	0	0
558211	28	18	30	206539.4	3964830	NONE	0	0
539140	28	18	30	206539.4	3964830	NONE	0	0
548559	28	18	30	206539.4	3964830	NONE	0	0
544555	28	18	30	206539.4	3964830	NONE	0	0
544133	28	18	30	206539.4	3964830	NONE	0	0
516523	28	18	27	211342.2	3964678	NONE	150	0
548558	28	18	30	206820.5	3964520	MONITORING	600	0
506611	28	18	30	206135.5	3964440	NONE	0	0
548557	28	18	30	206618.8	3964325	MONITORING	605	0
544132	28	18	30	206813.4	3964319	MONITORING	0	0
521959	28	18	31	205918.9	3963842	NONE	220	0
506610	28	18	31	206106.1	3963634	NONE	0	0
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548571	28	18	31	206481.3	3963216	NONE	0	0
562654	28	18	31	206481.3	3963216	NONE	0	0
550293	28	18	32	208069.6	3963169	NONE	0	0
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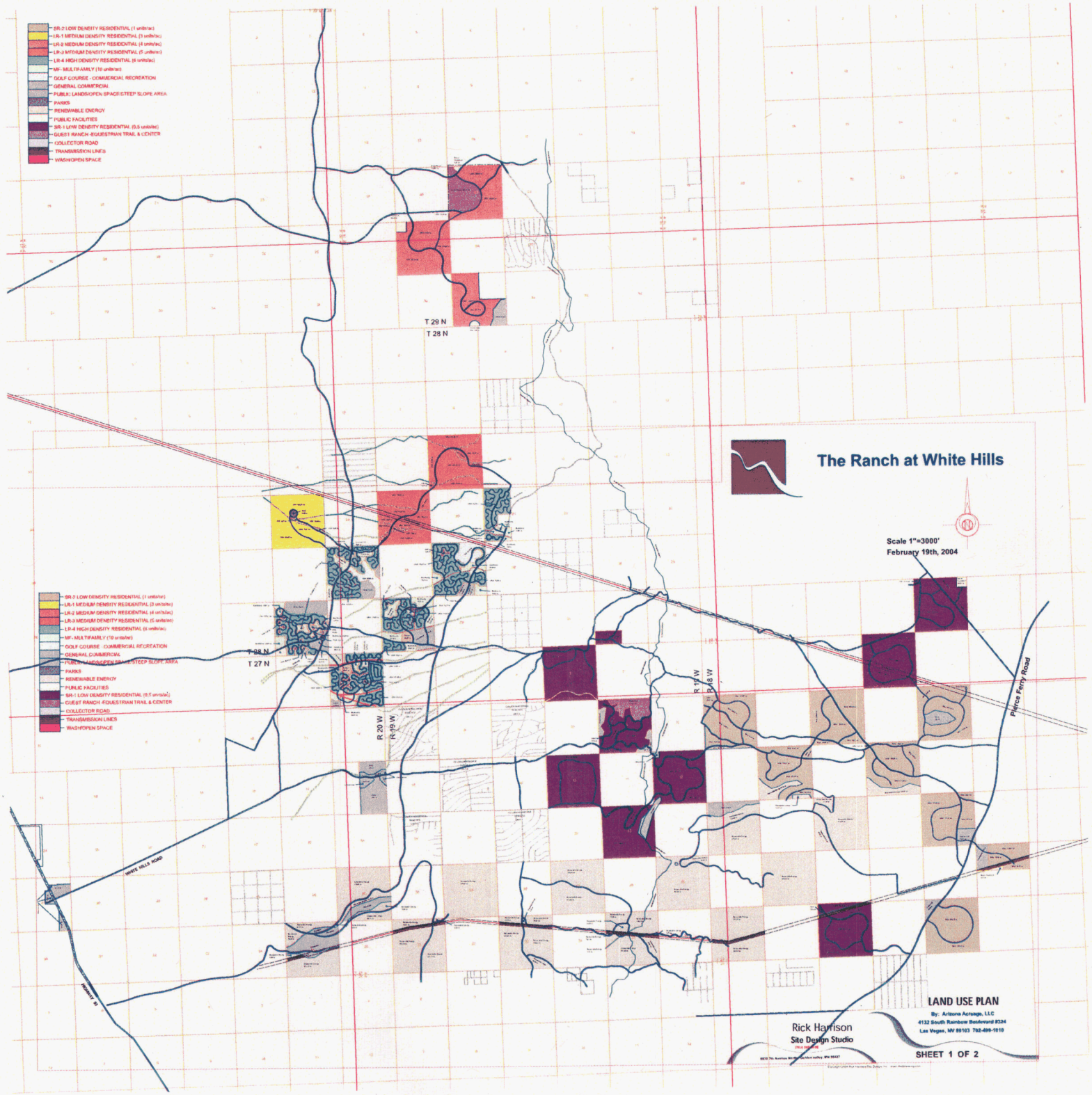
645587	28	18	33	209357.7	3962427	STOCK	200	100
549115	28	18	35	213570.9	3962286	MINING	0	0
558567	28	18	35	213570.9	3962286	MINING	0	0
562827	28	18	35	213570.9	3962286	MINING	0	0
534374	28	19	1	204806.4	3971726	NONE	0	208
534373	28	19	2	203789	3971560	NONE	0	0

Table 5.2-3 continued								
Well ID	T	R	S	UTMX	UTMY	WATERUSE1	WELLDEPTH	WATERLEVEL
550810	28	19	1	205196.6	3971307	NONE	0	0
801720	28	19	12	205554	3970080	STOCK	0	0
805904	28	19	12	205238	3969788	STOCK	100	90
801719	28	19	12	204712.3	3969302	STOCK	0	0
528671	28	19	14	203457	3968144	NONE	500	0
550570	28	19	14	203457	3968144	NONE	0	0
521960	28	19	24	205006.1	3966492	NONE	26	0
562652	28	19	24	205006.1	3966492	NONE	0	0
506614	28	19	24	204391.9	3966312	NONE	0	0
506613	28	19	25	205144.5	3964677	NONE	0	0
506612	28	19	36	205114.3	3963871	NONE	0	0
521957	28	19	36	205520.6	3963856	NONE	120	0
539139	28	19	36	204889.9	3963271	NONE	0	0
562653	28	19	36	204889.9	3963271	NONE	0	0
552160	28	19	36	204889.9	3963271	NONE	0	0


SR-2 LOW DENSITY RESIDENTIAL (1 units/ac)
LR-1 MEDIUM DENSITY RESIDENTIAL (3 units/ac)
LR-2 MEDIUM DENSITY RESIDENTIAL (4 units/ac)
LR-3 MEDIUM DENSITY RESIDENTIAL (5 units/ac)
LR-4 HIGH DENSITY RESIDENTIAL (8 units/ac)
MF- MULTIFAMILY (10 units/ac)
GOLF COURSE - COMMERCIAL RECREATION
GENERAL COMMERCIAL
PUBLIC LANDS/OPEN SPACE/STEEP SLOPE AREA
PARKS
RENEWABLE ENERGY
PUBLIC FACILITIES
SR-1 LOW DENSITY RESIDENTIAL (0.5 units/ac)
GUEST RANCH -EQUESTRIAN TRAIL & CENTER
COLLECTOR ROAD
TRANSMISSION LINES
WASH/OPEN SPACE
T 29 N
T 28 N
T 28 N
T 27 N
R 20 W
R 19 W
R 18 W
R 17 W
WHITE HILLS ROAD
HIGHWAY 93
Pierce Ferry Road
The Ranch at White Hills
Scale 1"=3000'
February 19th, 2004
LAND USE PLAN
By: Arizona Acreage, LLC
4132 South Rainbow Boulevard #324
Las Vegas, NV 89103 702-499-1010
Rick Harrison
Site Design Studio
SHEET 1 OF 2

CAPTURING RAINWATER FOR RECHARGE OF GROUNDWATER AQUIFERS

by

Elno D. Roundy

Introduction

Water - we can't live without it, however, as long as we can turn on the faucet and water comes out most people don't think about the need for future water management and conservation.

In a desert environment the water resource is limited. The important question for the future of water management is how to increase the total water resource.

For me, the idea of capturing rainwater for recharge evolved over a number of years. It is the accumulation of thoughts from a career in Range Management, the chance meeting of new friends and associates, discussions with others about water issues, and the reading of books on the subject. A Range Manager is a Synecologist, or someone who studies the relationship between plant and animal communities and their environment. In particular, they study the relationship between the large ungulate (cow) and the rangeland they occupy and use. Water in the present day aquifers is fossil water dating from the pluvial times of the Pleistocene period (Evanari, 1982, p19). The large herding ungulates using the land until approximately 10,000 years ago were mammoths, mastodons, wild horses, camels, and antelope. (Ward, 1997, p7 & Morrow, 1971). Today, only vestiges of once large herds of antelope remain. The only large ungulate present on the land today to perform the important job of breaking up the soil cap for increased water penetration, preparing a good seedbed for new plants, and trampling down old plant material to create litter (Savory, 1988, p42, p176) are domestic livestock. The hooves of ancient herds, ceased to perform this function long ago.

The formation of a crust or cap on desert soils is a common phenomena in arid environments. Once a crust has been formed, the water infiltration rate is low and run-off increases sharply (Evenari, 1985, p18). Capping is not always obvious on sandy soils but it is almost always present (Savory, 1988, p65).

I first started thinking seriously about the relationship between capped soils and the large ungulate after attending a week long seminar by Allan Savory in 1982 in Albuquerque, New Mexico. Shortly before I retired from the Bureau of Land Management in 1989 we were using a land planning tool developed by Mr. Savory called Holistic Resource Management on a small grazing allotment northwest of Kingman, Arizona in the Sacramento Valley. Part of the plan was studying the effect of the herding animal on water penetration of the soil. The study was on a sandy loam soil which I thought would absorb water readily. It did not. We buried 55 gallon barrels down slope from four separate plots of ground and then collected runoff on the down slope side of each plot and ran the runoff through plastic pipe to the barrels.

Two of the plots were on an area fenced off from cattle use and two were on an area where the cattle used the area and hooves stirred up the soil. The runoff from the area that had no cattle use almost filled up the barrels indicating very little infiltration by the water into the soil. The runoff from the hoof impacted area was less than one-fourth as much indicating a much higher rate of infiltration of water. This study indicates that hoof action breaks up the soil cap and allows greater infiltration of water into the soil. Although this was not a study that meets scientific standards, it clearly demonstrates that the impact of hoof action is worthy of careful consideration.

The idea trail took an interesting turn when I was introduced to Jim Simpson, a retired Bureau of Land Management employee from Phoenix. A civil engineer by education and a mineral surveyor by trade Jim set up a training program for mineral surveying for the BLM and eventually became the number one riparian boundary rights specialist in the United States. A very interesting and learned individual, Jim likes to invent things and try new or, in this case, old ideas. He had read about a rainwater collection process called pitting used on the Negev Desert in Israel. About 25 years ago Jim and his wife bought 200 acres of land along the Sacramento Wash just north of Yucca, Arizona, approximately 20 miles southwest of Kingman. They bought a small tractor and began building what now amounts to over 100 small detention dams or pits in the small washes than run across their property. They planted Paloverde and Desert Willow behind the dams where the water collected, and now have trees 20 – 30 feet high growing where none were before. Jim's original objective was to enhance the value of their property, which he has accomplished. The ancillary benefit is a perfect illustration for recharge of rain water, in addition to erosion and flood control. Today when each small detention basin fills with water it soaks into the ground within 36 hours. The detention structure concentrates the runoff water and allows it to penetrate the soil in a localized area rather than spreading out in the drainages where the majority is lost to evaporation.

Then circumstances took another turn in the mid 1990's when my friend Rob Grumbles, Mohave County Cooperative Extension Agent asked me to serve as a member of the Timber and Grazing sub-committees of the Mohave County Public Land Use Committee. I later became the Water Subcommittee Chairman. The interest in water issues resulted in attendance at a meeting held in Kingman in 1997 by the Arizona Department of Environmental Quality. They were asking if anyone was interested in forming a grassroots citizen watershed group to represent local stakeholders in water quality and quantity issues. Those who attended said they would and we began holding monthly meetings. This eventually led to my Chairmanship of the Northwest Arizona Watershed Council and attendance at Arizona Watershed Alliance meetings. The Alliance is a state wide organization of rural watershed groups who are now being assisted by the Arizona Department of Water Resources. There I met Tom O'Halleran, now a State Representative, who was the driving force behind the formation of the statewide alliance. Tom's enthusiasm and concern for rural water issues was instrumental in keeping me involved and understanding more than ever the importance managing the land surface for an improved water cycle. What struck me as odd in attending these meetings was that nobody talked about recharge except for the artificial recharge of pumping CAP water back in to the aquifer in the metropolitan areas. Although I had in the back of my mind the pitting project of the Simpson's, the significance did not sink in until Truman

Puchbauer, a retired Forester, and a fellow volunteer on the Public Land Use Committee was roaming the internet and found a book called Rivers in the Desert which discussed how the ancient people on the Negev Desert survived by collecting rainwater. References in this book spurred further research on the subject and the name Evanari kept coming up. Eventually we found two books written or edited by Mr. Evanari, The Negev – The Challenge of a Desert and Hot Deserts and Arid Shrublands, both of which delve into this subject in detail and provide research by a host of scientists. The idea is not new, as the people of the Negev would tell us, but it is one that has been revived as a result of the growing world population and subsequent water shortages. Recently a newspaper article was written about a city with a large population in India that was reverting to ancient rainwater catchment techniques to recharge groundwater supplies. We are not alone in our search for a solution.

Ideas are good, but for the most part, lay dormant unless a benefactor comes along who is willing to help get the idea off the ground, or in this case, get the idea implemented on the ground. Here the ground is 25,167 acres of Mojave Desert on *The Ranch at White Hills* (Figure 4) and the benefactors are Leonard and Susan Mardian of Las Vegas, Nevada. I met the Mardians when they hired me to process the paperwork necessary to continue the Agricultural Tax Status on 35,000 acres of private land they had purchased in the White Hills and to process the transfer of two grazing permits with the Bureau of Land Management. Because of this association I had the opportunity to discuss with them the possibilities for water recharge through the collection of rainwater on their property.

The Mardians envision a self sufficient master planned community that is environmentally friendly. As a result of our discussions they began researching the possibilities for collection of rainwater and quickly became advocates for incorporating this idea into their plans. The report presents a proposal to balance the water budget for *The Ranch at White Hills* and it documents scientific data in support of this proposal.

The Need to Increase the Amount of Natural Recharge

The Ranch at White Hills sits within two Basin and Range Aquifer systems in northwest Arizona where the evaporation rate is high. The majority of the precipitation that falls on the land is lost by evaporation from the bare soil surface (USGS, 1995). A large amount of water was deposited in the system several million years ago during the last ice age; however, today the amount of natural recharge from rainfall is minimal. This underscores the need for a program to significantly increase the amount of recharge and store additional water to meet the needs of a growing population.

As a society we essentially have three choices: 1) allocate the existing supply of groundwater to make it last as long as possible 2) import water from an outside source or 3) combine the allocation of existing supply with an enhanced groundwater recharge program.

The third choice is the subject of this report. State law, through the groundwater management code, requires subdivisions to prove a 100 year water supply. The Growing Smarter legislation requires counties to address the available supply as well as effluent quantities and analyze how future growth will be adequately served by those sources. In addition it requires addressing the need to obtain new water supplies. This report specifically addresses how rain water that is normally lost from evaporation will be captured and recharged to the aquifer therefore becoming new water by default.

Ecosystem Setting

The Ranch at White Hills is 25,167 acres in size (39 square miles) and receives drainage from the western and eastern slopes of the White Hills and the eastern slope of the Black Mountains. The watersheds surrounding and including *The Ranch at White Hills* include 246 square miles and lie within the Hualapai and Detrital Valley groundwater basins. (Figure 1).

This part of northwest Arizona is in the Mojave Desert Ecoregion. The vegetation on the Mojave is composed mainly of small to moderate sized perennial shrubs. The exception is the treelike Joshua Tree (Yucca brevifolia) which grows at the higher elevations. The precipitation pattern is bimodal with approximately 60 percent coming during the winter months and approximately 40 percent coming in the summer months. The winter moisture is consistent while the summer moisture is inconsistent. The annual amount is naturally cyclic resulting in periods of drought.

At *The Ranch at White Hills* elevations rise from a low of 2,300 feet above sea level in Detrital Wash on the western side of the property to 5175 feet on top of Table Mountain Plateau to the east. Precipitation increases as elevation rises. Annual precipitation averages 6 inches per year at the 2,300 foot elevation contour and increases to 9 inches per year at approximately the 3,200 foot elevation contour. Above the 3,200 foot contour the annual precipitation increases from 9 inches to 12 inches at the 5175 foot elevation. The Joshua tree characterizes the difference in elevation and moisture. The lower rainfall belt has less density and diversity of vegetation and is dominated by a Creosote Bush (Larrea divaricata)-Bursage (Ambrosia dumosa) Association. The higher rainfall belt has a higher density and diversity of vegetation dominated by a Joshua tree (Yucca brevifolia)-Golden Head (Acamptopappus spherocephalus)-Creosote Bush-Mixed Shrub Association; and a Joshua Tree-Black Brush (Coleogyne ramosissima) Association. (Brown, Lowe & Pace, 1979).

The soils at *The Ranch at White Hills* are predominately Sandy Loams that are well drained with moderate to rapid permeability. About 12 percent of the soil acreage has a hardpan at varying depths of 12-60 inches, 16-20 inches, 73-95 inches and 32+ inches (Draft Soil Survey, NRCS, 2002). Significant portions of the lower elevations in the 6-9 inch precipitation belt have erosion pavement that increases run-off.

The Volume of Water

Approximately 122,259,200,200 gallons or 375,200 acre feet of water falls on the watershed annually above the Detrital Valley Groundwater Basin. Natural recharge to the basin from this precipitation is estimated to be approximately 2125 acre feet per year which is less than one percent of the total. (Table 1).

Approximately 315,027,553,184 gallons or 966,784 acre feet of water falls on the watershed annually above the Hualapai Valley Groundwater Basin. Natural recharge to the basin from this precipitation is estimated to be approximately 4000 acre feet per year which is less than one percent of the total. (Table 1).

For *The Ranch at White Hills* 7,175,615,040 gallons or 22,021 acre feet of water falls *annually*. (Table 2).

The Mechanics of Run-off

"The amount of run off in hot deserts – that is the amount of rain which does not infiltrate where it falls but runs off – is large, and amounts to fifteen to twenty percent (15 to 20%) of the total annual rainfall (Evenari, 1982, p109).

Run-off is a very complex process that depends on several factors including rainfall intensity and duration; temperature, physical and chemical composition of the soil; and catchment characteristics. There is greater run-off in a smaller catchment area. The lower the density of vegetation the greater the runoff and the higher the temperature the greater the infiltration (Evanari, 1985, p 18,19). These factors should correlate to the winter months with cooler temperatures and more consistent rainfall being a key factor in runoff for *The Ranch at White Hills.*

Specifically the mechanics of run-off are as follows: 1) when rain first starts falling it is intercepted by vegetation. The amount required to wet the vegetation is called "interception storage" and is negligible because of the sparseness of the vegetation cover. 2) The next phase is called the "infiltration stage" and is the absorption of the water by the soil. When the rate of rainfall is greater than the rate the soil will absorb it the excess rainfall will first fill the surface depressions. This is called the depression storage. Depression storage usually amounts to approximately .08% per inch of rain. If the rainfall continues after the depression storage is full and at a rate greater than the infiltration capacity of the soil then the excess water accumulates on the ground surface as surface detention and then flows in a thin sheet overland until it concentrates in small rills and drainage depressions and is called run-off (Evanari, 1985, p 135).

When a dry soil is wetted by rain the force of gravity first pulls the water down through the pore spaces into the soil and the molecular forces around the soil particles attract and hold a film of water. Once a film has been formed, only the force of gravity affects the further movement of water in the soil. As the pore spaces fill with water the fine-sized particles on the surface swell. The wetted layer slakes and the fine particles clog the surface layer to form an almost impenetrable crust. This crust

greatly reduces infiltration (Evanari, 1985, p 136). After a crust has formed, there is run-off even with light rains.

The History of Capturing Rainwater in Hot Deserts

The Negev Desert covers the southern part of Israel and is an area approximately 130 miles long and 50 to 60 miles wide. Annual precipitation ranges from approximately 2 inches in the south to 8 inches in the north. (This desert region is comparable in hot desert character and amount of precipitation to the stretch of the Mojave Desert from Yucca, Arizona to Las Vegas, Nevada.)

The Negev Desert was populated during ancient times. **"The most intensive period of sedentary settlement in all of the Negev occurred during the Nabataean-Roman and Byzantine periods, extending from the second century B.C. to the seventh century A.D. This stretch of almost eight hundred years represents the longest period of continuous civilization in the entire history of the Negev. Every possible bit of ground was cultivated and every drop of rainwater was sought. Commerce throve and the population grew as never before. <u>As many as 100,000 people may have lived there then.</u>"** (Glueck, 1959, p xii). This is an amazing number of people in such a dry desert.

Why did this civilization disappear? "The easy and unsubstantiated explanation frequently given for the absence or for the downfall and disappearance of whole kingdoms and cultures in the ancient Near East is to assume climate changes of such a severity as to make the establishment or continuation of civilized life impossible" (Glueck, 1959, p7). Through the scientific dating of pottery Glueck shows that this assumption is incorrect. The real reason for the demise of the culture was new trade routes draining away the people's economic lifeblood and not the drying up of their lands because of a lack of water (Glueck, 1959, p 12) (Evanari, 1985, p 10). (The same unchanged climatic conclusion can be formed for the last 10,000 years on the Mohave Desert. Fecal analysis from 10,000 year old Sloth dung from Rampart Cave in the Grand Canyon show that the extinct sloth would have been eating the same species of plants today.)

Based on six years of research Nelson Glueck's book <u>Rivers in the Desert</u> published in 1959 presents evidence of the existence and viability of the ancient populations of the Negev. Micheal Evenari, Leslie Shanan, and Naphtali Tadmor's book <u>The Negev – The Challenge of a Desert</u> first published in 1971 and again in 1982 uses two decades of research to explain in great detail, how the cultures of the Negev flourished.

A few years ago in southeastern Arizona a rancher began building a series of rock detention structures in the washes of a dry drainage on his ranch. Over a period of years he completed enough of these structures to slow the run-off down and now after a rain the drainage runs water for several weeks. He collects the water in a permanent year round reservoir at the lower end of the drainage. Using historic technology from Mexico, in southern Arizona, another rancher, placed a series of small detention dams on his property and has created year-round surface water where none was before. Both are examples of run-off collection.

The purpose of this report is to establish the fact that rainwater in the Mohave Desert can be collected for recharge. Water recharged into the upper alluvium will eventually become part of the groundwater supply.

Capture of Run-off from Open Desert on The Ranch at White Hills and adjacent land

We know from the experience of Jim and Ruth Simpson that a series of small detention structures in the small drainages will collect the run-off and redirect water to soak in at detention locations. This volume of water concentrated at each site will fill the soil pore spaces more quickly and allow gravity to carry the water beyond the root zone. Eventually this recharge will reach the aquifer. This process may take many years but the objective is to get the process started by collecting run-off which would normally be widely dispersed into small and medium sized sand washes where the majority is now lost to evaporation. This water would not normally reach the major washes (Detrital and Hualapai). The water that is recharged from these local watersheds to the groundwater basin would largely stay in the basin. There may be minimal outflow of groundwater from Detrital and Hualapai Basins due to the presence of bedrock highs between northern part of each basin and the Colorado River.

In those instances where overland flow during flash floods may reach the Colorado River the volume of water would quickly break away the small detention structures and the normal flash flood flow would not be interrupted. Such events would be rare, widely sporadic, and localized. Rebuilding the detention structures after such events would be required.

The proposed detention structures would be small and numerous. Significant engineering would not be required. Construction time per structure would be approximately 10 to 15 minutes with an operator using a rubber tired front end loader with a five yard bucket. The front end loader would excavate soil from the up-wash position and deposit it across the drainage approximately three to four feet in height. A small spillway would be placed on either side in the event the detention basin overflows. Within a five to ten year period the site would re-vegetate with native plant species. Approximately once every ten years maintenance would be required to clean sand and silt from the bottom of the detention basins. It is anticipated that the construction of the detention basins would be a multi-year project and would start from the western side of *The Ranch* and continue eastward. At build-out it is estimated that the detention structures would capture 4713 acre feet of run-off per year for recharge (Table 3).

Improved Water Cycle on Open Rangeland

The Ranch at White Hills is in a unique position because the owners have the rights to the federal grazing allotments including and surrounding *The Ranch* at White Hills. The 246 square mile portion of the White Hills East & West watersheds within

which *The Ranch* at White Hills sits, is directly over portions of the groundwater basins from which *The Ranch* will draw its water. When the build-out of *The Ranch* at White Hills is complete the 157 square miles of open rangeland within the watersheds and surrounding *The Ranch* at White Hills will continue to be managed for an improved water cycle and therefore enhanced groundwater recharge.

During the past 30 years the grazing use in this area has been practically non-existent and the soils have formed the natural crust that restricts water infiltration. *The Ranch at White Hills* currently working with the Bureau of Land Management to develop a cooperative plan for managing the rangeland. This plan will include strategy on how to use the grazing animal hoof action to break up the soil cap, distribute and incorporate dead plant litter into the soil surface, increase vegetation density and in general how to improve the water cycle for enhanced groundwater recharge. When the management plan is completely operational it is estimated that an additional 3120 acre feet of water per year will be recharged as a result of the improved water cycle on open rangeland. (Table 3).

Capture of Run-off from Flash Floods

A large wash drains from the southern end of Senator Valley. It cuts through a portion of the White Hills and drains westward into the main Detrital Wash. This wash is south of *The Ranch* at White Hills and crosses federal and private land. During flash floods this wash carries a large volume of water. There are two options for capturing this water for recharge. 1) Terrace the wash to slow down the water and increase infiltration (Figure 2). 2) Divert a portion of the flow into an existing old gravel pit that would serve as a recharge basin (Figure 3).

Terracing was one of the methods for collecting run-off by the ancient people of the Negev. The diversion into the old gravel pit is already occurring naturally but could be enhanced with a dike and an improved dam below the existing pit. Both of these methods would require significant engineering, calculations of peak flow, permits from the U.S. Army Corp of Engineers, etc. These options may add significantly to the recharge potential and would serve as a means to help balance the water budget for the area as a whole. This appears to be an opportunity for the County to actively participate in meeting its own objectives under the Growing Smarter statute. A cooperative community program between Mohave County, the Bureau of Land Management, and local citizens should be considered. *The Ranch* at White Hills will actively participate in such a program. As an initial first step *The Ranch* will initiate discussions with the BLM to try and acquire Section 34, T26N R20W. The old gravel pit lies in this section.

Capture of Run-off from Large Washes, Roofs, Roads, & Parking Lots

The Ranch at White Hills will be engineered to capture as much flash flood run-off as possible from the large washes that traverse the property by diverting flow into large detention basins. Golf courses will also be designed to collect and divert flow. Collecting run-off from roofs, roads and parking lots for recharge will be a key feature built into the Covenants, Conditions and Restrictions of the development. An estimated 2669 acre feet per year will be recharged from flash floods, roofs, roads, and parking lots. (Table 3).

Summary

The Ranch at White Hills is a 35,000 home master planned community in a desert setting that will include all possible considerations for conservation, reuse and recharge of water. At complete build out in approximately 35 to 40 years the estimated recharge per year, to the groundwater aquifer, as a direct result of *The Ranch's* commitment is a follows:

SOURCE OF RECHARGE	**ACRE FEET PER YEAR**
MOUNTAIN FRONT	527
RUN-OFF THE RANCH AT WHITE HILLS	2277
RUN-OFF FROM LAND ADJACENT TO THE RANCH AT WHITE HILLS	2436
FLASH FLOODS ROOFS ROADS PARKING LOTS	2669
OPEN RANGELAND	3120
TOTAL	**11029**

References

Evanari, Michael; Shanan, Leslie; and Tadmor, Naphtali, 1982. The Negev – The Challenge of a Desert, Harvard University Press.

Evanari, Michael; Noy-Meir, Imanuel and Goodall, David W., 1985. Ecosystems of the World 12A – Hot Deserts and Arid Shrublands, A., Elsevier Science Publishers.

Glueck, Nelson, 1959. Rivers in the Desert: A History of the Negev., Farrar, Straus and Cudahy.

Murrow, Robert E., 1971. Wikieup Paleontological Deposits, Publisher Unknown.

Robson, S.G. and Banta, E.R., U.S. Geological Survey, 1995. Ground Water Atlas of the United States – Hydrologic Investigations Atlas 730-C, United States Government Publication.

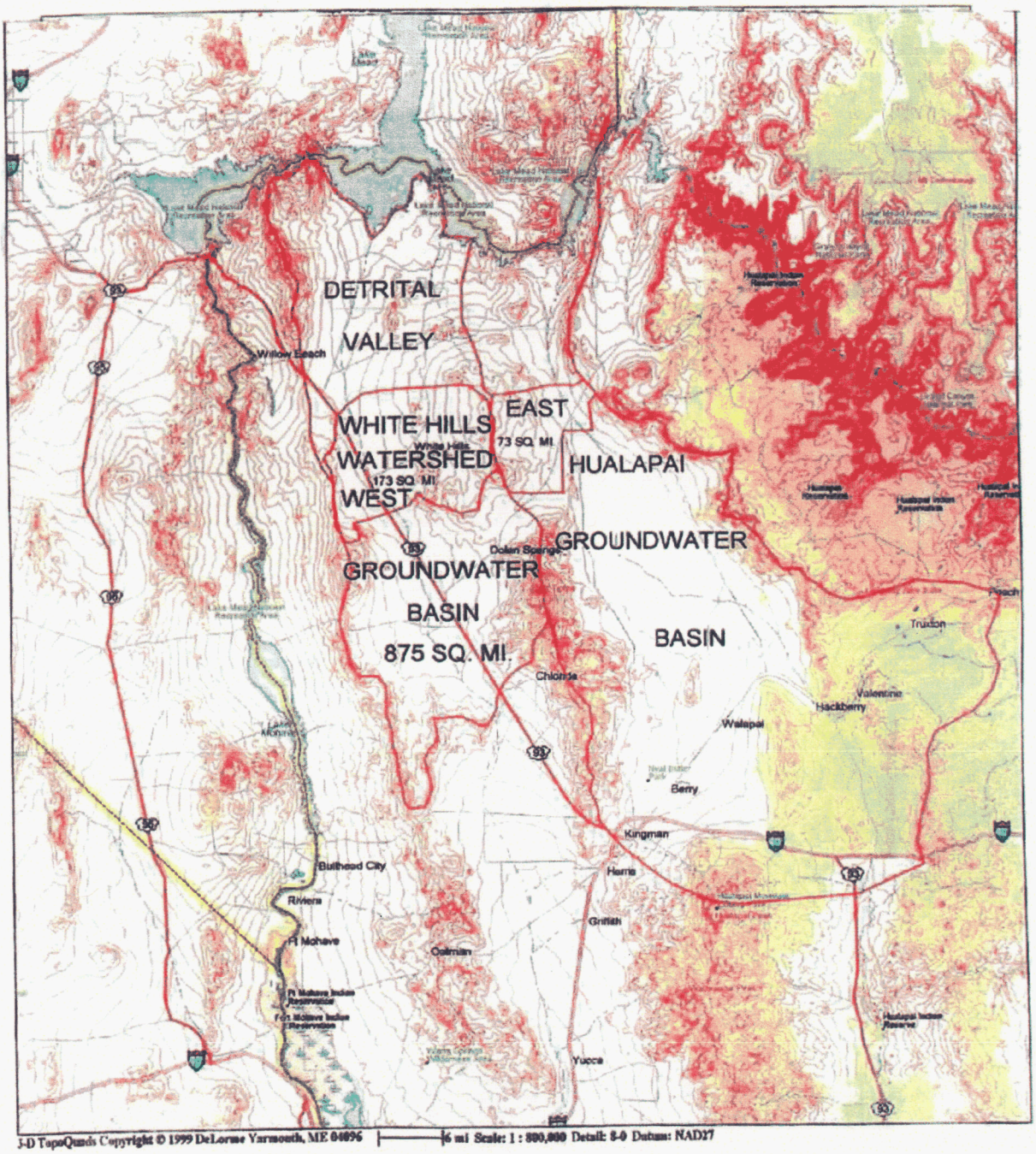
Savory, Allen, 1988. Holistic Resource Management, Island Press.

Ward, Peter D., 1997. The Call of the Distant Mammoths – Why the Ice Age Mammals Disappeared, Copernicus.

Q.E.D.
Tuesday, February 24, 2004

Reviewed and edited by Luis Vega, Registered Professional Geologist

FIGURE 1



Recharge Report
The Ranch at White Hills

FIGURE 2

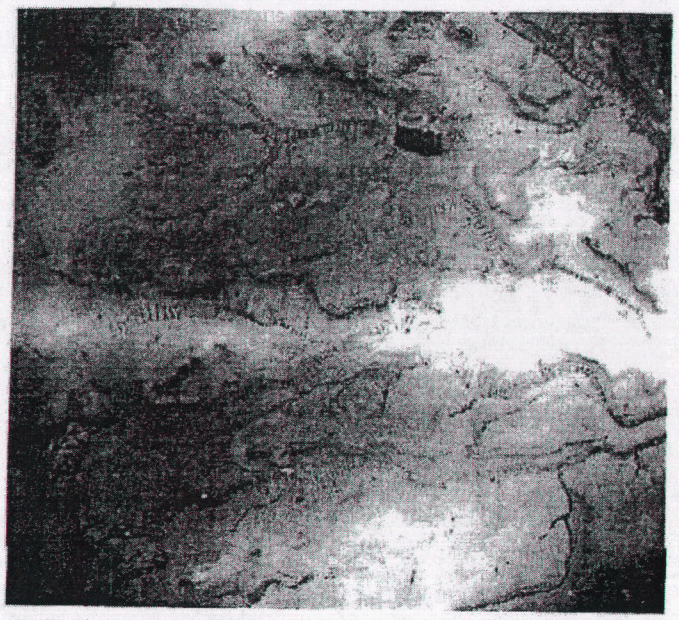
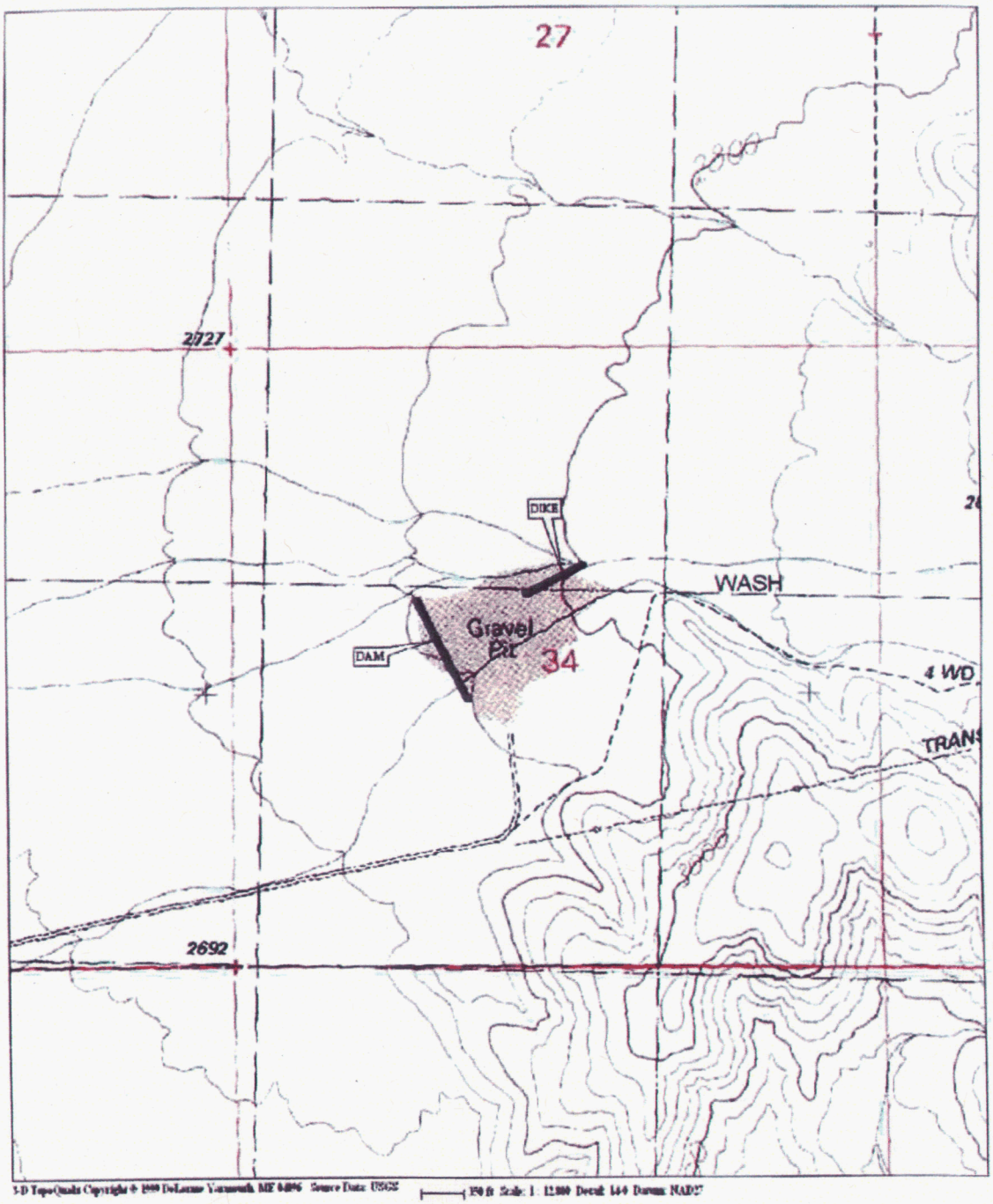


Fig. 62. Aerial photograph of an area containing a great number of terraced wadis. The dark terraces were under cultivation by Bedouins at the time the photograph was taken.

Fig. 63. A terraced wadi.

FIGURE 3



Recharge Report
The Ranch at White Hills

FIGURE 4

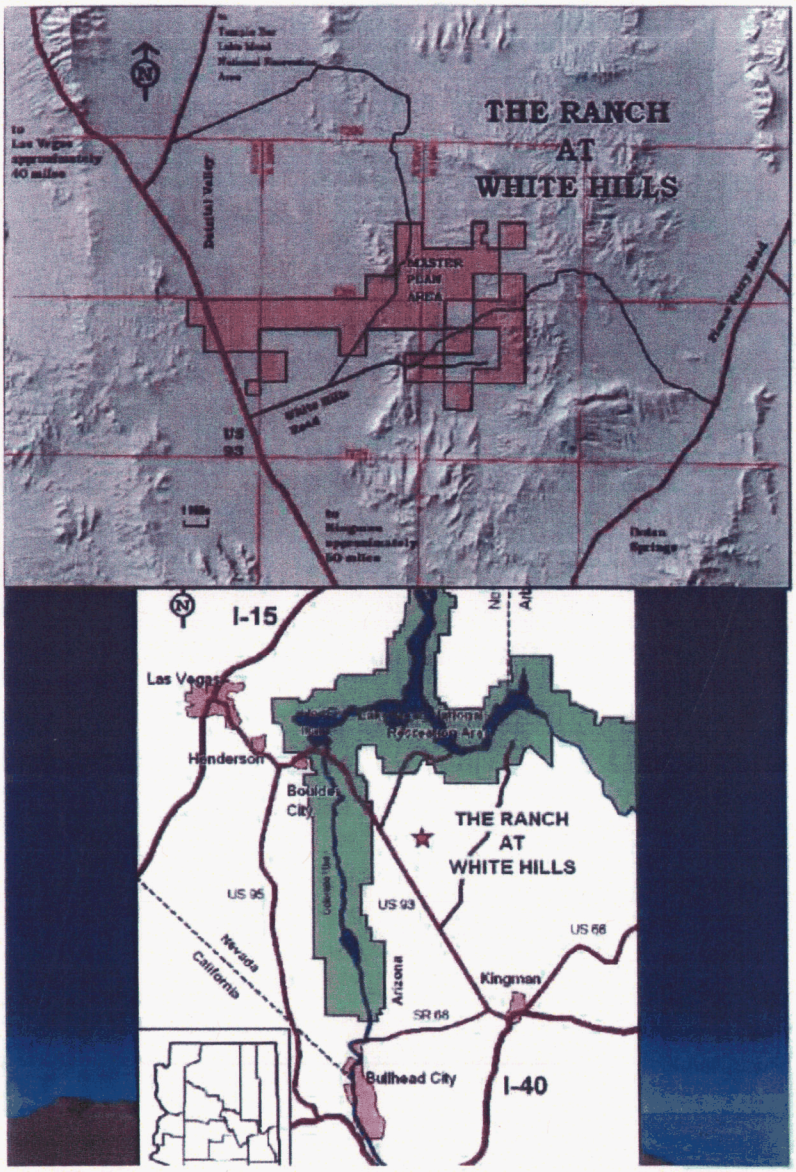

THE RANCH
AT
WHITE HILLS
MOLSTER
PLAN
AREA
US
93
1 Mile
I-15
Las Vegas
Henderson
Boulder
City
THE RANCH
AT
WHITE HILLS
US 95
US 93
US 68
Nevada
California
Arizona
Kingman
SR 68
Bullhead City
I-40

TABLE 1

NATURAL RECHARGE
DETRITAL GROUNDWATER BASIN

SOURCE	DATE	AC/FT/YR
GEO/RESOURCE CONSULTANTS	1982	2600-3900
ARIZONA DEPARTMENT OF WATER RESOURCES	1988	1000
WEIGHTED AVERAGE		2125

NATURAL RECHARGE
HUALAPAI GROUNDWATER BASIN

SOURCE	DATE	AC FT/YR
FREETHEY & ANDERSON	1986	4000

VOLUME OF PRECIPITATION FALLING
ON EACH GROUNDWATER BASIN

NAME OF BASIN	SQUARE MILES IN WATERSHED	AVERAGE ANNUAL PRECIPITATION IN INCHES	GALLONS PER YEAR	ACRE FEET PER YEAR
DETRITAL	875	8	122,259,200,200	375,200
HUALAPAI	1820	10	315,027,553,184	966,784

CALULATIONS:

43,560 SQUARE FEET/ACRE
325,851 GALLONS/ACRE FOOT
AT 8" ANNUAL RAINFALL CONVERSION IS .67 OR 218,320 GAL/AC/YEAR
AT 10" ANNUAL RAINFALL CONVERSION IS .83 OR 270,456 GAL/AC/YEAR
640 ACRES/SQUARE MILE

218,320 x 640 x 875 = 122,259,200,200 GALLONS/YEAR
270,456 x 640 x 1820 = 315,027,553,184 GALLONS/YEAR

TABLE 2

VOLUME OF PRECIPITATION AND RUN-OFF
ON
THE RANCH AT WHITE HILLS

ACRES OF 6-9" PRECIP-ITATION ZONE	ACRES OF 9-12" PRECIP-ITATION ZONE	AVERAGE ANNUAL PRECIP-ITATION IN INCHES	GALLONS PER YEAR	ACRE FEET PER YEAR	ACRE FEET RUN-OFF PER YEAR
0		7.5			
	25167	10.5	7,175,615,040	22,021	3303
		TOTAL	7,175,615,040	22,021	3303

NOTE: In hot deserts the amount of rainfall that does not infiltrate where it falls but runs off amounts to fifteen to twenty percent (15 to 20%) of the total annual rainfall. (Evenari, 1982, p109). The range of precipitation identified in the United States Department of Agriculture, Natural Resource Conservation Service, Range Site Guides which ties certain vegetation to precipitation zones is used in Table 2. Based on estimates of water yields on the Negev the run-off from the 6-9" zone should yield a higher percent of run-off (20%) and the run-off from the 9-12" zone should yield a lower percent (15%).

CALCULATIONS:

43,560 SQUARE FEET/ACRE
325,851 GALLONS/ACRE FOOT
AT 7.5" ANNUAL RAINFALL CONVERSION IS .625 OR 203,657 GAL/AC/YR
AT 10.5" ANNUAL RAINFALL CONVERSION IS .875 OR 285,120 GAL/AC/YR
640 ACRES/SQUARE MILE
0 ACRE FEET x 20% = 0 ACRE FEET OF RUN-OFF PER YEAR
22,021 x 15% = 3303 ACRE FEET OF RUN-OFF PER YEAR

TABLE 3

VOLUME OF RECHARGE BY CATEGORY

SOURCE OF RECHARGE	ACRE FEET PER YEAR DETRITAL BASIN	ACRE FEET PER YEAR HUALAPAI BASIN	TOTAL ACRE FEET PER YEAR RECHARGED
MOUNTAIN FRONT	425	102	527
RUN-OFF THE RANCH AT WHITE HILLS	1029	1248	2277
RUN-OFF FROM LAND ADJACENT TO THE RANCH AT WHITE HILLS	1008	1428	2436
FLASH FLOODS ROOFS ROADS PARKING LOTS	2005	664	2669
OPEN RANGELAND	2280	840	3120
TOTAL	6747	4282	**11029**

CALCULATIONS:

43,560 SQUARE FEET/ACRE-325,851 GALLONS/ACRE FOOT-
AT 7.5" ANNUAL RAINFALL CONVERSION IS .625 OR 203,657 GAL/AC/YR
AT 10.5" ANNUAL RAINFALL CONVERSION IS .875 OR 285,120 GAL/AC/YR
640 ACRES/SQUARE MILE
MOUNTAIN FRONT – PRORATED FROM WEIGHTED AVERAGE (TABLE 1)
THE RANCH AT WHITE HILLS – PRORATED BY PRECIPITATION ZONE (TABLE 2)
ROOFS – ACRES x GALLONS/PRECIP ZONE PRORATED x 75% OF HOMES
ROADS, PARKING LOTS, ETC – ACRES x GALLONS/PRECIP ZONE PRORATED x 95%
OPEN RANGELAND – SQMILESxACFT/YEAR/PRECIP ZONE PRORATED x 50% CATTLE DISTRIBUTION X 75% INFILTRATION X 10% RECHARGE

hydroGEOPHYSICS, Inc.

REPORT ON

GRAVITY SURVEYING FOR THE DETRITAL VALLEY - WHITE HILLS RANCH AREA MOHAVE COUNTY, AZ

PREPARED FOR:
LEONARD MARDIAN
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4132 S. RAINBOW BLVD.
PNB #324
LAS VEGAS, NEVADA 89103
NOVEMBER 2002

By:

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2302 N. Forbes Blvd.
Tucson, Arizona 85745
(520) 647-3315

Geophysical Consulting and Services

November 13, 2002

Mr. Leonard Mardian
Arizona Land Development Corporation
1130 East Missouri Avenue, Suite 110
Phoenix, AZ 85014

Re: Letter Report for Gravity Survey completed for the White Hills, Detrital and Hualapai NW Valley Areas – northwest of Kingman, Mohave County, Arizona

This letter report is intended to describe the results of the gravity investigation completed within and around the White Hills area that is situated between the northern portions of Detrital and Hualapai Valleys.

Executive Summary

1. A gravity study was completed in order to characterize basin geometries and provide alluvial thickness estimations.

2. Regionally, the target area is bracketed by three significant mountainous areas; the Black Mountains to the west, the Music Mountains to the east and the Cerbat Mountains to the south. These mountainous areas are represented within the gravity data as gravity highs.

3. Significant gravity lows exist within the Detrital and Hualapai Valleys. The gravity lows are interpreted as representing deep alluvium which may include substantial thicknesses of anhydrite and salt.

4. In Detrital Valley the strongest gravity low and, hence, the interpreted deepest area in the valley occurs beneath the junction of US-93 and the Pierce Ferry Road.

5. The gravity low that represents Detrital Valley does not extend to Lake Mead.

6. The bedrock definition of Detrital Valley appears to terminate around the same latitude as the junction of US-93 and the Temple Bar Road.

7. This northern terminus of Detrital Valley corresponds with an abrupt change in ground water elevation, further supporting a northern basin boundary.

8. In general, the gravity response within the White Hills area is anomalously low and suggests a relatively thick section of low-density lithologies in spite of the presence of outcropping bedrock-type lithologies.

9. This anomalous gravity low appears to connect the northern ends of Detrital and Hualapai Valleys.

10. The elevated valley (referred to in this report as Senator Valley) between White Hills West and the main portion of the White Hills correlates with a gravity low, suggesting relatively deep low-density volcanics and alluvium.

11. Based on gravity modeling (shown in Figs. 7 and 7a), the Detrital Valley alluvial section is estimated to be between 3,000 and 5,000 feet thick.

12. We suggest through gravity modeling that the White Hills gravity low may be caused by low density media, such as volcanics and alluvium, that are overlain by denser preCambrian lithologies. This would require low angle faulting.

13. Based on gravity modeling (shown in Fig. 8), the basin depth for the Hualapai Northwest area is estimated to be between 3,000 and 5,000 feet. The gravity low in this area could also be augmented by the presence of salt and anhydrite.

14. We recommend some stratigraphic drilling to confirm interpretations thus far and to provide more definitive information for ground water modeling.

13. For the specific purposes of this study, no additional gravity surveying appears warranted, but, because of the unusual gravity responses found within the area, a great deal of fill-in should be done at some time in the future, especially northwards within the area lying between the White Hills and Lake Mead.

Purpose of Study

A better understanding of the basin geometry and alluvial thickness was desired within the Detrital Valley survey areas. Specifically, goals for the investigation include:

1. Characterize basin geometry and geologic controls within the study area,
2. Develop simple, two-dimensional, cross-section models based on the data, and
3. Propose drilling sites for the survey area.

Work Completed

A total of 196 new gravity points were acquired for the Detrital Valley survey area. The points were acquired using a Scintrex CG-3 Autograv gravimeter. Latitude and longitude for the acquired gravity stations were determined using a Garmin emap hand-held Global Positioning System (GPS) unit. Elevations were determined using a combination of both topographic sheet elevations and GPS data.

Additional gravity data were also obtained from United States Geological Survey

(USGS) compliments of Ms. Vicki Langenheim in the Menlo Park Branch. The data were from USGS Open File Report 99-435.

Personnel

Mr. Michael Henley, Geophysicist, acquired all gravity and GPS data for this study. Mr. Henley reduced the gravity data using hydroGEOPHYSICS' proprietary software. Mr. Bart Stewart, Chief Surveyor, provided quality control and final plot presentations. Mr. Chris Baldyga, Geophysicist, completed gravity modeling. Dr. James B. Fink, President, supervised data processing, modeling, and presentation. Mr. Robert McGill, Senior Project Engineer, provided report writing, interpretation, and oversaw project logistics.

Mr. Luis Vega, Consulting Geologist, acted as liaison, provided geologic mapping and logistical guidance for the area. Mr. Bill Allen of Allen Stephenson and Associates, also acted as liaison and provided hydrogeologic input for the investigation.

Survey Logistics

Data were collected over a twelve day period from September 8th through the 19th of 2002, including weekends. One down day (September 17) occurred due to mechanical (vehicular) problems. Additionally, numerous tire punctures slowed production.

Data were collected across a relatively large region in order to best characterize gravity responses and associated basin geometry within the main area of interest. The gravity data were acquired where gaps existed in the coverage and where more detailed information was needed for gravity contour control. The survey area is roughly bounded by power lines to the north and south, US Highway 93 to the west, and Pierce Ferry road to the east. Station spacing varied within the area and was influenced by access and topography.

All gravity stations were accessible by vehicle and most were located along existing roads or trails. A few survey lines were located along drainages accessible only by four wheel drive.

Gravity stations were first located using topographic maps, the station occupied with the gravimeter, and the station's location determined using a handheld GPS unit. Survey data were acquired and presented in this report using the WGS-84 reference spheroid.

Each station was occupied by a Scintrex CG-3 Autograv digital gravimeter. Daily gravity measurement loops were opened and closed using the base station located in front of the memorial within the park at the intersection of West Beale Street and Grandview Avenue, Kingman, Arizona. Base station coordinates are 35.18999° north latitude and -114.06062° longitude. The absolute gravity value used for the base station is 979438.433 mGals.

Data Reduction

Gravity data reduction steps include: conversion from dial reading to milligals, removal of solid earth tidal effects, removal of instrumental drift, adjustment of milligal value to the regional base station value to produce absolute gravity value, removal of latitudinal effects, correction for elevation (Free Air Anomaly or FAA), correction for the Bouguer slab (Simple Bouguer Anomaly or SBA), and removal of terrain effects (Complete Bouguer Anomaly or CBA). A regional trend was then removed to produce the Residual Bouguer Anomaly (RBA).

The density used for the Bouguer slab reduction is 2.67 grams/cubic centimeter (g/cc) which is the crustal average for the earth.

After comparison with the Arizona state gravity survey regional generated by Dr. Carlos Aiken (PhD - UofA, 1974) we decided a planar regional was adequate. The state-wide regional trend was determined using a two-dimensional Fourier series surface based on regional elevation trends and deep-crustal density compensation. In the project area the regional changes are modest and planar approximation is suitable. Modeling and interpretation are based on the RBA results.

Gravity is measured as acceleration due to gravity, or gravitational force per unit mass. Final data values are presented in units of milligals (abbreviated mGal) which is 10^{-3} Gal (1 Gal = 1 cm/s^2 = 10^{-2} m/s^2 = 10^{-2} newton/kg). The Earth's nominal gravity is 980 Gal. The units are named for Galileo Galilei (1564-1642), an Italian physicist.

After the new data were quality checked, they were then integrated into hydroGEOPHYSICS' gravity database. No points were rejected from the newly acquired data set. A few points were rejected from the USGS data set.

Data Presentation

The data were combined with additional database points including University of Arizona (UofA) and USGS data points. These combined points were then plotted in plan format and contoured.

At the request of Mr. Bill Allen, a series of plot was developed in order to display basin relationships further to the north. The regional gravity data are shown in Figures 1, 2, 3, and 4.

Figure 1 is the contoured Residual Bouguer Anomaly (RBA) overlying scanned topographic maps. Gravity stations acquired for this investigation are shown in blue, existing data base points are shown in red (UofA) and green (USGS). Figure 2 displays the gravity values in color contour format. Figure 3 displays the values in a three-dimensional format. Figure 4 is a colored, three-dimensional elevation map created by

overlaying the contoured Residual Bouguer Anomaly (RBA) on a Digital Elevation Model (DEM) of the area. The gravity data points and topographic maps are not plotted in this map to minimize visual clutter. The contour interval in Fig. 4 is 1.0 mGal.

The second series of plots shows the gravity data focused in on the investigation site area. The profile lines used to generate the two-dimensional basin models are shown as red lines, labeled A-A', B-B', and C-C'. Figure 5 is the contoured Residual Bouguer Anomaly (RBA) overlying scanned topographic maps. Figure 6 displays the gravity values for the same focus area in color contour format. The contour interval in Figures 5 and 6 is 1.0 mGal.

Figures 7 and 7a represent two versions of the two-dimensional modeled cross-section of profile A-A' taken from the RBA contour map (Fig. 5). Model elevations are given in feet on the left axis. Distance along the x-axis represents cross-sectional distance along profile in kilometers, relative to an arbitrary point in the Black Mountains, and increases from the southwest to the northeast. The residual gravity values used for modeling are indicated above the model for reference.

Figure 8 represents the two-dimensional modeled cross-section of profile B-B' taken from the RBA contour map (Fig. 1). Model elevations are given in feet on the left axis. Distance along the x-axis represents cross-sectional distance along profile in kilometers, relative to an arbitrary point in the Cerbat Mountains, and increases from south to north. The residual gravity values used for modeling are indicated above the model for reference.

Figures 9 and 9a represent the two-dimensional modeled cross-section of profile C-C' taken from the RBA contour map (Fig. 1). Model elevations are given in feet on the left axis. Distance along the x-axis represents cross-sectional distance along profile in kilometers, relative to an arbitrary point in the Black Mountains, and increases from west to east. The residual gravity values used for modeling are indicated above the model for reference. Figure 9 shows a relatively complex geologic model, while Figure 9a shows a single density contrast model more typical of basin alluvial fill and ignoring the known surficial geology.

Data Interpretation

General Overview

Figure 1 shows a contoured plan map of an area much larger than that of our ultimate focus. This broader overview aides in the regional placement of the target area and qualitatively determines the appropriateness of the regional removal step. Considering the extremely unusual results of the gravity compilation, this regional perspective is very important.

At a large scale, the target area is bracketed by three significant mountainous areas; the

Black Mountains to the west, the Music Mountains to the east, and the Cerbat Mountains to the south. The target area lies within and around what are described as the White Hills.

From a regional geologic perspective, the White Hills appear to be a northerly continuation of the Cerbats. The gravity data suggest otherwise. The important point, at this scale, is that the three mountainous regions are represented in the gravity data as highs, suggesting that they are made up of crystalline, basement-type lithologies or equivalent. Furthermore, the relative amplitudes (strength of gravity) for the three mountainous regions are sufficiently similar to justify the regional trend used. Considering that the regional trend is reasonable, any modeling performed based on the residual gravity data should not require any additional adjustments or "local" compensations.

Superficially, the area conforms to basin-and-range topography. Basin-and-range topography is characterized by its repetitive horst-and-graben structures. The typical gravity response in a basin-and-range environment is to show high values over the horsts and low values over the grabens. High gravity values over horsts are generally accepted to indicate the presence of crystalline basement or a "root" beneath whatever lithologies represent the mountain. Low gravity values are accepted as representing the intermontane basins full of low-density alluvium. This is the pattern seen in the majority of southwestern basins. A portion of the present survey differs substantially from this trend.

There are two areas of significantly low gravity responses; a) the southern portion of Detrital Valley and b) nearly all of Hualapai Valley. At first glance, these gravity lows are expected for the intermontane basins. However, it has long been known that there are significant thicknesses of low density salt and anhydrite in Hualapai Valley. Such thicknesses of low density material will certainly produce a gravity low, indeed a lower gravity-low than would normally be encountered in a more typical basin. The gravity low in the southern portion of Detrital Valley may also be augmented by the presence of salt or anhydrite, but this is yet to be proven. Regardless of the presence or absence of salt or anhydrite, the gravitational response for these two basins is reasonable. This is mentioned specifically because, as will soon be pointed out, the alluvial basin in the northern portion of Detrital Valley does not seem to follow the pattern.

The gravity low that extends northward from the main portion of Detrital Valley begins to plateau at approximately latitude 35.75 (decimal degrees). Based on the gravity data presently available, it does not appear that the gravity low – which represents alluvial sediments – continues northward from this northern latitude. The gravity plateau correlates with ground water elevation contours that also plateau within the same region (Bill Allen, personal communication, November 15, 2002).

Our specific area of investigation lies within the White Hills area and the gravity response is, in general, anomalously low. We anticipated a gravity high over the White Hills because of the numerous mapped occurrences of preCambrian lithologies associated with the White Hills. However, based on the gravity results, the White Hills area appears

instead to be composed of low density material such as alluvium and volcanics rather than preCambrian bedrock. This is discussed further in the following section.

White Hills Area Discussion

The target areas for the gravity survey consist of:

1. (Project Area 1) the elevated intermontane valley ("Senator" Valley) between the White Hills West and the White Hills proper;

2. (Project Area 2) a limited portion of Detrital Valley adjacent to, and west of, the White Hills West area; and

3. (Project Area 3) a northwesterly extension of Hualapai Valley into the White Hills due east of the aforementioned areas.

All three of these areas are represented by gravity lows. It is the relationship of these gravity lows to the surrounding area that we are both interested in, and that poses problems.

To begin with, we conclude that Project Area 2 (immediately west of the White Hills West) is indeed an alluvial basin. It appears to be a northerly extension of the deeper portion of Detrital Valley (ignoring possible effects due to salt or anhydrite). Two-dimensional modeling suggests a depth of approximately 2,000 to 3,000 feet (refer to model profile C-C') in Project Area 2. The basin-bounding gravity gradient on the west side of Project Area 2 is roughly in the vicinity of Highway 93. The basin-bounding gravity gradient on the east side of Project Area 2 is displaced well west of the outcrop representing the White Hills West. We estimate the basin edge to be roughly 1½ miles west of the map symbol for the Occident Mine.

The area of outcrop referred to as White Hills West is regionally mapped as volcanics, gneiss, and granite (Luis Vega, personal communication). This type of surface geology, specifically gneiss and granite lithologies, is usually represented by gravity highs.

Referring to Figures 5, 6, and the focus area geologic map completed by Luis Vega (included with other project reports), the gravity high that separates the main Detrital Valley from the intermontane area that is located to the east of the gravity high correlates with mapped Pre-Cambrian gneiss (Xgn). The gravity high suggests that within this area, the gneiss is somewhat "rooted" and-or has significant thickness. As we move northeasterly, towards the elevated valley area (herein referred to as Senator Valley), the gravity low corresponds with mapped outcroppings of the Mt. Davis volcanic unit (Tbx) as well as recent alluvial deposits. The gravity low within the Senator Valley area is suggestive of thick deposits of alluvium and low-density volcanics. Both of these units are considered good aquifer material, especially the alluvium. Within the Senator Valley area, at least one supply well exists (for another, much smaller, development) and is

known to penetrate at least 600 feet of alluvium without encountering bedrock. This well supports the interpretation of somewhat deep deposits of alluvium within the Senator Valley area.

The gravity low continues to be pervasive within the southern and central portions of the White Hills area. Mr. Vega's geologic map shows large outcroppings of monzogranite (Xpm), gneiss (Xgn), and two-mica granite. Geologically, these rock units are usually thought of as hydrologic bedrock and continue at depth, due to the age of the rocks and their composition. The gravity responses, however, suggest that these units may be "non-rooted" and may have been transported from outside of the immediate focus area to their current emplacement. The most sensible explanation – supported by the many low angle faults found within the area and region – is that these hard rock units were somehow emplaced by tectonic forces. The mapping completed by Mr. Vega supports this broad hypothesis, but needs to be supported by future drilling efforts.

It should be noted that many different geologic conditions, or models, can cause the same gravity response. We have tried to use as simple models as possible in order to evaluate the results.

Whatever may be the geologic conditions, the White Hills area is represented by a gravity low. The White Hills gravity low appears to suggest that – hydrologically speaking – the area may be connected in some degree with the Detrital and Hualapai Valleys. Thus, it is conceivable that ground water flow may be continuing northwards from the Hualapai and Detrital Valley areas into the White Hills-Senator Valley area. Based on the gravity lows alone, it is reasonable to assume that ground water for the White Hills area (especially within the Senator Valley area) is offered recharge from the northern extensions of these two major valleys.

Two-Dimensional Model Results

Modeling Discussion

Gravity modeling is performed by assigning specific densities to polygonal bodies that represent geologic features and calculating the cumulative gravitational response. In the case of basin-fill alluvium it has been determined through borehole gravity measurements that an appropriate general range for alluvial densities is 2.00 to 2.40 grams/cubic centimeter (g/cc). The differences between the background density of 2.67 g/cc (global crustal average) and a range of three values representing alluvium used for this modeling are: -0.3, -0.4, and –0.5 (negative because alluvium is less dense than bedrock).

Modeling and interpretation are based on the contoured residual values. The approach to modeling requires making certain assumptions, some of which we know at the outset are inaccurate, but, for the purposes of first-order approximation, we can live with their shortcomings. We have a choice of three basic modeling procedures, each more complex than the previous; one-dimensional (that is, a simple layered earth geometry), two-

dimensional (where profiles cross bodies of arbitrary cross-section but have infinite strike-length), and three-dimensional (where bodies of finite width, breadth, and length are used). The amount of data available generally dictates the type of modeling procedure that may be used. Three-dimensional modeling, for example, requires high data-point density. Once a modeling procedure is selected, a range of densities must be selected that should bracket the anticipated bedrock or body density. Modeling performed for this study was limited to two-dimensions.

We completed three gravity model transects (A-A', B-B', C-C'). They are presented in Figures 7, 7a, 8, 9, and 9a.

Referring to Figures 7 and 7a (model A-A') and assuming relatively simplistic geology, the intermontane (Detrital Valley) sediment package is estimated to be between 3,000 and 5,000 feet. Moving easterly along the model, the alluvial package thins substantially to approximately 2,000 feet. The model suggests that the geologic package slowly increases in thickness towards the White Hills gravity low. The gravity response within this low area suggests a thickness of low-density material of over 7,000 feet. The specific geologic formations that are causing the gravity low cannot be determined using gravity alone. Figure 7a shows that even deeper alluvial deposits within the White Hills area could cause the same gravity response.

Referring to Figure 8 (Model B-B'), the intermontane sedimentary package is estimated to be between 3,000 and 5,000 feet thick. However, the proximity to known salt deposits within the Red Lake area could mean that this gravity low extension is caused by northwesterly continuing salt and anhydrite deposits.

Referring to Figure 9 (Model C-C' and A-A'), the model suggests an alluvial depth of approximately 2,000 to 3,000 feet in Project Area 2. The "gap" in continuity of the gneiss (which is used for all hard rock lithologies within the area) is modeled due to the gravity low apparent at station 20.5. The slight increase in the gravity response near the juncture of C' and A may be caused by an increased thickness of hard rock material. The gravity low occurring at station 28 km is modeled as both a thinning of hard rock, as well as a thickening of alluvial/low-density material.

Recommendations

For the specific purposes of this study, no additional gravity surveying appears warranted, but, because of the unusual gravity response in the area, a great deal of fill-in should be done at some time in the future, especially northwards within the area lying between the White Hills and Lake Mead.

Geologic mapping should be performed keeping in mind the possibility of large-scale thrusting or detachment faulting (this has already been accomplished).

We ***strongly*** recommend that any well drilled on the ranch be pushed to bedrock to confirm the depth to bedrock. This is essential for hydrologic modeling purposes and will be the best indicator of well longevity. It will also allow the gravity modeling to be refined and better constrained. Relevant gravity modeling should be repeated incorporating the new geologic information derived from drilling.

We suggest that at least three deep boreholes be completed. One in the center of the main gravity low within the White Hills area where monzogranite outcrop exists, a second within the Hualapai northwest area, and a third within the northern extension of Detrital Valley. A fourth borehole within the elevated valley area would also prove useful, but should be decided upon based on other ADWR data of existing wells.

Specific locations should be decided upon based on other team member's data and input.

If you have questions or concerns, please feel free to call us at your convenience.

Best Regards,

James B. Fink, Ph.D., P.E. (geophysical), R.L.S.	Robert L. McGill, EIT
President	Senior Project Engineer

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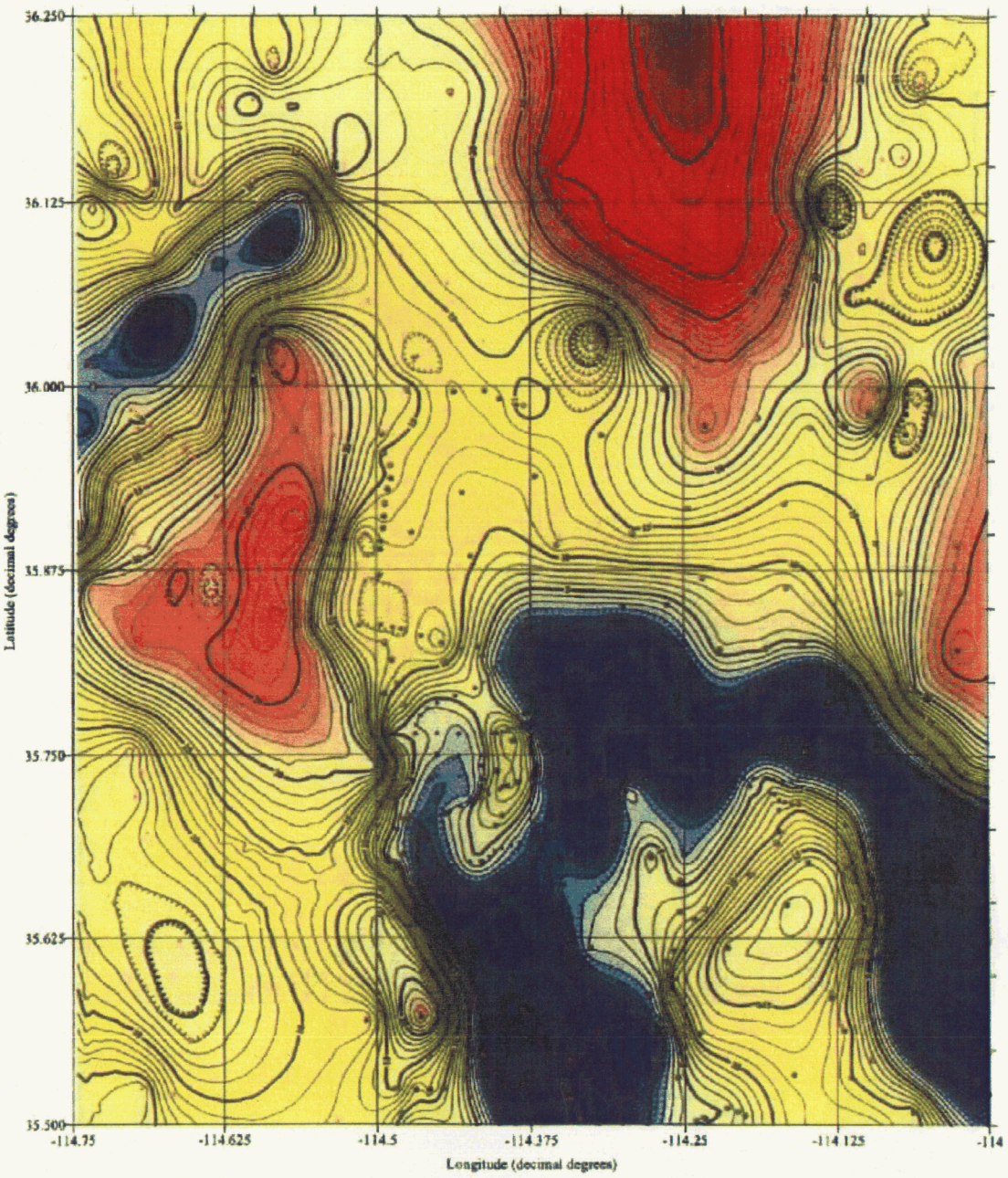
FIGURES

hydroGEOPHYSICS, Inc.

Residual Bouguer Anomaly



Contour interval: 1 mGal

● = U of A database

● = USGS

● = *hydroGEOPHYSICS, Inc.*

N

Geophysical Survey

AZLD
Detrital Valley
Mohave County, AZ

14742

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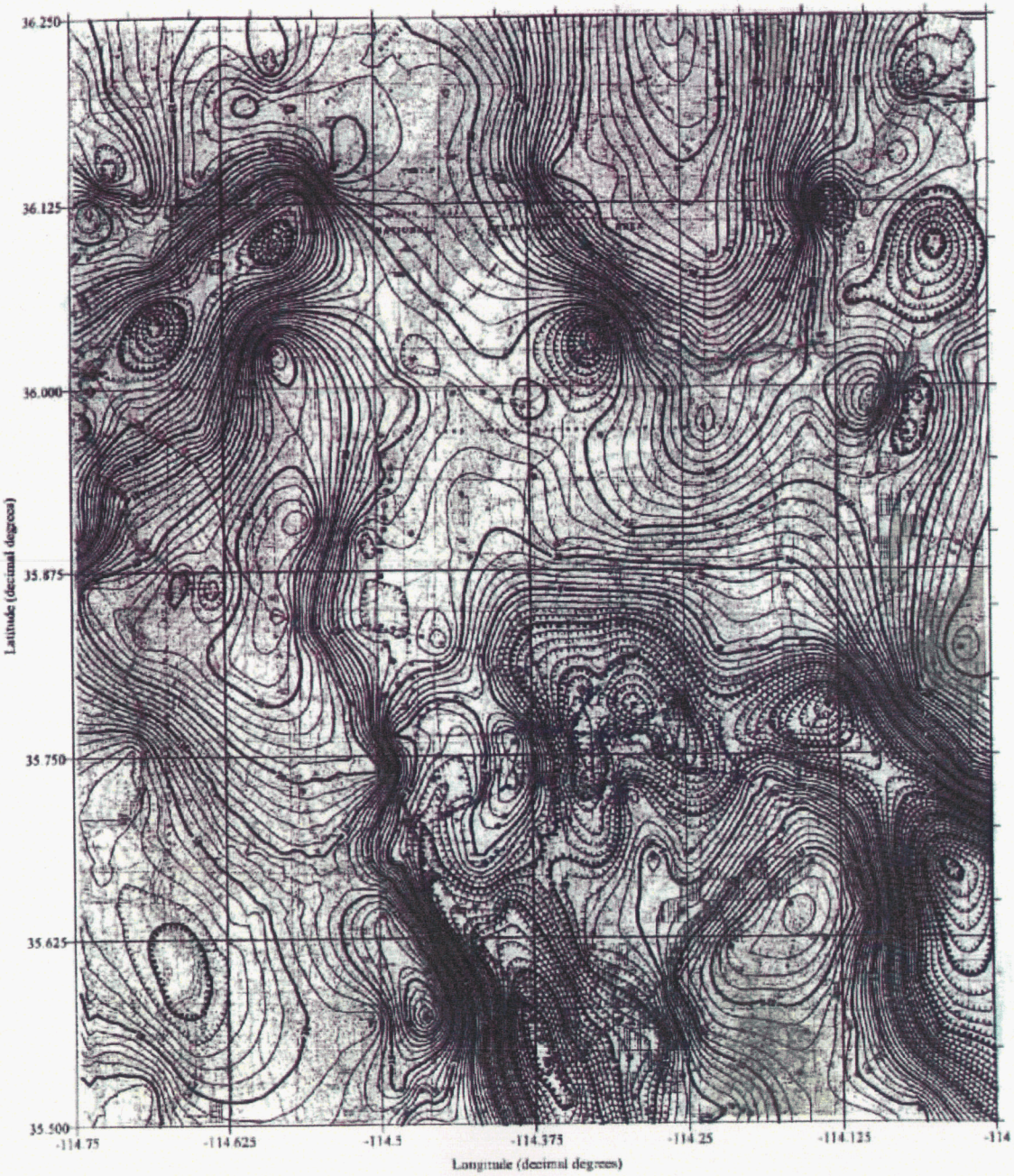
hydroGEOPHYSICS, Inc.

Residual Bouguer Anomaly



Contour interval: 1 mGal

● = U of A database

● = USGS

● = hydroGEOPHYSICS, Inc.

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Geophysical Survey

AZLD
Detrital Valley
Mohave County, AZ

14742

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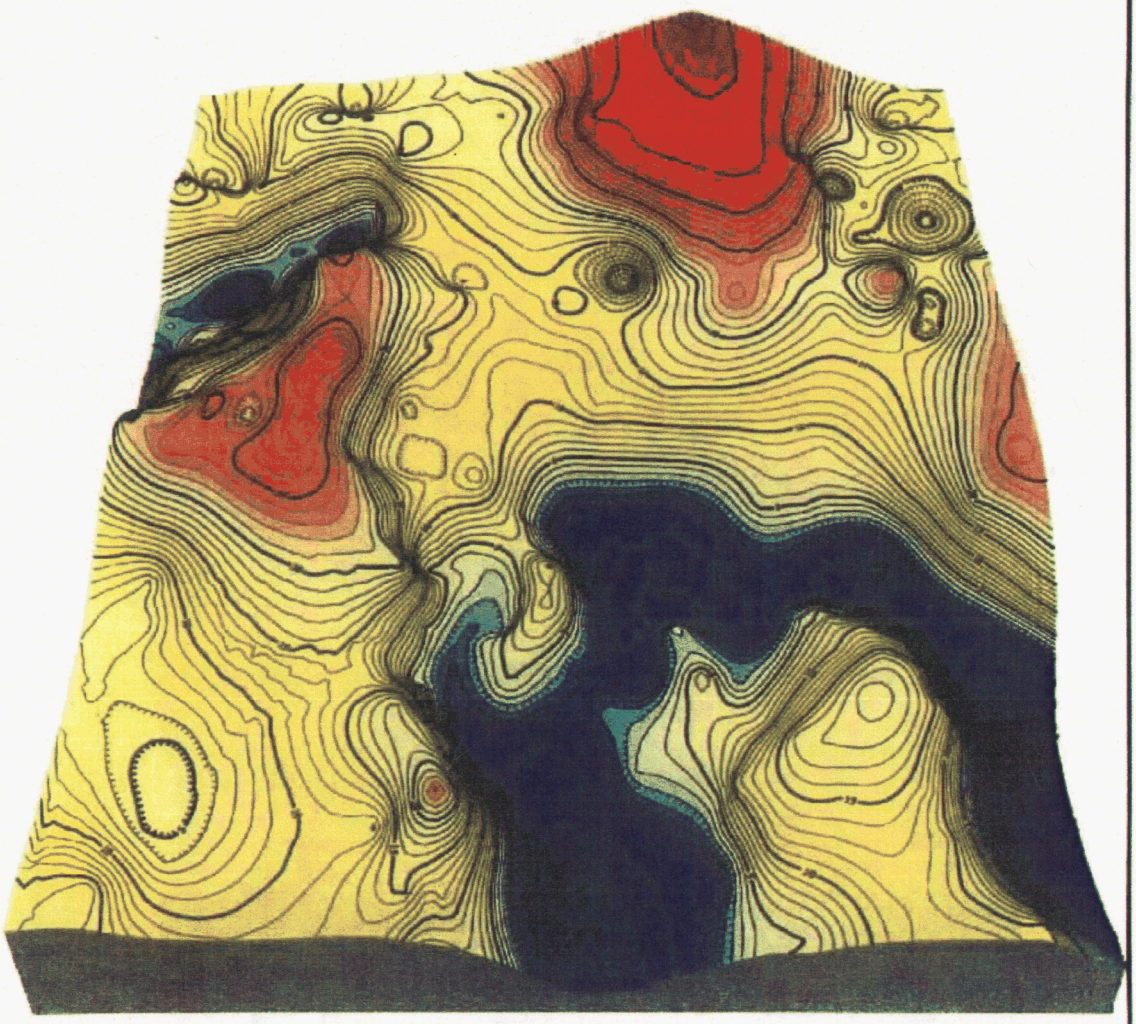
hydroGEOPHYSICS, Inc.

Residual Bouguer Anomaly



Contour interval: 1 mGal

● = U of A database

● = USGS

● = *hydroGEOPHYSICS, Inc.*

N

Geophysical Survey

AZLD
Detrital Valley
Mohave County, AZ

14742

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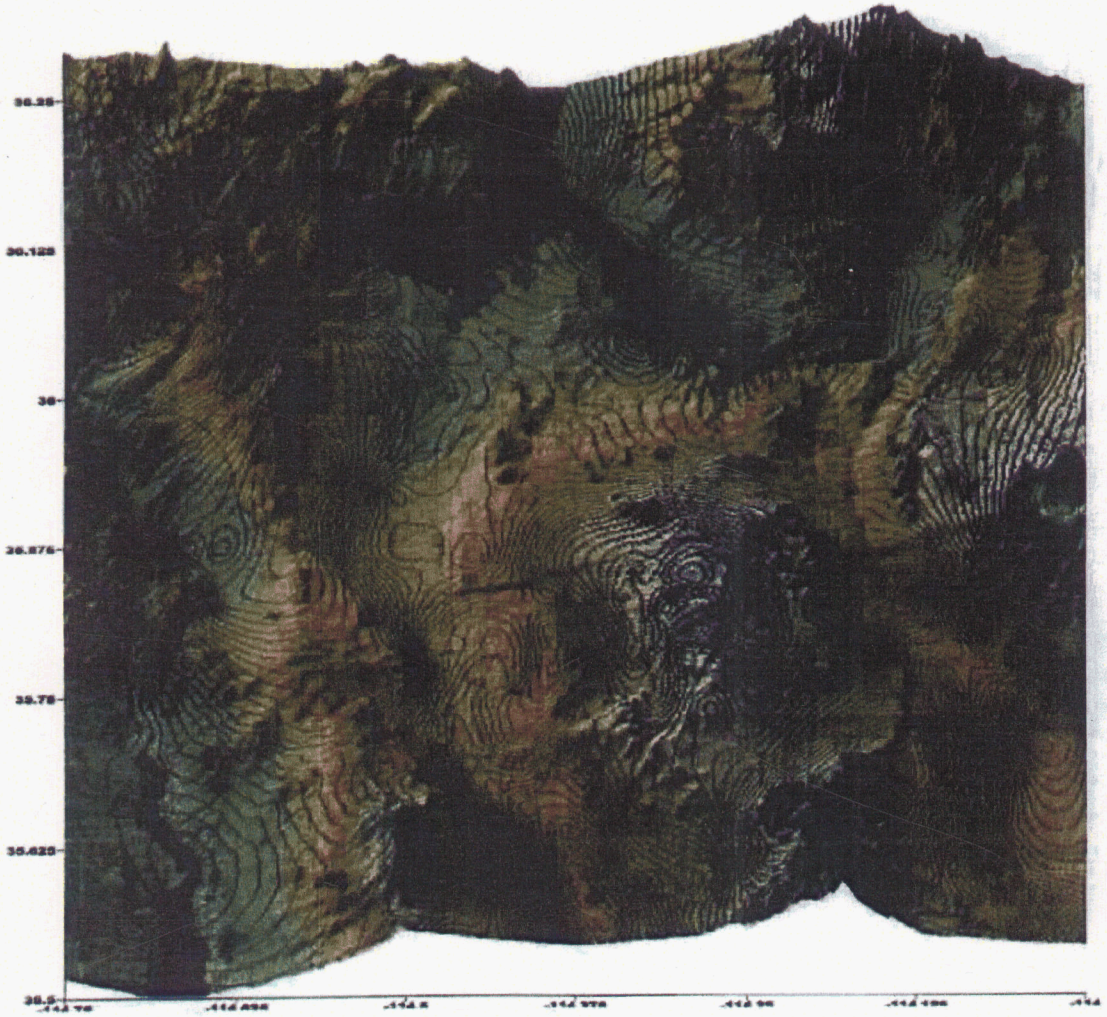

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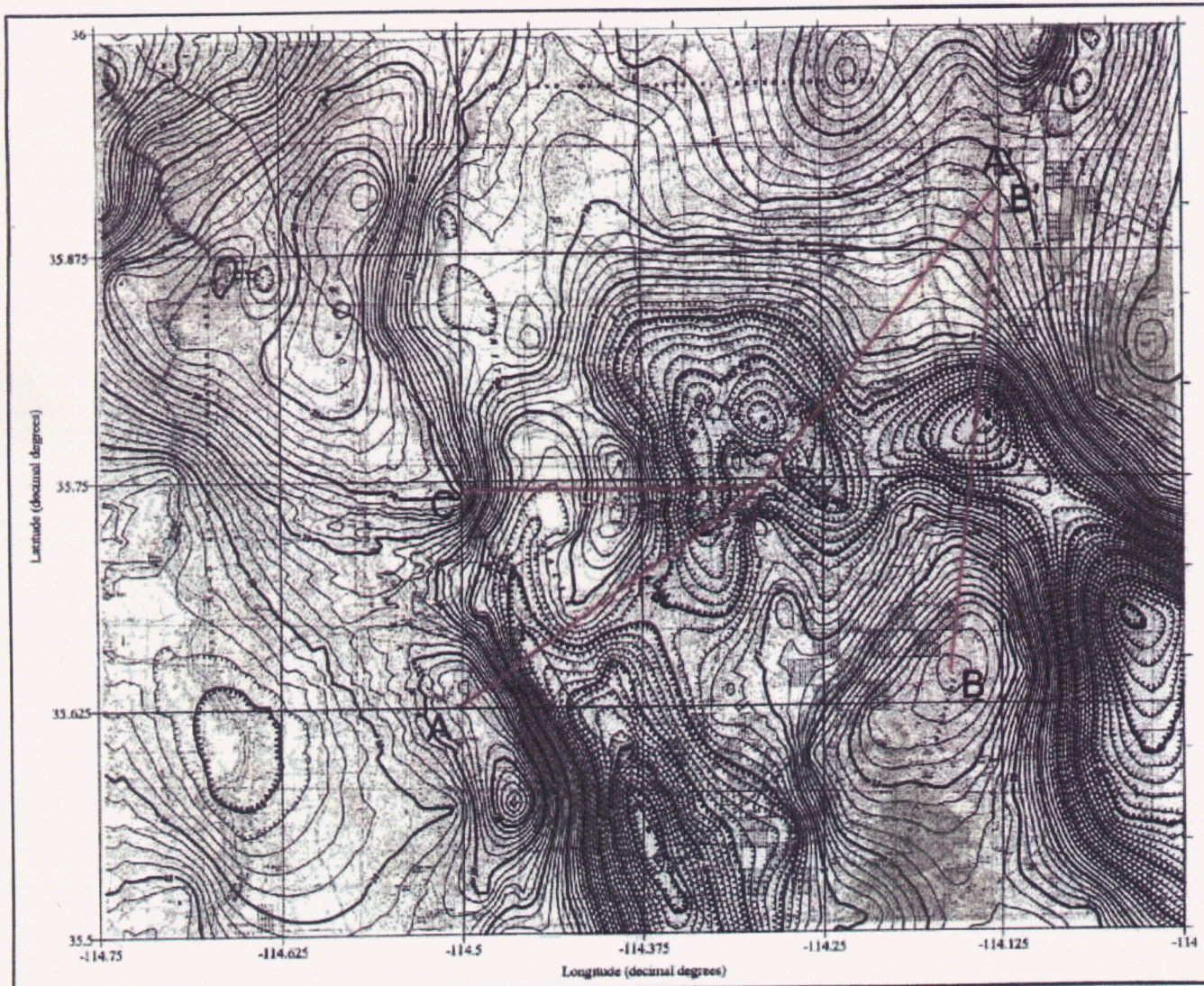

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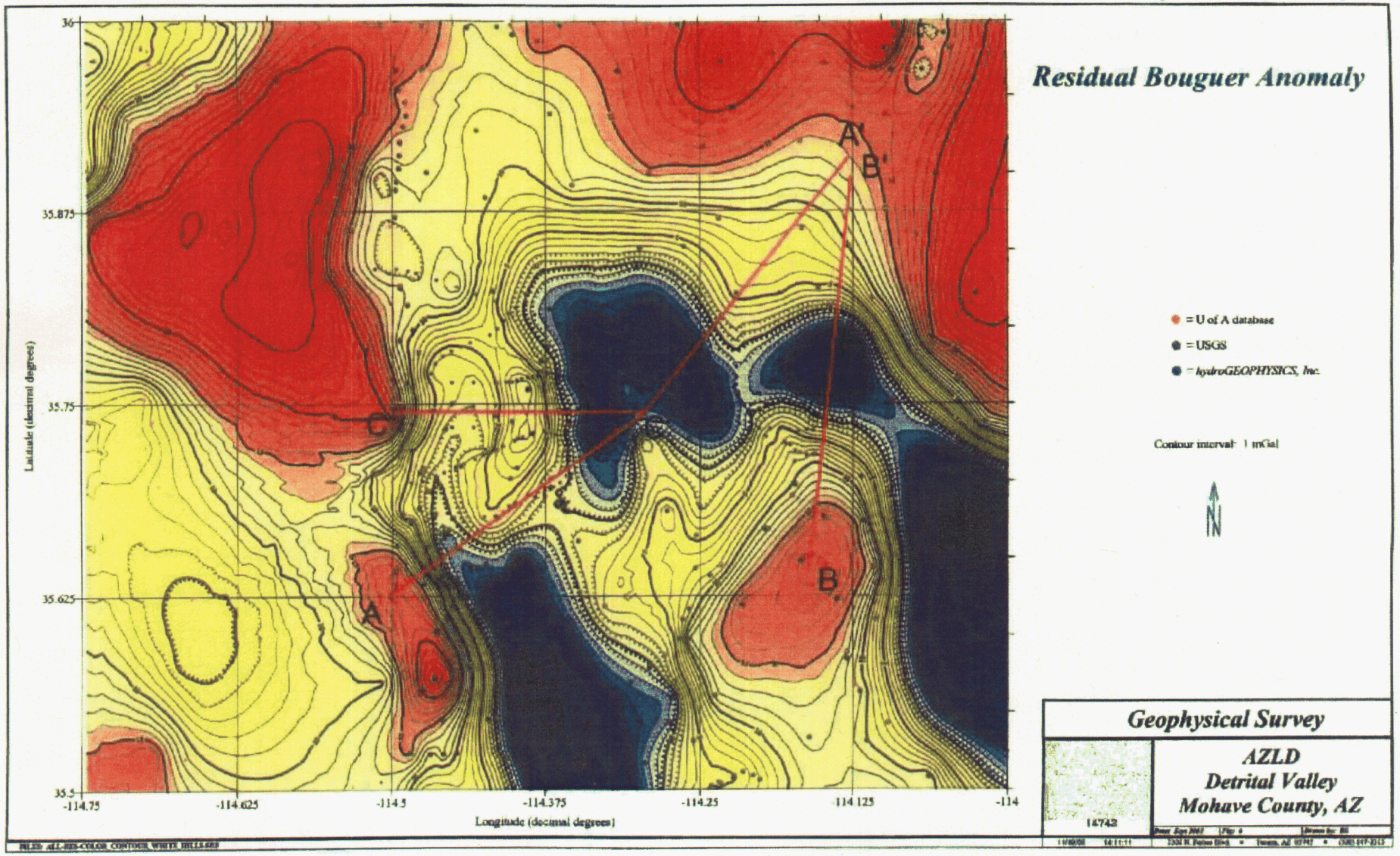

Hydrologic Environmental Consultants

Allen
Stephenson
Associates

PRELIMINARY GEOLOGIC, GEOPHYSICAL AND HYDROLOGIC ASSESSMENT

32,000 Undeveloped Acres
Within The White Hills of Mohave County, Arizona

Prepared for

The Ranch at White Hills

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THE RANCH AT WHITE HILLS
GEOLOGIC AND WATER RESOURCES REPORT
ASA Project 412.01

EXECUTIVE SUMMARY

This preliminary water resources assessment is based on three separate, but interwoven, disciplines: geology, geophysics, and hydrology. Each are discussed in the following document in as great a detail as is reasonable, given the preliminary nature of the detail which has been collected at this stage of the investigation. Following are bulleted summaries of the current findings.

Geology

- A fairly deep basin exists between the eastern and western White Hills, which is directly related to the structural history of this unique geologic area. This basin is referred to in the text as the Senator Valley.

- The area between the White Hills and the Black Mountains (Detrital Valley) is the result of extensional stresses in the crust of the earth that have resulted in the creation of a deep valley, filled with a thick sequence of alluvial and lacustrine sediments.

- Comparison of the geology and the geophysical studies raises a unique question regarding the possibility of a deep "basin" (in excess of 1500 feet) being located in the northwestern part of the property. The "basin," if it exists, is covered by very old rocks that may have a limited thickness of approximately 600 feet or less.

Geophysics

- The gravity survey indicates that there is likely a bedrock barrier beneath Detrital Wash northwest of the White Hills that prevents subflow of the Colorado River from intruding into the upper part of Detrital Valley.

- The upper part of Detrital Valley, referred to above, has the appearance of a bathtub, with groundwater slowly moving from the south to the north, at very low gradient of 6.25 feet/mile. North of the lip of the bathtub, the gradient increases to approximately 65 feet/mile, or ten times greater than in the southern portion of the basin.

- Senator Valley is assumed to have a depth of approximately 1500 feet, as does the "basin" which has been identified in the northeastern part of the project area. There are no known wells that have penetrated the full thickness of either of these depressions.

- Detrital Valley appears to deepen to the south, where it reaches its maximum depth at the intersection of Highway 93 and the Pierce Ferry Road.

Hydrology

- A preliminary assessment of the annual water demand for the project, upon buildout, is 15,000 acre-feet/year. This includes residential, commercial and recreational demands.

- Over 100 years, approximately 1.5 million acre-feet (AF) would be required to supply the full water requirement of the project.

- A <u>very</u> general assessment of the groundwater in storage in the upper Detrital Valley places that figure at somewhere in the neighborhood of 2.5 million AF. This should be adequate to provide a 100-year supply, but this can only be confirmed by drilling additional wells to depth and finding out what the quantity and quality of the groundwater actually is.

- The potential exists to develop a well field in the northeastern part of the property, but that option will have to be proven by drilling through the Precambrian materials to determine if the "basin" which is indicated in the geophysical studies really does exist in the subsurface.

- The groundwater gradient in Senator Valley is very steep from the northern part of the project to where the White Hills Road cuts through the western White Hills. That is also true from both the eastern part and the southern part of the basin, with the low point being at the canyon entrance. This probably reflects the fact that water is leaking out of Senator Valley and this is in the location of the "drain." If so, it will be very important to determine where the water is going and if it can be recaptured fairly close to the surface as it moves out into the Detrital Valley.

These studies have provided a solid basis for refining or rejecting some of our initial theories as well as raising some very interesting geologic and geophysical questions. A well drilling and production well testing program should be initiated to verify the quantity and quality of the water which we now know exists in this area.

INTRODUCTION

Allen, Stephenson & Associates (ASA) has been retained by The Ranch at White Hills (The Ranch) to coordinate the geologic and geophysical investigations for the project and provide a preliminary assessment of the water resources that are available for developing a community of 60,000 to 70,000 inhabitants.

As a first step in this investigation, the firm of hydroGeophysics, Inc. was retained to perform a gravity survey of the study area. It was initially determined that the entire property which is privately-owned by the Mardian family, be evaluated before any land exchanges were effected, so that those parts of The Ranch which had the highest potential of providing a long-term water yield, i.e., an adequate 100-year supply could be retained instead of being traded to the U. S. Bureau of Land Management (BLM).

Prior to ASA becoming involved in this project, Luis Vega had also been engaged by The Ranch to evaluate the water availability. He had begun developing a surface geologic map of the study area. His geologic explorations have been concentrated in the western and southern White Hills area, and his work has been incorporated into this report.

GENERAL GEOLOGIC HISTORY AND GROUNDWATER POTENTIAL

The White Hills have a core complex of Precambrian-age granite gneiss and a Cretaceous granite that is much less extensive in areal distribution. The more recent deposits include volcanic basalts, tuffs, and sediments that fill the intermontane basins. These sediments have been derived from all of the older exposed rocks in the region. The Muddy Creek Formation and recent fanglomerates characterize these types of deposits.

The Precambrian gneiss is not a reliable producer of groundwater, except in those restricted areas where wells have intercepted major extensional faults related to the formation of the Basin and Range Physiographic Province. Also, the Cretaceous granite provides very limited opportunity for development of large-scale production wells. The only substantial groundwater production comes from the younger materials which are both volcanic and sedimentary in nature. These units, which are the most extensive in the project area, include the Muddy Creek Formation, Quaternary Terrace Gravels, and Quaternary Alluvium, all of which have been mapped either in part by the U.S. Geological Survey (USGS) or Luis Vega.

The White Hills are the results of extensive structural movements (faulting and upwelling of granite), as well as extensive metamorphism resulting in the modification of the original Precambrian materials. Four types of faults are recognized in the study area: normal faults, thrust faults, detachment faults, and lystic faults.

Normal faults occurred during middle Tertiary when the Basin and Range rifting began to occur. Intermontane basins were formed and preexisting formations on the adjacent Colorado Plateau were tilted slightly to the northeast. The intermontane basins which were formed as a result of this extensional activity in the crust began to be filled with sediments—fanglomerates and volcanic materials—that make up the Davis Mountain Volcanics and the younger Muddy Creek Formation.

The lower portion of the Muddy Creek Formation appears to be thrust faulted in places (according to the USGS) by relatively high-angle faults approximately 8 million years ago. This thrust faulting (from west to east) could explain how both the Precambrian gneiss and the Cretaceous granite appear to be found, in places, overlying <u>much</u> younger Muddy Creek sediments, according to available driller's logs, which have been examined within the study area. The Hualapai Limestone, which constitutes the upper member of the Muddy Creek Formation, was deposited undisturbed over the Grand Wash fault zone; therefore, no movement along that fault has occurred since this material was deposited in an inland lake. Subsequent normal faulting "lystic"; however, did occur in the project area around 5 million years ago, and is probably partly responsible for the existence of the western portion of the White Hills. That, coupled with the thrust faulting process previously noted, would account for the juxtaposition of the Precambrian gneiss and the high-angle dip of the Tertiary volcanics in the White Hills Mining District.

A series of detachment faults (extremely low-angle faults) have been identified in the White Hills. These faults occurred as extremely large blocks of consolidated rocks slid off of the sides of core complexes which were experiencing isostatic rebound due to erosion of younger geologic formations. In the White Hills, Precambrian and Cretaceous age deposits are believed to be faulted over the much younger Muddy Creek Formation. In the area of the Cyclopic Mine, fanglomerates of the early Muddy Creek Formation are found in the overriding upper plate, above the detachment fault. This faulting could have occurred during the early phase of the Muddy Creek's formation; however, as reported by the USGS, the "tectonic history of this low angle structure is poorly resolved." Their rationale is that the facts do not indicate that hardly any of the evidence which would be required to prove that this was a detachment fault can be found at the Cyclopic Mine where the fault occurs. Nevertheless, the USGS continues to refer to the structure as a detachment fault.

GROUNDWATER DEVELOPMENT POTENTIAL

The structural scenario presented above has been developed to assist ASA and hydroGeophysics in understanding the data which have been developed in the gravity survey. First, it should be noted that the groundwater flow is dominantly to the north-northwest in Detrital Valley. The static groundwater elevation is greater than 2000 feet at the intersection of White Hills Road and Highway 93. This is approximately 800 feet above the accounting surface which was established by the U. S. Bureau of Reclamation (BOR) and the USGS to indicate the elevation at which one must have a contract with the BOR in order to withdraw water that is considered to be subflow of the Colorado River. Additionally, the gravity data collected by both the USGS and that developed by hydroGeophysics indicate that there is a bedrock high in the area of Township 28 North, Range 20 West, Sections 7 and 8, and westward into Township 28 North, Range 21 West, Sections 11 and 12. This bedrock saddle acts as a barrier to prevent subflow of the Colorado River from moving into the upper regions of the Detrital Valley Groundwater Basin.

The gravity data indicate that there is a deep structurally controlled basin which is centered roughly at the intersection of Highway 93 and the Pierce Ferry Road and extends north along the eastern edge of the highway to north of the Temple Barr Road.

The second gravity low is not a single feature, but in the form of a string of pearls that extends from the southern part of the intermontane valley between the western and eastern White Hills northward through the valley, then east-southeasterly along the power line, then northeasterly into the Gold Basin area of Hualapai Valley, then south-southeasterly into the Red Lake area. If these gravity lows were limited to the valley, such as it is in the upper Detrital Valley, the intermontane valley and the Hualapai Valley area, it would be fairly easy to explain, as areas that had extensive volumes of sedimentary material (and therefore were good prospects for developing groundwater supplies).

However, this feature is also found in the central part of White Hills where Precambrian granite and gneiss, as well as Cretaceous granite are exposed at the surface. In these particular areas, it appears that there are likely sedimentary and/or volcanics in the subsurface below the older formation, which would imply that fairly deep detachment faults may occur in the subsurface. In the area west of the Cyclopic Mine there is a detachment fault that is very high along the crest of the mountain. This structure is composed of the Muddy Creek Formation which is exposed in the upper plate and highly weathered Precambrian granite in the lower plate. The fault plain slopes off to the west-northwest. Four hundred (400) feet lower, and a mile and one-half east at the Cyclopic Mine, another detachment fault has been mapped where the Muddy Creek has been exposed in the upper plate and Quaternary fanglomerates are noted in the lower plate. The dip of the fault plain is gently to the east. The dip, geologic materials and elevation are all different; therefore, it is not assumed that they are the same structure. If they were, there would have to have been additional structural movements which occurred between the two locations that are not readily apparent on the surface.

GENERAL ASSESSMENT OF GROUNDWATER DEVELOPMENT POTENTIAL

Detrital Valley

Groundwater occurs at a depth of approximately 540 feet below ground surface (bgs) in the general area of the White Hills Road. Flow is to the north, down the Detrital Valley (0.001 ft/ft or 6.25 feet/mile). It appears that the thickness of the sandy alluvium overlying a white clay, encountered in many of the wells drilled in Detrital Valley, increases in the immediate area of Silver Mine Wash because of the alluvial fan deposits that are encountered in this area. A much more prominent alluvial fan is evident two miles north where Spear Wash has breached the western White Hills bedrock. In the center of Detrital Wash, six miles west of the apex of the alluvial fan, water should be encountered at a depth of approximately 200 feet bgs, at an elevation of approximately 1990 feet mean sea level elevation.

If the normal gradient which had been calculated eight miles south in Detrital Wash had been maintained through the above-noted area, the water table would have been expected to have been at an elevation of 1988; therefore, the static water level seems to be declining at a steady rate to the north, but at a much lower gradient than the land surface. Because of inconsistencies between drillers' logs, it is very difficult to interpret what is specifically happening in this reach of the Valley; however, the geophysical gravity data implies that the depth to bedrock becomes shallower and shallower as one moves toward the northern part of the Valley. Tentatively, the most logical site for the location of a test well would be in the southeastern part of Section 5, Township 27 North, Range 2 West, where the bedrock is at its lowest point and the alluvial fan is at a maximum thickness. Any closer to the apex of the alluvial fan would increase the risk of hitting Precambrian bedrock at a much shallower depth.

Senator Valley

The static water level elevation in Senator Valley is approximately 800 to 1000 feet higher than in Detrital Valley; however, the depth to water, below the ground surface, is approximately the same, being between 560 feet on the western side of the Valley, to a maximum of 688 feet on the eastern side of the Valley. This represents a gradient of 129.33 feet/mile in an east-west direction, which is significant. It implies that water is flowing out of Senator Valley into Detrital Valley along a structural lineament that is located where Silver Mine Wash cuts through the western White Hills; however, there is little geologic evidence to support the assumption that such a structure exists; aside from the fact that materials described in the driller's log for the GHP Development's production well indicates that a section of the well contained "granite" between 480 and 600 feet before encountering a volcanic unit. That "granitic" unit is thought to be exposed at the surface three miles north of the well site. If it is the same unit, it is actually a thick sequence of rapakive textured granite boulders that make up a distinctive unit of the Muddy Creek Formation. The differential in elevation between these two sites is approximately 800 feet; therefore, if the two units are the same, there is a significant fault separating the two sites. Luis Vega has mapped a major east-west trending fault south of the well site and has hypothesized that there could have been other parallel structures north of this feature.

However, if such structures do exist, there is little to no topographic expression to indicate that these features may be found in the subsurface. Vega prefers to attribute the expression of bedrock in the western White Hills to lystric faults which have occurred at the same time or shortly after the detachment faulting occurred in this area. The latter explanation may be more reasonable, as there is no evidence in the gravity map to support vertical movements of the magnitude which would be required to accommodate such a large normal fault.

If these east-west faults do occur, it could help explain why the Muddy Creek Member with the granitic rapakive texture is exposed at the surface in Section 30, Township 28 North, Range 19 West, and in contrast be buried at a depth of 480 feet bgs in Section 7, Township 27 North, Range 19 West, only a little more than three miles to the south. Nevertheless, an east-west trending structure does not show up in the gravity data. The concern and the rationale for trying to address this issue is the fact that, if the lower part of the Muddy Creek Formation is at a higher elevation in the northern part of Senator Valley, the thickness of this aquifer could be much less than it is further to the south. This is the heart of The Ranch's development in Senator Valley, so locating well sites in this area is especially critical.

The second gravity low occurs in an area that is mapped as Precambrian coarse-grained, hematite-stained, porphyritic, monzo-granite which is extremely difficult to explain. Based on the gravity data, the basement rock should be expected to be deeper than it is in that part of Senator Valley.

A seismic profile that was run by the USGS in an area north of Red Lake indicates that the depth to bedrock in that portion of the Hualapai Valley is approximately 3000 feet. The two gravity lows in Senator Valley which were noted above are about half the magnitude of that noted in the Red Lake North profile; therefore, it is assumed that the total thickness of these two lows is approximately 1500 feet. Wells which have been drilled in Senator Valley have not exceeded 875 feet. Those with fairly decent well logs have not exceeded 735 feet; therefore, the lower half of the Senator Valley sedimentary units have never been drilled and there is no way of assessing their significance as water-bearing units.

If the gravity low southwest of Senator Mountain is represented by Precambrian Granite overlying Muddy Creek sediments, then the detachment faults are much deeper than had been expected, and there is a possibility that a deep groundwater basin could exist in this area. The only way to verify this assumption is by drilling a well and providing detailed geologic logging of the hole.

WATER DEMAND AND AVAILABILTY

Assuming that when build-out occurs there may be 70,000 people living at The Ranch, this equates to approximately 28,500 homes. Therefore, the total demand is suggested to be about 15,000 AF. This would include all commercial, golf course, and residential demands.

There are certain areas within the project where water harvesting may be viable; however, because of the depth of groundwater, recharging it does not appear to be productive. Because it will be necessary to construct flood control structures, this may be an alternative where surface runoff might be detained and subsequently used to irrigate landscaped areas and golf courses. Because the annual rainfall is between 5 and 10 inches per year, it cannot be relied upon to provide a continuous supply for water harvesting; however, it would be wise to incorporate this concept into the flood control side of the project.

The groundwater stored in Detrital and Senator Valleys has not been defined; however, it is assumed to be significantly less than that which is found in Hualapai Valley, where the USGS has estimated the volume in storage to be between 10.5 and 21 million AF. In all likelihood, it is also lower than that projected to be stored in Sacramento Valley, which is between 6.5 and 13 million AF. A conservative estimate is around 5 million AF and that which is not subject to BOR control can be expected to be approximately half of that figure.

If the ultimate demand for water for The Ranch is 15,000 AF, then there would be an adequate supply for this project. This assumption is predicated on the ability to develop high-capacity wells without causing appreciable drawdown in the area.

The withdrawals which have occurred in Detrital Valley up to this point in time have hardly caused any decline in the static water level. Nevertheless, the only way to determine the maximum pumping capacity of the aquifer is to perform a step drawdown and recovery test on The Ranch's well located adjacent to Highway 93 and the White Hills Road, as well as other wells that would need to be drilled. Additionally, a test well should be drilled to determine if there is a possibility of obtaining water from below the white clay deposit of the Muddy Creek Formation which is found at a depth of 485 to 750 feet below ground level in Detrital Valley. The white clay unit either does not exist or wells have not been drilled deep enough to encounter it in Senator Valley.

Because of the unknowns regarding the total depth of the sediments in Senator Valley and the potential existence of an alluvial fill basin which is covered by bedrock in the northeastern part of The Ranch, it is impossible to estimate the volume of water in storage in this area. It is obvious that where the 32 sections which might be developed in Senator Valley, it would be imperative that a major part of the groundwater supply would have to be provided from Detrital Valley. The only way to address this issue is to get the deep wells drilled and tested to define the aquifers' hydrologic characteristics and then model both basins to determine the pumping regime that would provide the best water reliably over the next 100 years. This information will be required for the issuance of a Certificate of Adequate Water Supply by ADWR.

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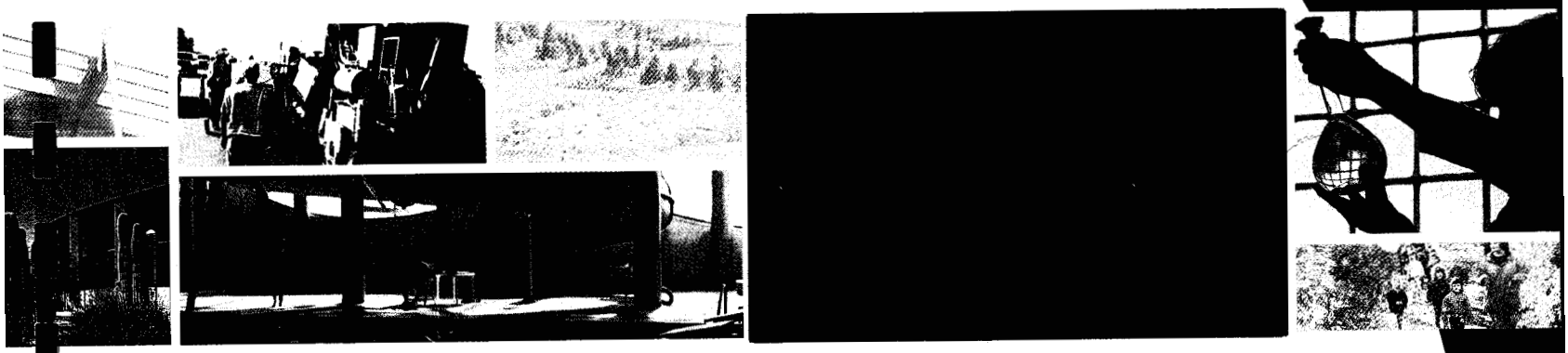

Stantec

Section 31
of the
Ranch at White Hills

CC&N Technical Support
Water, Wastewater,
and Reclaimed Water

July 10, 2007

Stantec Project No. 188100501

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SECTION 31
WATER INFRASTRUCTURE CC&N TECHNICAL SUPPORT

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1.0 Chapter 1 Introduction

The purpose of this report is to present a water, wastewater and reclaimed water servicing strategy for the initial phases of The Ranch at White Hills master planned community development. In addition, the report also identifies an "order of magnitude" concerning the construction costs, for the provision of these services.

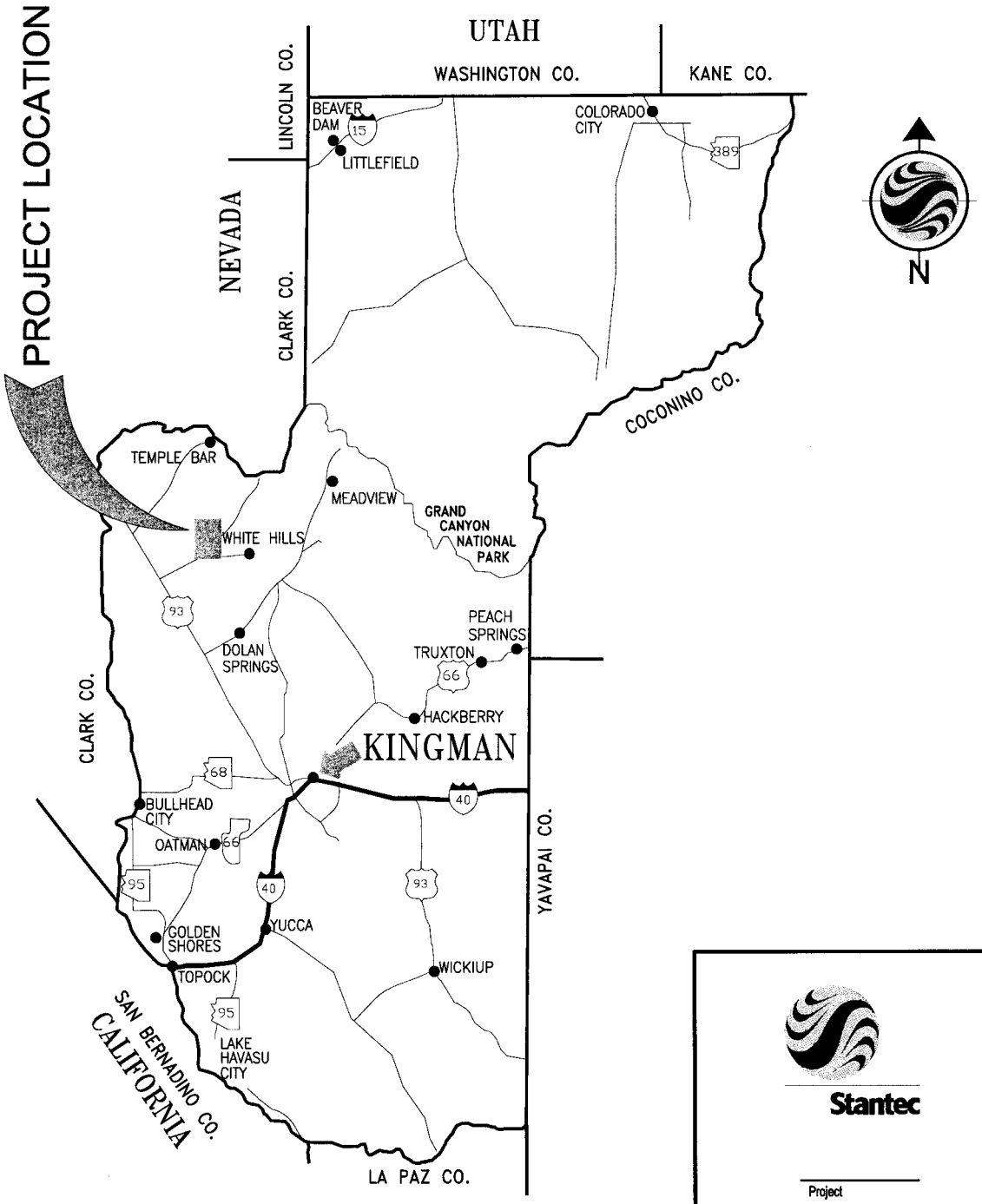
1.1 BACKGROUND

The Ranch at White Hills master planned community development is located approximately half way between Kingman, AZ and Las Vegas, NV, along Highway 93, in Mohave County, AZ. The overall size of The Ranch at White Hills development includes over 25,000 acres of land in and around the White Hills area of Mohave County. The Mohave County Board of Supervisor's approved the major General Plan and Area Plan amendments for this development in 2003 and 2004. Property in this area of the County is arranged in a "checkerboard" fashion, with alternating public (BLM managed properties) and privately owned sections of land, and therefore the development has accommodated this layout in the planning and design elements.

This analysis covers the initial phases of the development only, and includes Section 31, T28N, R19W, for a total of 640 acres. Expansion of the overall Ranch project will occur at the NE, SW, and SE corners of section 31 at later dates. A more specific location map is provided as Exhibit 1.1.

The Ranch at White Hills properties are owned by Leonard and Susan Mardian, and their affiliated entities. The residential, commercial and public parcel uses identified in the approved Area Plan will be developed as the infrastructure is planned for, designed, and constructed in this area. The utility Company which has been set up to serve the development is called Double Diamond Utility, Inc. Currently, Double Diamond Utility Company maintains authorized franchise agreements with Mohave County for the provision of sewer, water, natural gas, fiber optic, electric, and telephone services. These approved franchises allow Double Diamond the right to work within the County rights-of-way to install any and all improvements necessary to provide the services to this development.

In addition to The Ranch at White Hills project, the Mardians, and their affiliated entities, own over 47,000 acres of land in and around the White Hills area. A major segment of these owned properties has already been approved as a second, adjoining master planned development to the direct east, called The Mardian Ranch. This project includes several thousand additional acres of master planned development, consisting of several thousand additional residential units, commercial, parks, open space, renewable resource development, industrial, and public parcel land uses, similar to The Ranch at White Hills master planned uses.



MOHAVE COUNTY

VICINITY MAP

Stantec

Project

THE RANCH AT WHITE HILLS
DOUBLE DIAMOND UTILITIES

CC&N SUPPORT SERVICES

MOHAVE COUNTY, AZ U.S.A.

Title

EXHIBIT 1.1
VICINITY MAP

Project No.	Scale
188100501	NONE

These two master planned projects are fundamentally divided by two distinct groundwater basins. The detrital groundwater basin will primarily serve The Ranch at White Hills development, and the Hualapai groundwater basin will primarily serve The Mardian Ranch development. The Arizona Department of Water Resources (ADWR) has already issued two approved "Analysis of the Physical Availability of Water" for the developments to proceed. Section 31 of this initial phase, falls within the Detrital groundwater basin parameters, and the ADWR approved Analysis for the Detrital basin confirms there is sufficient groundwater to serve this application.

In addition to the above information, the development is centered around a sustainable development platform. The development plans presented to, and approved by, the Mohave County Supervisor's verifies that there are numerous avenues where the project will be conserving, protecting and utilizing the water resources in a highly efficient manner. This report specifically addresses how the initial phase of development will plan for, design for, and ultimately coordinate the water, wastewater and effluent resources for the project.

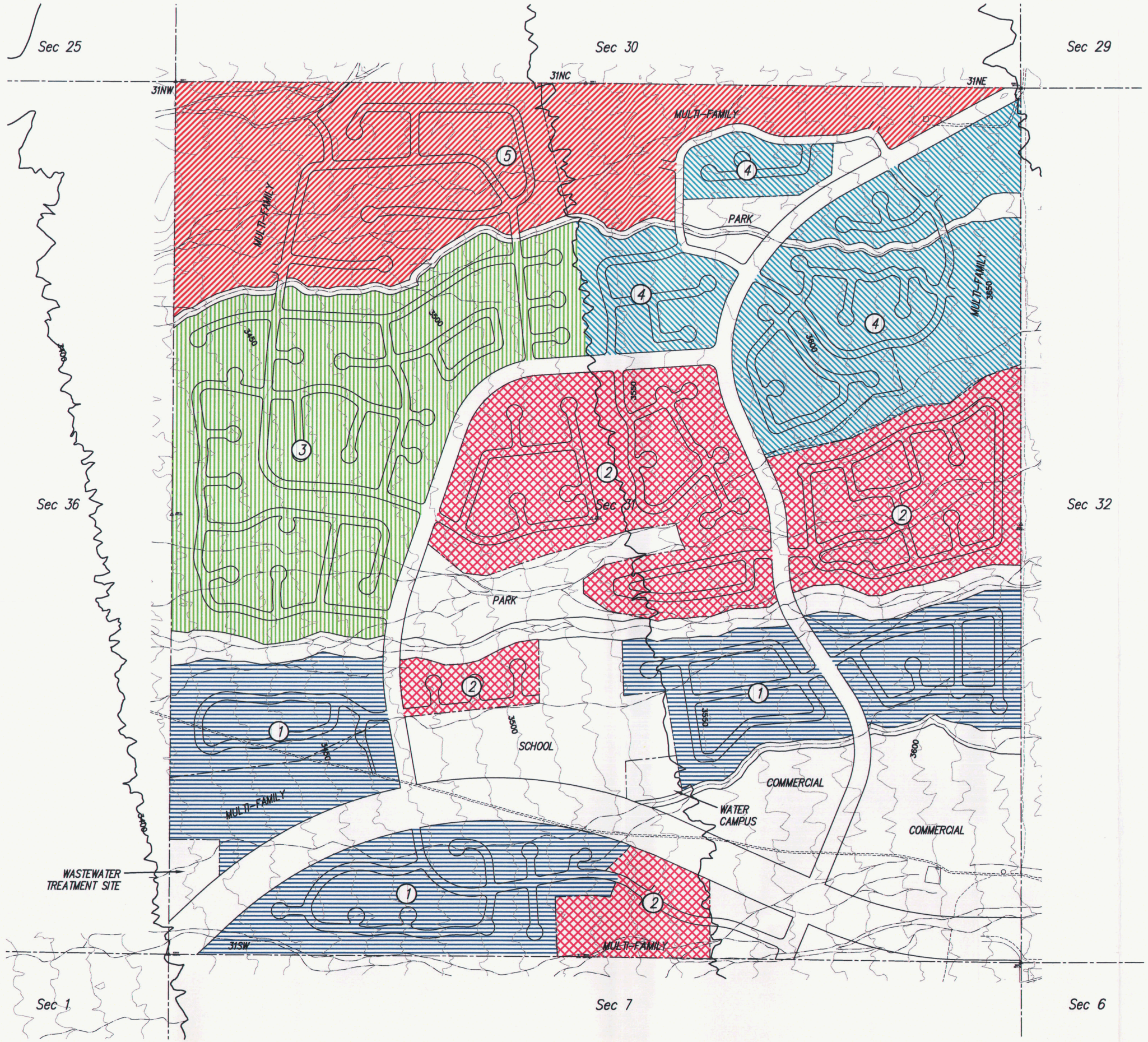
1.2 PROPOSED DEVELOPMENT

The initial phase of The Ranch at White Hills development includes Section 31, T28N, R19W. This section of land encompasses 640 acres of land and has a multitude of approved land uses identified within it. The section is bisected along the southern region by the Mardian Scenic Parkway, which is the major east-west transportation route for the development. The section of land includes 2500 residential units, with mixed densities ranging from 2-12 units per acre. The section planning also includes an approximate 20 acre future school site, 2 large park areas, extensive open space and trails provisions, and approximately 80 acres of commercial land set-asides. The site also contains a future parcel which will ultimately be fed with treated effluent to allow for the design and development of a project entry feature, including the effluent water.

The Section 31 conceptual plan of development is provided as Exhibit 1.2. As illustrated on the exhibit, the development will be constructed in five phases, with each of the phases providing 500 residential units. Over the first five years, four of the five phases will be constructed. . The commercial area and school will not be constructed until after completion of the residential development in the final phase.

1.3 SITE DESCRIPTION

The development area includes one section, an area of 640 acres. The site slopes from west to east at an overall grade of three to four percent. The highest elevation in the development area is 3,670 ft and the lowest is 3,400 ft. The slopes are relatively uniform with some variations in the north-west. The site also contains some drainage and wash crossings.



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Legend

- SECTION LINE
- BOUNDARY LINE
- ROW LINE
- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- PHASE 5

PHASE	SINGLE FAMILY	MULTI-FAMILY	TOTAL
1	335	165	500
2	420	80	500
3	500	-	500
4	240	260	500
5	120	380	500
TOTAL	1615	885	2500

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EXHIBIT 1.2
DEVELOPMENT PHASING
SERVICE AREA

Project No.
188100501

Scale
0 300' 450' 600'

The site vegetation is typical for the Mohave desert scrub area and primarily includes creosotebush and mesquite trees. Based on the drilling logs, the soils are expected to fine sands and silts with some gravel for the first 10 to 20 feet over rock. It is expected that rock will be shallower in the hilly areas.

1.4 REPORT ORGANIZATION

This report is divided into 5 chapters as described below:

Chapter 1 – Introduction and general site data.

Chapter 2 – Water System Infrastructure, including water supply, treatment, distribution and storage.

Chapter 3 – Wastewater System Infrastructure, including sewage collection, treatment and disposal.

Chapter 4 – Reclaimed Water System Infrastructure, including distribution and storage.

Chapter 5 – Water Infrastructure System Costs

2.0 Chapter 2 Water System Infrastructure

2.1 INTRODUCTION

There is no existing water system infrastructure with the exception of some small capacity wells in the area. There is no community water system within the area that could adequately serve the project. To service the proposed development it is necessary to develop a complete water system including water source, storage and distribution.

2.2 WATER SYSTEM CRITERIA

The following assumptions regarding the water system design criteria have been made to determine water system demands, treatment alternatives, and distribution system needs. All criteria is based on ADEQ Bulletin 12 and the Arizona Administrative Code.

1. 25,000 dwelling units -within the overall master planned area, 14,270 within the Ranch at White Hills and 2,500 within this initial phase of the Ranch at White Hills.
2. Average water usage rate = 100 gpcd (0.14ac/ft/yr). This is slightly higher than the numbers used by ADWR to ensure adequate sizing of system components.
3. Average number of people per household = 2.57 (assumes a mix of active adult - 1.8 and single-family residences - 3.0),
4. Average number of dwelling units per acre varies from 2 units per acre to 12, for an average of 6 for the entire project.
5. Peaking factors are 1.5 for peak month, 2.0 for max day and 3.5 for peak hour (Arizona American Water development standard).
6. Pressure zones are defined as having low pressure of 40 psi and high pressure of 120 psi, approximately 150 feet.
7. Average well production rate is 100-400 gallons per minute, based on test wells in the area.
8. Groundwater supply must meet peak month demand with the average producing well in a system out of service.
9. Distribution pumping is sized for peak demands with the largest pump out of service.
10. Storage capacity is sized for the Maximum Day Capacity plus the higher of the Fire Flow Capacity or the Peak Hour Capacity.

11. Fire flow is 1000 to 1500 gpm for residential, higher for commercial uses - assume 2000 to 2500 gpm for 2 hours.

This criteria is summarized in Table 2.1 below.

Table 2.1 Water Design/Performance Criteria

Performance Criteria	Unit	White Hills / Mardian
Density (persons per DU)	ppu	2.57
Residential Average Water Usage Rate	gpcpd	120
Community Facilities Average Daily Usage per Acre	gpapd	1000
Commercial Average Daily Usage per Acre	gpapd	1000
School Average Daily Usage per Acre	gpapd	1000
Park/Common	gpapd	500
Peaking Factor: Max Day (MDD/ADD)		2
Peaking Factor: Peak Hour (PHD/ADD)		3.5
Peaking Factor: Peak Month (PMD/ADD)		1.5
ADD Minimum System Pressure	psi	40
PHD Minimum System Pressure	psi	35
Maximum System Pressure	psi	120
Minimum Pressure During Fire Flows	psi	20
Pressure Zone	ft	150
Storage	gal	See Storage Calculations
Well Supply / Transfer Station Capacity	gal	PMD with 10% reserve capacity / PMD
Water Treatment	gal	EPA Drinking Water Standards, PMD
Booster Station Capacity	gal	MDD plus Fire Flow
Minimum Available Residential Fire Flow	gpm	1000-1500
Minimum Available Commercial Fire Flow	gpm	1500-2500
Maximum Velocity During Peak Day Demand (pipes < 16")	fps	10
Maximum Velocity During Peak Day Demand (pipes > 16")	fps	3
Minimum Diameter for Distribution Mains with Hydrants	in	6

ADD = Average Day Demand MDD = Maximum Day Demand PHD = Peak Hour Design
MDC = Maximum Day Capacity FFC = Fire Flow Capacity PHC = Peak Hour Capacity

2.3 DEMANDS

A summary of the estimated demands for the development, by development type is presented in Table 2.2.

Table 2.2 Water Demands

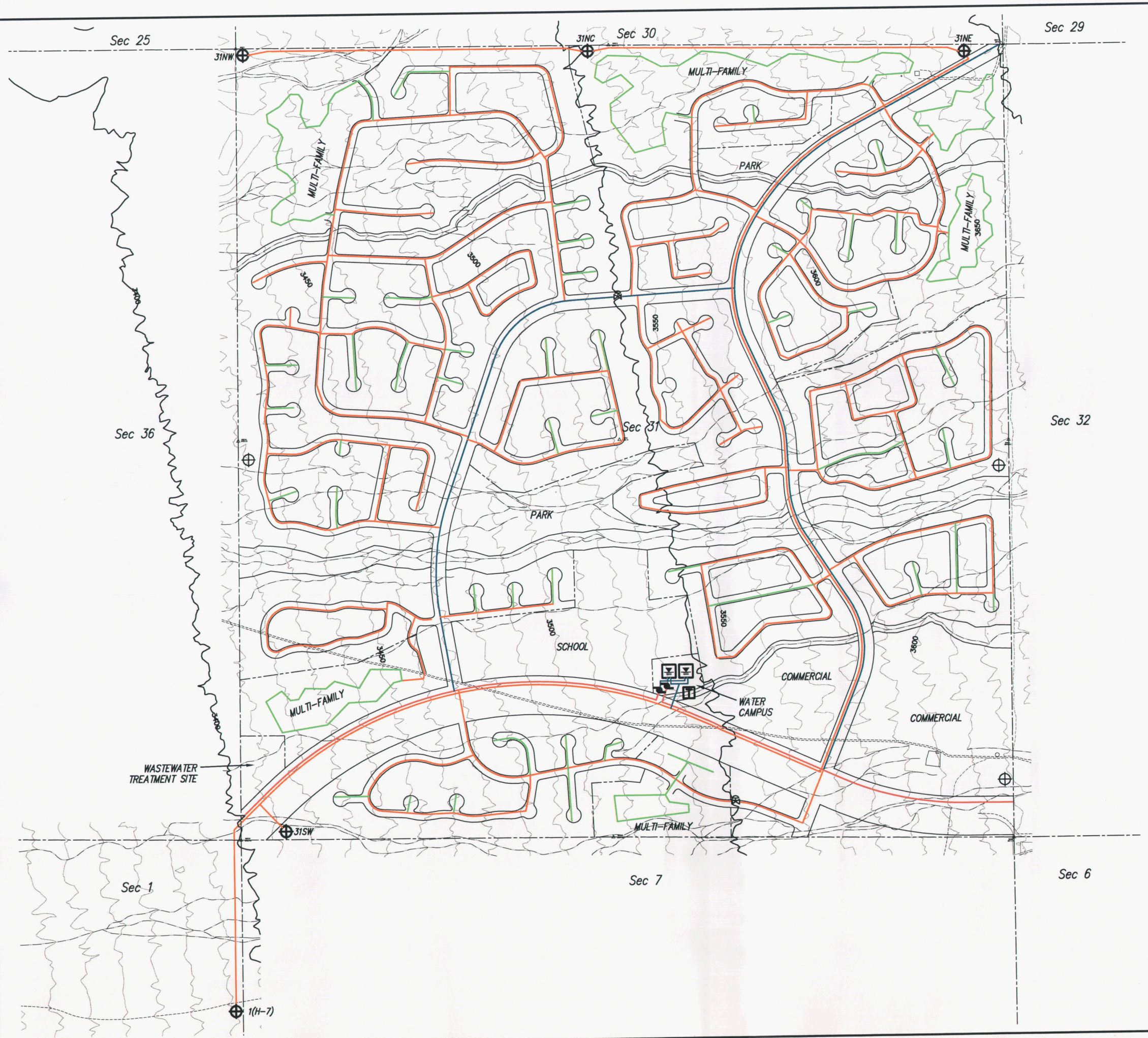
Land Use	No. Lots / Acreage	Daily usage Gallons per acre or per capita per day GPA/GPCPD	Average Water Demands Gallons per day	Average Water Demands (gpm)	Peak Month (1.5 x Average) Gallons per day	Max Day (2 x Average) Gallons per day	Peak Hour (3.5 x Average) Gallons per day
Residential	2,500	100	642,500	446	963,750	1,285,000	2,248,750
Commercial	80	1,000	80,000	56	120,000	160,000	280,000
School	20	1,000	20,000	14	30,000	40,000	70,000
Park	35	500	17,500	12	26,250	35,000	61,250
Community	0	1,000	0	0	0	0	0
TOTAL			**760,000**	**528**	**1,140,000**	**1,520,000**	**2,660,000**

2.4 WATER SYSTEM

The proposed water system consists of the water supply, water treatment, water distribution and water storage as described in the following sections. All water facilities are shown to be developed on lands owned by the Mardians or within existing road Right-of-Ways. The overall water system to serve Section 31 is illustrated on Exhibit 2.1.

2.4.1 Water Supply

The source water for this development will be groundwater from the Detrital Valley basin. A study entitled Groundwater Modeling and Hydrology Study – The Ranch at White Hills was completed for this project by Clear Creek Associates in June 2005. A supplemental report was prepared by Clear Creek February 2006, in response to comments from ADWR. ADWR issued an approved Physical Availability of Water for the proposed development in January 2006, based on the ultimate development.



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Legend

- 6" PIPE
- 8" PIPE
- 12" PIPE
- 16" PIPE
- SECTION LINE
- BOUNDARY LINE
- ROW LINE
- PRESSURE ZONE BOUNDARY
- STORAGE
- 31NW EXISTING WELL
- TREATMENT
- PUMP
- PRV
- POTENTIAL FUTURE WELL

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DOUBLE DIAMOND UTILITIES

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MOHAVE COUNTY, AZ U.S.A.

Title
EXHIBIT 2.1
WATER INFRASTRUCTURE
SERVICE AREA

Project No.
188100501

Scale
0 300' 450' 600'

It is not practical to consider any other water supply options for this development. There are no surface water sources available in the vicinity of the project. Kingman City owns and operates a water system, however, Kingman is located approximately 40 miles from the development area and it would be necessary transport the water to the site.

The Groundwater Modeling Study identified two areas within the Detrital Valley Basin, referred to as the North Well Field and the South Well Field. Section 31 is in the north east area of the North Well Field.

There are currently five existing wells adjacent to Section 31, as illustrated on Exhibit 2.1. Future potential wells sites in this area have been identified by the groundwater hydrologist, as illustrated. The proposed well site locations have been determined based on the geologic considerations and land ownership. All of the future well sites are located on lands owned by the Mardians and are at locations where there will not be interference between wells. Additional wells are available in the North and South field, however they are not required to serve this development.

A summary of the existing available water adjacent to Section 31 is presented in Table 2.3 below:

Table 2.3 Well Supply Availability

Well	Capacity (gpm)
31 NW	130
31 NE	130
31 SW	150
1	280
31 NC	200
Total	**890**

Based on the results above and discussion with the groundwater hydrogeologists, it is anticipated that an average of 200 gpm will be achieved with future wells in this area.

Table 2.4 provides a summary of the water supply capacity requirements of the system, relative to the wells and the proposed phasing.

Table 2.4 Water Supply Capacity Requirements

Phase	Year	No. lots	PPHU	Population	Usage/cap (gpcpd)	ADD (GPD)	ADD (gpm)	Peak Month 1.5 x ADD (gpm)	Wells Quantity (gpm)	Well Description
1	2	500	2.57	1,285	100	128,500	89.24	133.85	430	31 SW & 1
2	3	1,000	2.57	2,570	100	257,000	178.47	267.71	430	
3	4	1,500	2.57	3,855	100	385,500	267.71	401.56	560	Add 31 NE
4	5	2,000	2.57	5,140	100	514,000	356.94	535.42	760	Add 31 NC
Build-out		2,500	2.57	6,425	100	642,500	446.18	669.27	960	Add 31 NW

The water will be pumped directly into the storage facility within the development area.

2.4.2 Water Quality and Treatment

Historically, groundwater in Arizona requires little if any conventional treatment to be defined as potable or meeting the chemical constraint limits of the Safe Drinking Water Act (SDWA) amendments. In the Detrital Basin, all potable water is pumped from deep groundwater wells. The wells average more than 1000 feet in depth, with an approximate depth to groundwater of 700 feet. Water is present in two aquifers in the basin, described as the upper and lower aquifers. The upper aquifer will be used to supply this project.

Based on the water quality testing completed within the Detrital Basin, the water only requires a small amount of chlorine to provide water protection in the distribution system from microbiological contamination. A disinfection method for groundwater is now required under the newly promulgated groundwater rule.

Disinfection will be completed at the storage facility.

A summary of the expected water quality based on water quality test results from groundwater wells in Section 31 is presented in Table 2.5 below.

Table 2.5 Water Quality

Parameter	MCL	Results (mg/l)
Fluoride	4.0	2.6
Nitrogen	10	6.8
Sulfate	250	19
pH	6.5-8.5	8.2
Total Dissolved Solids (TDS	500	260
Arsenic	.010	.0016
Copper	1.3	.0011

2.4.3 Water Distribution and Storage Layout

The development of the water distribution system is based upon gravity flow for the pressure head.

The overall Ranch at White Hills properties has been divided into eight pressure zones. The Section 31 development has two pressure zones, as illustrated on Exhibits 2.1 and described in Table 2.6 below.

Table 2.6 Water Pressure Zones

Pressure Zone	High Water Elevation	Minimum Zone Elevation	Maximum Zone Elevation	Maximum Zone Pressure	Minimum Zone Pressure
4	3,640	3,400	3,540	104	43
5	3,770	3,540	3,670	100	43

One storage facility will be provided for the development. The storage facility will include a minimum of two tanks to provide back-up storage for maintenance and to suit construction phasing. A summary of the proposed storage facility requirements is presented in Table 2.7.

The storage facility location has been selected to maximize service area and to fit within the proposed phasing plan. The location will also be suitable, if and when, development occurs outside of Section 31.

Table 2.7 Water Storage Requirements

Water Storage Factors	Tank				
	Phase 1	Phase 2	Phase 3	Phase 4	Build-out
ADD (gpm)	89	184	274	357	446
FFR (gpm)	1,500	1,500	1,000	1,000	1,500
FFD (hours)	2	2	2	2	2
MDD (gpm)	178	368	548	714	892
PMD (gpm)	134	276	411	535	669
PHD (gpm)	312	643	959	1,249	1,562
MDC (MG)	0.19	0.40	0.59	0.77	0.96
PHC (MG)	0.06	0.13	0.20	0.26	0.32
FFC (MG)	0.54	0.54	0.36	0.36	0.54
Total Storage Capacity (TSC) Required (MG)	**0.73**	**0.94**	**0.95**	**1.13**	**1.50**

ADD = Average Day Demand MDD = Maximum Day Demand = 2 x ADD
PMD = Peak Month Demand = 1.5 x ADD PHD = Peak Hour Demand = 3.5 x ADD
PHC = Peak Hour Capacity FFC = Fire Flow Capacity FFR = Fire Flow Rate
FFD = Fire Flow Duration MDC = Max Day Capacity MG = Million Gallons

A booster pump station will be located adjacent to the water storage facility. The pump station will include two pump trains, one of which will supply Zone 4 and one which will supply Zone 5. In addition to the pump stations, pressure reducing valves will be provided between the two zones to provide better water circulation, better fire flows and to allow for system redundancy in the event of a pipeline break.

Criteria for the booster pump stations is presented below in Table 2.8.

Table 2.8 Water Booster Pump Stations

Booster Station Criteria	Zone 4 Booster Station	Zone 5 Booster Station
No. lots serviced	1500	1000
Average Daily Demand (gpm)	268	178
MDD (gpm)	535	357
PHD (gpm)	937	625
Fire Flow (gpm)	1,000	1,000
MDD + Fire Flow (gpm)	1,535	1,357
Booster Station Capacity (gpm)	**1,535**	**1,357**

Preliminary hydraulic calculations using WaterCAD were completed for the overall Ranch at White Hills development to determine the required pipe sizing. Pipe sizing is based upon ultimate development demands at build-out and the maximum flow from all future wells serving the development. Pipe sizing varies from 6-inch diameter in most of the local streets to a maximum of 16-inch within this development. The pipe sizes are illustrated on Exhibit 2.1.

Note that the actual pressure zone splits will depend on the final layout for the development site. The final water system operational design and phasing could involve various strategies using booster pumps, altitude valves, pressure reducing valves, and interconnections of the pressure zones for reliability and operational flexibility. In addition, the final design must consider water quality chlorine residual concerns with stored water and operational reliability and energy efficiency.

2.4.4 Water System Permitting

The water wells for this system will require additional permitting through ADWR. Both an Approval to Construct (ATC) and Approval of Construction (AOC) for all components of the water system, as well as new source approval for each of the wells will be required from ADEQ.

2.4.5 Ownership of the Water System.

The Water System will be owned and operated by Double Diamond Utilities. Double Diamond Utilities will either hire qualified operators to operate and maintain the system, or negotiate an agreement with a qualified water system operational company. .

3.0 Chapter 3 Wastewater System Infrastructure

3.1 INTRODUCTION

There is no existing wastewater system infrastructure within this area. Small individual septic systems are utilized for the few homes in the area.

For the Ranch at White Hills, the sewage treatment alternatives available are limited. As there are no existing Wastewater Treatment Facilities (WWTFs) in the vicinity, constructing a WWTF to treat sewage from the development or the use of septic systems are the only feasible alternatives.

Mohave County administers the residential septic system installation program in this area. Due to the size of the development it is impractical to consider using septic systems for all of this development.

To service the proposed development it is necessary to develop a complete wastewater system including sewage collection, treatment and disposal. The WWTF for this development will be a water reclamation facility.

3.2 WASTEWATER SYSTEM CRITERIA

The following assumptions regarding the wastewater system design criteria have been made to determine wastewater system flows, treatment alternatives, and collection system needs. All criteria is based on the ADEQ Arizona Administrative Code.

The following assumptions have been made to determine sewer system demands, treatment alternatives, and disposal alternatives:

1. Average wastewater generation rate = 80 gallons per capita per day.
2. Average number of people per household = 2.57 (assumes a mix of active adult - 1.8 and single-family residences - 3.0).
3. Average number of dwelling units per acre varies from 2 units per acre to 12, for an average of 6 for the entire project.
4. Sewage flow peaking factors are 1.2 for maximum month, 2.0 for maximum day and 3.0 for peak hour flow (Arizona American Water development standard).
5. Septic systems will not be used for the development.
6. Package plants will be used as much as possible. The maximum acceptable capacity with package systems is 1.5 mgd.
7. Treatment alternatives must be able to produce reuse-quality (A+) effluent for all.

This demand criteria is summarized in Table 3.1 below.

Table 3.1 Wastewater Criteria

Performance Criteria	Unit	Criteria
Density (persons per Dwelling Unit)		2.57
Residential Average Sewage Generation Rate (gpcd)	gpcd	80
Commercial Average Sewage generation per Acre (gpad)	gpad	500
School Average Daily Usage per Acre, (gpapd)	gpapd	500
Peaking Factor: Max Month		1.2
Peaking Factor: Max day		2
Peaking Factor: Peak Hour		3
Package Treatment Plants		Up to 1.5 MGD
Lift Station pumps		Peak Hour
Pipes		Peak Hour
Wastewater Treatment Facility		Max Month/Max Day
Wastewater Treatment Facility		Class A+ Effluent per AAC Title 18

3.3 SEWAGE FLOWS

The estimated flows for the development and per phase, based on the above criteria and the preliminary development plans are presented in Tables 3.2 and 3.3.

Table 3.2 Wastewater Flows

Land Use	No. Lots / Acreage (lots/acre)	Daily flows, gallons per acre or per capita per day GPA/GPCPD	Average Wastewater Flows (gallons per day)	Average Wastewater Flows (gpm)	Max Month (1.2 x Average) Gallons per day	Max Month (2 x Average) Gallons per day	Peak Hour (3 x Average) Gallons per day
Residential	2500	80	514,000	356.9	616,800	1,0280,00	1,542,000
Commercial	60	1000	60,000	41.7	72,000	120,000	180,000
School	20	1000	20,000	13.9	24,000	40,000	60,000
TOTAL			**594,000**	**412.5**	**712,800**	**1,1880,00**	**1,782,000**

Table 3.3 Wastewater Flows for Residential Lots by Phase

Phase	Year	No. lots	PPHU	population	usage/cap (gpcpd)	Average Daily Flow (gpd)	Average Flows (gpm)
1	2	500	2.57	1285	80	102,800	71.39
2	3	1000	2.57	2570	80	205,600	142.78
3	4	1500	2.57	3855	80	308,400	214.17
4	5	2000	2.57	5140	80	411,200	285.56
Build-out		2500	2.57	6425	80	514,000	356.94

SEWAGE COLLECTION.

The sewage collection system is illustrated in Exhibit 3.1. Preliminary engineering analyses indicate that gravity flow from all project areas to the western end of the site is attainable. Lift stations may be required in some of the subdivision areas, as shown. It is anticipated that it may be possible to eliminate some of these lift stations with the final design, however to be conservative, they have been included at this time.

To determine the pipe size for each pipe section, the flows for each section were calculated using an assumed pipe slope similar to the existing ground topography and full pipe flow at peak hour flow. Modeling was completed for the trunk mains using H_20 Sewer. Minimum sewer collection main size is 8-inch. Trunk sewer line sizes range from 10-inch to 15-inch within the development area.

It is noted that these design assumptions must be confirmed as the development plan proceeds and detailed design is undertaken.

3.4 SEWAGE TREATMENT

As the development will utilize class A+ reclaimed water, the sewage treatment alternatives are limited to those which can produce this type of effluent. The general process units include solids screening and removal, biological treatment for removal of nutrients, clarification, filtration, disinfection, and solids handling. These processes can be achieved by both "package" plants or larger custom facility plants. A combination of a package facility and a larger facility can be utilized to minimize problems with low startup flows prior to the need for a larger plant and optimize the cash flow for construction of wastewater infrastructure. For this development a “package” system will

work well. In the longer term, it may be possible to incorporate the package plant into a larger facility.

The proposed location for the WWTF is generally the lowest geographic point in the service area. This minimizes collection system costs and maximizes the use of gravity systems.

The development at Ranch at White Hills slopes to the west, with the lowest part of the development located in the south-west corner. A 4 acre parcel has been identified for a WWTF. This site was selected, as it is the lowest point and it is on the main road for easy maintenance access.

3.4.1 Planning Flow and Load

The estimated flows and quality of flow as applicable to the WWTF are illustrated in Tables 3.4 and 3.5.

Table 3.4. Flow and Load Contribution

Parameters	Values
No. persons per dwelling unit	2.57
Flow contribution per day per capita	80 mg/L
BOD contribution per day per capita	100 mg/L
COD contribution per day per capita	198 mg/L
TSS contribution per day per capita	100 mg/L
NH3-N contribution per day per capita	7.8 mg/L
TKNBOD contribution per day per capita	13.3 mg/L

Table 3.5. WWTF Influent Basis of Design

Parameters	Values
Build-out Design Flow, (MGD)	0.6
BOD (mg/L)	80
TSS (mg/L)	300
NH3-N (mg/L)	25
TKN (mg/L)	40
Alkalinity (mg/L)	high
Minimum Temperature (°C)	15

3.4.2 Effluent Water Quality and Sludge Quality

The treated effluent must meet Class A+ reclaimed water standards. Per Arizona Administrative Code Title 18, "Class A+ reclaimed water is wastewater that has undergone secondary treatment, filtration, nitrogen removal treatment, and disinfection." The effluent water quality treatment goals are listed in Table 3.6.

Table 3.6 WWTF Effluent Water Quality Goals

Parameters	Regulatory Requirements
BOD (mg/L)	< 10
TSS (mg/L)	< 10
Total Nitrogen (mg/L)	< 10 (5 Sample Geometric Mean) < 8 (Alert Level)
Turbidity before Disinfection (NTU)	< 2 (24-hour average) <5 (Maximum)
Fecal Coliform (CFU/100 mL)	Non-detected (4 out of 7 daily samples)
Maximum Fecal Coliform (CFU/100 mL)	< 23 (any daily sample)

The bio-solids produced from the treatment process will need disposal. With proper dewatering, disposal of bio-solids can be achieved at a landfill. However, land application is recommended for treatment facilities larger than 1 MGD. In order to dispose bio-solids using land application, sludge must be treated to meet Class B pathogen requirements in accordance with Code of Federal Regulations Title 40 part 503. For this system, it is assumed that disposal of the bio-solids will be to a licensed landfill.

3.4.3 Major Components of a Wastewater Reclamation Treatment Plant

The major components of a typical wastewater reclamation plant are as follows.

3.4.3.1 Liquid Train

Influent Pump Station. The purpose of the influent pump station is to collect all the influent flow from the collection system and lift it to a certain height to allow gravity flow through major treatment units. Typically, the influent pipe and the structure of the pump station are sized based on build-out condition. Pumps are installed according to the

needs of phasing. A standby pump is usually provided to increase the reliability of the station.

Influent Flow Meter. The influent flow can be measured by several methods: open-channel Parshall flumes, magnetic flow meters, ultrasonic flow meters, etc. Parshall flumes are commonly used for wastewater plants due to the simplicity and ease of maintenance.

Flow Equalization. Flow equalization is a method used to overcome the operational problems caused by flow-rate and/or water quality variations. Flow equalization can reduce peak flows and loads under both dry and wet weather conditions and achieve near constant flows and loads.

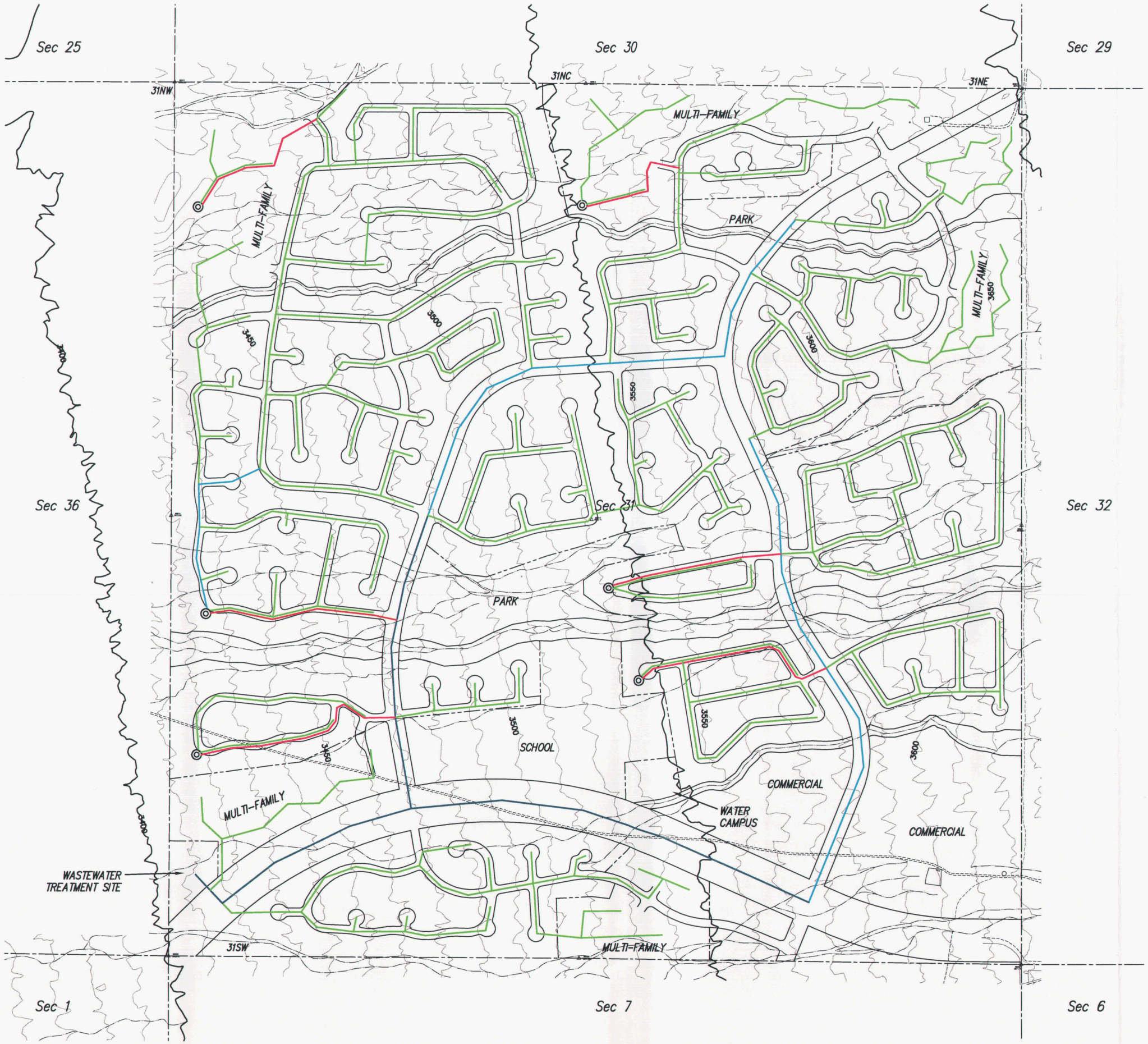
Mechanical Screening. A screen is a device with openings, generally of uniform size, that is used to retain solids found in influent. The major role of screening is to remove coarse materials to prevent damage to subsequent process equipment. Both coarse screens (6-150mm) and fine screens (<6mm) may be used depending on the type of the downstream biological treatment process.

Grit Removal. Grit is non-biodegradable, and may plug the water-path, reducing the effective volume of the following reactors. Removal of grit from wastewater may be accomplished in a grit chamber or by centrifugal separation of solids. Grit chambers are commonly used to remove grit and other heavy particles by reducing velocity of the flow. Heavy particles settle out due to gravity.

Primary Sedimentation. Primary sedimentation is used as a preliminary step in further processing the wastewater. Properly designed primary clarifiers can remove 50-70% of suspended solids and 25-40% of BOD. The primary clarifier is commonly used in conventional wastewater treatment. Primary clarifiers may not be necessary for some treatment processes such as Sequencing Batch Reactor (SBR), Oxidation Ditch (OD) or Membrane Biological Reactors (MBR).

Biological Treatment Reactor. The bio-reactor is the key component of a wastewater treatment plant. The basic working mechanism of most processes is to use a microbiological reaction to "clean-up" the bio-degradable organics in wastewater. There are many viable treatment processes that can treat wastewater to meet Class A+ standards. Most of the processes fall in following categories:

1. Suspended Growth Biological Treatment Processes
    a. Conventional Activated Sludge with Pre or Post Denitrification
    b. Oxidation Ditch with Pre, Post or Simultaneous Denitrification



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- 8" PIPE
- 12" PIPE
- 15" PIPE
- 6"FM PIPE
- 8"FM PIPE
- SECTION LINE
- BOUNDARY LINE
- ROW LINE
- LIFT STATION

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Project

THE RANCH AT WHITE HILLS
DOUBLE DIAMOND UTILITIES

CC&N SUPPORT SERVICES

MOHAVE COUNTY, AZ U.S.A.

Title

EXHIBIT 3.1
WASTEWATER INFRASTRUCTURE
SERVICE AREA

Project No.
188100501

Scale
0 300' 450' 600'

c. Sequential Batch Reactor (SBR)
d. Combination of Activated Sludge Process with Membrane Ultra-filtration.

2. Attached Growth Biological Treatment Processes
   a. Trickling Filter Followed by Denitrification Filter
   b. Rotating Biological Contactors Followed by Denitrification Filter
   c. Activated Sludge with Fixed-film Packing.

There are several treatment processes that are potentially feasible for this development.

Secondary Sedimentation. Secondary clarifiers are also called the final clarifiers. Wastewater flows from the biological treatment reactors to the secondary clarifiers. In secondary clarifiers, microbes and other suspended solids are settled. The majority of settled sludge is recycled to the beginning of the biological reactors and the remainder of the sludge is wasted to a bio-solids handling system.

Filtration. To meet the turbidity requirement of Class A+ standards, filtration is a necessary treatment step. Filtration serves as a final barrier to remove suspended solids from water. Three types of filtrations are commonly used: deep filtration, surface filtration and membrane filtration. Filtration is not necessary if a membrane process is used.

Disinfection. Disinfection is used to remove the pathogens in the treated effluent to meet the Fecal Coliform requirements of Class A+ standards. Disinfection can be achieved by chlorine, ozone or ultraviolet (UV) light. Due to the increasingly stringent regulations, UV systems have proven to be a better method than chlorination. Compared to ozone system, an inline UV system has a small footprint and requires minimum operator attention.

Effluent Pump Station. An effluent pump station serves to pump the treated effluent to the reclaimed water system or discharge. AZPDES permit must be acquired to discharge effluent.

3.4.3.2 Sludge Train

Sludge Pump Stations. Return activated sludge (RAS) pumps serve to pump RAS to the front of the biological reactors. Waste activated sludge (WAS) pumps are used to deliver waste activated sludge to a bio-solids handling system.

Thickening. Thickening is a process used to increase the solids content of sludge by removing a portion of the waste liquid. Thickening can efficiently reduce the capacity of

tanks and equipment required, reduce chemical usage, and reduce energy consumption in the subsequent treatment processes. Thickening technology includes co-thickening in the primary clarifier, gravity thickening, flotation thickening, centrifugal thickening, gravity belt thickening, and rotary drum thickening. Floatation type of thickening is typical for WAS. Mechanical thickening such as a gravity belt or a rotary drum are often used. Polymers are normally used to enhance the thickening performance.

Digestion. Bio-solids are stabilized to reduce pathogens, to eliminate offensive odors and to inhibit potential for putrefaction. Sludge stabilization can be achieved by sludge digestion. Both anaerobic and aerobic digestions may be used. Aerobic digestion is recommended to produce Class B sludge. Aerobic digestion produces low BOD concentrations in supernatant with fewer odors. It requires lower capital cost and is easy to operate. If Class A sludge is required, anaerobic digestion should be considered.

Dewatering. Stabilized bio-solids will be sent to a dewatering process to further reduce the volume. The most commonly used dewatering methods are belt press filters, centrifuges and rotary type. Centrifuges are the highest cost for both capital and O&M. Some devices can provide heat, which is required to produce Class A sludge. A full analysis of solids handling alternatives should be conducted before the detailed design phase.

3.4.3.3 Other Facilities

Odor Control. Odor control is required for the facility. In order to meet regulatory requirements for a 350' buffer space instead of 1000', the treatment facility must provide full noise, odor, and aesthetic controls. A multi-stage wet chemical scrubber with sodium hydroxide and sodium hypochlorite addition is often used to remove odor from foul gas collected from unit processes. A full analysis of odor control alternatives should be conducted before the detailed design phase.

Buildings. Buildings are necessary to provide administration and laboratory spaces. Buildings may also be required to house some of the equipment such as blowers, pumps, and engines etc. for noise control purposes. Building should be sized based on build-out condition.

Electrical Instrumentation and Control (EIC) and Supervisory Control and data Acquisition (SCADA). Modern wastewater treatment plants heavily rely on electrical instrumentation and controls to achieve optimum performance. A high level of automation is required especially for some high-end processes such as SBR and MBR. This makes EIC and SCADA an integral part of a WWTP.

3.4.4 Potential Biological Nutrients Removal Processes

Four biological nutrients removal treatment processes have been identified as potentially suitable for this development. They are: Modified Ludzack-Ettinger (MLE), Oxidation Ditch with Intermittent Aeration, Sequencing Batch Reactor (SBR), and Membrane Biological Reactor (MBR). Each of these systems can be provided as a package plant, the costs are not significantly different and they can be accommodated on the land identified for the WWTF.

For the purposes of this study, general information on each alternative is provided. A full analysis of biological wastewater treatment alternatives to select the best-fit technology should be conducted before the detailed design phase.

Alternative A - MLE Process.

A MLE process is one of the most commonly used biological nutrient removal (BNR) processes. It is a modification based on the original anoxic-aerobic BNR process invented by Ludzack and Ettinger in 1962. A MLE process is a pre-anoxic process. As shown in the flow chart (Figure 1), the influent is fed to an anoxic zone, which is followed by an aerobic zone. Nitrate/nitrite generated in the aerobic zone is returned to the anoxic zone by return activated sludge and internal recycle. The internal recycle is often designed to be 2-4 times of the inflow rate.

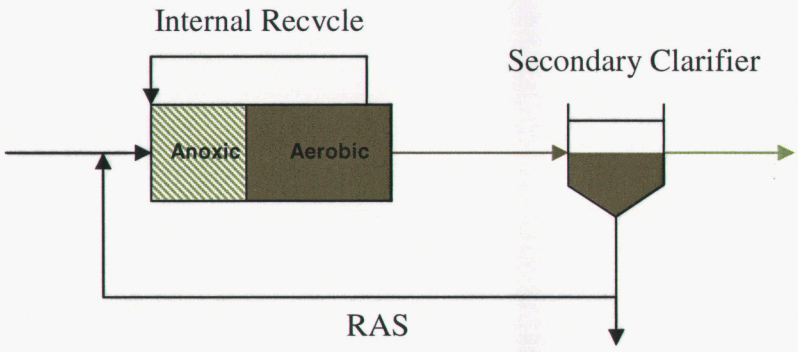


Figure 1. Modified Ludzack Ettinger (MLE) Process

Advantages

- Proven technology.
- Process is reliable with a constant water level in the reactor.
- Has a long historical record of performance.
- Has a big operator pool.
- Has a long historical record of O&M costs.

Disadvantages

- Requires more unit processes.
- Has a relatively large footprint.
- Has a relatively high capital cost.

Alternative B - Oxidation Ditch

An oxidation ditch is a modified activated sludge biological treatment process that utilizes long solids retention times (SRTs) to remove biodegradable organics. Denitrification can be achieved by pre-anoxic and post-anoxic setup or it may happen in the same tank as BOD removal and nitrification by turning aeration and a submerged mixer on and off. Figure 2 shows the configuration of an oxidation ditch with intermittent aeration.

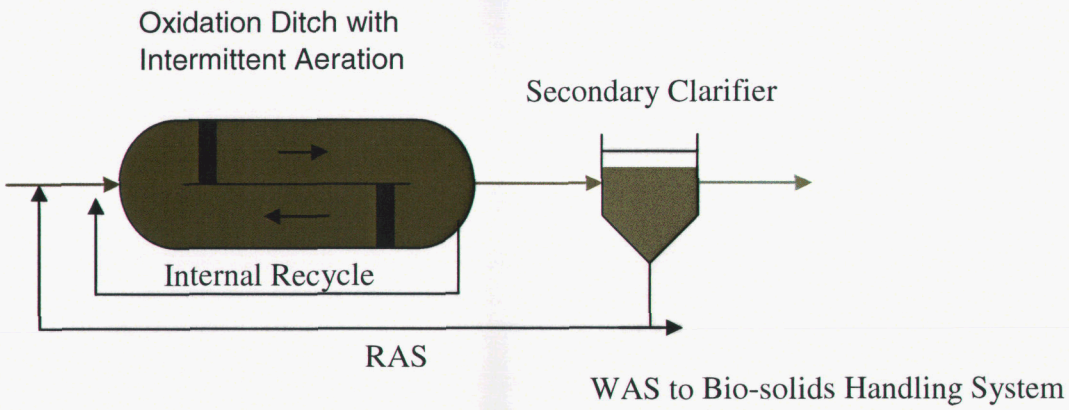


Figure 2. Oxidation Ditch with Intermittent Aeration

Advantages

- A reliable process with constant water level in the reactor.
- Does not need primary clarifiers.
- Has a long hydraulic retention time (HRT) can adsorb shock load and hydraulic serge.
- Extended aeration produces less bio-solids.
- Energy efficient, lower energy cost.
- Easy to operate.

Disadvantages

- Long SRT and HRT require larger tanks.

Alternate C - Sequencing Batch Reactor (SBR)

A SBR is a fill-and-draw activated sludge system for wastewater treatment. In this system, wastewater is added to a single "batch" reactor, treated to biodegradable organics. Equalization, anoxic mixing, aeration, sedimentation can all be achieved in one single reactor. A SBR is a common wastewater treatment process for a treatment capacity less that 5 MGD.

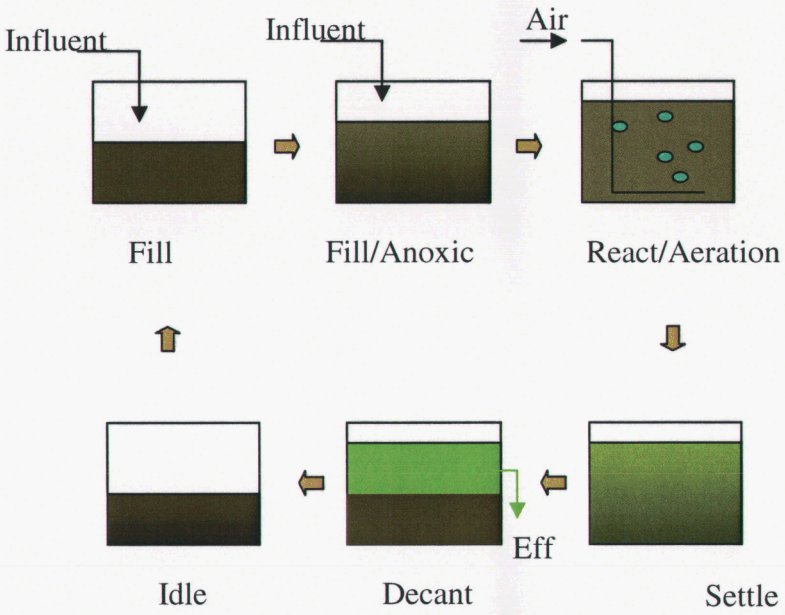


Figure 3. SBR Operation Sequence

Advantages

- Small footprint.
- Lower capital cost as no clarifiers are required.
- High operational flexibility and control.
- High level of automation.
- Modular design makes it easy to phase and expand.

Disadvantages

- Two or more batch reactors are used to handle continuous flow.
- High level of sophistication is required.
- Need relatively high operational and maintenance attention.
- Reliability is low due to the constantly change of water level.
- Potential plugging of aeration devices.

- May require equalization after SBR.
- Proprietary technology.

Alternate D - Membrane Biological Reactor (MBR)

A MBR is a relatively new process. It is a combination of conventional activated sludge process and ultra-filtration technology. The typical process setup is shown in Figure 4. Ultra-filtration membrane helps to maintain a much higher concentration of biomass in bioreactors. MLSS can go as high as 10,000 mg/L verses 2000~4000mg/L in conventional activated sludge system. The increase of biomass concentration dramatically reduces the required HRT. MBR can produce a high quality effluent.

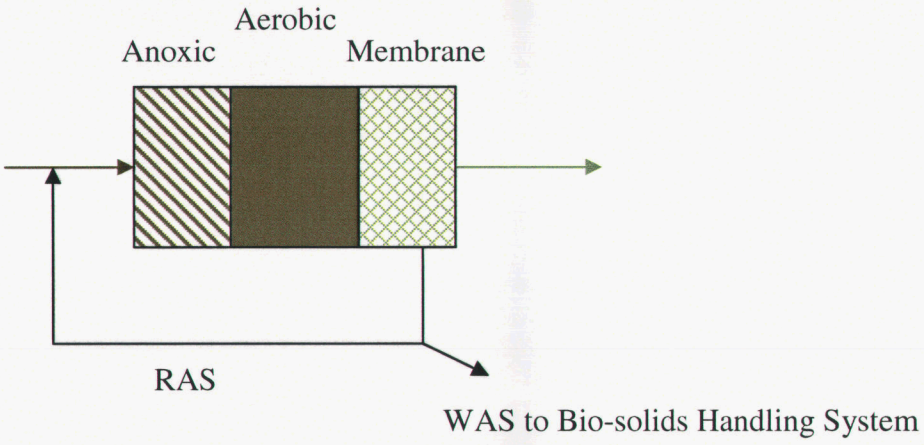


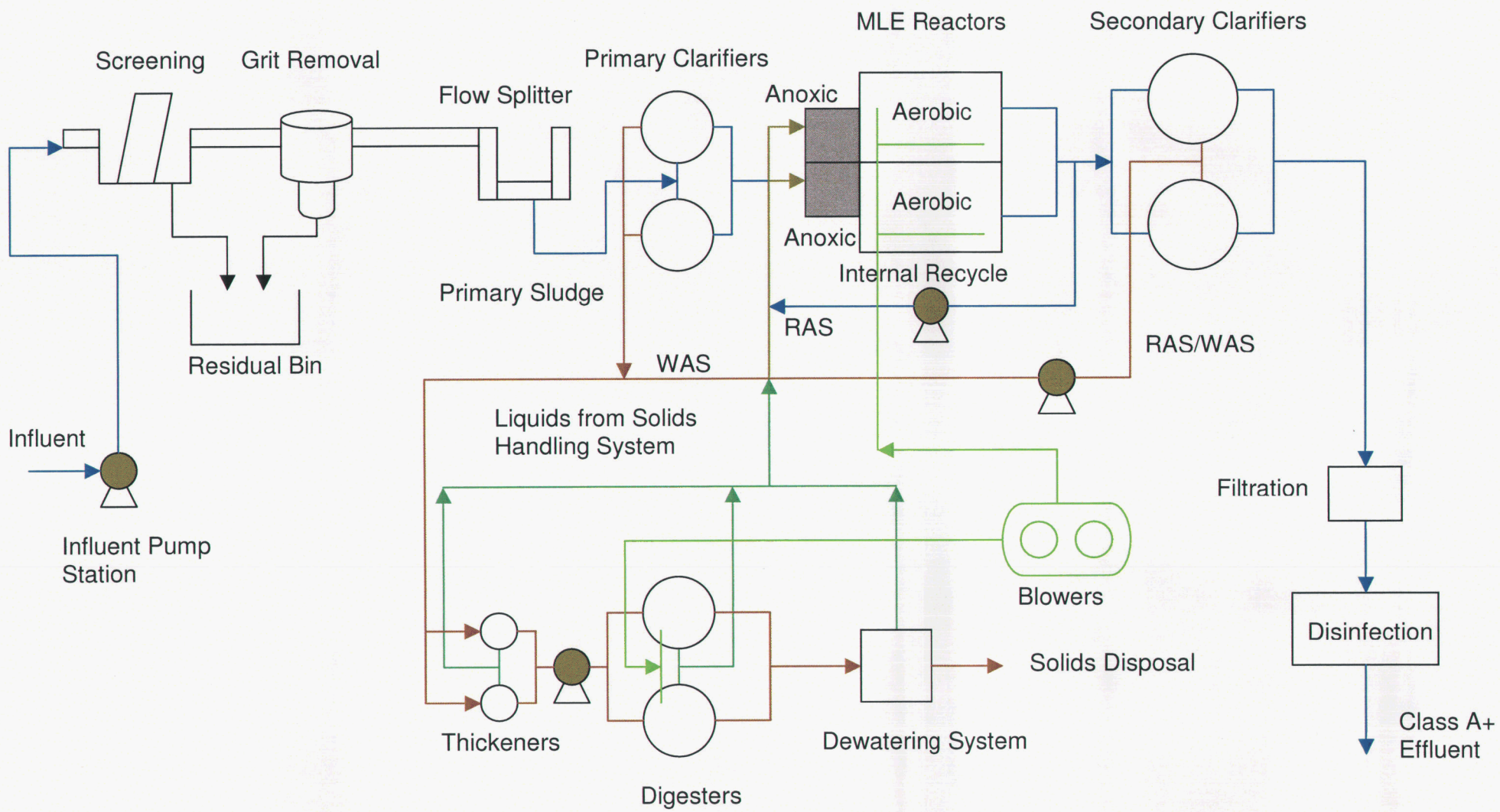
Figure 4. Typical Membrane Biological Reactor Setup.

Advantages

- Very small footprint
- High quality effluent
- Does not require downstream filtration.

Disadvantages

- High level of complexity.
- Relatively high capital costs.
- Relatively high O&M costs.
- Requires well-trained operators.
- Proprietary technology.
- Membrane needs special maintenance.



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Project

THE RANCH AT WHITE HILLS
DOUBLE DIAMOND UTILITIES

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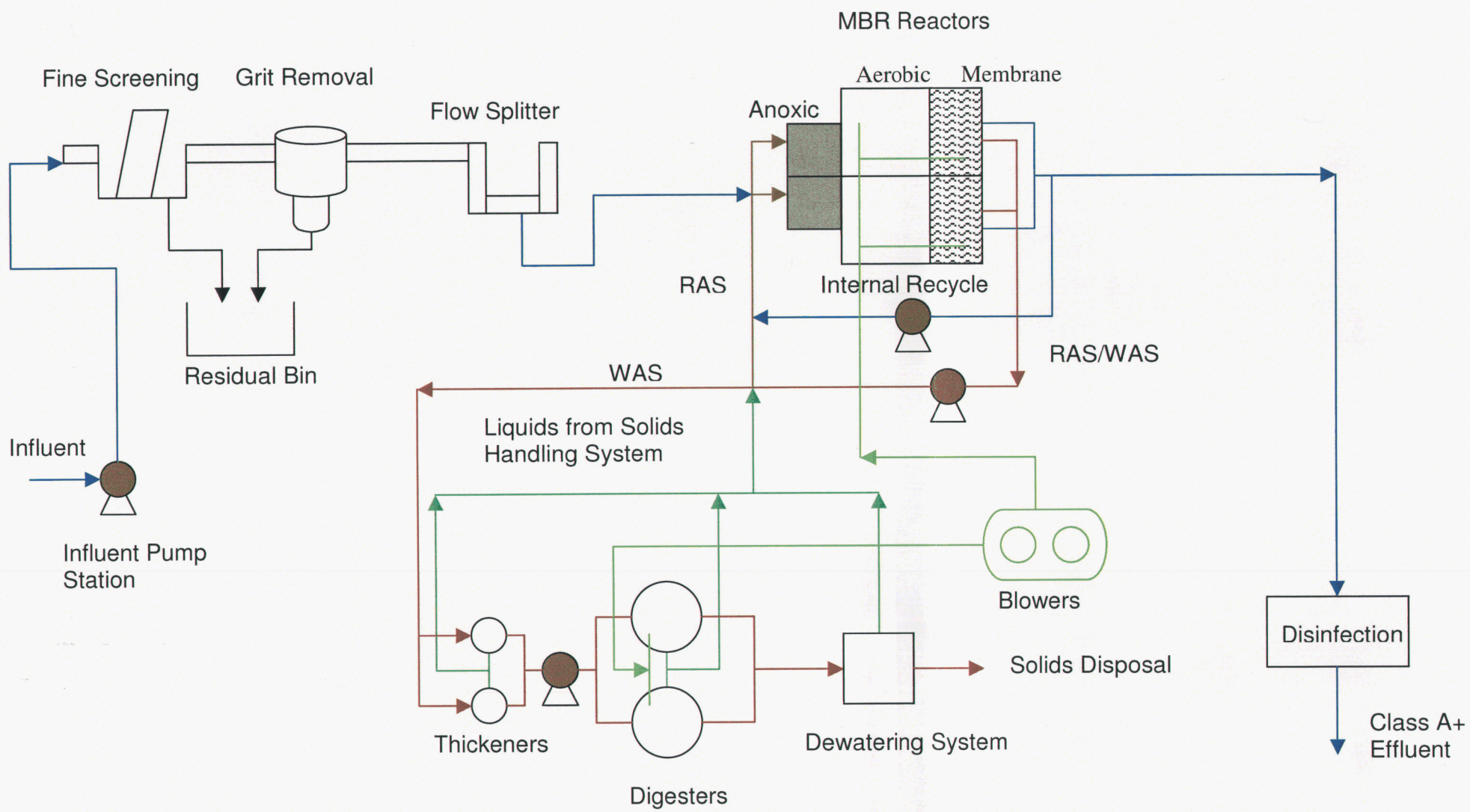
MOHAVE COUNTY, AZ U.S.A.

Title

EXHIBIT 3.2 MLE REACTORS
TREATMENT OPTION
SCHEMATIC

Project No.

188100501



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THE RANCH AT WHITE HILLS
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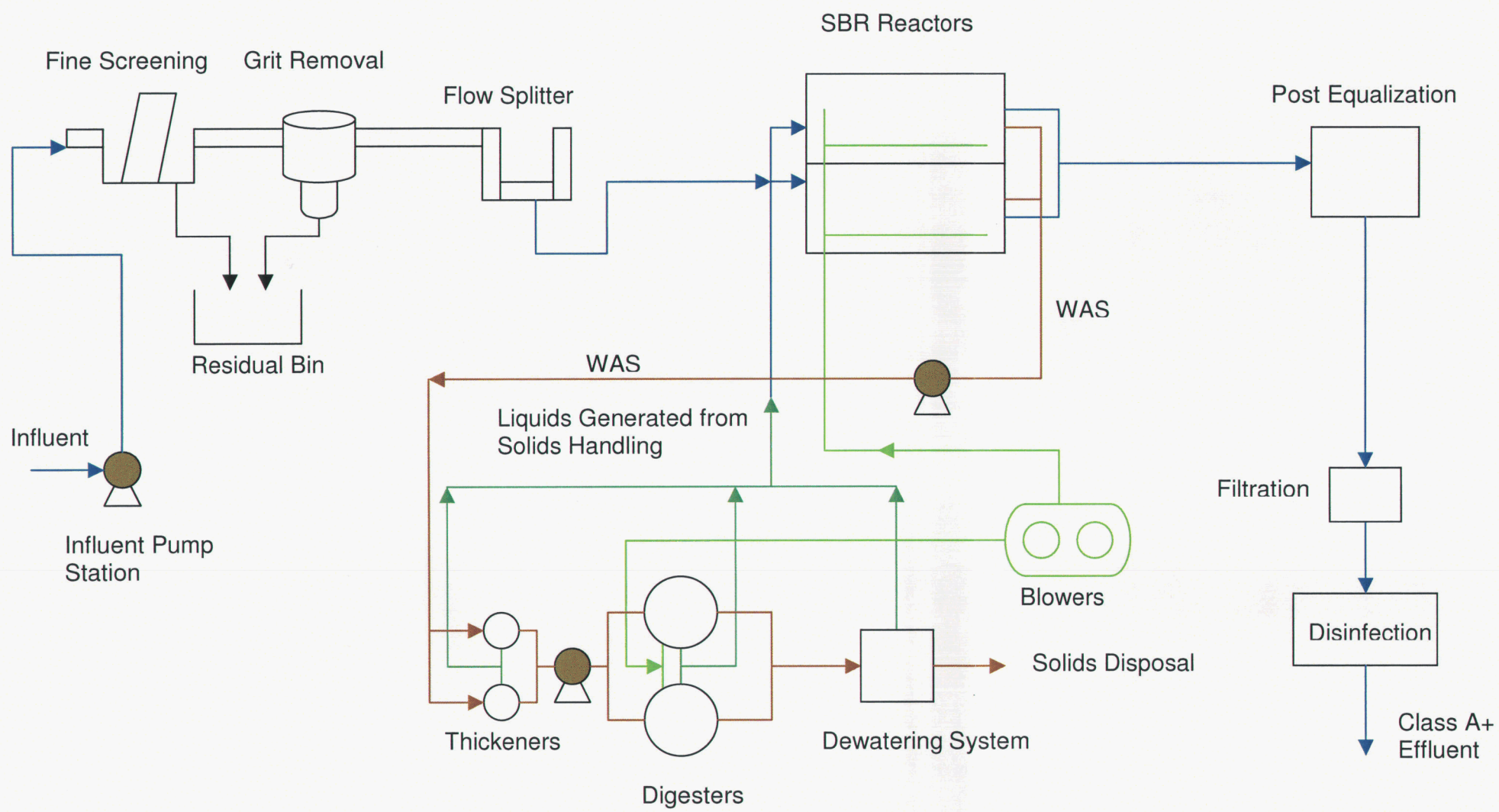
MOHAVE COUNTY, AZ U.S.A.

Title

EXHIBIT 3.3 MBR REACTORS
TREATMENT OPTION
SCHEMATIC

Project No.

188100501



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DOUBLE DIAMOND UTILITIES

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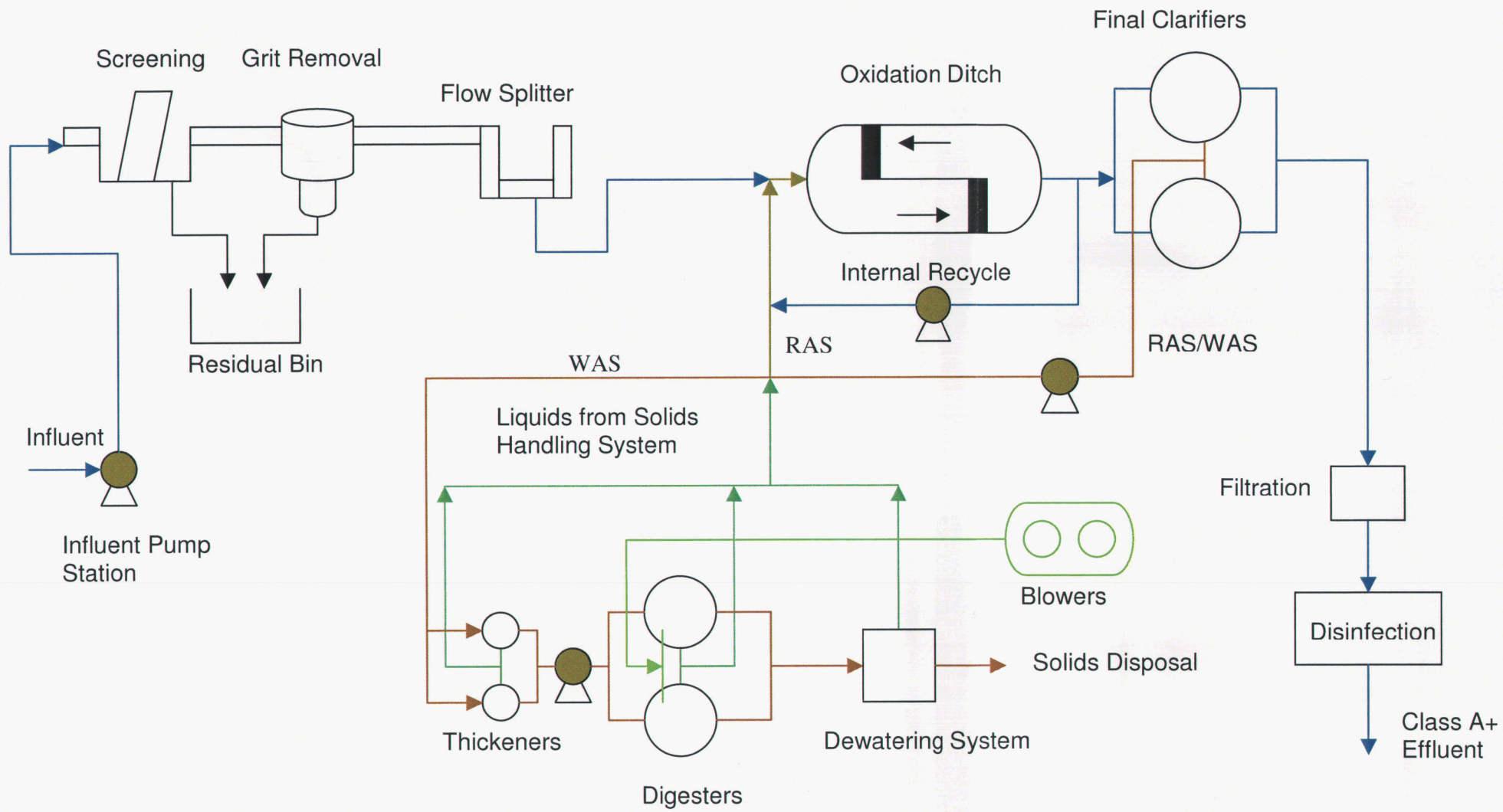
MOHAVE COUNTY, AZ U.S.A.

Title

EXHIBIT 3.4 SBR REACTORS
TREATMENT OPTION
SCHEMATIC

Project No.

188100501



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Project

THE RANCH AT WHITE HILLS
DOUBLE DIAMOND UTILITIES

CC&N SUPPORT SERVICES

MOHAVE COUNTY, AZ U.S.A.

Title

EXHIBIT 3.5 OXIDATION DITCH
TREATMENT OPTION
SCHEMATIC

Project No.

188100501

3.4.5 Sewage Disposal

Once sewage is treated in a WWTF, disposal is required. The water can be discharged to a receiving stream, recharged through infiltration systems, or it can be reclaimed directly for beneficial use.

For this project, a combination of recharge and reclamation is proposed. Recharge options include infiltration basins, injection wells or spray irrigation. It is anticipated that recharge will be achieved adjacent to the WWTF.

A discussion of the proposed reuse is presented in Chapter 4.

3.4.6 Wastewater System Permit Process

Any new wastewater system must be permitted and approved by the regulatory agencies responsible for said approval. It is anticipated that the following agencies and agency permits will be involved in this process:

1. 208 General Plan Amendment.
2. Mohave County Planning and Zoning (MCPZD) Use Permit and Building Permit.
3. Aquifer Protection Permit (APP).
4. ADEQ Notice of Intent to Discharge.
5. ADEQ Reclaimed Water Use (RW) permit.

3.4.6.1 208 Plan Amendment

A 208 plan amendment is required for the Ranch at White Hills. Preparation of the 208 Plan Amendment has been initiated by the Owner. The 208 Plan Amendment includes a lengthy public input process.

3.4.6.2 Building Permit.

The wastewater treatment plant will require a Mohave County building permit for construction of the support buildings. The buildings must be in compliance with the Uniform Building Code.

3.4.6.3 Aquifer Protection Permit (APP)

This permit is the critical path permit for the project. The purpose of the APP is to approve the wastewater treatment plant from a water quality/treatment capacity/effluent disposal perspective. The APP process typically takes 6 to18. This process can be an ongoing process during plant design and construction, however the plant cannot be

placed into operation until the APP is issued. The APP requires a certain level of design effort prior to submission of the application. Typically, the design is a minimum of 60% complete when the application is submitted. A pre-application meeting is held prior to submission to introduce ADEQ to the project and serve to get a ' head start" on the approval process. In addition, ADEQ uses the pre-application meeting to assist in determining the level of hydrogeologic study that they will be required as a part of this process.

It is noted that the 208 Plan Amendment process overlaps with the APP process. The two processes can continue on parallel tracks up to a point, but the 208 Plan Amendment must be complete prior to the ultimate APP approval.

3.4.6.4 Notice of Intent to Discharge

ADEQ's Notice of Intent (NOI) to Discharge permit allows the owner to operate the sewage collection system that discharges to the WWTF. Post construction documentation will also be required for submittal to ADEQ.

3.4.6.5 Reclaimed Water Use Permit.

This permit is required for facilities that generate and distribute reclaimed water. A Type 2 Reclaimed Water General Permit would be required. This permit takes 6-10 months to obtain. A pre-application meeting is recommended for this permit, combined with the APP. It is practical to submit the reclaimed water use permit at the same time as the APP.

3.4.7 Ownership of the Wastewater System.

The Wastewater System will be owned and operated by Double Diamond Utilities. Double Diamond Utilities will either hire qualified operators to operate and maintain the system or negotiate an agreement with a qualified wastewater system operational company.

4.0 Chapter 4 Reclaimed Water System Infrastructure

4.1 INTRODUCTION

The reclaimed water system infrastructure is tied to the wastewater treatment system. Without a wastewater treatment system, there is no reclaimed water. This project will make beneficial use of reclaimed water as must a possible.

4.2 RECLAIMED WATER SYSTEM CRITERIA

The following assumptions have been made concerning the reclaimed water system.

1. Reclaimed water will be used as much as possible to irrigate major community facilities.
2. The amount of reclaimed water available will depend on the size of the development and WWTF.
3. Alternate treated wastewater disposal will be required if community facilities are not constructed during initial phases of development and/or during winter months.
4. Reclaimed water system infrastructure required for build out purposes will be built in the first phase to avoid tearing up relatively new roads 2-3 years into the development.
5. Effluent is assumed to be Class A+.

Title 18, Chapter 11, Article 3 of the Arizona Administrative Code defines the various levels of reclaimed water in Arizona. In summary, the classes are A+, A, B+, B and C. Class A+, which will be provided with this project, provides the developer with the greatest flexibility in reuse options.

4.3 RECLAIMED WATER DEMAND

Proposed uses of reclaimed water at the Ranch at White Hills include the following:

- Major roadway median landscaping
- Schools
- Parks
- Entrance Feature

Table 4.1 below illustrates the anticipated reclaimed water demands.

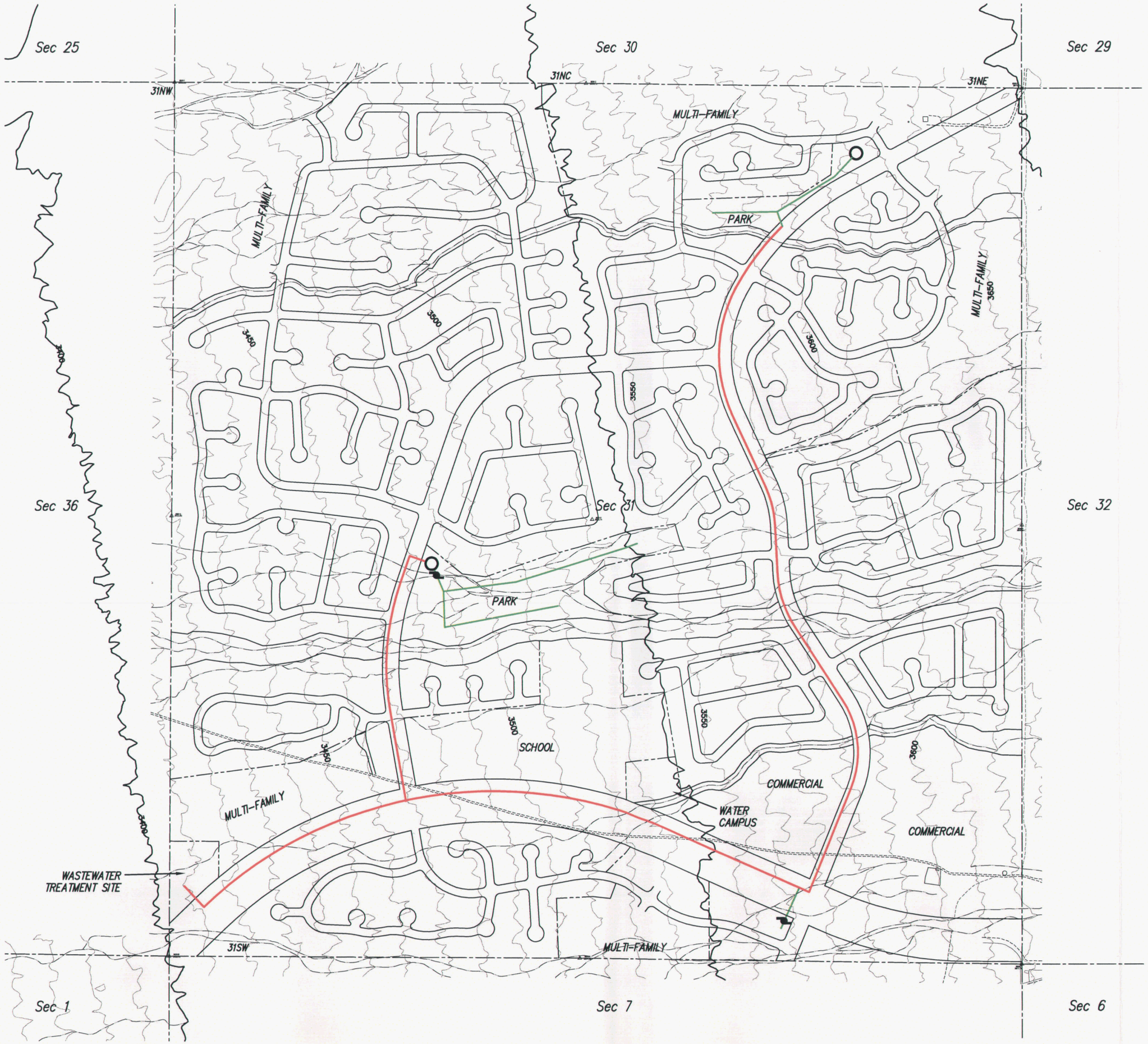
Table 4.1 Reclaimed Water Demands

Phase	Year	No. Acres Turf/mix	No. Acres Desert	Demand for turf/mix, gal/100 sq. ft.	Demand for desert, gal/100 sq ft	Total Daily Demand, gpd	Description
1	2	0	7.3	21	6.6	20,988	Main roadside landscaping and median
2	3	3.3	10.0	21	6.6	59,016	Main roadside landscaping, median and park
3	4	3.3	10.0	21	6.6	59,016	Main roadside landscaping, median and park
4	5	6.6	11.1	21	6.6	92,286	Main roadside landscaping, median and two parks
Build-out		20.0	11.1	21	6.6	214,896	Main roadside landscaping and median, two parks, entrance and school

4.4 RECLAIMED WATER DISTRIBUTION AND STORAGE LAYOUT

The proposed reclaimed water system development is illustrated on Exhibit 4.1. This Exhibit illustrates the potential routing for the reclaimed system, including storage and distribution.

Decorative lakes can be used for storage of reclaimed water, rather than using storage tanks. Lakes add to the character of the development and can be incorporated into the park features.



N

Legend

- TRANSMISSION PIPE
- SECTION LINE
- BOUNDARY LINE
- ROW LINE
- DISTRIBUTION PIPE
- PUMP
- RECLAIMED STORAGE TANK OR POND

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THE RANCH AT WHITE HILLS
DOUBLE DIAMOND UTILITIES

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MOHAVE COUNTY, AZ U.S.A.

Title

EXHIBIT 4.1
RECLAIMED WATER INFRASTRUCTURE
SERVICE AREA

Project No.
188100501

Scale
0 300' 450' 600'

4.4.1 Reclaimed Water System Permitting

The permitting for the reclaimed water system should be completed in parallel with the Wastewater system permits, as described in Chapter 3.

4.4.2 Ownership of the Reclaimed Water System.

The Reclaimed Water System will be owned and operated by Double Diamond Utilities. Double Diamond Utilities will either hire qualified operators to operate and maintain the system or negotiate an agreement with a qualified water/wastewater system operational company.

5.0 Chapter 5 Costs

5.1 INTRODUCTION

This chapter presents preliminary costs for construction of the water, wastewater and reclaimed water systems required to support the Ranch at White Hills. Costs are presented for years 1 to 5, as well as the build-out costs for the development area. All costs are order of magnitude, as there are no firm development plans in place for the area, nor have the systems been designed.

5.2 WATER

Probable costs for construction of the entire water system are presented on Table 5.1.

Table 5.1 Probable Water System Build-Out Costs

Description	Quantity	Unit	Unit Cost	Unit Cost
Booster Pump Structures	1	ea	$100,000	$100,000
Well structures	6	ea	$60,000	$360,000
Wells, including drilling	5	ea	$100,000	$500,000
Generators	0	ea		$0
Well pumps	6	ea	$60,000	$360,000
Treatment equipment	6	ea	$10,000	$60,000
Tanks (MG)	2	ea	$700,000	$1,400,000
Booster and Transfer Stations	2	ea	$80,000	$160,000
Pipes				
24"	0	lf	$120	$0
18"	0	lf	$100	$0
16"	5,400	lf	$85	$459,000
12"	6,610	lf	$70	$462,700
8"	83,720	lf	$40	$3,348,800
6"	16,300	lf	$30	$489,000
Services	2,500	ea	$450	$1,125,000
Meters installed	2,500	ea	$425	$1,062,500
Hydrants	270	ea	$2,600	$702,000
Backflow devices	16	ea	$2,500	$40,000
PRV's	3	ea	$50,000	$150,000
Sub-Total				**$10,779,000**
20% Contingency				$2,155,800
Total				**$12,934,800**

5.3 WASTEWATER

Probable costs for construction of the entire water system are presented on Table 5.2.

Table 5.2 Probable Wastewater System Build-Out Costs

Description	Quantity	Unit	Unit Cost	Cost
Lift Station Structures	5	ea	$75,000	$375,000
Treatment Plant Structures	2	ea	$1,200,000	$2,400,000
Treatment Plant Equipment	2	ea	$1,200,000	$2,400,000
Treatment Plant Sewers	2	ea	$400,000	$800,000
Sewage Disposal	2	ea	$500,000	$1,000,000
Influent Monitoring	2	ea	$80,000	$160,000
Power Generation Equipment	1	ea	$80,000	$80,000
Lift Station equipment	5	ea	$75,000	$375,000
Pipes				
24"	0	lf	$120	$0
18"	0	lf	$80	$0
15"	9,560	lf	$70	$669,200
12"	5,700	lf	$60	$342,000
8"	77,350	lf	$50	$3,867,500
Forcemain 8-12"	6,000	lf	$70	$420,000
Services	2,500	ea	$450	$1,125,000
Sub-Total				**$14,013,700**
20% Contingency				$2,802,740
Total				**$16,816,440**

5.4 RECLAIMED WATER

Probable costs for construction of the entire reclaimed water system are presented on Table 5.3

Table 5.3 Probable Reclaimed Water System Build-Out Costs

Description	Quantity	Unit	Unit Cost	Cost
Recycled Water Services	19	ea	$1,000	$19,000
Recycled Water Meters & Meter Installations	19	ea	$800	$15,200
Pumping Equipment	4	ea	$120,000	$480,000
Recycled Water Reservoirs	3	ea	$200,000	$600,000
Pipes				
24"	0	lf	$120	$0
18"	0	lf	$100	$0
16"	6,400	lf	$85	$544,000
12"	0	lf	$70	$0
8"	8,500	lf	$40	$340,000
4"	10,000	lf	$22	$220,000
Sub-Total				$2,218,200
20% Contingency				$443,640
Total				**$2,661,840**

5.5 PHASED COSTS

The probable costs for the construction of the water, wastewater and reclaimed water systems for the first five years are presented on Table 5.4. All costs include a 20% contingency, however, engineering design costs are not included, nor is any allowance for inflation or depreciation.

Phasing for the wastewater treatment facility assumes that the initial phase is constructed as 0.3 MGD and the second phase brings the facility to 0.6 MGD. The actual construction phasing could vary.

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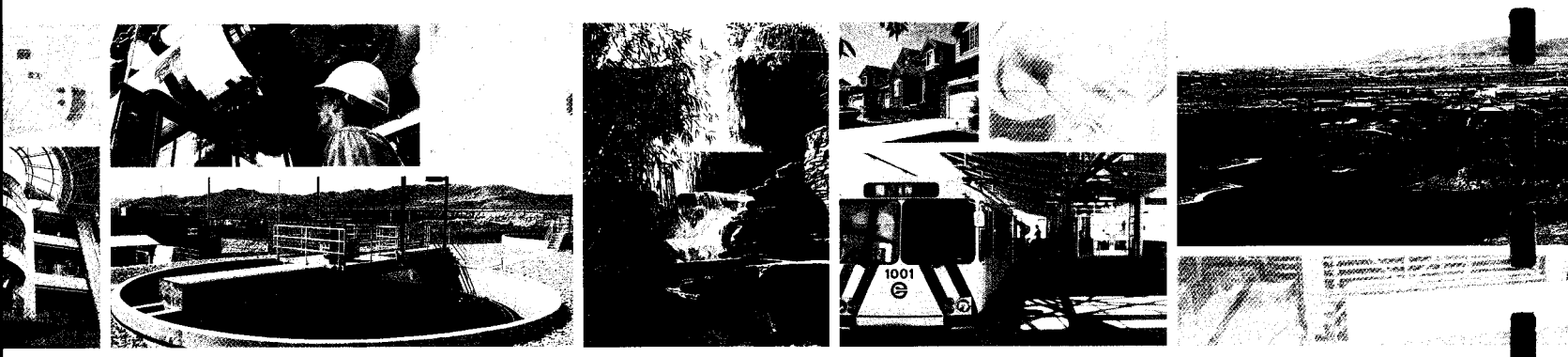

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EXHIBIT

"8"

DOUBLE DIAMOND UTILITIES
SCHEDULES SUPPORTING AN APPLICATION FOR
A CERTIFICATE OF CONVENIENCE AND NECESSITY

TABLE OF CONTENTS - WATER DIVISION

SCHEDULE DESCRIPTION	SCHEDULE NO.
Pro Forma Income Statements	DDW-1
Projected Original Cost Rate Base	DDW-2
Utility Plant Detail and Depreciation	DDW-3
AIAC and Refundable Meter Deposits	DDW-4
Detail of Projected Water Sales	DDW-5
Projected Customer Growth and Water Use	DDW-6
Proposed Water Rates	DDW-7
Other Rates and Charges	DDW-8
Allocation of Contract Services	DDW-9

DOUBLE DIAMOND UTILITIES
WATER DIVISION

PRO FORMA INCOME STATEMENTS

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Revenues:					
Water Sales (1)	$50,000	$192,439	$482,317	$777,195	$1,082,072
Other Water Revenues (1)	0	7,500	7,500	7,500	7,500
Total Water Revenues	$50,000	$199,939	$489,817	$784,695	$1,089,572
Operating & Maintenance Expenses:					
Contract Services - Operations (2)	$60,000	$175,000	$185,000	$190,000	$200,000
Contract Services - Billing & Customer Service (2)	0	6,000	18,000	30,000	42,000
Purchased Power	9,000	19,700	34,750	53,350	67,850
O&M Materials & Supplies	2,000	3,000	5,000	10,000	15,000
Depreciation (3)	41,365	73,452	100,508	153,140	197,083
Property Taxes (4)	1,350	5,398	13,225	21,187	29,418
Income Taxes	23	23	23	3,241	203,310
Total Operating & Maintenance Expenses	$113,738	$282,573	$356,506	$460,917	$754,661
Operating Income (Loss)	($63,738)	($82,634)	$133,311	$323,777	$334,911
Original Cost Rate Base (5)	$2,808,125	$2,717,474	$3,457,609	$4,489,201	$4,599,588
Return on Rate Base	-2.27%	-3.04%	3.86%	7.21%	7.28%

NOTES:
(1) Schedule DDW-5
(2) Schedule DDW-9
(3) Schedule DDW-3
(4) 2.7% of Revenues
(5) Schedule DDW-2

DOUBLE DIAMOND UTILITIES
WATER DIVISION

PROJECTED ORIGINAL COST RATE BASE

DESCRIPTION	END OF YEAR RATE BASE				
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Gross Utility Plant In Service (1)	$3,064,890	$4,562,490	$7,177,050	$9,814,770	$11,255,140
Less: Accumlated Depreciation (1)	41,365	114,816	215,325	368,464	565,547
Net Utility Plant in Service	$3,023,525	$4,447,674	$6,961,725	$9,446,306	$10,689,593
Less:					
AIAC - Net of Refunds (2)	$215,400	$1,510,200	$3,086,116	$4,363,104	$5,342,005
Meter & Service Line Deposits - Net of Refunds (2)	0	220,000	418,000	594,000	748,000
Total Deductions	$215,400	$1,730,200	$3,504,116	$4,957,104	$6,090,005
Original Cost Rate Base	$2,808,125	$2,717,474	$3,457,609	$4,489,201	$4,599,588

NOTES:
(1) Schedule DDW-3
(2) Schedule DDW-4

DOUBLE DIAMOND UTILITIES
WATER DIVISION

UTILITY PLANT DETAIL AND DEPRECIATION

GROSS UTILITY PLANT	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
PLANT ACCOUNT	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE
Organization	$51,033	$51,033	$0	$51,033	$0	$51,033	$0	$51,033	$0	$51,033
Franchises	8,500	8,500	0	8,500	0	8,500	0	8,500	0	8,500
Land & Land Rights	93,750	93,750	0	93,750	0	93,750	0	93,750	6,250	100,000
Structures & Improvements	264,000	264,000	0	264,000	144,000	408,000	72,000	480,000	72,000	552,000
Wells & Springs	508,407	508,407	0	508,407	0	508,407	0	508,407	0	508,407
Pumping Equipment	144,000	144,000	0	144,000	144,000	288,000	72,000	360,000	72,000	432,000
Water Treatment Equipment	24,000	24,000	0	24,000	24,000	48,000	12,000	60,000	12,000	72,000
Distribution Reservoirs	840,000	840,000	0	840,000	0	840,000	840,000	1,680,000	0	1,680,000
Booster Stations & Equipment	96,000	96,000	0	96,000	0	96,000	96,000	192,000	0	192,000
Transmission & Distribution Mains	965,400	965,400	807,600	1,773,000	1,596,960	3,369,960	846,720	4,216,680	579,120	4,795,800
Services	0	0	270,000	270,000	270,000	540,000	270,000	810,000	270,000	1,080,000
Meters & Meter Installations	0	0	255,000	255,000	255,000	510,000	255,000	765,000	255,000	1,020,000
Hydrants	46,800	46,800	156,000	202,800	171,600	374,400	156,000	530,400	156,000	686,400
Backflow Devices	0	0	6,000	6,000	6,000	12,000	15,000	27,000	15,000	42,000
Office Furniture & Fixtures - General	5,000	5,000	1,000	6,000	1,000	7,000	1,000	8,000	1,000	9,000
Office Computing Equipment	10,000	10,000	1,000	11,000	1,000	12,000	1,000	13,000	1,000	14,000
Transportation Equipment		0		0		0		0		0
Stores Equipment		0		0		0		0		0
Tools & Shop Equipment		0		0		0		0		0
Laboratory Equipment		0		0		0		0		0
Power Operated Equipment		0		0		0		0		0
Communications Equipment	3,000	3,000	0	3,000	0	3,000	0	3,000	0	3,000
Miscellaneous Equipment	5,000	5,000	1,000	6,000	1,000	7,000	1,000	8,000	1,000	9,000
Total Water Utility Plant	$3,064,890	$3,064,890	$1,497,600	$4,562,490	$2,614,560	$7,177,050	$2,637,720	$9,814,770	$1,440,370	$11,255,140

DOUBLE DIAMOND UTILITIES
WATER DIVISION

UTILITY PLANT DETAIL AND DEPRECIATION

PLANT ACCOUNT	DEPR. RATE	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Structures & Improvements Structures &	3.33%	$4,396	$8,791	$11,189	$14,785	$17,183
Wells & Springs	3.33%	8,465	16,930	16,930	16,930	16,930
Pumping Equipment	12.50%	9,000	18,000	27,000	40,500	49,500
Water Treatment Equipment	3.33%	400	799	1,199	1,798	2,198
Distribution Reservoirs	2.22%	9,324	18,648	18,648	27,972	37,296
Booster Stations & Equipment	5.00%	2,400	4,800	4,800	7,200	9,600
Transmission & Distribution Mains	2.00%	9,654	27,384	51,430	75,866	90,125
Services	3.33%	0	4,496	13,487	22,478	31,469
Meters & Meter Installations	8.33%	0	10,621	31,862	53,104	74,345
Hydrants	2.00%	468	2,496	5,772	9,048	12,168
Backflow Devices	6.67%	0	200	600	1,301	2,301
Office Furniture & Fixtures - General	6.67%	167	367	434	500	567
Office Computing Equipment	20.00%	1,000	2,100	2,300	2,500	2,700
Transportation Equipment	20.00%	0	0	0	0	0
Stores Equipment	4.00%	0	0	0	0	0
Tools & Shop Equipment	5.00%	0	0	0	0	0
Laboratory Equipment	10.00%	0	0	0	0	0
Power Operated Equipment	5.00%	0	0	0	0	0
Communications Equipment	10.00%	150	300	300	300	300
Miscellaneous Equipment	10.00%	250	550	650	750	850
Total Depreciation - Year		$45,673	$116,482	$186,600	$275,032	$347,531
Accumulated Depreciation		$45,673	$162,154	$348,754	$623,786	$971,317
Depreciation - AIAC & Meter Deposits:						
AIAC		$4,308	$30,204	$61,722	$87,262	$106,840
Meter Deposits		0	12,826	24,369	34,630	43,608
Total Depreciation - Year		$4,308	$43,030	$86,092	$121,892	$150,448
Accumulated Depreciation		$4,308	$47,338	$133,430	$255,322	$405,771
Net Depreciation:						
Year		$41,365	$73,452	$100,508	$153,140	$197,083
Accumulated		$41,365	$114,816	$215,325	$368,464	$565,547

DOUBLE DIAMOND UTILITIES
WATER DIVISION

ADVANCES IN AID OF CONSTRUCTION (AIAC) AND REFUNDABLE METER DEPOSITS:

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
AIAC:					
Beginning Balance	$0	$215,400	$1,510,200	$3,101,360	$4,424,080
Additions	215,400	1,294,800	1,591,160	1,322,720	1,055,120
Gross AIAC	$215,400	$1,510,200	$3,101,360	$4,424,080	$5,479,200
Less: Refunds - Year	0	0	(15,244)	(45,732)	(76,219)
Refunds - Cumulative	0	0	(15,244)	(60,976)	(137,195)
Ending Balance	$215,400	$1,510,200	$3,086,116	$4,363,104	$5,342,005
REFUNDABLE METER DEPOSITS:					
Beginning Balance	$0	$0	$220,000	$440,000	$660,000
Additions	0	220,000	220,000	220,000	220,000
Gross Meter Deposits	$0	$220,000	$440,000	$660,000	$880,000
Less: Refunds - Year	0	0	(22,000)	(44,000)	(66,000)
Refunds - Cumulative	0	0	(22,000)	(66,000)	(132,000)
Ending Balance	$0	$220,000	$418,000	$594,000	$748,000

DOUBLE DIAMOND UTILITIES
WATER DIVISION

DETAIL OF PROJECTED REVENUES

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
WATER SALES:					
Residential;					
Average Customers (1)	0	250	750	1,250	1,750
Annual Water Usage - K Gallons (1)	0	23,451	70,354	117,256	164,159
Monthly Customer Charge (2)	$22.00	$22.00	$22.00	$22.00	$22.00
Annual Customer Charge Revenues	$0	$66,000	$198,000	$330,000	$462,000
Average Commodity Rate - Per K Gallons (2)	$3.69	$3.69	$3.69	$3.69	$3.69
Annual Commodity Revenues	$0	$86,439	$259,317	$432,195	$605,072
Total Residential Water Sales	$0	$152,439	$457,317	$762,195	$1,067,072
Average Residential Bill Per Month	$0.00	$50.81	$50.81	$50.81	$50.81
Construction Water:					
Annual Water Usage - K Gallons	10,000	8,000	5,000	3,000	3,000
Commodity Rate - Per K Gallons (2)	$5.00	$5.00	$5.00	$5.00	$5.00
Total Construction Water Sales	$50,000	$40,000	$25,000	$15,000	$15,000
Total Water Sales	$50,000	$192,439	$482,317	$777,195	$1,082,072
OTHER REVENUES:					
Customer Additions (1)	0	500	500	500	500
Allocated Establishment Charge (50%) (3)	$15.00	$15.00	$15.00	$15.00	$15.00
Total Other Revenues	$0	$7,500	$7,500	$7,500	$7,500

NOTES:
(1) Schedule DDW-6
(2) Schedule DDW-7
(3) Schedule DDW-8

DOUBLE DIAMOND UTILITIES
WATER DIVISION

PROJECTED CUSTOMER GROWTH & WATER USE

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
RESIDENTIAL:					
3/4" Meters:					
Beginning No. of Customers	0	0	500	1,000	1,500
Customer Additions	0	500	500	500	500
Ending No. of Customers	0	500	1,000	1,500	2,000
Average No. of Customers	0	250	750	1,250	1,750
Water Usage:					
3/4" Residential:					
Population Per Housing Unit	2.57	2.57	2.57	2.57	2.57
Average No. of Units	0	250	750	1,250	1,750
Usage/Capita/Day - Gallons	100	100	100	100	100
Average Daily Usage	0	64,250	192,750	321,250	449,750
Monthly Usage	0	1,954,271	5,862,813	9,771,354	13,679,896
Annual Usage	0	23,451,250	70,353,750	117,256,250	164,158,750
Average Monthly Usage Per Unit - Gallons	0	7,817	7,817	7,817	7,817

SCHEDULE DDW-7

DOUBLE DIAMOND UTILITIES
WATER DIVISION

PROPOSED WATER RATES

DESCRIPTION	PROPOSED RATE
Monthly Customer Charges: (No Water)	
3/4" Meters	$22.00
1" Meters	32.00
1 1/2" Meters	85.00
2" Meters	150.00
3" Meters	275.00
4" Meters	500.00
6" Meters	850.00
Commodity Charges - Per 1,000 Gallons:	
3/4" Meters:	
First 4,000 Gallons	$3.00
Next 6,000 Gallons	$4.00
All Usage Over 10,000 Gallons	$5.00
1" Meters:	
First 4,000 Gallons	$3.00
Next 6,000 Gallons	$4.00
All Usage Over 10,000 Gallons	$5.00
1 1/2" Meters:	
First 45,000 Gallons	$4.00
All Usage Over 45,000 Gallons	$5.00
2" Meters:	
First 65,000 Gallons	$4.00
All Usage Over 65,000 Gallons	$5.00
3" Meters:	
First 130,000 Gallons	$4.00
All Usage Over 130,000 Gallons	$5.00
4" Meters:	
First 200,000 Gallons	$4.00
All Usage Over 200,000 Gallons	$5.00
6" Meters:	
First 300,000 Gallons	$4.00
All Usage Over 300,000 Gallons	$5.00
Construction Water - Per 1,000 Gallons	$5.00

DOUBLE DIAMOND UTILITIES
WATER DIVISION

OTHER RATES & CHARGES

SERVICE CHARGES

DESCRIPTION	PROPOSED RATE
Establishment of Service - Regular Hours (1)	$30.00
Establishment of Service - After Hours (1)	60.00
Re-establishment of Service (Within 12 Months)	(2)
Reconnection - Delinquent	60.00
Meter Test (If Correct)	50.00
Meter Re-read (If Correct)	30.00
Customer Deposit	(3)
Deposit Interest	6.00%
NSF Check Charge	35.00
Late Payment Penalty - Per Month	1.50%
Deferred Payment Plan - Per Month	1.50%
Main Extensions/Meter Relocation	Cost (4)
Service Calls - Not Company Responsibility	Cost (4)
Revenue Taxes & Assessments	(5)

REFUNDABLE SERVICE LINE AND METER CHARGES

3/4" Meter	$440.00
1" Meter	520.00
1 1/2" Meter	740.00
2" Turbine Meter	1,235.00
2" Compound Meter	1,800.00
3" Turbine Meter	1,705.00
3" Compound Meter	2,340.00
4" Turbine Meter	2,700.00
4" Compound Meter	3,405.00
6" Turbine Meter	5,035.00
6" Compound Meter	6,510.00

NOTES:
(1) Establish of Service Charge is a Combined Charge for Both Water and Wastewater Service and Not Duplicative
(2) Per Rule R14-2-403D - Months Off System Times the Minimum Charge
(3) Per Rule R14-2-403B
(4) Cost is Direct Materials, Direct Labor and Overhead Burden of 35% of Direct Labor
(5) Per Rule R14-2-408D

DOUBLE DIAMOND UTILIIES
WATER DIVISION

ALLOCATION OF CONTRACT SERVICES (1)

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
OPERATIONS:					
Water	$60,000	$175,000	$185,000	$190,000	$200,000
Wastewater	10,000	145,000	190,000	240,000	290,000
Total	$70,000	$320,000	$375,000	$430,000	$490,000
METER READING, BILLING AND CUSTOMER SERVICE:					
Average No. of Customers	0	250	750	1,250	1,750
Monthly Water - $2.00 Per Month	$0	$500	$1,500	$2,500	$3,500
Annual Water	$0	$6,000	$18,000	$30,000	$42,000
Monthly Wastewater - $1.00 Per Month	$0	$250	$750	$1,250	$1,750
Annual Wastewater	$0	$3,000	$9,000	$15,000	$21,000
Total Contract Services	$0	$9,000	$27,000	$45,000	$63,000

NOTES:
(1) Contract Services Provided by American Water Company

EXHIBIT

"9"

DOUBLE DIAMOND UTILITIES
SCHEDULES SUPPORTING AN APPLICATION FOR
A CERTIFICATE OF CONVENIENCE AND NECESSITY

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DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

PRO FORMA INCOME STATEMENTS

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Revenues:					
Monthly Service (1)	$0	$210,000	$630,000	$1,050,000	$1,470,000
Other Wastewater Revenues (1)	0	7,500	7,500	7,500	7,500
Total Wastewater Revenues	$0	$217,500	$637,500	$1,057,500	$1,477,500
Operating & Maintenance Expenses:					
Contract Services - Operations (2)	$10,000	$145,000	$190,000	$240,000	$290,000
Contract Services - Billing & Customer Service (2)	0	3,000	9,000	15,000	21,000
Purchased Power	0	19,700	34,750	53,350	67,850
Sludge Disposal Costs	0	34,424	37,572	73,570	76,718
O&M Materials & Supplies	2,000	5,000	15,000	25,000	35,000
Depreciation (3)	111,736	251,104	363,860	428,888	398,027
Property Taxes (4)	0	5,873	17,213	28,553	39,893
Income Taxes	22	22	22	10,963	211,913
Total Operating & Maintenance Expenses	$123,758	$464,123	$667,416	$875,323	$1,140,401
Operating Income (Loss)	($123,758)	($246,623)	($29,916)	$182,177	$337,099
Original Cost Rate Base (5)	$5,769,564	$5,177,927	$9,010,415	$7,969,341	$7,573,344
Return on Rate Base	-2.15%	-4.76%	-0.33%	2.29%	4.45%

NOTES:
(1) Schedule DDWW-5
(2) Schedule DDWW-9
(3) Schedule DDWW-3
(4) 2.7% of Revenues
(5) Schedule DDWW-2

DOUBLE DIAMOND UTILITES
WASTEWATER DIVISION

PROJECTED ORIGINAL COST RATE BASE

DESCRIPTION	END OF YEAR RATE BASE				
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Gross Utility Plant in Service (1)	$5,881,300	$8,076,580	$14,586,260	$16,085,100	$17,733,940
Less: Accumulated Depreciation (1)	111,736	362,840	764,887	1,305,869	1,885,365
Net Utility Plant in Service	$5,769,564	$7,713,740	$13,821,373	$14,779,231	$15,848,575
Less:					
Gross CIAC (2)	$0	$2,574,000	$4,961,240	$7,141,640	$8,850,440
Less: Accumlated Amortization (2)	$0	$38,187	$150,282	$331,750	$575,209
Net CIAC	$0	$2,535,813	$4,810,958	$6,809,890	$8,275,231
Original Cost Rate Base	$5,769,564	$5,177,927	$9,010,415	$7,969,341	$7,573,344

NOTES:
(1) Schedule DDWW-3
(2) Schedule DDWW-4

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

UTILITY PLANT DETAIL AND DEPRECIATION

GROSS UTILITY PLANT	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
PLANT ACCOUNT	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE
Organization	$51,000	$51,000	$0	$51,000	$0	$51,000	$0	$51,000	$0	$51,000
Franchises	8,500	8,500	0	8,500	0	8,500	0	8,500	0	8,500
Land & Land Rights	75,000	75,000	10,000	85,000	5,000	90,000	5,000	95,000	5,000	100,000
Structures & Improvements	1,440,000	1,440,000	180,000	1,620,000	1,530,000	3,150,000	90,000	3,240,000	0	3,240,000
Power Generation Equipment	96,000	96,000	0	96,000	0	96,000	0	96,000	0	96,000
Collection Sewers - Lift Stations	0	0	180,000	180,000	90,000	270,000	90,000	360,000	0	360,000
Collection Sewers - Gravity	710,400	710,400	1,194,000	1,904,400	1,474,440	3,378,840	980,400	4,359,240	820,800	5,180,040
Collection Services to Customers	0	0	270,000	270,000	270,000	540,000	270,000	810,000	270,000	1,080,000
Influent & Effluent Flow Measuring Devices	96,000	96,000	0	96,000	96,000	192,000	0	192,000	0	192,000
Recycled Water Services	0	0	3,600	3,600	4,800	8,400	4,800	13,200	4,800	18,000
Recycled Water Meters & Installations	0	0	2,880	2,880	3,840	6,720	3,840	10,560	3,840	14,400
Receiving Wells		0		0		0		0		0
Pumping Equipment	144,000	144,000	0	144,000	144,000	288,000	0	288,000	144,000	432,000
Recycled Water Reservoirs	240,000	240,000	0	240,000	240,000	480,000	0	480,000	240,000	720,000
Recycled Water Trans. & Dist. Mains	782,400	782,400	52,800	835,200	129,600	964,800	52,800	1,017,600	158,400	1,176,000
Treatment & Disposal Equipment	1,740,000	1,740,000	300,000	2,040,000	2,040,000	4,080,000	0	4,080,000	0	4,080,000
Plant Sewers	480,000	480,000	0	480,000	480,000	960,000	0	960,000	0	960,000
Outfall Sewer Lines		0		0		0		0		0
Office Furniture & Fixtures - General	10,000	10,000	1,000	11,000	1,000	12,000	1,000	13,000	1,000	14,000
Office Furniture & Fixtures - Computing		0		0		0		0		0
Transportation Equipment		0		0		0		0		0
Stores Equipment		0		0		0		0		0
Tools & Shop Equipment		0		0		0		0		0
Laboratory Equipment		0		0		0		0		0
Power Operated Equipment		0		0		0		0		0
Communication Equipment	3,000	3,000		3,000		3,000		3,000		3,000
Miscellaneous General Equipment	5,000	5,000	1,000	6,000	1,000	7,000	1,000	8,000	1,000	9,000
Total Wastewater Utility Plant	$5,881,300	$5,881,300	$2,195,280	$8,076,580	$6,509,680	$14,586,260	$1,498,840	$16,085,100	$1,648,840	$17,733,940

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

UTILITY PLANT DETAIL AND DEPRECIATION

PLANT ACCOUNT	DEPR. RATE	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Structures & Improvements	3.33%	23,976	50,949	79,421	106,394	107,892
Power Generation Equipment	3.33%	1,598	3,197	3,197	3,197	3,197
Collection Sewers - Lift Stations	2.00%	0	1,800	4,500	6,300	7,200
Collection Sewers - Gravity	2.00%	7,104	26,148	52,832	77,381	95,393
Collection Services to Customers	2.00%	0	2,700	8,100	13,500	18,900
Influent & Effluent Flow Measuring Devices	10.00%	4,800	9,600	14,400	19,200	19,200
Recycled Water Services	2.00%	0	36	120	216	312
Recycled Water Meters & Installations	3.33%	0	48	160	288	416
Receiving Wells	3.33%	0	0	0	0	0
Pumping Equipment	10.00%	7,200	14,400	21,600	28,800	36,000
Recycled Water Reservoirs	2.50%	3,000	6,000	9,000	12,000	15,000
Recycled Water Trans. & Dist. Mains	2.00%	7,824	16,176	18,000	19,824	21,936
Treatment & Disposal Equipment	5.00%	43,500	94,500	153,000	204,000	204,000
Plant Sewers	5.00%	12,000	24,000	36,000	48,000	48,000
Outfall Sewer Lines	4.00%	0	0	0	0	0
Office Furniture & Fixtures - General	6.67%	334	700	767	834	900
Office Furniture & Fixtures - Computing	20.00%	0	0	0	0	0
Transportation Equipment	20.00%	0	0	0	0	0
Stores Equipment	4.00%	0	0	0	0	0
Tools & Shop Equipment	5.00%	0	0	0	0	0
Laboratory Equipment	10.00%	0	0	0	0	0
Power Operated Equipment	5.00%	0	0	0	0	0
Communication Equipment	10.00%	150	300	300	300	300
Miscellaneous General Equipment	10.00%	250	550	650	750	850
Total Depreciation - Year		$111,736	$251,104	$402,047	$540,983	$579,496
Accumulated Depreciation		$111,736	$362,840	$764,887	$1,305,869	$1,885,365
CIAC Amortization - Year		$0	$38,187	$112,095	$181,468	$243,459
Net Depreciation - Year		$111,736	$251,104	$363,860	$428,888	$398,027

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

CONTRIBUTIONS IN AID OF CONSTRUCTION (CIAC) AND CIAC AMORTIZATION

CONTRIBUTED UTILITY PLANT	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
PLANT ACCOUNT	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE
Treatment Capacity	$0	$0	$750,000	$750,000	$750,000	$1,500,000	$750,000	$2,250,000	$750,000	$3,000,000
Structures & Improvements	0	0	180,000	180,000	90,000	270,000	90,000	360,000	0	360,000
Collection Sewers - Lift Stations	0	0	180,000	180,000	90,000	270,000	90,000	360,000	0	360,000
Collection Sewers - Gravity	0	0	1,194,000	1,194,000	1,187,240	2,381,240	980,400	3,361,640	688,800	4,050,440
Collection Services to Customers	0	0	270,000	270,000	270,000	540,000	270,000	810,000	270,000	1,080,000
Total Contributed Utility Plant	$0	$0	$2,574,000	$2,574,000	$2,387,240	$4,961,240	$2,180,400	$7,141,640	$1,708,800	$8,850,440

AMORTIZATION OF CIAC	AMORT. RATE	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Treatment Capacity	5.00%	$0	$18,750	$56,250	$93,750	$131,250
Structures & Improvements	3.33%	0	2,997	7,493	10,490	11,988
Collection Sewers - Lift Stations	2.00%	0	1,800	4,500	6,300	7,200
Collection Sewers - Gravity	2.00%	0	11,940	35,752	57,429	74,121
Collection Services to Customers	2.00%	0	2,700	8,100	13,500	18,900
Total Amortization - Year		$0	$38,187	$112,095	$181,468	$243,459
Accumulated Amortization		$0	$38,187	$150,282	$331,750	$575,209

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

DETAIL OF PROJECTED REVENUES

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
MONTHLY SERVICE:					
Residential:					
Average Customers (1)	0	250	750	1,250	1,750
Monthly Rate (2)	$70.00	$70.00	$70.00	$70.00	$70.00
Monthly Revenues	$0	$17,500	$52,500	$87,500	$122,500
Annual Revenues - Monthly Service	$0	$210,000	$630,000	$1,050,000	$1,470,000
OTHER REVENUES:					
Customer Additions (1)	0	500	500	500	500
Allocated Establishment Charge (50%) (3)	$15.00	$15.00	$15.00	$15.00	$15.00
Total Other Revenues	$0	$7,500	$7,500	$7,500	$7,500

NOTES:
(1) Schedule DDWW-6
(2) Schedule DDWW-7
(3) Schedule DDWW-8

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

PROJECTED CUSTOMER GROWTH & WASTEWATER FLOWS

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
RESIDENTIAL:					
Beginning No. of Customers	0	0	500	1,000	1,500
Customer Additions	0	500	500	500	500
Ending No. of Customers	0	500	1,000	1,500	2,000
Average No. of Customers	0	250	750	1,250	1,750
WASTEWATER FLOWS:					
Population Per Housing Unit	2.57	2.57	2.57	2.57	2.57
Average No. of Units	0	250	750	1,250	1,750
Average Population	0	643	1,928	3,213	4,498
Flows/Capita/Day - Gallons	80	80	80	80	80
Average Daily Flows	0	51,400	154,200	257,000	359,800
Annual Flows	0	18,761,000	56,283,000	93,805,000	131,327,000

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

PROPOSED WASTEWATER RATES

DESCRIPTION	PROPOSED RATE
MONTHLY SERVICE:	
Residential Service - Per Month	$70.00
METERED SERVICE:	
Recycled Water - Per 1,000 Gallons (1)	$3.00

NOTE:
(1) Not Applicable to Turf Irrigation on Medians and Other Common Areas

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

OTHER RATES & CHARGES

DESCRIPTION	PROPOSED RATE
Establishment of Service - Regular Hours (1)	$30.00
Establishment of Service - After Hours (1)	60.00
Re-establishment of Service (Within 12 Months)	(2)
Reconnection - Delinquent	60.00
Customer Deposit	(3)
Deposit Interest	6.00%
NSF Check Charge	35.00
Late Payment Penalty - Per Month	1.50%
Deferred Payment Plan - Per Month	1.50%
Main Extensions/Additional Facilities	Cost (4)
Service Calls - Not Company Responsibility	Cost (4)
Revenue Taxes & Assessments	(5)
Non-refundable Capacity Fee - Per Residential Unit	$1,500.00

NOTES:
(1) Establishment of Service Charge is a Combined Charge for Both Water and Wastewater Service and Not Duplicative
(2) Per Rule R14-2-603D - Months Off System Times the Minimum Charge
(3) Per Rule R14-2-603B
(4) Cost is Direct Materials, Direct Labor and Overhead Burden of 35% of Direct Labor
(5) Per Rule R14-2-608D

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

ALLOCATION OF CONTRACT SERVICES (1)

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
OPERATIONS:					
Water	$60,000	$175,000	$185,000	$190,000	$200,000
Wastewater	10,000	145,000	190,000	240,000	290,000
Total	$70,000	$320,000	$375,000	$430,000	$490,000
METER READING, BILLING AND CUSTOMER SERVICE:					
Average No. of Customers	0	250	750	1,250	1,750
Monthly Water - $2.00 Per Month	$0	$500	$1,500	$2,500	$3,500
Annual Water	$0	$6,000	$18,000	$30,000	$42,000
Monthly Wastewater - $1.00 Per Month	$0	$250	$750	$1,250	$1,750
Annual Wastewater	$0	$3,000	$9,000	$15,000	$21,000
Total Contract Services	$0	$9,000	$27,000	$45,000	$63,000

NOTES:
(1) Contract Services Provided by American Water Company

EXHIBIT

"10"

BALANCE SHEET AS OF 6/30/07

DOUBLE DIAMOND UTILITIES, INC.

	BALANCE
ASSETS:	
CASH	100,552
ORGANIZATION	102,033
FRANCHISES	17,000
LAND & LAND RIGHTS	168,750
WELLS & SPRINGS	508,407
TOTAL ASSETS	**896,741**
LIABILITIES & EQUITY:	
COMMON STOCK	5,000
PAID IN CAPITAL	891,741
TOTAL LIABILITIES & EQUITY	**896,741**

EXHIBIT

"11"

04-18-06 A11:27 IN

ARIZONA DEPARTMENT OF WATER RESOURCES

Office of Assured and Adequate Water Supply

3550 North Central Avenue, 2nd Floor, Phoenix, Arizona 85012

Telephone (602) 771-8585

Fax (602) 771-8689

Janet Napolitano
Governor

Herbert R. Guenther
Director

ANALYSIS OF ADEQUATE WATER SUPPLY

April 11, 2006

File Number:	23-401774.0000
Development:	The Ranch at White Hills
Complete Location:	T29N, R19W, Sec. 21, 29 & 33; T28N, R20W, Sec. 23, 25 & 35; T28N, R19W, Sec. 9, 15, 17, 19, 21, 27, 29, 31, 33 &35; T27 N, R21W, Sec. 13 & 25; T27N, R20W, Sec. 1, 9, 13, 25, 31 & 35; T27 N, R19W, Sec. 1, 3, 9, 11, 13, 15, 19, 21, 23, 25, 27, 29, 31, 33 & 35; T25N, R21W, Sec 35; T25 N, R20W, Sec. 3, 5, 7, 9, 11, 12, 13, 14, 15, 17, 19, 21 & 23; T25N, R19W, Sec. 6, 8, 18 & 30; T24N, R20W, Sec. 13, 33 & 35. Mohave County, Arizona
Land Owners:	The Ranch at Temple Bar, LLC, a Nevada limited liability company; Joshua Tree, LLC, a Nevada limited liability company; Arizona Acreage, LLC, a Nevada limited liability company; Arizona Land Development, Inc., a Nevada Corporation; Silver Basin, Inc., a Nevada corporation; Cactus & Stuff, LLC, a Nevada limited liability company; Flannery & Allen LLC, a Nevada limited liability Company; Gateway Lots, LLC, a Nevada limited liability company and Smith Ranch Commercial LLC, a Nevada limited liability company as Owners

The Arizona Department of Water Resources has evaluated the Analysis of Adequate Water Supply application for The Ranch at White Hills pursuant to A.A.C. R12-15-723 and found the application to be complete and correct on March 31, 2006. The proposed development will consist of 20,500 Single-family and 4,500 Multi-family units. There will be a golf course and park areas within the development. The owner has indicated treated effluent will eventually be used to water these non-residential areas. Double Diamond Utilities will serve the master planned community. Conclusions of the review are indicated below based on the adequate water supply criteria referenced in A.R.S. § 45-108 and A.A.C. R12-15-701, 715, 723 *et seq.*

- **Physical, Continuous, and Legal Availability of Water for 100 Years**
  On the basis of the Department's review, the Department has determined that the applicant has demonstrated that 7,573 acre-feet per year of groundwater[1] and 2,734 acre-feet per year of treated effluent projected at build-out will be **physically available**, which exceeds the applicant's projected build-out demands for the development of 7,976 acre-feet per year. The applicant identified Double Diamond Utilities as the possible municipal provider. However, the application did not include a Notice of Intent to Serve form and is not within the service area boundaries of a water provider at this time. Individual Notices of Intent to Serve, evidence of the municipal provider's legal authority to serve the subdivision, and evidence of the wastewater treatment plant capacity will be required for each application for a Water Adequacy Report. Legal and **continuous availability** of the water are not proven at this time.

[1] The projected groundwater demand for this project (7,573 acre-feet per year) combined with the current and committed demand for existing uses and platted but undeveloped lots in the project area (3,472 acre-feet per year) results in a the total groundwater demand of 11,045 acre-feet per year or 1,104,500 acre-feet after 100 years.

- **Adequate Water Quality**
  The water provider's system has not been established at this time and therefore, applications for Water Adequacy Reports will be required to provide evidence that the water supplies are of adequate quality. This water quality requirement of an Analysis of Adequate Water Supply will be re-evaluated for each application for a Water Adequacy Report.

The term of this Analysis of Adequate Water Supply is ten years from the date of this letter and may be renewed upon request, subject to approval by the Department. Throughout the term of this determination, the Department, when reviewing other requests for adequate water supply in the area, will consider the projected demand of this development. The demand projected for this development assumes that the conservation measures the applicant has identified to the Department will be required for the homes in this development, including the water and energy efficient hot water systems, effluent use requirements for public parks, large turf areas and golf courses, low water use landscaping on the property, and water catchment systems for most of the homes and commercial buildings. Additionally, it must be noted that based upon the limited hydrogeologic data available for the proposed development area, the amount of groundwater that may be physically available to 1,200 feet below land surface for this project may be limited. As additional hydrogeologic data becomes available, applications for Water Adequacy Reports and the determination of physical availability in this analysis may be affected by that additional data.

Prior to obtaining plat approval by the local platting authority and approval of the public report by the Department of Real Estate, a Water Adequacy Report must be obtained for each subdivision plat. The findings of this Analysis of Adequate Water Supply may be used to demonstrate that groundwater and treated effluent supplies are physically available for at least 100 years for purposes of an application for Water Adequacy Report, unless new hydrogeologic data indicates otherwise. Applications for Water Adequacy Reports that follow the Analysis of Adequate Supply will need to reference this letter. This determination may be invalidated if the development plan or other conditions change materially prior to filing for a Water Adequacy Report.

Questions may be directed to the Office of Assured/Adequate Water Supply at (602) 771-8598.

Sandra Fabritz-Whitney

Sandra Fabritz-Whitney, Assistant Director
Water Management Division

cc: Mohave County Board of Supervisors
Christine Ballard, Mohave County Planning and Zoning
Paul Beecher, City of Kingman
Greg Wallace, Errol Montgomery & Associates (Villages at White Hills)
Herb Guenther, ADWR
Joan Card, ADEQ
Steve Olea, ACC
Roy Tanney, ADRE

EXHIBIT

"12"

FRANCHISE AGREEMENT
and
FRANCHISE
for
PUBLIC SERVICE CORPORATIONS

Date of Franchise: March 7, 2005
Term of Franchise: 25 years
Renewal Date Option: March 7, 2030

This is a Franchise Agreement between the County of Mohave, State of Arizona, and DOUBLE DIAMOND UTILITIES, INC, authorizing the location, construction, maintenance and operation of WATER SERVICE within the unincorporated areas of Mohave County. This Franchise specifically grants to DOUBLE DIAMOND UTILITIES, INC. the privilege of using the Public Rights-of-Way and Easements of Mohave County in accordance with established policies, practices, and procedures of Mohave County and its several departments.

RECITALS

WHEREAS, the Mohave County Board of Supervisors has the duty and responsibility to protect the health, safety and welfare of the residents of Mohave County; and

WHEREAS, the Mohave County Board of Supervisors has the duty and responsibility to assure that Public Rights-of-Way and Easements of Mohave County are used in a responsible manner consistent with the best interests of the residents of Mohave County; and

WHEREAS, the Mohave County Board of Supervisors strives to authorize the use of the Public Rights-of-Way and Easements of Mohave County in a uniform manner among all users; and

WHEREAS, the Mohave County Board of Supervisors deems this form of Franchise Agreement and Franchise to be fair, reasonable and appropriate for Public Service Corporations;

NOW, THEREFORE, the Mohave County Board of Supervisors and DOUBLE DIAMOND UTILITIES, INC. do hereby state, promise and agree as follows:

SECTION 1. **DEFINITIONS.**

As used in this Franchise Agreement and Franchise, the following terms have been agreed to have the meanings indicated:

A. "Agreement" means this Franchise Agreement and Franchise.

B. "Area of Jurisdiction" means that part of Mohave County for which this Franchise is granted.

C. "Board" means the Mohave County Board of Supervisors.

D. "County" means Mohave County, Arizona.

E. "Emergency" means any occurrence that may arise without prior notice to Franchisee.

F. "Franchise" means this Franchise Agreement and Franchise.

G. "Franchisee" means DOUBLE DIAMOND UTILITIES, INC..

H. "Franchising Authority" means the Mohave County Board of Supervisors.

I. "Franchise Property" means all materials, equipment, and facilities of Franchisee located, constructed, maintained, and/or operated in the Public Rights-of-Way and Easements of Mohave County pursuant to the terms and conditions of this Franchise Agreement and Franchise.

J. "Gross Annual Receipts" means any compensation derived from any Subscriber or User in payment for delivery of a product or services from Franchisee. This meaning shall not include any taxes collected by Franchisee and transmitted to a governmental agency, and it shall not include any amounts collected by Franchisee by virtue of the Franchise Fee provisions of this Franchise.

K. "Intergovernmental Agreement" means the joint exercise of powers authorized by Title 11, Chapter 7, Article 3 of Arizona Revised Statutes.

L. "Public Rights-of-Way and Easements" means that real property located within unincorporated areas of Mohave County within which the Mohave County Board of Supervisors has the power and authority to grant a Franchise.

M. "Rights-of-Way and Easements" shall mean the surface of, the space above, and the space below the Public Rights-of-Way and Easements reasonably necessary to construct, operate, and maintain the Franchise Property.

N. "Service Area" means the unincorporated areas of Mohave County in which the Franchisee delivers the service for which this Franchise is granted.

O. "Subscriber or User" means any person or entity receiving, for any purpose, the services of the Franchisee.

Section 2. **GRANTING OF FRANCHISE.**

A non-exclusive Franchise is hereby granted to Franchisee for the purpose of locating, constructing, and maintaining Franchise Property in the unincorporated area of Mohave County. This Franchise shall include the authority, privilege, and power to construct, operate, and maintain all necessary Franchise Property in, over, under, across, and upon the Public Rights-of-Way and Easements consistent with the terms and conditions of this Franchise.

Section 3. **TERM OF FRANCHISE.**

This Franchise shall be for an initial term of twenty five (25) years beginning on the date of Board approval. This term may be extended only by reapplication and grant of an extension. Application for an extension shall be submitted to the Board no sooner than three hundred sixty-five (365) days, nor later than one hundred twenty (120) days, prior to the expiration date of this Franchise.

Section 4. **TERMS AND CONDITIONS.**

This Franchise shall be subject to the following conditions:

A. This Franchise shall not be deemed to limit the authority of the Board to include other conditions or restrictions which may be necessary for the protection of the health, safety and welfare of the residents of the County and/or for the efficient administration of the Rights-of-Way and Easements in general.

B. This Franchise is non-exclusive.

C. The Board has granted this Franchise in reliance upon the Franchisee's business skill, reputation, financial capacity, and character. Accordingly, this Franchise and/or any interest hereunder, shall not be assigned, transferred, conveyed, or otherwise encumbered without the express written consent of the Board. Failure of performance by the Franchisee of any of the terms and conditions of this Franchise may be cause for termination of this Franchise pursuant to Section 16 of this Agreement.

D. No privilege or exemption shall be granted or inferred unless specifically set forth in this Franchise.

E. Any privilege claimed under this Franchise by the Franchisee in any Right-of-Way or Easement shall be subordinated to any prior lawful occupancy of the Right-of-Way or Easement.

F. Prior to commencing any activity authorized by this Franchise, the Franchisee shall submit plans and specifications for such activity to the County Public Works Director for approval; provided, however, whenever Franchisee is required to undertake emergency activities required to protect the health, safety and welfare of the public and/or the safety and reliability of the Franchise Property, Franchisee shall notify the County Public Works Director not later than twenty four (24) hours after notice of the emergency; and provided further, however, should such emergency present an immediate threat or danger to the health, safety and welfare of the public, Franchisee shall notify the County Manager or the County Public Works Director or the County Emergency Services Coordinator or the Chairman of the Board within one (1) hour of notice of the emergency.

G. Any failure of the Board, or its agents, to promptly enforce compliance of the terms and/or conditions of this Franchise shall not be deemed a waiver of such terms and/or conditions.

H. The Franchisee shall have no recourse against the Board or its agents for any loss, cost, expense, or damage arising out of any term, condition or enforcement of this Franchise.

I. The Franchisee shall be subject to all County rules, regulations and/or specifications pertaining to the use of Public Rights-of-Way and Easements which may be adopted from time to time by the Board.

J. Prior to the grant of this Franchise by the Board, and annually thereafter, Franchisee shall submit to the Board a complete financial statement that reflects the current financial status of the Franchisee and a list of names and addresses of proprietors, owners, or beneficial shareholders who hold more than a ten percent (10%) interest in the corporation, organization, or regulated entity.

SECTION 5. **RECORDS TO BE KEPT AND MAINTAINED; REPORTS; INSPECTION OF RECORDS.**

A. Franchisee shall prepare and furnish to the Board, or its agents, such reports and records of its operations, affairs, transactions and/or property as the Board deems necessary or appropriate for the enforcement of performance by the Franchisee according to the terms and conditions of this Franchise.

B. Franchisee shall keep and maintain within the County, and make available for County inspection upon reasonable request, full and complete plans and records showing the exact location of all Franchise Property installed and/or in use in the Public Rights-of-Way and Easements.

C. Franchisee shall file with the County Public Works Director, on or before the 31st day of December of each year, a map and/or a set of plans showing all Franchise Property installed and/or in use in the Public Rights-of-Way and Easements current as of the immediately preceding November 30th.

D. Franchise shall keep its Franchise Property in good operating condition, and Franchisee shall cause all customer complaints to be duly investigated and, where the circumstances warrant, corrected within a reasonable period of time. Records reflecting such complaints, and the time and manner in which they are resolved, shall be maintained by the Franchisee for at least one (1) year and shall be made available for inspection by the Board or its agents upon reasonable request.

SECTION 6. **INSTALLATION STANDARDS.**

A. Franchisee shall be responsible for meeting all County, State, Federal, and local installation standards.

B. Any other provision of this Franchise notwithstanding, all installations of Franchise Property shall be made in a safe and workmanlike manner and maintained in good condition at all times. Except for the conduct of normal construction and repair activities, all such installations of Franchise Property shall be approximately placed so as not to interfere in any manner with the rights of the public or individual property owners and shall not interfere with the use of public property by the public and shall not obstruct or impede traffic. The Board reserves the right of regulation of the erection and construction of any Franchise Property, by Franchisee and its agents or employees, and to designate where such Franchise Property shall be placed. Franchisee agrees to make changes in its plans, specifications and/or Franchise Property to conform with all requirements of the Board.

C. Franchisee shall be responsible for obtaining all necessary licenses, certificates, permits and approvals from all government authorities having jurisdiction over the activities to be conducted under this Franchise.

SECTION 7. **UNDERGROUND LINES.**

Franchisee shall, at its own expense, place its lines underground in areas which it serves where telephone and electric power lines are, or are required to be, underground.

SECTION 8. **LOCATION OF FRANCHISE PROPERTY.**

Franchise Property shall be constructed or installed in Public Rights-of-Way and Easements of the County only at such locations and in such manner as shall be approved by the Board or its agents. Construction or installation of Franchise Property shall be in accordance with all Federal, State, and County laws and regulations.

SECTION 9. **REPAIR OF ROADS, STREETS, RIGHTS-OF-WAY AND EASEMENTS.**

Franchisee shall, at its own expense, promptly repair and restore any and all roads, streets, sidewalks or other public and/or private property altered, damaged, or destroyed by Franchisee in exercising the privileges granted herein to Franchisee.

SECTION 10. **FAILURE TO PERFORM AS REQUIRED IN SECTION 9 ABOVE.**

A. Upon failure of Franchisee, and its agent or employees, to complete any work required by this Franchise, the Board or its agents may notify Franchisee of non-compliance by registered mail. Franchisee shall have fourteen (14) days from the receipt of the notice to complete the repairs or to enter into an agreement with the Board and/or its agents for the completion of the repairs.

B. If, in the opinion of the County Director of Public Works and/or the County Manager, the failure to repair or complete construction presents a serious and immediate danger to the public health, safety and welfare, they, separately or together, may take immediate action to mitigate the damage. All costs associated with such actions will be the sole responsibility of Franchisee, and Franchisee shall reimburse the County for such costs within thirty (30) days after receipt of an itemized bill.

SECTION 11. **REMOVAL AND ABANDONMENT OF FRANCHISE PROPERTY.**

A. In the event the use of any Franchise Property is discontinued for a continuous period of twelve (12) months and Franchisee is unable to reasonably demonstrate the usefulness of such Franchise Property for future use, Franchisee shall either remove such Franchise Property or abandon such Franchise Property in place.

B. In the event Franchise Property is installed in violation of any requirements of this Franchise, and Franchisee fails to take reasonable measures to cure such violation within thirty (30) days after written notice of such violation, Franchisee shall either remove such Franchise Property or abandon such Franchise Property in place.

C. Franchise Property to be abandoned in place shall be abandoned in accordance with applicable law. Upon abandonment of Franchise Property in place, Franchisee shall submit to the Board an instrument satisfactory to the Board transferring the ownership of such Franchise Property to the County.

SECTION 12. **CHANGES REQUIRED BY PUBLIC IMPROVEMENTS.**

Franchisee shall, at its own expense, protect, support, temporarily disconnect, relocate in the same street, alley or public place, any Franchise Property when required by the Board or its agents by reason of County public improvements; provided, however, Franchisee shall have the right to abandon Franchise Property as provided in Section 11 above.

SECTION 13. **INDEMNIFICATION OF COUNTY.**

Franchisee shall defend the County against all claims for injury to any person or property caused by the negligence of Franchisee, its agents and/or employees, in the construction or operation of Franchise Property, and, in the event of a determination of liability, shall indemnify the County, the Board, its agents and/or employees. More particularly, Franchisee, its successors and assigns, does hereby agree to indemnify and hold harmless the County, the Board and/or its agents and employees, from any and all liability, claim, demand or judgment arising out of any injury to any person or property as a result of a violation or failure on the part of Franchisee, its successors and assigns, to observe their proper duty or because of negligence in whole or in part arising out of the construction, repair, extension, maintenance, or operation of Franchise Property of any kind or character used in connection with this Franchise.

SECTION 14. **LIABILITY INSURANCE REQUIRED.**

Franchisee agrees that, at all times during the existence of this Franchise, Franchisee will carry a minimum of $1,000,000 in excess liability insurance on a combined single limit basis above any permitted self-insured retention. Self-insured retention shall be permitted so long as Franchisee continues to report to the Securities and Exchange Commission of the United States a Total Assets amount in excess of $100,000,000. The insurance coverage required by this Section shall be provided by one or more insurers permitted under Title 20 or Arizona Revised Statutes to transact insurance business. Further, Franchisee shall provide, to the Clerk of the Board of Mohave County, a Certificate of Insurance naming the County, the Board and/or its agents and employees as additional insured. The Certificate will provide for notification to the Clerk of the Board of Mohave County prior to any change in said policy, or cancellation of said policy, for any reason including nonpayment of premiums.

SECTION 15. **FRANCHISE FEE.**

A. Franchisee shall pay to the County an annual Franchise Fee in an amount equal to two percent (2%) of Franchisee's Gross Annual Receipts derived from the operation of Franchise Property so long as the Board shall have the authority to levy a Franchise Fee. Further, Franchisee shall not be required to pay to the County any other Franchise fee or Permit fee in connection with this Franchise. There shall be no offsets for any other taxes or assessments, i.e., sales tax, fuel tax, personal property tax, general ad valorem property tax, special assessments for local improvements or any other tax or assessment not directly related to the use of the Public Rights-of-Way and Easements that may be required of Franchisee by any governmental agency.

B. The annual Franchise Fee shall be paid no later than the first (1st) day of May following each calendar year during the term of this Franchise. All such payments shall be made to the Mohave County Finance Department, P.O. Box 7000, Kingman, Arizona 86402-7000. So long as the Board shall have the authority to levy a Franchise Fee, failure to pay such Franchise Fee by the first (1st) day of May following the calendar year is a material breach of this Franchise Agreement and is subject to the termination provisions of Section 16 hereinafter.

C. The Board shall have the right to inspect and audit all Franchisee's books and records which may be necessary in determining Franchisee's Gross Annual Receipts derived from the use of the Public Rights-of-Way and Easements and the right of audit and re-computation of any amount paid under this Section; provided, however, that the right of re-computation shall be limited to the two (2) calendar years immediately preceding the initiation of any such audit. Financial statements required by this Franchise Agreement for each calendar year shall be submitted annually on or before April 15 of each year. No acceptance of any payment shall be construed as a release or accord and satisfaction of any claim the County may have for further or additional sums payable under this Section or for the performance of any obligation under this Franchise Agreement.

D. The percentage of Gross Annual Receipts set forth in this Section and the insurance requirements set forth in Section 14 above shall be subject to reevaluation by the Board every fifth year of this Franchise; provided, however, that no reevaluation shall occur so long as Franchisee continues to report to the Securities and Exchange Commission of the United States a Total Assets amount in excess of $100,000,000. If reevaluation of the amounts due under this Section or the insurance requirements set forth in Section 14 above should result in a dispute between the parties, the dispute shall be presented to a neutral Arbitration Board for decision and settlement. The Arbitration Board shall consist of either one person mutually acceptable to the parties to this Franchise Agreement or to the American Arbitration Association. In the event of arbitration, the parties shall each pay their individual costs for such arbitration. The standard procedures and policies of arbitration shall apply in all cases.

SECTION 16. **TERMINATION.**

A. This Franchise Agreement and Franchise may be terminated by the mutual consent of the Board and the Franchisee evidenced by a writing.

B. This Franchise Agreement and Franchise, and all rights granted hereunder, may be terminated by the Board upon any breach of the terms and conditions hereof by Franchisee and Franchisee's failure to undertake reasonable measures to cure such breach within thirty (30) days subsequent to Franchisee's receipt of written notice of such breach. Written notice shall be by registered mail.

SECTION 17. **OTHER PROVISIONS.**

Franchise shall keep a copy of its current Tariffs applicable to Subscribers or Users in Mohave County on file with the Clerk of the Board of Mohave County.

SECTION 18. **RESERVATION OF POWERS.**

A. There is hereby reserved to the Board every right and power which is required to be reserved and Franchisee, by its acceptance of this Franchise, agrees to be bound thereby and to comply with any action or requirements of the Board in its exercise of any such right of power enacted or established.

B. Neither the granting of this Franchise nor any of the provisions contained herein shall be construed to prevent the Board from granting any identical, or similar, Franchise to any person or corporation other than Franchisee.

SECTION 19. **SEVERABILITY.**

In the event any provision of this Agreement is rendered inoperative by virtue of the entry of a final judgment of a Court of competent jurisdiction, such event shall not affect any other provision of this Agreement that can be given effect without such inoperative provision and, for this purpose, the provisions of this Agreement are hereby declared to be severable.

SECTION 20. **OFFICIAL NOTICES.**

Notices concerning this Franchise Agreement and Franchise shall be sent to:

FOR THE COUNTY:

Clerk of the Board
Mohave County
P.O. Box 7000
Kingman, AZ 86402-7000
928-753-0731

FOR FRANCHISEE:

DOUBLE DIAMOND UTILITIES, INC,
4132 S. RAINBOW BLVD, PMB 324
LAS VEGAS, NV, 89103

(928) 757-9315
(928) 220-0070

SECTION 21. **EFFECTIVE DATE.**

This Franchise shall take effect upon the date of approval by the Board.

Approved by the Mohave County Board of Supervisors this 7 day of March, 2005.

For the Board:

Tom Sockwell
Chairman of the Board

Accepted for Franchisee:

Leonard Mardian

Approved as to form:

County Attorney

ATTEST:

Barbara Brachen
Clerk of the Board

BOARD OF SUPERVISORS MOHAVE CO. ARIZONA DITAT DEUS

EXHIBIT A
FRANCHISE APPLICATION
DOUBLE DIAMOND UTILITIES, INC

GILA AND SALT RIVER MERIDIAN				
TOWNSHIP 29 NORTH RANGE 19 WEST		TOWNSHIP 27 NORTH RANGE 18 WEST		
SECTION	DESCRIPTION	SECTION	DESCRIPTION	
21	ALL	1	ALL	
28	ALL	2	ALL	
29	ALL	3	ALL	
33	ALL	7	ALL	
TOWNSHIP 28 NORTH RANGE 17 WEST		8	ALL	
7	ALL	9	ALL	
18	ALL	10	ALL	
19	ALL	11	ALL	
30	ALL	12	ALL	
31	ALL	13	ALL	
32	ALL	14	ALL	
33	ALL	15	ALL	
TOWNSHIP 28 NORTH RANGE 18 WEST		16	ALL	
13	EAST 1/2	17	ALL	
23	ALL	18	ALL	
24	ALL	19	ALL	
25	ALL	20	ALL	
26	ALL	21	ALL	
35	ALL	22	ALL	
36	ALL	23	ALL	
TOWNSHIP 28 NORTH RANGE 19 WEST		24	ALL	
5	N1/2NE1/4	25	ALL	
4	ALL	26	ALL	
9	ALL	27	ALL	
15	ALL	28	ALL	
16	ALL	29	ALL	
17	ALL	30	ALL	
18	ALL	31	ALL	
19	ALL	32	ALL	
20	ALL	33	ALL	
21	ALL	34	ALL	
22	ALL	35	ALL	
27	ALL	TOWNSHIP 27 NORTH RANGE 19 WEST		
28	ALL	1	ALL	
29	ALL	2	ALL	
30	ALL	3	ALL	
31	ALL	4	ALL	
32	ALL	6	ALL	
33	ALL	10	ALL	
34	ALL	11	ALL	
35	ALL	12	ALL	
TOWNSHIP 28 NORTH RANGE 20 WEST		13	ALL	
13	ALL	14	ALL	
23	ALL	15	ALL	
24	ALL	16	ALL	
25	ALL	18	ALL	
26	ALL	22	ALL	
35	ALL	23	ALL	
36	ALL			

EXHIBIT A
FRANCHISE APPLICATION
DOUBLE DIAMOND UTILITIES, INC

TOWNSHIP 27 NORTH RANGE 19 WEST, cont'd	
24	ALL
25	ALL
26	ALL
27	ALL
28	ALL
29	ALL
30	ALL
31	ALL
32	ALL
33	ALL
34	ALL
35	ALL
36	ALL
TOWNSHIP 27 NORTH RANGE 20 WEST	
1	ALL
2	ALL
3	ALL
4	ALL
5	ALL
6	ALL
10	ALL
11	ALL
12	ALL
13	EAST 1/2
24	ALL
25	ALL
26	ALL
35	ALL
36	ALL
TOWNSHIP 27 NORTH RANGE 21 WEST	
1	ALL
2	PORTION EAST OF HWY 93
11	PORTION EAST OF HWY 93
12	ALL
13	ALL
14	PORTION EAST OF HWY 93
24	ALL
25	ALL
36	NE1/4NE1/4
TOWNSHIP 26 NORTH RANGE 18 WEST	
1	ALL
2	ALL
3	ALL
4	ALL
5	ALL
7	ALL
8	ALL
9	ALL
10	ALL

TOWNSHIP 26 NORTH RANGE 18 WEST, cont'd	
11	ALL
15	ALL
16	ALL
17	ALL
18	ALL
19	ALL
20	ALL
21	ALL
29	ALL
30	ALL
31	ALL
TOWNSHIP 26 NORTH RANGE 19 WEST	
13	ALL
25	ALL
35	SE 1/4
36	ALL
TOWNSHIP 26 NORTH RANGE 20 WEST	
35	ALL
TOWNSHIP 25 NORTH RANGE 19 WEST	
1	ALL
2	ALL
3	ALL
6	SE1/4 AND S1/2SW1/4
7	ALL
8	ALL
9	ALL
10	ALL
11	ALL
15	ALL
16	ALL
17	ALL
18	ALL
19	ALL
20	ALL
21	ALL
29	ALL
30	ALL
TOWNSHIP 25 NORTH RANGE 20 WEST	
2	ALL
3	ALL
4	ALL
5	ALL
7	ALL
8	ALL
9	ALL
10	ALL
11	ALL
12	ALL
13	ALL
14	ALL

EXHIBIT A
FRANCHISE APPLICATION
DOUBLE DIAMOND UTILITIES, INC

TOWNSHIP 25 NORTH RANGE 20 WEST, cont'd				
15	ALL			
16	ALL			
17	ALL			
18	ALL			
19	ALL			
20	ALL			
21	ALL			
22	ALL			
23	ALL			
24	ALL			

EXHIBIT

"13"

FRANCHISE AGREEMENT
and
FRANCHISE
for
PUBLIC SERVICE CORPORATIONS

Date of Franchise: 10-17-2005
Term of Franchise: 25 years
Renewal Date Option: 10-17-2030

This is a Franchise Agreement between the County of Mohave, State of Arizona, and DOUBLE DIAMOND UTILITIES, INC, authorizing the location, construction, maintenance and operation of SEWER SERVICE within the unincorporated areas of Mohave County. This Franchise specifically grants to DOUBLE DIAMOND UTILITIES, INC. the privilege of using the Public Rights-of-Way and Easements of Mohave County in accordance with established policies, practices, and procedures of Mohave County and its several departments.

RECITALS

WHEREAS, the Mohave County Board of Supervisors has the duty and responsibility to protect the health, safety and welfare of the residents of Mohave County; and

WHEREAS, the Mohave County Board of Supervisors has the duty and responsibility to assure that Public Rights-of-Way and Easements of Mohave County are used in a responsible manner consistent with the best interests of the residents of Mohave County; and

WHEREAS, the Mohave County Board of Supervisors strives to authorize the use of the Public Rights-of-Way and Easements of Mohave County in a uniform manner among all users; and

WHEREAS, the Mohave County Board of Supervisors deems this form of Franchise Agreement and Franchise to be fair, reasonable and appropriate for Public Service Corporations;

NOW, THEREFORE, the Mohave County Board of Supervisors and DOUBLE DIAMOND UTILITIES, INC. do hereby state, promise and agree as follows:

SECTION 1. **DEFINITIONS.**

As used in this Franchise Agreement and Franchise, the following terms have been agreed to have the meanings indicated:

A. "Agreement" means this Franchise Agreement and Franchise.

B. "Area of Jurisdiction" means that part of Mohave County for which this Franchise is granted.

C. "Board" means the Mohave County Board of Supervisors.

D. "County" means Mohave County, Arizona.

E. "Emergency" means any occurrence that may arise without prior notice to Franchisee.

F. "Franchise" means this Franchise Agreement and Franchise.

G. "Franchisee" means DOUBLE DIAMOND UTILITIES, INC.

H. "Franchising Authority" means the Mohave County Board of Supervisors.

I. "Franchise Property" means all materials, equipment, and facilities of Franchisee located, constructed, maintained, and/or operated in the Public Rights-of-Way and Easements of Mohave County pursuant to the terms and conditions of this Franchise Agreement and Franchise.

J. "Gross Annual Receipts" means any compensation derived from any Subscriber or User in payment for delivery of a product or services from Franchisee. This meaning shall not include any taxes collected by Franchisee and transmitted to a governmental agency, and it shall not include any amounts collected by Franchisee by virtue of the Franchise Fee provisions of this Franchise.

K. "Intergovernmental Agreement" means the joint exercise of powers authorized by Title 11, Chapter 7, Article 3 of Arizona Revised Statutes.

L. "Public Rights-of-Way and Easements" means that real property located within unincorporated areas of Mohave County within which the Mohave County Board of Supervisors has the power and authority to grant a Franchise.

M. "Rights-of-Way and Easements" shall mean the surface of, the space above, and the space below the Public Rights-of-Way and Easements reasonably necessary to construct, operate, and maintain the Franchise Property.

N. "Service Area" means the unincorporated areas of Mohave County in which the Franchisee delivers the service for which this Franchise is granted.

O. "Subscriber or User" means any person or entity receiving, for any purpose, the services of the Franchisee.

Section 2. **GRANTING OF FRANCHISE.**

A non-exclusive Franchise is hereby granted to Franchisee for the purpose of locating, constructing, and maintaining Franchise Property in the unincorporated area of Mohave County. This Franchise shall include the authority, privilege, and power to construct, operate, and maintain all necessary Franchise Property in, over, under, across, and upon the Public Rights-of-Way and Easements consistent with the terms and conditions of this Franchise.

Section 3. **TERM OF FRANCHISE.**

This Franchise shall be for an initial term of twenty five (25) years beginning on the date of Board approval. This term may be extended only by reapplication and grant of an extension. Application for an extension shall be submitted to the Board no sooner than three hundred sixty-five (365) days, nor later than one hundred twenty (120) days, prior to the expiration date of this Franchise.

Section 4. **TERMS AND CONDITIONS.**

This Franchise shall be subject to the following conditions:

A. This Franchise shall not be deemed to limit the authority of the Board to include other conditions or restrictions which may be necessary for the protection of the health, safety and welfare of the residents of the County and/or for the efficient administration of the Rights-of-Way and Easements in general.

B. This Franchise is non-exclusive.

C. The Board has granted this Franchise in reliance upon the Franchisee's business skill, reputation, financial capacity, and character. Accordingly, this Franchise and/or any interest hereunder, shall not be assigned, transferred, conveyed, or otherwise encumbered without the express written consent of the Board. Failure of performance by the Franchisee of any of the terms and conditions of this Franchise may be cause for termination of this Franchise pursuant to Section 16 of this Agreement.

D. No privilege or exemption shall be granted or inferred unless specifically set forth in this Franchise.

E. Any privilege claimed under this Franchise by the Franchisee in any Right-of-Way or Easement shall be subordinated to any prior lawful occupancy of the Right-of-Way or Easement.

F. Prior to commencing any activity authorized by this Franchise, the Franchisee shall submit plans and specifications for such activity to the County Public Works Director for approval; provided, however, whenever Franchisee is required to undertake emergency activities required to protect the health, safety and welfare of the public and/or the safety and reliability of the Franchise Property, Franchisee shall notify the County Public Works Director not later than twenty four (24) hours after notice of the emergency; and provided further, however, should such emergency present an immediate threat or danger to the health, safety and welfare of the public, Franchisee shall notify the County Manager or the County Public Works Director or the County Emergency Services Coordinator or the Chairman of the Board within one (1) hour of notice of the emergency.

G. Any failure of the Board, or its agents, to promptly enforce compliance of the terms and/or conditions of this Franchise shall not be deemed a waiver of such terms and/or conditions.

H. The Franchisee shall have no recourse against the Board or its agents for any loss, cost, expense, or damage arising out of any term, condition or enforcement of this Franchise.

I. The Franchisee shall be subject to all County rules, regulations and/or specifications pertaining to the use of Public Rights-of-Way and Easements which may be adopted from time to time by the Board.

J. Prior to the grant of this Franchise by the Board, and annually thereafter, Franchisee shall submit to the Board a complete financial statement that reflects the current financial status of the Franchisee and a list of names and addresses of proprietors, owners, or beneficial shareholders who hold more than a ten percent (10%) interest in the corporation, organization, or regulated entity.

SECTION 5. **RECORDS TO BE KEPT AND MAINTAINED; REPORTS; INSPECTION OF RECORDS.**

A. Franchisee shall prepare and furnish to the Board, or its agents, such reports and records of its operations, affairs, transactions and/or property as the Board deems necessary or appropriate for the enforcement of performance by the Franchisee according to the terms and conditions of this Franchise.

B. Franchisee shall keep and maintain within the County, and make available for County inspection upon reasonable request, full and complete plans and records showing the exact location of all Franchise Property installed and/or in use in the Public Rights-of-Way and Easements.

C. Franchisee shall file with the County Public Works Director, on or before the 31st day of December of each year, a map and/or a set of plans showing all Franchise Property installed and/or in use in the Public Rights-of-Way and Easements current as of the immediately preceding November 30th.

D. Franchise shall keep its Franchise Property in good operating condition, and Franchisee shall cause all customer complaints to be duly investigated and, where the circumstances warrant, corrected within a reasonable period of time. Records reflecting such complaints, and the time and manner in which they are resolved, shall be maintained by the Franchisee for at least one (1) year and shall be made available for inspection by the Board or its agents upon reasonable request.

SECTION 6. **INSTALLATION STANDARDS.**

A. Franchisee shall be responsible for meeting all County, State, Federal, and local installation standards.

B. Any other provision of this Franchise notwithstanding, all installations of Franchise Property shall be made in a safe and workmanlike manner and maintained in good condition at all times. Except for the conduct of normal construction and repair activities, all such installations of Franchise Property shall be approximately placed so as not to interfere in any manner with the rights of the public or individual property owners and shall not interfere with the use of public property by the public and shall not obstruct or impede traffic. The Board reserves the right of regulation of the erection and construction of any Franchise Property, by Franchisee and its agents or employees, and to designate where such Franchise Property shall be placed. Franchisee agrees to make changes in its plans, specifications and/or Franchise Property to conform with all requirements of the Board.

C. Franchisee shall be responsible for obtaining all necessary licenses, certificates, permits and approvals from all government authorities having jurisdiction over the activities to be conducted under this Franchise.

SECTION 7. **UNDERGROUND LINES.**

Franchisee shall, at its own expense, place its lines underground in areas which it serves where telephone and electric power lines are, or are required to be, underground.

SECTION 8. **LOCATION OF FRANCHISE PROPERTY.**

Franchise Property shall be constructed or installed in Public Rights-of-Way and Easements of the County only at such locations and in such manner as shall be approved by the Board or its agents. Construction or installation of Franchise Property shall be in accordance with all Federal, State, and County laws and regulations.

SECTION 9. **REPAIR OF ROADS, STREETS, RIGHTS-OF-WAY AND EASEMENTS.**

Franchisee shall, at its own expense, promptly repair and restore any and all roads, streets, sidewalks or other public and/or private property altered, damaged, or destroyed by Franchisee in exercising the privileges granted herein to Franchisee.

SECTION 10. **FAILURE TO PERFORM AS REQUIRED IN SECTION 9 ABOVE.**

A. Upon failure of Franchisee, and its agent or employees, to complete any work required by this Franchise, the Board or its agents may notify Franchisee of non-compliance by registered mail. Franchisee shall have fourteen (14) days from the receipt of the notice to complete the repairs or to enter into an agreement with the Board and/or its agents for the completion of the repairs.

B. If, in the opinion of the County Director of Public Works and/or the County Manager, the failure to repair or complete construction presents a serious and immediate danger to the public health, safety and welfare, they, separately or together, may take immediate action to mitigate the damage. All costs associated with such actions will be the sole responsibility of Franchisee, and Franchisee shall reimburse the County for such costs within thirty (30) days after receipt of an itemized bill.

SECTION 11. **REMOVAL AND ABANDONMENT OF FRANCHISE PROPERTY.**

A. In the event the use of any Franchise Property is discontinued for a continuous period of twelve (12) months and Franchisee is unable to reasonably demonstrate the usefulness of such Franchise Property for future use, Franchisee shall either remove such Franchise Property or abandon such Franchise Property in place.

B. In the event Franchise Property is installed in violation of any requirements of this Franchise, and Franchisee fails to take reasonable measures to cure such violation within thirty (30) days after written notice of such violation, Franchisee shall either remove such Franchise Property or abandon such Franchise Property in place.

C. Franchise Property to be abandoned in place shall be abandoned in accordance with applicable law. Upon abandonment of Franchise Property in place, Franchisee shall submit to the Board an instrument satisfactory to the Board transferring the ownership of such Franchise Property to the County.

SECTION 12. **CHANGES REQUIRED BY PUBLIC IMPROVEMENTS.**

Franchisee shall, at its own expense, protect, support, temporarily disconnect, relocate in the same street, alley or public place, any Franchise Property when required by the Board or its agents by reason of County public improvements; provided, however, Franchisee shall have the right to abandon Franchise Property as provided in Section 11 above.

SECTION 13. **INDEMNIFICATION OF COUNTY.**

Franchisee shall defend the County against all claims for injury to any person or property caused by the negligence of Franchisee, its agents and/or employees, in the construction or operation of Franchise Property, and, in the event of a determination of liability, shall indemnify the County, the Board, its agents and/or employees. More particularly, Franchisee, its successors and assigns, does hereby agree to indemnify and hold harmless the County, the Board and/or its agents and employees, from any and all liability, claim, demand or judgment arising out of any injury to any person or property as a result of a violation or failure on the part of Franchisee, its successors and assigns, to observe their proper duty or because of negligence in whole or in part arising out of the construction, repair, extension, maintenance, or operation of Franchise Property of any kind or character used in connection with this Franchise.

SECTION 14. **LIABILITY INSURANCE REQUIRED.**

Franchisee agrees that, at all times during the existence of this Franchise, Franchisee will carry a minimum of $1,000,000 in excess liability insurance on a combined single limit basis above any permitted self-insured retention. Self-insured retention shall be permitted so long as Franchisee continues to report to the Securities and Exchange Commission of the United States a Total Assets amount in excess of $100,000,000. The insurance coverage required by this Section shall be provided by one or more insurers permitted under Title 20 or Arizona Revised Statutes to transact insurance business. Further, Franchisee shall provide, to the Clerk of the Board of Mohave County, a Certificate of Insurance naming the County, the Board and/or its agents and employees as additional insured. The Certificate will provide for notification to the Clerk of the Board of Mohave County prior to any change in said policy, or cancellation of said policy, for any reason including nonpayment of premiums.

SECTION 15. **FRANCHISE FEE.**

A. Franchisee shall pay to the County an annual Franchise Fee in an amount equal to two percent (2%) of Franchisee's Gross Annual Receipts derived from the operation of Franchise Property so long as the Board shall have the authority to levy a Franchise Fee. Further, Franchisee shall not be required to pay to the County any other Franchise fee or Permit fee in connection with this Franchise. There shall be no offsets for any other taxes or assessments, i.e., sales tax, fuel tax, personal property tax, general ad valorem property tax, special assessments for local improvements or any other tax or assessment not directly related to the use of the Public Rights-of-Way and Easements that may be required of Franchisee by any governmental agency.

B. The annual Franchise Fee shall be paid no later than the first (1st) day of May following each calendar year during the term of this Franchise. All such payments shall be made to the Mohave County Finance Department, P.O. Box 7000, Kingman, Arizona 86402-7000. So long as the Board shall have the authority to levy a Franchise Fee, failure to pay such Franchise Fee by the first (1st) day of May following the calendar year is a material breach of this Franchise Agreement and is subject to the termination provisions of Section 16 hereinafter.

C. The Board shall have the right to inspect and audit all Franchisee's books and records which may be necessary in determining Franchisee's Gross Annual Receipts derived from the use of the Public Rights-of-Way and Easements and the right of audit and re-computation of any amount paid under this Section; provided, however, that the right of re-computation shall be limited to the two (2) calendar years immediately preceding the initiation of any such audit. Financial statements required by this Franchise Agreement for each calendar year shall be submitted annually on or before April 15 of each year. No acceptance of any payment shall be construed as a release or accord and satisfaction of any claim the County may have for further or additional sums payable under this Section or for the performance of any obligation under this Franchise Agreement.

D. The percentage of Gross Annual Receipts set forth in this Section and the insurance requirements set forth in Section 14 above shall be subject to reevaluation by the Board every fifth year of this Franchise; provided, however, that no reevaluation shall occur so long as Franchisee continues to report to the Securities and Exchange Commission of the United States a Total Assets amount in excess of $100,000,000. If reevaluation of the amounts due under this Section or the insurance requirements set forth in Section 14 above should result in a dispute between the parties, the dispute shall be presented to a neutral Arbitration Board for decision and settlement. The Arbitration Board shall consist of either one person mutually acceptable to the parties to this Franchise Agreement or to the American Arbitration Association. In the event of arbitration, the parties shall each pay their individual costs for such arbitration. The standard procedures and policies of arbitration shall apply in all cases.

SECTION 16. **TERMINATION.**

A. This Franchise Agreement and Franchise may be terminated by the mutual consent of the Board and the Franchisee evidenced by a writing.

B. This Franchise Agreement and Franchise, and all rights granted hereunder, may be terminated by the Board upon any breach of the terms and conditions hereof by Franchisee and Franchisee's failure to undertake reasonable measures to cure such breach within thirty (30) days subsequent to Franchisee's receipt of written notice of such breach. Written notice shall be by registered mail.

SECTION 17. **OTHER PROVISIONS.**

Franchise shall keep a copy of its current Tariffs applicable to Subscribers or Users in Mohave County on file with the Clerk of the Board of Mohave County.

SECTION 18. **RESERVATION OF POWERS.**

A. There is hereby reserved to the Board every right and power which is required to be reserved and Franchisee, by its acceptance of this Franchise, agrees to be bound thereby and to comply with any action or requirements of the Board in its exercise of any such right of power enacted or established.

B. Neither the granting of this Franchise nor any of the provisions contained herein shall be construed to prevent the Board from granting any identical, or similar, Franchise to any person or corporation other than Franchisee.

SECTION 19. **SEVERABILITY.**

In the event any provision of this Agreement is rendered inoperative by virtue of the entry of a final judgment of a Court of competent jurisdiction, such event shall not affect any other provision of this Agreement that can be given effect without such inoperative provision and, for this purpose, the provisions of this Agreement are hereby declared to be severable.

SECTION 20. **OFFICIAL NOTICES.**

Notices concerning this Franchise Agreement and Franchise shall be sent to:

FOR THE COUNTY:

Clerk of the Board
Mohave County
P.O. Box 7000
Kingman, AZ 86402-7000
928-753-0731

FOR FRANCHISEE:

DOUBLE DIAMOND UTILITIES, INC.
4132 SOUTH RAINBOW BLVD.
PMB # 324
LAS VEGAS, NV. 89103

SECTION 21. **EFFECTIVE DATE.**

This Franchise shall take effect upon the date of approval by the Board.

Approved by the Mohave County Board of Supervisors this 17 day of October, 2005.

For the Board:

Chairman of the Board

Accepted for Franchisee:

Approved as to form:

Dep County Attorney

ATTEST:

Clerk of the Board

BOARD OF SUPERVISORS MOHAVE CO ARIZONA CITAT DEUS

FRANCHISE AGREEMENT BETWEEN MOHAVE COUNTY AND_____

ATTACHMENT "B"
LEGAL DESCRIPTION

AS THIS AGREEMENT SUPERSEDES ANY PREVIOUS FRANCHISE AGREEMENTS, THIS LEGAL INCLUDES AREAS PREVIOUSLY APPROVED BY THE BOARD OF SUPERVISORS AND ANY ANNEXATION AREAS THAT ARE REQUESTED (IF ANY)

EXHIBIT A
FRANCHISE APPLICATION
DOUBLE DIAMOND UTILITIES, INC

GILA AND SALT RIVER MERIDIAN	
TOWNSHIP 29 NORTH RANGE 19 WEST	
SECTION	DESCRIPTION
21	ALL
28	ALL
29	ALL
33	ALL
TOWNSHIP 28 NORTH RANGE 17 WEST	
7	ALL
18	ALL
19	ALL
30	ALL
31	ALL
32	ALL
33	ALL
TOWNSHIP 28 NORTH RANGE 18 WEST	
13	EAST 1/2
23	ALL
24	ALL
25	ALL
26	ALL
35	ALL
36	ALL
TOWNSHIP 28 NORTH RANGE 19 WEST	
5	N1/2NE1/4
4	ALL
9	ALL
15	ALL
16	ALL
17	ALL
18	ALL
19	ALL
20	ALL
21	ALL
22	ALL
27	ALL
28	ALL
29	ALL
30	ALL
31	ALL
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TOWNSHIP 28 NORTH RANGE 20 WEST	
13	ALL .
23	ALL
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26	ALL
35	ALL
36	ALL

TOWNSHIP 27 NORTH RANGE 18 WEST	
SECTION	DESCRIPTION
1	ALL
2	ALL
3	ALL
7	ALL
8	ALL
9	ALL
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11	ALL
12	ALL
13	ALL
14	ALL
15	ALL
16	ALL
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TOWNSHIP 27 NORTH RANGE 19 WEST	
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10	ALL
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23	ALL

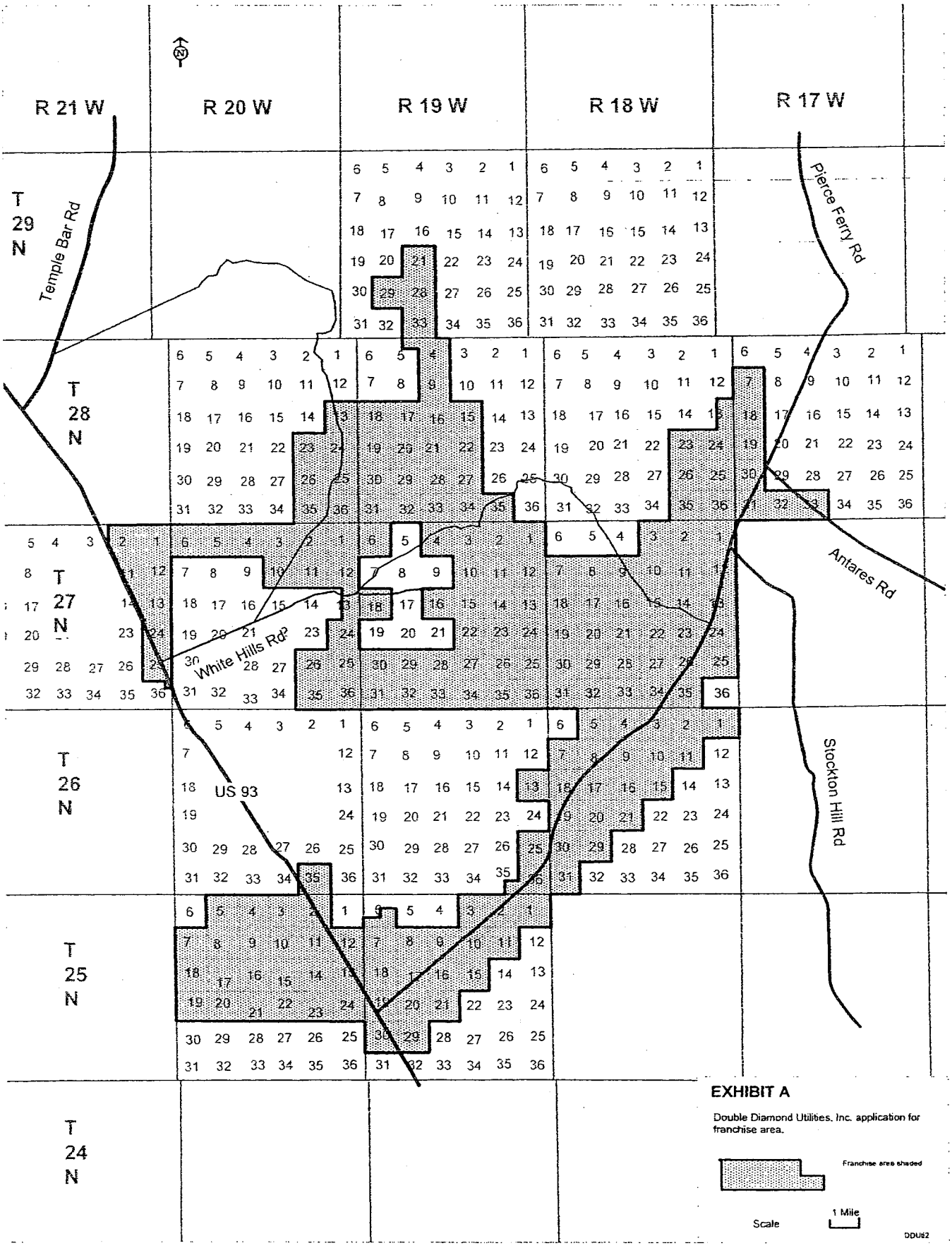
EXHIBIT A
FRANCHISE APPLICATION
DOUBLE DIAMOND UTILITIES, INC

TOWNSHIP 27 NORTH RANGE 19 WEST, cont'd	
24	ALL
25	ALL
26	ALL
27	ALL
28	ALL
29	ALL
30	ALL
31	ALL
32	ALL
33	ALL
34	ALL
35	ALL
36	ALL
TOWNSHIP 27 NORTH RANGE 20 WEST	
1	ALL
2	ALL
3	ALL
4	ALL
5	ALL
6	ALL
10	ALL
11	ALL
12	ALL
13	EAST 1/2
24	ALL
25	ALL
26	ALL
35	ALL
36	ALL
TOWNSHIP 27 NORTH RANGE 21 WEST	
1	ALL
2	PORTION EAST OF HWY 93
11	PORTION EAST OF HWY 93
12	ALL
13	ALL
14	PORTION EAST OF HWY 93
24	ALL
25	ALL
36	NE1/4NE1/4
TOWNSHIP 26 NORTH RANGE 18 WEST	
1	ALL
2	ALL
3	ALL
4	ALL
5	ALL
7	ALL
8	ALL
9	ALL
10	ALL

TOWNSHIP 26 NORTH RANGE 18 WEST, cont'd	
11	ALL
15	ALL
16	ALL
17	ALL
18	ALL
19	ALL
20	ALL
21	ALL
29	ALL
30	ALL
31	ALL
TOWNSHIP 26 NORTH RANGE 19 WEST	
13	ALL
25	ALL
35	SE 1/4
36	ALL
TOWNSHIP 26 NORTH RANGE 20 WEST	
35	ALL
TOWNSHIP 25 NORTH RANGE 19 WEST	
1	ALL
2	ALL
3	ALL
6	SE1/4 AND S1/2SW1/4
7	ALL
8	ALL
9	ALL
10	ALL
11	ALL
15	ALL
16	ALL
17	ALL
18	ALL
19	ALL
20	ALL
21	ALL
29	ALL
30	ALL
TOWNSHIP 25 NORTH RANGE 20 WEST	
2	ALL
3	ALL
4	ALL
5	ALL
7	ALL
8	ALL
9	ALL
10	ALL
11	ALL
12	ALL
13	ALL
14	ALL

EXHIBIT A
FRANCHISE APPLICATION
DOUBLE DIAMOND UTILITIES, INC

TOWNSHIP 25 NORTH RANGE 20 WEST, cont'd				
15	ALL			
16	ALL			
17	ALL			
18	ALL			
19	ALL			
20	ALL			
21	ALL			
22	ALL			
23	ALL			
24	ALL			


R 21 W
R 20 W
R 19 W
R 18 W
R 17 W
T 29 N
T 28 N
T 27 N
T 26 N
T 25 N
T 24 N
Temple Bar Rd
Pierce Ferry Rd
Antares Rd
White Hills Rd
US 93
Stockton Hill Rd
EXHIBIT A
Double Diamond Utilities, Inc. application for franchise area.
Franchise area shaded
Scale
1 Mile
DDU62

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Kingman Field Office
2755 Mission Boulevard
Kingman, AZ 86401

TAKE PRIDE IN AMERICA

In reply refer to:
2610 (310)

January 25, 2005

Ms. Kathleen A. Tackett-Hicks
Project Manager
The Ranch at White Hills
4132 S. Rainbow Boulevard, PMB 324
Las Vegas, Nevada 89103

Dear Ms. Hicks:

This letter is in response to your letter dated January 24, 2005, concerning Double Diamond Utility Inc. Bureau of Land Management (BLM) understands that the intent is to formally identify a franchise area for the provision of water services in and around the area known as the Ranch at White Hills.

BLM has no objection to public lands being included in the boundary of the franchise area for planning purposes. As correctly stated in your letter, "Inclusion [of public lands] within a Mohave County franchise area does not grant exclusive or non-exclusive rights to the holder of the franchise nor does it grant rights [to use public lands] to the individual property owners located with the franchise area." Any use of the public lands should occur only after the necessary BLM permit or right-of-way is granted.

Thank you for the opportunity to review this proposal. Please contact Don McClure, BLM Planning and Environmental Coordinator at (928) 718-3725 with any questions or concerns.

Sincerely,

Wayne King
Field Manager

EXHIBIT
A-2.
Admitted

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

August 27, 2007

Ms. Vicki Wallace
Utilities Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

RE: Double Diamond Utilities, Inc. – Docket No. WS-20543A-07-0435

Dear Ms. Wallace:

Double Diamond Utilities, Inc. hereby submits this response to the August 20, 2007 letter in this docket finding that its Application for a Certificate of Convenience and Necessity had not met sufficiency requirements. In response to the four discrete deficiencies, Double Diamond responds as follows:

1. Balance Sheets.

Enclosed are an updated set of schedules (DDW-1 through DDW-10 and DDWW-1 through DDWW-10). These updated schedules include revised Income Statements (DDW-1 and DDWW-1) and Revised Projected Divisional Balance Sheets (DDW-10 and DDWW-10) that provide information responsive to this deficiency.

2. Customer Deposits to be included on Balance Sheets.

The revised Schedules DDW-1, DDWW-1, DDW-10 and DDWW-10 provide information responsive to this deficiency.

3. Customer Deposits to be included in Rate Base.

The updated schedules include revised Projected Rate Bases (DDW-2 and DDWW-2) that provide information responsive to this deficiency.

RECEIVED
2007 AUG 27 P 1:54
AZ CORP COMMISSION
DOCKET CONTROL

4. Approval to Construct.

Double Diamond Utilities, Inc. is in the process of receiving proposals for completion of the engineering design work. Once the engineering design work has been completed, Double Diamond will be submitting the documents to the ADEQ for issuance of the necessary Approvals to Construct.

We believe this information meets your sufficiency concerns and we respectfully request that a sufficiency letter be issued in this docket.

Please contact me if you have any questions.

Sincerely,

Michael W. Patten

MWP:mi

Original and 13 filed this 27th
day of August with:

Docket Control
Arizona Corporation
1200 West Washington
Phoenix, Arizona 85007

SCHEDULE DDW-1
REVISED 8-24-07

DOUBLE DIAMOND UTILITIES
WATER DIVISION

PRO FORMA INCOME STATEMENTS

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Revenues:					
Water Sales (1)	$50,000	$192,439	$482,317	$777,195	$1,082,072
Other Water Revenues (1)	0	7,500	7,500	7,500	7,500
Total Water Revenues	$50,000	$199,939	$489,817	$784,695	$1,089,572
Operating & Maintenance Expenses:					
Contract Services - Operations (2)	$60,000	$175,000	$185,000	$190,000	$200,000
Contract Services - Billing & Customer Service (2)	0	6,000	18,000	30,000	42,000
Purchased Power	9,000	16,094	32,066	51,340	67,959
O&M Materials & Supplies	2,000	3,000	5,000	10,000	15,000
Depreciation (3)	41,365	73,452	100,508	153,140	197,083
Property Taxes (4)	1,350	5,398	13,225	21,187	29,418
Income Taxes	23	23	23	20,851	207,705
Total Operating & Maintenance Expenses	$113,738	$278,967	$353,822	$476,517	$759,165
Operating Income (Loss)	-$63,738	-$79,028	$135,995	$308,177	$330,407
Original Cost Rate Base (5)	$2,808,125	$2,666,474	$3,406,609	$4,438,201	$4,548,588
Return on Rate Base	-2.27%	-2.96%	3.99%	6.94%	7.26%

NOTES:
(1) Schedule DDW-5
(2) Schedule DDW-9
(3) Schedule DDW-3
(4) 2.7% of Revenues
(5) Schedule DDW-2
REVISIONS: Purchased Power, Allocated Income Taxes & Original Cost Rate Base

SCHEDULE DDW-2
REVISED 8-24-07

DOUBLE DIAMOND UTILITIES
WATER DIVISION

PROJECTED ORIGINAL COST RATE BASE

DESCRIPTION	END OF YEAR RATE BASE				
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Gross Utility Plant In Service (1)	$3,064,890	$4,562,490	$7,177,050	$9,814,770	$11,255,140
Less: Accumlated Depreciation (1)	41,365	114,816	215,325	368,464	565,547
Net Utility Plant in Service	$3,023,525	$4,447,674	$6,961,725	$9,446,306	$10,689,593
Less:					
AIAC - Net of Refunds (2)	$215,400	$1,510,200	$3,086,116	$4,363,104	$5,342,005
Meter & Service Line Deposits - Net of Refunds (	0	220,000	418,000	594,000	748,000
Customer Deposits (3)	0	51,000	51,000	51,000	51,000
Total Deductions	$215,400	$1,781,200	$3,555,116	$5,008,104	$6,141,005
Original Cost Rate Base	$2,808,125	$2,666,474	$3,406,609	$4,438,201	$4,548,588

NOTES:
(1) Schedule DDW-3
(2) Schedule DDW-4
(3) Schedule DDW-10
REVISION: Customer Deposits Deduction from Rate Base

DOUBLE DIAMOND UTILITIES
WATER DIVISION

UTILITY PLANT DETAIL AND DEPRECIATION

GROSS UTILITY PLANT	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
PLANT ACCOUNT	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE
Organization	$51,033	$51,033	$0	$51,033	$0	$51,033	$0	$51,033	$0	$51,033
Franchises	8,500	8,500	0	8,500	0	8,500	0	8,500	0	8,500
Land & Land Rights	93,750	93,750	0	93,750	0	93,750	0	93,750	6,250	100,000
Structures & Improvements	264,000	264,000	0	264,000	144,000	408,000	72,000	480,000	72,000	552,000
Wells & Springs	508,407	508,407	0	508,407	0	508,407	0	508,407	0	508,407
Pumping Equipment	144,000	144,000	0	144,000	144,000	288,000	72,000	360,000	72,000	432,000
Water Treatment Equipment	*24,000*	*24,000*	*0*	*24,000*	*24,000*	*48,000*	*12,000*	*60,000*	*12,000*	*72,000*
Distribution Reservoirs	840,000	840,000	0	840,000	0	840,000	840,000	1,680,000	0	1,680,000
Booster Stations & Equipment	96,000	96,000	0	96,000	0	96,000	96,000	192,000	0	192,000
Transmission & Distribution Mains	965,400	965,400	807,600	1,773,000	1,596,960	3,369,960	846,720	4,216,680	579,120	4,795,800
Services	0	0	270,000	270,000	270,000	540,000	270,000	810,000	270,000	1,080,000
Meters & Meter Installations	0	0	255,000	255,000	255,000	510,000	255,000	765,000	255,000	1,020,000
Hydrants	46,800	46,800	156,000	202,800	171,600	374,400	156,000	530,400	156,000	686,400
Backflow Devices	0	0	6,000	6,000	6,000	12,000	15,000	27,000	15,000	42,000
Office Furniture & Fixtures - General	5,000	5,000	1,000	6,000	1,000	7,000	1,000	8,000	1,000	9,000
Office Computing Equipment	10,000	10,000	1,000	11,000	1,000	12,000	1,000	13,000	1,000	14,000
Transportation Equipment		0		0		0		0		0
Stores Equipment		0		0		0		0		0
Tools & Shop Equipment		0		0		0		0		0
Laboratory Equipment		0		0		0		0		0
Power Operated Equipment		0		0		0		0		0
Communications Equipment	3,000	3,000	0	3,000	0	3,000	0	3,000	0	3,000
Miscellaneous Equipment	5,000	5,000	1,000	6,000	1,000	7,000	1,000	8,000	1,000	9,000
Total Water Utility Plant	$3,064,890	$3,064,890	$1,497,600	$4,562,490	$2,614,560	$7,177,050	$2,637,720	$9,814,770	$1,440,370	$11,255,140

DOUBLE DIAMOND UTILITIES
WATER DIVISION

UTILITY PLANT DETAIL AND DEPRECIATION

PLANT ACCOUNT	DEPR. RATE	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Structures & Improvements	3.33%	$4,396	$8,791	$11,189	$14,785	$17,183
Wells & Springs	3.33%	8,465	16,930	16,930	16,930	16,930
Pumping Equipment	12.50%	9,000	18,000	27,000	40,500	49,500
Water Treatment Equipment	3.33%	400	799	1,199	1,798	2,198
Distribution Reservoirs	2.22%	9,324	18,648	18,648	27,972	37,296
Booster Stations & Equipment	5.00%	2,400	4,800	4,800	7,200	9,600
Transmission & Distribution Mains	2.00%	9,654	27,384	51,430	75,866	90,125
Services	3.33%	0	4,496	13,487	22,478	31,469
Meters & Meter Installations	8.33%	0	10,621	31,862	53,104	74,345
Hydrants	2.00%	468	2,496	5,772	9,048	12,168
Backflow Devices	6.67%	0	200	600	1,301	2,301
Office Furniture & Fixtures - General	6.67%	167	367	434	500	567
Office Computing Equipment	20.00%	1,000	2,100	2,300	2,500	2,700
Transportation Equipment	20.00%	0	0	0	0	0
Stores Equipment	4.00%	0	0	0	0	0
Tools & Shop Equipment	5.00%	0	0	0	0	0
Laboratory Equipment	10.00%	0	0	0	0	0
Power Operated Equipment	5.00%	0	0	0	0	0
Communications Equipment	10.00%	150	300	300	300	300
Miscellaneous Equipment	10.00%	250	550	650	750	850
Total Depreciation - Year		$45,673	$116,482	$186,600	$275,032	$347,531
Accumulated Depreciation		$45,673	$162,154	$348,754	$623,786	$971,317
Depreciation - AIAC & Meter Deposits:						
AIAC		$4,308	$30,204	$61,722	$87,262	$106,840
Meter Deposits		0	12,826	24,369	34,630	43,608
Total Depreciation - Year		$4,308	$43,030	$86,092	$121,892	$150,448
Accumulated Depreciation		$4,308	$47,338	$133,430	$255,322	$405,771
Net Depreciation:						
Year		$41,365	$73,452	$100,508	$153,140	$197,083
Accumulated		$41,365	$114,816	$215,325	$368,464	$565,547

DOUBLE DIAMOND UTILITIES
WATER DIVISION

ADVANCES IN AID OF CONSTRUCTION (AIAC) AND REFUNDABLE METER DEPOSITS:

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
AIAC:					
Beginning Balance	$0	$215,400	$1,510,200	$3,101,360	$4,424,080
Additions	215,400	1,294,800	1,591,160	1,322,720	1,055,120
Gross AIAC	$215,400	$1,510,200	$3,101,360	$4,424,080	$5,479,200
Less: Refunds - Year	0	0	-15,244	-45,732	-76,219
Refunds - Cumulative	0	0	-15,244	-60,976	-137,195
Ending Balance	$215,400	$1,510,200	$3,086,116	$4,363,104	$5,342,005
REFUNDABLE METER DEPOSITS:					
Beginning Balance	$0	$0	$220,000	$440,000	$660,000
Additions	0	220,000	220,000	220,000	220,000
Gross Meter Deposits	$0	$220,000	$440,000	$660,000	$880,000
Less: Refunds - Year	0	0	-22,000	-44,000	-66,000
Refunds - Cumulative	0	0	-22,000	-66,000	-132,000
Ending Balance	$0	$220,000	$418,000	$594,000	$748,000

DOUBLE DIAMOND UTILITIES
WATER DIVISION

DETAIL OF PROJECTED REVENUES

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
WATER SALES:					
Residential;					
Average Customers (1)	0	250	750	1,250	1,750
Annual Water Usage - K Gallons (1)	0	23,451	70,354	117,256	164,159
Monthly Customer Charge (2)	$22.00	$22.00	$22.00	$22.00	$22.00
Annual Customer Charge Revenues	$0	$66,000	$198,000	$330,000	$462,000
Average Commodity Rate - Per K Gallons (2)	$3.69	$3.69	$3.69	$3.69	$3.69
Annual Commodity Revenues	$0	$86,439	$259,317	$432,195	$605,072
Total Residential Water Sales	$0	$152,439	$457,317	$762,195	$1,067,072
Average Residential Bill Per Month	$0.00	$50.81	$50.81	$50.81	$50.81
Construction Water:					
Annual Water Usage - K Gallons	10,000	8,000	5,000	3,000	3,000
Commodity Rate - Per K Gallons (2)	$5.00	$5.00	$5.00	$5.00	$5.00
Total Construction Water Sales	$50,000	$40,000	$25,000	$15,000	$15,000
Total Water Sales	$50,000	$192,439	$482,317	$777,195	$1,082,072
OTHER REVENUES:					
Customer Additions (1)	0	500	500	500	500
Allocated Establishment Charge (50%) (3)	$15.00	$15.00	$15.00	$15.00	$15.00
Total Other Revenues	$0	$7,500	$7,500	$7,500	$7,500

NOTES:
(1) Schedule DDW-6
(2) Schedule DDW-7
(3) Schedule DDW-8

DOUBLE DIAMOND UTILITIES
WATER DIVISION

PROJECTED CUSTOMER GROWTH & WATER USE

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
RESIDENTIAL:					
3/4" Meters:					
Beginning No. of Customers	0	0	500	1,000	1,500
Customer Additions	0	500	500	500	500
Ending No. of Customers	0	500	1,000	1,500	2,000
Average No. of Customers	0	250	750	1,250	1,750
Water Usage:					
3/4" Residential:					
Population Per Housing Unit	2.57	2.57	2.57	2.57	2.57
Average No. of Units	0	250	750	1,250	1,750
Usage/Capita/Day - Gallons	100	100	100	100	100
Average Daily Usage	0	64,250	192,750	321,250	449,750
Monthly Usage	0	1,954,271	5,862,813	9,771,354	13,679,896
Annual Usage	0	23,451,250	70,353,750	117,256,250	164,158,750
Average Monthly Usage Per Unit - Gallor	0	7,817	7,817	7,817	7,817

SCHEDULE DDW-7

DOUBLE DIAMOND UTILITIES
WATER DIVISION

PROPOSED WATER RATES

DESCRIPTION	PROPOSED RATE
Monthly Customer Charges: (No Water)	
3/4" Meters	$22.00
1" Meters	32.00
1 1/2" Meters	85.00
2" Meters	150.00
3" Meters	275.00
4" Meters	500.00
6" Meters	850.00
Commodity Charges - Per 1,000 Gallons:	
3/4" Meters:	
First 4,000 Gallons	$3.00
Next 6,000 Gallons	$4.00
All Usage Over 10,000 Gallons	$5.00
1" Meters:	
First 4,000 Gallons	$3.00
Next 6,000 Gallons	$4.00
All Usage Over 10,000 Gallons	$5.00
1 1/2" Meters:	
First 45,000 Gallons	$4.00
All Usage Over 45,000 Gallons	$5.00
2" Meters:	
First 65,000 Gallons	$4.00
All Usage Over 65,000 Gallons	$5.00
3" Meters:	
First 130,000 Gallons	$4.00
All Usage Over 130,000 Gallons	$5.00
4" Meters:	
First 200,000 Gallons	$4.00
All Usage Over 200,000 Gallons	$5.00
6" Meters:	
First 300,000 Gallons	$4.00
All Usage Over 300,000 Gallons	$5.00
Construction Water - Per 1,000 Gallons	$5.00

RATE DESIGN

DESCRIPTION	BILLS	GALLONS 1ST BLOCK	2ND BLOCK	3RD BLOCK
3/4" Meters:				
First 4,000 Gallons	250	500,000		
4,000 - 10,000 Gallons	500	2,000,000	1,750,000	
Over 10,000 Gallons	250	1,000,000	1,500,000	1,050,000
	1,000	3,500,000	3,250,000	1,050,000
Total Gallons	7,800,000			
Avg. Use/Bill	7,800			
Block Rates/1,000 Gallons		$3.00	$4.00	$5.00
Amount	$28,750	$10,500	$13,000	$5,250
Average Rate/1,000	$3.69			

DOUBLE DIAMOND UTILITIES
WATER DIVISION

OTHER RATES & CHARGES

SERVICE CHARGES

DESCRIPTION	PROPOSED RATE
Establishment of Service - Regular Hours (1)	$30.00
Establishment of Service - After Hours (1)	60.00
Re-establishment of Service (Within 12 Months)	(2)
Reconnection - Delinquent	60.00
Meter Test (If Correct)	50.00
Meter Re-read (If Correct)	30.00
Customer Deposit	(3)
Deposit Interest	6.00%
NSF Check Charge	35.00
Late Payment Penalty - Per Month	1.50%
Deferred Payment Plan - Per Month	1.50%
Main Extensions/Meter Relocation	Cost (4)
Service Calls - Not Company Responsibility	Cost (4)
Revenue Taxes & Assessments	(5)

REFUNDABLE SERVICE LINE AND METER CHARGES

3/4" Meter	$440.00
1" Meter	520.00
1 1/2" Meter	740.00
2" Turbine Meter	1,235.00
2" Compound Meter	1,800.00
3" Turbine Meter	1,705.00
3" Compound Meter	2,340.00
4" Turbine Meter	2,700.00
4" Compound Meter	3,405.00
6" Turbine Meter	5,035.00
6" Compound Meter	6,510.00

NOTES:
(1) Establish of Service Charge is a Combined Charge for Both Water and Wastewater Service and Not Duplicative
(2) Per Rule R14-2-403D - Months Off System Times the Minimum Charge
(3) Per Rule R14-2-403B
(4) Cost is Direct Materials, Direct Labor and Overhead Burden of 35% of Direct Labor
(5) Per Rule R14-2-408D

DOUBLE DIAMOND UTILIIES
WATER DIVISION

ALLOCATION OF CONTRACT SERVICES (1)

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
OPERATIONS:					
Water	$60,000	$175,000	$185,000	$190,000	$200,000
Wastewater	10,000	145,000	190,000	240,000	290,000
Total	$70,000	$320,000	$375,000	$430,000	$490,000
METER READING, BILLING AND CUSTOMER SERVICE:					
Average No. of Customers	0	250	750	1,250	1,750
Monthly Water - $2.00 Per Month	$0	$500	$1,500	$2,500	$3,500
Annual Water	$0	$6,000	$18,000	$30,000	$42,000
Monthly Wastewater - $1.00 Per Month	$0	$250	$750	$1,250	$1,750
Annual Wastewater	$0	$3,000	$9,000	$15,000	$21,000
Total Contract Services	$0	$9,000	$27,000	$45,000	$63,000

NOTES:
(1) Contract Services Provided by American Water Company

DOUBLE DIAMOND UTILITIES
WATER DIVISION

PROJECTED DIVISIONAL BALANCE SHEETS

DESCRIPTION	BALANCE 6-30-07	END OF: YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
ASSETS						
Utility Plant:						
Gross Utility Plant in Service (1)	$661,690	$3,064,890	$4,562,490	$7,177,050	$9,814,770	$11,255,140
Less: Accumulated Depreciation	0	41,365	114,816	215,325	368,464	565,547
Net Utility Plant in Service	$661,690	$3,023,525	$4,447,674	$6,961,725	$9,446,306	$10,689,593
Current Assets:						
Cash	$50,552	$46,700	$59,000	$67,000	$84,000	$508,104
Accounts Receivable	0	0	25,500	51,000	76,500	102,000
Other Current Assets	0	1,500	2,000	2,500	3,000	3,500
Total Current Assets	$50,552	$48,200	$86,500	$120,500	$163,500	$613,604
Total Assets	$712,242	$3,071,725	$4,534,174	$7,082,225	$9,609,806	$11,303,197
LIABILITIES & EQUITY						
Current Liabilites:						
Accounts Payable	$0	$9,000	$24,000	$30,000	$34,500	$39,000
Customer Deposits	0	0	51,000	51,000	51,000	51,000
Advance Refunds Payable	0	0	15,244	45,732	76,219	106,707
Property Taxes Payable	0	1,350	5,398	13,225	21,187	29,428
Income Taxes Payable	0	23	23	23	20,851	207,705
Total Current Liabilities	$0	$10,373	$95,665	$139,980	$203,757	$433,840
AIAC - Net of Refunds	$0	$215,400	$1,510,200	$3,086,116	$4,363,104	$5,342,005
Meter Deposits - Net of Refunds	0	0	220,000	418,000	594,000	748,000
Equity:						
Common Stock	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
Paid in Capital	709,742	2,907,190	2,848,575	3,442,400	4,145,039	4,145,039
Retained Earnings	0	-63,738	-142,766	-6,771	301,406	631,813
Total Equity	$712,242	$2,845,952	$2,708,309	$3,438,129	$4,448,945	$4,779,352
Total Liabilities & Equity	$712,242	$3,071,725	$4,534,174	$7,082,225	$9,609,806	$11,303,197

NOTES:
(1) The $661,690 Shown as Plant in Service at 6-30-07 is comprised of Organization Expense, Franchises, Land & Land Rights and Wells and Springs.

SCHEDULE DDWW-1
REVISED 8-24-07

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

PRO FORMA INCOME STATEMENTS

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Revenues:					
Monthly Service (1)	$0	$210,000	$630,000	$1,050,000	$1,470,000
Other Wastewater Revenues (1)	0	7,500	7,500	7,500	7,500
Total Wastewater Revenues	$0	$217,500	$637,500	$1,057,500	$1,477,500
Operating & Maintenance Expenses:					
Contract Services - Operations (2)	$10,000	$145,000	$190,000	$240,000	$290,000
Contract Services - Billing & Customer Service (2)	0	3,000	9,000	15,000	21,000
Purchased Power	0	19,700	34,750	53,350	67,850
Sludge Disposal Costs	0	34,424	37,572	73,570	76,718
O&M Materials & Supplies	2,000	5,000	15,000	25,000	35,000
Depreciation (3)	111,736	251,104	363,860	428,888	398,027
Property Taxes (4)	0	5,873	17,213	28,553	39,893
Income Taxes	22	22	22	12,239	211,913
Total Operating & Maintenance Expenses	$123,758	$464,123	$667,416	$876,599	$1,140,401
Operating Income (Loss)	-$123,758	-$246,623	-$29,916	$180,901	$337,099
Original Cost Rate Base (5)	$5,769,564	$5,107,927	$8,940,415	$7,899,341	$7,503,344
Return on Rate Base	-2.15%	-4.83%	-0.33%	2.29%	4.49%

NOTES:
(1) Schedule DDWW-5
(2) Schedule DDWW-9
(3) Schedule DDWW-3
(4) 2.7% of Revenues
(5) Schedule DDWW-2
REVISIONS: Allocated Income Taxes & Original Cost Rate Base

SCHEDULE DDWW-2
REVISED 8-24-07

DOUBLE DIAMOND UTILITES
WASTEWATER DIVISION

PROJECTED ORIGINAL COST RATE BASE

DESCRIPTION	END OF YEAR RATE BASE				
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Gross Utility Plant in Service (1)	$5,881,300	$8,076,580	$14,586,260	$16,085,100	$17,733,940
Less: Accumulated Depreciation (1)	111,736	362,840	764,887	1,305,869	1,885,365
Net Utility Plant in Service	$5,769,564	$7,713,740	$13,821,373	$14,779,231	$15,848,575
Less:					
Gross CIAC (2)	$0	$2,574,000	$4,961,240	$7,141,640	$8,850,440
Less: Accumlated Amortization (2)	$0	$38,187	$150,282	$331,750	$575,209
Net CIAC	$0	$2,535,813	$4,810,958	$6,809,890	$8,275,231
Customer Deposits (3)	0	70,000	70,000	70,000	70,000
Total Deductions	$0	$2,605,813	$4,880,958	$6,879,890	$8,345,231
Original Cost Rate Base	$5,769,564	$5,107,927	$8,940,415	$7,899,341	$7,503,344

NOTES:
(1) Schedule DDWW-3
(2) Schedule DDWW-4
(3) Schedule DDWW-10
REVISION: Customer Deposits Deduction from Rate Base

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

UTILITY PLANT DETAIL AND DEPRECIATION

GROSS UTILITY PLANT	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
PLANT ACCOUNT	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE
Organization	$51,000	$51,000	$0	$51,000	$0	$51,000	$0	$51,000	$0	$51,000
Franchises	8,500	8,500	0	8,500	0	8,500	0	8,500	0	8,500
Land & Land Rights	75,000	75,000	10,000	85,000	5,000	90,000	5,000	95,000	5,000	100,000
Structures & Improvements	1,440,000	1,440,000	180,000	1,620,000	1,530,000	3,150,000	90,000	3,240,000	0	3,240,000
Power Generation Equipment	96,000	96,000	0	96,000	0	96,000	0	96,000	0	96,000
Collection Sewers - Lift Stations	0	0	180,000	180,000	90,000	270,000	90,000	360,000	0	360,000
Collection Sewers - Gravity	710,400	710,400	1,194,000	1,904,400	1,474,440	3,378,840	980,400	4,359,240	820,800	5,180,040
Collection Services to Customers	0	0	270,000	270,000	270,000	540,000	270,000	810,000	270,000	1,080,000
Influent & Effluent Flow Measuring Device:	96,000	96,000	0	96,000	96,000	192,000	0	192,000	0	192,000
Recycled Water Services	0	0	3,600	3,600	4,800	8,400	4,800	13,200	4,800	18,000
Recycled Water Meters & Installations	0	0	2,880	2,880	3,840	6,720	3,840	10,560	3,840	14,400
Receiving Wells		0		0		0		0		0
Pumping Equipment	144,000	144,000	0	144,000	144,000	288,000	0	288,000	144,000	432,000
Recycled Water Reservoirs	240,000	240,000	0	240,000	240,000	480,000	0	480,000	240,000	720,000
Recycled Water Trans. & Dist. Mains	782,400	782,400	52,800	835,200	129,600	964,800	52,800	1,017,600	158,400	1,176,000
Treatment & Disposal Equipment	1,740,000	1,740,000	300,000	2,040,000	2,040,000	4,080,000	0	4,080,000	0	4,080,000
Plant Sewers	480,000	480,000	0	480,000	480,000	960,000	0	960,000	0	960,000
Outfall Sewer Lines		0		0		0		0		0
Office Furniture & Fixtures - General	10,000	10,000	1,000	11,000	1,000	12,000	1,000	13,000	1,000	14,000
Office Furniture & Fixtures - Computing		0		0		0		0		0
Transportation Equipment		0		0		0		0		0
Stores Equipment		0		0		0		0		0
Tools & Shop Equipment		0		0		0		0		0
Laboratory Equipment		0		0		0		0		0
Power Operated Equipment		0		0		0		0		0
Communication Equipment	3,000	3,000		3,000		3,000		3,000		3,000
Miscellaneous General Equipment	5,000	5,000	1,000	6,000	1,000	7,000	1,000	8,000	1,000	9,000
Total Wastewater Utility Plant	$5,881,300	$5,881,300	$2,195,280	$8,076,580	$6,509,680	$14,586,260	$1,498,840	$16,085,100	$1,648,840	$17,733,940

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

UTILITY PLANT DETAIL AND DEPRECIATION

PLANT ACCOUNT	DEPR. RATE	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Structures & Improvements	3.33%	23,976	50,949	79,421	106,394	107,892
Power Generation Equipment	3.33%	1,598	3,197	3,197	3,197	3,197
Collection Sewers - Lift Stations	2.00%	0	1,800	4,500	6,300	7,200
Collection Sewers - Gravity	2.00%	7,104	26,148	52,832	77,381	95,393
Collection Services to Customers	2.00%	0	2,700	8,100	13,500	18,900
Influent & Effluent Flow Measuring Device	10.00%	4,800	9,600	14,400	19,200	19,200
Recycled Water Services	2.00%	0	36	120	216	312
Recycled Water Meters & Installations	3.33%	0	48	160	288	416
Receiving Wells	3.33%	0	0	0	0	0
Pumping Equipment	10.00%	7,200	14,400	21,600	28,800	36,000
Recycled Water Reservoirs	2.50%	3,000	6,000	9,000	12,000	15,000
Recycled Water Trans. & Dist. Mains	2.00%	7,824	16,176	18,000	19,824	21,936
Treatment & Disposal Equipment	5.00%	43,500	94,500	153,000	204,000	204,000
Plant Sewers	5.00%	12,000	24,000	36,000	48,000	48,000
Outfall Sewer Lines	4.00%	0	0	0	0	0
Office Furniture & Fixtures - General	6.67%	334	700	767	834	900
Office Furniture & Fixtures - Computing	20.00%	0	0	0	0	0
Transportation Equipment	20.00%	0	0	0	0	0
Stores Equipment	4.00%	0	0	0	0	0
Tools & Shop Equipment	5.00%	0	0	0	0	0
Laboratory Equipment	10.00%	0	0	0	0	0
Power Operated Equipment	5.00%	0	0	0	0	0
Communication Equipment	10.00%	150	300	300	300	300
Miscellaneous General Equipment	10.00%	250	550	650	750	850
Total Depreciation - Year		$111,736	$251,104	$402,047	$540,983	$579,496
Accumulated Depreciation		$111,736	$362,840	$764,887	$1,305,869	$1,885,365
CIAC Amortization - Year		$0	$38,187	$112,095	$181,468	$243,459
Net Depreciation - Year		$111,736	$251,104	$363,860	$428,888	$398,027

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

CONTRIBUTIONS IN AID OF CONSTRUCTION (CIAC) AND CIAC AMORTIZATION

CONTRIBUTED UTILITY PLANT	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
PLANT ACCOUNT	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE
Treatment Capacity	$0	$0	$750,000	$750,000	$750,000	$1,500,000	$750,000	$2,250,000	$750,000	$3,000,000
Structures & Improvements	0	0	180,000	180,000	90,000	270,000	90,000	360,000	0	360,000
Collection Sewers - Lift Stations	0	0	180,000	180,000	90,000	270,000	90,000	360,000	0	360,000
Collection Sewers - Gravity	0	0	1,194,000	1,194,000	1,187,240	2,381,240	980,400	3,361,640	688,800	4,050,440
Collection Services to Customers	0	0	270,000	270,000	270,000	540,000	270,000	810,000	270,000	1,080,000
Total Contributed Utility Plant	$0	$0	$2,574,000	$2,574,000	$2,387,240	$4,961,240	$2,180,400	$7,141,640	$1,708,800	$8,850,440

AMORTIZATION OF CIAC	AMORT. RATE	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Treatment Capacity	5.00%	$0	$18,750	$56,250	$93,750	$131,250
Structures & Improvements	3.33%	0	2,997	7,493	10,490	11,988
Collection Sewers - Lift Stations	2.00%	0	1,800	4,500	6,300	7,200
Collection Sewers - Gravity	2.00%	0	11,940	35,752	57,429	74,121
Collection Services to Customers	2.00%	0	2,700	8,100	13,500	18,900
Total Amortization - Year		$0	$38,187	$112,095	$181,468	$243,459
Accumulated Amortization		$0	$38,187	$150,282	$331,750	$575,209

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

DETAIL OF PROJECTED REVENUES

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
MONTHLY SERVICE:					
Residential:					
Average Customers (1)	0	250	750	1,250	1,750
Monthly Rate (2)	$70.00	$70.00	$70.00	$70.00	$70.00
Monthly Revenues	$0	$17,500	$52,500	$87,500	$122,500
Annual Revenues - Monthly Service	$0	$210,000	$630,000	$1,050,000	$1,470,000
OTHER REVENUES:					
Customer Additions (1)	0	500	500	500	500
Allocated Establishment Charge (50%) (3)	$15.00	$15.00	$15.00	$15.00	$15.00
Total Other Revenues	$0	$7,500	$7,500	$7,500	$7,500

NOTES:
(1) Schedule DDWW-6
(2) Schedule DDWW-7
(3) Schedule DDWW-8

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

PROJECTED CUSTOMER GROWTH & WASTEWATER FLOWS

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
RESIDENTIAL:					
Beginning No. of Customers	0	0	500	1,000	1,500
Customer Additions	0	500	500	500	500
Ending No. of Customers	0	500	1,000	1,500	2,000
Average No. of Customers	0	250	750	1,250	1,750
WASTEWATER FLOWS:					
Population Per Housing Unit	2.57	2.57	2.57	2.57	2.57
Average No. of Units	0	250	750	1,250	1,750
Average Population	0	643	1,928	3,213	4,498
Flows/Capita/Day - Gallons	80	80	80	80	80
Average Daily Flows	0	51,400	154,200	257,000	359,800
Annual Flows	0	18,761,000	56,283,000	93,805,000	131,327,000

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

PROPOSED WASTEWATER RATES

DESCRIPTION	PROPOSED RATE
MONTHLY SERVICE:	
Residential Service - Per Month	$70.00
METERED SERVICE:	
Recycled Water - Per 1,000 Gallons (1)	$3.00

NOTE:
(1) Not Applicable to Turf Irrigation on Medians and Other Common Areas

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

OTHER RATES & CHARGES

DESCRIPTION	PROPOSED RATE
Establishment of Service - Regular Hours (1)	$30.00
Establishment of Service - After Hours (1)	60.00
Re-establishment of Service (Within 12 Months)	(2)
Reconnection - Delinquent	60.00
Customer Deposit	(3)
Deposit Interest	6.00%
NSF Check Charge	35.00
Late Payment Penalty - Per Month	1.50%
Deferred Payment Plan - Per Month	1.50%
Main Extensions/Additional Facilities	Cost (4)
Service Calls - Not Company Responsibility	Cost (4)
Revenue Taxes & Assessments	(5)
Non-refundable Capacity Fee - Per Residential Unit	$1,500.00

NOTES:
(1) Establishment of Service Charge is a Combined Charge for Both Water and Wastewater Service and Not Duplicative
(2) Per Rule R14-2-603D - Months Off System Times the Minimum Charge
(3) Per Rule R14-2-603B
(4) Cost is Direct Materials, Direct Labor and Overhead Burden of 35% of Direct Labor
(5) Per Rule R14-2-608D

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

ALLOCATION OF CONTRACT SERVICES (1)

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
OPERATIONS:					
Water	$60,000	$175,000	$185,000	$190,000	$200,000
Wastewater	10,000	145,000	190,000	240,000	290,000
Total	$70,000	$320,000	$375,000	$430,000	$490,000
METER READING, BILLING AND CUSTOMER SERVICE:					
Average No. of Customers	0	250	750	1,250	1,750
Monthly Water - $2.00 Per Month	$0	$500	$1,500	$2,500	$3,500
Annual Water	$0	$6,000	$18,000	$30,000	$42,000
Monthly Wastewater - $1.00 Per Month	$0	$250	$750	$1,250	$1,750
Annual Wastewater	$0	$3,000	$9,000	$15,000	$21,000
Total Contract Services	$0	$9,000	$27,000	$45,000	$63,000

NOTES:
(1) Contract Services Provided by American Water Company

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

PROJECTED DIVISIONAL BALANCE SHEETS

DESCRIPTION	BALANCE 6-30-07	END OF: YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
ASSETS						
Utility Plant:						
Gross Utility Plant in Service (1)	$134,500	$5,881,300	$8,076,580	$14,586,260	$16,085,100	$17,733,940
Less: Accumulated Depreciation	0	111,736	362,840	764,887	1,305,869	1,885,365
Net Utility Plant in Service	$134,500	$5,769,564	$7,713,740	$13,821,373	$14,779,231	$15,848,575
Current Assets:						
Cash	$50,000	$46,700	$60,000	$69,000	$83,000	$192,000
Accounts Receivable	0	0	35,000	70,000	105,000	140,000
Other Current Assets	0	1,500	2,000	2,500	3,000	3,500
Total Current Assets	$50,000	$48,200	$97,000	$141,500	$191,000	$335,500
Total Assets	$184,500	$5,817,764	$7,810,740	$13,962,873	$14,970,231	$16,184,075
LIABILITIES & EQUITY						
Current Liabilities:						
Accounts Payable	$0	$9,000	$25,500	$30,000	$34,500	$39,000
Customer Deposits	0	0	70,000	70,000	70,000	70,000
Property Taxes Payable	0	0	5,873	17,213	28,553	39,893
Income Taxes Payable	0	22	22	22	12,239	211,913
Total Current Liabilities	$0	$9,022	$101,395	$117,235	$145,292	$360,806
Treatment Capacity Revolving Acct.	$0	$3,660,000	$1,957,500	$4,005,000	$2,002,500	$0
CIAC - Net	0	0	2,535,813	4,810,958	6,809,890	8,275,231
Equity:						
Common Stock	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
Paid in Capital	182,000	2,209,980	3,523,893	5,367,457	6,169,425	7,367,815
Retained Earnings	0	-63,738	-310,361	-340,277	-159,376	177,723
Total Equity	$184,500	$2,148,742	$3,216,032	$5,029,680	$6,012,549	$7,548,038
Total Liabilities & Equity	$184,500	$5,817,764	$7,810,740	$13,962,873	$14,970,231	$16,184,075

NOTES:
(1) The $134,500 Shown as Plant in Service at 6-30-07 is comprised of Organization Expense, Franchises, and Land & Land Rights

EXHIBIT
A-3
Admitted

ROSHKA DEWULF & PATTEN

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October 4, 2007

Kevin Torrey, Esq.
Legal Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

RE: Double Diamond Utilities, Inc.'s Responses to Staff's 1st Set of Data Requests - Docket No. WS-20543A-07-0435

Dear Mr. Torrey:

Enclosed please find the responses of Double Diamond Utilities, Inc. to Staff's 1st set of data requests in the above-mentioned docket. Some of the information is confidential and will be provided once a Protective Agreement is in place.

Please contact me if you have any questions.

Sincerely,

Michael W. Patten

MWP:mi
Enclosure
cc: Vicki Wallace, Utilities Division

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

1. Please provide a detailed explanation of the relationship between Double Diamond Utilities Inc., Arizona Acreage Inc., Mardian Ranch Phase I, L.L.C., The Ranch at White Hills, Inc,, Arizona Acreage, L.L.C., and Arizona Land Development, Inc., all of which are registered to operate in Arizona and appear to be owned by Leonard and Susan Mardian.

RESPONSE: Leonard Mardian ("Leonard") and Susan Mardian ("Susan") are husband and wife. Lori Mardian-Williams ("Lori") is Leonard's daughter from a previous marriage. Lori is also known as "Lori Mardian" and/or "Lori Williams." Lori is married to Austin Williams ("Austin") and Austin is also known as "Paul Austin Williams." Leonard, Susan, and Lori are affiliated with all mentioned companies. There are a small number of other unaffiliated entities that have a minority interest in certain companies.

Further, please see Exhibit 1. The information sought in Exhibit 1 is considered proprietary information and therefore is subject to the terms of the Protective Agreement. Upon full execution of the Protective Agreement, Exhibit 1 will be submitted by separate cover on yellow paper and marked "CONFIDENTIAL"

RESPONDENT: Applicant

Exhibit 1

The information sought in Exhibit 1 is considered proprietary information and therefore is subject to the terms of the Protective Agreement. Upon full execution of the Protective Agreement, Exhibit 1 will be submitted by separate cover on yellow paper and marked "CONFIDENTIAL"

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

2. According to the application, the Mardians have significant real estate holdings in Arizona and Nevada and have completed numerous developments in California. A partial listing known to Staff and/or provided in the application include those listed above as well as Holiday Inn Express in Las Vegas, Milano Residences, Blackjack Lodge Restaurant & Tavern, Hurricane Tavern, Rainbow Tavern, L.L.C,, Aspen Self Storage, Avalon Self Storage, Hacienda Decatur, L.L.C., and Spring Mountain Retail, L.L.C, Please provide a complete list of all the affiliates of the applicant or entities associated with the applicant. For each of the entities listed, please describe the nature of business and the relationship to the applicant.

RESPONSE: Please see, Exhibit 2. The information sought in Exhibit 2 is considered proprietary information and therefore is subject to the terms of the Protective Agreement. Upon full execution of the Protective Agreement, Exhibit 2 will be submitted by separate cover on yellow paper and marked "CONFIDENTIAL"

RESPONDENT: Applicant

Exhibit 2

The information sought in Exhibit 2 is considered proprietary information and therefore is subject to the terms of the Protective Agreement. Upon full execution of the Protective Agreement, Exhibit 2will be submitted by separate cover on yellow paper and marked "CONFIDENTIAL"

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

3. Please describe the organizational structure of Double Diamond, Inc. and any affiliates or associated entities.

RESPONSE: See Response to No. 2 above and incorporated herein by reference as though fully set forth verbatim.

RESPONDENT: Applicant

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

4. Please provide a list of all the officers and directors for each of the affiliated/associated entities and their respective ownership interest.

RESPONSE: See Response to No. 2 above and incorporated herein by reference as though fully set forth verbatim

RESPONDENT: Applicant

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

5. Has Double Diamond Utilities, Inc., and/or any of their respective affiliated/associated entities operated a public water and/or wastewater utility company? If so, please provide a detailed explanation of the track record.

RESPONSE: No.

RESPONDENT: Applicant

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

6. Have any of the (present and past) officers, directors and/or employees of Double Diamond Utilities, Inc. and their respective affiliated/associated entities been accused of allegations of political corruption (including but not limited to campaign violations and election law violations); allegations of construction violations; allegations of misconduct; and filings at administrative hearings, at the local, state, or federal agencies, including at the Federal Elections Commission, Registrar of Contractors, or any violations of law? If so, please provide a comprehensive list of all affiliated/associated individuals and entities that have been accused of the above mentioned allegations; the litigation history; and the individual case disposition.

RESPONSE: No, with respect to Officers and Directors of Double Diamond, Inc. and all affiliated entities.

Double Diamond, Inc. currently has no employees. We have no knowledge of any of Double Diamond, Inc.'s affiliates' employees' violations or allegations of violations. However, we have not affirmatively verified this information for each employee of Double Diamond, Inc.'s affiliates.

RESPONDENT: Applicant

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

7. Has Double Diamond Utilities, Inc. and/or any of their respective affiliated/associated entities been accused of allegations of political corruption (including but not limited to campaign violations and election law violations); allegations of construction violations; allegations of misconduct; and filings at administrative hearings, at the local, state, or federal agencies, including at the Federal Elections commission, Registrar of Contractors, or any violations of law? If so, please provide a comprehensive list of all affiliated/associated individuals and entities that have been accused of the above mentioned allegations; the litigation history; and. the individual case disposition.

RESPONSE: There is a single instance, whereby affiliated entities of Double Diamond Utilities, Inc. have worked with, and successfully resolved issues with the Arizona Department of Real Estate. In short, Double Diamond affiliates identified a potential issue with the Department of Real Estate and brought the problem to the Department's attention. This fully approved/authorized consent decree addressed all of the outstanding issues, and has been attached for your information as Exhibit 3 and is hereby incorporated herein by reference as though fully set forth verbatim.

The affiliated entities identified in the consent decree include Gateway Lots, LLC and Flannery & Allen, LLC.

Within the "FINDINGS OF FACT" determinations of this decree, there are numerous mitigating circumstances which are specifically identified which make this decree unique. As a result, a consent decree was initiated to fully address and resolve the issues identified.

Of significant importance is the Arizona Department of Real Estate consent decree "FINDING OF FACT" determination #3, which verifies these instances and reads as follows:

. . .

3. As mitigating circumstances, Respondents note the following:

a. The Matter was initiated as a result of the notice and information provided by Respondents to the Department. To date,

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

the Department has received no complaints from any prior purchasers of the Lots from Respondents.

b. As soon as Respondents learned of their potential non-compliance with Department of Real Estate requirements, Respondents met with and notified Department representatives and sought to comply with all applicable requirements.

c. In cooperation with the Department, Respondents produced copies of the deeds, related documents and information concerning Respondents' previous acquisitions, sales and/or transfers of the Lots.

d. Additionally, Respondents have voluntarily suspended lot sales in the Properties pending resolution of the Matter.

e. Prior to entry of this Consent Order, Gateway diligently worked in cooperation with Department representatives to complete and file an application for a subdivision public report for lots located within Gateway Acres Tract 1, Gateway Acres Tract 2, Gateway Acres Tract 7 and Gateway Acres Tract 8.

f. F & A has filed an application for a subdivision public report for lots located with the Flannery & Allen Tract 33-27-20.

RESPONDENT: Applicant

Exhibit 3

Arizona Department of Real Estate
2910 North 44th Street, Suite 100
Phoenix, AZ 85018
Telephone: (602) 468-1414
Facsimile: (602) 468-0562

BEFORE THE ARIZONA DEPARTMENT OF REAL ESTATE

In the matter of the subdivision violations of: **GATEWAY LOTS, LLC**, a Nevada limited liability company and **FLANNERY & ALLEN, LLC**, a Nevada limited liability company, Respondents.	**06F-SD-699** **CONSENT ORDER**

The Arizona Department of Real Estate ("Department") has investigated certain allegations of violations by GATEWAY LOTS, LLC, a Nevada limited liability company and FLANNERY & ALLEN, LLC, a Nevada limited liability company (collectively "Respondents") of the laws of this state pertaining to the acquisition, advertisement, division and/or sale of lots and parcels (collectively the "Lots") by Respondents and/or managers located in five (5) subdivisions within Mohave County, Arizona, more particular described as Flannery & Allen Tract 33-27-20, Gateway Acres Tract 1, Gateway Acres Tract 2, Gateway Acres Tract 7 and Gateway Acres Tract 8 (Collectively "the Properties"). Such review and/or investigation and the underlying subject matter thereof, including all acquisitions, advertisements, divisions, sales and/or transfers of lots in the Properties are hereinafter collectively referred to as the "Matter". The Department has sufficient grounds to charge all Respondents with violations of A.R.S. §32-2181 et. seq., to order them to cease and desist from selling or offering to sell lots or parcels located within the Development pursuant to A.R.S. §§32-2154 and 32-2183 (I), and to assess civil penalties pursuant to A.R.S. §32-2185.09.

Respondents have been informed of their right to receive written notice of the charges against them and to a hearing to contest those charges pursuant to A.R.S. §41-1092, et seq., to present evidence and be represented by an attorney. In order to settle this matter, Respondents hereby stipulate that the following Findings of Fact are true, and consent to the

Respondent(s) Initials

entry of the following Conclusions of Law and Order.

FINDINGS OF FACT

1. At all material times, GATEWAY LOTS, LLC ("Gateway") was a Nevada limited liability company with a principal place of business at 4132 S. Rainbow Blvd., PMB 324, Las Vegas, Nevada 89103.

2. At all material times, FLANNERY & ALLEN, LLC ("F&A") was a Nevada limited liability company with a principal place of business at 4132 S. Rainbow Blvd., PMB 324, Las Vegas, Nevada 89103.

3. As mitigating circumstances, Respondents note the following:

a. The Matter was initiated as a result of the notice and information provided by Respondents to the Department. To date, the Department has received no complaints from any prior purchasers of the Lots from Respondents.

b. As soon as Respondents learned of their potential non-compliance with Department of Real Estate requirements, Respondents met with and notified Department representatives and sought to comply with all applicable requirements.

c. In cooperation with the Department, Respondents have produced copies of the deeds, related documents and information concerning Respondents' previous acquisitions, sales and/or transfers of the Lots.

d. Additionally, Respondents have voluntarily suspended lot sales in the Properties pending resolution of the Matter.

e. Prior to entry of this Consent Order, Gateway diligently worked in cooperation with Department representatives to complete and file an application for a subdivision public report for lots located within Gateway Acres Tract 1, Gateway Acres Tract 2, Gateway Acres Tract 7 and Gateway Acres Tract 8.

f. F&A has filed an application for a subdivision public report for lots located with the Flannery & Allen Tract 33-27-20.

Flannery & Allen Tract 33-27-20 transactions

4. As of October 7, 2005, there was no record with the Department of any receipt of or

Respondent(s) Initials

application for a public report by F&A, covering the Flannery & Allen Tract 33-27-20.

5. Between January 2004 and September 2005, F&A owned and offered for sale, sold or transferred various lots in the Flannery & Allen Tract 33-27-20 without notifying the Department of the intention to offer or sell lots and without a public report.

Gateway Acres Transactions

6. As of June 25, 2002, there was no record with the Department of any receipt or of application for a public report by Gateway covering lots within Gateway Acres, Tract 1.

7. As of June 5, 2005, there was no record with the Department of any receipt or of application for a public report by Gateway covering lots within Gateway Acres, Tract 2.

8. As of June 30, 2005, there was no record with the Department of any receipt or of application for a public report by Gateway covering lots within Gateway Acres, Tract 7.

9. As of May 16, 2005, there was no record with the Department of any receipt or of application for a public report by Gateway covering lots within Gateway Acres, Tract 8.

10. Between May 2002 and June 2005, Respondents owned and offered for sale, sold and/or transferred various lots and parcels located within Gateway Acres Tract 1, Gateway Acres Tract 2, Gateway Acres Tract 7, and Gateway Acres Tract 8 without notifying the Department of the intention to offer and sell, and without a public report.

CONCLUSIONS OF LAW

1. The Department has jurisdiction in this matter.

2. Pursuant to A.R.S. §32-2153.01, the Commissioner may enter a Consent Order upon agreement of the parties that includes terms to which the parties agree and which the Commissioner deems appropriate.

3. Respondents, by actions as described in the Findings of Fact, purchased, owned or had an ownership interest in subdivided lands within the meaning of A.R.S. §32-2101 (55)(a).

4. Respondents, through actions as described in the Findings of Fact, offered for sale, sold or transferred various lots within the Properties without first notifying the Commissioner in writing of the intent to do so, in violation of A.R.S. §32-2181 (A).

5. Respondents, through actions as described in the Findings of Fact, sold various lots

Respondent(s) Initials

within the Properties without first obtaining a public report from the Commissioner, in violation of A.R.S. §32-2183 (F).

6. Respondents, through actions as described in the Findings of Fact, sold various lots within the Properties without clearly and conspicuously disclosing the purchaser's right to rescind the agreement for sale within the seven (7) day time limit provided by statute, in violation of A.R.S. §32-2185.01 (D) and A.A.C. R4-28-804.

7. Respondents, through actions as described in the Findings of Fact, sold various lots within the Properties without clearly and conspicuously disclosing the purchaser's right to receive a copy of the public report and the purchaser's right to rescind the agreement for sale, in violation of A.R.S. §32-2185.06 and A.A.C. R4-28-803.

8. Respondents, through actions as described in the Findings of Fact, various lots within the Properties without obtaining a public report receipt from lot purchasers, in violation of A.A.C. R4-28-805.

9. None of the sales or offers for sale by Respondents were exempt from the public report requirement or any other provision of A.R.S. §32-2181, *et seq.*

10. Grounds exist under A.R.S. §32-2154 for the Commissioner to prohibit the offer for sale, sale or transfer of the subdivided lands referenced herein until such time as the Commissioner has issued a public report or exemption order, and to issue any other orders the Commissioner deems necessary to protect the public interest and ensure compliance with Arizona's subdivision laws, pursuant to A.R.S. §32-2183 (I).

11. Grounds exist to require Respondents to reimburse the Department for its investigative expenses pursuant to A.R.S. §32-2183.01 (H).

12. Grounds exist to assess civil penalties of One Thousand Dollars ($1,000.00) per violation against Respondents pursuant to A.R.S. §32-2185.09.

ORDER

NOW, THEREFORE, IT IS ORDERED THAT:

The Matter is conclusively settled and resolved as against Respondents and their members and manager, in accordance with the following terms and conditions:

Respondent(s) Initials

CEASE AND DESIST

1. Respondents shall cease and desist from selling, offering for sale, transferring or conveying any parcel or fractional interest in the Properties until Respondents demonstrate compliance with all applicable statutes and rules, and all orders contained herein.

CIVIL PENALTY

2. Respondents are assessed a civil penalty of Forty Five Thousand Dollars ($45,000.00), jointly and severally, due and payable with the return of the Consent Order signed by Respondents. The payment shall be in the form of a cashier's check or money order payable to the Arizona Department of Real Estate.

GRANT TO EDUCATION FUND

3. Respondents shall contribute Thirty Thousand Dollars ($30,000) to the Department's Education Fund as a grant to be used for educational publications and for such other educational efforts that the Commissioner deems proper for the guidance of licensees and the public pursuant to A.R.S. § 32-2107(D). The payment shall be in the form of a cashier's check or money order made payable to the Arizona Department of Real Estate Education Fund.

RESCISSION/PUBLIC REPORT

4. Respondents shall, within forty-five (45) days of the entry of this Order, submit to the Department's Compliance Officer ("Compliance Officer") copies of the rescission letters provided by Respondents to lot purchasers, together with proof that Respondents mailed or delivered the letters to each purchaser as described above. Purchasers shall have been given not less than ninety (90) days after receipt thereof to accept the offers to rescind their purchases.

5. Before offering for sale, selling or transferring any lot or parcel other than to effect rescission as provided in this Order, Respondents, individually or with the other Respondents shall, within sixty (60) days of the entry of this Order, obtain approval from the Department of Respondents' pending applications for public reports for the Properties pursuant to A.R.S. §32-2181, et seq., that covers all parcels, lots or tracts owned by Respondents.

6. Extensions of the deadlines set forth above may only be granted upon good cause and the express written consent of the Compliance Officer.

Respondent(s) Initials

ENFORCEMENT OF CONSENT ORDER

7. If the Commissioner determines that Respondents have failed to comply with any term or deadline of this Order, the Commissioner may commence additional disciplinary or other proceedings that the Commissioner deems appropriate in any court or before any tribunal of proper jurisdiction, and seek such orders as are necessary to enforce this Order and compel compliance.

RECORDING OF CONSENT ORDER

8. This Consent Order shall be recorded in the office of the Mohave County Recorder, pursuant to the provisions of pursuant to A.R.S. §32-2183.02.

9. Any publication or release concerning this Consent Order or the Matter shall include all of the mitigating factors contained in the Findings of Fact.

DATED this 22nd day of August, 2006.

for Tom Adams

ELAINE RICHARDSON, Commissioner
Arizona Real Estate Department

CONSENT TO ORDER

1. Respondents hereby acknowledge reading the foregoing Findings of Fact, Conclusions of Law and Order, are aware of the rights to an administrative hearing in this matter to present evidence, and have waived same.

2. Respondents admit the jurisdiction of the Department, admit the foregoing Findings of Fact, and consent to the entry of the foregoing Conclusions of Law and Order.

3. Respondents state that no promises were made outside of this Consent Order to induce entering into this Consent Order and declare that Respondents entered into this Consent Order voluntarily.

4. Respondents acknowledge that acceptance of this Consent Order is to settle the specific allegations by the Department in this matter and does not preclude any other agency or officer of this State, or subdivision thereof, from instituting other civil or criminal proceedings as may be appropriate in the future.

Respondent(s) Initials

5. Respondents hereby waive all rights to challenge the Commissioner's Findings of Fact, Conclusions of Law and Order on appeal, to the Commissioner or any court or other tribunal, and agree to be bound by this Consent Order.

6. Respondents acknowledge and agree that, although the Consent Order has not yet been accepted by the Commissioner, upon signing this Consent Order and returning this document (or a copy thereof) to the Department, Respondents may not revoke acceptance of the Consent Order. Respondents may not make any modifications to the document. Any modification to this original document are ineffective and void unless mutually approved by the parties.

7. Respondents agree to comply with all the terms and meet all the deadlines in this Consent Order, and that failure to do so may result in the Department filing this Consent Order with the superior court and obtaining a recordable judgment. Respondents agree not to oppose any such action taken by the Department.

8. Respondents agree to be available to testify fully and truthfully in any other enforcement proceedings brought by the Department resulting from this case.

Dated: August 17, 2006. By Susan Mardian

Manager (Title)
GATEWAY LOTS, LLC,
a Nevada Limited Liability Company, **Respondent**

Dated: August 17, 2006. By Susan Mardian

Manager (Title)
FLANNERY & ALLEN, LLC,
a Nevada Limited Liability Company, **Respondent**

Respondent(s) Initials

APPROVED BY THE MEMBERS AND MANAGERS OF RESPONDENTS

Dated: August 17, 2006

LEONARD MARDIAN

Dated: August 17, 2006

SUSAN MARDIAN

Dated: August 17, 2006

LORI MARDIAN-WILLIAMS

APPROVED AS TO FORM:

Dated: AUGUST 21, 2006

Michael T. Denious, Esq.
Stoops, Denious, Wilson & Murray, PLC
350 E. Virginia Ave., Ste. 100
Phoenix, Arizona 85004
Attorney for Respondents

COPY of the foregoing sent via U.S. Mail this 22nd day of August, 2006, to:

Gateway Lots, LLC
Flannery & Allen, LLC
4132 S. Rainbow, PMB 324
Las Vegas, Nevada 89103
Respondents

Stoops, Denious, Wilson & Murray, PLC
Michael T. Denious, Esq.
350 E. Virginia Ave., Ste. 100
Phoenix, Arizona 85004
Attorney for Respondents

COPY of the foregoing delivered this 22nd day of August, 2006 to:

Arizona Department of Real Estate
Tom Adams, Director, Regulations
Mike Wheeler, Deputy Director, Administrative Actions Division
Roy Tanney, Director, Development Division
Eleni Katerelos, Compliance Officer
Admin. Actions for Real Estate Bulletin
2910 North 44th Street
Phoenix, AZ 85018

June Marshall

Respondent(s) Initials

SILVER STATE BANK

Cashiers Check

Date: 8/17/06 061619

GATEWAY LOTS, LLC

Branch: 1008

REMITTER

PAY TO THE ORDER OF EXACTLY **30,000 AND 00/100 DOLLARS $30,000.00

*******ARIZONA DEPARTMENT OF REAL ESTATE EDUCATION FUND*****

Lynn Reynolds

GATEWAY LOTS, LLC & FLANNERY & ALLEN, LLC

⑈0000061619⑈ ⑆122401833⑆ 0059990019⑈

SILVER STATE BANK

Cashiers Check

Date: 8/17/06 061617

GATEWAY LOTS, LLC.*******

Branch: 1008

REMITTER

PAY TO THE ORDER OF EXACTLY **45,000 AND 00/100 DOLLARS $45,000.00

*********ARIZONA DEPARTMENT OF REAL ESTATE**********

Lynn Reynolds

GATEWAY LOTS, LLC & FLANNERY & ALLEN, LLC

⑈0000061617⑈ ⑆122401833⑆ 0059990019⑈

06F-SD-699

Arizona Dept. of Real Estate
Deposit No.: 553564 08/22/06 3:08 PM

Civil Penalties (Fines) $75000.00

Check $75,000.00

Change: $0.00
Clerk: jwilliams
Customer: 06F-SD-699

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

8. Have any of the persons or entities listed in Nos. 5 and 6 above been convicted or admitted to any of the allegations listed?

RESPONSE: No, with respect to Officers and Directors of Double Diamond, Inc. and all affiliated entities.

Double Diamond, Inc. currently has no employees. We have no knowledge of any of Double Diamond, Inc.'s affiliates' employees' violations or allegations of violations. However, we have not affirmatively verified this information for each employee of Double Diamond, Inc.'s affiliates.

RESPONDENT: Applicant

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

9. Please explain the relationship between Double Diamond's owners, Leonard and Susan Mardian, and former Clark County Commissioner Lynette Boggs-McDonald who was formally charged with four felonies in a Grand Jury Indictment filed in Las Vegas Justice Court on August 29, 2007. Specifically, please provide an explanation to the allegations in the attached Las Vegas Sun article on September 22, 2006.

RESPONSE: Please see, Exhibit 4. The information sought in Exhibit 3 is considered proprietary information and therefore is subject to the terms of the Protective Agreement. Upon full execution of the Protective Agreement, Exhibit 4 will be submitted by separate cover on yellow paper and marked "CONFIDENTIAL"

RESPONDENT: Applicant

Exhibit 4

The information sought in Exhibit 4 is considered proprietary information and therefore is subject to the terms of the Protective Agreement. Upon full execution of the Protective Agreement, Exhibit 4 will be submitted by separate cover on yellow paper and marked "CONFIDENTIAL"

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

10. Have Double Diamond Utilities, Inc., and any of their respective affiliated/associated entities ever filed for bankruptcy? If so, please provide the litigation history and the case disposition.

RESPONSE: No.

RESPONDENT: Applicant

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

11. Have any of the officers and/or directors affiliated to Double Diamond Utilities, Inc., and any of their respective affiliated/associated entities ever filed for bankruptcy? If so, please provide the litigation history and the case disposition.

RESPONSE: No.

RESPONDENT: Applicant

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

12. Please provide a listing of the exact legal name of all the entities in which Owners/Developers Leonard and Susan Mardian, and/or family members, have a direct or beneficial equity, partnership, membership or other ownership interest.

RESPONSE: See Response to No. 2 above and incorporated herein by reference as though fully set forth verbatim.

RESPONDENT: Applicant

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

13. Please describe any and all mechanics, tax or other liens that have been assessed against any of the affiliated/associated entities or the directors and officers of Diamond Utilities, Inc.

RESPONSE: See Exhibit 5 attached hereto and incorporated herein by reference as though fully set forth verbatim.

RESPONDENT: Applicant

Exhibit 5

Exhibit 5 -- Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435

PERSONAL:

A. Two Internal Revenue Service Facsimile Federal Tax Lien Documents were filed against Mr. Leonard Mardian for the same tax period of 12/31/1986. While the tax period was the same for both liens, the amounts differed by $10.00 and as is evidenced by Exhibit A attached hereto and incorporated herein by reference, were served at two different times. Both liens reflect that these liens were "Self-released" and therefore have been completely satisfied by Mr. Mardian. Finally, Mr. Mardian's Social Security number is deemed propriety and therefore has been redacted from the documents attached as Exhibit A.

B. On or about November 7, 2007, the State of Arizona issued a Notice of State Tax Lien in the original amount of $989.23 against Mr. and Mrs. Mardian. Mr. and Mrs. Mardian were unaware that any such sums were due. As soon as Mr. and Mrs. Mardian were made aware of this lien, they immediately forwarded check number 10846 in the amount of $989.23 to the State of Arizona to fully resolve this matter. On or about June 13, 2006, the Notice of Intent to Release Lien was forwarded to Mr. and Mrs. Mardian. A copy of the lien, cancelled check satisfying the lien, and the notice of intent to release lien is attached hereto as Exhibit B and incorporated herein by reference as though fully set forth verbatim. Finally, Mr. and Mrs. Mardian's Social Security numbers are deemed propriety and therefore have been redacted from the documents attached as Exhibit B.

BUSINESS:

Rainbow Hotel, LLC.

Dayside, Inc. was the general contractor for the Holiday Inn Express ("HIE") located at 6220 South Rainbow Boulevard, Las Vegas, Nevada. HIE is owned and operated by Rainbow Hotel, LLC ("Rainbow"). Four liens were recorded during the construction of this Project: It is Rainbow's position that Dayside, Inc. failed to: (i) properly manage the project; (ii) failed to finish the project pursuant to its contract with Rainbow; and (iii) forced Rainbow to hire another general contractor to complete the project. The following liens were recorded against this project:

C. Sorensen Construction recorded a lien in the amount of $15,585.89 on or about November 14, 2006. Said lien was released on or about January 24, 2007. See, Exhibit C attached hereto and incorporated herein by reference as though fully set forth verbatim.

D. American Asphalt & Grading Co. recorded a lien on or about January 8, 2007 in the amount of $10,750.00. Said lien was released on or about January 22, 2007. See, Exhibit D attached hereto and incorporated herein by reference as though fully set forth verbatim.

E. Las Vegas Paving Corporation recorded a lien on or about January 16, 2007 in the amount of $14,635.03. Said lien was released on or about January 30, 2007. See, Exhibit E attached hereto and incorporated herein by reference as though fully set forth verbatim.

F. Dayside, Inc. recorded a lien on or about May 4, 2007. The validity and the amount of said lien is being challenged.

Exhibit 5 -- Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435

Milano Residences, LLC.

Dayside, Inc. was the original general contractor for a project called Milano Residences, LLC ("Milano") – a one hundred unit condominium development currently under construction and located at 430 East Cactus Avenue, Las Vegas, Nevada. It is Milano's position that Dayside, Inc. failed to properly manage the Milano project and failed to finish the project pursuant to its contract with Milano. Subsequently, Milano has been forced to hire another general contractor to complete the Milano project. The following liens were recorded against this project:

G. On or about May 10, 2007, Dayside, Inc. recorded two liens in the identical amount of $381,661.40 on two parcels of land owned by Milano Residences, LLC. The validity and amounts of both liens are being challenged. See, Exhibit G attached hereto and incorporated herein by reference as though fully set forth verbatim.

H. On or about May 17, 2007 Peri Formwork Systems, Inc. recorded a lien in the amount of $23,370.77. On or about September 27, 2007, Peri Formwork Systems, Inc. forwarded an Amended Lien. The validity and amount of Peri Formwork Systems, Inc.'s lien and/or amended lien is being challenged. See, Exhibit H attached hereto and incorporated herein by reference as though fully set forth verbatim.

The above represent those liens (existing and prior) of which the entities and individuals are aware. The Company and/or its affiliations have performed a due and diligent search of appropriate county records to determine any additional liens. However, the Company hereby reserves its right to supplement this response as new and/or additional information becomes known to the Company.

Exhibit 5-A

2692

INTERNAL REVENUE SERVICE FACSIMILE FEDERAL TAX LIEN DOCUMENT	COURT RECORDING DATA Lien Recorded : 02/20/1991 - 00:00A Recording Number: UCC Number : Liber : 91 02 20 Page : 0953 **Self-released**
District: Sacramento	IRS Serial Number: 689104014

This Lien Has Been Filed in Accordance with
Internal Revenue Regulation 301.6323(f)-1.

Name of Taxpayer :
LEONARD K MARDIAN

Residence :
2443 FAIR OAKS BLVD 323
SACRAMENTO, CA 95825-7684

With respect to each assessment below, unless notice of lien is refiled by the date in column(e), this notice shall constitute the certificate of release of lien as defined in IRC 6325(a).

Form (a)	Period (b)	ID Number (c)	Assessed (d)	Refile Deadline (e)	Unpaid Balance (f)
6672	12/31/1986	[redacted]	03/27/1989	04/26/1999	59680.50

Filed at: COUNTY RECORDER
SACRAMENTO COUNTY
SACRAMENTO, CA 95812

Total $ 59680.50

This notice was prepared and executed at Sacramento, CA
on this, the 13th day of February, 1991.

Authorizing Official:
N. SOPOLSKY

Title:
REVENUE OFFICER 68-01-3432

2692

COURT RECORDING DATA

INTERNAL REVENUE SERVICE
FACSIMILE FEDERAL TAX LIEN DOCUMENT

Lien Recorded : 06/14/1993 - 00:00A
Recording Number: 05284
UCC Number :
Liber : 930614
Page :

Self-released

District: Reno

IRS Serial Number: 889321339

This Lien Has Been Filed in Accordance with
Internal Revenue Regulation 301.6323(f)-1.

Name of Taxpayer :
LEONARD K MARDIAN

Residence :
8099 PINNACLE PEAK AVE
LAS VEGAS, NV 89113

With respect to each assessment below, unless notice of lien is refiled by the date in column(e), this notice shall constitute the certificate of release of lien as defined in IRC 6325(a).

Form (a)	Period (b)	ID Number (c)	Assessed (d)	Refile Deadline (e)	Unpaid Balance (f)
6672	12/31/1986	[redacted]	03/27/1989	04/26/1999	59690.50

Filed at: COUNTY RECORDER
CLARK COUNTY
LAS VEGAS, NV 89155

Total $ 59690.50

This notice was prepared and executed at Reno, NV
on this, the 04th day of June, 1993.

Authorizing Official:
RON SMITH 1300

Title:
CHIEF ADVISORY

88-01-9990

Exhibit 5-B

ARIZONA DEPARTMENT OF REVENUE
P.O. BOX 29070
PHOENIX, ARIZONA 85038-9070

NOTICE OF STATE TAX LIEN

OFFICIAL RECORDS OF
MARICOPA COUNTY RECORDER
HELEN PURCELL
2005-1692713 11/08/05 13:03
2 OF 40
BLOCKNUMBERS

MARDIAN S R
MARDIAN L
4132 S RAINBOW #324
LAS VEGAS NV 89103

IMPORTANT RELEASE INFORMATION:
For each assessment listed below, unless this Notice of Lien is extended by the date given in column (2), this notice shall, on the day following such date, operate as a Certificate of Release.

Pursuant to the Arizona Revised Statutes Section 42-1152, Notice is hereby given that the following named taxpayer owes the Arizona Department of Revenue such unpaid amounts as are herein set forth and that pursuant to Section 42-1151 the Department has a lien against all the property or rights to property belonging to the taxpayer for such unpaid amount, plus accruing interest.

TYPE OF TAX: INCOME

ID NUMBERS: [redacted] PLACE OF FILING: MARICOPA

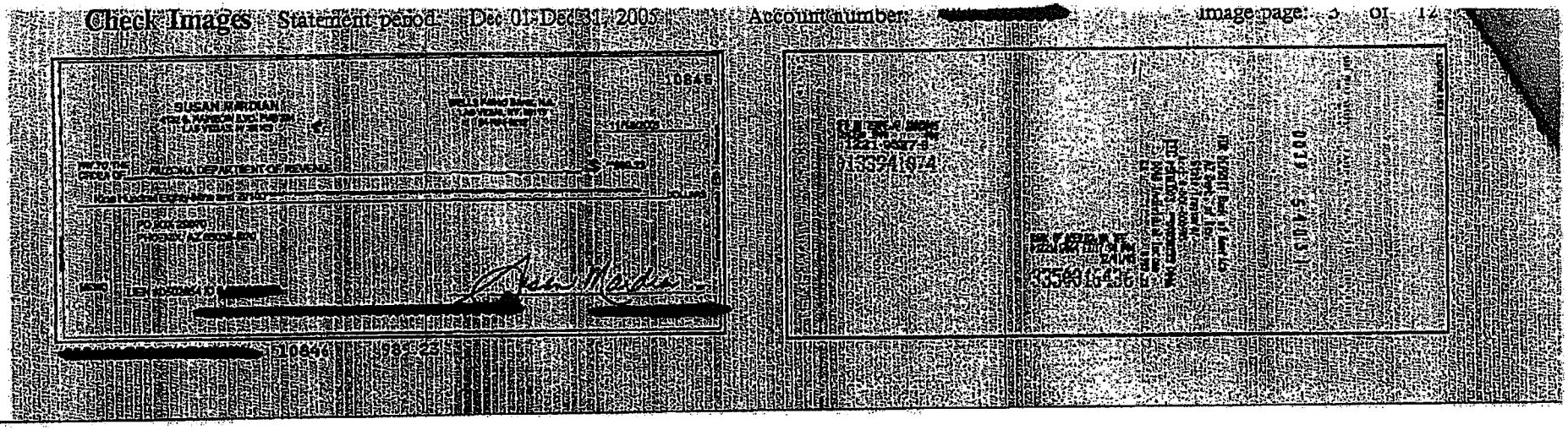
LIEN NUMBER: 0502654

DATE OF ASSESSMENT	LAST DAY TO EXTEND LIEN	TAX PERIOD	TAX BALANCE	PENALTY	INTEREST THRU 11/30/05	UNPAID BALANCE OF ASSESSMENT
10/07/03	10/07/09	01/02-12/02	.00	42.99	37.55	80.54
10/17/05	10/17/11	01/04-12/04	.00	482.76	425.93	908.69
					TOTAL	989.23

PAGE 1 OF 1
DATED AT PHOENIX, ARIZONA THIS 7 DAY OF NOVEMBER , 2005
Signature R. F. Hamel Title: Administrator

For additional information call: Phoenix (602) 542-5551 / Tucson (520) 628-6442
East Valley (480) 545-3500

ADOR LN1010 (08/04) (ADOR 20-1002)


SUSAN KARDIAN
1084
PAY TO THE ORDER OF
ARIZONA DEPARTMENT OF REVENUE
DOLLARS
MEMO
[redacted]
1084
1221 9527 8
0133941974
1335 0164 36 0
0017 5401 3

STATE OF ARIZONA

Department of Revenue

Janet Napolitano
Governor

J. Elliott Hibbs
Director

MARDIAN SR
MARDIAN L
4132 S RAINBOW #324
LAS VEGAS NV 89103

NOTICE OF INTENT TO RELEASE LIEN

DATE: **June 13, 2006**

I.D. #: **9322543339 & 9322543339**

LIEN #'S: **0502654 (Filed with Maricopa County and Secretary of State)**

Pursuant to your inquiry, the above referenced lien has been satisfied, and this office is processing a release of lien.

The executed release will be sent by courier to the Maricopa County Recorder's Office and Secretary Of State.

If you need more information or have questions, please contact our Lien Department at (602) 716-7805.

Sincerely,

Renee Jordan
Administrator/gac

Exhibit 5-C

APN: 163-35-310-004

RECORDING REQUESTED
Sorensen Construction, Inc.

AND WHEN RECORDED MAIL TO:
Sorensen Construction, Inc.

536 N. Glasgow Avenue
Henderson, NV 89015

SPACE ABOVE LINE FOR RECORDER'S USE

MECHANICS' LIEN

NOTICE IS HEREBY GIVEN THAT: Pursuant to the provisions of the Nevada Statutes, Sorensen Construction, Inc., 536 N. Glasgow Avenue, Henderson, NV 89015 hereafter referred to as "Claimant" (whether singular or plural), claims a lien upon the real property and buildings, improvement or structures thereon, described in Paragraph Six (6)below, and states the following:

(1) That demand of Claimant after deducting all just credits and offsets is $15,585.89 together with interest thereon at the rate of 10.00 percent per annum from April 8, 2006.

(2) That the name of the owner(s) or reputed owner(s) of said property, is (are): Rainbow Hotel, LLC, 4132 S. Rainbow Boulevard, PMB 324, Las Vegas, NV 89103.

(3) That Claimant did from * - until ** perform labor and/or supply materials as follows: General construction labor and material for construction, alteration or repair of said building, improvements or structures, which labor, or materials, or both of them were in fact used in the construction, alteration or repair of said buildings, improvements or structures, the location of which is set forth in Paragraph Six (6) below. *September 2005 **unknown

(4) Claimant furnished work and materials under contract with, or at the request of Dayside, Inc., 4175 Cameron Street, #A, Las Vegas, NV 89103.

(5) The terms, time given and conditions of the contract are: Net 60.

(6) That the property upon which said lien is sought to be charged is situated in the City of Las Vegas, County of Clark, State of Nevada, commonly known as Holiday Inn Express, 6220 S. Rainbow Boulevard, Las Vegas, NV and more particulary described as APN: 163-35-310-004.

VERIFICATION

I, Angela Darling, being first duly sworn on oath, according to law, deposes and says:

I am the Authorized Agent of Sorensen Construction, Inc. the Lien Claimant named in the foregoing Notice and Claim of Lien, know the contents thereof and state that the same are true of my own personal knowledge, except those matters stated upon information and belief; and, as to those matters, I believe them to be true. I further state that the Notice and Claim of Lien contains, among other things, a correct statement of demand of Lien Claimant, after deducting all just credits and offsets.

Angela Darling

Angela Darling / Authorized Agent

State of California
County of San Diego

On 11-8-06 (Date) before me, Nancie Raddatz, Notary Public (Name, Title or Office - e.g. Jane Doe,)

personally appeared Angela Darling (Name(s) of Signer(s))

☒ personally known to me - OR ☐ proved to me the basis of satisfactory evidence to be the person(s) whose name(s) is / are subscribed to the within instrument and acknowledged to me that he / she / they executed the same in his / her / their authorized capacity(ies), and that by his / her / their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

NANCIE RADDATZ
Commission # 1663883
Notary Public - California
San Diego County
My Comm. Expires May 29, 2010

WITNESS my hand and official seal.

Nancie Raddatz

Signature of Notary

Receipt/Conformed Copy
Requestor:
C MCCULLOUGH
01/24/2007 14:53:35 T20070013498
Book/Instr: 20070124-0004282
Mech Lien Release Page Count: 2
Fees: $15.00 N/C Fee: $0.00

Debbie Conway
Clark County Recorder

APN: 163-35-310-004

AFTER RECORDING, MAIL TO:

Christopher R. McCullough, Esq
601 South Rancho Drive, Suite A-10
Las Vegas, Nevada 89106

RELEASE OF MECHANIC'S LIEN

NOTICE IS HEREBY GIVEN:

1. That on November 14, 2006, **Sorensen Construction, Inc.**, recorded a Mechanic's Lien, in the Office of the County Recorder for Clark County, Nevada, in Book 20061114, as Instrument No. 03735, in the amount of $15585.89, which lien pertained to the real property and improvements known as the Holiday Inn Express 6220 South Rainbow Blvd., Las Vegas, Clark County, Nevada, Assessor's Parcel No. 163-35-310-004.

2. That in consideration of certain payments, credits, offsets, and adjustments received by, and/or agreed to by Lien Claimant, said Mechanic's Lien hereinabove referenced, has been satisfied, and Lien Claimant, for itself, its heirs, successors and assigns, hereby acknowledges, that upon the recordation of this Release of Mechanic's Lien, the Mechanic's Lien is released and deemed satisfied.

3. The property charged by said lien, which by this document is released from said lien, is the real property and improvements known as the 6220 South Rainbow Blvd.,

Las Vegas, Clark County, Nevada, Assessor's Parcel No. 163-35-310-004.

DATED this 10 day of January, 2007.

SORENSEN CONSTRUCTION INC.
By _____
Mack Sorensen

VERIFICATION

STATE OF NEVADA)
:ss
COUNTY OF CLARK)

MACK SORENSEN being first duly sworn, deposes and says:

That he is the authorized agent of **SORENSEN CONSTRUCTION, INC.**, that he has read the foregoing RELEASE OF MECHANIC'S LIEN and knows the contents thereof, and that the same is true of his own knowledge, except for those matters therein stated on information and belief, and as for those matters he believes it to be true.

_____

SUBSCRIBED AND SWORN before me this
10th day of January, 2007.

Marianne G. Carter
NOTARY PUBLIC in and for said County and State

AFTER RECORDING, MAIL TO:

Christopher R. McCullough, Esq.
601 South Rancho Drive, Suite A-10
Las Vegas, Nevada 89106

VERIFICATION

STATE OF NEVADA)
) ss.
COUNTY OF CLARK)

JAMES M. BARKER, ESQ., being first duly sworn according to law, and oath deposes and says: That he is the Attorney for LAS VEGAS PAVING CORPORATION, the lien claimant above named; that he has read the above and foregoing CERTIFICATE BY LIEN CLAIMANT DISCHARGING AND RELEASING LIEN, knows the contents thereof, and that the same is true of his own knowledge, except for those matters therein stated on information and belief, and for those matters, he believes them to be true.

JAMES M. BARKER, ESQ.

SUBSCRIBED and SWORN to before me
this 24th day of January, 2007.

Kimberley Lovelady
Notary Public in and for said
County and State

NOTARY PUBLIC
KIMBERLEY LOVELADY
STATE OF NEVADA - COUNTY OF CLARK
MY APPOINTMENT EXP. MAR 24, 2010
No: 05-100200-1

When recorded return to:

Barker-Washburn
3110 S. Rainbow Blvd., Suite 105
Las Vegas, Nevada 89146

APN: 163-35-301-012

Receipt/Conformed Copy
Requestor:
LEGAL EXPRESS
01/30/2007 13:45:49 T20070017220
Book/Instr: 20070130-0002957
Lien Release Pages Count: 2
Fees: $15.00 N/C Fee: $0.00

Debbie Conway
Clark County Recorder

CERTIFICATE BY LIEN CLAIMANT DISCHARGING AND RELEASING LIEN

NOTICE IS HEREBY GIVEN THAT:

The undersigned did, on the 16th day of January, 2007, record in Book 20070116 as Instrument No. 0004389 in the Office of the County Recorder of Clark County, Nevada, its Notice of Lien, by which the undersigned gave notice of its intention to hold and claim lien upon the following described property, owned or reputedly owned by: Rainbow Hotel, LLC, 4132 S. Rainbow Blvd. PMB 324, Las Vegas, Nevada 89103-3106, situated in the County of Clark, State of Nevada, more particularly described as Holiday Inn Express, 6180 S. Rainbow Blvd., APN: 163-35-301-012, located in Las Vegas, Nevada and the whole of said real property.

NOW, THEREFORE, for valuable consideration the undersigned does by these presents release, satisfy and discharge said lien in the above-described property by reason of such Notice of Lien, or by reason of the work and labor on, or materials furnished for said property.

DATED this 29th day of January, 2007.

JAMES M. BARKER, ESQ.
Attorney for Las Vegas Paving Corporation

Exhibit 5-D

AS

Receipt/Conformed Copy

Requestor:
AMERICAN ASPHALT & GRADING
01/08/2007 12:23:47 T20070003444
Book/Instr: 20070108-0002282
Lien Page Count: 1
Fees: $14.00 N/C Fee: $0.00

Debbie Conway
Clark County Recorder

APN: 163-35-310-004

After Recording Please Mail to:

American Asphalt & Grading Co.
2690 N Decatur Blvd.
Las Vegas, NV 89108

Attn: Shauna Somerville

NOTICE OF LIEN

The undersigned claims lien upon the property described in this notice for work,, or equipment furnished for the improvement of property:

1. The amount of the original contract is: $67,019.56
2. The total amount of all changes and additions, if any, is: $0.00
3. The total amount of all payments received to date is: $45,519.56
4. The amount of the lien, after deducting all just credits and offsets, is: $10,750.00
5. The name of the owner, if known, of the property is Rainbow Hotel LLC
6. The name of the person by whom the claimant was employed or to when the lien claimant furnished work, materials or equipment is: BENECON INC.
7. A brief statement of the terms of payment of the lien claimant's contract is: NET 30 DAYS
8. A description of the property to be charged with lien is: Holiday Inn Express
6220 S. Rainbow Blvd

TOM

By: Shane Dryanski
Shane Dryanski, CFO

State of Nevada)
) ss.
County of Clark)

Shane Dryanski, being first duly sworn on oath according to law, deposes and says:

I have read the foregoing Notice of Lien, know the contents thereof and state that the same is true of my own personal knowledge, except those matters stated upon information and belief and, as to those matters, I believe them to be true.

Shane Dryanski
Shane Dryanski, CFO

Subscribed and sworn before me this
8 day of the month of January of the year 2007

Shauna S. Somerville
(Notary Public in and for the County and State)

Shauna S. Somerville
Notary Public
State of Nevada
Date Appointment Exp: 05-19-2010
Certificate No: 02-75983-1

STATE OF NEVADA)
) ss.
COUNTY OF CLARK)

JAMES M. BARKER, ESQ., being first duly sworn on oath according to law, deposes and says:

I have read the foregoing Notice of Lien, know the contents thereof and state that the same is true of my own personal knowledge, except those matters stated upon information and belief, and, as to those matters, I believe them to be true.

JAMES M. BARKER, ESQ.

SUBSCRIBED and SWORN to before me this 12th day of January, 2007.

Kris Peterson
Notary Public in and for said County and State

KRIS PETERSON
Notary Public State of Nevada
No. 98-49486-1
My appt. exp. Nov. 4, 2010

When Recorded, Mail To:

Barker Washburn
3110 S. Rainbow Blvd., Suite 105
Las Vegas, Nevada 89146

Receipt/Conformed Copy

Requestor:
AMERICAN ASPHALT & GRADING CO
01/22/2007 12:03:04 T20070011261
Book/Instr: 20070122-0001994
Lien Release Page Count: 1
Fees: $14.00 N/C Fee: $0.00

Debbie Conway
Clark County Recorder

APN: 163-35-301-012

After Recording Please Mail to:

American Asphalt & Grading Co.
2690 N Decatur Blvd
Las Vegas, NV 89108
Attn: Shauna Somerville

NOTICE OF DISCHARGE OR RELEASE OF LIEN
(N.R.S. 108.2437)

NOTICE IS HEREBY GIVEN THAT:

The undersigned did, on the 8 day of **January** ,**2007** record in Book **20070108** as Instrument **0002283** , in the Office of the County Recorder of **Clark** County, Nevada, its Notice of Lien upon the following described property or improvements, owned or purportedly owned by: Rainbow Hotel LLC located in **Las Vegas** the County of **Clark,** State of Nevada, to wit:

Holiday Inn Express
6180 S Rainbow Blvd

NOW, THEREFORE, for valuable consideration the Undersigned does release, satisfy and discharge the notice of lien on the property or improvements described above by reason of the Notice of Lien.

Dated this 22 day of January 2007

By: Shane Dryanski
Shane Dryanski, CFO

Subscribed and sworn before me, this 22 day of January of 2007

T. Reaves
(Notary Public in and for the County and State)

NOTARY PUBLIC
STATE OF NEVADA
County of Clark
T. REAVES
Appt. No. 05-100220-1
My Appt. Expires March 24, 2009

Exhibit 5-E

Exceptions 23

20070116-0004389

Fee: $15.00
N/C Fee: $0.00

01/16/2007 16:09:43
T20070608082
Requestor:
LEGAL EXPRESS

Debbie Conway KXC
Clark County Recorder Pgs: 2

APN No. 163-35-301-012

NOTICE OF LIEN

The undersigned claims a lien upon the property described in this notice for work, materials or equipment furnished or to be furnished for the improvement of the property:

1. The amount of the original contract is: $ 50,295.98.
2. The total amount of all additional or changed work, materials and equipment, if any, is: $0.
3. The total amount of all payments received to date is: $ 35,660.95.
4. The amount of the lien, after deducting all just credits and offsets, is: $ 14,635.03.
5. The name of the owner, if known, of the property is: Rainbow Hotel, LLC, 4132 S. Rainbow Blvd. P M B 324, Las Vegas, Nevada 89103-3106.
6. The name of the person by whom the lien claimant was employed or to whom the lien claimant furnished or agreed to furnish work, materials or equipment is: American Asphalt.
7. A brief statement of the terms of payment of the lien claimant's contract is: Net payable within 30 days of Invoice.
8. A description of the property to be charged with the lien is:

Holiday Inn Express
6180 S. Rainbow Blvd.
Las Vegas, Nevada
PT NW4 SW4 SEC 35 21 60
APN No. 163-35-301-012

LAS VEGAS PAVING CORPORATION

JAMES M. BARKER, ESQ.

APN: 163-35-301-012

Receipt/Conformed Copy
Requestor:
LEGAL EXPRESS
01/30/2007 13:46:49 T20070017770
Book/Instr: 20070130-0002967
Lien Release Pages Count: 2
Fees: $15.00 N/C Fee: $0.00

Debbie Conway
Clark County Recorder

CERTIFICATE BY LIEN CLAIMANT DISCHARGING AND RELEASING LIEN

NOTICE IS HEREBY GIVEN THAT:

The undersigned did, on the 16th day of January, 2007, record in **Book 20070116** as **Instrument No. 0004389** in the Office of the County Recorder of Clark County, Nevada, its Notice of Lien, by which the undersigned gave notice of its intention to hold and claim lien upon the following described property, owned or reputedly owned by: **Rainbow Hotel, LLC, 4132 S. Rainbow Blvd. PMB 324, Las Vegas, Nevada 89103-3106**, situated in the County of Clark, State of Nevada, more particularly described as **Holiday Inn Express, 6180 S. Rainbow Blvd., APN: 163-35-301-012**, located in Las Vegas, Nevada and the whole of said real property.

NOW, THEREFORE, for valuable consideration the undersigned does by these presents release, satisfy and discharge said lien in the above-described property by reason of such Notice of Lien, or by reason of the work and labor on, or materials furnished for said property.

DATED this 29th day of January, 2007.

JAMES M. BARKER, ESQ.
Attorney for Las Vegas Paving Corporation

VERIFICATION

STATE OF NEVADA)
) ss.
COUNTY OF CLARK)

JAMES M. BARKER, ESQ., being first duly sworn according to law, and oath deposes and says: That he is the Attorney for LAS VEGAS PAVING CORPORATION, the lien claimant above named; that he has read the above and foregoing CERTIFICATE BY LIEN CLAIMANT DISCHARGING AND RELEASING LIEN, knows the contents thereof, and that the same is true of his own knowledge, except for those matters therein stated on information and belief, and for those matters, he believes them to be true.

JAMES M. BARKER, ESQ.

SUBSCRIBED and SWORN to before me
this 24th day of January, 2007.

Kimberley Lovelady
Notary Public in and for said
County and State

NOTARY PUBLIC
KIMBERLEY LOVELADY
STATE OF NEVADA - COUNTY OF CLARK
MY APPOINTMENT EXP. JAN 16, 2010
No. 05-100890-1

When recorded return to:

Barker-Washburn
3110 S. Rainbow Blvd., Suite 105
Las Vegas, Nevada 89146

Exhibit 5-F

Exception No. 20

20070504-0002566

Fee: $14.00
N/C Fee: $0.00

05/04/2007 13:34:25
T20070077774
Requestor:
DAYSIDE INC

Debbie Conway KXC
Clark County Recorder Pgs: 1

APN: 163-35-312-001
After Recording Please Mail to:

Name: Dayside, Inc.
Address: 4175 Cameron Street, Suite A
Las Vegas, NV 89103

Space above this line for recorder's use only

NOTICE OF LIEN

The undersigned claims lien upon the property described in this notice for work and/or equipment furnished for the improvement of property:

1. The amount of the original contract is: $5,824,000.00
2. The total amount of all changes and additions, if any, is: $ 844,129.69
3. The total amount of all payments received to date is: $6,379,023.66
4. The amount of the lien, after deduction all just credits and offsets, is: $289,106.03
5. The name of the owner, if known, of the property is: **Rainbow Hotel, LLC.**
6. The name of the person by whom the claimant was employed or to when the lien claimant furnished work, materials or equipment is: **Rainbow Hotel, LLC.**
7. A description of the property to be charged with lien is:

Holiday Inn Express
6220 S. Rainbow Blvd.
Las Vegas, Nevada

Name of Claimant: Dayside, Inc.

By: _____
Ronald J. Day – President

State of Nevada)
)
County of Clark)

Ronald Day, being first duly sworn on oath according to law, deposes and says:

I have read the foregoing Notice of Lien, know the contents thereof and state that the same is true of my own personal knowledge, except those matters stated upon information and belief and as to those matters, I believe them to be true.

_____
Ronald J. Day – President

Subscribed and sworn before me this 4 day of the month of may, 2007.

_____
(Notary Public)

NOTARY PUBLIC
STATE OF NEVADA
County of Clark
MARCI M. CUTTER
No: 03-100203-1
My Appointment Expires Oct. 7, 2008

Exhibit 5-G

20070510-0003952

Fee: $14.00
N/C Fee: $0.00

05/10/2007 14:15:17
T20070082711
Requestor:
DAYSIDE INC.

Debbie Conway SOL
Clark County Recorder Pgs: 1

APN: 177-27-410-006

After Recording Please Mail to:

Name: Dayside, Inc.
Address: 4175 Cameron Street, Suite A
Las Vegas, Nevada 89103

Space above this line for Recorder's Use

MECHANIC'S LIEN

The undersigned, Dayside, Inc. referred to in this Claim of Lien as the Claimant, claims a mechanic's lien for the labor, services, equipment and/or materials described below, furnished for a work improvement upon that certain real property located in the County of Clark, state of Nevada, and described as follows:

Milano Residence, 430 E. Cactus Avenue, Las Vegas, Nevada

Parcel # 177-27-410-006

After deducting all just credits and offsets, the sum of $ 381,661.40 together with interest thereon at the rate of 1.5% percent per annum from 4/06/07 is due claimant for the following labor, service, equipment and or/materials furnished by Claimant:

General Conditions, Masonry, Plumbing, Slab on Grade

The name of the person or company by whom claimant was employed, or to whom claimant furnished the labor, services, equipment and/or materials is:

Milano Residences, LLC., 4132 South Rainbow Blvd., PMB 324, Las Vegas, Nevada 89103

The name (s) and address (s) of the owner(s) or reputed owner(s) of the real property is/are:
Milano Residences, LLC., 4132 South Rainbow Blvd., PMB 324, Las Vegas, Nevada 89103

Name of Claimant: Dayside, Inc.

By
Ronald J. Day - President

State of Nevada)
)
County of Clark)

Ronald J. Day, being first duly sworn on oath according to law, deposes and says:
I have read the foregoing Mechanic's Lien, know the contents thereof and state that the same is true of my own personal knowledge, except those matters stated upon information and belief and as to those matters, I believe them to be true.

Ronald J. Day – President

Subscribed and sworn before me this 10th day of May, 2007.

Notary Public

NOTARY PUBLIC
STATE OF NEVADA
County of Clark
MARCI M. CUTTER
No: 05-100703-1
My Appointment Expires Oct. 7, 2009

20070510-0003953

Fee: $14.00
N/C Fee: $0.00

05/10/2007 14:15:17
T20070082711
Requestor:
DAYSIDE INC

Debbie Conway 50L
Clark County Recorder Pgs: 1

APN: 177-27-410-011

After Recording Please Mail to:

Name: Dayside, Inc.
Address: 4175 Cameron Street, Suite A
Las Vegas, Nevada 89103

Space above this line for Recorder's Use

MECHANIC'S LIEN

The undersigned, Dayside, Inc. referred to in this Claim of Lien as the Claimant, claims a mechanic's lien for the labor, services, equipment and/or materials described below, furnished for a work improvement upon that certain real property located in the County of Clark, state of Nevada, and described as follows:

Milano Residence, 430 E. Cactus Avenue, Las Vegas, Nevada

Parcel # 177-27-410-011

After deducting all just credits and offsets, the sum of $ 381,661.40 together with interest thereon at the rate of 1.5% percent per annum from 4/06/07 is due claimant for the following labor, service, equipment and or/materials furnished by Claimant:

General Conditions, Masonry, Plumbing, Slab on Grade

The name of the person or company by whom claimant was employed, or to whom claimant furnished the labor, services, equipment and/or materials is:

Milano Residences, LLC., 4132 South Rainbow Blvd., PMB 324, Las Vegas, Nevada 89103

The name (s) and address (s) of the owner(s) or reputed owner(s) of the real property is/are:
Milano Residences, LLC., 4132 South Rainbow Blvd., PMB 324, Las Vegas, Nevada 89103

Name of Claimant: Dayside, Inc.

By _____
Ronald J. Day - President

State of Nevada)
)
County of Clark)

Ronald J. Day, being first duly sworn on oath according to law, deposes and says:
I have read the foregoing Mechanic's Lien, know the contents thereof and state that the same is true of my own personal knowledge, except those matters stated upon information and belief and as to those matters, I believe them to be true.

_____
Ronald J. Day – President

Subscribed and sworn before me this 10th day of May, 2007.

_____
Notary Public

NOTARY PUBLIC
STATE OF NEVADA
County of Clark
MARCI M. CUTTER
No: 03-89703-1
My Appointment Expires Oct. 7, 2009

Exhibit 5-H

(4)

20070517-0003933

Fee: $17.00
N/C Fee: $0.00

05/17/2007 15:09:27
T20070088967
Requestor:
MCDONALD CARANO WILSON LLP

Debbie Conway STN
Clark County Recorder Pgs: 4

APN# 177-27-410-011

NOTICE OF LIEN

Recording requested by:

McDONALD CARANO WILSON LLP

Return to:

Name: Anthony D. Guenther, Esq.

Address 2300 West Sahara Ave., Suite 1000

City/State/Zip Las Vegas, NV 89102

This page added to provide additional information required by NRS 111.312 Sections 1-2 (Additional recording fee applies).

This cover page must be typed or printed clearly in black ink only.

Clark County Assessor Parcel No.
177-27-410-011

After recorded, mail to:

Anthony D. Guenther, Esq.
McDonald Carano Wilson LLP
2300 West Sahara Avenue, Suite 1000
Las Vegas, Nevada 89102

NOTICE OF LIEN

The undersigned, PERI FORMWORK SYSTEMS, INC. ("Claimant"), claims a lien upon the property described in this notice for work, materials or equipment furnished for the improvement of the property:

1. The amount of the original contracts is $316,938.77.

2. The total amount of all changes and additions is $29,855.76.

3. The total amount of all payments received to date is $117,423.76.

4. The amount of the lien, after deducting all just credits and offsets is $230,370.77.

5. The name of the owner(s), if known, of the Property: Milano Residences, LLC.

6. The name(s) of the person by whom the lien claimant was employed or to whom the lien claimant furnished work, materials or equipment: Jaw's Construction, Inc. and/or Dayside, Inc.

7. A brief statement of the terms of payment of the lien claimant's contract: Net 30 days from invoice date, plus 1.5% per month on past due amounts plus collection costs, including attorneys' fees. Amounts about do not include finance charges/interest or collection costs.

8. A description of the property to be charged with the lien is: See Exhibit "1" attached hereto and incorporated herein by this reference as though set forth in full and at length.

STATE OF MARYLAND)
) ss.
COUNTY OF HOWARD)

Roland Hanelt, being first duly sworn on oath according to law, deposes and says: I have read the foregoing Notice of Lien, know the contents thereof, and state that the same is true of my own personal knowledge, after reasonable investigation, except those matters stated upon information and belief, and, as to those matters, I believe them to be true.

PERI FORMWORK SYSTEMS, INC.

Roland Hanelt, Vice President

Subscribed and sworn to before me
this 15th day of May, 2007.

Notary Public in and for said County and State

EXHIBIT 1

The real property and improvements described as:

Clark County Tax Assessor Description	Bermuda Cactus Shopping Center Plat Book 93 Page 87 Pt Lot 1

and/or described as

Address	430 East Cactus Ave, Enterprise Township, Clark County, Nevada

and/or described as

Clark County Tax Assessor Parcel No.	177-27-410-011

APN# 177-27-410-011

11-digit Assessor's Parcel Number may be obtained at:
http://redrock.co.clark.nv.us/assrrealprop/ownr.aspx

AMENDED NOTICE OF LIEN

Type of Document
(Example: Declaration of Homestead, Quit Claim Deed, etc.)

Recording Requested by:

Robert S. Downs, Esquire (410) 727-6464

Return Documents To:

Name Robert S. Downs, Esquire

Address Miles & Stookbridge P.C., 10 Light Street

City/State/Zip Baltimore, Maryland 21202

This page added to provide additional information required by NRS 111.312 Section 1-2

(An additional recording fee of $1.00 will apply)

This cover page must be typed or printed clearly in black ink only.

OR Form 108 ~ 06/06/2007
Coversheet.pdf

PERI FORMWORK SYSTEMS, INC.

NEVADA MECHANIC'S LIEN – AMENDED NOTICE OF LIEN

Assessor's Parcel Numbers:177-27-410-011

The undersigned claims a lien upon the property described in this notice for work, materials or equipment furnished for the improvement of the property described as follows:

1. The amount of the original contract is: $316,938.77

2. The total amount of all changes and additions, if any, is: $12,775.91

3. The total amount of all payments received to date is: $82,865.54

4. The amount of the lien, after deducting all just credits and offsets, is: $246,849.14

5. The name of the owner, if known, of the property is: Milano Residences, LLC

6. The name of the person by whom the lien claimant was employed or to whom the lien claimant furnished work, materials or equipment is: Dayside, Inc.

7. A brief statement of the terms of payment of the lien claimant's contract is:
Net 30 days from invoice date, plus 1.5% per month on past due amounts plus collection costs, including attorneys' fees. Amounts about do not include finance charges/interest or collection costs.

8. A description of the property to be charged with the lien is:
Bermuda Cactus Shopping Center, Plat Book 93 Page 87, Pt Lot 1.

PERI Formwork Systems, Inc.

Robert S. Downs, on behalf of PERI
Formwork Systems, Inc.

I, ROBERT S. DOWNS, being first duly sworn on oath according to law, deposes and says:

I have read the foregoing Notice of Lien, know the contents thereof and state that the same is true of my own personal knowledge, except those matters stated upon information and belief, and, as to these matters, I believe them to be true.

Robert S. Downs

SUBSCRIBED AND SWORN to before me this 21ST day of the month of September, of the year 2007.

Notary Public in and for Harford Co. in the State of Maryland

My commission expires: _____

Charlene E. Getz
NOTARY PUBLIC
Harford County, Maryland
My Commission Expires 02/01/08

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

14. Please provide a copy of the owners', Leonard and Susan Mardian, resumes indicating 1) dates, titles(s) and companies with whom he/she was/is employed, 2) any professional organizations of which he/she is a member or officer, 3) educational background and degrees earned, and 4) any other information relevant to his/her professional career.

RESPONSE: Please see Exhibit 6 attached hereto and incorporated herein by reference as though fully set forth verbatim

RESPONDENT: Applicant

Exhibit 6

Exhibit 6 to Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435

RESUME OF
LEONARD AND SUSAN MARDIAN

PERSONAL BACKGROUND

LEONARD MARDIAN
Certified Public Accountant (Inactive)
Self Employed Real Estate Developer – 40 Years
Graduated Reno High School, Reno, Nevada
Received BA in Business Administration Degree from University of Nevada, Reno – June 3, 1963

SUSAN MARDIAN
Self Employed Real Estate Developer – 25 Years
Graduated High School – Kitchner Waterloo High School, 1976

CURRENT PROJECTS:

1) DEVELOPMENT OF TAVERN, 2 HOTELS, SELF STORAGE 6200 RAINBOW BLVD., LAS VEGAS, 2001 - Present

Acquired 5 acres of land at the Corner of Rainbow Blvd. at Sobb Avenue, received entitlements for shopping center, tavern, fast food and miniwarehouse. Completed construction of the Blackjack Lodge (Tavern) a 6,000 square foot 24 hour restaurant and bar, and a 60,000 square foot Storage One Self Storage facility. The Mardian's currently operate the Blackjack Lodge.

Received zoning entitlements for a 110 room hotel. Received Holiday Inn Express Franchise approval from InterContinental Hotels Group, Inc. The Holiday Inn Express opened on February 9, 2007. The Mardians currently operate the Holiday Inn Express.

Purchased adjacent 2.5 acre parcel for construction of a second hotel of 151rooms. Received zoning entitlements and approval from InterContinental Hotels Group, Inc. for a second franchise.

2) THE RANCH AT WHITE HILLS/MARDIAN RANCH WHITE HILLS, ARIZONA, 2001 – Present

November 2001, Leonard and Susan Mardian originally acquired 31,000 Acres of Land in White Hills, Arizona, 27 miles south of the Hoover Dam on Highway 93, one hour drive from Las Vegas for development of a major residential Master Planned Community. Later acquired an additional 9,000 acres, including approximately 1,000 acres of commercial property along Highway 93.

A combined commercial, public facilities and 61,250 homes Master Plan has been approved by Mohave County Planning and Zoning and Board of Supervisors similar to Las Vegas Master Planned Communities. In conjunction therewith, Water Approvals for a total of 48,000 homes have been obtained. This plan has three separate development areas:

Resume – Leonard and Susan Mardian
Page Two

Area	# of Acres	# of Homes
The Ranch at White Hills	5,800	23,000
The Ranch at Temple Bar	1,760	5,500
The Mardian Ranch and The Ranch at Red Lake	17,800	32,750
Total:	25,360	61,250

Planning and design of the first 640 acres is in process to construct 2,500 home sites including commercial and public facilities.

3) PURCHASE AND RENOVATION OF OFFICE BUILDING
9510 W. SAHARA AVENUE, LAS VEGAS, APRIL 2006

Purchased a 20,000 Square Foot 2 Story Office Building at Sahara Avenue and Ft. Apache Road. Renovated the building, and now have our Corporate headquarters located on the first floor. Leased the balance of the building.

4) DEVELOPMENT OF 10 ACRE SHOPPING CENTER SITE
BERMUDA RD AT CACTUS AVE., LAS VEGAS, 1999 - Present

Acquired 10 acres of land at the Northeast Corner of Bermuda Road at Cactus Avenue, received entitlements for shopping center, tavern, convenience store and miniwarehouse. Completed construction of the Hurricane Tavern, a 65,000 square foot Storage One Self Storage Facility, and a Fast Food building, leased to Roberto's Tacos.

Currently constructing a $50,000,000 condominium project on this site, with 100 units, 3-story building over parking structure, named Milano Residences. Anticipated completion in 2008.

5) DEVELOPMENT OF 5 ACRE SHOPPING CENTER SITE
DECATUR BL. AT HACIENDA, LAS VEGAS, 1998 - Present

Acquired 5 acres of land at the Southwest Corner of Decatur Blvd. at Hacienda Avenue, received zoning entitlements for shopping center, tavern, and convenience store. Completed all offsite improvements, then constructed Shopping Center including PT's Pub. Sold convenience store site. Constructed a fast food pad building for Dairy Queen and Roberto's Tacos. Completed construction of two Office/R&D buildings on the property. Later sold all properties.

6) DEVELOPMENT OF 5 ACRE SHOPPING CENTER SITE
DECATUR BL AT RENO AVE, LAS VEGAS, 1998

Acquired 5 acres of land at the Northwest Corner of Decatur Blvd. at Reno Avenue, received zoning entitlements for shopping center, tavern, and convenience store. Completed all offsite improvements, and built the O'Aces Tavern. Became a limited partner in Convenience Store at corner (CityStop.) Later sold all properties.

Resume – Leonard and Susan Mardian
Page Three

7) DEVELOPMENT OF AUTOMOTIVE CENTER
SPRING MOUNTAIN ROAD AT LINDELL, LAS VEGAS, 1998

Acquired land near the Northeast Corner of Spring Mountain Road near Lindell Avenue, received zoning entitlements for automotive center, and convenience store. Completed offsite improvements and completed construction of Automotive/Retail building. Leased all buildings and sold the property in 2003.

8) DEVELOPMENT AND SALE OF SELF STORAGE FACILITY
AUSSIE SELF STORAGE SPARKS, NEVADA, 1997

Acquired land, received zoning entitlements and constructed a 43,000 square foot Self Storage Facility. Sold the property in 1998.

9) CONVERSION OF OFFICE BUILDING TO SELF STORAGE FACILITY
IRVINE, CALIFORNIA, 1996

Acquired a 43,000 square foot office building with 5.6 acres of land. Received zoning entitlements to convert existing building to a Self Storage Facility and additional entitlements for 140,000 square feet of new buildings. Completed conversion and operated facility for 9 months. Sold project to Shurgard Self Storage.

10) PURCHASE AND SALE OF IMPERIAL CANYON SHOPPING
CENTER ANAHEIM HILLS, CALIFORNIA, 1995

Purchased and refurbished an existing 43,000 square feet Shopping Center for $4,300,000. Increased the value of the property by leasing additional space, refurbishing the center, including paving, painting and improvements. Sold the center within 9 months of acquisition for $5,500,000

11) FINISHED HOME LOTS, RAINBOW POINTE
LAS VEGAS, 1994

Received zoning entitlements, subdivided and managed the planning and development of 234 finished lots on 34 acres of land, including offsite improvements. Represented Seller in the sale of finished lots to Kaufman and Broad.

12) WAL-MART AND SAMS CLUB SHOPPING CENTER
LAS VEGAS, 1991 - 1993

Development of a 53 acre Shopping Center, SWC of Rainbow Blvd. at Spring Mountain Road. Value of over $40,000,000. Including the following tenants: Wal-Mart, Sam's Club, International House of Pancakes, Sizzler, TCBY and Cleaners, and 80,000 square feet of in-line space, and Offices. Development responsibilities included the following: negotiated leases with Wal-Mart, in-line and pad tenants, negotiated the sale of land to Sam's Club negotiated construction contracts and obtained financing.

Resume – Leonard and Susan Mardian
Page Four

13) LEONARD MARDIAN PREVIOUS DEVELOPMENTS CALIFORNIA/NEVADA, 1960 - 1991

Leonard Mardian developed hotels including the Holiday Inn in Walnut Creek, California and the Sheraton Hotel in Concord, California. Leonard Mardian purchased the land, obtained zoning, constructed, operated and later sold the hotels. Leonard Mardian developed Apartment Complexes in San Diego, Reno, and the San Francisco Bay Area. He also developed Self Storage Facilities in San Diego and Concord, California.

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

15. Please provide a copy of the federal and state income tax returns for Leonard and Susan Mardian for the years 2004, 2005, and 2006. The returns may be provided pursuant to Staff issuing a Protective Agreement.

RESPONSE: Please see, Exhibit 7. The information sought in Exhibit 6 is considered proprietary information and therefore is subject to the terms of the Protective Agreement. Upon full execution of the Protective Agreement, Exhibit 7 will be submitted by separate cover on yellow paper and marked "CONFIDENTIAL"

RESPONDENT: Applicant

Exhibit 7

The information sought in Exhibit 7 is considered proprietary information and therefore is subject to the terms of the Protective Agreement. Upon full execution of the Protective Agreement, Exhibit 7 will be submitted by separate cover on yellow paper and marked "CONFIDENTIAL"

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
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Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

16. Has Double Diamond Utilities, Inc. begun grading of land, construction of model homes, and the installation of utility infrastructure at the Ranch at White Hills? Please explain.

RESPONSE: To date, Double Diamond Utilities, Inc. has drilled and pump tested approximately 24 well sites on land owned by affiliated entities. These wells were drilled in connection with obtaining the ADWR Physical Availability Determinations. Some of these wells will be upgraded at later dates to provide for the potable water needs of the development.

Additionally, affiliates of Double Diamond Utilities, Inc. have graded access roads and replanted vegetation for The Ranch at White Hills project.

RESPONDENT: Applicant

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

17. Please indicate as to whether each of the services indicated below will be provided by Double Diamond employees or by other affiliated/associated entities and if being provided by an affiliated/associated entity, please indicate the name of the such entity:

Engineering, Accounting, Legal, Management, Administration, Billing, Customer Assistance, Meter Reading, Repairs and Maintenance, and Tax Administration.

RESPONSE: Double Diamond intends to have an employee or employees provide general administration services and oversight of the third party contractors, but intends to use outside, unaffiliated third parties for day-to-day utility management and operations (including engineering, billing, customer assistance, meter reading, repairs and maintenance), tax administration, legal and accounting. Double Diamond has not yet contracted with any specific third parties to provide these services.

RESPONDENT: Applicant

EXHIBIT
A-4
Admitted

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

November 16, 2007

Kevin Torrey, Esq.
Legal Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

RE: Double Diamond Utilities, Inc.'s Supplemental Response to Staff's 1st Set of Data Requests - Docket No. WS-20543A-07-0435

Dear Mr. Torrey:

Enclosed please find a supplemental response of Double Diamond Utilities, Inc. to Staff's 1st set of data requests in the above-mentioned docket.

Please contact me if you have any questions.

Sincerely,

Michael W. Patten

MWP:mi
Enclosure
cc: Vicki Wallace, Utilities Division

DOUBLE DIAMOND UTILITIES, INC.
SUPPLEMENTAL RESPONSE TO STAFF'S FIRST SET OF DATA REQUESTS
DOCKET NO. WS-20543A-07-0435
November 16, 2005

13. Please describe any and all mechanics, tax or other liens that have been assessed against any of the affiliated/associated entities or the directors and officers of Double Diamond Utilities, Inc.

RESPONSE: See Exhibit 5 attached hereto and incorporated herein by reference as though fully set forth verbatim.

RESPONDENT: Applicant

SUPPLEMENTAL RESPONSE: Attached are two lien releases related to the information previously provided in the initial response to this request:

1. Dayside's Recorded Discharge or Release of Notice of Lien re: Rainbow Hotel ("Rainbow Discharge"). This Rainbow Discharge releases the lien attached as Exhibit 5F to Double Diamond's Response to Staff's Requests, Response to Request No. 13.

2. Dayside's Recorded Discharge or Release of Mechanic's Lien re: Milano (APN 177-27-410-006) and Dayside's Recorded Discharge or Release of Mechanic's Lien re: Milano (APN 177-27-410-011) (collectively "Milano Discharges"). These Milano Discharges release to the two liens attached as Exhibit 5G to Double Diamond's Response to Staff's Request, Response to Request No. 13.

RESPONDENT: Applicant

Receipt/Conformed Copy

Requestor:
RYCRAFT LAW OFFICE
11/05/2007 13:12:04 T20070195224
Book/Instr: 20071105-0001249
Lien Page Count: 3
Fees: $16.00 N/C Fee: $25.00

Debbie Conway
Clark County Recorder

APN NUMBER: 163-35-312-001

TITLE ON DOCUMENT:	**DISCHARGE OR RELEASE OF NOTICE OF LIEN**

RECORDING REQUESTED BY:
DALE B. RYCRAFT, JR., ESQ.

RETURN TO:	
Name:	**RYCRAFT LAW OFFICE**
Address:	**701 NORTH GREEN VALLEY PARKWAY, SUITE 200**
City/State/Zip:	**HENDERSON, NV 89074**

This page added to provide additional information required by NRS 111.312 Sections 1-2.
(Additional recording fee applies.)

This cover page must be typed or printed clearly in black ink only.

ASSESSORS PARCEL NO: 163-35-312-001

DISCHARGE OR RELEASE OF NOTICE OF LIEN

NOTICE IS HEREBY GIVEN THAT:

The Undersigned did, on May 4, 2007, record in Book 20070504, as Instrument No. 0002566, in the office of the county recorder of Clark County, Nevada, its Notice of Lien upon the following described property or improvements, owned or purportedly owned by RAINBOW HOTEL, LLC, located in the County of Clark, State of Nevada, to wit:

Holiday Inn Express
6220 S. Rainbow Blvd.
Las Vegas, NV

County Assessor Description:	*Rainbow Sobb Coml Center 2* *Plat Book 129 Page 84* *Lot 3*
County Assessor Parcel No.:	*163-35-312-001*

NOW, THEREFORE, for valuable consideration the Undersigned does release, satisfy and discharge its Notice of Lien on the property or improvements described above by reason of the notice of lien.

DAYSIDE, INC.

By:_____
Ronald J. Day
Title: President

STATE OF NEVADA)
) ss:
COUNTY OF CLARK)

Ronald J. Day, being first duly sworn on oath according to law, deposes and says:

I have read the foregoing Discharge or Release of Notice of Lien, know the contents thereof and state that the same is true of my own personal knowledge, except those matters stated upon information and belief, and, as to those matters, I believe them to be true.

DATED this 5 day of November, 2007.

DAYSIDE, INC.

By: _____
Ronald J. Day
Title: President

SUBSCRIBED AND SWORN to before me this 5 day of November, 2007.

Marianne A. Carter
NOTARY PUBLIC in and for said COUNTY and STATE

Marianne A. Carter
Notary Public - State of Nevada
Date Appointment Expires: 03-2008
Certificate No: 04-91582-1

RECORDED AT THE REQUEST OF AND WHEN RECORDED RETURN TO:

DALE B. RYCRAFT, JR, ESQ.
RYCRAFT LAW OFFICE
701 No. Green Valley Pkwy
Suite. 200
Henderson, NV 89074

APN NUMBER: 177-27-410-006

Receipt/Conformed Copy
Requestor:
RYCRAFT LAW OFFICE
11/05/2007 13:12:04 T20070195224
Book/Instr: 20071105-0001247
Mech Lien Page Count: 3
Fees: $16.00 N/C Fee: $25.00

Debbie Conway
Clark County Recorder

TITLE ON DOCUMENT:	**DISCHARGE OR RELEASE OF MECHANIC'S LIEN**

RECORDING REQUESTED BY:
DALE B. RYCRAFT, JR., ESQ.

RETURN TO:	
Name:	**RYCRAFT LAW OFFICE**
Address:	**701 NORTH GREEN VALLEY PARKWAY, SUITE 200**
City/State/Zip:	**HENDERSON, NV 89074**

This page added to provide additional information required by NRS 111.312 Sections 1-2.
(Additional recording fee applies.)

This cover page must be typed or printed clearly in black ink only.

ASSESSORS PARCEL NO: 177-27-410-006

DISCHARGE OR RELEASE OF MECHANIC'S LIEN

NOTICE IS HEREBY GIVEN THAT:

The Undersigned did, on May 10, 2007, record in Book 20070510, as Instrument No. 0003952, in the office of the county recorder of Clark County, Nevada, its Mechanic's Lien upon the following described property or improvements, owned or purportedly owned by MILANO RESIDENCES, LLC, located in the County of Clark, State of Nevada, to wit:

Enterprise

County Assessor Description:	*Bermuda Cactus Shopping Center* *Plat Book 93 Page 87* *PT Lot 1*
County Assessor Parcel No.:	*177-27-410-006*

NOW, THEREFORE, for valuable consideration the Undersigned does release, satisfy and discharge its Mechanic's Lien on the property or improvements described above by reason of the Mechanic's Lien.

DAYSIDE, INC.

By: _____
Ronald J. Day
Title: President

STATE OF NEVADA)
) ss:
COUNTY OF CLARK)

Ronald J. Day, being first duly sworn on oath according to law, deposes and says:

I have read the foregoing Discharge or Release of Mechanic's Lien, know the contents thereof and state that the same is true of my own personal knowledge, except those matters stated upon information and belief, and, as to those matters, I believe them to be true.

DATED this 5th day of November, 2007.

DAYSIDE, INC.

By: _____
Ronald J. Day
Title: President

SUBSCRIBED AND SWORN to before me this 5th day of November, 2007.

_____
NOTARY PUBLIC in and for said COUNTY and STATE

Madianne A. Carter
Notary Public - State of Nevada
Date Appointment Exp. [illegible]
Certificate No: [illegible]

RECORDED AT THE REQUEST OF AND WHEN RECORDED RETURN TO:

DALE B. RYCRAFT, JR, ESQ.
RYCRAFT LAW OFFICE
701 No. Green Valley Pkwy
Suite. 200
Henderson, NV 89074

APN NUMBER: 177-27-410-011

Receipt/Conformed Copy

Requestor:
RYCRAFT LAW OFFICE
11/05/2007 13:12:04 T20070195224
Book/Instr: 20071105-0001248
Mech Lien Page Count: 3
Fees: $16.00 N/C Fee: $25.00

Debbie Conway
Clark County Recorder

TITLE ON DOCUMENT:	**DISCHARGE OR RELEASE OF MECHANIC'S LIEN**

RECORDING REQUESTED BY:
DALE B. RYCRAFT, JR., ESQ.

RETURN TO:	
Name:	**RYCRAFT LAW OFFICE**
Address:	**701 NORTH GREEN VALLEY PARKWAY, SUITE 200**
City/State/Zip:	**HENDERSON, NV 89074**

This page added to provide additional information required by NRS 111.312 Sections 1-2.
(Additional recording fee applies.)

This cover page must be typed or printed clearly in black ink only.

ASSESSORS PARCEL NO: 177-27-410-011

DISCHARGE OR RELEASE OF MECHANIC'S LIEN

NOTICE IS HEREBY GIVEN THAT:

The Undersigned did, on May 10, 2007, record in Book 20070510, as Instrument No. 0003953, in the office of the county recorder of Clark County, Nevada, its Mechanic's Lien upon the following described property or improvements, owned or purportedly owned by MILANO RESIDENCES, LLC, located in the County of Clark, State of Nevada, to wit:

430 E. Cactus Ave.
Enterprise

County Assessor Description:	*Bermuda Cactus Shopping Center* *Plat Book 93 Page 87* *PT Lot 1*
County Assessor Parcel No.:	*177-27-410-011*

NOW, THEREFORE, for valuable consideration the Undersigned does release, satisfy and discharge its Mechanic's Lien on the property or improvements described above by reason of the Mechanic's Lien.

DAYSIDE, INC.

By: _____
Ronald J. Day
Title: President

STATE OF NEVADA)
) ss:
COUNTY OF CLARK)

Ronald J. Day, being first duly sworn on oath according to law, deposes and says:

I have read the foregoing Discharge or Release of Mechanic's Lien, know the contents thereof and state that the same is true of my own personal knowledge, except those matters stated upon information and belief, and, as to those matters, I believe them to be true.

DATED this 5th day of November, 2007.

DAYSIDE, INC.

By: _____
Ronald J. Day
Title: President

SUBSCRIBED AND SWORN to before me this 5th day of November, 2007.

Marianne A. Carter
NOTARY PUBLIC in and for said
COUNTY and STATE

Marianne A. Carter
Notary Public - State of Nevada
Date of Commission Expires 12-14-2008
Certificate No. 03-91303-1

RECORDED AT THE REQUEST OF
AND WHEN RECORDED RETURN
TO:
DALE B. RYCRAFT, JR, ESQ.
RYCRAFT LAW OFFICE
701 No. Green Valley Pkwy
Suite. 200
Henderson, NV 89074

EXHIBIT
A-5
Admitted

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

October 4, 2007

Kevin Torrey, Esq.
Legal Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

RE: Double Diamond Utilities, Inc.'s Responses to Staff's 2nd Set of Data Requests - Docket No. WS-20543A-07-0435

Dear Mr. Torrey:

Enclosed please find the responses of Double Diamond Utilities, Inc. to Staff's 2nd set of data requests in the above-mentioned docket.

Please contact me if you have any questions.

Sincerely,

Michael W. Patten

MWP:mi
Enclosure
cc: Crystal Brown, Utilities Division

Double Diamond Utilities, Inc.'s
Responses To Staff's Second Set
Of Data Requests To
Docket No. WS-20543A-07-0435

October 4, 2007

CSB 2.1

Contract Services - Operations — Footnote 1 of Schedules DDW-9 and DDWW-9 states that contract services will be performed by American Water Company. Please answer or provide information for the following:

a. Please provide a description of the terms of the agreement with American Water Company. As part of your response, please provide a copy of the contract.

b. Please provide the number of contract employees that will be working for Double Diamond.

c. Please provide a description of all services that will be provided to Double Diamond by contract employee and hourly billing rate.

d. Please provide an explanation of how American Water was selected.

e. Please state whether or not American Water is related to/affiliated with Double Diamond.

f. Please explain the derivation of the contract services expense for each of the five years. As part of your response, please provide schedules showing the calculation of each amount.

g. Please explain the basis and the calculation for the allocations used for each year.

RESPONSE:

a-d. Double Diamond has had discussions with Arizona-American Water Company about a potential operation services contract (including rough estimates of O & M costs). Double Diamond has not entered into a contract with Arizona-American at this time.

e. Arizona-American is not related to or affiliated with Double Diamond.

f. See Response to CSB 2.3 below.

g. The allocation of costs was based on information received from Arizona-American. The allocation is also consistent with Mr. Neidlinger's experience in similar situations in Arizona.

RESPONDENT: Kathy Tackett-Hicks (a – e)
Dan Neidlinger (f – g)

Double Diamond Utilities, Inc.'s
Responses To Staff's Second Set
Of Data Requests To
Docket No. WS-20543A-07-0435

October 4, 2007

CSB 2.2 Purchased Power – For the water division, please explain the derivation of the purchased power expense for each year. As part of your response, please explain how the $9,000 amount in the first year was calculated. Please provide schedules showing the calculation of each amount.

RESPONSE: See Excel file "Power Cost Estimate" on enclosed CD.

RESPONDENT: Stantec

Phase	No. lots Served	PPHU	population	usage/cap (gpcpd)	Average Daily Flow (gpd)	Average Flows (gpm)	Peak Flows (4x average) (gpm)	Pump HP	Power Cost/day	Power Cost/year
1	75	2.57	192.75	80	15,420	10.71	42.83	5	$1.50	$547.50
1	90	2.57	231.3	80	18,504	12.85	51.40	5	$1.50	$547.50
2	60	2.57	154.2	80	12,336	8.57	34.27	5	$1.50	$547.50
3	450	2.57	1156.5	80	92,520	64.25	257.00	10	$3.00	$1,095.00

Usage by Year

	Year 1	2	3	4	5
WWTF	$0.00	$17,500.00	$32,000.00	$49,500.00	$64,000.00
Lift Stations	$0.00	$1,100.00	$1,650.00	$2,750.00	$2,750.00
Reclaimed	$0.00	$1,100.00	$1,100.00	$1,100.00	$1,100.00
	$0.00	**$19,700.00**	**$34,750.00**	**$53,350.00**	**$67,850.00**

WWTF Power Usage

Per Train (Plant is 4 trains total)

Components	Number	HP	HP		
- Influent Pumps	2	5	10		
- Screen	1	5	5		
- Blowers	2	5	10		
- Mixers	2	5	10		
- Effluent Pumps	2	10	20		
			55	30	
Assume all run 8 hours / day on average			$44.00	$24.00	/ day
			$16,060.00	$8,760.00	/ year
			$32,120.00	$17,520.00	

Initial phase

		Available	Average	HP/per well	No. pumps	Demand Factor *	Power Usage KW	Power Cost/day	Power Cost/yr		
Well Pumps	year 2	430	90	40	2	0.5	200.9302326	$20.09	$7,333.95		
	Year 3	430	178.5	40	2	0.5	398.5116279	$39.85	$14,545.67		
	Year 4	560	267	40	3	0.5	686.5714286	$68.66	$25,059.86		
	Year 5	760	357	40	4	0.5	901.8947368	$90.19	$32,919.16		
Booster pumps	year 2			10	4	0.5	240	$24.00	$8,760.00		
	Year 3			20	4	0.5	480	$48.00	$17,520.00		
	Year 4			30	4	0.5	720	$72.00	$26,280.00		
	Year 5			40	4	0.5	960	$96.00	$35,040.00		

* Average through year

Total	Year 2	**$16,093.95**
	Year 3	**$32,065.67**
	Year 4	**$51,339.86**
	Year 5	**$67,959.16**

Year 1 Construction water allowance	430	90	40	3	0.5	301.3953488	$30.14	$11,000.93	0.8	$8,800.74

Double Diamond Utilities, Inc.'s
Responses To Staff's Second Set
Of Data Requests To
Docket No. WS-20543A-07-0435

October 4, 2007

CSB 2.3 O & M Materials and Supplies – For the water and sewer divisions, please explain why new plant would require operation and maintenance expense of $15,000 and $35,000 during the early years of operation. Please explain how the amounts were derived. As part of your response, please provide all supporting calculations.

RESPONSE: The estimated O&M expenses for water range from $2,000 in year one and $15,000 in year five; for wastewater the comparable amounts are $2,000 in year one and $35,000 in year five. These estimates were provided by Mr. Robert Spraker of Arizona-American Water who has experience with similar utility operations.

RESPONDENT: Dan L. Neidlinger

Double Diamond Utilities, Inc.'s
Responses To Staff's Second Set
Of Data Requests To
Docket No. WS-20543A-07-0435

October 4, 2007

CSB 2.4 Sludge Disposal Costs – Please explain how this expense was derived. As part of your response, please provide all supporting calculations.

RESPONSE: See Excel files "Sludge Disposal" on enclosed CD.

RESPONDENT: Stantec

Estimated Sludge Production:
WAS without Primary Clarifier
SRT=10-15 days

Phase	Population	Average Daily Flows (gpd)	BOD5 (mg/L)	BOD5 Loadings (lbs/day)	Sludge (lbs/day)	Yd^3	Gallons	Gallons of 20% Sludg
1	1285	102800	300	257.11	210.83	0.143716999	29.03025878	145.1512939
2	2570	205600	300	514.23	411.38	0.280423412	56.64440738	283.2220369
3	3855	308400	300	771.34	617.07	0.420635118	84.96661107	424.8330553
4	5140	411200	300	1028.45	822.76	0.560846824	113.2888148	566.4440738
5	6425	514000	300	1285.57	1028.45	0.70105853	141.6110184	708.0550922

Unit Price For Hauling ($/trip) 180
Unit Landfill Costs ($/wet ton) $15
Assume to use 3-ton hauler

Estimated Sludge Disposal Costs:

Phase	Total Mass of 20% Sludge(ton)	Number of Trips[1]	Hauling Costs ($/day)	Landfill Costs($/day)	Total Costs($/day)	Annual Costs ($/year)
1	0.59	0.5	90	8.84	98.84	36,077.33
2	1.15	0.5	90	17.25	107.25	39,147.24
3	1.73	1	180	25.88	205.88	75,145.85
4	2.30	1	180	34.51	214.51	78,294.47
5	2.88	1	180	43.13	223.13	81,443.09

Note: 1. Assuming the facility will have 2-day worth of on-site sludge holding capacity.

Total weight(ton)	Number of trips for 3-ton truck	$/day to haul	ndfill ($/day	Total $/day	Annual Cost
0.589467209	1	180	8.842008	188.842	68927.33
1.15017992	1	180	17.2527	197.2527	71997.24
1.725269881	1	180	25.87905	205.879	75145.85
2.300359841	1	180	34.5054	214.5054	78294.47
2.875449801	1	180	43.13175	223.1317	81443.09

White Hills Sludge Disposal Costs Estimate

The amount of sludge generated and wasted from a wastewater treatment facility varies from process to process. In general, suspended-growth biological treatment process has higher sludge production than attached growth process and hybrid process. Sludge generation is also affected by design parameters, such as influent water characteristics, effluent design goals, water temperature, solid retention time (SRT), having primary treatment or not, etc. The numbers provided here is for planning purposes. The following assumptions are made:

- Suspended growth process is used.
- Influent BOD5 is 300 mg/L; COD/BOD5=1.9-2.2; TSS/BOD5=0.9-1.1; Inert TSS=50%.
- Primary treatment is not used.
- Design water temperature 20°C.
- 30% of the TSS in the primary effluent is inerts.
- SRT =10-15 days.
- Assume no on-site stabilization is available. However, sludge will be thickened or dewatered to 20% before hauling to save cost. Dewatered sludge will be hauled to Cerbat Sanitary Landfill.
- Cerbat Sanitary Landfill is believed to be the nearest landfill in the area. And they are able to arrange to take the sludge with a 2-year notice.

Table 1 Flows

Sewage Flows						
Phase	**No. lots**	**PPHU**	**population**	**usage/cap (gpcpd)**	**ADD (GPD)**	**ADD (gpm)**
1	500	2.57	1285	80	102,800	71.39
2	1000	2.57	2570	80	205,600	142.78
3	1500	2.57	3855	80	308,400	214.17
4	2000	2.57	5140	80	411,200	285.56
5	2500	2.57	6425	80	514,000	356.94

Table 2 Estimated Sludge Productions

Phase	Population	Average Daily Flows (gpd)	BOD5 (mg/L)	BOD5 Loadings (lbs/day)	Sludge (lbs/day)
1	1285	102800	300	257.11	210.83
2	2570	205600	300	514.23	411.38
3	3855	308400	300	771.34	617.07
4	5140	411200	300	1028.45	822.76
5	6425	514000	300	1285.57	1028.45

Table 3 Estimated Sludge Disposal Costs

Phase	Total Mass of 20% Sludge(ton)	Number of Trips[1]	Hauling Costs ($/day)[2]	Landfill Costs($/day)[3]	Total Costs($/day)	Annual Costs ($/year)
1	0.59	0.5	90	8.84	98.84	**36,077.33**
2	1.15	0.5	90	17.25	107.25	**39,147.24**
3	1.73	1	180	25.88	205.88	**75,145.85**
4	2.30	1	180	34.51	214.51	**78,294.47**
5	2.88	1	180	43.13	223.13	**81,443.09**

Note:

1. Assume the facility will have 2-day worth of on-site sludge holding capacity.
2. $180/trip.
3. $15/wet ton at landfill.

Double Diamond Utilities, Inc.'s
Responses To Staff's Second Set
Of Data Requests To
Docket No. WS-20543A-07-0435

October 4, 2007

CSB 2.5 Work Papers (Electronic Copy) – Please provide on compact disc in Microsoft Excel or other format (if Excel is not used) copies of all electronic schedules and workpapers created in the process of preparing and supporting the current filing.

RESPONSE: Please see the enclosed CD which contains the schedules and workpapers in Excel format which support the filing.

RESPONDENT: Dan Neidlinger

SCHEDULE DDWW-1
REVISED 8-24-07

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

PRO FORMA INCOME STATEMENTS

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Revenues:					
Monthly Service (1)	$0	$210,000	$630,000	$1,050,000	$1,470,000
Other Wastewater Revenues (1)	0	7,500	7,500	7,500	7,500
Total Wastewater Revenues	$0	$217,500	$637,500	$1,057,500	$1,477,500
Operating & Maintenance Expenses:					
Contract Services - Operations (2)	$10,000	$145,000	$190,000	$240,000	$290,000
Contract Services - Billing & Customer Service (2)	0	3,000	9,000	15,000	21,000
Purchased Power	0	19,700	34,750	53,350	67,850
Sludge Disposal Costs	0	34,424	37,572	73,570	76,718
O&M Materials & Supplies	2,000	5,000	15,000	25,000	35,000
Depreciation (3)	111,736	251,104	363,860	428,888	398,027
Property Taxes (4)	0	5,873	17,213	28,553	39,893
Income Taxes	22	22	22	12,239	211,913
Total Operating & Maintenance Expenses	$123,758	$464,123	$667,416	$876,599	$1,140,401
Operating Income (Loss)	-$123,758	-$246,623	-$29,916	$180,901	$337,099

Original Cost Rate Base (5)	$5,769,564	$5,107,927	$8,940,415	$7,899,341	$7,503,344
Return on Rate Base	-2.15%	-4.83%	-0.33%	2.29%	4.49%

NOTES:

(1) Schedule DDWW-5
(2) Schedule DDWW-9
(3) Schedule DDWW-3
(4) 2.7% of Revenues
(5) Schedule DDWW-2

REVISIONS: Allocated Income Taxes & Original Cost Rate Base

SCHEDULE DDWW-2
REVISED 8-24-07

DOUBLE DIAMOND UTILITES
WASTEWATER DIVISION

PROJECTED ORIGINAL COST RATE BASE

DESCRIPTION	END OF YEAR RATE BASE				
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Gross Utility Plant in Service (1)	$5,881,300	$8,076,580	$14,586,260	$16,085,100	$17,733,940
Less: Accumulated Depreciation (1)	111,736	362,840	764,887	1,305,869	1,885,365
Net Utility Plant in Service	$5,769,564	$7,713,740	$13,821,373	$14,779,231	$15,848,575
Less:					
Gross CIAC (2)	$0	$2,574,000	$4,961,240	$7,141,640	$8,850,440
Less: Accumlated Amortization (2)	$0	$38,187	$150,282	$331,750	$575,209
Net CIAC	$0	$2,535,813	$4,810,958	$6,809,890	$8,275,231
Customer Deposits (3)	0	70,000	70,000	70,000	70,000
Total Deductions	$0	$2,605,813	$4,880,958	$6,879,890	$8,345,231
Original Cost Rate Base	$5,769,564	$5,107,927	$8,940,415	$7,899,341	$7,503,344

NOTES:

(1) Schedule DDWW-3
(2) Schedule DDWW-4
(3) Schedule DDWW-10

REVISION: Customer Deposits Deduction from Rate Base

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

UTILITY PLANT DETAIL AND DEPRECIATION

GROSS UTILITY PLANT	YEAR 1		YEAR 2		YEAR 3	
PLANT ACCOUNT	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE
Organization	$51,000	$51,000	$0	$51,000	$0	$51,000
Franchises	8,500	8,500	0	8,500	0	8,500
Land & Land Rights	75,000	75,000	10,000	85,000	5,000	90,000
Structures & Improvements	1,440,000	1,440,000	180,000	1,620,000	1,530,000	3,150,000
Power Generation Equipment	96,000	96,000	0	96,000	0	96,000
Collection Sewers - Lift Stations	0	0	180,000	180,000	90,000	270,000
Collection Sewers - Gravity	710,400	710,400	1,194,000	1,904,400	1,474,440	3,378,840
Collection Services to Customers	0	0	270,000	270,000	270,000	540,000
Influent & Effluent Flow Measuring Device	96,000	96,000	0	96,000	96,000	192,000
Recycled Water Services	0	0	3,600	3,600	4,800	8,400
Recycled Water Meters & Installations	0	0	2,880	2,880	3,840	6,720
Receiving Wells		0		0		0
Pumping Equipment	144,000	144,000	0	144,000	144,000	288,000
Recycled Water Reservoirs	240,000	240,000	0	240,000	240,000	480,000
Recycled Water Trans. & Dist. Mains	782,400	782,400	52,800	835,200	129,600	964,800
Treatment & Disposal Equipment	1,740,000	1,740,000	300,000	2,040,000	2,040,000	4,080,000
Plant Sewers	480,000	480,000	0	480,000	480,000	960,000

Outfall Sewer Lines		0		0		0
Office Furniture & Fixtures - General	10,000	10,000	1,000	11,000	1,000	12,000
Office Furniture & Fixtures - Computing		0		0		0
Transportation Equipment		0		0		0
Stores Equipment		0		0		0
Tools & Shop Equipment		0		0		0
Laboratory Equipment		0		0		0
Power Operated Equipment		0		0		0
Communication Equipment	3,000	3,000		3,000		3,000
Miscellaneous General Equipment	5,000	5,000	1,000	6,000	1,000	7,000
Total Wastewater Utility Plant	$5,881,300	$5,881,300	$2,195,280	$8,076,580	$6,509,680	$14,586,260

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

UTILITY PLANT DETAIL AND DEPRECIATION

PLANT ACCOUNT	DEPR. RATE	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Structures & Improvements	3.33%	23,976	50,949	79,421	106,394	107,892
Power Generation Equipment	3.33%	1,598	3,197	3,197	3,197	3,197
Collection Sewers - Lift Stations	2.00%	0	1,800	4,500	6,300	7,200
Collection Sewers - Gravity	2.00%	7,104	26,148	52,832	77,381	95,393
Collection Services to Customers	2.00%	0	2,700	8,100	13,500	18,900

Influent & Effluent Flow Measuring Device	10.00%	4,800	9,600	14,400	19,200	19,200
Recycled Water Services	2.00%	0	36	120	216	312
Recycled Water Meters & Installations	3.33%	0	48	160	288	416
Receiving Wells	3.33%	0	0	0	0	0
Pumping Equipment	10.00%	7,200	14,400	21,600	28,800	36,000
Recycled Water Reservoirs	2.50%	3,000	6,000	9,000	12,000	15,000
Recycled Water Trans. & Dist. Mains	2.00%	7,824	16,176	18,000	19,824	21,936
Treatment & Disposal Equipment	5.00%	43,500	94,500	153,000	204,000	204,000
Plant Sewers	5.00%	12,000	24,000	36,000	48,000	48,000
Outfall Sewer Lines	4.00%	0	0	0	0	0
Office Furniture & Fixtures - General	6.67%	334	700	767	834	900
Office Furniture & Fixtures - Computing	20.00%	0	0	0	0	0
Transportation Equipment	20.00%	0	0	0	0	0
Stores Equipment	4.00%	0	0	0	0	0
Tools & Shop Equipment	5.00%	0	0	0	0	0
Laboratory Equipment	10.00%	0	0	0	0	0
Power Operated Equipment	5.00%	0	0	0	0	0
Communication Equipment	10.00%	150	300	300	300	300
Miscellaneous General Equipment	10.00%	250	550	650	750	850
Total Depreciation - Year		$111,736	$251,104	$402,047	$540,983	$579,496
Accumulated Depreciation		$111,736	$362,840	$764,887	$1,305,869	$1,885,365
CIAC Amortization - Year		$0	$38,187	$112,095	$181,468	$243,459
Net Depreciation - Year		$111,736	$251,104	$363,860	$428,888	$398,027

YEAR 4		YEAR 5	
ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE
$0	$51,000	$0	$51,000
0	8,500	0	8,500
5,000	95,000	5,000	100,000
90,000	3,240,000	0	3,240,000
0	96,000	0	96,000
90,000	360,000	0	360,000
980,400	4,359,240	820,800	5,180,040
270,000	810,000	270,000	1,080,000
0	192,000	0	192,000
4,800	13,200	4,800	18,000
3,840	10,560	3,840	14,400
	0		0
0	288,000	144,000	432,000
0	480,000	240,000	720,000
52,800	1,017,600	158,400	1,176,000
0	4,080,000	0	4,080,000
0	960,000	0	960,000

	0		0
1,000	13,000	1,000	14,000
	0		0
	0		0
	0		0
	0		0
	0		0
	0		0
	3,000		3,000
1,000	8,000	1,000	9,000
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$1,498,840	$16,085,100	$1,648,840	$17,733,940

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

CONTRIBUTIONS IN AID OF CONSTRUCTION (CIAC) AND CIAC AMORTIZA

CONTRIBUTED UTILITY PLANT	YEAR 1		YEAR 2		YEAR 3	
PLANT ACCOUNT	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE
Treatment Capacity	$0	$0	$750,000	$750,000	$750,000	$1,500,000
Structures & Improvements	0	0	180,000	180,000	90,000	270,000
Collection Sewers - Lift Stations	0	0	180,000	180,000	90,000	270,000
Collection Sewers - Gravity	0	0	1,194,000	1,194,000	1,187,240	2,381,240
Collection Services to Customers	0	0	270,000	270,000	270,000	540,000
Total Contributed Utility Plant	$0	$0	$2,574,000	$2,574,000	$2,387,240	$4,961,240

AMORTIZATION OF CIAC	AMORT. RATE	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Treatment Capacity	5.00%	$0	$18,750	$56,250	$93,750	$131,250
Structures & Improvements	3.33%	0	2,997	7,493	10,490	11,988
Collection Sewers - Lift Stations	2.00%	0	1,800	4,500	6,300	7,200
Collection Sewers - Gravity	2.00%	0	11,940	35,752	57,429	74,121
Collection Services to Customers	2.00%	0	2,700	8,100	13,500	18,900

Total Amortization - Year	$0	$38,187	$112,095	$181,468	$243,459
Accumulated Amortization	$0	$38,187	$150,282	$331,750	$575,209

SCHEDULE DDWW-4

ATION

YEAR 4		YEAR 5	
ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE
$750,000	$2,250,000	$750,000	$3,000,000
90,000	360,000	0	360,000
90,000	360,000	0	360,000
980,400	3,361,640	688,800	4,050,440
270,000	810,000	270,000	1,080,000
$2,180,400	$7,141,640	$1,708,800	$8,850,440

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

PROPOSED WASTEWATER RATES

DESCRIPTION	PROPOSED RATE
MONTHLY SERVICE:	
Residential Service - Per Month	$70.00
METERED SERVICE:	
Recycled Water - Per 1,000 Gallons (1)	$3.00

NOTE:
(1) Not Applicable to Turf Irrigation on Medians and Other Common Areas

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

PROJECTED CUSTOMER GROWTH & WASTEWATER FLOWS

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
RESIDENTIAL:					
Beginning No. of Customers	0	0	500	1,000	1,500
Customer Additions	0	500	500	500	500
Ending No. of Customers	0	500	1,000	1,500	2,000
Average No. of Customers	0	250	750	1,250	1,750
WASTEWATER FLOWS:					
Population Per Housing Unit	2.57	2.57	2.57	2.57	2.57
Average No. of Units	0	250	750	1,250	1,750
Average Population	0	643	1,928	3,213	4,498
Flows/Capita/Day - Gallons	80	80	80	80	80
Average Daily Flows	0	51,400	154,200	257,000	359,800
Annual Flows	0	18,761,000	56,283,000	93,805,000	131,327,000

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

DETAIL OF PROJECTED REVENUES

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
MONTHLY SERVICE:					
Residential:					
Average Customers (1)	0	250	750	1,250	1,750
Monthly Rate (2)	$70.00	$70.00	$70.00	$70.00	$70.00
Monthly Revenues	$0	$17,500	$52,500	$87,500	$122,500
Annual Revenues - Monthly Service	$0	$210,000	$630,000	$1,050,000	$1,470,000
OTHER REVENUES:					
Customer Additions (1)	0	500	500	500	500
Allocated Establishment Charge (50%) (3)	$15.00	$15.00	$15.00	$15.00	$15.00
Total Other Revenues	$0	$7,500	$7,500	$7,500	$7,500

NOTES:
(1) Schedule DDWW-6
(2) Schedule DDWW-7
(3) Schedule DDWW-8

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

OTHER RATES & CHARGES

DESCRIPTION	PROPOSED RATE
Establishment of Service - Regular Hours (1)	$30.00
Establishment of Service - After Hours (1)	60.00
Re-establishment of Service (Within 12 Months)	(2)
Reconnection - Delinquent	60.00
Customer Deposit	(3)
Deposit Interest	6.00%
NSF Check Charge	35.00
Late Payment Penalty - Per Month	1.50%
Deferred Payment Plan - Per Month	1.50%
Main Extensions/Additional Facilities	Cost (4)
Service Calls - Not Company Responsibility	Cost (4)
Revenue Taxes & Assessments	(5)
Non-refundable Capacity Fee - Per Residential Unit	$1,500.00

NOTES:
(1) Establishment of Service Charge is a Combined Charge for Both Water and Wastewater Service and Not Duplicative

(2) Per Rule R14-2-603D - Months Off System Times the Minimum Charge
(3) Per Rule R14-2-603B
(4) Cost is Direct Materials, Direct Labor and Overhead Burden of 35% of Direct Labor
(5) Per Rule R14-2-608D

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

ALLOCATION OF CONTRACT SERVICES (1)

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
OPERATIONS:					
Water	$60,000	$175,000	$185,000	$190,000	$200,000
Wastewater	10,000	145,000	190,000	240,000	290,000
Total	$70,000	$320,000	$375,000	$430,000	$490,000
METER READING, BILLING AND CUSTOMER SERVICE:					
Average No. of Customers	0	250	750	1,250	1,750
Monthly Water - $2.00 Per Month	$0	$500	$1,500	$2,500	$3,500
Annual Water	$0	$6,000	$18,000	$30,000	$42,000
Monthly Wastewater - $1.00 Per Month	$0	$250	$750	$1,250	$1,750
Annual Wastewater	$0	$3,000	$9,000	$15,000	$21,000
Total Contract Services	$0	$9,000	$27,000	$45,000	$63,000

NOTES:
(1) Contract Services Provided by American Water Company

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

PROJECTED DIVISIONAL BALANCE SHEETS

DESCRIPTION	BALANCE 6-30-07	END OF: YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
ASSETS						
Utility Plant:						
Gross Utility Plant in Service (1)	$134,500	$5,881,300	$8,076,580	$14,586,260	$16,085,100	$17,733,940
Less: Accumulated Depreciation	0	111,736	362,840	764,887	1,305,869	1,885,365
Net Utility Plant in Service	$134,500	$5,769,564	$7,713,740	$13,821,373	$14,779,231	$15,848,575
Current Assets:						
Cash	$50,000	$46,700	$60,000	$69,000	$83,000	$192,000
Accounts Receivable	0	0	35,000	70,000	105,000	140,000
Other Current Assets	0	1,500	2,000	2,500	3,000	3,500
Total Current Assets	$50,000	$48,200	$97,000	$141,500	$191,000	$335,500
Total Assets	$184,500	$5,817,764	$7,810,740	$13,962,873	$14,970,231	$16,184,075

LIABILITIES & EQUITY

Current Liabilities:						
Accounts Payable	$0	$9,000	$25,500	$30,000	$34,500	$39,000
Customer Deposits	0	0	70,000	70,000	70,000	70,000
Property Taxes Payable	0	0	5,873	17,213	28,553	39,893
Income Taxes Payable	0	22	22	22	12,239	211,913
Total Current Liabilities	$0	$9,022	$101,395	$117,235	$145,292	$360,806
Treatment Capacity Revolving Acct.	$0	$3,660,000	$1,957,500	$4,005,000	$2,002,500	$0
CIAC - Net	0	0	2,535,813	4,810,958	6,809,890	8,275,231
Equity:						
Common Stock	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
Paid in Capital	182,000	2,209,980	3,523,893	5,367,457	6,169,425	7,367,815
Retained Earnings	0	-63,738	-310,361	-340,277	-159,376	177,723
Total Equity	$184,500	$2,148,742	$3,216,032	$5,029,680	$6,012,549	$7,548,038
Total Liabilities & Equity	$184,500	$5,817,764	$7,810,740	$13,962,873	$14,970,231	$16,184,075

NOTES:

(1) The $134,500 Shown as Plant in Service at 6-30-07 is comprised of Organization Expense, Franchises, and Land & Land Ri

SCHEDULE DDW-1
REVISED 8-24-07

DOUBLE DIAMOND UTILITIES
WATER DIVISION

PRO FORMA INCOME STATEMENTS

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Revenues:					
Water Sales (1)	$50,000	$192,439	$482,317	$777,195	$1,082,072
Other Water Revenues (1)	0	7,500	7,500	7,500	7,500
Total Water Revenues	$50,000	$199,939	$489,817	$784,695	$1,089,572
Operating & Maintenance Expenses:					
Contract Services - Operations (2)	$60,000	$175,000	$185,000	$190,000	$200,000
Contract Services - Billing & Customer Service (2)	0	6,000	18,000	30,000	42,000
Purchased Power	9,000	16,094	32,066	51,340	67,959
O&M Materials & Supplies	2,000	3,000	5,000	10,000	15,000
Depreciation (3)	41,365	73,452	100,508	153,140	197,083
Property Taxes (4)	1,350	5,398	13,225	21,187	29,418
Income Taxes	23	23	23	20,851	207,705
Total Operating & Maintenance Expenses	$113,738	$278,967	$353,822	$476,517	$759,165
Operating Income (Loss)	-$63,738	-$79,028	$135,995	$308,177	$330,407

Original Cost Rate Base (5)	$2,808,125	$2,666,474	$3,406,609	$4,438,201	$4,548,588
Return on Rate Base	-2.27%	-2.96%	3.99%	6.94%	7.26%

NOTES:
(1) Schedule DDW-5
(2) Schedule DDW-9
(3) Schedule DDW-3
(4) 2.7% of Revenues
(5) Schedule DDW-2
REVISIONS: Purchased Power, Allocated Income Taxes & Original Cost Rate Base

SCHEDULE DDW-2
REVISED 8-24-07

DOUBLE DIAMOND UTILITIES
WATER DIVISION

PROJECTED ORIGINAL COST RATE BASE

DESCRIPTION	END OF YEAR RATE BASE				
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Gross Utility Plant In Service (1)	$3,064,890	$4,562,490	$7,177,050	$9,814,770	$11,255,140
Less: Accumlated Depreciation (1)	41,365	114,816	215,325	368,464	565,547
Net Utility Plant in Service	$3,023,525	$4,447,674	$6,961,725	$9,446,306	$10,689,593
Less:					
AIAC - Net of Refunds (2)	$215,400	$1,510,200	$3,086,116	$4,363,104	$5,342,005
Meter & Service Line Deposits - Net of Refunds	0	220,000	418,000	594,000	748,000
Customer Deposits (3)	0	51,000	51,000	51,000	51,000
Total Deductions	$215,400	$1,781,200	$3,555,116	$5,008,104	$6,141,005
Original Cost Rate Base	$2,808,125	$2,666,474	$3,406,609	$4,438,201	$4,548,588

NOTES:
(1) Schedule DDW-3

(2) Schedule DDW-4
(3) Schedule DDW-10
REVISION: Customer Deposits Deduction from Rate Base

DOUBLE DIAMOND UTILITIES
WATER DIVISION

UTILITY PLANT DETAIL AND DEPRECIATION

GROSS UTILITY PLANT	YEAR 1		YEAR 2		YEAR 3	
PLANT ACCOUNT	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE
Organization	$51,033	$51,033	$0	$51,033	$0	$51,033
Franchises	8,500	8,500	0	8,500	0	8,500
Land & Land Rights	93,750	93,750	0	93,750	0	93,750
Structures & Improvements	264,000	264,000	0	264,000	144,000	408,000
Wells & Springs	508,407	508,407	0	508,407	0	508,407
Pumping Equipment	144,000	144,000	0	144,000	144,000	288,000
Water Treatment Equipment	24,000	24,000	0	24,000	24,000	48,000
Distribution Reservoirs	840,000	840,000	0	840,000	0	840,000
Booster Stations & Equipment	96,000	96,000	0	96,000	0	96,000
Transmission & Distribution Mains	965,400	965,400	807,600	1,773,000	1,596,960	3,369,960
Services	0	0	270,000	270,000	270,000	540,000
Meters & Meter Installations	0	0	255,000	255,000	255,000	510,000
Hydrants	46,800	46,800	156,000	202,800	171,600	374,400
Backflow Devices	0	0	6,000	6,000	6,000	12,000
Office Furniture & Fixtures - General	5,000	5,000	1,000	6,000	1,000	7,000
Office Computing Equipment	10,000	10,000	1,000	11,000	1,000	12,000
Transportation Equipment		0		0		0

Stores Equipment		0		0		0
Tools & Shop Equipment		0		0		0
Laboratory Equipment		0		0		0
Power Operated Equipment		0		0		0
Communications Equipment	3,000	3,000	0	3,000	0	3,000
Miscellaneous Equipment	5,000	5,000	1,000	6,000	1,000	7,000
Total Water Utility Plant	$3,064,890	$3,064,890	$1,497,600	$4,562,490	$2,614,560	$7,177,050

DOUBLE DIAMOND UTILITIES
WATER DIVISION

UTILITY PLANT DETAIL AND DEPRECIATION

PLANT ACCOUNT	DEPR. RATE	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Structures & Improvements	3.33%	$4,396	$8,791	$11,189	$14,785	$17,183
Wells & Springs	3.33%	8,465	16,930	16,930	16,930	16,930
Pumping Equipment	12.50%	9,000	18,000	27,000	40,500	49,500
Water Treatment Equipment	3.33%	400	799	1,199	1,798	2,198
Distribution Reservoirs	2.22%	9,324	18,648	18,648	27,972	37,296
Booster Stations & Equipment	5.00%	2,400	4,800	4,800	7,200	9,600
Transmission & Distribution Mains	2.00%	9,654	27,384	51,430	75,866	90,125
Services	3.33%	0	4,496	13,487	22,478	31,469

Meters & Meter Installations	8.33%	0	10,621	31,862	53,104	74,345
Hydrants	2.00%	468	2,496	5,772	9,048	12,168
Backflow Devices	6.67%	0	200	600	1,301	2,301
Office Furniture & Fixtures - General	6.67%	167	367	434	500	567
Office Computing Equipment	20.00%	1,000	2,100	2,300	2,500	2,700
Transportation Equipment	20.00%	0	0	0	0	0
Stores Equipment	4.00%	0	0	0	0	0
Tools & Shop Equipment	5.00%	0	0	0	0	0
Laboratory Equipment	10.00%	0	0	0	0	0
Power Operated Equipment	5.00%	0	0	0	0	0
Communications Equipment	10.00%	150	300	300	300	300
Miscellaneous Equipment	10.00%	250	550	650	750	850
Total Depreciation - Year		$45,673	$116,482	$186,600	$275,032	$347,531
Accumulated Depreciation		$45,673	$162,154	$348,754	$623,786	$971,317
Depreciation - AIAC & Meter Deposits:						
AIAC		$4,308	$30,204	$61,722	$87,262	$106,840
Meter Deposits		0	12,826	24,369	34,630	43,608
Total Depreciation - Year		$4,308	$43,030	$86,092	$121,892	$150,448
Accumulated Depreciation		$4,308	$47,338	$133,430	$255,322	$405,771
Net Depreciation:						
Year		$41,365	$73,452	$100,508	$153,140	$197,083
Accumulated		$41,365	$114,816	$215,325	$368,464	$565,547

YEAR 4		YEAR 5	
ADDITIONS	ENDING BALANCE	ADDITIONS	ENDING BALANCE
$0	$51,033	$0	$51,033
0	8,500	0	8,500
0	93,750	6,250	100,000
72,000	480,000	72,000	552,000
0	508,407	0	508,407
72,000	360,000	72,000	432,000
12,000	60,000	12,000	72,000
840,000	1,680,000	0	1,680,000
96,000	192,000	0	192,000
846,720	4,216,680	579,120	4,795,800
270,000	810,000	270,000	1,080,000
255,000	765,000	255,000	1,020,000
156,000	530,400	156,000	686,400
15,000	27,000	15,000	42,000
1,000	8,000	1,000	9,000
1,000	13,000	1,000	14,000
	0		0

	0		0
	0		0
	0		0
	0		0
0	3,000	0	3,000
1,000	8,000	1,000	9,000
$2,637,720	$9,814,770	$1,440,370	$11,255,140

DOUBLE DIAMOND UTILITIES
WATER DIVISION

ADVANCES IN AID OF CONSTRUCTION (AIAC) AND REFUNDABLE METER DEPOSITS:

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
AIAC:					
Beginning Balance	$0	$215,400	$1,510,200	$3,101,360	$4,424,080
Additions	215,400	1,294,800	1,591,160	1,322,720	1,055,120
Gross AIAC	$215,400	$1,510,200	$3,101,360	$4,424,080	$5,479,200
Less: Refunds - Year	0	0	-15,244	-45,732	-76,219
Refunds - Cumulative	0	0	-15,244	-60,976	-137,195
Ending Balance	$215,400	$1,510,200	$3,086,116	$4,363,104	$5,342,005
REFUNDABLE METER DEPOSITS:					
Beginning Balance	$0	$0	$220,000	$440,000	$660,000
Additions	0	220,000	220,000	220,000	220,000
Gross Meter Deposits	$0	$220,000	$440,000	$660,000	$880,000
Less: Refunds - Year	0	0	-22,000	-44,000	-66,000
Refunds - Cumulative	0	0	-22,000	-66,000	-132,000
Ending Balance	$0	$220,000	$418,000	$594,000	$748,000

DOUBLE DIAMOND UTILITIES
WATER DIVISION

DETAIL OF PROJECTED REVENUES

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
WATER SALES:					
Residential;					
Average Customers (1)	0	250	750	1,250	1,750
Annual Water Usage - K Gallons (1)	0	23,451	70,354	117,256	164,159
Monthly Customer Charge (2)	$22.00	$22.00	$22.00	$22.00	$22.00
Annual Customer Charge Revenues	$0	$66,000	$198,000	$330,000	$462,000
Average Commodity Rate - Per K Gallons (2)	$3.69	$3.69	$3.69	$3.69	$3.69
Annual Commodity Revenues	$0	$86,439	$259,317	$432,195	$605,072
Total Residential Water Sales	$0	$152,439	$457,317	$762,195	$1,067,072
Average Residential Bill Per Month	$0.00	$50.81	$50.81	$50.81	$50.81
Construction Water:					
Annual Water Usage - K Gallons	10,000	8,000	5,000	3,000	3,000
Commodity Rate - Per K Gallons (2)	$5.00	$5.00	$5.00	$5.00	$5.00
Total Construction Water Sales	$50,000	$40,000	$25,000	$15,000	$15,000
Total Water Sales	$50,000	$192,439	$482,317	$777,195	$1,082,072

OTHER REVENUES:					
Customer Additions (1)	0	500	500	500	500
Allocated Establishment Charge (50%) (3)	$15.00	$15.00	$15.00	$15.00	$15.00
Total Other Revenues	$0	$7,500	$7,500	$7,500	$7,500

NOTES:

(1) Schedule DDW-6
(2) Schedule DDW-7
(3) Schedule DDW-8

DOUBLE DIAMOND UTILITIES
WATER DIVISION

PROJECTED CUSTOMER GROWTH & WATER USE

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
RESIDENTIAL:					
3/4" Meters:					
Beginning No. of Customers	0	0	500	1,000	1,500
Customer Additions	0	500	500	500	500
Ending No. of Customers	0	500	1,000	1,500	2,000
Average No. of Customers	0	250	750	1,250	1,750
Water Usage:					
3/4" Residential:					
Population Per Housing Unit	2.57	2.57	2.57	2.57	2.57
Average No. of Units	0	250	750	1,250	1,750
Usage/Capita/Day - Gallons	100	100	100	100	100
Average Daily Usage	0	64,250	192,750	321,250	449,750
Monthly Usage	0	1,954,271	5,862,813	9,771,354	13,679,896
Annual Usage	0	23,451,250	70,353,750	117,256,250	164,158,750
Average Monthly Usage Per Unit - Gallor	0	7,817	7,817	7,817	7,817

SCHEDULE DDW-7

DOUBLE DIAMOND UTILITIES
WATER DIVISION

PROPOSED WATER RATES

DESCRIPTION	PROPOSED RATE
Monthly Customer Charges: (No Water)	
3/4" Meters	$22.00
1" Meters	32.00
1 1/2" Meters	85.00
2" Meters	150.00
3" Meters	275.00
4" Meters	500.00
6" Meters	850.00
Commodity Charges - Per 1,000 Gallons:	
3/4" Meters:	
First 4,000 Gallons	$3.00
Next 6,000 Gallons	$4.00
All Usage Over 10,000 Gallons	$5.00
1" Meters:	
First 4,000 Gallons	$3.00
Next 6,000 Gallons	$4.00
All Usage Over 10,000 Gallons	$5.00

1 1/2" Meters:	
First 45,000 Gallons	$4.00
All Usage Over 45,000 Gallons	$5.00
2" Meters:	
First 65,000 Gallons	$4.00
All Usage Over 65,000 Gallons	$5.00
3" Meters:	
First 130,000 Gallons	$4.00
All Usage Over 130,000 Gallons	$5.00
4" Meters:	
First 200,000 Gallons	$4.00
All Usage Over 200,000 Gallons	$5.00
6" Meters:	
First 300,000 Gallons	$4.00
All Usage Over 300,000 Gallons	$5.00
Construction Water - Per 1,000 Gallons	$5.00

RATE DESIGN

DESCRIPTION	BILLS	GALLONS 1ST BLOCK	2ND BLOCK	3RD BLOCK
3/4" Meters:				
First 4,000 Gallons	250	500,000		
4,000 - 10,000 Gallons	500	2,000,000	1,750,000	
Over 10,000 Gallons	250	1,000,000	1,500,000	1,050,000
	1,000	3,500,000	3,250,000	1,050,000
Total Gallons	7,800,000			
Avg. Use/Bill	7,800			
Block Rates/1,000 Gallons		$3.00	$4.00	$5.00
Amount	$28,750	$10,500	$13,000	$5,250
Average Rate/1,000	$3.69			

DOUBLE DIAMOND UTILITIES
WATER DIVISION

OTHER RATES & CHARGES

SERVICE CHARGES

DESCRIPTION	PROPOSED RATE
Establishment of Service - Regular Hours (1)	$30.00
Establishment of Service - After Hours (1)	60.00
Re-establishment of Service (Within 12 Months)	(2)
Reconnection - Delinquent	60.00
Meter Test (If Correct)	50.00
Meter Re-read (If Correct)	30.00
Customer Deposit	(3)
Deposit Interest	6.00%
NSF Check Charge	35.00
Late Payment Penalty - Per Month	1.50%
Deferred Payment Plan - Per Month	1.50%
Main Extensions/Meter Relocation	Cost (4)
Service Calls - Not Company Responsibility	Cost (4)
Revenue Taxes & Assessments	(5)

REFUNDABLE SERVICE LINE AND METER CHARGES

3/4" Meter	$440.00

1" Meter	520.00
1 1/2" Meter	740.00
2" Turbine Meter	1,235.00
2" Compound Meter	1,800.00
3" Turbine Meter	1,705.00
3" Compound Meter	2,340.00
4" Turbine Meter	2,700.00
4" Compound Meter	3,405.00
6" Turbine Meter	5,035.00
6" Compound Meter	6,510.00

NOTES:

(1) Establish of Service Charge is a Combined Charge for Both Water and Wastewater Service and Not Duplicative
(2) Per Rule R14-2-403D - Months Off System Times the Minimum Charge
(3) Per Rule R14-2-403B
(4) Cost is Direct Materials, Direct Labor and Overhead Burden of 35% of Direct Labor
(5) Per Rule R14-2-408D

DOUBLE DIAMOND UTILIIES
WATER DIVISION

ALLOCATION OF CONTRACT SERVICES (1)

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
OPERATIONS:					
Water	$60,000	$175,000	$185,000	$190,000	$200,000
Wastewater	10,000	145,000	190,000	240,000	290,000
Total	$70,000	$320,000	$375,000	$430,000	$490,000
METER READING, BILLING AND CUSTOMER SERVICE:					
Average No. of Customers	0	250	750	1,250	1,750
Monthly Water - $2.00 Per Month	$0	$500	$1,500	$2,500	$3,500
Annual Water	$0	$6,000	$18,000	$30,000	$42,000
Monthly Wastewater - $1.00 Per Month	$0	$250	$750	$1,250	$1,750
Annual Wastewater	$0	$3,000	$9,000	$15,000	$21,000
Total Contract Services	$0	$9,000	$27,000	$45,000	$63,000

NOTES:
(1) Contract Services Provided by American Water Company

DOUBLE DIAMOND UTILITIES
WATER DIVISION

PROJECTED DIVISIONAL BALANCE SHEETS

DESCRIPTION	BALANCE 6-30-07	END OF: YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
ASSETS						
Utility Plant:						
Gross Utility Plant in Service (1)	$661,690	$3,064,890	$4,562,490	$7,177,050	$9,814,770	$11,255,140
Less: Accumulated Depreciation	0	41,365	114,816	215,325	368,464	565,547
Net Utility Plant in Service	$661,690	$3,023,525	$4,447,674	$6,961,725	$9,446,306	$10,689,593
Current Assets:						
Cash	$50,552	$46,700	$59,000	$67,000	$84,000	$508,104
Accounts Receivable	0	0	25,500	51,000	76,500	102,000
Other Current Assets	0	1,500	2,000	2,500	3,000	3,500
Total Current Assets	$50,552	$48,200	$86,500	$120,500	$163,500	$613,604
Total Assets	$712,242	$3,071,725	$4,534,174	$7,082,225	$9,609,806	$11,303,197

LIABILITIES & EQUITY

Current Liabilites:						
Accounts Payable	$0	$9,000	$24,000	$30,000	$34,500	$39,000
Customer Deposits	0	0	51,000	51,000	51,000	51,000
Advance Refunds Payable	0	0	15,244	45,732	76,219	106,707
Property Taxes Payable	0	1,350	5,398	13,225	21,187	29,428
Income Taxes Payable	0	23	23	23	20,851	207,705
Total Current Liabilities	$0	$10,373	$95,665	$139,980	$203,757	$433,840
AIAC - Net of Refunds	$0	$215,400	$1,510,200	$3,086,116	$4,363,104	$5,342,005
Meter Deposits - Net of Refunds	0	0	220,000	418,000	594,000	748,000
Equity:						
Common Stock	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
Paid in Capital	709,742	2,907,190	2,848,575	3,442,400	4,145,039	4,145,039
Retained Earnings	0	-63,738	-142,766	-6,771	301,406	631,813
Total Equity	$712,242	$2,845,952	$2,708,309	$3,438,129	$4,448,945	$4,779,352
Total Liabilities & Equity	$712,242	$3,071,725	$4,534,174	$7,082,225	$9,609,806	$11,303,197

NOTES:

(1) The $661,690 Shown as Plant in Service at 6-30-07 is comprised of Organization Expense, Franchises, Land & Land R and Wells and Springs.

DOUBLE DIAMOND UTILITIES
OTHER O&M COSTS & INCOME TAXES

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
SLUDGE DISPOSAL COSTS: (BASED ON STANTEC CALCULATIONS)					
Average Residential Units	0	250	750	1,250	1,750
Sludge Tons/Unit/Day	0.00115	0.00115	0.00115	0.00115	0.00115
Sludge Tons/Dany	0.00	0.29	0.86	1.44	2.01
Number of Trips/Day	0.0	0.5	0.5	1.0	1.0
Hauling Costs/Day ($180/Trip)	$0	$90	$90	$180	$180
Landfill Costs/Day ($15/wet ton)	$0.00	$4.31	$12.94	$21.56	$30.19
Total Costs/Day	$0	$94	$103	$202	$210
Annual Costs	$0	$34,424	$37,572	$73,570	$76,718
O&M MATERIALS & SUPPLIES: (BASED ON CONVERSATION WITH ROBERT SPRAKER - AMERICAN WATER)					
Water	$2,000	$3,000	$5,000	$10,000	$15,000
Wastewater	2,000	5,000	15,000	25,000	35,000

DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
INCOME TAXES:					
Year:					
Water - Before Income Taxes	-63,715	-79,005	136,018	329,028	538,112
Wastewater - Before Income Tx.	-123,736	-246,601	-29,894	193,140	549,012

Total Company	-187,451	-325,606	106,124	522,168	1,087,124
Cumulative	-187,451	-513,057	-406,933	115,235	
Income Taxes	45	45	45	33,090	419,618
Allocation:					
Water	23	23	23	20,851	207,705
Wastewater	22	22	22	12,239	211,913
Total	45	45	45	33,090	419,618

DOUBLE DIAMOND UTILITIES
OPENING BALANCE SHEETS

DESCRIPTION	TOTAL COMPANY	WATER	WW
ASSETS			
Cash	100,552	50,552	50,000
Organization	102,033	51,033	51,000
Franchises	17,000	8,500	8,500
Land & Land Rights	168,750	93,750	75,000
Wells & Springs	508,407	508,407	0
Total Assets	896,742	712,242	184,500
LIABILITIES & EQUITY			
Common Stock	5,000	2,500	2,500
Paid In Capital	891,741	709,742	182,000
Total Liabilities & Equity	896,741	712,242	184,500

DOUBLE DIAMOND UTILITIES

WATER DIVISION

PROJECTED BALANCE SHEETS

DESCRIPTION	BALANCE 6-30-07	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
		ASSETS				
Utili ty Plant:						
Gross Utility Plant in Service	$661,690	$3,064,890	$4,562,490	$7,177,050	$9,814,770	$11,255,140
Less: Accumulated Depreciation	0	41,365	114,816	215,325	368,464	565,547
Net Utility Plant in Service	$661,690	$3,023,525	$4,447,674	$6,961,725	$9,446,306	$10,689,593
Current Assets:						
Cash	$50,552	$46,700	$59,000	$67,000	$84,000	$508,104
Accounts Receivable	0	0	25,500	51,000	76,500	102,000
Other Current Assets	0	1,500	2,000	2,500	3,000	3,500
Total Current Assets	$50,552	$48,200	$86,500	$120,500	$163,500	$613,604
Total Assets	$712,242	$3,071,725	$4,534,174	$7,082,225	$9,609,806	$11,303,197
		LIABILITIES & EQUITY				
Current Liabilities:						
Accounts Payable	$0	$9,000	$24,000	$30,000	$34,500	$39,000
Customer Deposits	0	0	51,000	51,000	51,000	51,000
Advance Refunds Payable	0	0	15,244	45,732	76,219	106,707
Property Taxes Payable	0	1,350	5,398	13,225	21,187	29,428
Income Taxes Payable	0	23	23	23	20,851	207,705
Total Current Liabilities	0	10,373	95,665	139,980	203,757	433,840
Advances in Aid of Construction - Net	0	215,400	1,510,200	3,086,116	4,363,104	5,342,005

Meter Deposits - Net	0	0	220,000	418,000	594,000	748,000
Equity:						
Common Stock	2,500	2,500	2,500	2,500	2,500	2,500
Paid in Capital	709,742	2,907,190	2,848,575	3,442,400	4,145,039	4,145,039
Retained Earnings	0	-63,738	-142,766	-6,771	301,406	631,813
Total Equity	712,242	2,845,952	2,708,309	3,438,129	4,448,945	4,779,352
Total Liabilities & Equity	$712,242	$3,071,725	$4,534,174	$7,082,225	$9,609,806	$11,303,197

WATER DIVISION
DETAILED CALCULATIONS:

Base Cash		40,000	40,000	40,000	40,000	40,000
Cash:						
Contract Services	0	60,000	181,000	203,000	220,000	242,000
Purchased Power	0	9,000	16,094	32,066	51,340	67,959
Total	0	69,000	197,094	235,066	271,340	309,959
Cash Requirement - 1/12th	0	5,750	16,425	19,589	22,612	25,830
Use	0	6,000	16,000	20,000	23,000	26,000
Taxes:	0					
Property	0	1,350	5,398	13,225	21,187	29,418
Income	0	23	23	23	20,851	207,705
	0	1,373	5,421	13,248	42,038	237,123
1/2 - Cash Requirement	0	687	2,711	6,624	21,019	118,562
Use	0	700	3,000	7,000	21,000	119,000
Total Cash Requirement	0	46,700	59,000	67,000	84,000	185,000
Accounts Receivable:						
Year End Customers	0	0	500	1,000	1,500	2,000
Average Bill	0	0	51	51	51	51

Accounts Receivable	0	0	25,500	51,000	76,500	102,000
Accounts Payable - Cash x 1.5		9,000	24,000	30,000	34,500	39,000
Customer Deposits:						
Customer Additions	0	0	500	500	500	500
2 x Average Bill	0	0	102	102	102	102
Customer Deposits	0	0	51,000	51,000	51,000	51,000
Retained Earnings:						
Net Income (loss) - Year	0	-63,738	-79,028	135,995	308,177	330,407
Retained Earnings	0	-63,738	-142,766	-6,771	301,406	631,813

DOUBLE DIAMOND UTILITIES
WASTEWATER DIVISION

PROJECTED BALANCE SHEETS

DESCRIPTION	BALANCE 6-30-07	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
		ASSETS				
Utili ty Plant:						
Gross Utility Plant in Service	$134,500	$5,881,300	$8,076,580	$14,586,260	$16,085,100	$17,733,940
Less: Accumulated Depreciation	0	111,736	362,840	764,887	1,305,869	1,885,365
Net Utility Plant in Service	$134,500	$5,769,564	$7,713,740	$13,821,373	$14,779,231	$15,848,575
Current Assets:						
Cash	$50,000	$46,700	$60,000	$69,000	$83,000	$192,000
Accounts Receivable	0	0	35,000	70,000	105,000	140,000

Other Current Assets	0	1,500	2,000	2,500	3,000	3,500
Total Current Assets	$50,000	$48,200	$97,000	$141,500	$191,000	$335,500
Total Assets	$184,500	$5,817,764	$7,810,740	$13,962,873	$14,970,231	$16,184,075
		LIABILITIES & EQUITY				
Current Liabilities:						
Accounts Payable	$0	$9,000	$25,500	$30,000	$34,500	$39,000
Customer Deposits	0	0	70,000	70,000	70,000	70,000
Advance Refunds Payable	0	0	0	0	0	0
Property Taxes Payable	0	0	5,873	17,213	28,553	39,893
Income Taxes Payable	0	22	22	22	12,239	211,913
Total Current Liabilities	0	9,022	101,395	117,235	145,292	360,806
Treatment Capacity Advances		3,660,000	1,957,500	4,005,000	2,002,500	0
CIAC - Net	0	0	2,535,813	4,810,958	6,809,890	8,275,231
Equity:						
Common Stock	2,500	2,500	2,500	2,500	2,500	2,500
Paid in Capital	182,000	2,209,980	3,523,893	5,367,457	6,169,425	7,367,815
Retained Earnings	0	-63,738	-310,361	-340,277	-159,376	177,723
Total Equity	184,500	2,148,742	3,216,032	5,029,680	6,012,549	7,548,038
Total Liabilities & Equity	$184,500	$5,817,764	$7,810,740	$13,962,873	$14,970,231	$16,184,075

WASTEWATER DIVISION
DETAILED CALCULATIONS:

Base Cash		40,000	40,000	40,000	40,000	40,000
Cash:						
Contract Services	0	10,000	148,000	199,000	220,000	242,000

Purchased Power	0	0	19,700	34,750	53,350	67,850
Total	0	10,000	167,700	233,750	273,350	309,850
Cash Requirement - 1/12th	0	833	13,975	19,479	22,779	25,821
Use	0	6,000	17,000	20,000	23,000	26,000
Taxes:	0					
Property	0	0	5,873	17,213	28,553	39,893
Income	0	22	22	22	12,239	211,913
	0	22	5,895	17,235	40,792	251,806
1/2 - Cash Requirement	0	11	2,948	8,618	20,396	125,903
Use	0	700	3,000	9,000	20,000	126,000
Total Cash Requirement	0	46,700	60,000	69,000	83,000	192,000
Accounts Receivable:						
Year End Customers	0	0	500	1,000	1,500	2,000
Average Bill	0	0	70	70	70	70
Accounts Receivable	0	0	35,000	70,000	105,000	140,000
Accounts Payable - Cash x 1.5		9,000	25,500	30,000	34,500	39,000
Customer Deposits:						
Customer Additions	0	0	500	500	500	500
2 x Average Bill	0	0	140	140	140	140
Customer Deposits	0	0	70,000	70,000	70,000	70,000
Retained Earnings:						
Net Income (loss) - Year	0	-63,738	-246,623	-29,916	180,901	337,099
Retained Earnings	0	-63,738	-310,361	-340,277	-159,376	177,723
Treatment Capacity Advances:						
Treatment Expenditures:						
Year		3,660,000	300,000	4,050,000	0	0

Cumulative	3,660,000	3,960,000	8,010,000	8,010,000	8,010,000
Hook-Up Fees					
Year	0	750,000	750,000	750,000	750,000
Cumulative	0	750,000	1,500,000	2,250,000	3,000,000
Net Advances	3,660,000	3,210,000	6,510,000	5,760,000	5,010,000
Transfer to Paid in Capital - Year		-1,252,500	-1,252,500	-1,252,500	-1,252,500
Transfer to Paid in Capital - Cum		-1,252,500	-2,505,000	-3,757,500	-5,010,000
Ending Balance - Treatment Adv.	3,660,000	1,957,500	4,005,000	2,002,500	0

EXHIBIT
A-6
admitted

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 DOUBLE DIAMOND UTILITIES, INC. FOR A CERTIFICATE OF CONVENIENCE AND NECESSITY TO PROVIDE WATER SERVICE AND WASTEWATER SERVICE	Docket No. WS-20543A-07-0435

Double Diamond Utilities, Inc. hereby files the attached affidavits of publication and mailing.

RESPECTFULLY submitted this 23rd day of October, 2007.

ROSHKA DEWULF & PATTEN, PLC

By _____

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

Attorney for Double Diamond Utilities, Inc.

Original and 13 copies of the foregoing filed this 23rd day of October 2007, with:

Docket Control
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

RECEIVED
2007 OCT 23 P 3: 37
AZ CORP COMMISSION
DOCKET CONTROL

Copy of the foregoing hand-delivered/mailed
this 22nd day of October 2007 to:

Yvette Kinsey
Administrative Law Judge
Hearing Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Kevin Torrey, Esq.
Legal Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Ernest G. Johnson
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington Street
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

AFFIDAVIT OF PUBLICATION

Kingman Daily Miner
3015 Stockton Hill Road, Kingman, AZ 86401
web: www.kingmandailyminer.com • e-mail: legals@kingmandailyminer.com
Phone (928) 753-6397, ext. 242 • Fax (928) 753-5661
"Serving Kingman since 1882"

STATE OF ARIZONA)
County of Mohave) ss.

I, **Melinda Mauser**, being first duly sworn on her oath says:
That she is the Legals Clerk of THE KINGMAN DAILY MINER
An Arizona corporation, which owns and publishes the Miner,
a Daily Newspaper published in the City of Kingman, County of Mohave,
Arizona, that the notice attached hereto, namely,

Public Notice
Ad. No. 6674

Has, to the personal knowledge of affiant, been published in the newspaper aforesaid, according to law, from **2nd** day of **October, 2007** to the **2nd** day of **October, 2007** inclusive without change, interruption or omission, amounting in **1** insertions, made on the following dates:
10/2/2007

By: Melinda Mauser
Legal Clerk, **2nd** Day of **October, 2007**

State of Arizona

County of Mohave

On this 8 day of October, 2007

Legal Clerk, whom I know personally to be
the person who signed the above document
and she proved she signed it.

Rebecca Munger
Notary Public
My Commission Expires November 30, 2009

OFFICIAL SEAL
REBECCA MUNGER
NOTARY PUBLIC - State of Arizona
MOHAVE COUNTY
My Comm. Expires Nov 30, 2009

(#6674)

PUBLIC NOTICE OF THE HEARING ON THE APPLICATION OF DOUBLE DIAMOND UTILITIES, INC. FOR A CERTIFICATE OF CONVENIENCE AND NECESSITY TO PROVIDE WATER SERVICE AND WASTEWATER SERVICE IN MOHAVE COUNTY.

(Docket No. W-20543A-07-0435)

On July 23, 2007, Double Diamond Utilities, Inc. ("DDU" 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 water and wastewater service for a master planned community known as The Ranch at White Hills in Mohave County, Arizona. The Commission's Utilities Division ("Staff") has not yet made a recommendation regarding DDU's application, and the Commission is not bound by the proposals made by DDU, Staff, or any intervenors. The Commission will issue a decision regarding DDU's application following consideration of testimony and evidence presented at an evidentiary hearing. Copies of the application are available at DDU's offices, 9510 West Sahara Avenue, Suite 130, Las Vegas, Nevada 89117, and at 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 December 3, 2007, at 1:30 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-020543A-07-0435 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.), and
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 November 16, 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 person or entity from appearing at the hearing and making a statement on their own behalf.

If you have any questions about this application, you may contact DDU at (928) 753-9700. 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 1-800-222-7000.

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.

Ad no. 6674

AFFIDAVIT OF PROOF OF MAILING
Docket No. WS 20543A-07-0435

STATE OF ARIZONA)
) ss.
County of Mohave)

I, Kathy Tackett-Hicks, states as follows:

1. I am the Vice President of Operations for Double Diamond Utilities, Inc.

2. I certify that, pursuant to the September 11, 2007 Procedural Order in this docket and the October 1, 2007 Amended Procedural Order, a copy of the attached notice was mailed via U.S. First-Class Mail to all land owners within the area covered by the Certificate of Convenience and Necessity requested in this docket.

Kathy Tackett-Hicks

SUBSCRIBED AND SWORN to before me by Kathy Tackett-Hicks, this 18 day of October, 2007.

Notary Public

My Commission Expires:

Aug 1 2009

OFFICIAL SEAL
SHAREL L. HOLMES
NOTARY PUBLIC - State of Arizona
MOHAVE COUNTY
My Comm. Expires Aug. 1, 2009

October 12, 2007

Arizona Acreage, LLC.
9510 W. Sahara Ave., Suite 130
Las Vegas, Nevada 89117

RE: Double Diamond Utilities, Inc
Docket No. WS-20543A-07-0435

Dear Property Owner;

This letter is to inform you of the pending discussion and hearing for the above referenced application, at the Arizona Corporation Commission.

The Amended Procedural Order, dated October 1, 2007, is being forwarded to you for your review, and in compliance with the Commission notification requirements.

Feel free to contact the Commission staff, or myself directly, should you have any questions.

Respectfully submitted,

Double Diamond Utilities, Inc.

Kathleen A. Tackett-Hicks

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 DOUBLE DIAMOND UTILITIES, INC. FOR AN EXTENSION OF ITS CERTIFICATE OF CONVENIENCE AND NECESSITY TO PROVIDE WATER SERVICE AND WASTEWATER SERVICE IN MOHAVE COUNTY.	DOCKET NO. WS-20543A-07-0435 **AMENDED PROCEDURAL ORDER**

BY THE COMMISSION:

On July 23, 2007, Double Diamond Utilities, Inc. ("DDU" 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 water and wastewater services for a master planned community known as The Ranch at White Hills in Mohave County, Arizona.

On August 20, 2007, the Commission's Utilities Division ("Staff") filed an Insufficiency Letter in this docket.

On August 27, 2007, Applicant filed its Response to Staff's Insufficiency Letter.

On September 6, 2007, Staff filed a Sufficiency Letter in this docket indicating DDU's application had met the sufficiency requirements as outlined in the Arizona Administrative Code ("A.A.C.").

On September 11, 2007, by Procedural Order, the matter was set for hearing and Staff was directed to file its Staff Report in this matter on or before October 2, 2007.

On September 18, 2007, Staff filed a Motion to Extend Deadline to prepare the Staff Report in this matter. Staff requested an extension of its deadline to file its Staff Report until November 2, 2007. Staff also requested that the other procedural deadlines established in this matter be reset.

On September 20, 2007, Applicant filed a Response to Staff's Motion to Extend stating Applicant did not object to an extension of time for Staff to file its Staff Report until November 2, 2007.

Staff's Motion for an extension of time to file its Staff Report is reasonable and Staff's request that the other procedural deadlines be reset should be granted.

Pursuant to A.A.C. R14-3-101, the Commission now issues this Amended Procedural Order to govern the preparation and conduct of this proceeding.

IT IS THEREFORE ORDERED that the **hearing** in the above-captioned matter **shall be reset to commence on December 3, 2007 at 1:30 p.m.**, or as soon thereafter as is practical, at the Commission's offices, 1200 West Washington Street, Phoenix, Arizona 85007.

IT IS FURTHER ORDERED that **intervention** shall be in accordance with A.A.C. R14-3-105, except that all Motions to Intervene must be filed on or before **November 16, 2007.**

IT IS FURTHER ORDERED that **objections to any Motions to Intervene** must be filed no later than **November 23, 2007.**

IT IS FURTHER ORDERED that DDU shall provide public notice of the hearing in this matter, in the following form and style, with the heading no less than 10 point bold type and the body no less than 10 point regular type:

PUBLIC NOTICE OF THE HEARING ON THE APPLICATION OF DOUBLE DIAMOND UTILITIES, INC. FOR A CERTIFICATE OF CONVENIENCE AND NECESSITY TO PROVIDE WATER SERVICE AND WASTEWATER SERVICE IN MOHAVE COUNTY. (Docket No. WS-20543A-07-0435)

On July 23, 2007, Double Diamond Utilities, Inc. ("DDU" 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 water and wastewater service for a master planned community known as The Ranch at White Hills in Mohave County, Arizona. The Commission's Utilities Division ("Staff") has not yet made a recommendation regarding DDU's application, and the Commission is not bound by the proposals made by DDU, Staff, or any intervenors. The Commission will issue a decision regarding DDU's application following consideration of testimony and evidence presented at an evidentiary hearing. Copies of the application are available at DDU's offices **[insert address]** 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 **December 3, 2007, at 1:30 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-020543A-07-0435 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.); and
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 **November 16, 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 person or entity from appearing at the hearing and making a statement on their own behalf.

If you have any questions about this application, you may contact DDU at [**insert telephone number**]. 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 1-800-222-7000.

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.

IT IS FURTHER ORDERED that the Applicant shall **mail to each property owner or property owner representative** in the requested extension area a copy of the above notice and shall cause the above notice to be published in a newspaper of general circulation in its service territory, with publication and mailing to be completed no later than **October 15, 2007.**

IT IS FURTHER ORDERED that the Applicant shall **file certification of mailing and publication** as soon as practicable after the mailing/publication has been completed, but not later than **October 25, 2007.**

...

IT IS FURTHER ORDERED that notice shall be deemed complete upon mailing and publication of same, notwithstanding the failure of an individual property owner to read or receive the notice.

IT IS FURTHER ORDERED that Staff shall file a **Staff Report on or before November 2, 2007.**

IT IS FURTHER ORDERED that any **objections to the Staff Report shall be filed on or before November 16, 2007.**

IT IS FURTHER ORDERED that the time clock in this matter is extended accordingly.

IT IS FURTHER ORDERED that the Ex Parte Rule (A.A.C. R14-3-113-Unauthorized Communications) continues to apply to this proceeding as the matter is set for public hearing.

IT IS FURTHER ORDERED that all parties must comply with Rule 33(c) and 38(a) of the Rules of the Arizona Supreme Court with respect to practice of law and admission *pro hac vice*.

IT IS FURTHER ORDERED that withdrawal of representation must be made in compliance with A.A.C. R14-3-104(E) and Rule 1.16 of the Rules of Professional Conduct (under Rule 42 of the Rules of Arizona Supreme Court). Representation before the Commission includes the obligation to appear at all hearings and procedural conferences, as well as all Open Meetings for which the matter is scheduled for discussion, unless counsel has previously been granted permission to withdraw by the Administrative Law Judge or the Commission.

IT IS FURTHER ORDERED that the Administrative Law Judge may rescind, alter, amend, or waive any portion of this Procedural Order either by subsequent Procedural Order or by ruling at hearing.

Dated this 1st day of October, 2007.

YVETTE B. KINSEY
ADMINISTRATIVE LAW JUDGE

...

DOCKET NO. WS-20543A-07-0435

Copies of the foregoing mailed/delivered
this 1st day of October, 2007 to:

Michael W. Patten
ROSHKA, DEWULF & PATTEN PLC
One Arizona Center
400 E. Van Buren, Suite 800
Phoenix, AZ 85004
Attorney for Double Diamond Utilities, Inc.

Christopher Kempley, Chief Counsel
Legal Division
ARIZONA CORPORATION COMMISSION
1200 West Washington Street
Phoenix, AZ 85007

Ernest G. Johnson, Director
Utilities Division
ARIZONA CORPORATION COMMISSION
1200 West Washington
Phoenix, AZ 85007

ARIZONA REPORTING SERVICE, INC.
2200 N. Central Ave., Suite 502
Phoenix, Arizona 85004

By: _____
Debra Broyles
Secretary to Yvette B. Kinsey

EXHIBIT
A-7
Admitted

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 DOUBLE DIAMOND UTILITIES, INC. FOR A CERTIFICATE OF CONVENIENCE AND NECESSITY TO PROVIDE WATER SERVICE AND WASTEWATER SERVICE	Docket No. WS-20543A-07-0435

COMMENTS ON STAFF REPORT

Double Diamond Utilities, Inc. ("Double Diamond") submits its Comments on the Staff Report filed in this docket on November 2, 2007. Double Diamond appreciates Staff's thorough report and generally agrees with the recommendations set forth in the Staff Report. However, Double Diamond has two particular comments on the Staff Report, as set forth below.

1. The Staff recommends (at Recommendation No. 16) that Double Diamond be required to retain a certified operator and file notification of that entity's name and qualifications by December 31, 2008. Double Diamond requests that the compliance date for that recommendation be extended to "two years after the effective date of this order" rather than December 31, 2008. The necessary qualifications for the operator will be dictated in part by the final design of the wastewater treatment plant. Given that certain other recommendations related to the design of the wastewater plant have compliance dates of "two years after the effective date of this order," a parallel compliance date for retaining an operator would allow Double Diamond necessary flexibility in retaining the proper operator. Moreover, given the compliance dates related to wastewater plant design, the wastewater plant may not be in operation until well after December 31, 2008. From a practical perspective, it may be difficult to agree to contract terms for

an operator too far in advance of the commencement of operation. Moving the compliance date for identifying an operator to "two years after the effective date of this order" would ameliorate this potential issue.

2. Staff has proposed a different rate design for Double Diamond's water rates than had been proposed in the Application. However, the middle tier of the commodity rate for both 5/8" x 3/4" meters and for 3/4" meters covers a very narrow range of 4000-6000 gallons. This narrow range limits the conservation effect of the inverted block structure, particularly given that the average usage assumption is 7800 gallons per month. Double Diamond proposes that the following change be made to the rate design for both 5/8" x 3/4" meters and 3/4" meters:

Monthly Service Charge	No change
0 to 4000 gallons	$4.00 per 1000 gals.
4001 to 8000 gallons	$5.00 per 1000 gals.
8001 and above gallons	$6.00 per 1000 gals.

Double Diamond believes that this modified rate design would increase conservation and would result in revenues that are within $4000 of Staff's revenue requirement for the fifth year of operation.

WHEREFORE, Double Diamond requests that its two proposed modifications to the Staff Report be adopted.

RESPECTFULLY submitted this 16th day of November, 2007.

ROSHKA DEWULF & PATTEN, PLC

By _____

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Original and 13 copies of the foregoing filed this 16th day of November 2007, with:

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Copy of the foregoing hand-delivered/mailed this 16th day of November 2007 to:

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By Mary Ippolito

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EXHIBIT

S-1

MEMORANDUM

RECEIVED

2007 NOV -2 P 2: 52

AZ CORP COMMISSION
DOCKET CONTROL

TO: Docket Control Center

FROM: Ernest G. Johnson
Director
Utilities Division

Date: November 2, 2007

RE: STAFF REPORT FOR DOUBLE DIAMOND UTILITIES, INC. – APPLICATION FOR A CERTIFICATE OF CONVENIENCE AND NECESSITY FOR WATER SERVICE AND WASTEWATER SERVICE (DOCKET NO. WS-20543A-07-0435)

Attached is the Staff Report for Double Diamond Utilities, Inc.'s application for a Certificate of Convenience and Necessity for water and wastewater services. Staff is recommending approval with conditions.

EGJ:VW:lhm\KT

Originator: Vicki Wallace

RECEIVED

NOV 02 2007

LEGAL DIV.
ARIZ. CORPORATION COMMISSION

FILE COPY

Service List for: Double Diamond Utilities, Inc.
Docket Nos. WS-20543A-07-0435

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STAFF REPORT
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

DOUBLE DIAMOND UTILITIES, INC.

DOCKET NO. WS-20543A-07-0435

APPLICATION FOR CERTIFICATE OF
CONVENIENCE AND NECESSITY
FOR WATER AND WASTEWATER SERVICES

November 2007

STAFF ACKNOWLEDGMENT

The Staff Report for Double Diamond Utilities, Inc. (Docket No. WS-20543A-07-0453) was the responsibility of the Staff members signed below. Vicki Wallace prepared the Staff Report, Marlin Scott, Jr. prepared the Engineering Report, and Crystal Brown prepared the Financial and Regulatory Analysis Report.

Vicki Wallace
Chief of Consumer Service

Marlin Scott, Jr.
Utilities Engineer

Crystal Brown
Public Utilities Analyst V

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EXECUTIVE SUMMARY
DOUBLE DIAMOND UTILITIES, INC.
DOCKET NO. WS-20543A-07-0435

On July 23, 2007, Double Diamond Utilities, Inc. ("Double Diamond", "Applicant" or "Company") filed an application with the Arizona Corporation Commission ("ACC" or "Commission") for a Certificate of Convenience and Necessity ("CC&N") to provide water and wastewater services to a master-planned community in Mohave County, Arizona. The Company seeks approval to provide water and wastewater treatment service to the initial phase consisting of a one square-mile, or 640 acre, area of The Ranch at White Hills development north of Kingman, Mohave County, Arizona. The Ranch at White Hills will ultimately encompass approximately 25,167 acres of privately owned lands in and around the White Hills area of Mohave County, located approximately 40 miles northwest of Kingman, on the east side of U.S. Highway 93.

Staff concludes that the costs of the proposed water and wastewater systems are reasonable and that the systems will provide adequate capacity to serve the proposed CC&N area.

Based on water quality test results, the arsenic levels from the well sources for The Ranch at White Hills development have been reported at 1.6 parts per billion ("ppb") which is within the new arsenic standard.

The proposed CC&N is not located in an Active Management Area ("AMA") and as such will not be subject to any AMA reporting and conservation requirements.

For the water division, Staff's recommended rates are based on the divisions' five-year projections, as adjusted by Staff. Staff's recommended projected revenue of $1,681,402 would generate operating income of $554,305 resulting in an 8.00 percent rate of return on a Staff adjusted original cost rate base ("OCRB") of $6,928,816.

For the wastewater division, Staff's recommended rates are based on the divisions' five-year projections, as adjusted by Staff. Staff's recommended projected revenue of $2,454,480 would generate operating income of $878,006 resulting in an 8.00 percent rate of return on a Staff adjusted OCRB of $10,975,072.

The typical bill for a residential customer using an estimated average of 7,500 gallons under the Company's recommended rates would be $49.50. Under Staff's recommended rates, the typical bill would be $69.67.

The wastewater rates requested by the Company are a fixed flat monthly fee of $70.00. Staff's recommended flat monthly fee is $97.59.

STAFF RECOMMENDATIONS

Staff recommends the Commission approve the Double Diamond application for a CC&N for the initial phase consisting of a one square-mile, or 640 acre, area of The Ranch at White Hills development north of Kingman, Mohave County, Arizona, to provide water and wastewater services, subject to the following conditions:

1. That the Company obtain Staff's recommendation of having no more than 30 percent of AIAC and/or CIAC in its capital structure by the end of the fifth year of operation.

2. That the Commission finds that the fair value rate base of Double Diamond's property devoted to water service to be $6,928,816 and for wastewater service to be $10,975,072 for setting initial rates.

3. That Staff's recommended rates and charges as shown in Schedules CSB-W5 and CSB-WW5 in the Finance and Regulatory Analysis ("FRA") Report be approved. In addition to collection of its regular rates, Double Diamond may collect from its customers a proportionate share of any privilege, sales or use tax.

4. That Double Diamond be required to file with Docket Control, as a compliance item, a tariff consistent with the rates and charges authorized by the Commission within 30 days of the decision in this matter.

5. That Double Diamond file a rate case in its sixth year of operations, using the fifth year as the test year.

6. That Double Diamond be required to file notification with Docket Control, as a compliance item in this docket, within 15 days of providing service to its first customer.

7. That Double Diamond be required to maintain its books and records in accordance with the NARUC Uniform System of Accounts for Water and Wastewater Utilities.

8. That Double Diamond be required to adopt Staff's water and wastewater depreciation rates and to use these rates by individual NARUC category as delineated in Tables A and C, respectively, of Staff's Engineering Report.

9. That Double Diamond's charge for minimum deposit be as prescribed in A.A.C. R14-2-403(B)(7).

10. That Double Diamond be required to file with Docket Control, as a compliance item in this docket, copies of the water division's Approval to Construct ("ATC") for Phase 1 of the initial phase of The Ranch at White Hills project when received by the Company, but no later than two years after the effective date of the order granting the CC&N.

11. That Double Diamond be required to file with Docket Control, as a compliance item in this docket, a copy of the Arizona Department of Water Resources' ("ADWR") Letter of Adequate Water Supply for each individual subdivision in the requested area, when received by the Company, but no later than 30 days after issuance by ADWR.

12. That Double Diamond file with Docket Control, as a compliance item in this docket, copies of the General Permits for Phase 1 of the initial phase of the wastewater plant for The Ranch at White Hills when received by the Company, but not later than two years after the effective date of the order granting the application.

13. That Double Diamond be required to file with Docket Control, as a compliance item in this docket, a copy of the Aquifer Protection Permit ("APP") for the wastewater division within two years after the effective date of the order granting this application.

14. That Staff's service line and meter installation charges be approved as shown in Table B of the Engineering Report with separate installation charges for the service line and meter installations.

15. That Double Diamond be required to file with Docket Control, as a compliance item, for review and approval by the Director of the Utilities Division, a curtailment tariff within 45 days after the effective date of any decision and order pursuant to this application. The tariff shall generally conform to the sample tariff found posted on the Commission's web site (http://www.azcc.gov/divisions/utilities/water/forms.asp) or available upon request from Commission Staff.

16. That Double Diamond be required to file with Docket Control, as a compliance item, for review and approval by the Director of the Utilities Division, a backflow prevention tariff within 45 days of the decision in this matter. The tariff shall generally conform to the sample tariff found posted on the Commission's web site (http://www.azcc.gov/divisions/utilities/water/forms.asp) or available upon request from Commission Staff.

17. That the Company be required to retain a certified operator and file notification of that entity's name and qualifications, as a compliance item in this docket, by December 31, 2008.

18. That Double Diamond be required to obtain a performance bond or irrevocable letter of credit of $250,000 by December 31, 2008 and file evidence of such bond or irrevocable letter of credit in Docket Control as a compliance item in this docket.

Staff further recommends that the Commission's Decision granting the requested CC&N to Double Diamond be considered null and void should Double Diamond fail to meet Conditions Nos. 10, 11, 12, 13, 15, 16, 17, and 18 listed above within the timeframe specified.

Introduction

On July 23, 2007, Double Diamond Utilities, Inc. ("Double Diamond", "Applicant" or "Company") filed an application with the Arizona Corporation Commission ("ACC" or "Commission") for a Certificate of Convenience and Necessity ("CC&N") to provide water and wastewater services to a master-planned community in Mohave County, Arizona. The Company seeks approval to provide water and wastewater treatment service to the initial phase consisting of a one square-mile or 640 acre area of The Ranch at White Hills development northwest of Kingman, Mohave County, Arizona.

On August 20, 2007, the ACC Utilities Division ("Staff") filed an Insufficiency Letter indicating that the Company's application did not meet the sufficiency requirements of Arizona Administrative Code ("A.A.C.") R14-2-402. A copy of the Insufficiency Letter was sent to the Company via U. S. certified mail. In that letter, Staff listed the deficiencies to be cured for administrative purposes.

On August 27, 2007, the Company filed its response to Staff's Insufficiency Letter and provided additional documentation to support its application. On September 6, 2007, Staff filed a Sufficiency Letter indicating that the application had met the sufficiency requirements of A.A.C.

On September 5, 2007, Staff issued its First Set of Data Requests to the Company, and Staff's Second Set of Data Requests was issued to the Company on September 24, 2007.

The Company's responses to the First and Second Set of Data Requests were provided to Staff on October 4, and October 12, 2007.

On September 11, 2007, the Procedural Order was issued setting the matter for hearing. The Procedural Order was subsequently amended on October 1, 2007.

Background

Double Diamond is a an Arizona corporation in good standing with the Commission's Corporations Division formed to provide water and wastewater services to all of the residences and businesses at The Ranch at White Hills development north of Kingman, Mohave County, Arizona. The Ranch at White Hills will ultimately encompass approximately 25,167 acres of privately owned lands in and around the White Hills area of Mohave County, located approximately 40 miles northwest of Kingman, on the east side of U.S. Highway 93.

Double Diamond seeks a CC&N to provide water and wastewater services to the initial phase of The Ranch at While Hills. The initial phase covers one section of land (640 acres), with current site plans for approximately 1,800 single family units, 700 multi-family units, a school site (approximately 20 acres), approximately 80 acres of commercial development and two community parks. The Company is projecting to serve no customers in the first year and 2,000

customers by the end of the fifth year. The first homes in the initial phase of the development are planned to be completed and require water and wastewater service in the first quarter of 2009. According to the Applicant, the initial phase of the development is located within a single groundwater basin and will be served by integrated water, wastewater and reclaimed water facilities.

Double Diamond retained Stantec Engineering to design the backbone water production and distribution facilities and the backbone wastewater collection and treatment facilities, and the reclaimed water mains for the development. The Company maintains that Stantec is a national engineering and consulting firm that provides professional design and consulting services in planning, engineering, architecture, surveying, economics, and project management, including water and wastewater projects.

Double Diamond is requesting to serve Section 31 of Township 28 North, Range 19 West. Exhibit 1 is the legal description and map of the proposed service area.

Request for Service

The request for water and wastewater service from Arizona Acreage, LLC, who is the owner of record of the section of land that is covered by the requested CC&N, is provided as Exhibit 2. Leonard and Susan Mardian, through their holding companies described later in this Report, own the land that comprises The Ranch at White Hills. The Mardian's indicate that they have owned property for The Ranch at White Hills development for over six years and have been in the process of planning the development for over five years. Currently, there are no certificated water and wastewater providers contiguous to The Ranch at White Hills.

Overview of The Ranch at White Hills

As the developers of The Ranch at White Hills and the owners of Double Diamond, Leonard and Susan Mardian maintain they are able to craft an environmentally conscientious community that focuses on water conservation and preservation of the natural beauty of the area. An area plan for The Ranch at White Hills setting forth the details of the development has been approved by Mohave County and was included as part of the Company's CC&N application. Double Diamond has also been issued franchises by Mohave County for both water and wastewater service. At build out, The Ranch at White Hills development is planned for 20,500 single family units and 4,500 multi-family units, as well as schools, public facility sites, open space areas and commercial development.

It is also planned that the community park areas and common landscape areas will be designed to minimize water consumption and eventually, after there are sufficient residents in the area, will utilize reclaimed water from the community wastewater treatment facilities for irrigation and watering purposes. As part of the utility infrastructure, reclaimed water mains are planned to extend along segments of the roadway to ensure that reclaimed water will be available for irrigation of parks and common landscaping.

The Proposed Water System

Staff's Engineering Report which is attached as Exhibit 3 describes the proposed water and wastewater plant. For this one square-mile area, the Company is proposing to construct five wells (totaling 890 gallons per minute ("GPM")), 1.5 million gallons of storage, booster systems and approximately 112,000 lineal feet of transmission and distribution mains at a total projected cost of $11.26 million.

Cost Analysis

The Company submitted an estimated total water plant-in-service spreadsheet for the first five years by the National Association of Regulatory Utility Commissioners ("NARUC") plant account:

Year 1:	$3,064,890
Year 2:	$4,562,490
Year 3:	$7,177,050
Year 4:	$9,814,770
Year 5:	$11,255,140

Staff has reviewed the proposed total water plant-in-service along with the Company's engineering reports and found the plant facilities and cost to be reasonable and appropriate. However, approval of this CC&N application does not imply any particular future treatment for determining the rate base. No "used and useful" determination of the proposed water plant-in-service was made, and no conclusions should be inferred for rate making or rate base purposes in the future.

The Proposed Wastewater System

Staff's Engineering Report describes that for the one square-mile area, the Company will be phasing in its wastewater treatment facility ("WWTF") by constructing an initial phase of 0.3 million gallon per day ("MGD") and phasing in facilities up to 1.5 MGD by the end of the fifth year. The 1.5 MGD WWTF and approximately 98,600 lineal feet of collection system have a total projected cost of $17.73 million.

A reclaimed water system is also being proposed that will consist of pump station/storage sites and approximately 25,000 lineal feet of force mains at an estimated cost of $2.6 million for irrigational use on roadway landscaping, schools, parks and entrance features.

Cost Analysis

The Company submitted an estimated total wastewater plant-in-service spreadsheet for the first five years by the NARUC plant account:

Year 1:	$5,881,300
Year 2:	$8,076,580
Year 3:	$14,586,260
Year 4:	$16,085,100
Year 5:	$17,733,940

Staff has reviewed the proposed total wastewater plant-in-service along with the Company's engineering reports and found the plant facilities and cost to be reasonable and appropriate. However, approval of this CC&N 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") Compliance - Water

Approval to Construct

The Company has not received its ADEQ Certificate of Approval to Construct ("ATC") for construction of the facilities. Staff recommends that the Company file with Docket Control, as a compliance item in this docket, copies of the ATC for the initial phase of Phase 1 of The Ranch at White Hills development when received by the Company, but no later than two years after the effective date of the order granting the CC&N.

Arsenic

The U.S. Environmental Protection Agency has reduced the arsenic maximum contaminant level ("MCL") in drinking water from 50 parts per billion ("ppb") to 10 ppb. The date for compliance with the new MCL was January 23, 2006.

Based on water quality test results, the arsenic levels from the well sources for The Ranch at White Hills development have been reported at 1.6 ppb which is within the new arsenic standard.

Arizona Department of Environmental Quality Compliance - Wastewater

General Permit

The Company has not received its ADEQ General Permit for construction of the wastewater facilities. Staff recommends that the Company file with Docket Control, as a compliance item in this docket, copies of the General Permit for the initial phase of Phase 1 of The Ranch at White Hills development when received by the Company, but no later than two years after the effective date of the order granting the CC&N.

Aquifer Protection Permit

Since an Aquifer Protection Permit ("APP") represents fundamental authority for the designation of a wastewater service area and a wastewater provider, Staff recommends that the Company file with Docket Control, as a compliance item in this docket, a copy of the APP within two years after the effective date of the order granting the CC&N.

Arizona Department of Water Resources ("ADWR") Compliance - Water

Compliance Status

There is no ADWR compliance status to report at this time. The proposed CC&N is not located in an Active Management Area ("AMA") and as such will not be subject to any AMA reporting and conservation requirements.

Analysis of Adequate Water Supply

On April 11, 2006, ADWR issued an Analysis of Adequate Water Supply letter finding that 7,573 acre-feet per year of groundwater and 2,734 acre-feet per year of treated effluent projected at build-out will be physically available for The Ranch at White Hills. This combined 10,307 acre-feet is more than the Company's projected build-out demands for the development of 7,976 acre-feet per year for approximately 25,000 dwelling units.

Staff recommends that the Company file with Docket Control, as a compliance item in this docket, a copy of the ADWR Water Adequacy Report (Letter of Adequate Water Supply) for each individual subdivision in the requested area, when received by the Company, but no later than 30 days after issuance from ADWR.

Aquifer Study

Staff contacted the United States Geological Survey ("USGS"), Arizona Geological Survey and ADWR requesting if any groundwater aquifer studies have been conducted for Mohave County. All three indicated no studies were conducted. However, ADWR and USGS have initiated studies in the northern Mohave County area and the final report is expected to be completed within three years.

Water Depreciation Rates

The Company has adopted Staff's typical and customary Water Depreciation Rates. These rates are presented in Table A and it is recommended that the Company use these depreciation rates by individual NARUC category as delineated in Table A attached to Staff's Engineering Report .

Wastewater Depreciation Rates

The Company has submitted depreciation rates similar to Staff's typical and customary Wastewater Depreciation Rates. After further review of the Company's proposed rates, Staff recommends that the Company adopt Staff's wastewater depreciation rates and use these rates by individual NARUC category as delineated in Table C attached to Staff's Engineering Report.

Wastewater Capacity Hook-Up Fee

The Company has proposed to implement a Capacity Hook-up Fee of $1,500 per service lateral for its wastewater division. Because a new wastewater CC&N is being established, Staff recommends that the Company's request to implement a Capacity Hook-Up Fee for its wastewater division be denied.

Rate Base and Rate of Return Summary - Water and Wastewater

Attached as Exhibit 4 is the Finance and Regulatory Analysis ("FRA") Report wherein the estimates of five year revenues, expenses, plant and financing are discussed. The Schedules in the Staff's FRA Report support the analysis and adjustments discussed below

For the water division, Staff's recommended rates are based on the divisions' five-year projections, as adjusted by Staff. Staff's recommended projected revenue of $1,681,402 would generate operating income of $554,305 resulting in an 8.00 percent rate of return on a Staff adjusted original cost rate base ("OCRB") of $6,928,816.

For the wastewater division, Staff's recommended rates are based on the divisions' five-year projections, as adjusted by Staff. Staff's recommended projected revenue of $2,454,480 would generate operating income of $878,006 resulting in an 8.00 percent rate of return on a Staff adjusted OCRB of $10,975,072.

Projected Fair Value Rate Base ("FVRB") - Water and Wastewater

Consistent with Commission rules, the Company's filing included the required five-year projections for plant values, operating revenues, operating expenses, and number of customers for both the water and wastewater divisions. Projections and assumptions are necessary to establish a FVRB and initial rates because historical operating data does not exist. Since this is a new CC&N, Staff evaluated the projected OCRB as the FVRB.

Staff's recommended changes to the water division's capital structure reduced the water division's advances in aid of construction ("AIAC") while increasing the paid-in-capital.

Staff's recommended changes to the wastewater division's capital structure reduced the wastewater division's contributions in aid of construction ("CIAC") while increasing paid-in-capital. Since the reduction of CIAC also reduced the amortization of the CIAC, the

depreciation expense was increased resulting in an increase to property taxes and a decrease to income taxes. Further, the decrease in CIAC increased the wastewater division's rate base.

The Company provided schedules showing the elements of the projected OCRB. Staff evaluated the projected OCRB as the FVRB. Staff determined the FVRB for the water plant to be $6,928,816. Staff determined the FVRB for the wastewater plant to be $10,975,072.

Projected Plant in Service

The water and wastewater divisions' projected plant in service balances are shown by year. In the fifth year, the Company anticipates an $11,255,140 and a $17,733,940 plant in service balance for the water and wastewater divisions, respectively. For the water division, Staff reclassified $192,000 in plant identified as "booster stations and equipment" to the "pumping equipment" account. Staff made no changes to the total amount of projected plant in service for either division.

Accumulated Depreciation

The water division's projected accumulated depreciation balance is also shown by year. In the fifth year, the Company anticipates a $565,547 accumulated depreciation balance. Staff increased the fifth year accumulated depreciation by $488,970 from $565,547 to $1,014,517 to reflect Staff's calculation of accumulated depreciation using Staff's recommended depreciation rates. Staff's calculation also removes the Company's proposal to remove depreciation expense on plant purchased or constructed with AIAC as the proposed treatment was not consistent with the NARUC Uniform System of Accounts ("USOA").

The wastewater division's projected accumulated depreciation balance is shown by year. Staff increased the fifth year accumulated depreciation by $56,522 from $1,885,365 to $1,941,887 to reflect Staff's calculation of accumulated depreciation using Staff's recommended depreciation rates.

Projected Advances In Aid of Construction

The Company projects that the water division's net cumulative balance for advances obtained from developers will be $5,342,005 in year five. Additionally, the Company projects that the net cumulative balances for service line and meter advances obtained from customers will be $748,000 in year five, for a total AIAC balance of $6,090,005. Staff decreased AIAC by $2,829,198, from $6,090,005 to $3,260,807 to reflect Staff's recommendation that AIAC, on average, should be no more than 30 percent of capital structure as discussed in the "Capital Structure and Financial Soundness" section of this memorandum.

The Company made no projections of AIAC for the wastewater division.

Projected Contributions In Aid of Construction

The Company projects that the wastewater division will have the following treatment capacity (i.e., hook-up fee) balances for the first through the fifth year respectively: $3,660,000, $1,957,500, $4,005,000, $2,002,500, and $0. Staff recommends elimination of the Company proposed hook up fee as discussed in the "Rate Design" section of this Report. Staff's analysis focuses on the fifth year. Since the fifth year balance was $0, Staff made no adjustment to the hook-up fee balance.

The Company projects that the Net Other Contributions (i.e., contributions excluding hook-up fees) will be $8,275,231 in year five. Staff decreased CIAC by $3,528,250, from $8,275,231 to $4,746,981 to reflect Staff's recommendation that CIAC, on average, should be no more than 30 percent of capital structure as discussed in the "Capital Structure and Financial Soundness" section of this Report.

The Company made no projections of CIAC for the water division.

Projected Operating Income

The Company provided projected revenues and expenses for five years. Staff's analysis, while taking into account all of the years presented, is concentrated on the fifth year of operation when profitability is expected.

Projected Operating Revenues, Water Division

For the water division, Staff recommends total operating revenue of $1,681,402, an increase of $439,580, or 35.40 percent above the Company's projected fifth year revenue of $1,089,572. Staff's recommended revenue provides operating income of $554,305 for an 8.00 percent rate of return on a projected OCRB of $6,928,816.

Staff's revenue requirement increase is primarily driven by Staff's recommended increase to depreciation expense. Staff's depreciation expense calculation does not recognize the Company's proposal to remove depreciation expense on plant purchased or constructed with AIAC as this treatment is not consistent with the NARUC USOA.

Staff annualized revenues to reflect the 2,000 customers projected at the end of the fifth year. The annualization added $152,250.

Projected Operating Revenues, Wastewater Division

For the wastewater division, Staff recommends total operating revenue of $2,454,480, an increase of $662,177, or 36.95 percent above the Staff adjusted fifth year revenue of $1,792,303. Staff's recommended revenue provides operating income of $878,006 for an 8.00 percent rate of return on a projected OCRB of $10,975,072.

Staff's revenue requirement increase is primarily driven by Staff's recommended rate of return. The Company proposed a 4.29 percent rate of return, Staff recommended an 8.00 percent rate of return. Staff's recommended rate of return is fair and reasonable and will help to mitigate steep increases in rates due to artificially low initial rates.

Staff annualized revenues to reflect the 2,000 customers projected at the end of the fifth year. The annualization added $213,750.

Staff added $101,053 to the wastewater division's revenue to reflect effluent sales. Page 4.2 of the Stantec report[1], shows that the anticipated total daily demand in the fifth year for effluent is 92,286 gpd. Staff calculated the annual gallons by multiplying the daily amount by 365 days per year and dividing by 1,000 gallons. The resulting number was multiplied by the Company's proposed $3.00 rate for effluent (which Staff notes is lower than Staff's first tier of the potable water rate, $4.23).

Projected Operating Expenses, Water Division

For the water division, Staff added $8,310 to annualize purchased pumping power expense. Staff noted that the Company's customer count increase of 500 customers from the fourth year to the fifth year was accompanied by a $16,619 increase in purchased pumping power (from $51,340 to $67,959) over the same period. Since Staff added half of the 500 customers (i.e. 250), Staff added a corresponding half of the $16,619 (i.e. $8,310) to the fifth year purchased pumping power expense.

Further, Staff added $6,000 to the outside services, billing and customer services expense. Staff calculated the amount as follows: $2 monthly meter reading and billing rate x 250 additional customers x 12 months = $6,000.

For the water division, Staff increased depreciation expense by $193,898, from $197,083 to $390,981 to remove the Company's adjustment to reduce depreciation expense on AIAC plant. The Company's adjustment is not consistent with the NARUC USOA recognized ratemaking treatment. Also, Staff's calculation provides a full year of depreciation expense on all plant projected to be in service at the end of the fifth year. The changes to depreciation expense increased property taxes by $13,867, from $29,418 to $43,285 and decreased income taxes by $26,951 from $207,705 to $180,754.

Projected Operating Expenses, Wastewater Division

For the wastewater division, Staff added $7,250 to annualize purchased pumping power expense. Staff noted that the Company's customer count increase of 500 customers from the fourth year to the fifth year was accompanied by a $14,500 increase in purchased pumping

[1] The report is entitled "Section 31 of the Ranch at White Hills CC&N Technical Support Water Wastewater, and Reclaimed Water"

power (from $53,350 to $67,850) over the same period. Since Staff added half of the 500 customers (i.e. 250), Staff added a corresponding half of the $14,500 (i.e. $7,250) to the fifth year purchased pumping power expense.

Further, Staff added $3,000 to the outside services, billing and customer services expense. Staff calculated the amount as follows: $1 monthly meter reading and billing rate x 250 additional customers x 12 months = $3,000.

Staff increased depreciation expense by $55,518 from $398,027 to $453,545 to reflect Staff's recommended depreciation rates, to provide a full year of depreciation expense on all plant projected to be in service at the end of the fifth year, and to reduce the amount of amortization of CIAC as a result of Staff's recommendation to reduce CIAC balance to no more than 30 percent of capital structure. The changes to depreciation expense increased property taxes by $22,579, from $39,893 to $62,472 and increased income taxes by $87,409 from $211,913 to $299,322.

Capital Structure and Financial Soundness - Water and Wastewater

Undercapitalized investor owned utilities may result in rate bases that are too small to generate enough revenue to pay for operating expenses and fund capital improvements without steep increases in customer rates. Consequently, Staff has determined that a financially sound utility company, on average, should have no more than 30 percent AIAC and/or CIAC in its capital structure.

For Double Diamond, developer provided capital (advances and contributions) for the water and wastewater operations is estimated to comprise 56.03 percent and 52.30 percent, respectively, of each division's capital structure. Due to the discussion and determination above, Staff recommends 30.00 percent AIAC/CIAC and 70.00 percent equity structure for each of the water and wastewater division by the end of the fifth year of operation. Staff also recommends denial of the requested hook-up fee by the Company consistent with Staff's normal practice for new CC&N's and the above capital structure discussion.

Rate Design

A complete list of the Company's proposed, and Staff's recommended rates and charges are reflected in schedules attached to Staff's FRA Report . The water and wastewater division's projected revenue is derived primarily from the residential customer class.

To promote efficient use of water, Staff has recommended an inverted three-tiered rate structure for the commodity charges. The water division has submitted a three-tier design. Staff removed the first tier for all meter sizes except the ¾-inch (residential) class and increased the commodity rates in order to generate Staff's recommended revenue.

Staff added a 5/8-inch x ¾-inch meter to provide the Company with the ability to serve customers who may request that meter size. The Company anticipates that residential customers will compose the majority of its total customers. The Company proposes a ¾-inch meter for the residential class and is designing and building its water system to meet the water usage demands for those customers. The water usage demand costs for a ¾-inch meter are higher than those of a 5/8-inch x ¾-inch meter. Therefore, to ensure that the Company recovers the costs associated with designing and building its system to meet the demands of its largest customer class (i.e., the ¾-inch meter residential customer), Staff set the 5/8-inch x ¾-inch meter rate the same as that of the ¾-inch meter.

Additionally, Staff's monthly customer charge recommendations utilize the NARUC recommended multipliers to establish the monthly customer charges for each meter size.

The Company proposed to add a construction water rate of $5.00 per 1,000 gallons. Staff recommends a $6.50 rate which is consistent with Staff's third tier range.

The typical bill for a residential customer using an estimated average of 7,500 gallons under the Company's recommended rates would be $49.50. Under Staff's recommended rates, the typical bill would be increased to $69.67.

The wastewater rates requested by the wastewater division are a fixed flat monthly fee of $70.00. Staff increased the flat monthly fee to $97.59 in order to generate Staff's recommended revenue requirement.

Service Charges

Service Line and Meter Installation Charges

The Company's proposed service line and meter installation charges are somewhat similar to Staff's customary range of charges. As a result, Staff will recommend its lower end of its customary range of charges. Since the Company may at times install meters on existing service lines, it would be appropriate for some customers to only be charged for the meter installation. Therefore, Staff recommends approval of its charges as shown in Table B of Staff's Engineering Report, with separate installation charges for service line and meter installations.

Service Charges

Staff reviewed the Company's proposed service charges and recommends adoption.

Curtailment Tariff

A curtailment tariff is an effective tool to allow a water company to manage its resources during periods of water shortages. The Company did not include a curtailment tariff in its application. Staff recommends that the Company file a curtailment no later than forty-five (45)

days after the effective date of the final Decision and Order in this matter. The tariff shall be filed with Docket Control as a compliance item under this same docket number for Staff's review and certification.

Staff further recommends that the tariff generally conform to the sample tariff found on the Commission's web site at http://www.azcc.gov/divisions/utilities/water/forms.asp. Staff recognizes that the Company may need to make minor modifications according to their specific management, operational, and design requirements as necessary and appropriate.

Ownership and Management Capability

Leonard and Susan Mardian (husband and wife) are the sole shareholders of Double Diamond. The applicant asserts that Mr. Mardian has been involved in the development business for 50 years and that the combined holdings, assets and development experience of the applicant's ownership were sufficient to meet the short- and long-term obligations of the Applicant to serve The Ranch at White Hills development. The Applicant also indicates that the Mardian's have substantial financial resources to support the Applicant; have the ability to obtain financing for construction and operations; and have real estate holdings of over 45,000 acres of land in Mohave County. In response to Staff's inquiry regarding such holdings, the Applicant advised that the Mardian's owned 14 Nevada corporations and limited liability corporations that had real property in Arizona and were engaged in land investment and development, three of which are involved in The Ranch at White Hills development. These include Arizona Acreage, LLC, which is the entity that owns the 640 acre section that is the subject of this CC&N application; and Big Ranch, Inc. and Gold Basin, Inc., each of which own 50 percent of Arizona Acreage, LLC . Big Ranch, Inc. and Gold Basin, Inc. are owned by Leonard Mardian (45 percent), Susan Mardian (45 percent), and Lori Mardian (10 percent).

The Applicant also indicates that the Mardian's own additional successful development projects in Nevada including a Holiday Inn Express in Las Vegas; the Milano Residences, a 100 unit condominium building in Las Vegas; the Blackjack Lodge Restaurant and Tavern; Hurrican Tavern; and two Storage One Self Storage facilities. The Mardian's also have extensive real estate holdings in Nevada, including an executive commercial office building in Las Vegas.

The current Officers of the Applicant are: Leonard Mardian, President; Susan Mardian, Vice President, Secretary and Treasurer; and Kathy Tackett-Hicks, Vice President, Operations. The current Directors of the Applicant are Leonard Mardian and Susan Mardian. In response to Staff's data request regarding resumes of Double Diamond's owners, the "Resume of Leonard and Susan Mardian" is provided as Exhibit 5.

The Applicant indicates that the above-referenced management team has extensive development projects in Nevada and California, including a Wal-Mart and Sam's Club, commercial shopping centers, hotels, restaurants, several self storage facilities and apartment complexes. In connection with these developments, the Mardian's state they have overseen the design and construction of offsite and onsite utility lines, extensions and connections.

Additionally, the Company maintains that as a long-time resident of Mohave County, Ms. Tackett-Hicks: (1) has extensive and substantial experience in developing, permitting, financing and constructing projects; and (2) has specialized in delivering highly complex land development services for utility regulatory compliance, land planning, strategies and construction management services for the past ten years.

In response to Staff's data request involving whether the Applicant and/or any of its respective affiliated/associated entities had been accused of or convicted of violating local, State, or Federal laws, rules, regulations, etc., the Applicant indicated that there was a single instance, whereby affiliated entities of Double Diamond Utilities, Inc. had worked with and successfully resolved issues with the Arizona Department of Real Estate. The Applicant provided the fully approved/authorized consent decree addressing and resolving all the outstanding issues. The affiliated entities identified in the consent decree included Gateway Lots, LLC and Flannery & Allen, LLC., and both are Nevada limited liability companies that are in Good Standing with the Corporations Division of the ACC. The violations referenced in the Consent Order involved offering, selling, or transferring lots without notifying the Department of Real Estate of the intention to offer or sell lots and without a public report. The Applicant's response to Staff's data request, including the Consent Order is attached as Exhibit 6. Staff has talked to Department of Real Estate Staff, and there have been no further violations relating to or involving Double Diamond or its affiliates.

While Staff was conducting its research on the Applicant and its owners, Staff located a newspaper article published by the Las Vegas Sun on September 22, 2006, that questioned financial links between former Clark County Commissioner Lynette Boggs- McDonald and developer Susan Mardian relating to a personal property loan and failure of Commissioner Boggs-McDonald to report such and the Commissioner's voting record on zoning issues involving Susan Mardian. Lynette Boggs-McDonald was later formally charged with four felonies in a Grand Jury Indictment filed in Las Vegas Justice Court on August 29, 2007. The charges were unrelated to the issues discussed in the above-referenced article. During its research, Staff did not find any past or pending litigation against either Leonard or Susan Mardian associated with the actions questioned in the newspaper article.

In response to Staff's inquiry regarding any mechanics, tax, or other liens against officers and/or directors of Double Diamond and affiliated/associated entities, the owners of Double Diamond revealed that some of their Nevada properties had liens filed against them, many of which had been released and some of which were disputed. From Staff's review of the information provided, most of the liens appeared to be associated with subcontractors' work on hotels and condominiums wherein there were disagreements between the Double Diamond owners and the subcontractor as to fulfillment of work obligations. There were three Government liens, one tax lien from the State of Arizona and two liens from the Internal Revenue Service ("IRS"). The IRS liens were released according to the Applicant and therefore completely satisfied by Mr. Mardian. The State of Arizona tax lien has been paid by Mr. Mardian, and a Notice to Release Lien was issued by the State. Staff's research did not reveal

any liens against the Mardian's at the State or Federal level. The Applicant's response to Staff's data request including copies of liens and releases are attached as Exhibit 7.

Technical Capability to Provide Requests Services

As indicated in the Introduction Section, Double Diamond retained Stantec Engineering to design the backbone water production and distribution facilities and the backbone wastewater collection and treatment facilities, and the reclaimed water mains for the development. In response to Staff's data request regarding the operation of Double Diamond, the Company advised that it is planning to have an employee or employees of the Company to only provide general administration services and oversight of the third party contractors. The Company intends to use outside, unaffiliated third parties for day-to-day utility management and operations (including engineering, billing, customer assistance, meter reading, repairs and maintenance), tax administration, legal and accounting. The Company has not yet contracted with any specific third parties to provide these services. Staff recommends that the Company be required to retain a certified operator and file notification of that entity's name and qualifications, as a compliance item in this Docket, by December 31, 2008.

Financial Capability to Provide Requested Services

The Company provided an unaudited balance sheet for the period ended June 30, 2007, in its application. This financial statement listed assets of approximately $900,000 and equity of approximately $900,000. The Company's application states that the owners have constructed commercial shopping centers, hotels, restaurants, storage facilities and numerous retail development construction projects, including Wal-Mart and Sam's Club. It also indicates that the owners have extensive personal holdings and are involved in the hospitality industry. The owners are not delinquent on taxes for the years ended 2004 and 2005. Based upon review of this information, Staff has determined that the Company has adequate income which includes substantial capital gains, therefore, Staff has concluded that the Company has adequate financial capability to provide the requested services.

Performance Bond

Due to the fact that Double Diamond has no prior experience in operating a public utility, a performance bond or irrevocable letter of credit in the amount of $250,000 is being recommended by Staff. It is further recommended that the performance bond or irrevocable letter of credit be obtained by December 31, 2008, and that evidence of such be filed in Docket Control as a compliance item in this docket. This is consistent with the amount of the performance bond approved in the Woodruff Water and Wastewater CC&N (Docket Nos. W-04264A-04-0438, et al) wherein the applicant had no previous utility experience and had a long track record of investing and developing real estate.

Conclusions and Recommendations

Staff Conclusions

Staff concludes that approving Double Diamond's application for a CC&N to provide water and sewer service is in the public interest.

Staff concludes that the Company's proposed water system will have adequate infrastructure to serve the requested area.

Staff concludes that the proposed water plant facilities and cost 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.

Based on water quality test results, the arsenic levels from the well sources for The Ranch at White Hills development have been reported at 1.6 ppb which is within the new arsenic standard.

The proposed CC&N is not located in an Active Management Area ("AMA") and as such will not be subject to any AMA reporting and conservation requirements.

Staff Recommendations

Staff recommends the Commission approve the Double Diamond application for a CC&N for the initial phase consisting of a one square-mile, or 640 acre, area of the Ranch at White Hills development north of Kingman, Mohave County, Arizona, to provide water and wastewater service, subject to the following conditions:

1. That the Company obtain Staff's recommendation of having no more than 30 percent of AIAC and/or CIAC in its capital structure by the end of the fifth year of operation.

2. That the Commission finds that the fair value rate base of Double Diamond's property devoted to water service to be $6,928,816 and for wastewater service to be $10,975,072 for setting initial rates.

3. That Staff's recommended rates and charges as shown in Schedules CSB-W5 and CSB-WW5 in the Finance and Regulatory Analysis ("FRA") Report be approved. In addition to collection of its regular rates, Double Diamond may collect from its customers a proportionate share of any privilege, sales or use tax.
4. That Double Diamond be required to file with Docket Control, as a compliance item, a tariff consistent with the rates and charges authorized by the Commission within 30 days of the decision in this matter.

5. That Double Diamond file a rate case in its sixth year of operations, using the fifth year as the test year.

6. That Double Diamond be required to file notification with Docket Control, as a compliance item in this docket, within 15 days of providing service to its first customer.

7. That Double Diamond be required to maintain its books and records in accordance with the NARUC Uniform System of Accounts for Water and Wastewater Utilities.

8. That Double Diamond be required to adopt Staff's water and wastewater depreciation rates and to use these rates by individual NARUC category as delineated in Tables A and C, respectively, of Staff's Engineering Report.

9. That Double Diamond's charge for minimum deposit be as prescribed in A.A.C. R14-2-403(B)(7).

10. That Double Diamond be required to file with Docket Control, as a compliance item in this docket, copies of the water division's Approval to Construct ("ATC") for Phase 1 of the initial phase of The Ranch at White Hills project when received by the Company, but no later than two years after the effective date of the order granting the CC&N.

11. That Double Diamond be required to file with Docket Control, as a compliance item in this docket, a copy of the Arizona Department of Water Resources' ("ADWR") Letter of Adequate Water Supply for each individual subdivision in the requested area, when received by the Company, but no later than 30 days after issuance by ADWR.

12. That Double Diamond file with Docket Control, as a compliance item in this docket, copies of the wastewater division's General Permits for Phase 1 of the initial phase of the wastewater plant for The Ranch at White Hills when received by the Company, but not later than two years after the effective date of the order granting the application.

13. That Double Diamond be required to file with Docket Control, as a compliance item in this docket, a copy of the Aquifer Protection Permit ("APP") for the wastewater division within two years after the effective date of the order granting this application.

14. That Staff's service line and meter installation charges be approved as shown in Table B of the Engineering Report with separate installation charges for the service line and meter installations.

15. That Double Diamond be required to file with Docket Control, as a compliance item, for review and approval by the Director of the Utilities Division, a curtailment tariff within 45 days after the effective date of any decision and order pursuant to this application. The tariff shall generally conform to the sample tariff found posted on the Commission's web site (http://www.azcc.gov/divisions/utilities/water/forms.asp) or available upon request from Commission Staff.

16. That Double Diamond be required to file with Docket Control, as a compliance item, for review and approval by the Director of the Utilities Division, a backflow prevention tariff within 45 days of the decision in this matter. The tariff shall generally conform to the sample tariff found posted on the Commission's web site (http://www.azcc.gov/divisions/utilities/water/forms.asp) or available upon request from Commission Staff.

17. That the Company be required to retain a certified operator and file notification of that entity's name and qualifications, as a compliance item in this docket, by December 31, 2008.

18. That Double Diamond be required to obtain a performance bond or irrevocable letter of credit of $250,000 by December 31, 2008 and file evidence of such bond or irrevocable letter of credit in Docket Control as a compliance item in this docket.

Staff further recommends that the Commission's Decision granting the requested CC&N to Double Diamond be considered null and void should Double Diamond fail to meet Conditions Nos. 10, 11, 12, 13, 15, 16, 17, and 18 listed above within the timeframe specified.

EXHIBIT 1

MEMORANDUM

TO: Vicki Wallace
Chief, Consumer Services & Special Projects
Utilities Division

FROM: Barb Wells
Information Technology Specialist
Utilities Division

THRU: Del Smith
Engineering Supervisor
Utilities Division

DATE: August 15, 2007

RE: **DOUBLE DIAMOND UTILITIES, INC. (DOCKET NO. WS-20543A-07-0435)**

The area requested by Double Diamond for a CC&N for water and wastewater has been plotted with no complications using the legal description provided with the application (a copy of which is attached).

Also attached are copies of the maps for your files.

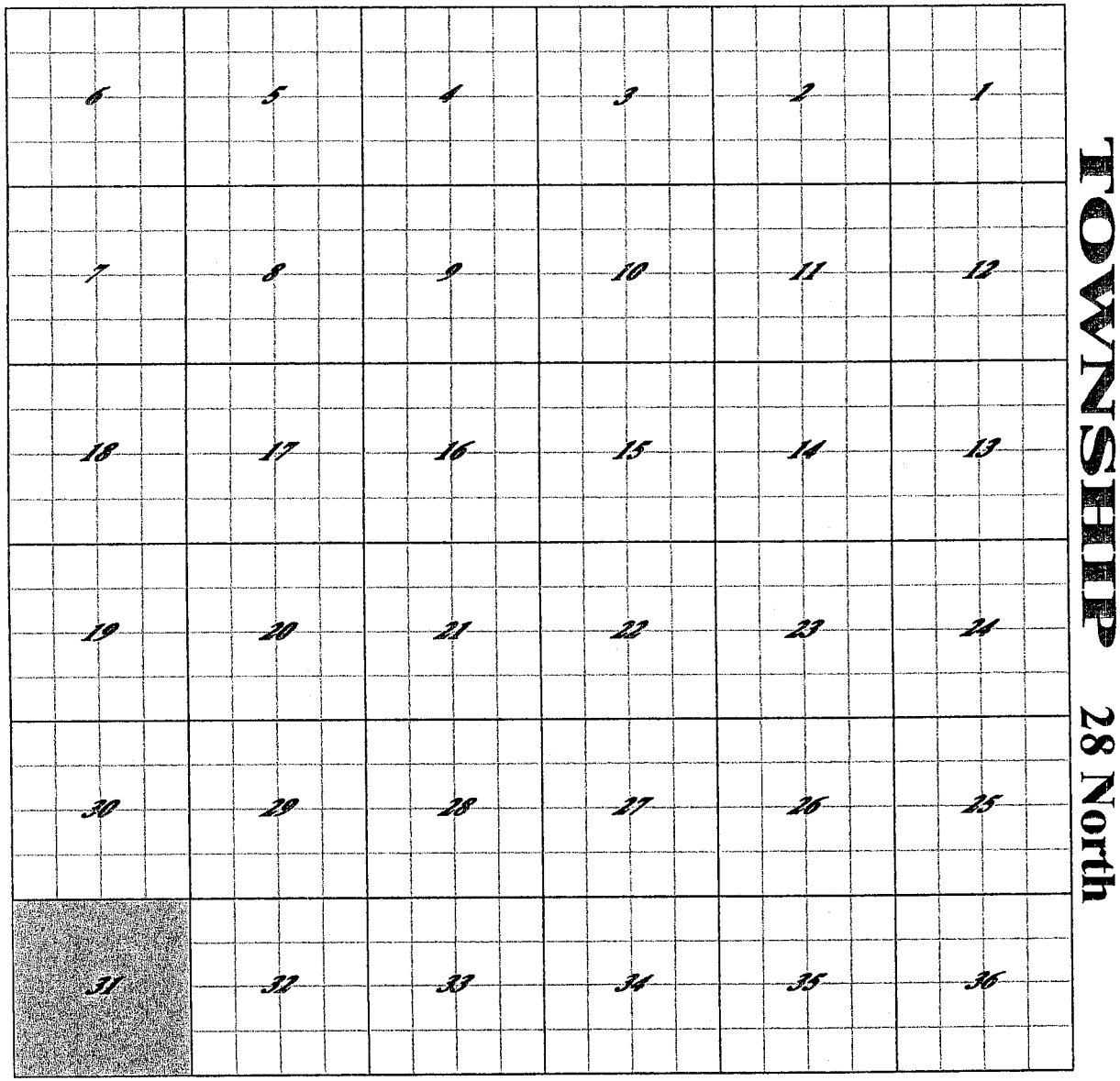
:bsw

Attachments

cc: Mr. Michael W. Patten
Ms. Deb Person (Hand Carried)
File

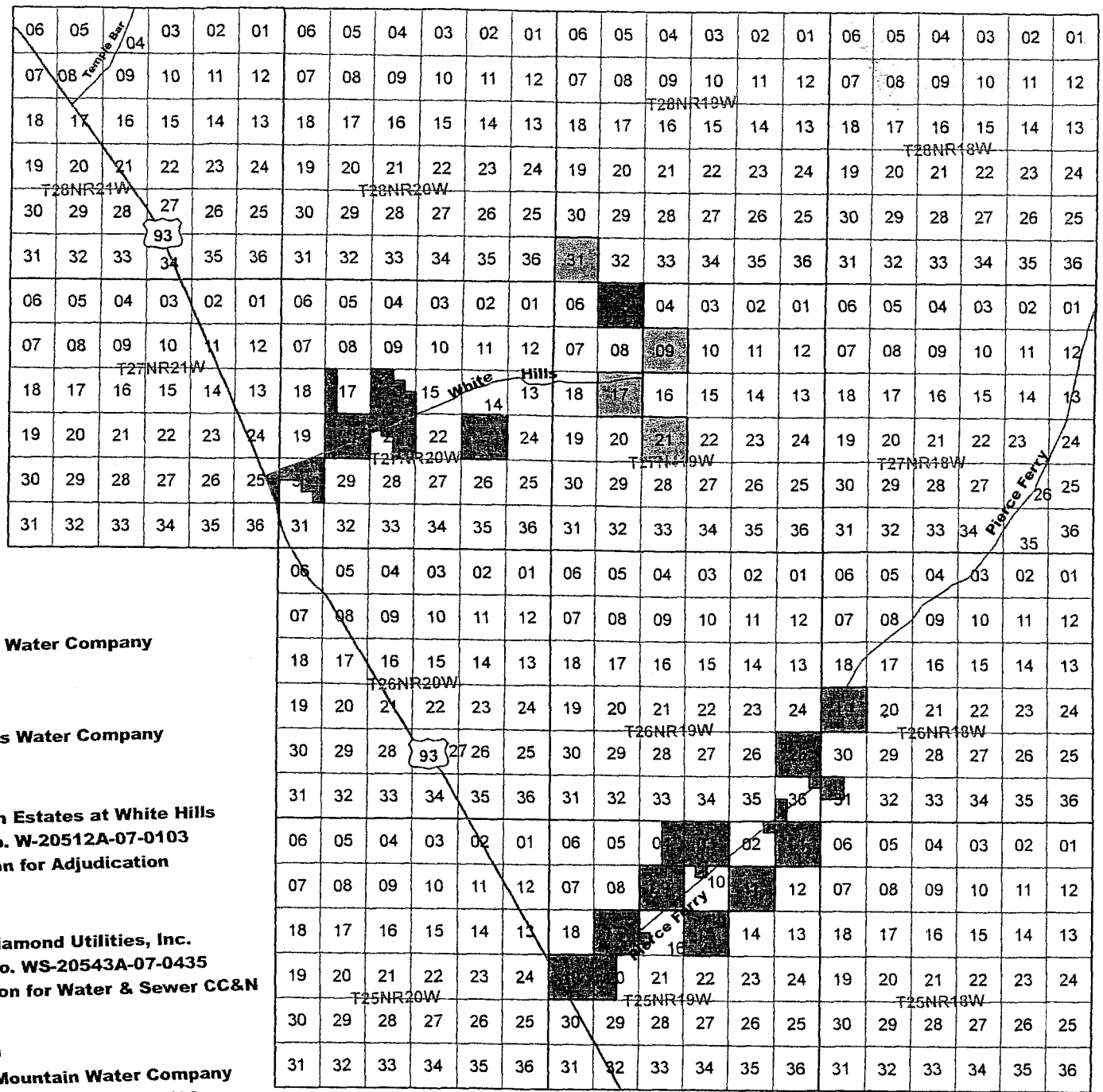
COUNTY: *Mohave*

RANGE 19 West



Double Diamond Utilities, Inc.
Docket No. WS-20543A-07-0435
Application for Water & Sewer CC&N

TR28N19W 14 AUG 2007



Mt. Tipton Water Company

White Hills Water Company

Equestrian Estates at White Hills
Docket No. W-20512A-07-0103
Application for Adjudication

Double Diamond Utilities, Inc.
Docket No. WS-20543A-07-0435
Application for Water & Sewer CC&N

Perkins Mountain Water Company
Docket No. W-20380A-05-0490
Perkins Mountain Utility Company
Docket No. SW-20379A-07-0490
Application for CC&N - 3rd Amended
(Order Preliminary)

Legal Description

T28N, R19W, Section 31

Mohave County, Arizona

EXHIBIT 2

June 10, 2007

Double Diamond Utilities, Inc.
4132 South Rainbow Blvd, PMB 324
Las Vegas, NV 89103

RE: Request for Utility Service
T28N, R19W, Section 31

Dear Utility Provider,

Arizona Acreage, LLC is the Owner of Record for Section 31, T28N, R19W. We are preparing to develop this land with mixed uses including residential, commercial, park, and school sites. Please be advised that we am requesting central water service and central sewer service from Double Diamond Utility Company as part of the development of this property.

Should you require additional information, or have any questions concerning this request for service, please contact us directly.

Respectfully Submitted,

Arizona Acreage, LLC

Leonard Mardian
Susan Mardian

EXHIBIT 3

MEMORANDUM

DATE: October 31, 2007

TO: Vicki Wallace
Chief, Consumer Services and Special Projects

FROM: Marlin Scott, Jr. MS
Utilities Engineer

RE: Double Diamond Utilities, Inc.
Docket No. WS-20543A-07-0435 (CC&N – Water and Wastewater)

INTRODUCTION

Double Diamond Utilities, Inc. ("DDU" or "Company") submitted an application for a Certificate of Convenience and Necessity ("CC&N") to provide water and wastewater services to a proposed master-planned community in Mohave County. The initial requested area will be one square-mile or 640 acres that would provide service to The Ranch at White Hills development. This development will ultimately encompass over 25,000 acres in a checkerboard fashion and will be located approximately 40 miles northwest of Kingman.

WATER DIVISION

Company's Proposed Water System

The requested one square-mile service area plans for approximately 1,800 single family units, 700 multi-family units, a 20 acre school site, 80 acres of commercial development and two community parks. For this one square-mile area, the Company is proposing to construct 5 wells (totaling 890 gallons per minute ("GPM")), 1.5 million gallons of storage, booster systems and approximately 112,000 lineal feet of transmission and distribution mains at a total projected cost of $11.26 million. The Company is projecting to serve zero customers in the first year and 2,000 customers by the end of the fifth year. The first homes in the initial phase of the development are planned to be completed in the first quarter of 2009.

Cost Analysis

The Company submitted an estimated total water plant-in-service spreadsheet for the first five years by the National Association of Regulatory Utility Commissioners ("NARUC") plant account:

Year 1:	$3,064,890
Year 2:	$4,562,490
Year 3:	$7,177,050
Year 4:	$9,814,770
Year 5:	$11,255,140

Staff has reviewed the proposed total water plant-in-service along with the Company's engineering reports and found the plant facilities and cost to be reasonable and appropriate. However, approval of this CC&N application does not imply any particular future treatment for determining the rate base. No "used and useful" determination of the proposed water 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") Compliance

Approval to Construct

The Company has not received its ADEQ Certificate of Approval to Construct ("ATC") for construction of the facilities. Staff recommends that the Company file with Docket Control, as a compliance item in this docket, copies of the ATC for Phase 1 of the initial phase of The Ranch at White Hills development when received by the Company, but no later than 2 years after the effective date of the order granting this application.

Arsenic

The U.S. Environmental Protection Agency has reduced the arsenic maximum contaminant level ("MCL") in drinking water from 50 parts per billion ("ppb") to 10 ppb. The date for compliance with the new MCL was January 23, 2006.

Based on water quality test results, the arsenic levels from the well sources for The Ranch at White Hills development have been reported at 1.6 ppb which is within the new arsenic standard.

Arizona Department of Water Resources ("ADWR") Compliance

Compliance Status

There is no ADWR compliance status to report at this time. The proposed CC&N is not located in an Active Management Area ("AMA") and as such will not be subject to any AMA reporting and conservation requirements.

Analysis of Adequate Water Supply

On April 11, 2006, ADWR issued an Analysis of Adequate Water Supply letter finding that 7,573 acre-feet per year of groundwater and 2,734 acre-feet per year of treated effluent projected at build-out will be physically available for The Ranch at White Hills. This combined 10,307 acre-feet is more than the Company's projected build-out demands for the development of 7,976 acre-feet per year for approximately 25,000 dwelling units.

Staff recommends that the Company file with Docket Control, as a compliance item in this docket, a copy of the ADWR Letter of Adequate Water Supply for each individual subdivision in the requested area, when received by the Company, but no later than 30 days after issuance from ADWR.

Aquifer Study

Staff contacted the United States Geological Survey ("USGS"), Arizona Geological Survey and ADWR requesting if any groundwater aquifer studies have been conducted for Mohave County. All three indicated no studies were conducted. However, ADWR and USGS have initiated studies in the northern Mohave County area and the final report is expected to be completed within four years.

Water Depreciation Rates

The Company has adopted Staff's typical and customary Water Depreciation Rates. These rates are presented in Table A and it is recommended that the Company use these depreciation rates by individual NARUC category as delineated in the attached Table A.

Service Line and Meter Installation Charges

The Company's proposed service line and meter installation charges are somewhat similar to Staff's customary range of charges. As a result, Staff will recommend its lower end of its customary range of charges. Since the Company may at times install meters on existing service lines, it would be appropriate for some customers to only be charged for the meter installation. Therefore, Staff recommends approval of its charges as shown in Table B, with separate installation charges for service line and meter installations.

Water Division Summary

Conclusions

A. Staff concludes that the Company's proposed water system will have adequate infrastructure to serve the requested area.

B. Staff concludes that the proposed water plant facilities and cost 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.

C. Based on water quality test results, the arsenic levels from the well sources for The Ranch at White Hills development have been reported at 1.6 ppb which is within the new arsenic standard.

D. The proposed CC&N is not located in an Active Management Area ("AMA") and as such will not be subject to any AMA reporting and conservation requirements.

Recommendations

1. Staff recommends that the Company file with Docket Control, as a compliance item in this docket, copies of the ATC for Phase 1 of the initial phase of The Ranch at White Hills development when received by the Company, but no later than 2 years after the effective date of the order granting this application.

2. Staff recommends that the Company file with Docket Control, as a compliance item in this docket, a copy of the ADWR Letter of Adequate Water Supply for each individual subdivision in the requested area, when received by the Company, but no later than 30 days after issuance from ADWR.

3. Staff recommends that the Company use the water depreciation rates by individual NARUC category as delineated in the attached Table A.

4. Staff recommends approval of its service line and meter installation charges as shown in Table B, with separate installation charges for the service line and meter installations.

Table A. Water Depreciation Rates

NARUC Account No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment	8	12.5
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	5	20.00
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00
344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00

Table B. Service Line and Meter Installation Charges

Meter Size	Company's Proposed Charges	Recommended Service Line Charges	Recommended Meter Charges	Recommended Total Charges
5/8 x 3/4-inch	-	$355	$85	$440
3/4-inch	$440	$355	$165	$520
1-inch	$520	$405	$205	$610
1-1/2-inch	$740	$440	$415	$855
2-inch Turbine	$1,235	$600	$915	$1,515
2-inch Compound	$1,800	$600	$1,640	$2,240
3-inch Turbine	$1,705	$775	$1,420	$2,195
3-inch Compound	$2,340	$815	$2,215	$3,030
4-inch Turbine	$2,700	$1,110	$2,250	$3,360
4-inch Compound	$3,405	$1,170	$3,145	$4,315
6-inch Turbine	$5,035	$1,670	$4,445	$6,115
6-inch Compound	$6,510	$1,710	$6,180	$7,890

WASTEWATER DIVISION

Company's Proposed Wastewater System

For the one square-mile area, the Company will be phasing in its wastewater treatment facility ("WWTF") by constructing an initial phase of 0.3 million gallon per day ("MGD") and phasing in facilities up to 1.5 MGD by the end of the fifth year. The 1.5 MGD WWTF and approximately 98,600 lineal feet of collection system has a total projected cost of $17.73 million. The Company is projecting to serve zero customers in the first year and 2,000 customers by the end of the fifth year. The first homes in the initial phase of the development are planned to be completed in the first quarter of 2009.

A reclaimed water system is also being proposed that will consist of pump station/storage sites and approximately 25,000 lineal feet of force mains at an estimated cost of $2.6 million for irrigational use on roadway landscaping, schools, parks and entrance features.

Cost Analysis

The Company submitted an estimated total wastewater plant-in-service spreadsheet for the first five years by the NARUC plant account:

Year 1:	$5,881,300
Year 2:	$8,076,580
Year 3:	$14,586,260
Year 4:	$16,085,100
Year 5:	$17,733,940

Staff has reviewed the proposed total wastewater plant-in-service along with the Company's engineering reports and found the plant facilities and cost to be reasonable and appropriate. However, approval of this CC&N 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") Compliance

General Permit

The Company has not received its ADEQ General Permit for construction of the wastewater facilities. Staff recommends that the Company file with Docket Control, as a compliance item in this docket, copies of the General Permits for Phase 1 of the initial phase of The Ranch at White Hills development when received by the Company, but no later than 2 years after the effective date of the order granting this application.

Aquifer Protection Permit

Since an Aquifer Protection Permit ("APP") represents fundamental authority for the designation of a wastewater service area and a wastewater provider, Staff recommends that the Company file with Docket Control, as a compliance item in this docket, a copy of the APP within 2 years after the effective date of the order granting this application.

Wastewater Depreciation Rates

The Company has submitted depreciation rates similar to Staff's typical and customary Wastewater Depreciation Rates. After further review of the Company's proposed rates, Staff recommends that the Company adopt Staff's wastewater depreciation rates and use these rates by individual NARUC category as delineated in the attached Table C.

Wastewater Capacity Hook-Up Fee

The Company has proposed to implement a Capacity Hook-Up Fee of $1,500 per service lateral for its wastewater division. Because a new wastewater CC&N is being established, Staff recommends that the Company's request to implement a Capacity Hook-Up Fee for its wastewater division be denied.

Wastewater Division Summary

Conclusions

A. Staff concludes that the Company's proposed wastewater system will have adequate infrastructure to serve the requested area.

B. Staff concludes that the proposed wastewater plant facilities and cost 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.

Recommendations

1. Staff recommends that the Company file with Docket Control, as a compliance item in this docket, copies of the General Permits for Phase 1 of the initial phase of The Ranch at White Hills development when received by the Company, but no later than 2 years after the effective date of the order granting this application.

2. Staff recommends that the Company file with Docket Control, as a compliance item in this docket, a copy of the APP within 2 years after the effective date of the order granting this application.

3. Staff recommends that the Company adopt Staff's wastewater depreciation rates and use these rates by individual NARUC category as delineated in the attached Table C.

4. Staff recommends that the Company's request to implement a Capacity Hook-Up Fee for its wastewater division be denied.

Table C. Wastewater Depreciation Rates

NARUC Acct. No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
354	Structures & Improvements	30	3.33
355	Power Generation Equipment	20	5.0
360	Collection Sewers – Force	50	2.0
361	Collection Sewers- Gravity	50	2.0
362	Special Collecting Structures	50	2.0
363	Services to Customers	50	2.0
364	Flow Measuring Devices	10	10.0
365	Flow Measuring Installations	10	10.0
366	Reuse Services	50	2.0
367	Reuse Meters & Meter Installations	12	8.33
370	Receiving Wells	30	3.33
371	Pumping Equipment	8	12.5
374	Reuse Distribution Reservoirs	40	2.5
375	Reuse Transmission & Distribution System	40	2.5
380	Treatment & Disposal Equipment	20	5.0
381	Plant Sewers	20	5.0
382	Outfall Sewer Lines	30	3.33
389	Other Plant & Miscellaneous Equipment	15	6.67
390	Office Furniture & Equipment	15	6.67
390.1	Computers & Software	5	20.0
391	Transportation Equipment	5	20.0
392	Stores Equipment	25	4.0
393	Tools, Shop & Garage Equipment	20	5.0
394	Laboratory Equipment	10	10.0
395	Power Operated Equipment	20	5.0
396	Communication Equipment	10	10.0
397	Miscellaneous Equipment	10	10.0

EXHIBIT 4

MEMORANDUM

TO: Vicki Wallace
Chief of Consumer Services - Utilities Division

FROM: Crystal Brown Crystal Brown
Public Utilities Analyst V – Utilities Division

DATE: October 31, 2007

RE: DOUBLE DIAMOND UTILITIES, INC. APPLICATION FOR NEW CERTIFICATE OF CONVENIENCE AND NECESSITY
DOCKET NO. WS-20543A-07-0435

Introduction

On July 23, 2007, Double Diamond Utilities, Inc. ("Double Diamond" or "Company") filed an application with the Arizona Corporation Commission ("Commission") for a Certificate of Convenience and Necessity ("CC&N") to provide public utility water service and wastewater service to a master-planned community in Mohave County, Arizona.

The application indicates that no customers are currently receiving service in the requested CC&N area. At the end of five years, the Company projects that it will serve 2,000 water and wastewater customers.

For the water division, Staff's recommended rates are based on the divisions' five-year projections, as adjusted by Staff. Staff's recommended projected revenue of $1,681,402 would generate operating income of $554,305 resulting in an 8.00 percent rate of return on a Staff adjusted original cost rate base ("OCRB") of $6,928,816 as shown on Schedule CSB-W1.

For the wastewater division, Staff's recommended rates are based on the divisions' five-year projections, as adjusted by Staff. Staff's recommended projected revenue of $2,454,480 would generate operating income of $878,006 resulting in an 8.00 percent rate of return on a Staff adjusted OCRB of $10,975,072 as shown on Schedule CSB-WW1.

Financial Capability to Provide Requested Services

The Company provided confidential personal financial information of its owners, in addition to an unaudited Company balance sheet for the period ended June 30, 2007. The balance sheet listed assets of approximately $900,000 and equity of approximately $900,000. The Company's application states that the owners have constructed commercial shopping centers, hotels, restaurants, storage facilities and numerous retail development construction projects, including Wal-Mart and Sam's Club. It also indicates that the owners have extensive personal holdings and are involved in the hospitality industry. The owners are not delinquent on taxes for the years ended 2004 and 2005. Based upon review of this information, Staff has determined that the Company has adequate income which includes substantial capital gains, therefore, Staff has concluded that the Company has adequate financial capability to provide the requested services.

Projected Fair Value Rate Base ("FVRB")

Consistent with Commission rules, the Company's filing included the required five-year projections for plant values, operating revenues, operating expenses, and number of customers for both the water and wastewater divisions. Projections and assumptions are necessary to establish a FVRB and initial rates because historical operating data does not exist. Since this is a new CC&N, Staff evaluated the projected OCRB as the FVRB.

Staff's recommended changes to the water division's capital structure reduced the water division's advances in aid of construction ("AIAC") while increasing the need for additional paid-in-capital as shown on water Schedule CSB-W4.

Staff's recommended changes to the wastewater division's capital structure reduced the wastewater division's contributions in aid of construction ("CIAC") while increasing the need for additional paid-in-capital as shown on wastewater Schedule CSB-WW4. Since the reduction of CIAC also reduced the amortization of the CIAC, the depreciation expense was increased resulting in an increase to property taxes and a decrease to income taxes as shown on the income statement (Schedule CSB-WW3, pages 1 through 4). Further, the decrease in CIAC increased the wastewater division's rate base as shown on Schedule CSB-WW2, page 1.

The Company provided schedules showing the elements of the projected OCRB as shown on Schedules CSB-W2 and WW2. Staff evaluated the projected OCRB as the FVRB. Staff determined the FVRB for the water plant to be $6,928,816 at the end of the fifth year (water Schedule CSB-W2, page 1). Staff determined the FVRB for the wastewater plant to be $10,975,072 at the end of the fifth year (wastewater Schedule CSB-WW2, page 1).

Projected Plant in Service

The water and wastewater divisions' projected plant in service balances are shown by year on Schedules CSB-W2 and WW2, page 2. In the fifth year, the Company anticipates an $11,255,140 and a $17,733,940 plant in service balance for the water and wastewater divisions, respectively. For the water division, Staff reclassified $192,000 in plant identified as "booster stations and equipment" to the "pumping equipment" account as shown on Schedule CSB-W2, page 2. Staff made no changes to the total amount of projected plant in service for either division.

Accumulated Depreciation

The water division's projected accumulated depreciation balance is shown by year on Schedule CSB-W2, page 1. In the fifth year, the Company anticipates a $565,547 accumulated depreciation balance. Staff increased the fifth year accumulated depreciation by $488,970 from $565,547 to $1,014,517 to reflect Staff's calculation of accumulated depreciation using Staff's recommended depreciation rates as shown on Schedules CSB-WW2, pages 1 through 7. Staff's calculation also removes the Company's proposal to remove depreciation expense on plant purchased or constructed with AIAC as the proposed treatment was not consistent with the National Association of Regulatory Utility Commissioners ("NARUC") Uniform System of Accounts ("USOA").

The wastewater division's projected accumulated depreciation balance is shown by year on Schedules CSB-WW2, page 1. Staff increased the fifth year accumulated depreciation by $56,522 from $1,885,365 to $1,941,887 to reflect Staff's calculation of accumulated depreciation using Staff's recommended depreciation rates as shown on Schedules CSB-WW2, pages 1 through 7.

Projected Advances In Aid of Construction

The Company projects that the water division's net cumulative balance for advances obtained from developers will be $5,342,005 in year five. Additionally, the Company projects that the net cumulative balances for service line and meter advances obtained from customers will be $748,000 in year five, for a total AIAC balance of $6,090,005. As shown on Schedule CSB-W2, page 1, Staff decreased AIAC by $2,829,198, from $6,090,005 to $3,260,807 to reflect Staff's recommendation that AIAC, on average, should be no more than 30 percent of capital structure as discussed in the "Capital Structure and Financial Soundness" section of this memorandum.

The Company made no projections of AIAC for the wastewater division.

Projected Contributions In Aid of Construction

The Company projects that the wastewater division will have the following treatment capacity (i.e., hook-up fee) balances for the first through the fifth year respectively: $3,660,000, $1,957,500, $4,005,000, $2,002,500, and $0. Staff recommends elimination of the Company proposed hook up fee as discussed in the "Rate Design" section of this memorandum. Staff's analysis focuses on the fifth year. Since the fifth year balance was $0, Staff made no adjustment to the hook-up fee balance.

The Company projects that the Net Other Contributions (i.e., contributions excluding hook-up fees) will be $8,275,231 in year five. As shown on Schedule CSB-W2, page 1, Staff decreased CIAC by $3,528,250, from $8,275,231 to $4,746,981 to reflect Staff's recommendation that CIAC, on average, should be no more than 30 percent of capital structure as discussed in the "Capital Structure and Financial Soundness" section of this memorandum.

The Company made no projections of CIAC for the water division.

Projected Operating Income

The Company provided projected revenues and expenses for five years. Staff's analysis, while taking into account all of the years presented, is concentrated on the fifth year of operation when profitability is expected.

Projected Operating Revenues, Water Division

For the water division, Staff recommends total operating revenue of $1,681,402, an increase of $591,830, or 54.32 percent above the Company's projected fifth year revenue of $1,089,572. Staff's recommended revenue provides operating income of $554,305 for an 8.00 percent rate of return on a projected OCRB of $6,928,816 as shown on Schedule CSB-W1.

Staff's revenue requirement increase is primarily driven by Staff's recommended increase to depreciation expense. Staff's depreciation expense calculation does not recognize the Company's proposal to remove depreciation expense on plant purchased or constructed with AIAC as this treatment is not consistent with the NARUC USOA.

Staff annualized revenues to reflect the 2,000 customers projected at the end of the fifth year. The annualization added $152,250 as shown on Schedule CSB-W3, page 2, reference A.

Projected Operating Revenues, Wastewater Division

For the wastewater division, Staff recommends total operating revenue of $2,454,480, an increase of $662,177, or 36.95 percent above the Staff adjusted fifth year revenue of $1,792,303. Staff's recommended revenue provides operating income of $878,006 for an 8.00 percent rate of return on a projected OCRB of $10,975,072 as shown on Schedule CSB-WW1.

Staff's revenue requirement increase is primarily driven by Staff's recommended rate of return. The Company proposed a 4.29 percent rate of return, Staff recommended an 8.00 percent rate of return. Staff's recommended rate of return is fair and reasonable and will help to mitigate steep increases in rates due to artificially low initial rates.

Staff annualized revenues to reflect the 2,000 customers projected at the end of the fifth year. The annualization added $213,750 as shown on Schedule CSB-WW3, page 2, reference A.

Staff added $101,053 to the wastewater division's revenue to reflect effluent sales as shown on CSB-WW3, page 2. Page 4.2 of the Stantec report[1], shows that the anticipated total daily demand in the fifth year for effluent is 92,286 gpd. Staff calculated the annual gallons by multiplying the daily amount by 365 days per year and dividing by 1,000 gallons. The resulting number was multiplied by the Company's proposed $3.00 rate for effluent (which Staff notes is lower than Staff's first tier of the potable water rate, $4.23) as shown on Schedule CSB-WW3, Page 2, reference B.

Projected Operating Expenses, Water Division

For the water division, Staff added $8,310 to annualize purchased pumping power expense. Staff noted that the Company's customer count increase of 500 customers from the fourth year to the fifth year was accompanied by a $16,619 increase in purchased pumping power (from $51,340 to $67,959) over the same period. Since Staff added half of the 500 customers (i.e. 250), Staff added a corresponding half of the $16,619 (i.e. $8,310) to the fifth year purchased pumping power expense as shown on Schedule CSB-W3, page 2 reference B.

Further, Staff added $6,000 to the outside services, billing and customer services expense as shown on Schedule CSB-W3, page 2 reference C. Staff calculated the amount as follows: $2 monthly meter reading and billing rate x 250 additional customers x 12 months = $6,000.

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[1] The report is entitled "Section 31 of the Ranch at White Hills CC&N Technical Support Water Wastewater, and Reclaimed Water"

For the water division, Staff increased depreciation expense by $193,898, from $197,083 to $390,981 to remove the Company's adjustment to reduce depreciation expense on AIAC plant. The Company's adjustment is not consistent with the NARUC USOA recognized ratemaking treatment. Also, Staff's calculation provides a full year of depreciation expense on all plant projected to be in service at the end of the fifth year as shown on Schedule CSB-W3, page 3. The changes to depreciation expense increased property taxes by $13,867, from $29,418 to $43,285 and decreased income taxes by $26,951 from $207,705 to $180,754 as shown on Schedule CSB-W3, pages 1 through 4.

Projected Operating Expenses, Wastewater Division

For the wastewater division, Staff added $7,250 to annualize purchased pumping power expense. Staff noted that the Company's customer count increase of 500 customers from the fourth year to the fifth year was accompanied by a $14,500 increase in purchased pumping power (from $53,350 to $67,850) over the same period. Since Staff added half of the 500 customers (i.e. 250), Staff added a corresponding half of the $14,500 (i.e. $7,250) to the fifth year purchased pumping power expense as shown on Schedule CSB-WW3, page 2 reference C.

Further, Staff added $3,000 to the outside services, billing and customer services expense as shown on Schedule CSB-WW3, page 2 reference D. Staff calculated the amount as follows: $1 monthly meter reading and billing rate x 250 additional customers x 12 months = $3,000.

Staff increased depreciation expense by $55,518 from $398,027 to $453,545 to reflect Staff's recommended depreciation rates, to provide a full year of depreciation expense on all plant projected to be in service at the end of the fifth year, and to reduce the amount of amortization of CIAC as a result of Staff's recommendation to reduce CIAC balance to no more than 30 percent of capital structure as shown on Schedule CSB-WW3, page 2 reference E. The changes to depreciation expense increased property taxes by $22,579, from $39,893 to $62,472 and increased income taxes by $87,409 from $211,913 to $299,322 as shown on Schedule CSB-WW3, page 2 references F and G.

Capital Structure and Financial Soundness

Capital structure is an indicator of financial soundness. Undercapitalized investor owned utilities may result in rate bases that are too small to generate enough revenue to pay for operating expenses and fund capital improvements without steep increases in customer rates. Consequently, Staff has determined that a financially sound utility company, on average, should have no more than 30 percent AIAC and/or CIAC in its capital structure.

Water Division

At the end of the fifth year, the water division's capital structure consisted of no debt, 56.03 percent AIAC, and 43.97 percent equity. Staff recommends 30.00 percent AIAC and 70.00 percent equity as shown on Schedule CSB-W4

Wastewater Division

At the end of the fifth year, the wastewater division's capital structure consisted of no debt, 52.30 percent CIAC, and 47.70 percent equity. Staff recommends 30.00 percent CIAC and 70.00 percent equity as shown on Schedule CSB-WW4.

Staff recommends that approval of the Company's CC&N be made conditional upon the Company obtaining Staff's recommended capital structure for the water and wastewater divisions by the end of the fifth year of operation.

Rate Design

Schedule CSB-W5 and WW5 present a complete list of the Company's proposed, and Staff's recommended rates and charges. The water and wastewater division's projected revenue is derived primarily from the residential customer class.

To promote efficient use of water, Staff has recommended an inverted three-tiered rate structure for the commodity charges. The water division has submitted a three-tier design. Staff removed the first tier for all meter sizes except the ¾-inch (residential) class and increased the commodity rates in order to generate Staff's recommended revenue.

Staff added a 5/8-inch x ¾-inch meter to provide the Company with the ability to serve customers who may request that meter size. The Company anticipates that residential customers will compose the majority of its total customers. The Company proposes a ¾-inch meter for the residential class and is designing and building its water system to meet the water usage demands for those customers. The water usage demand costs for a ¾-inch meter are higher than those of a 5/8-inch x ¾-inch meter. Therefore, to ensure that the Company recovers the costs associated with designing and building its system to meet the demands of its largest customer class (i.e., the ¾-inch meter residential customer), Staff set the 5/8-inch x ¾-inch meter rate the same as that of the ¾-inch meter.

Additionally, Staff's monthly customer charge recommendations utilize the NARUC recommended multipliers to establish the monthly customer charges for each meter size as shown on Schedule CSB-W5.

The Company proposed to add a construction water rate of $5.00 per 1,000 gallons. Staff recommends a $6.50 rate which is consistent with Staff's third tier range.

The typical bill for a residential customer using an estimated average of 7,500 gallons under the Company's recommended rates would be $49.50. Under Staff's recommended rates the typical bill would be $69.67 as shown on Schedule CSB-W6.

The wastewater rates requested by the wastewater division are a fixed flat monthly fee of $70.00 as shown on Schedule CSB-WW5. Staff increased the flat monthly fee by $27.59 to $97.59 in order to generate Staff's recommended revenue requirement.

Hook-up Fees (Treatment Capacity)

The wastewater division's hook-up fees were removed by Staff. It is this Commission's normal practice to allow hook-up fees only to companies already holding and operating under a CC&N. Additionally, the concept of hook-up fees were developed to fund the cost of growth, not initially required backbone plant.

Service Charges

Staff reviewed the Company's proposed service charges and recommends adoption.

Recommendations

Staff recommends:

1. Staff recommends that approval of the Company's CC&N be made conditional upon the Company obtaining Staff's recommended capital structure by the end of the fifth year of operation.

2. Approval of the Staff recommended rates and charges as shown in Schedules CSB-W5 and CSB-WW5. In addition to collection of its regular rates, the Company may collect from its customers a proportionate share of any privilege, sales or use tax.

3. The Company be required to maintain its books and records in accordance with the National Association of Regulatory Utility Commissioners Uniform System of Accounts for Water and Wastewater Utilities.

4. The Company be required to use the depreciation rates recommended by Staff for water and wastewater utilities in the Engineering Report.

Double Diamond Utilities - Water Division
Docket No. WS-20543A-07-0435
Test Year Ended: Fifth Year of Operation

PROJECTED REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	(A) COMPANY ORIGINAL COST	(B) COMPANY FAIR VALUE	(C) STAFF ORIGINAL COST	(D) STAFF FAIR VALUE
1	Adjusted Rate Base	$ 4,548,588	$ 4,548,588	$ 6,928,816	$ 6,928,816
2	Adjusted Operating Income (Loss)	$ 330,407	$ 330,407	$ 287,534	$ 287,534
3	Current Rate of Return (L2 / L1)	7.26%	7.26%	4.15%	4.15%
4	Required Rate of Return	7.26%	7.26%	8.00%	8.00%
5	Required Operating Income (L1 * L4)	$ 330,407	$ 330,407	$ 554,305	$ 554,305
6	Operating Income Deficiency (L5 - L2)	$ -	$ -	$ 266,771	$ 266,771
7	Gross Revenue Conversion Factor	1.6286	1.6286	1.6478	1.6478
8	Required Revenue Increase (L7 * L6)	$ -	$ -	$ 439,580	$ 439,580
9	Fifth Year Revenue	$ 1,089,572	$ 1,089,572	$ 1,241,822	$ 1,241,822
10	Proposed Annual Revenue (L8 + L9)	$ 1,089,572	$ 1,089,572	$ 1,681,402	$ 1,681,402
11	Required Increase in Revenue (%)	0.00%	0.00%	35.40%	35.40%
12	Rate of Return on Equity (%)	11.50%	11.50%	10.80%	10.80%

PROJECTED GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)
	Calculation of Gross Revenue Conversion Factor:				
1	Revenue	100.0000%			
2	Uncollecible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Tax Rate (Line 17) + Property Tax Factor (Line 22)	39.3123%			
5	Subtotal (L3 - L4)	60.6877%			
6	**Revenue Conversion Factor (L1 / L5)**	1.647780			
	Calculation of Uncollectible Factor:				
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 17)	38.5989%			
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 * L10)	0.0000%			
	Calculation of Effective Tax Rate:				
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
13	Arizona State Income Tax Rate	6.9680%			
14	Federal Taxable Income (L12 - L13)	93.0320%			
15	Applicable Federal Income Tax Rate (Line 44)	34.0000%			
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%			
17	Combined Federal and State Income Tax Rate (L13 +L16)	38.5989%			
	Calculation of Effective Property Tax Factor				
18	Unity	100.0000%			
19	Combined Federal and State Tax Rate (Line 17)	38.5989%			
20	One Minus Combined Income Tax Rate (L18 - L19)	61.4011%			
21	Property Tax Factor (All-16, L24)	1.1619%			
22	Effective Property Tax Factor (L 21 * L 22)	0.7134%			
23	Combined Federal and State Tax and Property Tax Rate (L17+L22)		39.3123%		
24	Required Operating Income	$ 554,305			
25	Adjusted Fifth Year Operating Income (Loss)	$ 287,534			
26	Required Increase in Operating Income (L24 - L25)		$ 266,771		
27	Income Taxes on Recommended Revenue (Col. (D), L52)	$ 348,455			
28	Income Taxes on Fifth Year, Staff Adjusted Revenue (Col. (B), L52)	$ 180,754			
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		$ 167,702		
30	Recommended Revenue Requirement	$ 1,681,402			
31	Uncollectible Rate (Line 10)	0.0000%			
32	Uncollectible Expense on Recommended Revenue (L24 * L25)	$ -			
33	Adjusted Fifth Year Uncollectible Expense	$ -			
34	Required Increase in Revenue to Provide for Uncollectible Exp. (L32 - L33)		$ -		
35	Property Tax with Recommended Revenue	$ 48,392			
36	Property Tax on Fifth Year, Staff Adjusted Revenue	$ 43,285			
37	Increasee in Property Tax Due to Increase in Revenue		$ 5,107		
38	Total Required Increase in Revenue (L26 + L30 + L34+L37)		$ 439,580		
	Calculation of Income Tax:	Fifth Year Staff as Adjusted		STAFF Recommended	
39	Revenue	$ 1,241,822	$ 439,580	$ 1,681,402	
40	Operating Expenses Excluding Income Taxes	$ 773,534	$ 5,107	$ 778,641	
41	Synchronized Interest (L47)	$ -		$ -	
42	Arizona Taxable Income (L36 - L317- L38)	$ 468,288		$ 902,761	
43	Arizona State Income Tax Rate	6.9680%		6.9680%	
44	Arizona Income Tax (L39 x L40)		$ 32,630		$ 62,904
45	Federal Taxable Income (L33 - L35)	$ 435,658		$ 839,856	
46	Federal Tax on First Income Bracket ($1 - $50,000) @ 15%	$ 7,500		$ 7,500	
47	Federal Tax on Second Income Bracket ($50,001 - $75,000) @ 25%	$ 6,250		$ 6,250	
48	Federal Tax on Third Income Bracket ($75,001 - $100,000) @ 34%	$ 8,500		$ 8,500	
49	Federal Tax on Fourth Income Bracket ($100,001 - $335,000) @ 39%	$ 91,650		$ 91,650	
50	Federal Tax on Fifth Income Bracket ($335,001 -$10,000,000) @ 34%	$ 34,224		$ 171,651	
51	Total Federal Income Tax		$ 148,124		$ 285,551
52	Combined Federal and State Income Tax (L35 + L42)		$ 180,754		$ 348,455
53	Applicable Federal Income Tax Rate [Col. (D), L42 - Col. (B), L42] / [Col. (C), L36 - Col. (A), L36]				34.0000%
	Calculation of Interest Synchronization:				
54	Rate Base	$ 6,928,816			
55	Weighted Average Cost of Debt	0.00%			
56	Synchronized Interest (L54 X L55)	$ -			

Double Diamond
Water Division
Docket No.: WS-20543A-07-0435
Test Year Ended: Fifth Year of Operation

PROJECTED ORIGINAL COST RATE BASE

	Per Company Year 1	Per Company Year 2	Per Company Year 3	Per Company Year 4	Per Company Year 5	Staff Adjustments	Ref	Staff as Adjusted
Plant in Service	$3,064,890	$4,562,490	$7,177,050	$9,814,770	$11,255,140	$0		$ 11,255,140
Less:								
Accum. Depreciation	41,365	114,816	215,325	368,464	565,547	448,970	A	$1,014,517
Net Plant	$3,023,525	$4,447,674	$6,961,725	$9,446,306	$10,689,593	($448,970)		$10,240,623
Less:								
Advances in Aid of Constr (net of refunds)	215,400	1,510,200	3,086,116	4,363,104	5,342,005	($2,829,198)	B	$2,512,807
Meter and Service Line Adv (net of refunds)	0	220,000	418,000	594,000	748,000	0		748,000
Total Advances	$215,400	$1,730,200	$3,504,116	$4,957,104	$6,090,005	($2,829,198)		$3,260,807
Contributions Gross	$0	$0	$0	$0	$0	$0		$0
Less:								
Amortization of CIAC	0	0	0	0	0	0		0
Net CIAC	$0	$0	$0	$0	$0	$0		$0
Less:								
Customer Deposits	$0	$51,000	$51,000	$51,000	$51,000	0		$51,000
Total Deductions	$215,400	$1,781,200	$3,555,116	$5,008,104	$6,141,005	($2,829,198)		$3,311,807
Plus:								
Cash Working Capital	$0	$0	$0	$0	$0	$0		$0
Materials and Supplies Inventory	0	0	0	0	0	0		0
Prepayments	0	0	0	0	0	0		0
Total Additions	$0	$0	$0	$0	$0	$0		$0
Rate Base	**$2,808,125**	**$2,666,474**	**$3,406,609**	**$4,438,202**	**$4,548,588**	**$2,380,228**		**$6,928,816**

Explanation of Adjustment:

A - To reflect Staff's calculation of accumulated depreciation expense based upon Staff's adjustments to plant as shown on Schedule CSB-W2 pages 3 through 7.

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DETAIL OF UTILITY PLANT

Acct. No.	Description	[A] Per Company Year 1	[B] Per Company Year 2	[C] Per Company Year 3	[D] Per Company Year 4	[E] Per Company Year 5	[F] Staff Adjustments	[G] Ref	[H] Staff as Adjusted
301	Organization	$ 51,033	$ 51,033	$ 51,033	$ 51,033	$ 51,033	$ -		$ 51,033
302	Franchises	8,500	8,500	8,500	8,500	8,500	-		8,500
303	Land & Land Rights	93,750	93,750	93,750	93,750	100,000	-		100,000
304	Structures & Improvements	264,000	264,000	408,000	480,000	552,000	-		552,000
307	Wells & Springs	508,407	508,407	508,407	508,407	508,407	-		508,407
311	Pumping Equipment	144,000	144,000	288,000	360,000	432,000	192,000	a	624,000
320	Water Treatment, Plant	24,000	24,000	48,000	60,000	72,000	-		72,000
330	Distribution Reservoirs, Storage Tanks	840,000	840,000	840,000	1,680,000	1,680,000	-		1,680,000
	Booster Stations and Equipment	96,000	96,000	96,000	192,000	192,000	(192,000)	a	-
331	Transmission & Distribution Mains	965,400	1,773,000	3,369,960	4,216,680	4,795,800	-		4,795,800
333	Services	-	270,000	540,000	810,000	1,080,000	-		1,080,000
334	Meters & Meter Installations	-	255,000	510,000	765,000	1,020,000	-		1,020,000
335	Hydrants	46,800	202,800	374,400	530,400	686,400	-		686,400
336	Backflow Prevention Devices	-	6,000	12,000	27,000	42,000	-		42,000
340.0	Office Furniture & Equipment	5,000	6,000	7,000	8,000	9,000	-		9,000
340.1	Computers and Software	10,000	11,000	12,000	13,000	14,000	-		14,000
346	Communication Equipment	3,000	3,000	3,000	3,000	3,000	-		3,000
347	Miscellaneous Equipment	5,000	6,000	7,000	8,000	9,000	-		9,000
		-	-	-	-	-	-		
	TOTALS	$ 3,064,890	$ 4,562,490	$ 7,177,050	$ 9,814,770	$ 11,255,140	$0		$ 11,255,140

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PROJECTED PLANT AND ACCUMULATED DEPRECIATION

	Year 1 Beginning Original Cost	Year 1 Beginning Accumulated Depreciation	Depreciation Rates	Year 1 Additions	Year 1 Retirements	Year 1 Depr. Expense	Year 1 Ending Total Cost	Year 1 Ending Accumulated Depreciation
301 Organization	$0	$0	0.00%	$51,033	$0	$0	$51,033	$0
302 Franchises	0	0	0.00%	8,500	0	0	8,500	0
303 Land & Land Rights	0	0	0.00%	93,750	0	0	93,750	0
304 Structures & Improvements	0	0	3.33%	264,000	0	4,396	264,000	4,396
307 Wells & Springs	0	0	3.33%	508,407	0	8,465	508,407	8,465
311 Pumping Equipment	0	0	12.50%	240,000	0	15,000	240,000	15,000
320 Water Treatment, Plant	0	0	3.33%	24,000	0	400	24,000	400
330 Distribution Reservoirs	0	0	2.22%	840,000	0	9,324	840,000	9,324
331 Transmission & Distribution Mains	0	0	2.00%	965,400	0	9,654	965,400	9,654
333 Services	0	0	3.33%	0	0	0	0	0
334 Meters & Meter Installations	0	0	8.33%	0	0	0	0	0
335 Hydrants	0	0	2.00%	46,800	0	468	46,800	468
336 Backflow Prevention Devices	0	0	6.67%	0	0	0	0	0
340 Office Furniture & Equipment	0	0	6.67%	5,000	0	167	5,000	167
340.1 Office Furniture & Equip, Computers	0	0	20.00%	10,000	0	1,000	10,000	1,000
346 Communication Equipment	0	0	10.00%	3,000	0	150	3,000	150
347 Miscellaneous Equipment	0	0	10.00%	5,000	0	250	5,000	250
	0	0	0.00%	0	0	0	0	0
Year 1 Totals	$0	$0		$3,064,890	$0	$49,273	$3,064,890	$49,273

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PROJECTED PLANT AND ACCUMULATED DEPRECIATION

	Year 2 Additions Cost	Year 2 Retirements Cost	Year 2 Retirements Depreciation	Fully Depreciated	Year 2 Depr. Expense	Year 2 Total Cost	Year 2 Accumulated Depreciation	Year 2 Net Book Value
301 Organization	$0	$0	$0	$0	$0	$51,033	$0	$51,033
302 Franchises	$0	$0	$0	$0	$0	$8,500	$0	$8,500
303 Land & Land Rights	$0	$0	$0	$0	$0	$93,750	$0	$93,750
304 Structures & Improvements	$0	$0	$0	$0	$8,791	$264,000	$13,187	$250,813
307 Wells & Springs	$0	$0	$0	$0	$16,930	$508,407	$25,395	$483,012
311 Pumping Equipment	$0	$0	$0	$0	$30,000	$240,000	$45,000	$195,000
320 Water Treatment, Plant	$0	$0	$0	$0	$799	$24,000	$1,199	$22,801
330 Distribution Reservoirs	$0	$0	$0	$0	$18,648	$840,000	$27,972	$812,028
331 Transmission & Distribution Mains	$807,600	$0	$0	$0	$27,384	$1,773,000	$37,038	$1,735,962
333 Services	$270,000	$0	$0	$0	$4,496	$270,000	$4,496	$265,505
334 Meters & Meter Installations	$255,000	$0	$0	$0	$10,621	$255,000	$10,621	$244,379
335 Hydrants	$156,000	$0	$0	$0	$2,496	$202,800	$2,964	$199,836
336 Backflow Prevention Devices	$6,000	$0	$0	$0	$200	$6,000	$200	$5,800
340 Office Furniture & Equipment	$1,000	$0	$0	$0	$367	$6,000	$534	$5,466
340.1 Office Furniture & Equip, Computers	$1,000	$0	$0	$0	$2,100	$11,000	$3,100	$7,900
346 Communication Equipment	$0	$0	$0	$0	$300	$3,000	$450	$2,550
347 Miscellaneous Equipment	$1,000	$0	$0	$0	$550	$6,000	$800	$5,200
	$0	$0	$0	$0	$0	$0	$0	$0
Year 2 Totals	$1,497,600	$0	$0	$0	$123,682	$4,562,490	$172,954	$4,389,536

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PROJECTED PLANT AND ACCUMULATED DEPRECIATION

	Year 3 Additions	Year 3 Retirements		Fully	Year 3	Year 3	Year 3 Accumulated	Year 3 Net
	Cost	Cost	Depreciation	Depreciated	Depr. Expense	Total Cost	Depreciation	Book Value
301 Organization	$0	$0	$0	$0	$0	$51,033	$0	$51,033
302 Franchises	$0	$0	$0	$0	$0	$8,500	$0	$8,500
303 Land & Land Rights	$0	$0	$0	$0	$0	$93,750	$0	$93,750
304 Structures & Improvements	$144,000	$0	$0	$0	$11,189	$408,000	$24,376	$383,624
307 Wells & Springs	$0	$0	$0	$0	$16,930	$508,407	$42,325	$466,082
311 Pumping Equipment	$144,000	$0	$0	$0	$39,000	$384,000	$84,000	$300,000
320 Water Treatment, Plant	$24,000	$0	$0	$0	$1,199	$48,000	$2,398	$45,602
330 Distribution Reservoirs	$0	$0	$0	$0	$18,648	$840,000	$46,620	$793,380
331 Transmission & Distribution Mains	$1,596,960	$0	$0	$0	$51,430	$3,369,960	$88,468	$3,281,492
333 Services	$270,000	$0	$0	$0	$13,487	$540,000	$17,982	$522,018
334 Meters & Meter Installations	$255,000	$0	$0	$0	$31,862	$510,000	$42,483	$467,517
335 Hydrants	$171,600	$0	$0	$0	$5,772	$374,400	$8,736	$365,664
336 Backflow Prevention Devices	$6,000	$0	$0	$0	$600	$12,000	$800	$11,200
340 Office Furniture & Equipment	$1,000	$0	$0	$0	$434	$7,000	$967	$6,033
340.1 Office Furniture & Equip, Computers	$1,000	$0	$0	$0	$2,300	$12,000	$5,400	$6,600
346 Communication Equipment	$0	$0	$0	$0	$300	$3,000	$750	$2,250
347 Miscellaneous Equipment	$1,000	$0	$0	$0	$650	$7,000	$1,450	$5,550
	$0	$0	$0	$0	$0	$0	$0	$0
Year 3 Totals	$2,614,560	$0	$0	$0	$193,800	$7,177,050	$366,754	$6,810,296

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PROJECTED PLANT AND ACCUMULATED DEPRECIATION

	Year 4 Additions Cost	Year 4 Retirements		Fully Depreciated	Year 4 Depr. Expense	Year 4 Total Cost	Year 4 Accumulated Depreciation	Year 4 Net Book Value
		Cost	Depreciation					
301 Organization	$0	$0	$0	$0	$0	$51,033	$0	$51,033
302 Franchises	$0	$0	$0	$0	$0	$8,500	$0	$8,500
303 Land & Land Rights	$0	$0	$0	$0	$0	$93,750	$0	$93,750
304 Structures & Improvements	$72,000	$0	$0	$0	$14,785	$480,000	$39,161	$440,839
307 Wells & Springs	$0	$0	$0	$0	$16,930	$508,407	$59,255	$449,152
311 Pumping Equipment	168,000	$0	$0	$0	$58,500	$552,000	$142,500	$409,500
320 Water Treatment, Plant	$12,000	$0	$0	$0	$1,798	$60,000	$4,196	$55,804
330 Distribution Reservoirs	$840,000	$0	$0	$0	$27,972	$1,680,000	$74,592	$1,605,408
331 Transmission & Distribution Mains	$846,720	$0	$0	$0	$75,866	$4,216,680	$164,334	$4,052,346
333 Services	$270,000	$0	$0	$0	$22,478	$810,000	$40,460	$769,541
334 Meters & Meter Installations	$255,000	$0	$0	$0	$53,104	$765,000	$95,587	$669,413
335 Hydrants	$156,000	$0	$0	$0	$9,048	$530,400	$17,784	$512,616
336 Backflow Prevention Devices	$15,000	$0	$0	$0	$1,301	$27,000	$2,101	$24,899
340 Office Furniture & Equipment	$1,000	$0	$0	$0	$500	$8,000	$1,467	$6,533
340.1 Office Furniture & Equip, Computers	$1,000	$0	$0	$0	$2,500	$13,000	$7,900	$5,100
346 Communication Equipment	$0	$0	$0	$0	$300	$3,000	$1,050	$1,950
347 Miscellaneous Equipment	$1,000	$0	$0	$0	$750	$8,000	$2,200	$5,800
	$0	$0	$0	$0	$0	$0	$0	$0
Year 4 Totals	$2,637,720	$0	$0	$0	$285,832	$9,814,770	$652,586	$9,162,184

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PROJECTED PLANT AND ACCUMULATED DEPRECIATION

	2005 Additions Cost	2005 Retirements Cost	2005 Retirements Depreciation	Fully Depreciated	2005 Depr. Expense	2005 Total Cost	2005 Accumulated Depreciation	2005 Net Book Value
301 Organization	$0	$0	$0	$0	$0	$51,033	$0	$51,033
302 Franchises	$0	$0	$0	$0	$0	$8,500	$0	$8,500
303 Land & Land Rights	$6,250	$0	$0	$0	$0	$100,000	$0	$100,000
304 Structures & Improvements	$72,000	$0	$0	$0	$17,183	$552,000	$56,344	$495,656
307 Wells & Springs	$0	$0	$0	$0	$16,930	$508,407	$76,185	$432,222
311 Pumping Equipment	$72,000	$0	$0	$0	$73,500	$624,000	$216,000	$408,000
320 Water Treatment, Plant	$12,000	$0	$0	$0	$2,198	$72,000	$6,394	$65,606
330 Distribution Reservoirs	$0	$0	$0	$0	$37,296	$1,680,000	$111,888	$1,568,112
331 Transmission & Distribution Mains	$579,120	$0	$0	$0	$90,125	$4,795,800	$254,459	$4,541,341
333 Services	$270,000	$0	$0	$0	$31,469	$1,080,000	$71,928	$1,008,072
334 Meters & Meter Installations	$255,000	$0	$0	$0	$74,345	$1,020,000	$169,932	$850,068
335 Hydrants	$156,000	$0	$0	$0	$12,168	$686,400	$29,952	$656,448
336 Backflow Prevention Devices	$15,000	$0	$0	$0	$2,301	$42,000	$4,402	$37,598
340 Office Furniture & Equipment	$1,000	$0	$0	$0	$567	$9,000	$2,034	$6,966
340.1 Office Furniture & Equip, Computers	$1,000	$0	$0	$0	$2,700	$14,000	$10,600	$3,400
346 Communication Equipment	$0	$0	$0	$0	$300	$3,000	$1,350	$1,650
347 Miscellaneous Equipment	$1,000	$0	$0	$0	$850	$9,000	$3,050	$5,950
	$0	$0	$0	$0	$0	$0	$0	$0
Year 5 Totals	$1,440,370	$0	$0	$0	$361,931	$11,255,140	$1,014,517	$10,240,623

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PROJECTED OPERATING INCOME STATEMENT - FIFTH YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] COMPANY FIFTH YEAR AS FILED	[B] STAFF ADJUSTMENTS	[C] FIFTH YEAR AS ADJUSTED BY STAFF	[D] STAFF RECOMMENDED CHANGES	[E] STAFF RECOMMENDED TOTAL REVENUE
	REVENUES:					
1	Metered Water Sales	1,082,072	148,500	1,230,572	439,580	1,670,152
2	Other Operating Revenue	7,500	3,750	11,250	-	11,250
3	**Total Operating Revenues**	1,089,572	152,250	1,241,822	439,580	1,681,402
4						
5	*OPERATING EXPENSES:*					
6	Labor	-	-	-		-
7	Purchased Water	-	-	-		-
8	Purchased Power	67,959	8,310	76,269		76,269
9	Repairs & Maintenance	15,000	-	15,000		15,000
10	Office Supplies and Expense	-	-	-		-
11	Contract Services, Operations	200,000	-	200,000		200,000
12	Contract Services, Billing & Cust. S	42,000	6,000	48,000		48,000
13	Pensions	-	-	-		-
14	Regulatory Expense	-	-	-		-
15	Insurance Other Than Group	-	-	-		-
16	Customer Accounting	-	-	-		-
17	Rents	-	-	-		-
18	General Office Expense	-	-	-		-
19	Miscellaneous	-	-	-		-
20	Maintenance Expense	-	-	-		-
21	Depreciation & Amortization	197,083	193,898	390,981		390,981
22	Amortization of CIAC	-	-	-		-
23	General Taxes	-	-	-		-
24	Property Taxes	29,418	13,867	43,285	5,107	48,392
25	Income Taxes	207,705	(26,951)	180,754	167,702	$ 348,455
26	**Total Operating Expenses**	759,165	195,123	954,288	172,809	1,127,097
27	**Operating Income (Loss)**	330,407	(42,873)	287,534	266,771	554,305

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PROJECTED STATEMENT OF OPERATING INCOME

	Per Company Year 1	Per Company Year 2	Per Company Year 3	Per Company Year 4	Per Company Year 5	Staff Adjustments		Staff as Adjusted
Revenues:								
461 Metered Water Revenue	$50,000	$192,439	$482,317	$777,195	$1,082,072	$148,500		1,230,572
460 Unmetered Water Revenue	0	0	0	0	0	0		0
474 Other Water Revenues	0	7,500	7,500	7,500	7,500	3,750		11,250
Total Operating Revenue	$50,000	$199,939	$489,817	$784,695	$1,089,572	$152,250	A	$1,241,822
Operating Expenses:								
601 Salaries and Wages	$0	$0	$0	$0	$0	$0		-
610 Purchased Water	0	0	0	0	0	0		0
615 Purchased Power	9,000	16,094	32,066	51,340	67,959	8,310	B	76,269
618 Chemicals	0	0	0	0	0	0		0
620 Repairs and Maintenance	2,000	3,000	5,000	10,000	15,000	0		15,000
621 Office Supplies & Expense	0	0	0	0	0	0		0
630 Contract Services, Operations	60,000	175,000	185,000	190,000	200,000	0		200,000
630 Contract Services, Billing & Cust Serv.	0	6,000	18,000	30,000	42,000	6,000	C	48,000
635 Water Testing	0	0	0	0	0	0		0
641 Rents	0	0	0	0	0	0		0
650 Transportation Expenses	0	0	0	0	0	0		0
657 Insurance - General Liability	0	0	0	0	0	0		0
659 Insurance - Health and Life	0	0	0	0	0	0		0
666 Regulatory Commisssion Expense - Rate	0	0	0	0	0	0		0
675 Miscellaneous Expense	0	0	0	0	0	0		0
403 Depreciation Expense	41,365	73,452	100,508	153,140	197,083	193,898	D	390,981
408 Taxes Other Than Income	0	0	0	0	0	0		0
408.11 Property Taxes	1,350	5,398	13,225	21,187	29,418	13,867	E	43,285
409 Income Tax	23	23	23	20,851	207,705	(26,951)	F	180,754
Total Operating Expenses	$113,738	$278,967	$353,822	$476,518	$759,165	$195,123		$954,288
OPERATING INCOME/(LOSS)	($63,738)	($79,028)	$135,995	$308,177	$330,407	($42,873)		$287,534
Other Income/(Expense):								
419 Interest and Dividend Income	$0	$0	$0	$0	$0	$0		$0
421 Non-Utility Income	0	0	0	0	0	0		0
427 Interest Expense	0	0	0	0	0	0		0
4XX Reserve/Replacement Fund Deposit	0	0	0	0	0	0		0
426 Miscellaneous Non-Utility Expense	0	0	0	0	0	0		0
Total Other Income/(Expense)	$0	$0	$0	$0	$0	$0		$0
NET INCOME/(LOSS)	**($63,738)**	**($79,028)**	**$135,995**	**$308,177**	**$330,407**	**($42,873)**		**$287,534**

Explanation of Adjustments:

A - Metered water revenue: $148,500 Revenue for an additional 250 customers
Establishment Charges: $3,750 $15 (half of the $30 Establ Charge) x 250 additional customers
$152,250

B - To reflect the increase for 250 additional customers. Staff divided the $16,619 increase in pur pumping power for 500 customers by two and added the resulting $8,310 to the purchased pumping power for the fifth year.

C - To reflect the increase for 250 additional customers. Staff multiplied the $2 monthly meter reading and billing rate by 250 customers times 12 months. The resulting $6,000 was added to outside services (billing & cust serv) expense for the fifth year.

D - Staff reviewed the Company's calculation of depreciation expense and determined that the Company removed the depreciation expense for refundable advances in aid of construction. Additionally, Staff calculation allows a full year of depreciation expense on all projected plant in the fifth year. For Staff's calculation for Depreciation Expense see Schedule CSB-W3, page 3.

E - For Staff's calculation for property taxes see Schedule CSB-W3, page 4, column A, line 18.

F - For Staff's calculation for income taxes see Schedule CSB-W1, page 2, column B, line 52.

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PROJECTED DEPRECIATION EXPENSE

Line No.	Acct No.	DESCRIPTION	[A] PLANT In SERVICE Per Staff	[B] NonDepreciable or Fully Depreciated PLANT	[C] DEPRECIABLE PLANT (Col A - Col B)	[D] DEPRECIATION RATE	[E] DEPRECIATION EXPENSE (Col C x Col D)
1	301	Organization	$ 51,033	$ 51,033	$ -	0.00%	$ -
2	302	Franchises	$ 8,500	$ 8,500	$ -	0.00%	$ -
3	303	Land & Land Rights	$ 100,000	$ 100,000	$ -	0.00%	$ -
4	304	Structures & Improvements	$ 552,000	$ -	$ 552,000	3.33%	$ 18,382
5	307	Wells & Springs	$ 508,407	$ -	$ 508,407	3.33%	$ 16,930
6	311	Pumping Equipment	$ 624,000	$ -	$ 624,000	12.50%	$ 78,000
7	320	Water Treatment, Plant	$ 72,000	$ -	$ 72,000	3.33%	$ 2,398
8	330	Distribution Reservoirs, Storage Tanks	$ 1,680,000	$ -	$ 1,680,000	2.22%	$ 37,296
9		Booster Stations and Equipment	$ -	$ -	$ -	5.00%	$ -
10	331	Transmission & Distribution Mains	$ 4,795,800	$ -	$ 4,795,800	2.00%	$ 95,916
11	333	Services	$ 1,080,000	$ -	$ 1,080,000	3.33%	$ 35,964
12	334	Meters	$ 1,020,000	$ -	$ 1,020,000	8.33%	$ 84,966
13	335	Hydrants	$ 686,400	$ -	$ 686,400	2.00%	$ 13,728
14	336	Backflow Prevention Devices	$ 42,000	$ -	$ 42,000	6.67%	$ 2,801
15	340.0	Office Furniture & Equipment	$ 9,000	$ -	$ 9,000	6.67%	$ 600
16	340.1	Computers and Software	$ 14,000	$ -	$ 14,000	20.00%	$ 2,800
17	346	Communication Equipment	$ 3,000	$ -	$ 3,000	10.00%	$ 300
18	347	Miscellaneous Equipment	$ 9,000	$ -	$ 9,000	10.00%	$ 900
19		Total Plant	$ 11,255,140	$ 159,533	$ 11,095,607		$ 390,981
20							
21						Depreciation Expense Before Amortization of CIAC:	$ 390,981
22						Less Amortization of CIAC*:	$ -
23						**Test Year Depreciation Expense - Staff:**	**$ 390,981**
24						Depreciation Expense - Company:	$ 197,083
25						**Staff's Total Adjustment:**	**$ 193,898**
26							
27						*** Amortization of CIAC Calculation:**	
28						Contribution(s) in Aid of Construction (Gross)	$ -
29						Less: Non Amortizable Contribution(s)	0
30						Less: Fully Amortized Contribution(s)	0
31						Amortizable Contribution(s)	$ -
32						Times: Staff Proposed Amortization Rate	0.00%
33						**Amortization of CIAC**	$ -

Double Diamond Utilities - Water Division
Docket No. WS-20543A-07-0435
Test Year Ended: Fifth Year of Operation

PROJECTED PROPERTY TAX EXPENSE

LINE NO.	DESCRIPTION	[A] STAFF AS ADJUSTED	[B] STAFF RECOMMENDED
1	Staff Adjusted Fifth Year Revenues	1,241,822	1,241,822
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	2,483,644	2,483,644
4	Staff Recommended Revenue	1,241,822	1,681,402
5	Subtotal (Line 4 + Line 5)	3,725,466	4,165,046
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	1,241,822	1,388,349
8	Department of Revenue Mutilplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	2,483,644	2,776,697
10	Plus: 10% of CWIP	-	-
11	Less: Net Book Value of Licensed Vehicles	-	-
12	Full Cash Value (Line 9 + Line 10 - Line 11)	2,483,644	2,776,697
13	Assessment Ratio	23.50%	23.50%
14	Assessment Value (Line 12 * Line 13)	583,656	652,524
15	Composite Property Tax Rate - Obtained from ADOR	7.4161%	7.416140%
16	Staff Fifth Year Adjusted Property Tax Expense (Line 14 * Line 15)	43,285	
17	Company Proposed Property Tax	29,418	
18	Staff Fifth Year Adjustment (Line 16 - Line 17)	13,867	
19	Property Tax - Staff Recommended Revenue (Line 14 * Line 15)		48,392
20	Staff Fifth Year Adjusted Property Tax Expense (Line 16)		43,285
21	Increase in Property Tax Due to Increase in Revenue Requirement		5,107
22	Increase in Property Tax Due to Increase in Revenue Requirement (Line 21)		5,107
23	Increase in Revenue Requirement		439,580
24	Increase in Property Tax Per Dollar Increase in Revenue (Line 22 / Line 23)		1.161862%

Schedule CSB-W4

)ouble Diamond
Vater Division
)ocket No.: WS-20543A-07-0435
'est Year Ended: Fifth Year of Operation

PROJECTED CAPITAL STUCTURE

.ine No.		Year 1	Year 2	Year 3	Year 4	Year 5	Staff Adjustment	Ref	Staff as Adjusted
1	**Short-term Debt**	$ -	$ -	$ -	$ -	$ -	$ -		$ -
2									
3	**Long-Term Debt**	$ -	$ -	$ -	$ -	$ -	$ -		$ -
4									
5	**Advances in Aid of Construction, Net of Refunds**								
6	Advances In Aid of Construction (AIAC)	$ 215,400	$ 1,510,200	$ 3,086,116	$ 4,363,104	$ 5,342,005	$ (2,829,198)		$2,512,807
7	Meter and Service Line Advances (Meter Deposits)	$ -	$ 220,000	$ 418,000	$ 594,000	$ 748,000	$ -		$ 748,000
8	Subtotal	$ 215,400	$ 1,730,200	$ 3,504,116	$ 4,957,104	$ 6,090,005	$ -		$ 3,260,807
9									
10	**Contributions In Aid of Construction (Net of Amort.)**	$ -	$ -	$ -	$ -	$ -	$ -		$ -
11									
12	**Total Advances and Contributions**	$ 215,400	$ 1,730,200	$ 3,504,116	$ 4,957,104	$ 6,090,005	$ (2,829,198)		$ 3,260,807
13									
14	**Equity**								
15	Common Stock	$ 2,500	$ 2,500	$ 2,500	$ 2,500	$ 2,500	$ -		$ 2,500
16	Paid in Capital	$ 2,907,190	$ 2,848,575	$ 3,442,400	$ 4,145,039	$ 4,145,039	$ 2,829,198		$ 6,974,237
17	Retained Earnings	$ (63,738)	$ (142,766)	$ (6,771)	$ 301,406	$ 631,813	$ -		$ 631,813
18	Subtotal	$ 2,845,952	$ 2,708,309	$ 3,438,129	$ 4,448,945	$ 4,779,352	$ 2,829,198		$ 7,608,550
19									
20	**Total Capital (L1 + L3 + L12 + L18)**	$ 3,061,352	$ 4,438,509	$ 6,942,245	$ 9,406,049	$ 10,869,357	$ -		$ 10,869,357
21									
22	**Percent of Total AIAC/CIAC to Total Capital**	7.04%	38.98%	50.48%	52.70%	**56.03%**			**30.00%**
23	Percent of Total Equity to Total Capital	92.96%	61.02%	49.52%	47.30%	43.97%			70.00%
24	Total	100.00%	100.00%	100.00%	100.00%	100.00%			100.00%

Double Diamond
Water Division
Docket No. Docket No.: WS-20543A-07-0435
Test Year Ended: Fifth Year of Operation

RATE DESIGN

	Proposed Rates	
	Company	Staff
Monthly Customer Charges		
5/8" x 3/4" Meter	n/a	$32.00
3/4" Meter	$22.00	32.00
1" Meter	32.00	54.00
1½" Meter	85.00	107.00
2" Meter	150.00	171.00
3" Meter	275.00	320.00
4" Meter	500.00	534.00
6" Meter	850.00	1,037.00
Gallons Included in Monthly Customer Charge	0	0
Commodity Charges - Per 1,000 Gallons of Usage		
5/8-Inch x 3/4-Inch Meters		
0 to 4,000 gallons	$3.00	n/a
4,001 to 10,000 gallons	$4.00	n/a
10,001 and above gallons	$5.00	n/a
0 to 4,000 gallons	n/a	$ 4.23
4,001 to 6,000 gallons	n/a	$ 5.50
6,001 and above gallons	n/a	$ 6.50
3/4-Inch Meters		
0 to 4,000 gallons	$3.00	n/a
4,001 to 10,000 gallons	$4.00	n/a
10,001 and above gallons	$5.00	n/a
0 to 4,000 gallons	n/a	$ 4.23
4,001 to 6,000 gallons	n/a	$ 5.50
6,001 and above gallons	n/a	$ 6.50
1-Inch Meters		
0 to 4,000 gallons	$3.00	n/a
4,001 to 10,000 gallons	$4.00	n/a
10,001 and above gallons	$5.00	n/a
0 to 10,000 gallons	n/a	$ 5.50
10,001 and above gallons	n/a	$ 6.50
1 1/2 - Inch Meters		
0 to 45,000 gallons	$4.00	$ 5.50
45,001 to and above gallons	$5.00	$ 6.50
2-Inch Meters		
0 to 65,000 gallons	$4.00	$ 5.50
65,001 and above gallons	$5.00	$ 6.50
3-Inch Meters		
0 to 130,000 gallons	$4.00	$ 5.50
130,001 and above gallons	$5.00	$ 6.50

Double Diamond
Water Division
Docket No. Docket No.: WS-20543A-07-0435
Test Year Ended: Fifth Year of Operation

RATE DESIGN
Continued

Commodity Charges - Per 1,000 Gallons of Usage

	-Proposed Rates-	
	Company	Staff
4-Inch Meters		
0 to 200,000 gallons	$4.00	$ 5.50
200,001 and above gallons	$5.00	$ 6.50
6-Inch Meters		
0 to 300,000 gallons	$4.00	$ 5.50
300,001 and above gallons	$5.00	$ 6.50

Construction Water, per 1,000 gallons

$5.00 $6.50

Service Line and Meter Installation Charges

	Company	Staff Proposed		
	Proposed	Services	Meters	Total
5/8" x 3/4" Meter	n/a	$ 355	$ 85	$ 440
3/4" Meter	440	355	165	520
1" Meter	520	405	205	610
1½" Meter	740	440	415	855
2" Meter (Turbine)	1,235	600	915	1,515
2" Meter (Compound)	1,800	600	1,640	2,240
3" Meter (Turbine)	1,705	775	1,420	2,195
3" Meter (Compound)	2,340	815	2,215	3,030
4" Meter (Turbine)	2,700	1,110	2,250	3,360
4" Meter (Compound)	3,405	1,170	3,145	4,315
6" Meter (Turbine)	5,035	1,670	4,445	6,115
6" Meter (Compound)	6,510	1,710	6,180	7,890

Double Diamond
Water Division
Docket No. Docket No.: WS-20543A-07-0435
Test Year Ended: Fifth Year of Operation

RATE DESIGN
Continued

Service Charges	-Proposed Rates- Company	Staff
Establishment	$30.00	$30.00
Establishment (After Hours)	60.00	60.00
Re-establishment of Service (Within 12 Months)	(2)	(2)
Reconnection (Delinquent)	60.00	60.00
Meter Test (If Correct)	50.00	50.00
Meter Re-Read (If Correct)	30.00	30.00
Customer Deposit	(3)	(3)
Deposit Interest	6.00%	6.00%
NSF Check Charge	35.00	35.00
Late Payment Penalty (Per Month)	1.50%	1.50%
Deferred Payment (Per Month)	1.50%	1.50%
Main Extentions / Meter Relocation	Cost (4)	Cost (4)
Service Calls - Not Company Responsibility	Cost (4)	Cost (4)
Revenue Taxes & Assessments	(5)	(5)

Notes:

(1) Establishment of Service Charge is a combined charge for water and wastewater service and not duplicative
(2) Per Rule R14-2-403.D - Months off system times monthly minimum
(3) Per Rule R14-2-403.B
(4) Cost is direct materials, direct labor, overhead burden of 35% of direct labor
(5) Per Rule R14-2-403.D

Double Diamond Utilities - Water Division
Docket No. WS-20543A-07-0435
Fifth Year

Schedule CSB-W6

TYPICAL BILL ANALYSIS

Residential 3/4-Inch Meter

Average Number of Customers: 2000

Company Proposed	Gallons	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Average Usage	7,500	$49.50	$49.50	$0.00	0.0%
Median Usage	7,500	$49.50	$49.50	$0.00	0.0%
Staff Proposed					
Average Usage	7,500	$49.50	$69.67	$20.17	40.7%
Median Usage	7,500	$49.50	$69.67	$20.17	40.7%

Present & Proposed Rates (Without Taxes)
Residential 3/4-Inch Meter

Gallons Consumption	Present Rates	Company Proposed Rates	% Increase	Staff Proposed Rates	% Increase
0	$22.00	$22.00	0.0%	$32.00	45.5%
1,000	25.00	25.00	0.0%	36.23	44.9%
2,000	28.00	28.00	0.0%	40.46	44.5%
3,000	31.00	31.00	0.0%	44.69	44.2%
4,000	34.00	34.00	0.0%	48.92	43.9%
5,000	38.00	38.00	0.0%	54.42	43.2%
6,000	42.00	42.00	0.0%	59.92	42.7%
7,000	47.00	47.00	0.0%	66.42	41.3%
8,000	52.00	52.00	0.0%	72.92	40.2%
9,000	57.00	57.00	0.0%	79.42	39.3%
10,000	62.00	62.00	0.0%	85.92	38.6%
15,000	87.00	87.00	0.0%	118.42	36.1%
20,000	112.00	112.00	0.0%	150.92	34.8%
25,000	137.00	137.00	0.0%	183.42	33.9%
50,000	262.00	262.00	0.0%	345.92	32.0%
75,000	387.00	387.00	0.0%	508.42	31.4%
100,000	512.00	512.00	0.0%	670.92	31.0%
125,000	637.00	637.00	0.0%	833.42	30.8%
150,000	762.00	762.00	0.0%	995.92	30.7%
175,000	887.00	887.00	0.0%	1,158.42	30.6%
200,000	1,012.00	1,012.00	0.0%	1,320.92	30.5%

Double Diamond Utilities - Wastewater Division
Docket No. WS-20543A-07-0435
Test Year Ended: Fifth Year of Operation

PROJECTED REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	(A) COMPANY ORIGINAL COST	(B) COMPANY FAIR VALUE	(C) STAFF ORIGINAL COST	(D) STAFF FAIR VALUE
1	Adjusted Rate Base	$ 7,503,344	$ 7,503,344	$ 10,975,072	$ 10,975,072
2	Adjusted Operating Income (Loss)	$ 337,099	$ 337,099	$ 476,146	$ 476,146
3	Current Rate of Return (L2 / L1)	4.49%	4.49%	4.34%	4.34%
4	Required Rate of Return	4.49%	4.49%	8.00%	8.00%
5	Required Operating Income (L1 * L4)	$ 337,099	$ 337,099	$ 878,006	$ 878,006
6	Operating Income Deficiency (L5 - L2)	$ -	$ -	$ 401,860	$ 401,860
7	Gross Revenue Conversion Factor	1.6286	1.6286	1.6478	1.6478
8	Required Revenue Increase (L7 * L6)	$ -	$ -	$ 662,177	$ 662,177
9	Fifth Year Revenue	$ 1,477,500	$ 1,477,500	$ 1,792,303	$ 1,792,303
10	Proposed Annual Revenue (L8 + L9)	$ 1,477,500	$ 1,477,500	$ 2,454,480	$ 2,454,480
11	Required Increase in Revenue (%)	0.00%	0.00%	36.95%	36.95%
12	Rate of Return on Equity (%)	11.50%	11.50%	10.80%	10.80%

Double Diamond Utilities - Wastewater Division
Docket No. WS-20543A-07-0435
Test Year Ended: Fifth Year of Operation

PROJECTED GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)
	Calculation of Gross Revenue Conversion Factor:				
1	Revenue	100.0000%			
2	Uncollecible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Tax Rate (Line 17) + Property Tax Factor (Line 22)	39.3123%			
5	Subtotal (L3 - L4)	60.6877%			
6	**Revenue Conversion Factor (L1 / L5)**	1.647780			
	Calculation of Uncollectible Factor:				
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 17)	38.5989%			
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 * L10)	0.0000%			
	Calculation of Effective Tax Rate:				
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
13	Arizona State Income Tax Rate	6.9680%			
14	Federal Taxable Income (L12 - L13)	93.0320%			
15	Applicable Federal Income Tax Rate (Line 44)	34.0000%			
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%			
17	Combined Federal and State Income Tax Rate (L13 +L16)	38.5989%			
	Calculation of Effective Property Tax Factor				
18	Unity	100.0000%			
19	Combined Federal and State Tax Rate (Line 17)	38.5989%			
20	One Minus Combined Income Tax Rate (L18 - L19)	61.4011%			
21	Property Tax Factor (AII-16, L24)	1.1619%			
22	Effective Property Tax Factor (L 21 * L 22)	0.7134%			
23	Combined Federal and State Tax and Property Tax Rate (L17+L22)		39.3123%		
24	Required Operating Income	$ 878,006			
25	Adjusted Fifth Year Operating Income (Loss)	$ 476,146			
26	Required Increase in Operating Income (L24 - L25)		$ 401,860		
27	Income Taxes on Recommended Revenue (Col. (D), L52)	$ 551,945			
28	Income Taxes on Fifth Year, Staff Adjusted Revenue (Col. (B), L52)	$ 299,322			
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		$ 252,623		
30	Recommended Revenue Requirement	$ 2,454,480			
31	Uncollectible Rate (Line 10)	0.0000%			
32	Uncollectible Expense on Recommended Revenue (L24 * L25)	$ -			
33	Adjusted Fifth Year Uncollectible Expense	$ -			
34	Required Increase in Revenue to Provide for Uncollectible Exp. (L32 - L33)		$ -		
35	Property Tax with Recommended Revenue	$ 70,166			
36	Property Tax on Fifth Year, Staff Adjusted Revenue	$ 62,472			
37	Increasee in Property Tax Due to Increase in Revenue		$ 7,694		
38	Total Required Increase in Revenue (L26 + L30 + L34+L37)		$ 662,177		
	Calculation of Income Tax:	Fifth Year Staff as Adjusted		STAFF Recommended	
39	Revenue	$ 1,792,303	$ 662,177	$ 2,454,480	
40	Operating Expenses Excluding Income Taxes	$ 1,016,836	$ 7,694	$ 1,024,529	
41	Synchronized Interest (L47)	$ -		$ -	
42	Arizona Taxable Income (L36 - L317- L38)	$ 775,468		$ 1,429,951	
43	Arizona State Income Tax Rate	6.9680%		6.9680%	
44	Arizona Income Tax (L39 x L40)		$ 54,035		$ 99,639
45	Federal Taxable Income (L33 - L35)	$ 721,433		$ 1,330,312	
46	Federal Tax on First Income Bracket ($1 - $50,000) @ 15%	$ 7,500		$ 7,500	
47	Federal Tax on Second Income Bracket ($50,001 - $75,000) @ 25%	$ 6,250		$ 6,250	
48	Federal Tax on Third Income Bracket ($75,001 - $100,000) @ 34%	$ 8,500		$ 8,500	
49	Federal Tax on Fourth Income Bracket ($100,001 - $335,000) @ 39%	$ 91,650		$ 91,650	
50	Federal Tax on Fifth Income Bracket ($335,001 -$10,000,000) @ 34%	$ 131,387		$ 338,406	
51	Total Federal Income Tax		$ 245,287		$ 452,306
52	Combined Federal and State Income Tax (L35 + L42)		$ 299,322		$ 551,945
53	Applicable Federal Income Tax Rate [Col. (D), L42 - Col. (B), L42] / [Col. (C), L36 - Col. (A), L36]				34.0000%
	Calculation of Interest Synchronization:				
54	Rate Base	$ 10,975,072			
55	Weighted Average Cost of Debt	0.00%			
56	Synchronized Interest (L45 X L46)	$ -			

Double Diamond Utilities, Inc.
Wastewater Division
Docket No.: WS-20543A-07-0435
Test Year Ended: Fifth Year of Operation

PROJECTED ORIGINAL COST RATE BASE

	Per Company Year 1	Per Company Year 2	Per Company Year 3	Per Company Year 4	Per Company Year 5	Staff Adjustments		Staff Adjusted
Plant in Service	$5,881,300	$8,076,580	$14,586,260	$16,085,100	$17,733,940	$0		$17,733,940
Less:								
Accum. Depreciation	111,736	362,840	764,887	1,305,869	1,885,365	56,522	A	$1,941,887
Net Plant	$5,769,564	$7,713,740	$13,821,373	$14,779,231	$15,848,575	($56,522)		$15,792,053
Less:								
Advances in Aid of Constr (net of refunds)	0	0	0	0	0	$0		$0
Meter and Service Line Adv (net of refunds)	0	0	0	0	0	0		0
Net Advances	$0	$0	$0	$0	$0	$0		$0
Contributions In Aid of Construction (CIAC)								
Treatment Capacity (Hook-up Fees)	$ 3,660,000	$ 1,957,500	$ 4,005,000	$ 2,002,500	$ -	$ -		$0
Net Other CIAC	0	2,535,813	4,810,958	6,809,890	8,275,231	(3,528,250)		4,746,981
Total CIAC	$ 3,660,000	$ 4,493,313	$ 8,815,958	$ 8,812,390	$ 8,275,231	$ (3,528,250)		$ 4,746,981
Less:								
Customer Deposits	$0	$70,000	$70,000	$70,000	$70,000	0		$70,000
Total Deductions	$3,660,000	$4,563,313	$8,885,958	$8,882,390	$8,345,231	($3,528,250)		$4,816,981
Plus:								
Cash Working Capital	$0	$0	$0	$0	$0	$0		$0
Materials and Supplies Inventory	0	0	0	0	0	0		0
Prepayments	0	0	0	0	0	0		0
Total Additions	$0	$0	$0	$0	$0	$0		$0
Rate Base	**$2,109,564**	**$3,150,427**	**$4,935,415**	**$5,896,841**	**$7,503,344**	**$3,471,728**		**$10,975,072**

Explanation of Adjustment:

A - Difference results from using the Staff recommended depreciation rates.

Double Diamond
Sewer Division
Docket No.: WS-20543A-07-0435
Test Year Ended: Fifth Year of Operation

PROJECTED DETAIL OF UTILITY PLANT

Acct. No.	Description	[A] Per Company Year 1	[B] Per Company Year 2	[C] Per Company Year 3	[D] Per Company Year 4	[E] Per Company Year 5	[F] Staff Adjustments	[G] Ref	[H] Staff Adjusted
351	Organization	$ 51,000	$ 51,000	$ 51,000	$ 51,000	$ 51,000	$ -		$ 51,000
352	Franchises	8,500	8,500	8,500	8,500	8,500	-		8,500
353	Land & Land Rights	75,000	85,000	90,000	95,000	100,000	-		100,000
354	Structures & Improvements	1,440,000	1,620,000	3,150,000	3,240,000	3,240,000	-		3,240,000
355	Power Generation Equipment	96,000	96,000	96,000	96,000	96,000	-		96,000
360	Collection Sewers - Force	-	180,000	270,000	360,000	360,000	-		360,000
361	Collection Sewers - Gravity	710,400	1,904,400	3,378,840	4,359,240	5,180,040	-		5,180,040
363	Services to Customers	-	270,000	540,000	810,000	1,080,000	-		1,080,000
364	Flow Measuring Devices	96,000	96,000	192,000	192,000	192,000	-		192,000
365	Flow Measuring Installations	-	-	-	-	-	-		-
366	Reuse Services	-	3,600	8,400	13,200	18,000	-		18,000
367	Reuse Meters & Installation	-	2,880	6,720	10,560	14,400	-		14,400
370	Receiving Wells	-	-	-	-	-	-		-
371	Pumping Equipment	144,000	144,000	288,000	288,000	432,000	-		432,000
374	Reuse Distribution Reserviors	240,000	240,000	480,000	480,000	720,000	-		720,000
375	Reuse Transmission & Distribution Mains	782,400	835,200	964,800	1,017,600	1,176,000	-		1,176,000
380	Treatment & Disposal Equipment	1,740,000	2,040,000	4,080,000	4,080,000	4,080,000	-		4,080,000
381	Plant Sewers	480,000	480,000	960,000	960,000	960,000	-		960,000
382	Outfall Sewer Lines	-	-	-	-	-	-		-
390.0	Office Furniture & Fixtures, General	10,000	11,000	12,000	13,000	14,000	-		14,000
390.1	Office Furniture & Fixtures, Computing	-	-	-	-	-	-		-
391	Transportation Equipment	-	-	-	-	-	-		-
392	Stores Equipment	-	-	-	-	-	-		-
393	Tools Shop & Garage Equipment	-	-	-	-	-	-		-
394	Laboratory Equipment	-	-	-	-	-	-		-
395	Power Operated Equipment	-	-	-	-	-	-		-
396	Communication Equipment	3,000	3,000	3,000	3,000	3,000	-		3,000
397	Miscellaneous General Equipment	5,000	6,000	7,000	8,000	9,000	-		9,000
		-	-	-	-	-	-		-
	TOTALS	$ 5,881,300	$ 8,076,580	$14,586,260	$16,085,100	$17,733,940	$0		$17,733,940

Double Diamond Utilities, Inc.
Wastewater Division
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Test Year Ended: Fifth Year of Operation

PROJECTED PLANT AND ACCUMULATED DEPRECIATION

	Year 1 Beginning Original Cost	Year 1 Beginning Accumulated Depreciation	Depreciation Rates	Year 1 Additions	Year 1 Retirements	Year 1 Depr. Expense	Year 1 Ending Total Cost	Year 1 Ending Accumulated Depreciation
351 Organization Cost	$0	$0	0.00%	$51,000	$0	$0	$51,000	$0
352 Franchise Cost	0	0	0.00%	8,500	0	0	8,500	0
353 Land & Land Rights	0	0	0.00%	75,000	0	0	75,000	0
354 Structures & Improvements	0	0	3.33%	1,440,000	0	23,976	1,440,000	23,976
355 Power Generation Equipment	0	0	5.00%	96,000	0	2,400	96,000	2,400
360 Collection Sewers, Force	0	0	2.00%	0	0	0	0	0
361 Collection Sewers, Gravity	0	0	2.00%	710,400	0	7,104	710,400	7,104
363 Services	0	0	2.00%	0	0	0	0	0
364 Flow Measuring Devices	0	0	10.00%	96,000	0	4,800	96,000	4,800
365 Flow Measuring Installations	0	0	10.00%	0	0	0	0	0
366 Reuse Services	0	0	2.00%	0	0	0	0	0
367 Reuse Meters & Installation	0	0	8.33%	0	0	0	0	0
370 Receiving Wells	0	0	3.33%	0	0	0	0	0
371 Effluent Pumping Equipment	0	0	12.50%	144,000	0	9,000	144,000	9,000
374 Reuse Distribution Wells	0	0	2.50%	240,000	0	3,000	240,000	3,000
375 Reuse Transmission & Distr Mains	0	0	2.50%	782,400	0	9,780	782,400	9,780
380 Treatment & Disposal Equip	0	0	5.00%	1,740,000	0	43,500	1,740,000	43,500
381 Plant Sewers	0	0	5.00%	480,000	0	12,000	480,000	12,000
382 Outfall Sewer Lines	0	0	3.33%	0	0	0	0	0
390.0 Office Furniture & Fixt, General	0	0	6.67%	10,000	0	334	10,000	334
390.1 Office Furniture & Fixt, Computers	0	0	20.00%	0	0	0	0	0
391 Transportation Equip	0	0	20.00%	0	0	0	0	0
392 Stores Equipment	0	0	4.00%	0	0	0	0	0
393 Tools, Shop, & Garage Equip	0	0	5.00%	0	0	0	0	0
394 Laboratory Equipment	0	0	10.00%	0	0	0	0	0
395 Power Operated Equip	0	0	5.00%	0	0	0	0	0
396 Communications Equipment	0	0	10.00%	3,000	0	150	3,000	150
397 Miscellaneous Equipment	0	0	10.00%	5,000	0	250	5,000	250
Year 1 Totals	$0	$0		$5,881,300	$0	$116,294	$5,881,300	$116,294

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PROJECTED PLANT AND ACCUMULATED DEPRECIATION

	Year 2 Additions Cost	Year 2 Retirements Cost	Year 2 Retirements Depreciation	Fully Depreciated	Year 2 Depr. Expense	Year 2 Total Cost	Year 2 Accumulated Depreciation	Year 2 Net Book Value
351 Organization Cost	$0	$0	$0	$0	$0	$51,000	$0	$51,000
352 Franchise Cost	$0	$0	$0	$0	$0	$8,500	$0	$8,500
353 Land & Land Rights	$10,000	$0	$0	$0	$0	$85,000	$0	$85,000
354 Structures & Improvements	$180,000	$0	$0	$0	$50,949	$1,620,000	$74,925	$1,545,075
355 Power Generation Equipment	$0	$0	$0	$0	$4,800	$96,000	$7,200	$88,800
360 Collection Sewers, Force	$180,000	$0	$0	$0	$1,800	$180,000	$1,800	$178,200
361 Collection Sewers, Gravity	$1,194,000	$0	$0	$0	$26,148	$1,904,400	$33,252	$1,871,148
363 Services	$270,000	$0	$0	$0	$2,700	$270,000	$2,700	$267,300
364 Flow Measuring Devices	$0	$0	$0	$0	$9,600	$96,000	$14,400	$81,600
365 Flow Measuring Installations	$0	$0	$0	$0	$0	$0	$0	$0
366 Reuse Services	$3,600	$0	$0	$0	$36	$3,600	$36	$3,564
367 Reuse Meters & Installation	$2,880	$0	$0	$0	$120	$2,880	$120	$2,760
370 Receiving Wells	$0	$0	$0	$0	$0	$0	$0	$0
371 Effluent Pumping Equipment	$0	$0	$0	$0	$18,000	$144,000	$27,000	$117,000
374 Reuse Distribution Wells	$0	$0	$0	$0	$6,000	$240,000	$9,000	$231,000
375 Reuse Transmission & Distr Mains	$52,800	$0	$0	$0	$20,220	$835,200	$30,000	$805,200
380 Treatment & Disposal Equip	$300,000	$0	$0	$0	$94,500	$2,040,000	$138,000	$1,902,000
381 Plant Sewers	$0	$0	$0	$0	$24,000	$480,000	$36,000	$444,000
382 Outfall Sewer Lines	$0	$0	$0	$0	$0	$0	$0	$0
390.0 Office Furniture & Fixt, General	$1,000	$0	$0	$0	$700	$11,000	$1,034	$9,966
390.1 Office Furniture & Fixt, Computers	$0	$0	$0	$0	$0	$0	$0	$0
391 Transportation Equip	$0	$0	$0	$0	$0	$0	$0	$0
392 Stores Equipment	$0	$0	$0	$0	$0	$0	$0	$0
393 Tools, Shop, & Garage Equip	$0	$0	$0	$0	$0	$0	$0	$0
394 Laboratory Equipment	$0	$0	$0	$0	$0	$0	$0	$0
395 Power Operated Equip	$0	$0	$0	$0	$0	$0	$0	$0
396 Communications Equipment	$0	$0	$0	$0	$300	$3,000	$450	$2,550
397 Miscellaneous Equipment	$1,000	$0	$0	$0	$550	$6,000	$800	$5,200
Year 2 Totals	$2,195,280	$0	$0	$0	$260,423	$8,076,580	$376,717	$7,699,863

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PROJECTED PLANT AND ACCUMULATED DEPRECIATION

	Year 3 Additions Cost	Year 3 Retirements Cost	Year 3 Retirements Depreciation	Fully Depreciated	Year 3 Depr. Expense	Year 3 Total Cost	Year 3 Accumulated Depreciation	Year 3 Net Book Value
351 Organization Cost	$0	$0	$0	$0	$0	$51,000	$0	$51,000
352 Franchise Cost	$0	$0	$0	$0	$0	$8,500	$0	$8,500
353 Land & Land Rights	$5,000	$0	$0	$0	$0	$90,000	$0	$90,000
354 Structures & Improvements	$1,530,000	$0	$0	$0	$79,421	$3,150,000	$154,346	$2,995,655
355 Power Generation Equipment	$0	$0	$0	$0	$4,800	$96,000	$12,000	$84,000
360 Collection Sewers, Force	$90,000	$0	$0	$0	$4,500	$270,000	$6,300	$263,700
361 Collection Sewers, Gravity	$1,474,440	$0	$0	$0	$52,832	$3,378,840	$86,084	$3,292,756
363 Services	$270,000	$0	$0	$0	$8,100	$540,000	$10,800	$529,200
364 Flow Measuring Devices	$96,000	$0	$0	$0	$14,400	$192,000	$28,800	$163,200
365 Flow Measuring Installations	$0	$0	$0	$0	$0	$0	$0	$0
366 Reuse Services	$4,800	$0	$0	$0	$120	$8,400	$156	$8,244
367 Reuse Meters & Installation	$3,840	$0	$0	$0	$400	$6,720	$520	$6,200
370 Receiving Wells	$0	$0	$0	$0	$0	$0	$0	$0
371 Effluent Pumping Equipment	$144,000	$0	$0	$0	$27,000	$288,000	$54,000	$234,000
374 Reuse Distribution Wells	$240,000	$0	$0	$0	$9,000	$480,000	$18,000	$462,000
375 Reuse Transmission & Distr Mains	$129,600	$0	$0	$0	$22,500	$964,800	$52,500	$912,300
380 Treatment & Disposal Equip	$2,040,000	$0	$0	$0	$153,000	$4,080,000	$291,000	$3,789,000
381 Plant Sewers	$480,000	$0	$0	$0	$36,000	$960,000	$72,000	$888,000
382 Outfall Sewer Lines	$0	$0	$0	$0	$0	$0	$0	$0
390.0 Office Furniture & Fixt, General	$1,000	$0	$0	$0	$767	$12,000	$1,801	$10,199
390.1 Office Furniture & Fixt, Computers	$0	$0	$0	$0	$0	$0	$0	$0
391 Transportation Equip	$0	$0	$0	$0	$0	$0	$0	$0
392 Stores Equipment	$0	$0	$0	$0	$0	$0	$0	$0
393 Tools, Shop, & Garage Equip	$0	$0	$0	$0	$0	$0	$0	$0
394 Laboratory Equipment	$0	$0	$0	$0	$0	$0	$0	$0
395 Power Operated Equip	$0	$0	$0	$0	$0	$0	$0	$0
396 Communications Equipment	$0	$0	$0	$0	$0	$0	$0	$0
397 Miscellaneous Equipment	$0	$0	$0	$0	$0	$0	$0	$0
	$0	$0	$0	$0	$300	$3,000	$750	$2,250
	$1,000	$0	$0	$0	$650	$7,000	$1,450	$5,550
Year 3 Totals	$6,509,680	$0	$0	$0	$413,790	$14,586,260	$790,507	$13,795,753

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PROJECTED PLANT AND ACCUMULATED DEPRECIATION

	Year 4 Additions Cost	Year 4 Retirements		Fully Depreciated	Year 4 Depr. Expense	Year 4 Total Cost	Year 4 Accumulated Depreciation	Year 4 Net Book Value
		Cost	Depreciation					
351 Organization Cost	$0	$0	$0	$0	$0	$51,000	$0	$51,000
352 Franchise Cost	$0	$0	$0	$0	$0	$8,500	$0	$8,500
353 Land & Land Rights	$5,000	$0	$0	$0	$0	$95,000	$0	$95,000
354 Structures & Improvements	$90,000	$0	$0	$0	$106,394	$3,240,000	$260,739	$2,979,261
355 Power Generation Equipment	$0	$0	$0	$0	$4,800	$96,000	$16,800	$79,200
360 Collection Sewers, Force	$90,000	$0	$0	$0	$6,300	$360,000	$12,600	$347,400
361 Collection Sewers, Gravity	$980,400	$0	$0	$0	$77,381	$4,359,240	$163,465	$4,195,775
363 Services	$270,000	$0	$0	$0	$13,500	$810,000	$24,300	$785,700
364 Flow Measuring Devices	$0	$0	$0	$0	$19,200	$192,000	$48,000	$144,000
365 Flow Measuring Installations	$0	$0	$0	$0	$0	$0	$0	$0
366 Reuse Services	$4,800	$0	$0	$0	$216	$13,200	$372	$12,828
367 Reuse Meters & Installation	$3,840	$0	$0	$0	$720	$10,560	$1,240	$9,320
370 Receiving Wells	$0	$0	$0	$0	$0	$0	$0	$0
371 Effluent Pumping Equipment	$0	$0	$0	$0	$36,000	$288,000	$90,000	$198,000
374 Reuse Distribution Wells	$0	$0	$0	$0	$12,000	$480,000	$30,000	$450,000
375 Reuse Transmission & Distr Mains	$52,800	$0	$0	$0	$24,780	$1,017,600	$77,280	$940,320
380 Treatment & Disposal Equip	$0	$0	$0	$0	$204,000	$4,080,000	$495,000	$3,585,000
381 Plant Sewers	$0	$0	$0	$0	$48,000	$960,000	$120,000	$840,000
382 Outfall Sewer Lines	$0	$0	$0	$0	$0	$0	$0	$0
390.0 Office Furniture & Fixt, General	$1,000	$0	$0	$0	$834	$13,000	$2,635	$10,365
390.1 Office Furniture & Fixt, Computers	$0	$0	$0	$0	$0	$0	$0	$0
391 Transportation Equip	$0	$0	$0	$0	$0	$0	$0	$0
392 Stores Equipment	$0	$0	$0	$0	$0	$0	$0	$0
393 Tools, Shop, & Garage Equip	$0	$0	$0	$0	$0	$0	$0	$0
394 Laboratory Equipment	$0	$0	$0	$0	$0	$0	$0	$0
395 Power Operated Equip	$0	$0	$0	$0	$0	$0	$0	$0
396 Communications Equipment	$0	$0	$0	$0	$0	$0	$0	$0
397 Miscellaneous Equipment	$0	$0	$0	$0	$300	$3,000	$1,050	$1,950
Year 4 Totals	$1,000	$0	$0	$0	$750	$8,000	$2,200	$5,800
	$1,498,840	$0	$0	$0	$555,174	$16,085,100	$1,345,680	$14,739,420

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PROJECTED PLANT AND ACCUMULATED DEPRECIATION

	2005 Additions Cost	2005 Retirements Cost	2005 Retirements Depreciation	Fully Depreciated	2005 Depr. Expense	2005 Total Cost	2005 Accumulated Depreciation	2005 Net Book Value
351 Organization Cost	$0	$0	$0	$0	$0	$51,000	$0	$51,000
352 Franchise Cost	$0	$0	$0	$0	$0	$8,500	$0	$8,500
353 Land & Land Rights	$5,000	$0	$0	$0	$0	$100,000	$0	$100,000
354 Structures & Improvements	$0	$0	$0	$0	$107,892	$3,240,000	$368,631	$2,871,369
355 Power Generation Equipment	$0	$0	$0	$0	$4,800	$96,000	$21,600	$74,400
360 Collection Sewers, Force	$0	$0	$0	$0	$7,200	$360,000	$19,800	$340,200
361 Collection Sewers, Gravity	$820,800	$0	$0	$0	$95,393	$5,180,040	$258,858	$4,921,182
363 Services	$270,000	$0	$0	$0	$18,900	$1,080,000	$43,200	$1,036,800
364 Flow Measuring Devices	$0	$0	$0	$0	$19,200	$192,000	$67,200	$124,800
365 Flow Measuring Installations	$0	$0	$0	$0	$0	$0	$0	$0
366 Reuse Services	$4,800	$0	$0	$0	$312	$18,000	$684	$17,316
367 Reuse Meters & Installation	$3,840	$0	$0	$0	$1,040	$14,400	$2,279	$12,121
370 Receiving Wells	$0	$0	$0	$0	$0	$0	$0	$0
371 Effluent Pumping Equipment	$144,000	$0	$0	$0	$45,000	$432,000	$135,000	$297,000
374 Reuse Distribution Wells	$240,000	$0	$0	$0	$15,000	$720,000	$45,000	$675,000
375 Reuse Transmission & Distr Mains	$158,400	$0	$0	$0	$27,420	$1,176,000	$104,700	$1,071,300
380 Treatment & Disposal Equip	$0	$0	$0	$0	$204,000	$4,080,000	$699,000	$3,381,000
381 Plant Sewers	$0	$0	$0	$0	$48,000	$960,000	$168,000	$792,000
382 Outfall Sewer Lines	$0	$0	$0	$0	$0	$0	$0	$0
390.0 Office Furniture & Fixt, General	$1,000	$0	$0	$0	$900	$14,000	$3,535	$10,465
390.1 Office Furniture & Fixt, Computers	$0	$0	$0	$0	$0	$0	$0	$0
391 Transportation Equip	$0	$0	$0	$0	$0	$0	$0	$0
392 Stores Equipment	$0	$0	$0	$0	$0	$0	$0	$0
393 Tools, Shop, & Garage Equip	$0	$0	$0	$0	$0	$0	$0	$0
394 Laboratory Equipment	$0	$0	$0	$0	$0	$0	$0	$0
395 Power Operated Equip	$0	$0	$0	$0	$0	$0	$0	$0
396 Communications Equipment	$0	$0	$0	$0	$300	$3,000	$1,350	$1,650
397 Miscellaneous Equipment	$1,000	$0	$0	$0	$850	$9,000	$3,050	$5,950
Year 5 Totals	$1,648,840	$0	$0	$0	$596,207	$17,733,940	$1,941,887	$15,792,053

Double Diamond Utilities - Wastewater Division
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Test Year Ended: *Fifth Year of Operation*

PROJECTED OPERATING INCOME STATEMENT - FIFTH YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] FIFTH YEAR COMPANY AS FILED	[B] STAFF FIFTH YEAR ADJUSTMENTS	[C] STAFF FIFTH YEAR AS ADJUSTED	[D] STAFF RECOMMENDED CHANGES	[E] STAFF RECOMMENDED
	REVENUES:					
1	Metered Water Sales	1,470,000	210,000	1,680,000	662,177	2,342,177
2	Effluent Revenue	-	101,053	101,053		101,053
3	Other Operating Revenue	7,500	3,750	11,250	-	11,250
4	**Total Operating Revenues**	1,477,500	314,803	1,792,303	662,177	2,454,480
5						
6	*OPERATING EXPENSES:*					
7	Salaries and Wages	$0	-	-		-
8	Sludge Removal Expense	$76,718	-	76,718		76,718
9	Purchased Power, Pumping Equi	$67,850	7,250	75,100		75,100
10	Sewage Treatment and Testing	$0	-	-		-
11	Repairs and Maintenance	$35,000	-	35,000		35,000
12	Office Supplies and Expense	$0	-	-		-
13	Outside Services, Operations	$290,000	-	290,000		290,000
14	Outside Services, Billing and Cus	$21,000	3,000	24,000		24,000
15	Rents	$0	-	-		-
16	Transportation Expenses	$0	-	-		-
17	Insurance - General Liability	$0	-	-		-
18	Depreciation & Amortization	$398,027	55,518	453,545		453,545
19	Property Taxes	$39,893	22,579	62,472	7,694	70,166
20	Income Taxes	$211,913	87,409	299,322	252,623	$ 551,945
21	**Total Operating Expenses**	1,140,401	175,756	1,316,157	260,317	1,576,474
22	**Operating Income (Loss)**	337,099	139,047	476,146	401,860	878,006

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PROJECTED STATEMENT OF OPERATING INCOME

	Per Company Year 1	Per Company Year 2	Per Company Year 3	Per Company Year 4	Per Company Year 5	Staff Adjustments		Staff Adjusted
Revenues:								
Flat Rate Revenues	$0	$210,000	$630,000	$1,050,000	$1,470,000	$210,000	A	1,680,000
Effluent Revenue	$0	$0	$0	$0	$0	$101,053	B	101,053
Establishment Charges	0	7,500	7,500	7,500	7,500	3,750	A	11,250
Total Operating Revenue	$0	$217,500	$637,500	$1,057,500	$1,477,500	$314,803		$1,792,303
Operating Expenses:								
Salaries and Wages	$0	$0	$0	$0	$0	$0		$ -
Sludge Removal Expense	0	34,424	37,572	73,570	76,718	0		76,718
Purchased Power, Pumping Equip	0	19,700	34,750	53,350	67,850	7,250	C	75,100
Sewage Treatment and Testing	0	0	0	0	0	0		0
Repairs and Maintenance	2,000	5,000	15,000	25,000	35,000	0		35,000
Office Supplies and Expense	0	0	0	0	0	0		0
Outside Services, Operations	10,000	145,000	190,000	240,000	290,000	0		290,000
Outside Services, Billing and Cust Serv	0	3,000	9,000	15,000	21,000	3,000	D	24,000
Rents	0	0	0	0	0	0		0
Transportation Expenses	0	0	0	0	0	0		0
Insurance - General Liability	0	0	0	0	0	0		0
Depreciation Expense	111,736	251,104	363,860	428,888	398,027	55,518	E	453,545
Property Tax	22	22	22	12,239	39,893	22,579	F	62,472
Income Tax	0	5,873	17,213	28,553	211,913	87,409	G	299,322
Total Operating Expenses	$123,758	$464,123	$667,417	$876,600	$1,140,401	$175,756		$1,316,157
OPERATING INCOME/(LOSS)	($123,758)	($246,623)	($29,917)	$180,900	$337,099	$139,047		$476,146
Other Income/(Expense):								
419 Interest and Dividend Income	$0	$0	$0	$0	$0	$0		$0
421 Non-Utility Income	0	0	0	0	0	0		0
427 Interest Expense	0	0	0	0	0	0		0
4XX Reserve/Replacement Fund Deposit	0	0	0	0	0	0		0
426 Miscellaneous Non-Utility Expense	0	0	0	0	0	0		0
Total Other Income/(Expense)	$0	$0	$0	$0	$0	$0		$0
NET INCOME/(LOSS)	($123,758)	($246,623)	($29,917)	$180,900	$337,099	$139,047		$476,146

Explanation of Adjustment

A - Flat rate revenue: $210,000 (250 additional customers x $70) x 12 months
Estab Charges $3,750 $15 (half of the $30 Establ Charge) x 250 additional customers
$213,750

B - Page 4.2 of the Stantec "Section 31 of the Ranch at White Hills CC&N Technical Support Water,Wastewater, and Reclaimed Water" report shows that the anticipated total daily demand in year 5 for effluent to be 92,286 gpd. Staff calculated the annual gallons by mutiplying the daily amount by 365 days per year and dividing by 1,000 gallons. The resulting number was multiplied by Staff's recommended rate for effluent (which Staff set lower than the first tier of the potable water rate).

	92,286	Anticipated total daily reclaimed water demand
divided by	1,000	
	92.286	Gallons in 1,000's
multiplied by	365	days
	33,684	Annual gallons
multiplied by	$ 3.00	Staff proposed effluent rate
	$101,053.17	

C - To reflect the increase for 250 additional customers. Staff divided the $14,500 increase in pur pumping power for 500 customers by two and added the resulting $7,250 to the purchased pumping power for the fifth year.

D - To reflect the increase for 250 additional customers. Staff multiplied the $1 monthly meter reading and billing rate by 250 customers times 12 months. The resulting $3,000 was added to outside services (billing & cust serv) expense for the fifth year.

E - See Schedule CSB-WW3, page 3 for depreciation expense calculation.

F - See Schedule CSB-WW3, page 4 (column A, line 18) for property tax calculation.

G - See Schedule CSB-WW1, page 2 (column B, line 52) for income tax calculation.

Double Diamond Utilities, Inc.
Wastewater Division
Docket No.: WS-20543A-07-0435
Test Year Ended: Fifth Year of Operation

PROJECTED DEPRECIATION EXPENSE

Line No.	Acct. No.	Description	[A] Plant in Service Per Staff	[B] Nondepreciable or Fully Depreciated Plant	[C] Depreciable Plant (Col A - Col B)	[D] Depreciation Rate	[E] Depreciation Expense (Col C x Col D)
1	351	Organization	$ 51,000	$ 51,000	$ -	0.00%	$ -
2	352	Franchises	$ 8,500	$ 8,500	$ -	0.00%	$ -
3	353	Land & Land Rights	$ 100,000	$ 100,000	$ -	0.00%	$ -
4	354	Structures & Improvements	$ 3,240,000	$ -	$ 3,240,000	3.33%	$ 107,892
5	355	Power Generation Equipment	$ 96,000	$ -	$ 96,000	5.00%	$ 4,800
6	360	Collection Sewers - Force	$ 360,000	$ -	$ 360,000	2.00%	$ 7,200
7	361	Collection Sewers - Gravity	$ 5,180,040	$ -	$ 5,180,040	2.00%	$ 103,601
8	363	Services to Customers	$ 1,080,000	$ -	$ 1,080,000	2.00%	$ 21,600
9	364	Flow Measuring Devices	$ 192,000	$ -	$ 192,000	10.00%	$ 19,200
10	365	Flow Measuring Installations	$ -	$ -	$ -	10.00%	$ -
11	366	Reuse Services	$ 18,000	$ -	$ 18,000	2.00%	$ 360
12	367	Reuse Meters & Installation	$ 14,400	$ -	$ 14,400	8.33%	$ 1,200
13	370	Receiving Wells	$ -	$ -	$ -	3.33%	$ -
14	371	Pumping Equipment	$ 432,000	$ -	$ 432,000	12.50%	$ 54,000
15	374	Reuse Distribution Reserviors	$ 720,000	$ -	$ 720,000	2.50%	$ 18,000
16	375	Reuse Transmission & Distribution Mains	$ 1,176,000	$ -	$ 1,176,000	2.50%	$ 29,400
17	380	Treatment & Disposal Equipment	$ 4,080,000	$ -	$ 4,080,000	5.00%	$ 204,000
18	381	Plant Sewers	$ 960,000	$ -	$ 960,000	5.00%	$ 48,000
19	382	Outfall Sewer Lines	$ -	$ -	$ -	3.33%	$ -
20	390.0	Office Furniture & Fixtures, General	$ 14,000	$ -	$ 14,000	6.67%	$ 934
21	390.1	Office Furniture & Fixtures, Computing	$ -	$ -	$ -	20.00%	$ -
22	391	Transportation Equipment	$ -	$ -	$ -	20.00%	$ -
23	392	Stores Equipment	$ -	$ -	$ -	4.00%	$ -
24	393	Tools Shop & Garage Equipment	$ -	$ -	$ -	5.00%	$ -
25	394	Laboratory Equipment	$ -	$ -	$ -	10.00%	$ -
26	395	Power Operated Equipment	$ -	$ -	$ -	5.00%	$ -
27	396	Communication Equipment	$ 3,000	$ -	$ 3,000	10.00%	$ 300
28	397	Miscellaneous General Equipment	$ 9,000	$ -	$ 9,000	10.00%	$ 900
29			$ -	$ -	$ -		$ -
30		Total Plant	$ 17,733,940	$ 159,500	$ 17,574,440		$ 621,386
31							
32		Composite Depreciation Rate (Depr Exp / Depreciable Plant):	3.54%				
33		CIAC:	$ 4,746,981				
34		Amortization of CIAC (Line 32 x Line 33):	$ 167,841				
35							
36		Depreciation Expense Before Amortization of CIAC:	$ 621,386				
37		Less Amortization of CIAC:	$ 167,841				
38		**Test Year Depreciation Expense - Staff:**	**$ 453,545**				
39		Depreciation Expense - Company:	$ 398,027				
40		**Staff's Total Adjustment:**	**$ 55,518**				

Double Diamond Utilities - Wastewater Division
Docket No. WS-20543A-07-0435
Test Year Ended: Fifth Year of Operation

PROJECTED PROPERTY TAX EXPENSE

LINE NO.	DESCRIPTION	[A] STAFF AS ADJUSTED	[B] STAFF RECOMMENDED
1	Staff Adjusted Fifth Year Revenues	1,792,303	1,792,303
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	3,584,606	3,584,606
4	Staff Recommended Revenue	1,792,303	2,454,480
5	Subtotal (Line 4 + Line 5)	5,376,910	6,039,086
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	1,792,303	2,013,029
8	Department of Revenue Mutilplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	3,584,606	4,026,058
10	Plus: 10% of CWIP	-	-
11	Less: Net Book Value of Licensed Vehicles	-	-
12	Full Cash Value (Line 9 + Line 10 - Line 11)	3,584,606	4,026,058
13	Assessment Ratio	23.50%	23.50%
14	Assessment Value (Line 12 * Line 13)	842,382	946,124
15	Composite Property Tax Rate - Obtained from ADOR	7.4161%	7.416140%
16	Staff Fifth Year Adjusted Property Tax Expense (Line 14 * Line 15)	62,472	
17	Company Proposed Property Tax	39,893	
18	Staff Test Year Adjustment (Line 16 - Line 17)	22,579	
19	Property Tax - Staff Recommended Revenue (Line 14 * Line 15)		70,166
20	Staff Fifth Year Adjusted Property Tax Expense (Line 16)		62,472
21	Increase in Property Tax Due to Increase in Revenue Requirement		7,694
22	Increase in Property Tax Due to Increase in Revenue Requirement (Line 21)		7,694
23	Increase in Revenue Requirement		662,177
24	Increase in Property Tax Per Dollar Increase in Revenue (Line 22 / Line 23)		1.161862%

Schedule CSB-WW4

Double Diamond
Wastewater Division
Docket No.: WS-20543A-07-0435
Test Year Ended: Fifth Year of Operation

PROJECTED CAPITAL STUCTURE

Line No.		Year 1	Year 2	Year 3	Year 4	Year 5	Staff Adjustment	Ref	Staff as Adjusted
1	**Short-term Debt**	$ -	$ -	$ -	$ -	$ -	$ -		$ -
2									
3	**Long-Term Debt**	$ -	$ -	$ -	$ -	$ -	$ -		$ -
4									
5	**Advances in Aid of Construction, Net of Refunds**								$0
6	Advances In Aid of Construction (AIAC)	$ -	$ -	$ -	$ -	$ -	$ -		$ -
7	Meter and Service Line Advances (Meter Deposits)	$ -	$ -	$ -	$ -	$ -	$ -		$ -
8	Subtotal	$ -	$ -	$ -	$ -	$ -	$ -		
9									
10	**Contributions In Aid of Construction** (Net of Amort.)								$ -
11	Treatment Capacity (Hook-up Fees)	$3,660,000	$1,957,500	$ 4,005,000	$ 2,002,500	$ -	$ -		$ 4,746,981
12	Net Contributions In Aid of Construction (CIAC)	$ -	$2,535,813	$ 4,810,958	$ 6,809,890	$ 8,275,231	$ (3,528,250)		$ 4,746,981
13	Subtotal	$3,660,000	$4,493,313	$ 8,815,958	$ 8,812,390	$ 8,275,231	$ -		
14									
15	**Total Advances and Contributions**	$3,660,000	$4,493,313	$ 8,815,958	$ 8,812,390	$ 8,275,231	$ (3,528,250)		$ 4,746,981
16									
17	**Equity**								
18	Common Stock	$ 2,500	$ 2,500	$ 2,500	$ 2,500	$ 2,500	$ -		$ 2,500
19	Paid in Capital	$2,209,980	$3,523,893	$ 5,367,457	$ 6,169,425	$ 7,367,815	$ 3,528,250		$10,896,065
20	Retained Earnings	(63,738)	(310,361)	(340,277)	(159,376)	177,723	$ -		$ 177,723
21	Subtotal	$2,148,742	$3,216,032	$ 5,029,680	$ 6,012,549	$ 7,548,038	$ 3,528,250		$11,076,288
22									
23	**Total Capital (L1 + L3 + L12 + L18)**	$5,808,742	$7,709,345	$13,845,638	$ 14,824,939	$ 15,823,269	$ -		$15,823,269
24									
25	**Percent of Total AIAC/CIAC to Total Capital**	63.01%	58.28%	63.67%	59.44%	**52.30%**			**30.00%**
26	Percent of Total Equity to Total Capital	36.99%	41.72%	36.33%	40.56%	47.70%			70.00%
27	Total	100.00%	100.00%	100.00%	100.00%	100.00%			100.00%

Double Diamond Utilities, Inc.
Wastewater Division
Docket No.: WS-20543A-07-0435
Test Year Ended: Fifth Year of Operation

Schedule CSB-WW5

RATE DESIGN

	Proposed Rates	
	Company	Staff
Residential Service - Per Month	$ 70.00	$97.59
Effluent Sales[1]		
Per 1,000 Gallons	$ 3.00	$ 3.00

[1]Not applicable to turf irrigation on medians and other common areas

Non-refundable Capacity (Hook-up) Fee - Per Residential Unit	$ 1,500	$ -

Service Charges

	Proposed Rates	
	Company	Staff
Establishment	$30.00	$30.00
Establishment (After Hours)	60.00	60.00
Re-establishment of Service (Within 12 Months)	(2)	(2)
Reconnection (Delinquent)	60.00	60.00
Customer Deposit	(3)	(3)
Deposit Interest	6.00%	6.00%
NSF Check Charge	35.00	35.00
Late Payment Penalty (Per Month)	1.50%	1.50%
Deferred Payment (Per Month)	1.50%	1.50%
Main Extentions / Meter Relocation	Cost (4)	Cost (4)
Service Calls - Not Company Responsibility	Cost (4)	Cost (4)
Revenue Taxes & Assessments	(5)	(5)

EXHIBIT 5

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

14. Please provide a copy of the owners', Leonard and Susan Mardian, resumes indicating 1) dates, titles(s) and companies with whom he/she was/is employed, 2) any professional organizations of which he/she is a member or officer, 3) educational background and degrees earned, and 4) any other information relevant to his/her professional career.

RESPONSE: Please see Exhibit 6 attached hereto and incorporated herein by reference as though fully set forth verbatim

RESPONDENT: Applicant

Exhibit 6

Exhibit 6 to Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435

RESUME OF
LEONARD AND SUSAN MARDIAN

PERSONAL BACKGROUND

LEONARD MARDIAN
Certified Public Accountant (Inactive)
Self Employed Real Estate Developer – 40 Years
Graduated Reno High School, Reno, Nevada
Received BA in Business Administration Degree from University of Nevada, Reno – June 3, 1963

SUSAN MARDIAN
Self Employed Real Estate Developer – 25 Years
Graduated High School – Kitchner Waterloo High School, 1976

CURRENT PROJECTS:

1) DEVELOPMENT OF TAVERN, 2 HOTELS, SELF STORAGE 6200 RAINBOW BLVD., LAS VEGAS, 2001 - Present

Acquired 5 acres of land at the Corner of Rainbow Blvd. at Sobb Avenue, received entitlements for shopping center, tavern, fast food and miniwarehouse. Completed construction of the Blackjack Lodge (Tavern) a 6,000 square foot 24 hour restaurant and bar, and a 60,000 square foot Storage One Self Storage facility. The Mardian's currently operate the Blackjack Lodge.

Received zoning entitlements for a 110 room hotel. Received Holiday Inn Express Franchise approval from InterContinental Hotels Group, Inc. The Holiday Inn Express opened on February 9, 2007. The Mardians currently operate the Holiday Inn Express.

Purchased adjacent 2.5 acre parcel for construction of a second hotel of 151rooms. Received zoning entitlements and approval from InterContinental Hotels Group, Inc. for a second franchise.

2) THE RANCH AT WHITE HILLS/MARDIAN RANCH WHITE HILLS, ARIZONA, 2001 – Present

November 2001, Leonard and Susan Mardian originally acquired 31,000 Acres of Land in White Hills, Arizona, 27 miles south of the Hoover Dam on Highway 93, one hour drive from Las Vegas for development of a major residential Master Planned Community. Later acquired an additional 9,000 acres, including approximately 1,000 acres of commercial property along Highway 93.

A combined commercial, public facilities and 61,250 homes Master Plan has been approved by Mohave County Planning and Zoning and Board of Supervisors similar to Las Vegas Master Planned Communities. In conjunction therewith, Water Approvals for a total of 48,000 homes have been obtained. This plan has three separate development areas:

Resume – Leonard and Susan Mardian
Page Two

Area	# of Acres	# of Homes
The Ranch at White Hills	5,800	23,000
The Ranch at Temple Bar	1,760	5,500
The Mardian Ranch and The Ranch at Red Lake	17,800	32,750
Total:	25,360	61,250

Planning and design of the first 640 acres is in process to construct 2,500 home sites including commercial and public facilities.

3) PURCHASE AND RENOVATION OF OFFICE BUILDING
9510 W. SAHARA AVENUE, LAS VEGAS, APRIL 2006

Purchased a 20,000 Square Foot 2 Story Office Building at Sahara Avenue and Ft. Apache Road. Renovated the building, and now have our Corporate headquarters located on the first floor. Leased the balance of the building.

4) DEVELOPMENT OF 10 ACRE SHOPPING CENTER SITE
BERMUDA RD AT CACTUS AVE., LAS VEGAS, 1999 - Present

Acquired 10 acres of land at the Northeast Corner of Bermuda Road at Cactus Avenue, received entitlements for shopping center, tavern, convenience store and miniwarehouse. Completed construction of the Hurricane Tavern, a 65,000 square foot Storage One Self Storage Facility, and a Fast Food building, leased to Roberto's Tacos.

Currently constructing a $50,000,000 condominium project on this site, with 100 units, 3-story building over parking structure, named Milano Residences. Anticipated completion in 2008.

5) DEVELOPMENT OF 5 ACRE SHOPPING CENTER SITE
DECATUR BL. AT HACIENDA, LAS VEGAS, 1998 - Present

Acquired 5 acres of land at the Southwest Corner of Decatur Blvd. at Hacienda Avenue, received zoning entitlements for shopping center, tavern, and convenience store. Completed all offsite improvements, then constructed Shopping Center including PT's Pub. Sold convenience store site. Constructed a fast food pad building for Dairy Queen and Roberto's Tacos. Completed construction of two Office/R&D buildings on the property. Later sold all properties.

6) DEVELOPMENT OF 5 ACRE SHOPPING CENTER SITE
DECATUR BL AT RENO AVE, LAS VEGAS, 1998

Acquired 5 acres of land at the Northwest Corner of Decatur Blvd. at Reno Avenue, received zoning entitlements for shopping center, tavern, and convenience store. Completed all offsite improvements, and built the O'Aces Tavern. Became a limited partner in Convenience Store at corner (CityStop.) Later sold all properties.

Exhibit 6 to Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
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Resume – Leonard and Susan Mardian
Page Three

7) DEVELOPMENT OF AUTOMOTIVE CENTER
SPRING MOUNTAIN ROAD AT LINDELL, LAS VEGAS, 1998

Acquired land near the Northeast Corner of Spring Mountain Road near Lindell Avenue, received zoning entitlements for automotive center, and convenience store. Completed offsite improvements and completed construction of Automotive/Retail building. Leased all buildings and sold the property in 2003.

8) DEVELOPMENT AND SALE OF SELF STORAGE FACILITY
AUSSIE SELF STORAGE SPARKS, NEVADA, 1997

Acquired land, received zoning entitlements and constructed a 43,000 square foot Self Storage Facility. Sold the property in 1998.

9) CONVERSION OF OFFICE BUILDING TO SELF STORAGE FACILITY
IRVINE, CALIFORNIA, 1996

Acquired a 43,000 square foot office building with 5.6 acres of land. Received zoning entitlements to convert existing building to a Self Storage Facility and additional entitlements for 140,000 square feet of new buildings. Completed conversion and operated facility for 9 months. Sold project to Shurgard Self Storage.

10) PURCHASE AND SALE OF IMPERIAL CANYON SHOPPING
CENTER ANAHEIM HILLS, CALIFORNIA, 1995

Purchased and refurbished an existing 43,000 square feet Shopping Center for $4,300,000. Increased the value of the property by leasing additional space, refurbishing the center, including paving, painting and improvements. Sold the center within 9 months of acquisition for $5,500,000

11) FINISHED HOME LOTS, RAINBOW POINTE
LAS VEGAS, 1994

Received zoning entitlements, subdivided and managed the planning and development of 234 finished lots on 34 acres of land, including offsite improvements. Represented Seller in the sale of finished lots to Kaufman and Broad.

12) WAL-MART AND SAMS CLUB SHOPPING CENTER
LAS VEGAS, 1991 - 1993

Development of a 53 acre Shopping Center, SWC of Rainbow Blvd. at Spring Mountain Road. Value of over $40,000,000. Including the following tenants: Wal-Mart, Sam's Club, International House of Pancakes, Sizzler, TCBY and Cleaners, and 80,000 square feet of in-line space, and Offices. Development responsibilities included the following: negotiated leases with Wal-Mart, in-line and pad tenants, negotiated the sale of land to Sam's Club negotiated construction contracts and obtained financing.

Resume – Leonard and Susan Mardian
Page Four

13) LEONARD MARDIAN PREVIOUS DEVELOPMENTS CALIFORNIA/NEVADA, 1960 - 1991

Leonard Mardian developed hotels including the Holiday Inn in Walnut Creek, California and the Sheraton Hotel in Concord, California. Leonard Mardian purchased the land, obtained zoning, constructed, operated and later sold the hotels. Leonard Mardian developed Apartment Complexes in San Diego, Reno, and the San Francisco Bay Area. He also developed Self Storage Facilities in San Diego and Concord, California.

EXHIBIT 6

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

7. Has Double Diamond Utilities, Inc. and/or any of their respective affiliated/associated entities been accused of allegations of political corruption (including but not limited to campaign violations and election law violations); allegations of construction violations; allegations of misconduct; and filings at administrative hearings, at the local, state, or federal agencies, including at the Federal Elections commission, Registrar of Contractors, or any violations of law? If so, please provide a comprehensive list of all affiliated/associated individuals and entities that have been accused of the above mentioned allegations; the litigation history; and. the individual case disposition.

RESPONSE: There is a single instance, whereby affiliated entities of Double Diamond Utilities, Inc. have worked with, and successfully resolved issues with the Arizona Department of Real Estate. In short, Double Diamond affiliates identified a potential issue with the Department of Real Estate and brought the problem to the Department's attention. This fully approved/authorized consent decree addressed all of the outstanding issues, and has been attached for your information as Exhibit 3 and is hereby incorporated herein by reference as though fully set forth verbatim.

The affiliated entities identified in the consent decree include Gateway Lots, LLC and Flannery & Allen, LLC.

Within the "FINDINGS OF FACT" determinations of this decree, there are numerous mitigating circumstances which are specifically identified which make this decree unique. As a result, a consent decree was initiated to fully address and resolve the issues identified.

Of significant importance is the Arizona Department of Real Estate consent decree "FINDING OF FACT" determination #3, which verifies these instances and reads as follows:

. . .

3. As mitigating circumstances, Respondents note the following:

a. The Matter was initiated as a result of the notice and information provided by Respondents to the Department. To date,

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

the Department has received no complaints from any prior purchasers of the Lots from Respondents.

b. As soon as Respondents learned of their potential non-compliance with Department of Real Estate requirements, Respondents met with and notified Department representatives and sought to comply with all applicable requirements.

c. In cooperation with the Department, Respondents produced copies of the deeds, related documents and information concerning Respondents' previous acquisitions, sales and/or transfers of the Lots.

d. Additionally, Respondents have voluntarily suspended lot sales in the Properties pending resolution of the Matter.

e. Prior to entry of this Consent Order, Gateway diligently worked in cooperation with Department representatives to complete and file an application for a subdivision public report for lots located within Gateway Acres Tract 1, Gateway Acres Tract 2, Gateway Acres Tract 7 and Gateway Acres Tract 8.

f. F & A has filed an application for a subdivision public report for lots located with the Flannery & Allen Tract 33-27-20.

RESPONDENT: Applicant

Exhibit 3

Arizona Department of Real Estate
2910 North 44th Street, Suite 100
Phoenix, AZ 85018
Telephone: (602) 468-1414
Facsimile: (602) 468-0562

BEFORE THE ARIZONA DEPARTMENT OF REAL ESTATE

In the matter of the subdivision violations of: **GATEWAY LOTS, LLC**, a Nevada limited liability company and **FLANNERY & ALLEN, LLC**, a Nevada limited liability company, Respondents.	**06F-SD-699** **CONSENT ORDER**

The Arizona Department of Real Estate ("Department") has investigated certain allegations of violations by GATEWAY LOTS, LLC, a Nevada limited liability company and FLANNERY & ALLEN, LLC, a Nevada limited liability company (collectively "Respondents") of the laws of this state pertaining to the acquisition, advertisement, division and/or sale of lots and parcels (collectively the "Lots") by Respondents and/or managers located in five (5) subdivisions within Mohave County, Arizona, more particular described as Flannery & Allen Tract 33-27-20, Gateway Acres Tract 1, Gateway Acres Tract 2, Gateway Acres Tract 7 and Gateway Acres Tract 8 (Collectively "the Properties"). Such review and/or investigation and the underlying subject matter thereof, including all acquisitions, advertisements, divisions, sales and/or transfers of lots in the Properties are hereinafter collectively referred to as the "Matter". The Department has sufficient grounds to charge all Respondents with violations of A.R.S. §32-2181 et. seq., to order them to cease and desist from selling or offering to sell lots or parcels located within the Development pursuant to A.R.S. §§32-2154 and 32-2183 (I), and to assess civil penalties pursuant to A.R.S. §32-2185.09.

Respondents have been informed of their right to receive written notice of the charges against them and to a hearing to contest those charges pursuant to A.R.S. §41-1092, et seq., to present evidence and be represented by an attorney. In order to settle this matter, Respondents hereby stipulate that the following Findings of Fact are true, and consent to the

Respondent(s) Initials

entry of the following Conclusions of Law and Order.

FINDINGS OF FACT

1. At all material times, GATEWAY LOTS, LLC ("Gateway") was a Nevada limited liability company with a principal place of business at 4132 S. Rainbow Blvd., PMB 324, Las Vegas, Nevada 89103.

2. At all material times, FLANNERY & ALLEN, LLC ("F&A") was a Nevada limited liability company with a principal place of business at 4132 S. Rainbow Blvd., PMB 324, Las Vegas, Nevada 89103.

3. As mitigating circumstances, Respondents note the following:

a. The Matter was initiated as a result of the notice and information provided by Respondents to the Department. To date, the Department has received no complaints from any prior purchasers of the Lots from Respondents.

b. As soon as Respondents learned of their potential non-compliance with Department of Real Estate requirements, Respondents met with and notified Department representatives and sought to comply with all applicable requirements.

c. In cooperation with the Department, Respondents have produced copies of the deeds, related documents and information concerning Respondents' previous acquisitions, sales and/or transfers of the Lots.

d. Additionally, Respondents have voluntarily suspended lot sales in the Properties pending resolution of the Matter.

e. Prior to entry of this Consent Order, Gateway diligently worked in cooperation with Department representatives to complete and file an application for a subdivision public report for lots located within Gateway Acres Tract 1, Gateway Acres Tract 2, Gateway Acres Tract 7 and Gateway Acres Tract 8.

f. F&A has filed an application for a subdivision public report for lots located with the Flannery & Allen Tract 33-27-20.

Flannery & Allen Tract 33-27-20 transactions

4. As of October 7, 2005, there was no record with the Department of any receipt of or

Respondent(s) Initials

application for a public report by F&A, covering the Flannery & Allen Tract 33-27-20.

5. Between January 2004 and September 2005, F&A owned and offered for sale, sold or transferred various lots in the Flannery & Allen Tract 33-27-20 without notifying the Department of the intention to offer or sell lots and without a public report.

Gateway Acres Transactions

6. As of June 25, 2002, there was no record with the Department of any receipt or of application for a public report by Gateway covering lots within Gateway Acres, Tract 1.

7. As of June 5, 2005, there was no record with the Department of any receipt or of application for a public report by Gateway covering lots within Gateway Acres, Tract 2.

8. As of June 30, 2005, there was no record with the Department of any receipt or of application for a public report by Gateway covering lots within Gateway Acres, Tract 7.

9. As of May 16, 2005, there was no record with the Department of any receipt or of application for a public report by Gateway covering lots within Gateway Acres, Tract 8.

10. Between May 2002 and June 2005, Respondents owned and offered for sale, sold and/or transferred various lots and parcels located within Gateway Acres Tract 1, Gateway Acres Tract 2, Gateway Acres Tract 7, and Gateway Acres Tract 8 without notifying the Department of the intention to offer and sell, and without a public report.

CONCLUSIONS OF LAW

1. The Department has jurisdiction in this matter.

2. Pursuant to A.R.S. §32-2153.01, the Commissioner may enter a Consent Order upon agreement of the parties that includes terms to which the parties agree and which the Commissioner deems appropriate.

3. Respondents, by actions as described in the Findings of Fact, purchased, owned or had an ownership interest in subdivided lands within the meaning of A.R.S. §32-2101 (55)(a).

4. Respondents, through actions as described in the Findings of Fact, offered for sale, sold or transferred various lots within the Properties without first notifying the Commissioner in writing of the intent to do so, in violation of A.R.S. §32-2181 (A).

5. Respondents, through actions as described in the Findings of Fact, sold various lots

Respondent(s) Initials

within the Properties without first obtaining a public report from the Commissioner, in violation of A.R.S. §32-2183 (F).

6. Respondents, through actions as described in the Findings of Fact, sold various lots within the Properties without clearly and conspicuously disclosing the purchaser's right to rescind the agreement for sale within the seven (7) day time limit provided by statute, in violation of A.R.S. §32-2185.01 (D) and A.A.C. R4-28-804.

7. Respondents, through actions as described in the Findings of Fact, sold various lots within the Properties without clearly and conspicuously disclosing the purchaser's right to receive a copy of the public report and the purchaser's right to rescind the agreement for sale, in violation of A.R.S. §32-2185.06 and A.A.C. R4-28-803.

8. Respondents, through actions as described in the Findings of Fact, various lots within the Properties without obtaining a public report receipt from lot purchasers, in violation of A.A.C. R4-28-805.

9. None of the sales or offers for sale by Respondents were exempt from the public report requirement or any other provision of A.R.S. §32-2181, *et seq*.

10. Grounds exist under A.R.S. §32-2154 for the Commissioner to prohibit the offer for sale, sale or transfer of the subdivided lands referenced herein until such time as the Commissioner has issued a public report or exemption order, and to issue any other orders the Commissioner deems necessary to protect the public interest and ensure compliance with Arizona's subdivision laws, pursuant to A.R.S. §32-2183 (I).

11. Grounds exist to require Respondents to reimburse the Department for its investigative expenses pursuant to A.R.S. §32-2183.01 (H).

12. Grounds exist to assess civil penalties of One Thousand Dollars ($1,000.00) per violation against Respondents pursuant to A.R.S. §32-2185.09.

ORDER

NOW, THEREFORE, IT IS ORDERED THAT:

The Matter is conclusively settled and resolved as against Respondents and their members and manager, in accordance with the following terms and conditions:

Respondent(s) Initials

CEASE AND DESIST

1. Respondents shall cease and desist from selling, offering for sale, transferring or conveying any parcel or fractional interest in the Properties until Respondents demonstrate compliance with all applicable statutes and rules, and all orders contained herein.

CIVIL PENALTY

2. Respondents are assessed a civil penalty of Forty Five Thousand Dollars ($45,000.00), jointly and severally, due and payable with the return of the Consent Order signed by Respondents. The payment shall be in the form of a cashier's check or money order payable to the Arizona Department of Real Estate.

GRANT TO EDUCATION FUND

3. Respondents shall contribute Thirty Thousand Dollars ($30,000) to the Department's Education Fund as a grant to be used for educational publications and for such other educational efforts that the Commissioner deems proper for the guidance of licensees and the public pursuant to A.R.S. § 32-2107(D). The payment shall be in the form of a cashier's check or money order made payable to the Arizona Department of Real Estate Education Fund.

RESCISSION/PUBLIC REPORT

4. Respondents shall, within forty-five (45) days of the entry of this Order, submit to the Department's Compliance Officer ("Compliance Officer") copies of the rescission letters provided by Respondents to lot purchasers, together with proof that Respondents mailed or delivered the letters to each purchaser as described above. Purchasers shall have been given not less than ninety (90) days after receipt thereof to accept the offers to rescind their purchases.

5. Before offering for sale, selling or transferring any lot or parcel other than to effect rescission as provided in this Order, Respondents, individually or with the other Respondents shall, within sixty (60) days of the entry of this Order, obtain approval from the Department of Respondents' pending applications for public reports for the Properties pursuant to A.R.S. §32-2181, et seq., that covers all parcels, lots or tracts owned by Respondents.

6. Extensions of the deadlines set forth above may only be granted upon good cause and the express written consent of the Compliance Officer.

Respondent(s) Initials

ENFORCEMENT OF CONSENT ORDER

7. If the Commissioner determines that Respondents have failed to comply with any term or deadline of this Order, the Commissioner may commence additional disciplinary or other proceedings that the Commissioner deems appropriate in any court or before any tribunal of proper jurisdiction, and seek such orders as are necessary to enforce this Order and compel compliance.

RECORDING OF CONSENT ORDER

8. This Consent Order shall be recorded in the office of the Mohave County Recorder, pursuant to the provisions of pursuant to A.R.S. §32-2183.02.

9. Any publication or release concerning this Consent Order or the Matter shall include all of the mitigating factors contained in the Findings of Fact.

DATED this 22nd day of August, 2006.

for Tom Adams

ELAINE RICHARDSON, Commissioner
Arizona Real Estate Department

CONSENT TO ORDER

1. Respondents hereby acknowledge reading the foregoing Findings of Fact, Conclusions of Law and Order, are aware of the rights to an administrative hearing in this matter to present evidence, and have waived same.

2. Respondents admit the jurisdiction of the Department, admit the foregoing Findings of Fact, and consent to the entry of the foregoing Conclusions of Law and Order.

3. Respondents state that no promises were made outside of this Consent Order to induce entering into this Consent Order and declare that Respondents entered into this Consent Order voluntarily.

4. Respondents acknowledge that acceptance of this Consent Order is to settle the specific allegations by the Department in this matter and does not preclude any other agency or officer of this State, or subdivision thereof, from instituting other civil or criminal proceedings as may be appropriate in the future.

Respondent(s) Initials

5. Respondents hereby waive all rights to challenge the Commissioner's Findings of Fact, Conclusions of Law and Order on appeal, to the Commissioner or any court or other tribunal, and agree to be bound by this Consent Order.

6. Respondents acknowledge and agree that, although the Consent Order has not yet been accepted by the Commissioner, upon signing this Consent Order and returning this document (or a copy thereof) to the Department, Respondents may not revoke acceptance of the Consent Order. Respondents may not make any modifications to the document. Any modification to this original document are ineffective and void unless mutually approved by the parties.

7. Respondents agree to comply with all the terms and meet all the deadlines in this Consent Order, and that failure to do so may result in the Department filing this Consent Order with the superior court and obtaining a recordable judgment. Respondents agree not to oppose any such action taken by the Department.

8. Respondents agree to be available to testify fully and truthfully in any other enforcement proceedings brought by the Department resulting from this case.

Dated: August 17, 2006. By Susan Mardian

Manager (Title)

GATEWAY LOTS, LLC,
a Nevada Limited Liability Company, **Respondent**

Dated: August 17, 2006. By Susan Mardian

Manager (Title)

FLANNERY & ALLEN, LLC,
a Nevada Limited Liability Company, **Respondent**

Respondent(s) Initials

APPROVED BY THE MEMBERS AND MANAGERS OF RESPONDENTS

Dated: August 17, 2006 _____
LEONARD MARDIAN

Dated: August 17, 2006 _____
SUSAN MARDIAN

Dated: August 17, 2006 _____
LORI MARDIAN-WILLIAMS

APPROVED AS TO FORM:

Dated: AUGUST 21, 2006 _____
Michael T. Denious, Esq.
Stoops, Denious, Wilson & Murray, PLC
350 E. Virginia Ave., Ste. 100
Phoenix, Arizona 85004
Attorney for Respondents

COPY of the foregoing sent via U.S. Mail this 22nd day of August, 2006, to:

Gateway Lots, LLC
Flannery & Allen, LLC
4132 S. Rainbow, PMB 324
Las Vegas, Nevada 89103
Respondents

Stoops, Denious, Wilson & Murray, PLC
Michael T. Denious, Esq.
350 E. Virginia Ave., Ste. 100
Phoenix, Arizona 85004
Attorney for Respondents

COPY of the foregoing delivered this 22nd day of August, 2006 to:

Arizona Department of Real Estate
Tom Adams, Director, Regulations
Mike Wheeler, Deputy Director, Administrative Actions Division
Roy Tanney, Director, Development Division
Eleni Katerelos, Compliance Officer
Admin. Actions for Real Estate Bulletin
2910 North 44th Street
Phoenix, AZ 85018

June Marshall

Respondent(s) Initials

SILVER STATE BANK

Cashiers Check

Date: 8/17/06 061619

Branch: 1008

GATEWAY LOTS, LLC

REMITTER

PAY TO THE ORDER OF EXACTLY **30,000 AND 00/100 DOLLARS $30,000.00

*******ARIZONA DEPARTMENT OF REAL ESTATE EDUCATION FUND*****

Lynn Reynolds

GATEWAY LOTS, LLC & FLANNERY & ALLEN, LLC

⑈0000061619⑈ ⑆122401833⑆ 005999001 9⑈

SILVER STATE BANK

Cashiers Check

Date: 8/17/06 061617

Branch: 1008

GATEWAY LOTS, LLC.*******

REMITTER

PAY TO THE ORDER OF EXACTLY **45,000 AND 00/100 DOLLARS $45,000.00

*********ARIZONA DEPARTMENT OF REAL ESTATE**********

Lynn Reynolds

GATEWAY LOTS, LLC & FLANNERY & ALLEN, LLC

⑈0000061617⑈ ⑆122401833⑆ 005999001 9⑈

06F-SD-699

Arizona Dept. of Real Estate
Deposit No.: 553564 08/22/06 3:08 PM

Civil Penalties (Fines) $75000.00

Check $75,000.00

Change: $0.00
Clerk: jwilliams
Customer: 06F-SD-699

EXHIBIT 7

THE BEST SEATS AT THE BIGGEST SHOWS
VEGAS.com It's who you know.

LAS VEGAS SUN

September 22, 2006

Commissioner won't explain land deal

Boggs McDonald got $100,000 loan from developer whose business benefited from her votes

By Tony Cook, Las Vegas Sun
Las Vegas Sun

Less than six months after helping to obtain a 2005 zoning change for a local hotel developer, Clark County Commissioner Lynette Boggs McDonald acquired 4.7 acres of land from the same developer in the boomtown of White Hills, Ariz.

The sale price: $125,000. The catch: The developer loaned her $100,000 to make the purchase.

Boggs McDonald never disclosed the loan on her financial disclosure forms, even though state law requires candidates to reveal loans of more than $5,000.

Moreover, Boggs McDonald voted on a liquor and gaming issue involving a tavern also owned by the developer, Susan Mardian. While the vote was a routine one, Boggs McDonald again failed to disclose her indebtedness to Mardian.

And there is another financial link between the commissioner and the developer. Over the past two years, Mardian has donated $11,500 to Boggs McDonald's campaign.

Boggs McDonald did not return phone calls for this story. Her campaign referred The Sun to attorney John Mowbray, to whom the Sun posed a list of questions Wednesday afternoon. As of Thursday evening, Mowbray said he had no information about the land deal.

• • •

In October 2004, Mardian wanted to build a 144-room full-service Holiday Inn on five acres that she owned on the 6200 block of South Rainbow Boulevard.

FORE!

· Basketball
· Boxing
· Football
· Golf
· Hockey
· Racing
· Soccer
· Tennis

ENTERTAINMENT

· Today's A & E
· Las Vegas
· TV & Movies
· Theater & Music

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"Part of our Holiday Inn franchise agreement requires us to build two hotels," Mardian explained in a letter to the county. "One limited-service and one full-service."

Zoning at the site, however, allowed only single-family residences on half-acre lots. Mardian wanted the property zoned for general commercial, which would permit the construction of the Holiday Inn - and, in so doing, probably raise the property's value.

The nearest similar facility was seven miles away, and the proposed four-story Holiday Inn would be close to Mardian's BlackJack Lounge. The Mardian family already had received approval to build a Holiday Inn Express just south of the proposed full-service hotel.

Mardian also asked that the usual requirement for separation between the roadway and sidewalk be set aside because adjacent properties had sidewalks abutting the street.

County staff recommended approval of Mardian's request. The commission approved the zoning change on Jan. 19, 2005.

Although the board's policy stipulates that the commissioner whose district encompasses the zoning change request should be the one to propose such an action, that did not happen in this case.

The Holiday Inn site is in Commissioner Rory Reid's district, but Reid abstained from voting because the Mardian family was a client of his law firm.

Instead, Boggs McDonald made the motion to grant Mardian's request. It passed with five votes, with Reid abstaining and Commissioner Yvonne Atkinson Gates absent.

Months before the vote, Mardian had given $5,000 in campaign contributions to Boggs McDonald in 2004. Then, three weeks before Mardian wrote to the county about the zoning issue, she gave Boggs McDonald an additional $2,500 contribution. A month before commissioners voted, Mardian contributed another $1,000. And Boggs McDonald's campaign received another $3,000 from Mardian during the last quarter of 2005, raising the two-year total to $11,500.

The Mardian family did not return calls.

Less than six months after the zoning vote, Boggs McDonald entered into a financial agreement in the spring of 2005 with the Mardian family.

Mardian and her husband, Leonard Mardian, also are developing a 25,000-acre master planned community in White Hills, Ariz. The development sits about 30 miles south of the Hoover Dam near the Nevada-Arizona border and, after the completion of the Hoover Dam bypass, is envisioned as a bedroom community of Las Vegas, 60 miles to the northwest.

Through their development company, the Mardians sold 4.7 acres to LSAR LLC, an entity controlled by Boggs McDonald and her husband, Steven McDonald, according to Mohave County, Ariz., property records.

The sale price was $125,000, according to an affidavit of property value filed with Mohave County.

The affidavit also reveals that the sale was financed with a loan from the seller - the Mardians' company.

According to the deed of trust, the loan was for $100,000. The interest rate and terms of the loan were not disclosed. The affidavit's space for details about the down payment also is blank, raising the question of where the additional $25,000 came from - or whether, in fact, the money was paid at all.

In May 2006, Boggs McDonald filed a financial disclosure form with the Nevada secretary of state. She listed the White Hills property, but did not mention the Mardians .

Under Nevada law, public officers must disclose any creditor to whom they or a member of their household owe more than $5,000, including debt secured by a deed of trust for real estate other than a personal residence.

Boggs McDonald's path again crossed that of the Mardians last month when she voted to approve a top employee designated to represent the BlackJack Lounge before the state liquor and gaming boards.

Although the vote was a routine one and occurred as part of the board's consent agenda - a list of items that commissioners approve with one vote - Boggs McDonald failed to disclose any financial ties to the tavern's owners.

Nevada ethics laws require a public officer to disclose any gifts or loan received from someone before voting on any matter involving that person.

Tony Cook can be reached at 259-2320 or at tony.cook@lasvegassun.com.

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EXHIBIT 8

Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435
October 4, 2007

Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

13. Please describe any and all mechanics, tax or other liens that have been assessed against any of the affiliated/associated entities or the directors and officers of Diamond Utilities, Inc.

RESPONSE: See Exhibit 5 attached hereto and incorporated herein by reference as though fully set forth verbatim.

RESPONDENT: Applicant

Exhibit 5

Exhibit 5 -- Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435

PERSONAL:

A. Two Internal Revenue Service Facsimile Federal Tax Lien Documents were filed against Mr. Leonard Mardian for the same tax period of 12/31/1986. While the tax period was the same for both liens, the amounts differed by $10.00 and as is evidenced by Exhibit A attached hereto and incorporated herein by reference, were served at two different times. Both liens reflect that these liens were "Self-released" and therefore have been completely satisfied by Mr. Mardian. Finally, Mr. Mardian's Social Security number is deemed propriety and therefore has been redacted from the documents attached as Exhibit A.

B. On or about November 7, 2007, the State of Arizona issued a Notice of State Tax Lien in the original amount of $989.23 against Mr. and Mrs. Mardian. Mr. and Mrs. Mardian were unaware that any such sums were due. As soon as Mr. and Mrs. Mardian were made aware of this lien, they immediately forwarded check number 10846 in the amount of $989.23 to the State of Arizona to fully resolve this matter. On or about June 13, 2006, the Notice of Intent to Release Lien was forwarded to Mr. and Mrs. Mardian. A copy of the lien, cancelled check satisfying the lien, and the notice of intent to release lien is attached hereto as Exhibit B and incorporated herein by reference as though fully set forth verbatim. Finally, Mr. and Mrs. Mardian's Social Security numbers are deemed propriety and therefore have been redacted from the documents attached as Exhibit B.

BUSINESS:

Rainbow Hotel, LLC.

Dayside, Inc. was the general contractor for the Holiday Inn Express ("HIE") located at 6220 South Rainbow Boulevard, Las Vegas, Nevada. HIE is owned and operated by Rainbow Hotel, LLC ("Rainbow"). Four liens were recorded during the construction of this Project: It is Rainbow's position that Dayside, Inc. failed to: (i) properly manage the project; (ii) failed to finish the project pursuant to its contract with Rainbow; and (iii) forced Rainbow to hire another general contractor to complete the project. The following liens were recorded against this project:

C. Sorensen Construction recorded a lien in the amount of $15,585.89 on or about November 14, 2006. Said lien was released on or about January 24, 2007. See, Exhibit C attached hereto and incorporated herein by reference as though fully set forth verbatim.

D. American Asphalt & Grading Co. recorded a lien on or about January 8, 2007 in the amount of $10,750.00. Said lien was released on or about January 22, 2007. See, Exhibit D attached hereto and incorporated herein by reference as though fully set forth verbatim.

E. Las Vegas Paving Corporation recorded a lien on or about January 16, 2007 in the amount of $14,635.03. Said lien was released on or about January 30, 2007. See, Exhibit E attached hereto and incorporated herein by reference as though fully set forth verbatim.

F. Dayside, Inc. recorded a lien on or about May 4, 2007. The validity and the amount of said lien is being challenged.

Exhibit 5 -- Double Diamond Utilities, Inc.'s
Responses To Staff's First Set
Of Data Requests To
Docket No. WS-20543A-07-0435

Milano Residences, LLC.

Dayside, Inc. was the original general contractor for a project called Milano Residences, LLC ("Milano") – a one hundred unit condominium development currently under construction and located at 430 East Cactus Avenue, Las Vegas, Nevada. It is Milano's position that Dayside, Inc. failed to properly manage the Milano project and failed to finish the project pursuant to its contract with Milano. Subsequently, Milano has been forced to hire another general contractor to complete the Milano project. The following liens were recorded against this project:

G. On or about May 10, 2007, Dayside, Inc. recorded two liens in the identical amount of $381,661.40 on two parcels of land owned by Milano Residences, LLC. The validity and amounts of both liens are being challenged. See, Exhibit G attached hereto and incorporated herein by reference as though fully set forth verbatim.

H. On or about May 17, 2007 Peri Formwork Systems, Inc. recorded a lien in the amount of $23,370.77. On or about September 27, 2007, Peri Formwork Systems, Inc. forwarded an Amended Lien. The validity and amount of Peri Formwork Systems, Inc.'s lien and/or amended lien is being challenged. See, Exhibit H attached hereto and incorporated herein by reference as though fully set forth verbatim.

The above represent those liens (existing and prior) of which the entities and individuals are aware. The Company and/or its affiliations have performed a due and diligent search of appropriate county records to determine any additional liens. However, the Company hereby reserves its right to supplement this response as new and/or additional information becomes known to the Company.

Exhibit 5-A

2692

INTERNAL REVENUE SERVICE FACSIMILE FEDERAL TAX LIEN DOCUMENT	COURT RECORDING DATA Lien Recorded : 02/20/1991 - 00:00A Recording Number: UCC Number : Liber : 91 02 20 Page : 0953 **Self-released**
District: Sacramento	IRS Serial Number: 689104014

This Lien Has Been Filed in Accordance with
Internal Revenue Regulation 301.6323(f)-1.

Name of Taxpayer :
LEONARD K MARDIAN

Residence :
2443 FAIR OAKS BLVD 323
SACRAMENTO, CA 95825-7684

With respect to each assessment below, unless notice of lien is refiled by the date in column(e), this notice shall constitute the certificate of release of lien as defined in IRC 6325(a).

Form (a)	Period (b)	ID Number (c)	Assessed (d)	Refile Deadline (e)	Unpaid Balance (f)
6672	12/31/1986	[redacted]	03/27/1989	04/26/1999	59680.50

Filed at: COUNTY RECORDER
SACRAMENTO COUNTY
SACRAMENTO, CA 95812

Total $ 59680.50

This notice was prepared and executed at Sacramento, CA on this, the 13th day of February, 1991.

Authorizing Official:
N. SOPOLSKY

Title:
REVENUE OFFICER 68-01-3432

2692

COURT RECORDING DATA

INTERNAL REVENUE SERVICE
FACSIMILE FEDERAL TAX LIEN DOCUMENT

Lien Recorded : 06/14/1993 - 00:00A
Recording Number: 05284
UCC Number :
Liber : 930614
Page :

Self-released

District: Reno

IRS Serial Number: 889321339

This Lien Has Been Filed in Accordance with
Internal Revenue Regulation 301.6323(f)-1.

Name of Taxpayer :
LEONARD K MARDIAN

Residence :
8099 PINNACLE PEAK AVE
LAS VEGAS, NV 89113

With respect to each assessment below, unless notice of lien is refiled by the date in column(e), this notice shall constitute the certificate of release of lien as defined in IRC 6325(a).

Form (a)	Period (b)	ID Number (c)	Assessed (d)	Refile Deadline (e)	Unpaid Balance (f)
6672	12/31/1986	[redacted]	03/27/1989	04/26/1999	59690.50

Filed at: COUNTY RECORDER
CLARK COUNTY
LAS VEGAS, NV 89155

Total $ 59690.50

This notice was prepared and executed at Reno, NV
on this, the 04th day of June, 1993.

Authorizing Official:
RON SMITH 1300

Title:
CHIEF ADVISORY

88-01-9990

Exhibit 5-B

ARIZONA DEPARTMENT OF REVENUE
P.O. BOX 29070
PHOENIX, ARIZONA 85038-9070

NOTICE OF STATE TAX LIEN

OFFICIAL RECORDS OF
MARICOPA COUNTY RECORDER
HELEN PURCELL
2005-1692713 11/08/05 13:03
2 OF 40
BLOCKNUMBERS

MARDIAN S R
MARDIAN L
4132 S RAINBOW #324
LAS VEGAS NV 89103

IMPORTANT RELEASE INFORMATION:
For each assessment listed below, unless this Notice of Lien is extended by the date given in column (2), this notice shall, on the day following such date, operate as a Certificate of Release.

Pursuant to the Arizona Revised Statutes Section 42-1152, Notice is hereby given that the following named taxpayer owes the Arizona Department of Revenue such unpaid amounts as are herein set forth and that pursuant to Section 42-1151 the Department has a lien against all the property or rights to property belonging to the taxpayer for such unpaid amount, plus accruing interest.

TYPE OF TAX: INCOME

ID NUMBERS: [redacted] PLACE OF FILING: MARICOPA

LIEN NUMBER: 0502654

DATE OF ASSESSMENT	LAST DAY TO EXTEND LIEN	TAX PERIOD	TAX BALANCE	PENALTY	INTEREST THRU 11/30/05	UNPAID BALANCE OF ASSESSMENT
10/07/03	10/07/09	01/02-12/02	.00	42.99	37.55	80.54
10/17/05	10/17/11	01/04-12/04	.00	482.76	425.93	908.69
					TOTAL	989.23

PAGE 1 OF 1
DATED AT PHOENIX, ARIZONA THIS 7 DAY OF NOVEMBER , 2005
Signature R. F. Hamel Title: Administrator

For additional information call: Phoenix (602) 542-5551 / Tucson (520) 628-6442
East Valley (480) 545-3500

198

SUSAN MARDIAN

WELLS FARGO BANK, N.A.
LAS VEGAS, NV

10846

PAY TO THE ORDER OF ARIZONA DEPARTMENT OF REVENUE $

DOLLARS

PO BOX
PHOENIX, AZ

MEMO LIEN [redacted]

[redacted]

[redacted] 10846 989.23

0039 54031

FOR DEPOSIT Bank of America
AZ Dept. of Rev.
State Treasurer
DOR Individual Income

0133741074

3560164361

STATE OF ARIZONA

Department of Revenue

Janet Napolitano
Governor

J. Elliott Hibbs
Director

MARDIAN SR
MARDIAN L
4132 S RAINBOW #324
LAS VEGAS NV 89103

NOTICE OF INTENT TO RELEASE LIEN

DATE: June 13, 2006

I.D. #: 9322543339 & 9322543339

LIEN #'S: 0502654 (Filed with Maricopa County and Secretary of State)

Pursuant to your inquiry, the above referenced lien has been satisfied, and this office is processing a release of lien.

The executed release will be sent by courier to the Maricopa County Recorder's Office and Secretary Of State.

If you need more information or have questions, please contact our Lien Department at (602) 716-7805.

Sincerely,

Renee Jordan
Administrator/gac

Exhibit 5-C

APN: 163-35-310-004

RECORDING REQUESTED
Sorensen Construction, Inc.

AND WHEN RECORDED MAIL TO:
Sorensen Construction, Inc.

536 N. Glasgow Avenue
Henderson, NV 89015

SPACE ABOVE LINE FOR RECORDER'S USE

MECHANICS' LIEN

NOTICE IS HEREBY GIVEN THAT: Pursuant to the provisions of the Nevada Statutes, Sorensen Construction, Inc., 536 N. Glasgow Avenue, Henderson, NV 89015 hereafter referred to as "Claimant" (whether singular or plural), claims a lien upon the real property and buildings, improvement or structures thereon, described in Paragraph Six (6)below, and states the following:

(1) That demand of Claimant after deducting all just credits and offsets is $15,585.89 together with interest thereon at the rate of 10.00 percent per annum from April 8, 2006.

(2) That the name of the owner(s) or reputed owner(s) of said property, is (are): Rainbow Hotel, LLC, 4132 S. Rainbow Boulevard, PMB 324, Las Vegas, NV 89103.

(3) That Claimant did from * until ** perform labor and/or supply materials as follows: General construction labor and material for construction, alteration or repair of said building, improvements or structures, which labor, or materials, or both of them were in fact used in the construction, alteration or repair of said buildings, improvements or structures, the location of which is set forth in Paragraph Six (6) below. *September 2005 **unknown

(4) Claimant furnished work and materials under contract with, or at the request of Dayside, Inc., 4175 Cameron Street, #A, Las Vegas, NV 89103.

(5) The terms, time given and conditions of the contract are: Net 60.

(6) That the property upon which said lien is sought to be charged is situated in the City of Las Vegas, County of Clark, State of Nevada, commonly known as Holiday Inn Express, 6220 S. Rainbow Boulevard, Las Vegas, NV and more particulary described as APN: 163-35-310-004.

VERIFICATION

I, Angela Darling, being first duly sworn on oath, according to law, deposes and says:

I am the Authorized Agent of Sorensen Construction, Inc. the Lien Claimant named in the foregoing Notice and Claim of Lien, know the contents thereof and state that the same are true of my own personal knowledge, except those matters stated upon information and belief; and, as to those matters, I believe them to be true. I further state that the Notice and Claim of Lien contains, among other things, a correct statement of demand of Lien Claimant, after deducting all just credits and offsets.

Angela Darling

Angela Darling / Authorized Agent

State of California
County of San Diego

On 11-8-06 (Date) before me, Nancie Raddatz, Notary Public (Name, Title or Office - e.g. Jane Doe,)

personally appeared Angela Darling (Name(s) of Signer(s))

☒ personally known to me - OR ☐ proved to me the basis of satisfactory evidence to be the person(s) whose name(s) is / are subscribed to the within instrument and acknowledged to me that he / she / they executed the same in his / her / their authorized capacity(ies), and that by his / her / their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

NANCIE RADDATZ
Commission # 1663883
Notary Public - California
San Diego County
My Comm. Expires May 29, 2010

WITNESS my hand and official seal.

Nancie Raddatz

Signature of Notary

Receipt/Conformed Copy
Requestor:
C MCCULLOUGH
01/24/2007 14:53:35 T20070013498
Book/Instr: 20070124-0004282
Mech Lien Release Page Count: 2
Fees: $15.00 N/C Fee: $0.00

Debbie Conway
Clark County Recorder

APN: 163-35-310-004

AFTER RECORDING, MAIL TO:

Christopher R. McCullough, Esq
601 South Rancho Drive, Suite A-10
Las Vegas, Nevada 89106

RELEASE OF MECHANIC'S LIEN

NOTICE IS HEREBY GIVEN:

1. That on November 14, 2006, **Sorensen Construction, Inc.**, recorded a Mechanic's Lien, in the Office of the County Recorder for Clark County, Nevada, in Book 20061114 as Instrument No. 03735, in the amount of $15585.89, which lien pertained to the real property and improvements known as the Holiday Inn Express 6220 South Rainbow Blvd., Las Vegas, Clark County, Nevada, Assessor's Parcel No. 163-35-310-004.

2. That in consideration of certain payments, credits, offsets, and adjustments received by, and/or agreed to by Lien Claimant, said Mechanic's Lien hereinabove referenced, has been satisfied, and Lien Claimant, for itself, its heirs, successors and assigns, hereby acknowledges, that upon the recordation of this Release of Mechanic's Lien, the Mechanic's Lien is released and deemed satisfied.

3. The property charged by said lien, which by this document is released from said lien, is the real property and improvements known as the 6220 South Rainbow Blvd.,

Las Vegas, Clark County, Nevada, Assessor's Parcel No. 163-35-310-004.

DATED this 19 day of January, 2007.

SORENSEN CONSTRUCTION INC.
By _____
Mack Sorensen

VERIFICATION

STATE OF NEVADA)
:ss
COUNTY OF CLARK)

MACK SORENSEN being first duly sworn, deposes and says:

That he is the authorized agent of SORENSEN CONSTRUCTION, INC., that he has read the foregoing RELEASE OF MECHANIC'S LIEN and knows the contents thereof, and that the same is true of his own knowledge, except for those matters therein stated on information and belief, and as for those matters he believes it to be true.

_____

SUBSCRIBED AND SWORN before me this
19th day of January, 2007.

_____
NOTARY PUBLIC in and for said County and State

AFTER RECORDING, MAIL TO:

Christopher R. McCullough, Esq.
601 South Rancho Drive, Suite A-10
Las Vegas, Nevada 89106

VERIFICATION

STATE OF NEVADA)
) ss.
COUNTY OF CLARK)

JAMES M. BARKER, ESQ., being first duly sworn according to law, and oath deposes and says: That he is the Attorney for LAS VEGAS PAVING CORPORATION, the lien claimant above named; that he has read the above and foregoing CERTIFICATE BY LIEN CLAIMANT DISCHARGING AND RELEASING LIEN, knows the contents thereof, and that the same is true of his own knowledge, except for those matters therein stated on information and belief, and for those matters, he believes them to be true.

JAMES M. BARKER, ESQ.

SUBSCRIBED and SWORN to before me
this 24th day of January, 2007.

Kimberley Lovelady
Notary Public in and for said
County and State

NOTARY PUBLIC
KIMBERLEY LOVELADY
STATE OF NEVADA - COUNTY OF CLARK
MY APPOINTMENT EXP. MAY 26, 2010
No: 05-103000-1

When recorded return to:

Barker-Washburn
3110 S. Rainbow Blvd., Suite 105
Las Vegas, Nevada 89146

Receipt/Conformed Copy
Requestor:
LEGAL EXPRESS
01/30/2007 13:45:49 T20070017220
Book/Instr: 20070130-0002957
Lien Release Pages Count: 2
Fees: $15.00 N/C Fee: $0.00

Debbie Conway
Clark County Recorder

APN: 163-35-301-012

CERTIFICATE BY LIEN CLAIMANT DISCHARGING AND RELEASING LIEN

NOTICE IS HEREBY GIVEN THAT:

The undersigned did, on the 16th day of January, 2007, record in Book 20070116 as Instrument No. 0004389 in the Office of the County Recorder of Clark County, Nevada, its Notice of Lien, by which the undersigned gave notice of its intention to hold and claim lien upon the following described property, owned or reputedly owned by: Rainbow Hotel, LLC, 4132 S. Rainbow Blvd. PMB 324, Las Vegas, Nevada 89103-3106, situated in the County of Clark, State of Nevada, more particularly described as Holiday Inn Express, 6130 S. Rainbow Blvd., APN: 163-35-301-012, located in Las Vegas, Nevada and the whole of said real property.

NOW, THEREFORE, for valuable consideration the undersigned does by these presents release, satisfy and discharge said lien in the above-described property by reason of such Notice of Lien, or by reason of the work and labor on, or materials furnished for said property.

DATED this 29th day of January, 2007.

JAMES M. BARKER, ESQ.
Attorney for Las Vegas Paving Corporation

Exhibit 5-D

AS

Receipt / Bank Certified Copy

Requestor:
AMERICAN ASPHALT & GRADING
01/08/2007 12:23:47 T20070003444
Book/Instr: 20070108-0002282
Lien Page Count: 1
Fees: $14.00 N/C Fee: $0.00

Debbie Conway
Clark County Recorder

APN: 163-35-310-004

After Recording Please Mail to:

American Asphalt & Grading Co.
2690 N Decatur Blvd.
Las Vegas, NV 89108

Attn: Shauna Somerville

NOTICE OF LIEN

The undersigned claims lien upon the property described in this notice for work,, or equipment furnished for the improvement of property:

1. The amount of the original contract is: $67,019.56
2. The total amount of all changes and additions, if any, is: $0.00
3. The total amount of all payments received to date is: $45,519.56
4. The amount of the lien, after deducting all just credits and offsets, is: $10,750.00
5. The name of the owner, if known, of the property is Rainbow Hotel LLC
6. The name of the person by whom the claimant was employed or to when the lien claimant furnished work, materials or equipment is: BENECON INC.
7. A brief statement of the terms of payment of the lien claimant's contract is: NET 30 DAYS
8. A description of the property to be charged with lien is: Holiday Inn Express
6220 S. Rainbow Blvd

TOM

By: Shane Dryanski
Shane Dryanski, CFO

State of Nevada)
) ss.
County of Clark)

Shane Dryanski, being first duly sworn on oath according to law, deposes and says:

I have read the foregoing Notice of Lien, know the contents thereof and state that the same is true of my own personal knowledge, except those matters stated upon information and belief and, as to those matters, I believe them to be true.

Shane Dryanski
Shane Dryanski, CFO

Subscribed and sworn before me this
8 day of the month of January of the year 2007

Shauna S. Somerville
(Notary Public in and for the County and State)

Shauna S. Somerville
Notary Public
State of Nevada
Date Appointment Exp: 05-19-2010
Certificate No: 02-75983-1

STATE OF NEVADA)
) ss.
COUNTY OF CLARK)

JAMES M. BARKER, ESQ., being first duly sworn on oath according to law, deposes and says:

I have read the foregoing Notice of Lien, know the contents thereof and state that the same is true of my own personal knowledge, except those matters stated upon information and belief, and, as to those matters, I believe them to be true.

JAMES M. BARKER, ESQ.

SUBSCRIBED and SWORN to before me
this 12th day of January, 2007.

Notary Public in and for said
County and State

KRIS PETERSON
Notary Public State of Nevada
No. 98-4948-1
My appt. exp. Nov. 4, 2010

When Recorded, Mail To:

Barker Washburn
3110 S. Rainbow Blvd., Suite 105
Las Vegas, Nevada 89146

Receipt/Conformed Copy

Requestor:
AMERICAN ASPHALT & GRADING CO
01/22/2007 12:03:04 T20070011261
Book/Instr: 20070122-0001994
Lien Release Page Count: 1
Fees: $14.00 N/C Fee: $0.00

Debbie Conway
Clark County Recorder

APN: 163-35-301-012

After Recording Please Mail to:

American Asphalt & Grading Co.
2690 N Decatur Blvd
Las Vegas, NV 89108
Attn: Shauna Somerville

NOTICE OF DISCHARGE OR RELEASE OF LIEN
(N.R.S. 108.2437)

NOTICE IS HEREBY GIVEN THAT:

The undersigned did, on the 8 day of January ,2007 record in Book 20070108 as Instrument 0002283 , in the Office of the County Recorder of Clark County, Nevada, its Notice of Lien upon the following described property or improvements, owned or purportedly owned by: Rainbow Hotel LLC located in Las Vegas the County of Clark, State of Nevada, to wit:

Holiday Inn Express
6180 S Rainbow Blvd

NOW, THEREFORE, for valuable consideration the Undersigned does release, satisfy and discharge the notice of lien on the property or improvements described above by reason of the Notice of Lien.

Dated this 22 day of January 2007

By: Shane Dryanski
Shane Dryanski, CFO

Subscribed and sworn before me, this 22 day of January of 2007

T. Reaves
(Notary Public in and for the County and State)

NOTARY PUBLIC
STATE OF NEVADA
County of Clark
T. REAVES
Appt. No. 05-100220-1
My Appt. Expires March 24, 2009

Exhibit 5-E

Exceptions 23

2007 0116-0004389

Fee: $15.00
N/C Fee: $0.00

01/16/2007 16:09:43
T20070000082
Requestor:
LEGAL EXPRESS

Debbie Conway KXC
Clark County Recorder Pgs: 2

APN No. 163-35-301-012

NOTICE OF LIEN

The undersigned claims a lien upon the property described in this notice for work, materials or equipment furnished or to be furnished for the improvement of the property:

1. The amount of the original contract is: **$ 50,295.98.**
2. The total amount of all additional or changed work, materials and equipment, if any, is: $0.
3. The total amount of all payments received to date is: **$ 35,660.95.**
4. The amount of the lien, after deducting all just credits and offsets, is: **$ 14,635.03.**
5. The name of the owner, if known, of the property is: **Rainbow Hotel, LLC, 4132 S. Rainbow Blvd. P M B 324, Las Vegas, Nevada 89103-3106.**
6. The name of the person by whom the lien claimant was employed or to whom the lien claimant furnished or agreed to furnish work, materials or equipment is: **American Asphalt.**
7. A brief statement of the terms of payment of the lien claimant's contract is: Net payable within 30 days of Invoice.
8. A description of the property to be charged with the lien is:

Holiday Inn Express
6180 S. Rainbow Blvd.
Las Vegas, Nevada
PT NW4 SW4 SEC 35 21 60
APN No. 163-35-301-012

LAS VEGAS PAVING CORPORATION

JAMES M. BARKER, ESQ.

APN: 163-35-301-012

Receipt/Conformed Copy
Requestor:
LEGAL EXPRESS
01/30/2007 13:46:49 T20070017270
Book/Instr: 20070130-0002967
Lien Release Pages Count: 2
Fees: $15.00 N/C Fee: $0.00

Debbie Conway
Clark County Recorder

CERTIFICATE BY LIEN CLAIMANT DISCHARGING AND RELEASING LIEN

NOTICE IS HEREBY GIVEN THAT:

The undersigned did, on the 16th day of January, 2007, record in Book 20070116 as Instrument No. 0004389 in the Office of the County Recorder of Clark County, Nevada, its Notice of Lien, by which the undersigned gave notice of its intention to hold and claim lien upon the following described property, owned or reputedly owned by: **Rainbow Hotel, LLC, 4132 S. Rainbow Blvd. PMB 324, Las Vegas, Nevada 89103-3106**, situated in the County of Clark, State of Nevada, more particularly described as **Holiday Inn Express, 6180 S. Rainbow Blvd., APN: 163-35-301-012**, located in Las Vegas, Nevada and the whole of said real property.

NOW, THEREFORE, for valuable consideration the undersigned does by these presents release, satisfy and discharge said lien in the above-described property by reason of such Notice of Lien, or by reason of the work and labor on, or materials furnished for said property.

DATED this 29th day of January, 2007.

JAMES M. BARKER, ESQ.
Attorney for Las Vegas Paving Corporation

VERIFICATION

STATE OF NEVADA)
) ss.
COUNTY OF CLARK)

JAMES M. BARKER, ESQ., being first duly sworn according to law, and oath deposes and says: That he is the Attorney for LAS VEGAS PAVING CORPORATION, the lien claimant above named; that he has read the above and foregoing CERTIFICATE BY LIEN CLAIMANT DISCHARGING AND RELEASING LIEN, knows the contents thereof, and that the same is true of his own knowledge, except for those matters therein stated on information and belief, and for those matters, he believes them to be true.

JAMES M. BARKER, ESQ.

SUBSCRIBED and SWORN to before me
this 24th day of January, 2007.

Kimberley Lovelady
Notary Public in and for said
County and State

NOTARY PUBLIC
KIMBERLEY LOVELADY
STATE OF NEVADA - COUNTY OF CLARK
MY APPOINTMENT EXP. MAY 26, 2008
No: 05-100880-1

When recorded return to:

Barker-Washburn
3110 S. Rainbow Blvd., Suite 105
Las Vegas, Nevada 89146

Exhibit 5-F

Exception No. 20

20070504-0002566

Fee: $14.00
N/C Fee: $8.00

05/04/2007 13:34:25
T20070077774
Requestor:
DAYSIDE INC

Debbie Conway KXC
Clark County Recorder Pgs: 1

APN: 163-35-312-001
After Recording Please Mail to:

Name: Dayside, Inc.
Address: 4175 Cameron Street, Suite A
Las Vegas, NV 89103

Space above this line for recording data

NOTICE OF LIEN

The undersigned claims lien upon the property described in this notice for work and/or equipment furnished for the improvement of property:

1. The amount of the original contract is: $5,824,000.00
2. The total amount of all changes and additions, if any, is: $ 844,129.59
3. The total amount of all payments received to date is: $6,379,023.66
4. The amount of the lien, after deduction all just credits and offsets, is: $289,106.03
5. The name of the owner, if known, of the property is: **Rainbow Hotel, LLC.**
6. The name of the person by whom the claimant was employed or to when the lien claimant furnished work, materials or equipment is: **Rainbow Hotel, LLC.**
7. A description of the property to be charged with lien is:

Holiday Inn Express
6220 S. Rainbow Blvd.
Las Vegas, Nevada

Name of Claimant: Dayside, Inc.

By: _____
Ronald J. Day – President

State of Nevada)
)
County of Clark)

Ronald Day, being first duly sworn on oath according to law, deposes and says:

I have read the foregoing Notice of Lien, know the contents thereof and state that the same is true of my own personal knowledge, except those matters stated upon information and belief and as to those matters. I believe them to be true.

_____
Ronald J. Day – President

Subscribed and sworn before me this 4 day of the month of may, 2007.

_____
(Notary Public)

NOTARY PUBLIC
STATE OF NEVADA
County of Clark
MARCI M. CUTTER
No: 05-100703-1
My Appointment Expires Oct. 7, 2009

Exhibit 5-G

20070510-0003952

Fee: $14.00
N/C Fee: $0.00

05/10/2007 14:15:17
T20070082711
Requestor:
DAYSIDE INC.

Debbie Conway SOL
Clark County Recorder Pgs: 1

APN: 177-27-410-006

After Recording Please Mail to:

Name: Dayside, Inc.
Address: 4175 Cameron Street, Suite A
Las Vegas, Nevada 89103

Space above this line for Recorder's Use

MECHANIC'S LIEN

The undersigned, Dayside, Inc. referred to in this Claim of Lien as the Claimant, claims a mechanic's lien for the labor, services, equipment and/or materials described below, furnished for a work improvement upon that certain real property located in the County of Clark, state of Nevada, and described as follows:

Milano Residence, 430 E. Cactus Avenue, Las Vegas, Nevada

Parcel # 177-27-410-006

After deducting all just credits and offsets, the sum of $ 381,661.40 together with interest thereon at the rate of 1.5% percent per annum from 4/06/07 is due claimant for the following labor, service, equipment and or/materials furnished by Claimant:

General Conditions, Masonry, Plumbing, Slab on Grade

The name of the person or company by whom claimant was employed, or to whom claimant furnished the labor, services, equipment and/or materials is:

Milano Residences, LLC., 4132 South Rainbow Blvd., PMB 324, Las Vegas, Nevada 89103

The name (s) and address (s) of the owner(s) or reputed owner(s) of the real property is/are:
Milano Residences, LLC., 4132 South Rainbow Blvd., PMB 324, Las Vegas, Nevada 89103

Name of Claimant: Dayside, Inc.

By _____
Ronald J. Day - President

State of Nevada)
)
County of Clark)

Ronald J. Day, being first duly sworn on oath according to law, deposes and says:
I have read the foregoing Mechanic's Lien, know the contents thereof and state that the same is true of my own personal knowledge, except those matters stated upon information and belief and as to those matters, I believe them to be true.

_____
Ronald J. Day – President

Subscribed and sworn before me this 10th day of May, 2007.

_____
Notary Public

NOTARY PUBLIC
STATE OF NEVADA
County of Clark
MARCI M. CUTTER
No: 05-100703-1
My Appointment Expires Oct. 7, 2009

2007/0510-0003953

Fee: $14.00
N/C Fee: $0.00

05/10/2007 14:15:17
T20070082711
Requestor:
DAYSIDE INC

Debbie Conway SOL
Clark County Recorder Pgs: 1

APN: 177-27-410-011

After Recording Please Mail to:

Name: Dayside, Inc.
Address: 4175 Cameron Street, Suite A
Las Vegas, Nevada 89103

Space above this line for Recorder's Use

MECHANIC'S LIEN

The undersigned, Dayside, Inc. referred to in this Claim of Lien as the Claimant, claims a mechanic's lien for the labor, services, equipment and/or materials described below, furnished for a work improvement upon that certain real property located in the County of Clark, state of Nevada, and described as follows:

Milano Residence, 430 E. Cactus Avenue, Las Vegas, Nevada

Parcel # 177-27-410-011

After deducting all just credits and offsets, the sum of $ 381,661.40 together with interest thereon at the rate of 1.5% percent per annum from 4/06/07 is due claimant for the following labor, service, equipment and or/materials furnished by Claimant:

General Conditions, Masonry, Plumbing, Slab on Grade

The name of the person or company by whom claimant was employed, or to whom claimant furnished the labor, services, equipment and/or materials is:

Milano Residences, LLC., 4132 South Rainbow Blvd., PMB 324, Las Vegas, Nevada 89103

The name (s) and address (s) of the owner(s) or reputed owner(s) of the real property is/are:
Milano Residences, LLC., 4132 South Rainbow Blvd., PMB 324, Las Vegas, Nevada 89103

Name of Claimant: Dayside, Inc.

By _____
Ronald J. Day - President

State of Nevada)
)
County of Clark)

Ronald J. Day, being first duly sworn on oath according to law, deposes and says:
I have read the foregoing Mechanic's Lien, know the contents thereof and state that the same is true of my own personal knowledge, except those matters stated upon information and belief and as to those matters. I believe them to be true.

_____
Ronald J. Day – President

Subscribed and sworn before me this 10th day of May, 2007.

_____
Notary Public

NOTARY PUBLIC
STATE OF NEVADA
County of Clark
MARCI M. CUTTER
No. 03-10077-1
My Appointment Expires Oct. 7, 2009

Exhibit 5-H

(4)

20070517-0003933

Fee: $17.00
N/C Fee: $0.00

05/17/2007 15:09:27
T20070088967
Requestor:
MCDONALD CARANO WILSON LLP

Debbie Conway BTN
Clark County Recorder Pgs: 4

APN# 177-27-410-011

NOTICE OF LIEN

Recording requested by:

McDONALD CARANO WILSON LLP

Return to:

Name: Anthony D. Guenther, Esq.

Address 2300 West Sahara Ave., Suite 1000

City/State/Zip Las Vegas, NV 89102

This page added to provide additional information required by NRS 111.312 Sections 1-2 (Additional recording fee applies).

This cover page must be typed or printed clearly in black ink only.

Clark County Assessor Parcel No.
177-27-410-011

After recorded, mail to:

Anthony D. Guenther, Esq.
McDonald Carano Wilson LLP
2300 West Sahara Avenue, Suite 1000
Las Vegas, Nevada 89102

NOTICE OF LIEN

The undersigned, PERI FORMWORK SYSTEMS, INC. ("Claimant"), claims a lien upon the property described in this notice for work, materials or equipment furnished for the improvement of the property:

1. The amount of the original contracts is $316,938.77.

2. The total amount of all changes and additions is $29,855.76.

3. The total amount of all payments received to date is $117,423.76.

4. The amount of the lien, after deducting all just credits and offsets is $230,370.77.

5. The name of the owner(s), if known, of the Property: Milano Residences, LLC.

6. The name(s) of the person by whom the lien claimant was employed or to whom the lien claimant furnished work, materials or equipment: Jaw's Construction, Inc. and/or Dayside, Inc.

7. A brief statement of the terms of payment of the lien claimant's contract: Net 30 days from invoice date, plus 1.5% per month on past due amounts plus collection costs, including attorneys' fees. Amounts about do not include finance charges/interest or collection costs.

8. A description of the property to be charged with the lien is: See Exhibit "1" attached hereto and incorporated herein by this reference as though set forth in full and at length.

STATE OF MARYLAND)
) ss.
COUNTY OF HOWARD)

Roland Hanelt, being first duly sworn on oath according to law, deposes and says: I have read the foregoing Notice of Lien, know the contents thereof, and state that the same is true of my own personal knowledge, after reasonable investigation, except those matters stated upon information and belief, and, as to those matters, I believe them to be true.

PERI FORMWORK SYSTEMS, INC.

Roland Hanelt, Vice President

Subscribed and sworn to before me
this 15th day of May, 2007.

Notary Public in and for said County and State

EXHIBIT 1

The real property and improvements described as:

Clark County Tax Assessor Description	Bermuda Cactus Shopping Center Plat Book 93 Page 87 Pt Lot 1

and/or described as

Address	430 East Cactus Ave, Enterprise Township, Clark County, Nevada

and/or described as

Clark County Tax Assessor Parcel No.	177-27-410-011

APN# 177-27-410-011

11-digit Assessor's Parcel Number may be obtained at:
http://redrock.co.clark.nv.us/assrrealprop/ownr.aspx

AMENDED NOTICE OF LIEN

Type of Document
(Example: Declaration of Homestead, Quit Claim Deed, etc.)

Recording Requested by:

Robert S. Downs, Esquire (410) 727-6464

Return Documents To:

Name Robert S. Downs, Esquire

Address Miles & Stockbridge P.C., 10 Light Street

City/State/Zip Baltimore, Maryland 21202

This page added to provide additional information required by NRS 111.312 Section 1-2

(An additional recording fee of $1.00 will apply)

This cover page must be typed or printed clearly in black ink only.

OR Form 108 ~ 06/06/2007
Coversheet.pdf

PERI FORMWORK SYSTEMS, INC.

NEVADA MECHANIC'S LIEN – AMENDED NOTICE OF LIEN

Assessor's Parcel Numbers:177-27-410-011

The undersigned claims a lien upon the property described in this notice for work, materials or equipment furnished for the improvement of the property described as follows:

1. The amount of the original contract is: $316,938.77

2. The total amount of all changes and additions, if any, is: $12,775.91

3. The total amount of all payments received to date is: $82,865.54

4. The amount of the lien, after deducting all just credits and offsets, is: $246,849.14

5. The name of the owner, if known, of the property is: Milano Residences, LLC

6. The name of the person by whom the lien claimant was employed or to whom the lien claimant furnished work, materials or equipment is: Dayside, Inc.

7. A brief statement of the terms of payment of the lien claimant's contract is:
Net 30 days from invoice date, plus 1.5% per month on past due amounts plus collection costs, including attorneys' fees. Amounts about do not include finance charges/interest or collection costs.

8. A description of the property to be charged with the lien is:
Bermuda Cactus Shopping Center, Plat Book 93 Page 87, Pt Lot 1.

PERI Formwork Systems, Inc.

Robert S. Downs, on behalf of PERI
Formwork Systems, Inc.

I, ROBERT S. DOWNS, being first duly sworn on oath according to law, deposes and says:

I have read the foregoing Notice of Lien, know the contents thereof and state that the same is true of my own personal knowledge, except those matters stated upon information and belief, and, as to these matters, I believe them to be true.

Robert S. Downs

SUBSCRIBED AND SWORN to before me this 21ST day of the month of September, of the year 2007.

Notary Public in and for Harford Co. in the State of Maryland

My commission expires: _____

Charlene E. Getz
NOTARY PUBLIC
Harford County, Maryland
My Commission Expires 02/01/08