0000055119

31EX

Transcript Exhibit(s)

Docket #(s): W-01157A-05-0706

Exhibit # : S-1-S-2,

A-1 — A-13

C.OS-1 — C.OS-19

RECEIVED
2006 JUN -7 P 3:59
AZ CORP COMMISSION
DOCUMENT CONTROL

David

MEMORANDUM

RECEIVED

2006 APR 21 A 9:33

AZ CORP COMMISSION
DOCUMENT CONTROL

TO: Docket Control
Arizona Corporation Commission

RECEIVED

APR 21 2006

LEGAL DIV.
ARIZ. CORPORATION COMMISSION

FROM: Ernest G. Johnson
Director
Utilities Division

EXHIBIT
S-1
admitted

Date: April 21, 2006

RE: STAFF REPORT FOR WEST END WATER COMPANY – APPLICATION FOR EXTENSION OF ITS CERTIFICATE OF CONVENIENCE AND NECESSITY FOR WATER SERVICE (DOCKET NO. W-01157A-05-0706)

Attached is the Staff Report for West End Water Company's application for extension of its existing Certificate of Convenience and Necessity for water service. Staff is recommending approval with conditions.

EGJ:BNC:tdp

Originator: Blessing Chukwu

FILE COPY

STAFF REPORT
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

WEST END WATER COMPANY

DOCKET NO. W-01157A-05-0706

APPLICATION FOR EXTENSION
OF EXISTING CERTIFICATE OF
CONVENIENCE AND NECESSITY

APRIL 21, 2006

Service List for: West End Water Company
Docket No. W-01157A-05-0706

J. Scott Rhodes
Jennings, Strouss & Salmon, P.L.C.
The Collier Center, 11th Floor
201 East Washington Street
Phoenix, Arizona 85004-2385

Mr. Christopher C. Kempley
Chief, Legal Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Mr. Ernest G. Johnson
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Ms. Lyn Farmer
Chief, Hearing Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

STAFF ACKNOWLEDGMENT

The Staff Report for West End Water Company (Docket No. W-01157A-05-0706) was the responsibility of the Staff members signed below. Blessing Chukwu was responsible for the review and analysis of the Company's application. Dorothy Hains was responsible for the engineering and technical analysis.

Blessing Chukwu
Executive Consultant III

Dorothy Hains
Utilities Engineer

EXECUTIVE SUMMARY
WEST END WATER COMPANY
DOCKET NO. W-01157A-05-0706

On October 5, 2005, West End Water Company ("West End" or "Company") filed an application with the Arizona Corporation Commission ("ACC" or "Commission") for an extension of its Certificate of Convenience and Necessity ("CC&N") to provide water service to a portion of Maricopa County, Arizona. On February 3, 2006, Staff filed a Sufficiency Letter indicating that the application had met the sufficiency requirements of the A.A.C. R14-2-402(C).

By this application, the Company is seeking Commission authority to add approximately one quarter square mile to its existing certificated area. West End's certificated area is located in an area northwest of the City of Surprise and the City of Phoenix, in Maricopa County. The requested area is adjacent to the Company's existing service area and is located in the northwest quarter of Section 25 in Township 5 North, Range 3 West.

On March 28, 2006, the City of Surprise ("the City") filed an Application for Leave to Intervene. In its Application, the City of Surprise stated that it "anticipates providing water and sewer services to the area targeted by West End Water Company for future service." The City also alleged that "West End Water Company's Application seeks authority to provide water utility service to an area that is within the City of Surprise's planned annexation area and which the City intends to serve."

Based on Staff's review and analysis of the application, Staff believes that the Company will have adequate production and storage capacity to serve the requested area with the addition of the new wells and storage tank.

Staff recommends the Commission approve the West End application for an extension of its CC&N within portions of Mohave County, Arizona, to provide water service, subject to compliance with the following conditions:

1. To require West End to charge its authorized rates and charges in the extension area.

2. To require West End to file with Docket Control, as a compliance item in this docket, a Notice of Filing indicating West End has submitted for Staff review and approval, a copy of the fully executed main extension agreements for water facilities for the extension area within 365 days of a decision in this case.

3. To require West End to file with Docket Control, as a compliance item in this docket, a copy of the Maricopa County Environmental Services Department Approval to Construct ("ATC") for the new wells and storage tank by December 31, 2006.

4. To require West End to file with Docket Control, as a compliance item in this docket, a copy of the developer's Certificate of Assured Water Supply, where applicable or when required by statute, by December 31, 2007.

5. To require West End to file a curtailment tariff as soon as possible, but no later than forty-five (45) days after the effective date of the order in this matter. The tariff shall be filed with Docket Control as a compliance item in this docket for Staff's review and certification. The tariff shall generally conform to the sample tariff found on the Commission's web site at www.cc.state.az.us. Staff recognizes that the Company may need to make minor modifications according to its specific management, operational, and design requirements as necessary and appropriate.

6. To require West End to file with Docket Control, as a compliance item in this docket, a copy of Maricopa County franchise agreement for the requested area within 365 days of the decision in this matter.

7. To require West End to file a plan to reduce its water loss to less than 10%. This plan should be filed within 45 days of a decision in this matter. If the Company believes that it is not cost effective to reduce its water loss to less than 10%, its shall file a detailed analysis with Docket Control explaining why it is not cost effective to do so.

8. To require West End to reduce its water loss to a level that is 15 percent or less before filing for approval of any new main extension agreements.

Staff further recommends that the Commission's Decision granting the requested CC&N extension to West End be considered null and void, after due process, should West End fail to meet Condition Nos. 2, 3, 4, 5, 6, and 7 listed above within the time specified.

TABLE OF CONTENTS

Page

INTRODUCTION 1

BACKGROUND 1

FINANCE OF UTILITY FACILITIES 1

THE WATER SYSTEM 2

MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT ("MCESD") COMPLIANCE 3

ARIZONA DEPARTMENT OF WATER RESOURCES ("ADWR") COMPLIANCE 3

ACC COMPLIANCE 3

ARSENIC 3

CURTAILMENT PLAN TARIFF 3

PROPOSED RATES 4

COUNTY FRANCHISE 4

APPLICATION OF THE CITY OF SURPRISE FOR LEAVE TO INTERVENE 4

WATER LOSS 5

RECOMMENDATIONS 5

ATTACHMENT(S)

ENGINEERING REPORT ..... A

ENGINEERING MAP ..... B

REQUEST FOR INFORMATION C

CITY OF SURPRISE'S RESPONSE TO STAFF'S REQUEST FOR INFORMATION ..... D

CITY OF SURPRISE GENERAL PLANNING AREA MAP ..... E

Introduction

On October 5, 2005, West End Water Company ("West End" or "Company") filed an application with the Arizona Corporation Commission ("ACC" or "Commission") for an extension of its Certificate of Convenience and Necessity ("CC&N") to provide water service to a portion of Maricopa County, Arizona.

On November 4, 2005, 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(C). A copy of the Insufficiency Letter was sent to the Company via U.S mail. In the letter, Staff listed the deficiencies that needed to be cured for administrative purposes.

On January 4, 2006, and January 30, 2006, the Company provided additional documentation to support its relief requested.

On February 3, 2006, Staff filed a Sufficiency Letter indicating that the application had met the sufficiency requirements of the A.A.C. R14-2-402(C).

Background

West End is an Arizona Corporation, in good standing with the Commission's Corporation Division, and engaged in providing water service to customers in portions of Maricopa County, Arizona. West End was incorporated on March 7, 1979. The original CC&N for the Company was granted by the Commission in Decision No. 16649, issued on September 23, 1946, in Docket No. 10545-E-1157, under the name Spear Seven Water Company. On July 14, 1979, the Commission issued Decision No. 50079, in Docket No. 1045-E-1157, approving the transfer of Spear Seven Water Company's CC&N to West End. West End's only shareholder is Mr. J. D. Campbell, the President. Mr. Campbell also owns Sunrise Water Company. Altogether, Mr. Campbell's Water Companies provide water service to approximately 1,535 customers in Arizona.

By this application, the Company is seeking Commission authority to add approximately one quarter square mile to its existing certificated area. West End's certificated area is located in an area northwest of the City of Surprise and the City of Phoenix, in Maricopa County. The requested area is adjacent to the Company's existing service area and is located in the northwest quarter of Section 25 in Township 5 North, Range 3 West.

Finance of Utility Facilities

The Company indicated in the application that it will finance the required utility facilities through Company-provided funding and Advance in aid of construction. Advances in aid of construction are often in the form of Main or Line Extension Agreements ("MXAs"). MXAs are standard industry practice. The minimal acceptable criteria for line extension agreements

between water utilities and private parties are established by A.A.C. R14-2-406. These agreements generally require the developer to design, construct and install (or cause to be), all facilities to provide adequate service to the development. The developer is required to pay all costs of constructing the required facilities necessary to serve the development. Upon acceptance of the facilities by the Utility Company, the developer conveys the utility facilities through a warranty deed to the Utility Company. Utility Companies will often refund ten (10) percent of the annual water revenue associated with development for a period of ten (10) years.

Staff recommends that West End file with Docket Control, as a compliance item in this docket, a Notice of Filing indicating West End has submitted for Staff review and approval, a copy of the fully executed main extension agreements for water facilities for the extension area within 365 days of a decision in this case.

The Water System

West End operates two separate systems. They are the Wheat System which is assigned Public Water System ("PWS") No. 07-167, and the Wittmann System which is assigned PWS No. 07-067. The Wheat system consists of a single well[1], 10,000 gallons of storage capacity and a distribution system serving 14 customers. The Wittmann system consists of one well[2], 200,000 gallons of storage capacity and a distribution system serving 215 customers. The Wittmann system will be utilized to serve the requested area.

Although the Wittmann system has adequate production and storage capacity to serve its existing customer base, there is inadequate storage and production capacity to serve all 443 customers in the requested area. The Company plans to add two new wells[3] and an 800,000 gallon storage tank to the Wittmann system. The Company plans to begin installation of this new plant in the Spring of 2006 and complete its construction in 2007. Staff concludes that the Company will have adequate production and storage capacity to serve the requested area with the addition of the new wells and storage tank.

Staff recommends that West End file with Docket Control, as a compliance item in this docket, a copy of the Maricopa County Environmental Services Department Approval to Construct ("ATC") for the new wells and storage tank by December 31, 2006.

The wastewater generated by West End's customers is treated by septic tank. According to Mr. Marvin E. Collins, the Manager of West End, wastewater service to the area will be supplied by the City of Surprise. The area is within the City of Surprise's "Maricopa Association of Government" Section 208 Planning Area.

---

[1]This well produces 26 gallons per minutes ("GPM") and does not support a fire flow requirement.
[2]This well produces 250 GPM and supports a fire flow requirement of 500 GPM for 2 hours.
[3]Each well is designed to produce 750GPM.

Maricopa County Environmental Services Department ("MCESD") Compliance

MCDES reported that both the Wheat and Wittmann systems are in Compliance with its requirements and are currently delivering water that meets water quality standards required by Arizona Administrative Code, Title 18, Chapter 4[4].

Arizona Department of Water Resources ("ADWR") Compliance

West End is located in the Phoenix Active Management Area, as designated by ADWR. ADWR reported that West End is in compliance with its reporting and conservation rules[5].

The Company has not yet received a copy of the Developer's Certificate of Assured Water Supply for the area being requested from the ADWR. As such, Staff recommends that West End be ordered to file with Docket Control, as a compliance item in this docket, a copy of the developer's Certificate of Assured Water Supply, where applicable or when required by statute, by December 31, 2007.

ACC Compliance

According to the Utilities Division Compliance Section, West End has no outstanding ACC compliance issues. The Company is current in its property tax payments.

Arsenic

The U.S. Environmental Protection Agency ("EPA") has reduced the arsenic maximum contaminant level ("MCL") in drinking water from 50 micrograms per liter ("µg/l") or parts per billion ("ppb") to 10 µg/l. The date for compliance with the new MCL is January 23, 2006. The most recent lab analysis of the two wells indicates that the arsenic levels are below the new arsenic MCL of 10 µg/l.

Curtailment Plan Tariff

A Curtailment Plan Tariff ("CPT") is an effective tool to allow a water company to manage its resources during periods of shortages due to pump breakdowns, droughts, or other unforeseeable events. Since the Company does not have a curtailment tariff, this application provides an opportune time to prepare and file such a tariff. As such, Staff recommends that the Company file a curtailment tariff as soon as possible, but no later than forty-five (45) days after the effective date of the order in this matter. The tariff shall be filed with the Commission's Docket Control as a compliance item in this docket for Staff's review and certification.

---

[4]MCESD issued its compliance status report on February 2, 2006.
[5] Compliance status per phone message dated February 10, 2006.

Staff further recommends that the tariff shall generally conform to the sample tariff found on the Commission's web site at www.cc.state.az.us. Staff recognizes that the Company may need to make minor modifications according to its specific management, operational, and design requirements as necessary and appropriate.

Proposed Rates

West End has proposed to provide water utility service to the extension area under its authorized rates and charges.

County Franchise

Every applicant for a CC&N and/or CC&N extension is required to submit to the Commission evidence showing that the applicant has received the required consent, franchise or permit from the proper authority. If the applicant operates in an unincorporated area, the company has to obtain the franchise from the County. If the applicant operates in an incorporated area of the County, the applicant has to obtain the franchise from the City/Town.

The extension area is located in an unincorporated area of Maricopa County. As such, Staff recommends that the Company be required to file with Docket Control, as a compliance item in this docket, a copy of Maricopa County franchise agreement for the requested area within 365 days of the decision in this matter.

Application of the City of Surprise for Leave to Intervene

On March 28, 2006, the City of Surprise ("the City") filed an Application for Leave to Intervene. In its Application, the City of Surprise stated that it "anticipates providing water and sewer services to the area targeted by West End Water Company for future service." The City also alleged that "West End Water Company's Application seeks authority to provide water utility service to an area that is within the City of Surprise's planned annexation area and which the City intends to serve." On March 30, 2006, Staff sent a Request for Information to the Representatives of the City via e-mail seeking additional information regarding the planned annexation. (See Attachment C) The City responded to Staff's Request for Information, on April 13, 2006. (See Attachment D).

Staff duplicated a map of the City of Surprise General Planning Area (attached to a March 8, 2006 letter from Mr. K. Scott McCoy, City Attorney, to the Arizona Corporation Commission) and overlaid the service territories of public service companies in and around the City's General Planning Area. (See Attachment E) In reviewing Attachment E, Staff notes that there are several public service companies that operate within the City of Surprise Planning Area. The public service companies are Arizona-American Water Company, Beardsley Water Company, Inc., Chaparral Water Company, Circle City Water Company, LLC, Morristown Water Company, Puesta del Sol Water Company, and West End Water Company. Staff also notes that the extension area is approximately one and one half mile outside the corporate city

limits of the City of Surprise, but is within the City's General Planning Area and is bordered on two sides (west and south) by Beardsley Water Company, Inc., and bordered on the northern side by West End's existing CC&N. According to West End's January 4, 2006 response to Staff's November 4, 2005 Insufficiency Letter, the requested area represents approximately 30% of the proposed Walden Ranch development. The remaining 70% of the development is within West End's existing CC&N. Staff further notes that it appears that two public service companies, certificated by this Commission, namely: Arizona-American Water Company, and Beardsley Water Company, Inc., provide services within the corporate city limits of the City of Surprise.

Water Loss

Based on the Company's Water Usage Data for the period of July 2004 through July 2005, the Wittmann system had a 19 percent water loss. Staff recommends that lost water should be 10 percent, or less, but never more than 15 percent. The Company reported that it is aware of its water loss problem and is taking steps to reduce lost water to a level below 10 percent.

Staff recommends that the Company file a plan to reduce its water loss to less than 10%, this plan should be filed within 45 days of a decision in this matter. If the Company believes that it is not cost effective to reduce its water loss to less than 10%, its shall file a detailed analysis with Docket Control explaining why it is not cost effective to do so. Staff further recommends that the Company reduce its water loss to a level that is 15 percent or less before filing for approval of any new main extension agreements.

Recommendations

Staff recommends the Commission approve the West End application for an extension of its CC&N within portions of Mohave County, Arizona, to provide water service, subject to compliance with the following conditions:

1. To require West End to charge its authorized rates and charges in the extension area.

2. To require West End to file with Docket Control, as a compliance item in this docket, a Notice of Filing indicating West End has submitted for Staff review and approval, a copy of the fully executed main extension agreements for water facilities for the extension area within 365 days of a decision in this case.

3. To require West End to file with Docket Control, as a compliance item in this docket, a copy of the Maricopa County Environmental Services Department Approval to Construct ("ATC") for the new wells and storage tank by December 31, 2006.

4. To require West End to file with Docket Control, as a compliance item in this docket, a copy of the developer's Certificate of Assured Water Supply, where applicable or when required by statute, by December 31, 2007.

5. To require West End to file a curtailment tariff as soon as possible, but no later than forty-five (45) days after the effective date of the order in this matter. The tariff shall be filed with Docket Control as a compliance item in this docket for Staff's review and certification. The tariff shall generally conform to the sample tariff found on the Commission's web site at www.cc.state.az.us. Staff recognizes that the Company may need to make minor modifications according to its specific management, operational, and design requirements as necessary and appropriate.

6. To require West End to file with Docket Control, as a compliance item in this docket, a copy of Maricopa County franchise agreement for the requested area within 365 days of the decision in this matter.

7. To require West End to file a plan to reduce its water loss to less than 10%. This plan should be filed within 45 days of a decision in this matter. If the Company believes that it is not cost effective to reduce its water loss to less than 10%, its shall file a detailed analysis with Docket Control explaining why it is not cost effective to do so.

8. To require West End to reduce its water loss to a level that is 15 percent or less before filing for approval of any new main extension agreements.

Staff further recommends that the Commission's Decision granting the requested CC&N extension to West End be considered null and void, after due process, should West End fail to meet Condition Nos. 2, 3, 4, 5, 6, and 7 listed above within the time specified.

A

MEMORANDUM

DATE March 14,2006

TO: Blessing Chukwu

FROM: Dorothy Hains DH

RE: West End Water Co.
CC&N Extension - Water
Docket No. W-01157A-05-0706

I. Introduction

West End Water Co. ("West End" or "Company") has applied to extend its Certificate of Convenience & Necessity ("CC&N") to provide water service in an area northwest of the City of Surprise and the City of Phoenix, in Maricopa County. The requested service area that is one quarter square mile is adjacent to the Company's existing service area and is located in the northwest quarter of Section 25 in Township 5 North, Range 3 West. If the proposed extension is approved, the Company projects that within five years approximately 443 customers in the requested area will be served by the Company.

II. System Analysis

West End operates two separate systems; the Wheat System[1] and the Wittmann System[2]. The Wheat system consists of a single well[3], 10,000 gallons of storage capacity and a distribution system serving 14 customers. The Wittmann system consists of one well[4], 200,000 gallons of storage capacity and a distribution system serving 215 customers. The Wittmann system will be utilized to serve the requested area.

Although the Wittmann system has adequate production and storage capacity to serve its existing customer base, there is inadequate storage and production capacity to serve all 443 customers in the requested area. The Company plans to add two new wells[5] and an 800,000 gallon storage tank to the Wittmann system. The Company plans to begin installation of this new plant in the spring of 2006 and complete its construction in 2007. Staff concludes that the Company will have adequate production and storage capacity to serve the requested area with the addition of the new wells and storage tank. Staff recommends that the Company file with the Commission's Docket Control, as a compliance item in this docket, a copy of the Maricopa County Environmental Services

[1] Wheat System's Public Water System ("PWS") number is 07-167.
[2] Wittmann System's PWS number is 07-067.
[3] This well produces 26 gallons per minutes ("GPM") and does not support a fire flow requirement.
[4] This well produces 250 GPM and supports a fire flow requirement of 500 GPM for 2 hours.
[5] Each well is designed to produce 750GPM.

Department ("MCESD") Approval to Construct ("ATC") for the new wells and storage tank by December 31, 2006.

III. MCESD Compliance

MCDES reported that both the Wheat and Wittmann systems are in Compliance with its requirements and are currently delivering water that meets water quality standards required by Arizona Administrative Code, Title 18, Chapter 4[6].

IV. Arizona Department of Water Resources ("ADWR") Compliance

West End is located in the Phoenix Active Management Area, as designated by ADWR. ADWR reported that West End is in compliance with its reporting and conservation rules[7].

The Company has not yet received a copy of the Developer's Certificate of Assured water Supply for the request area from ADWR. Staff recommends that the Company file with Docket Control as a compliance item, copies of the Developer's Certificate Assured Water Supply no later than December 31, 2007.

V. Arizona Corporation Commission Compliance

A check with the Utilities Division Compliance Section showed no outstanding compliance issues.[8]

VI. Others Issues

A. Arsenic

The latest lab test results show arsenic levels in both wells are below the new arsenic standard of 10 micrograms per liter.

B. Curtailment Tariff

A curtailment tariff is an effective tool to allow a water company to manage its resources during periods of shortages due to pump breakdowns, droughts, or other unforeseeable events. Since the Company does not have a curtailment tariff, this application provides an opportune time to prepare and file such a tariff. Staff recommends that the Company file a curtailment tariff as soon as possible, but no later than forty-five (45) days after the effective date of the order in this matter. The tariff shall be filed with the Commission's Docket Control as a compliance item in this docket for Staff's review and certification.

---

[6] MCESD issued its compliance status report on February 2, 2006.
[7] Compliance status per phone message dated February 10, 2006.
[8] Compliance Section email dated January 10, 2006.

Staff further recommends that the tariff shall generally conform to the sample tariff found on the Commission's web site at www.cc.state.az.us. Staff recognizes that the Company may need to make minor modifications according to its specific management, operational, and design requirements as necessary and appropriate.

C. Water Loss

Based on water usage data for the period of July 2004 through July 2005, the Wittmann system had a 19 per cent water loss. Staff recommends that lost water should be 10 percent, or less, but never more than 15 percent. The Company reported that it is aware of its water loss problem and is taking steps to reduce lost water to a level below 10 percent.

Staff recommends that the Company file a plan to reduce its water loss to less than 10%. This plan should be filed within 45 days of a decision in this matter. If the Company believes that it is not cost effective to reduce its water loss to less than 10%, its shall file a detailed analysis with Docket Control explaining why it is not cost effective to do so. Staff further recommends that the Company reduce its water loss to a level that is 15 percent or less before filing for approval of any new main extension agreements.

Summary

I. Conclusions

1. Staff concludes that the Company will have adequate production and storage capacity to serve the requested area with the addition of the new wells and storage tank.

2. MCDES reported that both the Wheat and Wittmann systems are in Compliance with its requirements and currently delivering water that meets water quality standards required by Arizona Administrative Code, Title 18, Chapter 4.

3. West End is in compliance with ADWR's reporting and conservation rules.

4. A check with the Utilities Division Compliance Section showed no outstanding compliance issues.

II. Recommendations

1. Staff recommends that the Company file with the Commission's Docket Control as a compliance item in this docket a copy of the Maricopa County Environmental Services Department ("MCESD") Approval to Construct ("ATC") for the new wells and storage tank by December 31, 2006.

2. Staff recommends that the Company file with the Commission's Docket Control as a compliance item in this docket a copy of the developers' Certificate of Assured Water Supply by December 31, 2007.

3. Staff recommends that the Company file a curtailment tariff as soon as possible, but no later than forty-five (45) days after the effective date of the order in this matter. The tariff shall be filed with the Commission's Docket Control as a compliance item in this docket for Staff's review and certification. Staff further recommends that the tariff shall generally conform to the sample tariff found on the Commission's web site at www.cc.state.az.us.

4. Staff recommends that the Company file a plan to reduce its water loss to less than 10%. This plan should be filed within 45 days of a decision in this matter. If the Company believes that it is not cost effective to reduce its water loss to less than 10%, its shall file a detailed analysis with Docket Control explaining why it is not cost effective to do so. Staff further recommends that the Company reduce its water loss to a level that is 15 percent or less before filing for approval of any new main extension agreements.

B

ATTACHMENT B

MEMORANDUM

TO: Blessing Chukwu
Executive Consultant III
Utilities Division

FROM: Barb Wells
Information Technology Specialist
Utilities Division

THRU: Del Smith
Engineering Supervisor
Utilities Division

DATE: December 5, 2005

RE: **WEST END WATER COMPANY (DOCKET NO. W-01157A-05-0706)**

The area requested by West End for an extension has been plotted with no complications using the legal description provided with the application (a copy of which is attached).

Also attached is a copy of the map for your files.

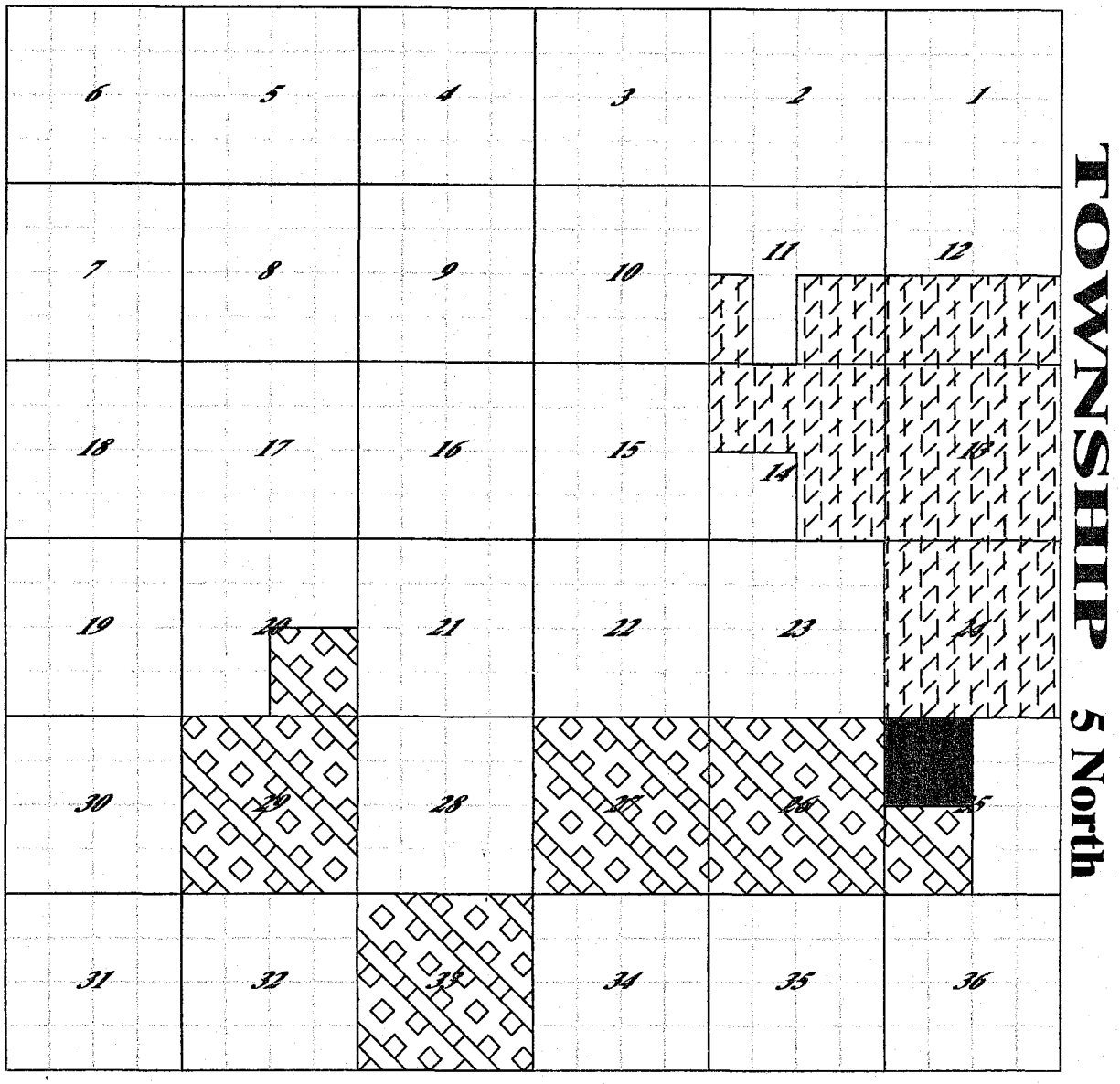
:bsw

Attachments

cc: Docket Control
Mr. J. Scott Rhodes
Ms. Deb Person (Hand Carried)
File

COUNTY: *Maricopa*

RANGE 3 West



W-2074 (2)
Beardsley Water Company, Inc.

W-1157 (2)
West End Water Company

West End Water Company
Docket No. W-01157A-05-0706
Application for Extension

TR5N3W 10 AUG 2004

ATTACHMENT "B"

COUNTY	SECTION	TOWNSHIP	RANGE
Maricopa	25	5N	3W

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:

NW 1/4 of Section 25 R5N T3W

ccnext.doc 04/00

C

Blessing Chukwu

From: Blessing Chukwu
Sent: Thursday, March 30, 2006 6:04 PM
To: 'Scott.McCoy@surpriseaz.com'; 'jburke@omlaw.com'
Cc: Blessing Chukwu; Steven Olea; David Ronald
Subject: Request for Information re: Motion to Intervene filed on March 28, 2006 (West End Water Company Docket # W-01157A-050706)

Greetings! I am in the process of writing my Staff Report and will appreciate it if you would provide the following information to me:

1. Please confirm whether or not the requested area (the NW 1/4 of Section 25, Range 5 North, Township 3 West) is within the corporate city limits of the City of Surprise.
2. Please provide the timetable or timeline for the City of Surprise's planned annexation area.
3. In the planned annexation, is the City of Surprise planning to annex only the West End Water Company's requested extension area or will it include the surrounding area? Please explain in detail. Also, please provide a legal description of the area that will be annexed.
4. Does the City of Surprise currently provide water and wastewater services outside its city limits? Please provide a map that depicts the City's water and wastewater service territory.

Thanks for your assistant. BNC

D

The Phoenix Plaza
21st Floor
2929 North Central Avenue
Phoenix, Arizona 85012-2793

P.O. Box 36379
Phoenix, Arizona 85067-6379

Telephone 602.640.9000
Facsimile 602.640.9050

OSBORN MALEDON
A PROFESSIONAL ASSOCIATION
ATTORNEYS AT LAW

www.osbornmaledon.com

Danielle D. Janitch

Direct Line 602.640.9381
Direct Fax 602.640.6062

djanitch@omlaw.com

April 13, 2006

Docket Control
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, AZ 85007

Re: The Application of West End Water Company for an Extension of its Certificate of Convenience and Necessity (CC&N), **Docket No. W-01157A-05-0706**

Dear Madam/Sir:

This letter provides answers to the four questions emailed on March 30, 2006 by Ms. Blessing Chukwu to the City of Surprise (which applied to intervene in this above matter on March 28, 2006).

Question 1:

Please confirm whether or not the Requested Area (the NW ¼ of Section 25, Range 5 North, Township 3 West) is within the corporate city limits of the City of Surprise.

Response to Question 1:

The Requested Area, part of the Walden Ranch development, while not presently within the corporate city limits of the City of Surprise, is with the City of Surprise's General Planning Area ("GPA"). The City intends to move diligently in annexing land within its GPA and, pursuant to that strategy, anticipates that the Requested Area will be annexed.

Currently, the southern boundary of the Walden Ranch development is within 1 mile of the City of Surprise's corporate city limits. However, the City of Surprise expects to complete the annexation of two other nearby developments, Sunhaven Ranch and Asanti North, by July 2006, as well as certain State Trust lands by later this year. When these annexations are completed, the City of Surprise's corporate limits will be within ½ mile on the south and east of the Walden Ranch development.

Question 2:

Please provide the timetable or timeline for the City of Surprise's planned annexation area.

Response to Question 2:

As explained in the Response to Question 1, the City of Surprise intends to move diligently in annexing its entire GPA, which is broken down into six Special Planning Areas ("SPAs"). Attached hereto as Exhibit A is a map showing the SPAs. Pursuant to the Surprise General Plan 2020, ratified by public vote on March 13, 2001 and amended on December 22, 2005, as well as the Surprise Annexation Policy, dated June 13, 2002, the entire GPA is proposed to be annexed no later than 2020.

Today, there are annexation projects ongoing in all of the SPAs, as shown by the Tentative Annexation Map, prepared on March 24, 2006, attached hereto as Exhibit B. For example, it is expected that Annexation Areas B and H will be annexed within the next four months and Annexation Areas A, C, E, F, G, and J will be annexed shortly thereafter.

At this time, the City is conducting short term planning for annexation of Walden Ranch development, including researching whether to approach annexation from the south or east following the anticipated July 2006 annexations mentioned above in Response to Question 1. Devising a fixed annexation solution at this time for the Walden Ranch development is difficult because the surrounding area is highly fragmented, with multiple landowners.

Question 3:

In the planned annexation, is the City of Surprise planning to annex only the West End Water Company's requested extension area or will it include the surrounding area? Please explain in detail. Also, please provide a legal description of the area that will be annexed.

Response to Question 3:

The City of Surprise plans to annex the entire GPA. Both the Requested Area and the entire area that West End Water Company presently services are within this GPA. Please see Exhibit A for a map and description of the six SPAs within the GPA. The City of Surprise currently plans to annex the entire Walden Ranch development at one time. This annexation will not occur until sometime after July 2006, when the City's annexation of nearby areas is complete. At that time, the City will complete its study of the Walden Ranch development area and specifically determine what approach it will take to annex the entire development. Once an approach has been determined, the City of Surprise will then be able to estimate by what date the Walden Ranch development will be annexed.

Question 4:

Does the City of Surprise currently provide water and wastewater services outside its city limits? Please provide a map that depicts the City's water and wastewater service territory.

Response to Question 4:

Wastewater: The City of Surprise presently provides sewer services not only within its city limits, but also to lands outside the GPA. Further, the City of Surprise has already been designated as the sewer service provider for all future development within its entire GPA, as it identified and included all GPA lands within the City of Surprise's "Maricopa Association of Governments Section 208 Sewer Service Area." There are no competing sewer providers in the GPA, except for the pre-existing Arizona American (originally the Citizens Water Company) Sewer Service Area Franchise within SPA1.[1] Attached hereto as Exhibit C is a map depicting the sewer providers for the GPA.

Additionally, the Surprise City Counsel has agreed to enter into a Pre-Annexation Development Agreement with the proposed Broadstone Ranch development, located in SPA5 approximately one mile north of the Walden Ranch development. Under this agreement, the City of Surprise has agreed to provide water and sewer services to Broadstone Ranch development prior to the annexation of Broadstone Ranch development, and Broadstone Ranch development has agreed to work to expedite its annexation into the City of Surprise. This effort to provide water and sewer services outside the City limits, until annexation is possible, is expected to continue throughout the GPA.

Water: The City of Surprise presently provides water services only within its city limits. Attached hereto as Exhibit D is a map depicting the water providers for the GPA. However, as explained above, the City of Surprise has agreed to provide water and sewer services to Broadstone Ranch development prior to the annexation of Broadstone Ranch development.

If you have any questions regarding these responses, or if additional follow-up questions surface, please do not hesitate to contact me.

Sincerely,

Danielle D. Janitch

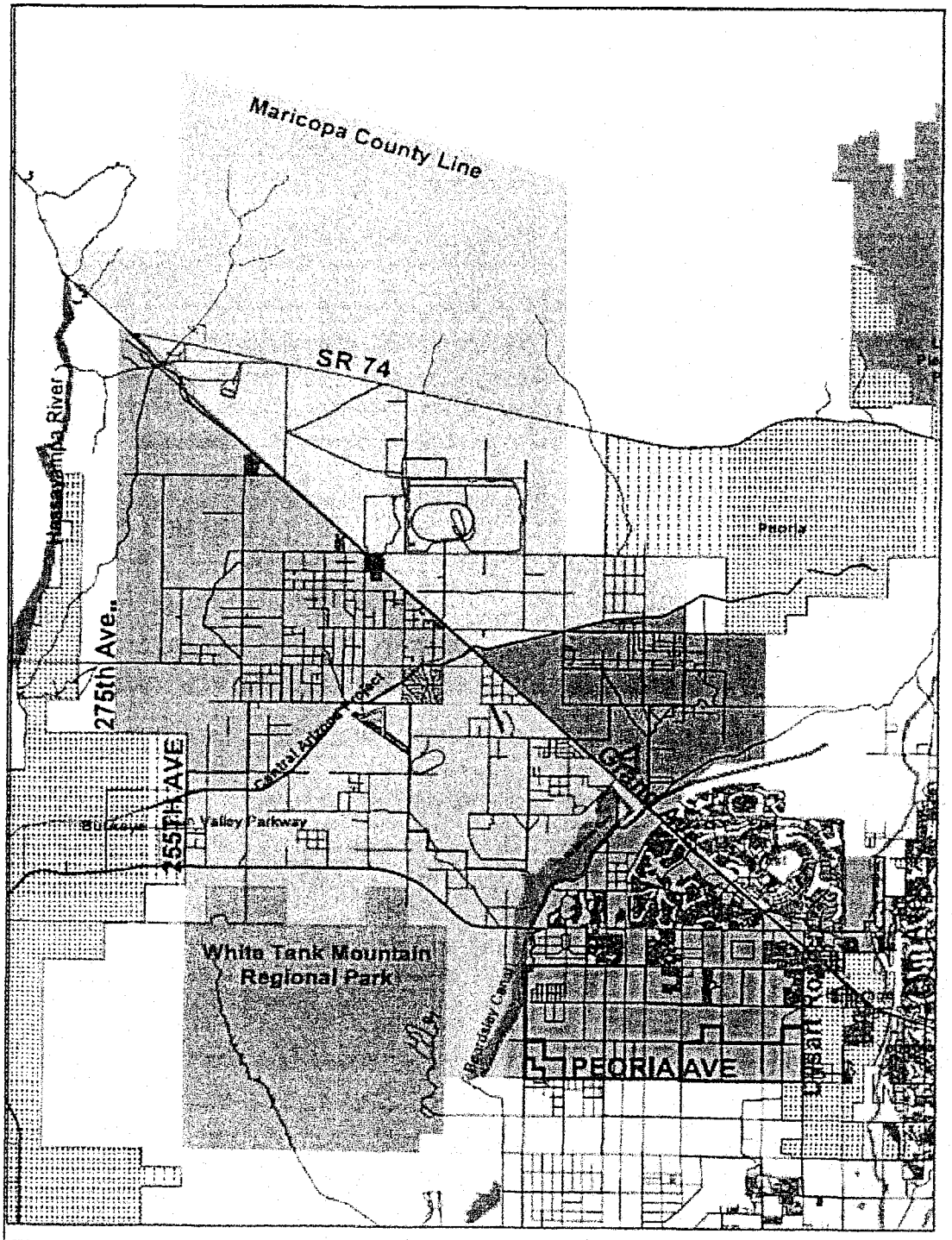
DDJ:jjm
Enclosures
cc: Blessing Chukwu *(w/enclosures, via electronic mail)*
J. Scott Rhodes, Esq. (w/enclosures), Attorney for West-End Water Company

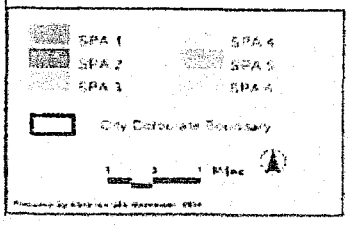
Original and 13 copies filed with
Docket Control this 13th day of April, 2006.

---

[1] Arizona American provides services to Sun City, a small strip of commercial property developed in conjunction with Sun City, and several small developments at the eastern City limits along Bell Road. Arizona American has no plans to expand its sewer service to add additional customers within the City of Surprise GPA.

CITY OF SURPRISE SPECIAL PLANNING AREAS





Special Planning Areas (SPA)

Figure 4-2

Surprise General Plan 2020: Imagine the Possibilities
City of Surprise, AZ

SURPRISE
ARIZONA

SPA-1

The western and central regions of SPA-1 are generally bordered by Perryville Road to the west, Dysart Road to the east, Peoria Avenue to the south, the Beardsley Canal to the northwest, and Grand Avenue to the northeast. The eastern region of SPA-1 generally extends east of Dysart Road and north of Greenway Road to Bell Road. This area includes the original town site, an area between the original town site and Sun City Phase II further east, and an area north of Bell Road between Sun City Phase II and Sun City West.

SPA-2

SPA-2 exists north and northwest of SPA-1 and the Beardsley Canal, and north of Grand Avenue. SPA-2 roughly extends easterly to the Litchfield Road alignment, and is bound to the north and northwest by the Central Arizona Project (CAP) canal and the City of Peoria.

SPA-3

SPA-3 exists west and northwest of SPA-1 and the Beardsley Canal, extending west to 255th Avenue and the City of Buckeye. SPA-3 is bordered to the south by Peoria Avenue and the White Tank Mountain Regional Park, to the northeast by Grand Avenue, and to the northwest by the CAP canal.

SPA-4

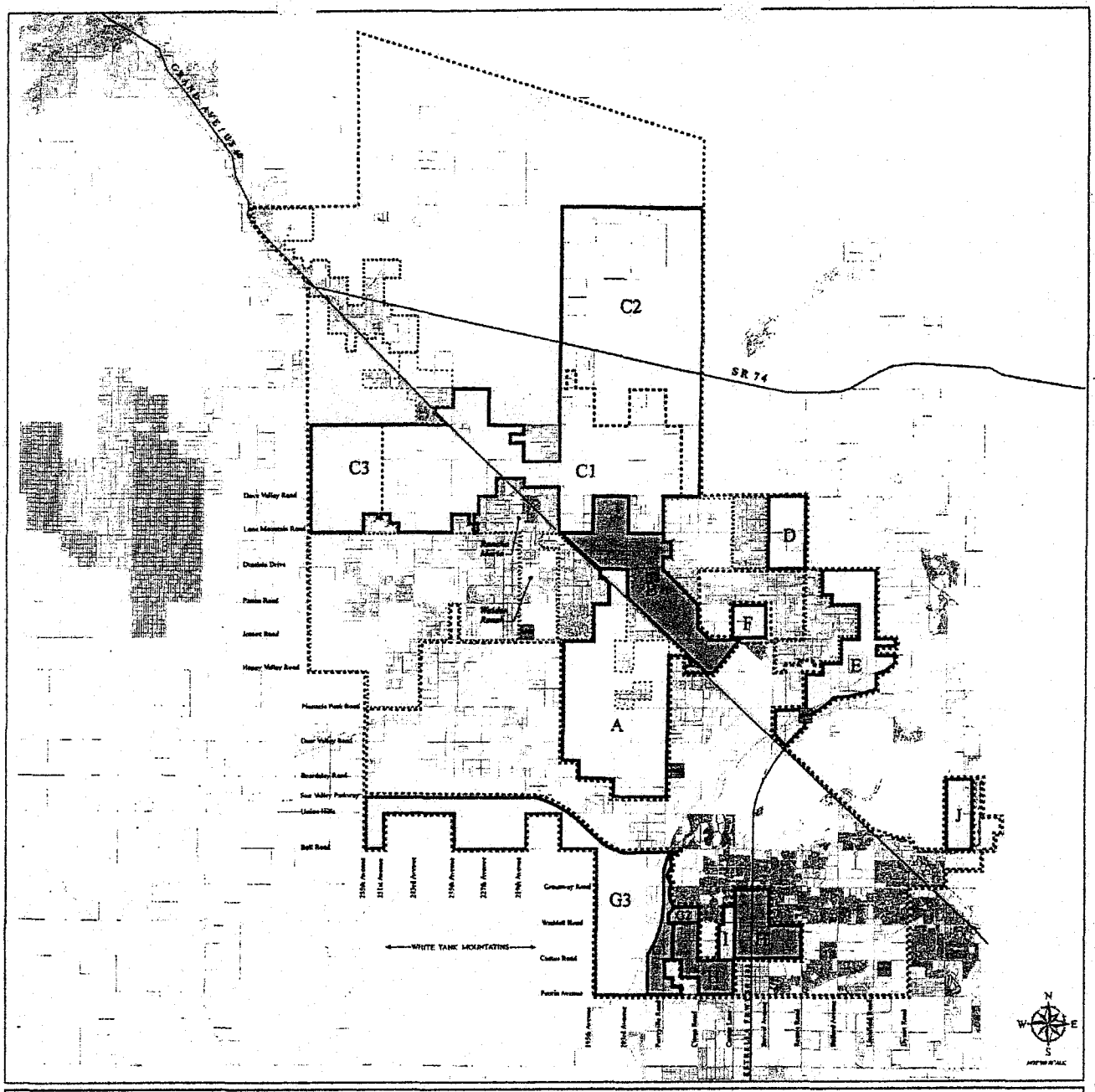
SPA-4 exists north and northwest of SPA-2 and the CAP canal and north of Grand Avenue. SPA-4 is bordered to the north by State Road 74 and extends west to roughly the intersection of State Road 74 and Grand Avenue.

SPA-5

SPA-5 exists north and northwest of SPA-3 and the CAP canal, and south of SPA-4 and Grand Avenue. SPA-5 extends further west than SPW-3 to 275th Avenue north of Happy Valley Road to roughly to the intersection of State Road 74 and Grand Avenue. Current city boundaries extends roughly north to Jomax Road.

SPA-6

SPA-6 exists north of SPA-4 and State Road 74 and extends north to the fringe of Maricopa County.



CITY OF SURPRISE TENTATIVE ANNEXATION MAP

LEGEND

- State Lands
- Bureau of Land Management
- Annexations in Progress
- Short Term Research Area
- Long Term Research Area
- Incorporated Area
- General Planning Area
- Wastewater Treatment Plant

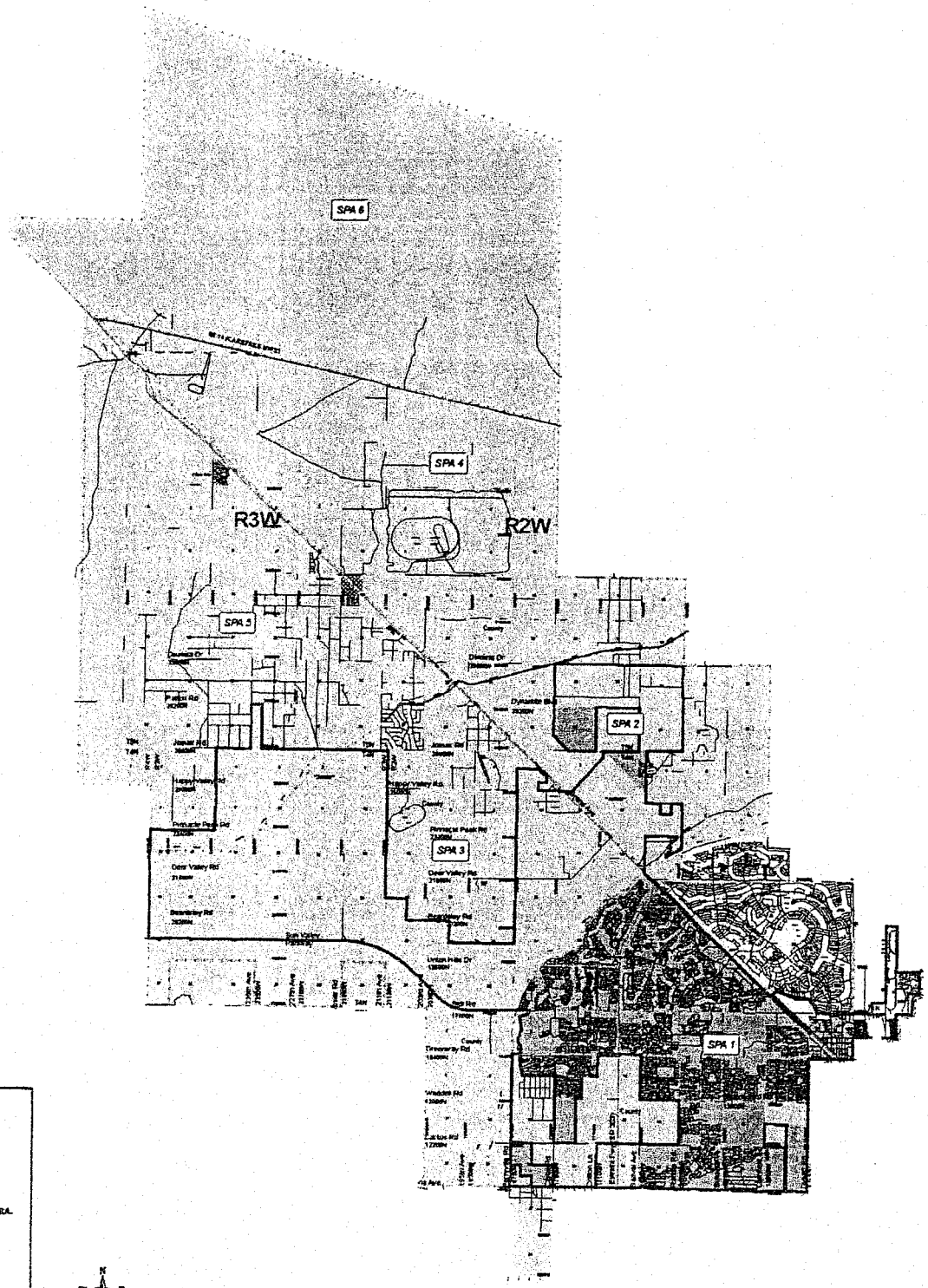
Note: Letters designate annexation areas shown on the above map.

Area	Annexation Projects
A	Volvo Proving Grounds, Northwest Regional Landfill
B	Asante North, Sunhaven Ranch
C1	Chrylser Proving Grounds, Wittman Ranch, Broadstone Ranch, BNSF, Grand Oasis, Nelson 160
C2	LakePleasant 5000
C3	*State Lands*
D	Marisol Ranch
E	Rancho Mercado
F	Sunrise Ranch
G1	Zanjero Trails
G2	Waddell Haciendas
G3	*State Lands*
H	Prusada
I	County Island Infill
J	River Bottom

SURPRISE ARIZONA

3/24/06

Sewer Providers for City of Surprise General Planning Area



LEGEND

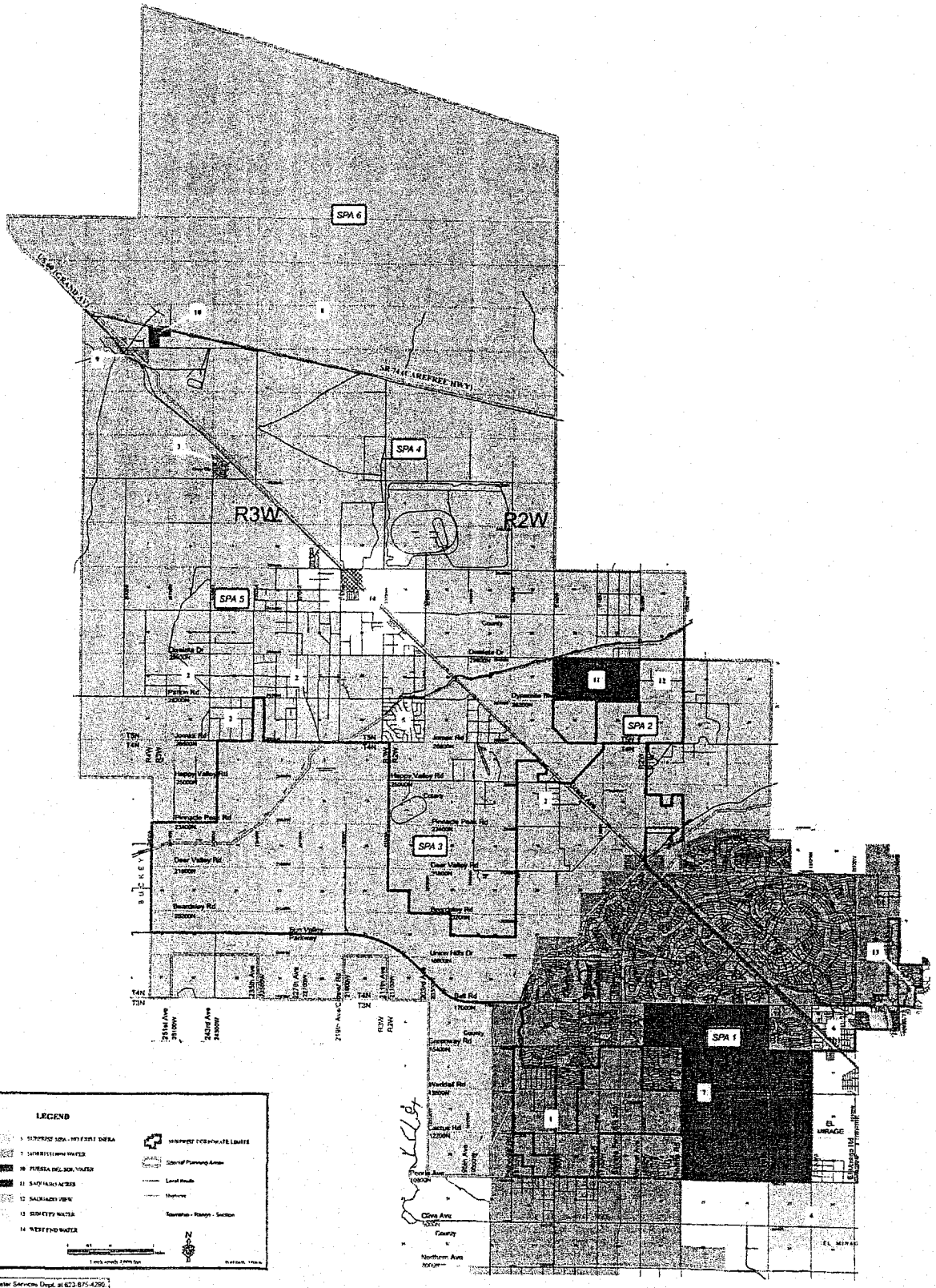
SEWER PROVIDERS

- ARIZONA AMERICAN
- SURPRISE SSA - EXIST. INFRA.
- SURPRISE MPA - NO EXIST. INFRA.
- Special Planning Areas
- Surprise Corporate Limits
- LOCAL ROADS
- HIGHWAY
- Township - Range - Section

For additional information contact the city of Surprise Water Services Dept. at 623-875-4280
NOTE: The City of Surprise makes no claims concerning the accuracy of the data provided nor assumes any liability resulting from the use of the information here-in.

SURPRISE
ARIZONA

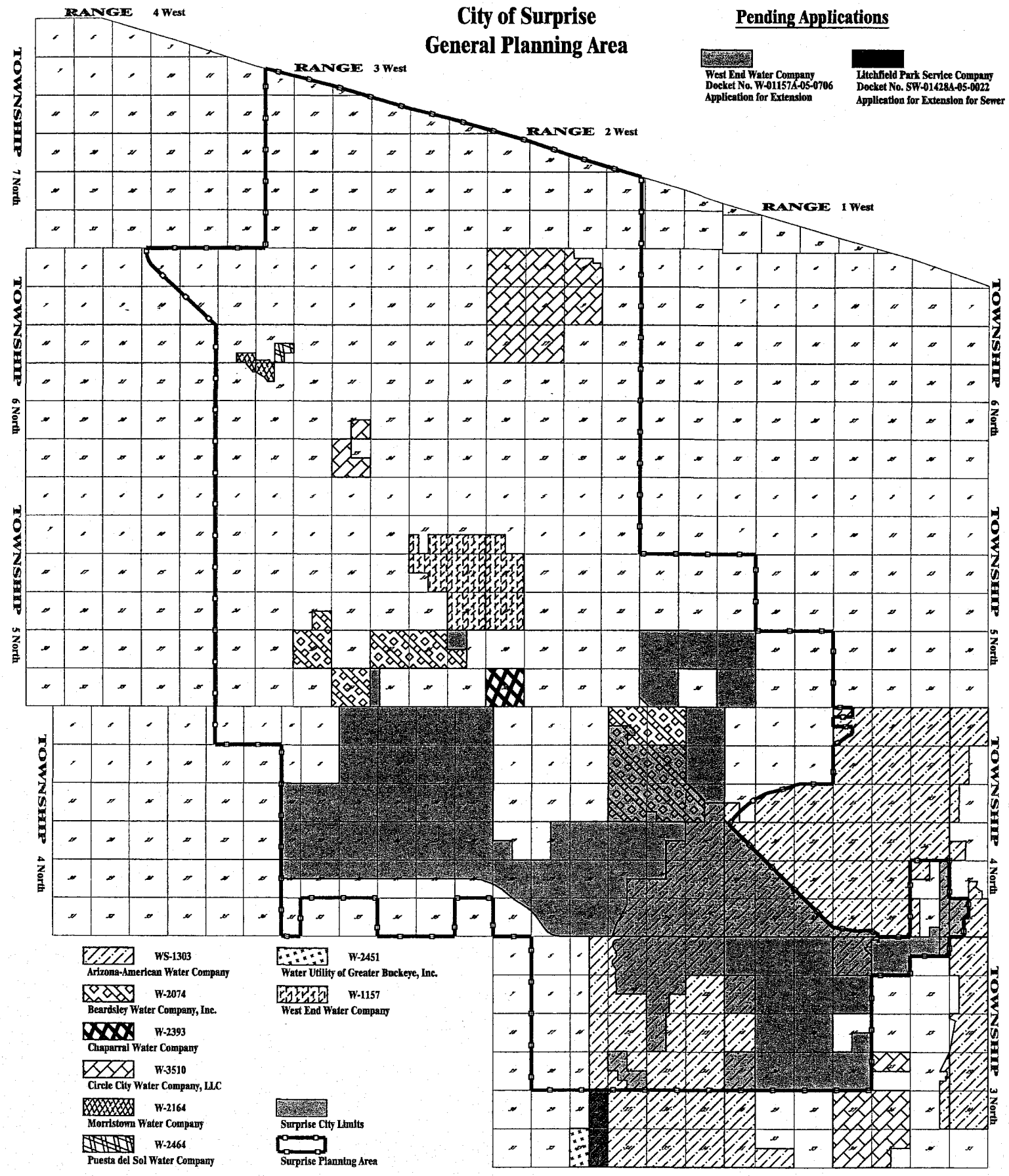
WATER PROVIDERS in the CITY of SURPRISE GENERAL PLAN AREA



For additional information contact the city of Surprise Water Services Dept. at 623-875-4290
NOTE: The City of Surprise makes no claims concerning the accuracy of the data provided nor assumes any liability resulting from the use of the information here-in.

ATTACHMENT E

City of Surprise General Planning Area



SURPRISE
ARIZONA

CITY ATTORNEY'S OFFICE

12425 West Bell Road, Suite D-100
Surprise, AZ 85374
Office (623) 583-3135 Fax (623) 583-1399

March 8, 2006

Arizona Corporation Commission
Utilities Division
Attn: Linda Jaress
1200 West Washington
Phoenix, AZ 85007-2996

Re: ***City of Surprise General Planning Area***

Ms. Jaress:

Thank you very much for taking the time to speak with me this morning regarding filings with the Arizona Corporation Commission involving area within the City of Surprise General Plan planning area. Please find enclosed a section map of the City of Surprise General Plan planning area.

If it is not too great of an imposition on you or your staff (I understand how busy you are and how difficult it is to do all that you are already required to do), I would greatly appreciate receiving notification of filings involving area within the City's general planning area. I can be contacted by phone at 623.875.4232 or by e-mail at scott.mccoy@surpriseaz.com.

Your assistance is very much appreciated. If there is anything I can do to assist you please do not hesitate to ask.

Sincerely,

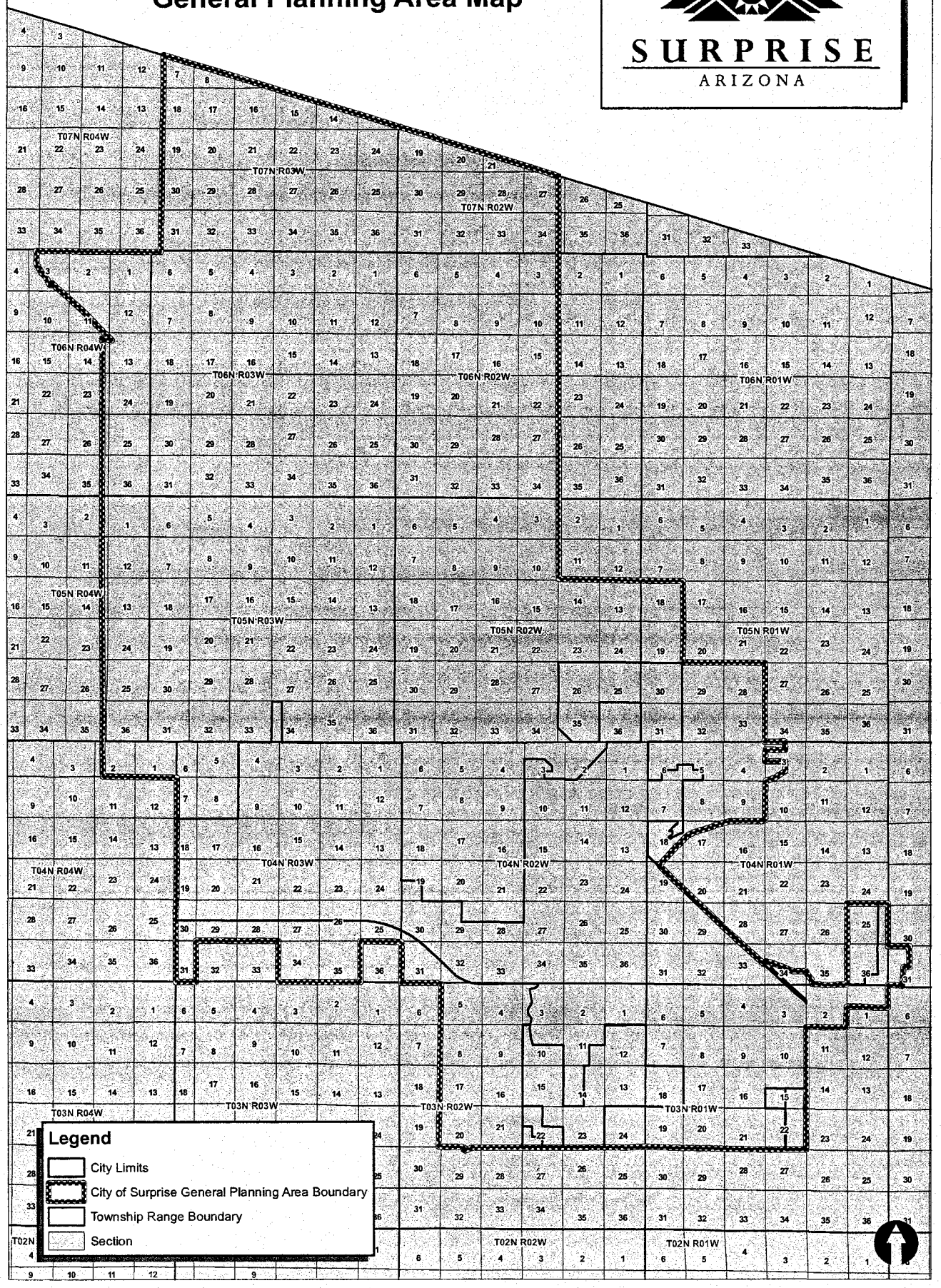
K. Scott McCoy
City Attorney

Enclosure: Section Map of COS General Planning Area

EXHIBIT
S2
admitted

City of Surprise
General Planning Area Map

SURPRISE
ARIZONA



Jennings Strouss

Jennings, Strouss & Salmon, P.L.C.
Attorneys at Law
The Collier Center, 11th Floor
201 East Washington Street
Phoenix, Arizona 85004-2385
Telephone: 602.262.5911
www.jsslaw.com

J. Scott Rhodes
Direct Dial: 602.262.5862
Direct Fax: 602.495.2648
srhodes@jsslaw.com

RECEIVED

2005 OCT -5 A 10: 17

AZ CORP COMMISSION
DOCUMENT CONTROL

October 4, 2005

Docket Control
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, AZ 85007

Re: West End Water Co.

Dear Madam/Sir:

Attached is an application by our client, West End Water Co., for an extension of Certificate of Convenience and Necessity. The purpose of this application is to extend West End Water Co.'s existing CC&N to provide water service to a proposed development known as Walden Ranch. The proposed Walden Ranch Development is nearly 70% within West End Water Co.'s existing CC&N.

West End Water Co. is in compliance with the safe drinking water rules and regulation and will continue to operate the water system to remain in compliance. West End Water Co.'s existing wells are in compliance with the new Arsenic Rule that becomes effective January 23, 2006.

West End Water Co. has paid all of its back property taxes. The total of $119,922.62 has fully satisfied West End Water Co.'s obligations to the Maricopa County Treasurer.

Very truly yours,

JENNINGS, STROUSS & SALMON, P.L.C.

By

J. Scott Rhodes

SR1/mri
Enclosure

cc: JD Campbell (w/encl.)
Marvin Collins (w/encl.)

EXHIBIT
A-1
Identified

ARIZONA CORPORATION COMMISSION

APPLICATION FOR AN EXTENSION OF CERTIFICATE OF CONVENIENCE AND NECESSITY

WATER AND/OR SEWER

A. The name, address and telephone number of the Applicant is:

West End Water Co. (623)972-6133

9098 W. Pinnacle Peak Road

Peoria, AZ 85383

B. The name, address and telephone number of management contact is:

JD Campbell - President (623)972-6133

9098 W. Pinnacle Peak Road

Peoria, AZ 85383

C. List the name, address and telephone number of the operator certified by the Arizona Department of Environmental Quality:

Marvin E.Collins, Manager (623)972-6133

9098 W. Pinnacle Peak Road

Peoria, AZ 85383

D. List the name, address and telephone number of the attorney for the Applicant:

J. Scott Rhodes (602)262-5862

Jennings, Strouss & Salmon, P.L.C., 201 E. Washington Street, 11th Floor

Phoenix, AZ 85004-2385

E. Attach the following documents that apply to you:

1. Certificate of Good Standing (if corporation) Attached

2. Corporate Resolution Authorizing this application (if required by the corporation's Articles of Incorporation) Attached

F. Attach a legal description of the area requested by either **CADASTRAL** (quarter section description) or **Metes and Bounds** survey. References to parcels and dockets will not be accepted. NW 1/4 of Section 25 T5N R3W

G. Attach a detailed map using the form provided as attachment B. Shade and outline the area requested. Also indicate the present certificated area by using different colors.

H. Attach a current balance sheet and profit and loss statement. Attached

I. Provide the following information:

1. Indicate the estimated number of customers, by class, to be served in the new area in each of the next five years:

Residential:

First Year 0 Second Year 150 Third Year 250 Fourth Year 350

Fifth Year 443

Commercial: N/A

First Year_____ Second Year_____ Third Year_____ Fourth Year_____

Fifth Year_____

Industrial: N/A

First Year_____ Second Year_____ Third Year_____ Fourth Year_____

Fifth Year_____

Irrigation: N/A

First Year_____ Second Year_____ Third Year_____ Fourth Year_____

Fifth Year_____

Other: (specify) N/A

First Year_____ Second Year_____ Third Year_____ Fourth Year_____

Fifth Year_____

2. (WATER ONLY) Indicate the projected annual water consumption, in gallons, for each of the customer classes in the new area for each of the next five years:

Residential:

First Year 0 Second Year 34,560,000 Third Year 57,600,000

Fourth Year 80,640,000 Fifth Year 102,067,000

Commercial: N/A

First Year_____ Second Year_____ Third Year_____

Fourth Year_____ Fifth Year_____

Industrial: N/A

First Year_____ Second Year_____ Third Year_____

Fourth Year_____ Fifth Year_____

Irrigation: N/A

First Year_____ Second Year_____ Third Year_____

Fourth Year_____ Fifth Year_____

3. Indicate the total estimated annual operating revenue from the new area for each of the next five years:

First Year 0 Second Year $109,314.00 Third Year $182,190.00

Fourth Year $255,066.00 Fifth Year $322,841.00

- **Complete Attachment "D" (Water Use Data Sheet) for the past 13 months**

4. Indicate the total estimated annual operating expenses attributable to the new area for each of the next five years:

First Year 0 Second Year 99,000 Third Year 165,000

Fourth Year 231,000 Fifth Year 292,380

J. Total estimated cost to construct utility facilities to serve customers in the requested area:

$886,000

K. Explain method of financing utility facilities (see paragraph 8 of instructions)

Developer Advances

L. Estimated starting and completion date of construction of utility facilities:

Starting date 11/2006 Completion date 12/2008

M. Attach the following permits:

1. Franchise from either the City or County for the area requested. West End will submit an application to the County by December 31, 2005 to cover the area requested.
2. Arizona Department of Environmental Quality or designee's approval to construct facilities. Construction is scheduled to be conducted in phases. Approval will be obtained from ADEQ prior to construction.
3. Arizona State Land Department approval. (If you are including any State land in your requested area this approval is needed.) N/A
4. U.S. Forest Service approval. (If you are including any U.S. Forest Service land in your requested area this approval is needed.) N/A

5. (WATER ONLY) If the area requested is within an Active Management Area, attach a copy of, either the utility's Designation of an Assured Water Supply, or the developer's Certificate of 100 Year Assured Water Supply issued by the Arizona Department of Water Resources.
The process has been started and it is anticipated that this permit will be received within six months.

- If the area requested is outside an Active Management Area, attach the developer's Adequacy Statement issued by the Arizona Department of Water Resources if applied for by the developer.

- If the area requested is outside an Active Management Area and the developer does not obtain an Adequacy Statement, provide sufficient detailed information to prove that adequate water exists to provide water to the area requested.

N/A

(Signature of Authorized Representative)

J. SCOTT RHODES
(Print or Type Name Here)

ATTORNEY
(Title)

SUBSCRIBED AND SWORN to before me this 4th day of October, 2005

NOTARY PUBLIC

My Commission Expires

OFFICIAL SEAL
MICHELLE DRONS
NOTARY PUBLIC STATE OF ARIZONA
MARICOPA COUNTY
My Commission Expires Nov. 22, 2008

ccnext.doc 04/00

ATTACHMENT "B"

COUNTY	SECTION	TOWNSHIP	RANGE
Maricopa	25	5N	3W

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:

NW 1/4 of Section 25 R5N T3W

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

******WEST END WATER CO.******

a domestic corporation organized under the laws of the State of Arizona, did incorporate on March 7, 1979.

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; 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 19th Day of September, 2005, A. D.

SEAL OF THE ARIZONA CORPORATION COMMISSION
DITAT DEUS
* 1912 *

Executive Director

By

ACTIONS TAKEN BY THE
BOARD OF DIRECTORS AND SHAREHOLDER
OF WEST END WATER CO.

The undersigned member of the Board of Directors and sole Shareholder of West End Water Co., an Arizona corporation (the "Corporation"), acting by unanimous written consent in lieu of a special meeting, as authorized by Sections 10-821 and 10-704, Arizona Revised Statutes, hereby adopt the following resolution:

> WHEREAS, the member of the Board of Directors and sole shareholder of the Corporation deem it to be in the best interest of the Corporation to extend its water service territory to include the area known as Walden Ranch.
>
> NOW, THEREFORE, the following Resolution is adopted:
>
> RESOLVED, that J.D. Campbell, President, on behalf of the Corporation, is hereby authorized and directed to take such actions and to do all things which may be necessary or appropriate to accomplish the extension of its water service territory to include the area known as Walden Ranch.

DATED as of September 20th, 2005.

BOARD OF DIRECTORS

J.D. Campbell

SHAREHOLDER

J.D. Campbell

West End Water Co.
Balance Sheet
August 31, 2005

ASSETS

Current Assets			
Cash	$	564.12	
Accounts Receivable		9,403.34	
Total Current Assets			$ 9,967.46
Property and Equipment			
Land		1,500.00	
Property and Equipment (Net Depreciation)		1,572,798.23	
Total Property and Equipment			$ 1,574,298.23
Other Assets			
Deposits		95.00	
Deferred Management Fees		375,410.04	
Construction in Progress		24,715.16	
Total Other Assets			$ 400,220.20
Total Assets			$ 1,984,485.89

LIABILITIES AND CAPITAL

Current Liabilities			
Accounts Payable	$	76,443.43	
Accounts Payable - Stockholder		666,346.99	
Property Tax Payable		209,338.17	
Total Current Liabilities			$ 952,128.59
Long-Term Liabilities			
Meter Deposits		7,535.86	
Less Rpt as Income Meters		(5,660.00)	
Water Line Extension Payable		136,332.20	
Loan from Stockholder		108,270.00	
Security Deposits		12,798.66	
Abandoned Deposits		142.05	
Total Long-Term Liabilities			$ 259,418.77
Total Liabilities			$ 1,211,547.36
Capital			
Capital Stock		1,000.00	
Contributed Capital		1,686,493.23	
Accum.Amort. Contributed Plant		(325,311.00)	
Retained Earnings Prior		(529,913.06)	
Net Income		(59,330.64)	
Total Capital			$ 772,938.53
Total Liabilities & Capital			$ 1,984,485.89

Draft For Discussion Only

West End Water Co.
Income Statement
For the Eight Months Ending August 31, 2005

	Year to Date
Revenues	
Resident - Metered Sales	52,096.03
Coin Meter Sales	6,740.63
Hydrant Water Sales	128.06
Late Fees	300.88
Turn On/Off Fees	1,053.10
Misc. Income & Fees	1,149.48
Total Revenues	61,468.18
Cost of Sales	
Contract Labor	472.50
JDC Payroll	45,203.01
Engineering Fees	1,030.00
Depreciation Expense	2,116.64
Permits & Recording Fees	250.00
Utilities Pumping Expense	11,236.46
Rep & Maint	837.49
Backhoe Services	767.50
Laboratory Fees	420.00
Legal & Accounting	2,544.50
Bank Charges	509.18
Barn, Workshop & Storage	19,604.72
Total Cost of Sales	84,992.00
Gross Profit	(23,523.82)
Expenses	
Office Expense - Supplies	533.13
Insurance - General	2,944.40
Ground Lease Exp.	2,163.20
Licenses & Fees	414.19
Property Taxes	2,891.02
Management Fees	11,248.64
Postage	640.16
Interest Expense	6,597.92
Telephone	1,789.67
Auto Expense	9,040.66
Capitalized O/H	(4,664.41)
Overhead Expense	2,208.24
Total Expenses	35,806.82
Net Income	(59,330.64)

Draft for Discussion Only

ATTACHMENT "D"

WATER USE DATA SHEET

NAME OF COMPANY →	West End Water Co.
ADEQ Public Water System No. →	07-067

MONTH/YEAR (Last 13 Months	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
07-05	215	3,325
06-05	215	2,938
05-05	216	2,397
04-05	218	1,835
03-05	216	1,494
02-05	215	1,130
01-05	222	1,287
12-04	223	1,502
11-04	221	1,460
10-04	218	1,980
09-04	216	3,230
08-04	213	3,258
07-04	214	3,130

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
100,000	2	55-581369	250

Other Water Sources in Gallons per Minute →	GPM
Fire Hydrants on System →	Yes x No
Total Water Pumped Last 13 Months (Gallons in Thousands) →	35,848

WITTMAN 510, LLC
8501 N. Scottsdale Road, Suite 165
Scottsdale, Arizona 85253
(480) 947-5900 Phone (480) 947-5900 Fax

March 03, 2005

Marvin E. Collins
West End Water Co.
9098 W. Pinnacle Peak Rd.
Peoria, AZ 85383

RE: Request for Water Service

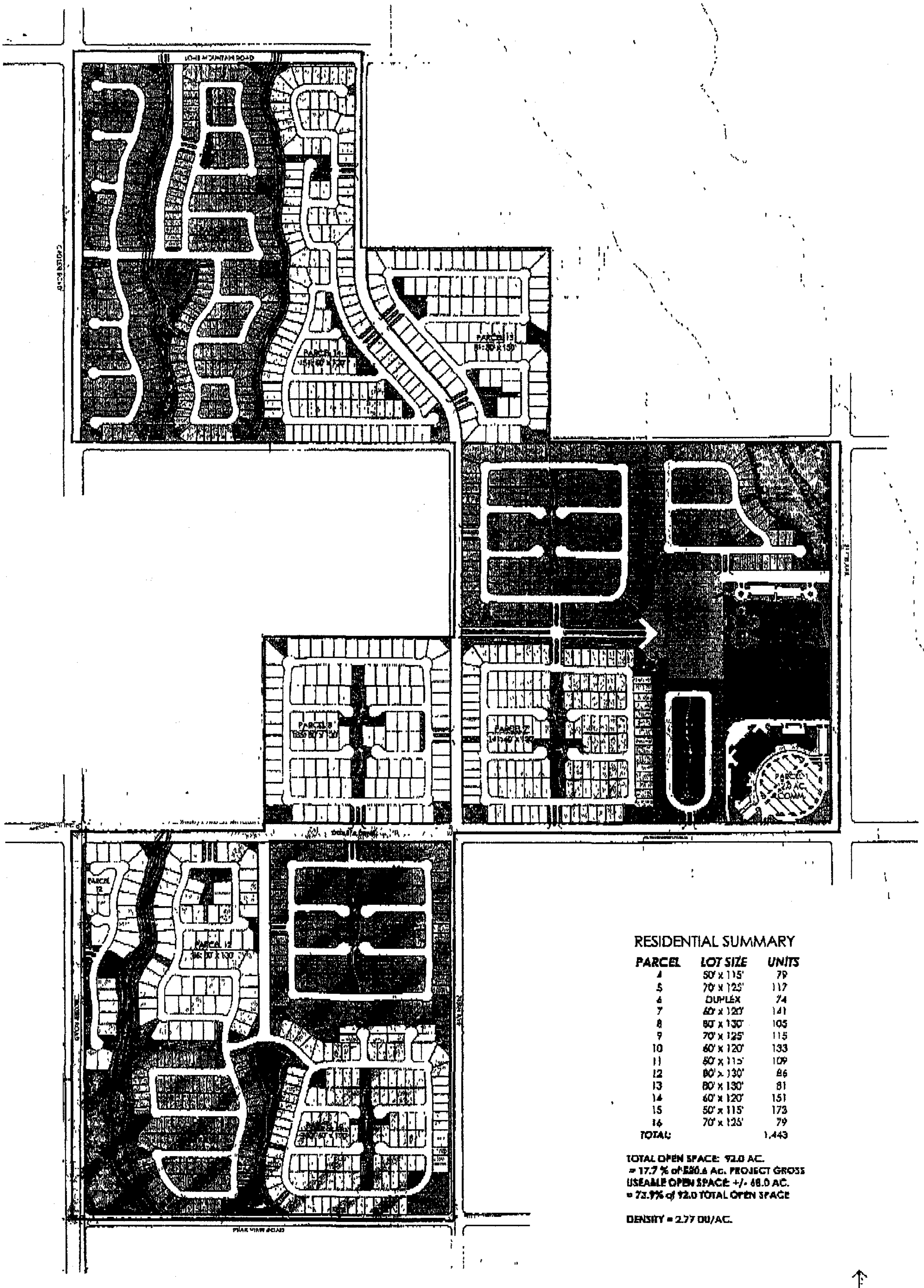
Dear Marvin,

Wittman 510 L.L.C., along with the other developers we met with last week, will be initiating the master water studies for service within your certificated service area for our projects. Please have this letter serve as our request for water service for the area referenced on the attached exhibit contiguous to your service area and currently outside to your existing service area.

Sincerely,

Gary K. Jones
602-625-9052

EXHIBIT
A-2
Admitted



RESIDENTIAL SUMMARY

PARCEL	LOT SIZE	UNITS
4	50' x 115'	79
5	70' x 125'	117
6	DUPLEX	74
7	60' x 120'	141
8	80' x 130'	105
9	70' x 125'	115
10	60' x 120'	133
11	50' x 115'	109
12	80' x 130'	86
13	80' x 130'	81
14	60' x 120'	151
15	50' x 115'	173
16	70' x 125'	79
TOTAL:		1,443

TOTAL OPEN SPACE: 92.0 AC.
= 17.7 % of 520.6 Ac. PROJECT GROSS
USEABLE OPEN SPACE: +/- 68.0 AC.
= 73.9% of 92.0 TOTAL OPEN SPACE

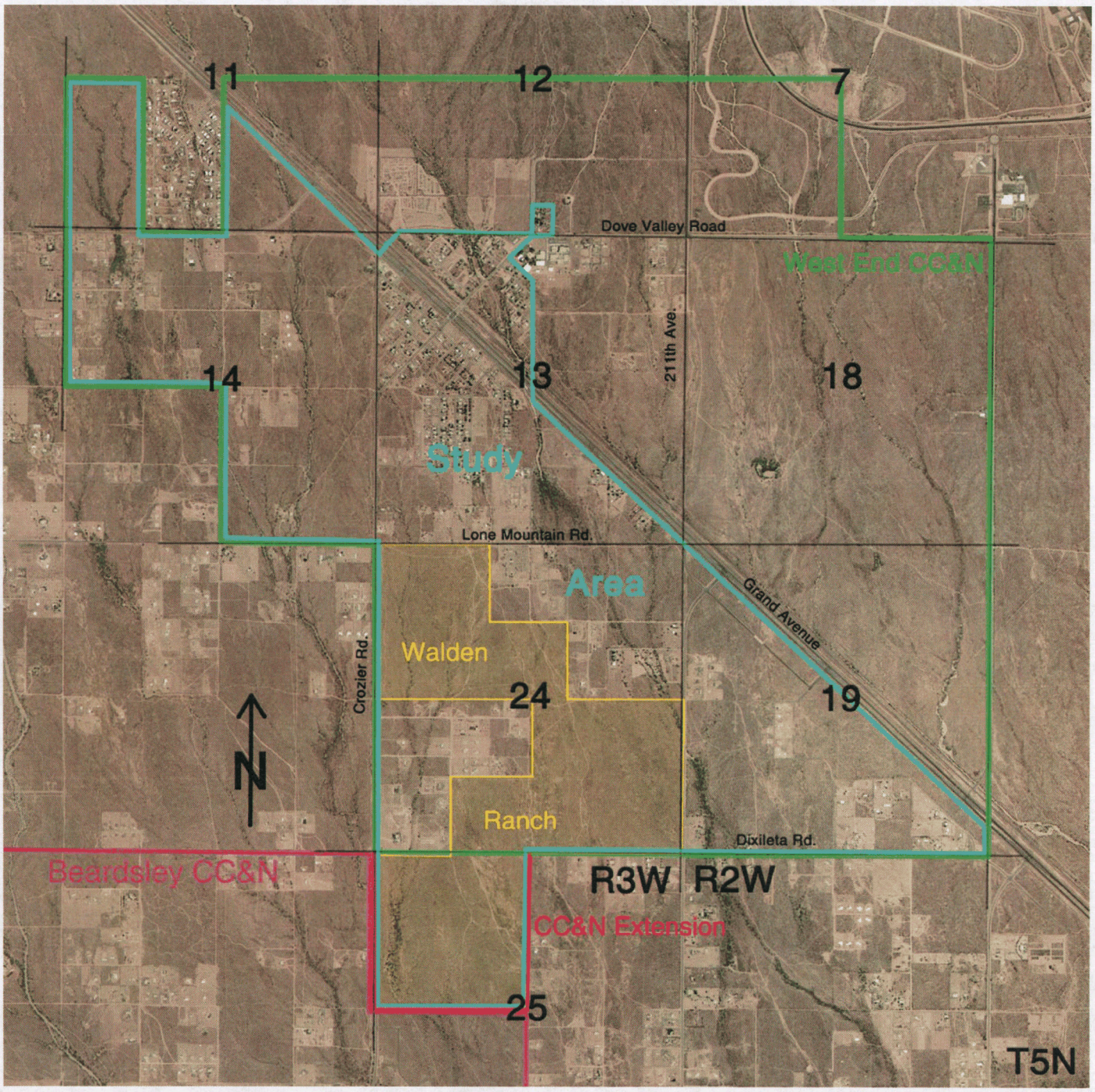
DENSITY = 2.77 DU/AC.

WALDEN RANCH
CONCEPTUAL LOTTING PLAN

March 3, 2005

EXHIBIT
PENGAD-Bayonne, N. J.
A-3
Admitted

West End Water
CC&N Vicinity Map



Prepared 5/17/05

EXHIBIT
A-4
Admitted

ARICOR
Water Solutions

WEST END WATER CO.
WATER SYSTEM MASTER PLAN

For
Water Service Area
Located South of Grand Avenue

January 3, 2006
Revised
January 9, 2006

Prepared for:
West End Water Co.
9098 W. Pinnacle Peak Road
Peoria, AZ 85383

Registered Professional Engineer (Civil)
Certificate No. 23778
RAY L. JONES
Date Signed 1-9-06
ARIZONA, U.S.A.

Prepared By:
ARICOR Water Solutions LC
25213 N. 49th Drive
Glendale, AZ 85310
(623) 341-4771 FAX (623) 582-5160

TABLE OF CONTENTS

1. Executive Summary 1

2. Introduction 2
2.1 Scope of Work 2
2.2 Study Area 2
2.3 Topographic Conditions 4
2.4 Growth and Development 4
2.5 Existing Water System 4

3. Planning Criteria 5
3.1 Demands 5
3.1.1 Existing Water Service Area 5
3.1.2 New Developments 6
3.2 Fire Flows 6
3.3 Pressure & Flow 7
3.4 Storage 7
3.5 Booster Pumps 8
3.6 Wells 8

4. Projected Demands 9
4.1 Projected Customer Growth 9
4.2 Projected Demand 9

5. Proposed Facilities 11
5.1 Storage, and Booster Pumping 11
5.2 Wells 11
5.3 Distribution System 12
5.4 Cost Estimates 12

6. Conclusions 13

Registered Professional Engineer (Civil)
Certificate No.
23778
RAY L.
JONES
Date Signed 1-9-06
ARIZONA, U.S.A.

LIST OF TABLES

Table 2.1 – Wittmann Booster Station Facilities 4
Table 2.2 – Wheat Booster Station Facilities 4
Table 3.1 – Annual Average Day, Existing Service Area 5
Table 3.2 – Maximum Month Average Day, Existing Service Area 5
Table 3.3 – Estimated Peak Day, Existing Service Area 5
Table 3.4 – Planning Factors, Existing Service Area 6
Table 3.5 – Population and Demand Factors, New Developments 6
Table 3.6 – Peaking Factors, New Developments 6
Table 3.7 – Fire Flow Requirements, New Developments 6
Table 3.8 – Pressure Standards 7
Table 3.9 – Pressure Zones 7
Table 3.10 – Pipeline Velocity Standards 7
Table 3.11 – Storage Criteria 8
Table 4.1 – Build-Out Dwelling Units and Population 9
Table 4.2 – Non-Residential Planning Data 9
Table 4.3 – Projected Demands by Area 10
Table 4.4 – Projected Demand by Pressure Zone 10

Table 5.1 – Sizing and Phasing of Storage and Booster Pumping Facilities 11
Table 5.2 – Well Requirement for Walden Ranch Booster Station 12

LIST OF FIGURES

Figure 1.1 - Study Area and Vicinity Map 3

Appendix 1 - Detailed Planning Area Maps
Appendix 2 - Detailed Planning and Demand Calculations
Appendix 3 - Results of RBF Consulting Distribution System Modeling
Appendix 4 - Cost Estimates

Revision Log

Revision 1 – January 9, 2006 – Typographical Corrections

1. Executive Summary

The intent of this report is to provide a regional water master plan to support planned growth and development in the portion of West End Water Co.'s certificated area south of Grand Avenue. The report recommends locations and sizing of regional water supply, storage and booster pumping facilities and incorporates distribution system analysis performed by RBF Consulting for the proposed Walden Ranch and Rancho Maria developments.

Planning criteria were established for West End Water Co. based on analysis of existing usage patterns and through comparison to neighboring water providers. Adopted planning factors allow detailed estimation of demand considering varying residential development densities, commercial, school and park development. Peaking factors of 1.8 for the peak day flow and 3.0 for the peak hour flow were adopted. The 2003 International Fire Code was used as the basis for fire flow requirements. Adopted fire flows are 1,750 gallons per minute for residential development and 3,000 gallons per minute for commercial development. Standards for well capacity, storage, booster pumping and distribution system pressure and flow were adopted in order to provide dependable service with appropriate levels of redundancy.

At build-out, the Study Area is projected to contain 4,561 homes with a population of 13,683 people. The annual average day demand is projected to be 1.983 million gallons with a peak day of 3.570 million gallons. At least four new wells will be required to provide a redundant supply for the peak day. Additional wells may be required depending upon the aquifer yield. Booster pumps will be sized to meet the peak day plus fire flow of 5,615 gallons per minute. Total water storage will be 2.046 million gallons, providing 540,000 gallons of fire storage and 1.506 million gallons for operational and emergency uses.

Two pressure zones have been established. West End Water Co.'s existing Wittmann Booster Station will pump into the upper pressure zone. The new Walden Ranch Booster Station will provide service to the upper and lower zones. The Walden Ranch Booster Station will have 1.6 million gallons of storage and 5,500 gallons per minute of firm pumping capacity. A minimum of three wells with a firm capacity of 1,040 gallons per minute will supply the Wittmann Booster Station. The Wittmann Booster Station will be expanded through the addition of a 250,000-gallon storage tank and 400 gallons per minute of booster pumping capacity. One additional 325 gallon per minute well will be constructed to pump to the Wittmann Booster Station.

Distribution system improvement will be evaluated as actual development occurs using the criteria established in this report. Rancho Maria and Walden Ranch Development will install a 12" looped backbone piping system to serve those developments.

Cost estimates have been prepared showing that backbone facilities will cost approximately $1,969 per dwelling unit. On-site facilities for the Rancho Maria and Walden Ranch developments are projected to be $3,942 and $2,967, respectively.

2. Introduction

2.1 Scope of Work

West End Water Co. (West End) retained ARICOR Water Solutions LC to prepare a regional water master plan to support planned growth and development in the portion of its certificated area south of Grand Avenue. The report evaluates regional water supply, storage and booster pumping capacities required at build-out of the study area. The report recommends locations and sizing of regional water supply, storage and booster pumping facilities. The report incorporates distribution system analysis performed by RBF Consulting for the proposed Walden Ranch and Rancho Maria developments.

2.2 Study Area

The study area is within Sections 11, 12, 13, 14, 24 and 25 of Township 5 North, Range 3 West and Section 19 of Township 5 North, Range 2 West and is detailed on Figure 1.1. The Study Area contains:

1. The existing water service area of West End, located both north and south of Grand Avenue.
2. That portion of the existing West End water certificated area located south of Grand Avenue.
3. The proposed expansion of West End water certificated area (CC&N Expansion Area) consisting of approximately 160 acres located in the northwest quarter of Section 25, T5N, R3W.

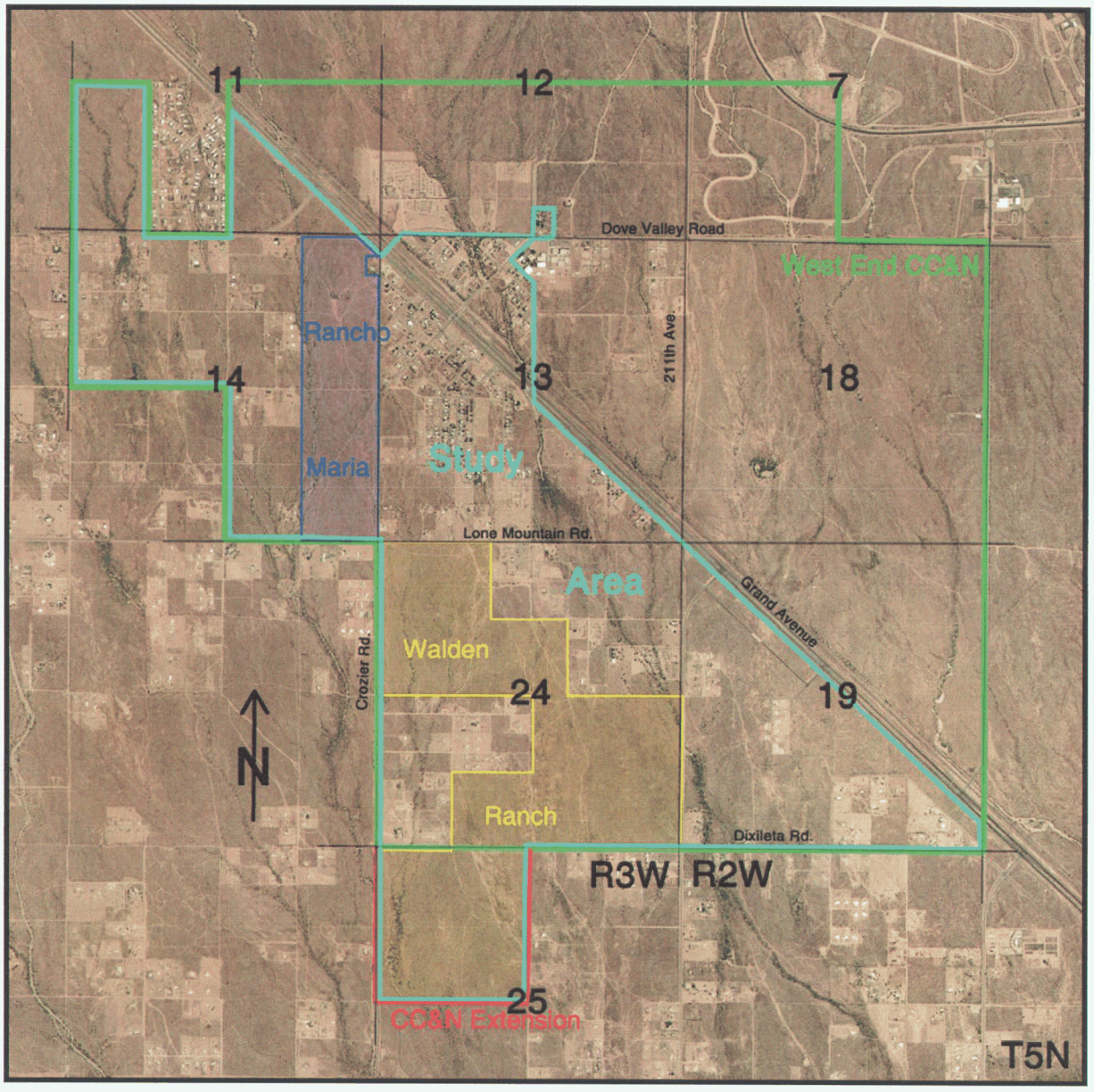


Figure 1.1 - Study Area and Vicinity Map

ARICOR Water Solutions

2.3 Topographic Conditions

The Study Area slopes generally from the northwest to the southeast. The highest elevation in the Study Area is approximately 1,740 ft at the extreme northwest corner of the Study Area. The lowest elevation is approximately 1,584 ft at the southeast corner of the proposed CC&N Expansion Area. The total elevation change is approximately 156 feet across the study area.

2.4 Growth and Development

The existing West End water certificated area is of a rural nature and largely undeveloped. The developed areas consist of single-family homes on both subdivided lots and varying acreages. Most of the homes within the West End certificated area are provided water service by West End. However, significant numbers of homes are served by private wells. Historically, West End has experienced slow growth, averaging approximately one new connection per year.

Two new master planned subdivisions are planned in the Study Area. Rancho Maria covers approximately 140 acres and is planned for 383 single-family homes with 23 acres of commercial development. Walden Ranch covers approximately 520 acres and is planned for 1,685 single-family homes, an elementary school, park and 17.5 acres of commercial development. With the addition of Rancho Maria and Walden Ranch developments to the West End water service area, West End is expected to experience rapid growth in the future.

2.5 Existing Water System

West End's existing water system consists of the components detailed in Table 2.1 known as the Wittmann Booster Station, the components detailed in Table 2.2 known as the Wheat Booster Station, and a water distribution system consisting of pipelines ranging from 6" in diameter to 1" in diameter.

Table 2.1 – Wittmann Booster Station Facilities

Item	Quantity	Capacity Each	Total Capacity
8" Well	1 ea.	250 gpm	250 gpm
Booster Pump	2 ea.	80 gpm	160 gpm
Booster Pump	1 ea.	240 gpm	240 gpm
Hydropneumatic Tank	1 ea.	5,000 gal.	5,000 gal.
Storage Tank	2 ea.	100,000 gal.	200,000 gal.

Table 2.2 – Wheat Booster Station Facilities

Item	Quantity	Capacity Each	Total Capacity
6" Well	1 ea.	25 gpm	25 gpm
Booster Pump	1 ea.	40 gpm	40 gpm
Booster Pump	1 ea.	20 gpm	20 gpm
Hydropneumatic Tank	1 ea.	6,000 gal.	6,000 gal.
Storage Tank	1 ea.	10,000 gal.	10,000 gal.

3. Planning Criteria

3.1 Demands

3.1.1 Existing Water Service Area

Water usage data for the twelve-month period from August 2004 through July 2005 was reviewed to establish usage patterns for the existing West End water service area. The annual average day data and maximum month average day data is presented in Table 3.1 and Table 3.2, respectively.

Table 3.1 – Annual Average Day, Existing Service Area

Year	Total Production (gallons)	Customers		Average Day (gpd)	
		Year-End	Average	System	Customer
8-04/7-05	25,836,000	215	215	70,784	329

Table 3.2 – Maximum Month Average Day, Existing Service Area

Month/Yr	Peak Month Total Production	Customers		Max Month Avg Day (gpd)	
		Month-End	Average	System	Customer
7/05	3,325,000	215	215	107,258	499
Max Month Average Day / Annual Average Day =					1.52

West End does not maintain daily water usage records, requiring the peak day demand to be estimated. A factor of 1.25 times the maximum month average day is often used to estimate the peak day demand. Table 3.3 presents the estimated West End peak day demand using the 1.25 factor.

Table 3.3 – Estimated Peak Day, Existing Service Area

	System (gpd)	Customer (gpd)
Max Month Average Day	107,258	499
Assumed Peak Day / Maximum Month Average Day	1.25	1.25
Estimated Peak Day	134,073	624
Calculated Peak Day / Annual Average Day =		1.89

The water use data and peaking factors for West End presented above are typical for a small water system serving a rural population. The annual average day is somewhat below what would be expected in a newer urban subdivision, which can be expected to have larger homes and more intensive landscaping. The calculated peak day is slightly above the normally expected peaking factor of 1.8, likely due to the small size of the water system. The peak day factor can be expected to drop as the system grows.

West End does not maintain hourly flow records needed to determine an actual peak day water demand. Many water systems use 3.0 times the annual average day to estimate the peak hour demand. The 3.0 factor appears to be consistent with the West End water use data.

Based on the above data and discussion, the factors presented in Table 3.4 will be used to estimate the water demand from current and future customers within the existing service area of West End.

Table 3.4 – Planning Factors, Existing Service Area

Annual Average Day =	330	gallons per dwelling unit
Peak Day Factor =	1.8	times annual average day
Peak Hour Factor =	3.0	times annual average day

3.1.2 New Developments

Based upon the planned Rancho Maria and Walden Ranch developments, it is expected that future developments within the West End water service area will include urban subdivisions consistent with those constructed throughout the City of Surprise. Table 3.5 presents planning factors that will be used to estimate annual average day water demand from new developments within the West End water service area. The factors are typical of those used by other water provides in the Surprise area.

Table 3.5 – Population and Demand Factors, New Developments

Land Use	Description	Housing Density (du/Acre)	Pop Density (capita/DU)	Demand (per day)		
				Gallons Per Capita	Gallons Per	Unit
EXIST WE	Existing West End Service Area	0.8	3.0	-	330	Dwelling Unit
LDR	New Low Density SF Homes	2.0	3.0	150	450	Dwelling Unit
MDR	New Medium Density SF Homes	3.0	3.0	150	450	Dwelling Unit
DRY LOT	Homes Served by Private Wells	0.8	3.0	-	-	Dwelling Unit
COMM	Commercial Development			-	1,700	Acre
SCHOOL	Elementary School				3,000	Acre
PARK	Park with Turf				4,000	Acre
EMP	Employment Based Development				1,700	Acre

Table 3.6 presents peaking factors that will be used to estimate maximum day and peak day water demands from new developments within the West End water service area. The factors are typical of those used by other water provides in the Surprise area.

Table 3.6 – Peaking Factors, New Developments

1.8 = Peak Day Factor (PDF)	Peak Day = PDF * Annual Average Day
3.0 = Peak Hour Factor (PHF)	Peak Hour = PHF * Annual Average Day

3.2 Fire Flows

West End does not have an established fire flow requirement and much of the existing water system is not sufficiently sized to provide fire flows. It is estimated that limited portions of the existing water distribution system could support fire flows of up to 500 gallons per minute. However, current booster pumping capacity limits fire flow to a maximum of 250 gpm.

Table 3.7 presents fire flow requirements that will be used for new developments. The requirements are based on 2003 International Fire Code as adopted by the City of Surprise.

Table 3.7 – Fire Flow Requirements, New Developments

Requirement	Flow		Duration	
Commercial	3,000	gpm	3	hours
Residential	1,750	gpm	2	hours

3.3 Pressure & Flow

In order to provide reliable water service that meets customer expectations and regulatory standards the pressure standards shown in Table 3.8 will be used.

Table 3.8 – Pressure Standards

Condition	Minimum	Maximum
Static	55 psi	80 psi
Average Day Flow	55 psi	80 psi
Maximum Day Flow	55 psi	80 psi
Peak Hour Flow	50 psi	80 psi
Max Day plus Fire	20 psi	80 psi

The maximum pressure requirement of 80 psi may be increased to 100 psi provided that individual pressure reducing valves are provided on all water services where the pressure exceeds 80 psi.

Due to the elevation change across the Study Area, two pressure zones will be established to meet the pressure standards. Lone Mountain Road lies at approximately 1,650 ft elevation and represents a natural division between the pressure zones. Using Lone Mountain Road as the pressure zone boundary results in the pressure zones detailed in Table 3.9.

Table 3.9 – Pressure Zones

	HGL	Low Elevation	High Elevation	Low Pressure	High Pressure	80 psi Elevation
Zone 1 (High Zone)	1870	1636	1740	56.4	101.4	1685
Zone 2 (Low Zone)	1780	1584	1650	56.4	85.0	1595

In order to reduce the risk of pipeline damage due to water hammer, flow rates shall be limited in accordance with Table 3.10.

Table 3.10 – Pipeline Velocity Standards

Scenario	Requirement
Maximum Day Flow	< 5 fps
Peak Hour Flow	< 7 fps
Max Day plus Fire	< 10 fps

3.4 Storage

As a small rural system with a single well, West End's current storage is sized for compliance with A.A.C. R18-5-503, which requires that storage capacity be equal to the average daily demand during the peak month (Maximum Month Average Day) less firm well capacity[1]. Due to growth expected from the planned Rancho Maria and Walden Ranch developments, West End will quickly grow into a significantly sized system. As systems increase in size, it is prudent to install multiple wells, providing a redundant or firm source of supply for the peak day demand. Under this scenario, the minimum storage required by A.A.C. R18-5-503 is reduced to zero.

The storage requirement for multiple well water systems with firm peak day capacity is typically designed to buffer the wells from demand variation over the course of the peak day. Storage is sized to deliver demand flow in excess of the peak day flow rate (peak hour flows) from storage. Storage is refilled during periods when demands are below the peak day flow rate. In addition to this equalization storage,

[1] Total daily production capacity minus the production from the largest producing well.

the entire design fire flow is typically retained in storage and a provision for emergency needs is often added.

The required storage volume for West End will be calculated based on the storage criteria listed in Table 3.11.

Table 3.11 – Storage Criteria

Function	Requirement
Equalization	30% of Maximum Day
Emergency	10% of Maximum Day
Fire	3,000 gpm x 3 hours

3.5 Booster Pumps

Booster pumps must be able to meet both normal system demands and fire flows on a reliable basis. The largest normal system demand is the peak hour demand. Fire flows could occur at any system demand, however for planning and design purposes they are considered to occur at the peak day flow rate.

The required booster pump capacity will be calculated as the larger of the peak hour flow or the peak day plus fire flow, with the largest booster pump at each pumping station out of service.

3.6 Wells

Wells must be able to reliably produce the peak day flow. Required well capacity for West End will be the peak day demand with the largest well out of service.

4. Projected Demands

4.1 Projected Customer Growth

The West End water certificated area is largely undeveloped with significant numbers of existing homes being served by private wells. In order to project future growth in the certificated area, the Study Area was divided into planning areas. Each planning area was placed into one of the following five categories in consideration of its location, the terrain and the current usage:

- Existing West End Water Service Area
- Projected Low Density Residential Development
- Projected Medium Density Residential Development
- Dry Lot (Homes served by private wells)

Rancho Maria and Walden Ranch were treated as separate planning areas using the actual density and land development data for each project.

For the existing West End service area, based on examination of aerial photography, it is estimated that 100 additional customers will be added at build-out of the service area. For the new growth areas, the housing density and population density factors in Table 3.5 were used to project build-out dwelling units and population for the unplanned areas with the actual planning data being used for the Rancho Maria and Walden Ranch developments.

Detailed maps showing the planning areas are presented in Appendix 1. Appendix 2 presents projected units and population by planning area. Table 4.1 summarizes the residential planning data and Table 4.2 summarizes the non-residential planning data.

Table 4.1 – Build-Out Dwelling Units and Population

Pressure Zone	Land Use	Acres	Dwelling Units / Other	Population
Zone 1	Residential	675	1,827	5,482
Zone 2	Residential	1,036	2,734	8,201
	TOTALS	**1,711**	**4,561**	**13,683**

Table 4.2 – Non-Residential Planning Data

Summary Non-Residential		
Parcel	Land Use	Acres
Rancho Maria	COMM	23.0
Walden Ranch	COMM	17.5
Walden Ranch	PARK	7.5
Walden Ranch	SCHOOL	12.0
	TOTALS	**60.0**

4.2 Projected Demand

Projected water demands for the Study Area are presented in Table 4.3 and Table 4.4. The demands were determined using the planning criteria discussed in Chapter 3 of this report and the land use data detailed above. Appendix 2 presents detailed calculations of projected water demand by planning area.

Table 4.3 – Projected Demands by Area

	Demands			Demands				Storage	
	Avg Day	Peak Day	Peak Hour	Avg Day	Peak Day	Fire	Peak Hour	Operational	Fire
Parcel	(gpd)			(gpm)				(gallons)	
Existing Areas	108,900	196,020	326,700	76	136	-	227	78,408	-
Growth Areas	1,983,450	3,570,210	5,950,350	1,377	2,479	3,000	4,132	1,428,084	540,000
TOTALS	**2,092,350**	**3,766,230**	**6,277,050**	**1,453**	**2,615**	**3,000**	**4,359**	**1,506,492**	**540,000**
					Peak Day + Fire:	**5,615**		**Total Storage:**	**2,046,492**

Table 4.4 – Projected Demand by Pressure Zone

	Demands			Demands				Storage	
	Avg Day	Peak Day	Peak Hour	Avg Day	Peak Day	Fire	Peak Hour	Operational	Fire
Pressure Zone	(gpd)			(gpm)				(gallons)	
Zone 1	790,600	1,423,080	2,371,800	549	988	3,000	1,647	569,232	540,000
Zone 2	1,301,750	2,343,150	3,905,250	904	1,627	3,000	2,712	937,260	540,000
	2,092,350	**3,766,230**	**6,277,050**	**1,453**	**2,615**	**3,000**	**4,359**	**1,506,492**	**540,000**
				Peak Day + Fire Zone 1		**3,988**		**Total Storage**	**2,046,492**
				Peak Day + Fire Zone 2		**4,627**			

ARICOR Water Solutions

5. Proposed Facilities

5.1 Storage, and Booster Pumping

Water storage and booster pumping will be provided on a regional basis for the Study Area. Two existing facilities, the Wittmann Booster Station and the Wheat Booster Station, are detailed in Table 2.1 and Table 2.2. The Wittmann Booster Station is located in Pressure Zone 1 will be expanded and remain a part of the regional storage and booster pumping solution. The Wheat Booster Station is located in Pressure Zone 2 and will be abandoned when the small Wheat distribution system is interconnected with the regional distribution system.

A new storage and booster station is planned on to be located within the Walden Ranch project to provide service to the Rancho Maria and Walden Ranch developments. This new facility, the Walden Ranch Booster Station, will be planned and sized to supply water not only to the Rancho Maria and Walden Ranch developments, but also to serve as a regional facility.

The Walden Ranch Booster Station will pump to both pressure zones from common storage. Fire and peaking booster pump capacity will be shared between the two pressure zones. This will be accomplished by providing fire and peaking capacity in Pressure Zone 1 with a pressure-reducing valve between the two zones to allow the capacity to be used in either pressure zone.

Pressure Zone 2 will have independent booster pumping capacity to meet approximately 90% of the peak day demand. During fire or peak flows above this level, water will be supplied through pressure reducing valve from the Pressure Zone 1 boosters.

Table 5.1 details the recommended sizing and phasing of the Wittmann and Walden Ranch Booster Stations to meet these requirements.

Table 5.1 – Sizing and Phasing of Storage and Booster Pumping Facilities

	Zone 1		Zone 2			All Zones	
	Booster Pump Capacity	Firm Pumping Capacity	Booster Pump Capacity	Zone 1 PRV Capacity	Firm Pumping Capacity	Firm Pumping Capacity	Storage
Wittmann Booster Station							
Existing Facilities	400	160				160	200,000
Future Phase	400	400				400	250,000
Total	**800**	**560**				**560**	**450,000**
Walden Ranch Booster Station							
Phase I	5,000	3,500	500	3,200	3,700	4,000	800,000
Phase II	500	500	1,000	-	1,000	1,500	800,000
Sub-Total	**5,500**	**4,000**	**1,500**	**3,200**	**4,700**	**5,500**	**1,600,000**
Study Area Total	**6,300**	**4,560**	**1,500**	**3,200**	**4,700**	**6,060**	**2,050,000**

5.2 Wells

Wells will be provided at each of the booster station sites and at remote locations connected by transmission pipelines to the booster stations. The total well capacity with the largest well out service must meet the peak day demand. Well capacity should be distributed roughly proportional to the storage capacity at each booster station with the redundant well connected to the larger Walden Ranch Booster Station.

In conjunction with expansion of the Wittmann Booster Station, a second well with a minimum capacity of 325 gpm should be constructed and connected to the Wittmann Booster Station. This will provide a total well capacity of 575 gpm or 22% of the peak day demand. This is approximately equivalent to the percentage of storage provided at the Wittmann Booster Station.

The Walden Ranch Booster Station should be developed with a total firm well capacity of 2,040 gpm. The number of wells required will vary depending upon aquifer yield. Table 5.2 provides the number of wells required to provide 2,040-gpm firm capacity at various well capacities.

Table 5.2 – Well Requirement for Walden Ranch Booster Station

Well Capacity	Wells Required
1000 gpm	3
900 gpm	4
800 gpm	4
700 gpm	4
600 gpm	5
500 gpm	5

5.3 Distribution System

Distribution system improvements should be evaluated as actual development occurs using the criteria presented in this report.

RBF Consulting (RBF) has recommended a looped 12" piping system to serve Rancho Maria and Walden Ranch. RBF modeled the system using MWHsoft's H20Map Water GIS Suite 5.0. The results of the RBF modeling, demonstrating compliance with the planning requirements presented in this report, are attached as Appendix 3.

Since both the existing Wittmann system and Wheat system are served by single wells, the distribution system to be constructed to serve Rancho Maria and Walden Ranch should be interconnected with the existing distribution systems at the earliest practical date.

5.4 Cost Estimates

Detailed cost estimates for the required storage, booster pumping and well facilities (off-site facilities) are contained in Appendix 4, Table A4.1. The total estimated cost is $8,528,650 or $1,969 per new dwelling unit.

Detailed cost estimates for the on-site facilities required for the Rancho Maria and Walden Ranch developments are contained in Appendix 4, Table A4.2.

6. Conclusions

The West End water system currently meets requirements for serving its small rural customer base. Significant new urban developments are planned in and near the West End Certificated area. These new developments will have water demands, including fire flow demands, in excess of those currently experienced by West End. The existing West End facilities will be inadequate to serve the new developments.

In order to meet the increased water demands of the new developments, including a proposed expansion to the West End certificated area, West End should develop a regional water storage and booster station in the Walden Ranch Development capable of pumping to both West End Pressure Zones. The new booster station should be planned and designed to provide fire flows in accordance with the 2003 International Fire Code adopted by the City of Surprise.

Since, significant growth is expected in the remaining undeveloped portions of the West End certificated area, The Walden Ranch Booster Station should be sized so that it will be able to serve the expected build-out of the Study Area. The existing Wittmann Booster Station should be expanded to accommodate the expected infill growth in and around the existing distribution system. Once the Wheat distribution system is interconnected with the main West End distribution system, the Wheat well and booster station may be abandoned.

The distribution system proposed by RBF Consulting is adequate to serve the proposed Rancho Maria and Walden Ranch developments and meets West End requirements. Future extensions to the distribution system should be planned and designed using the criteria presented in this report.

APPENDIX 1

Detailed Planning Area Maps

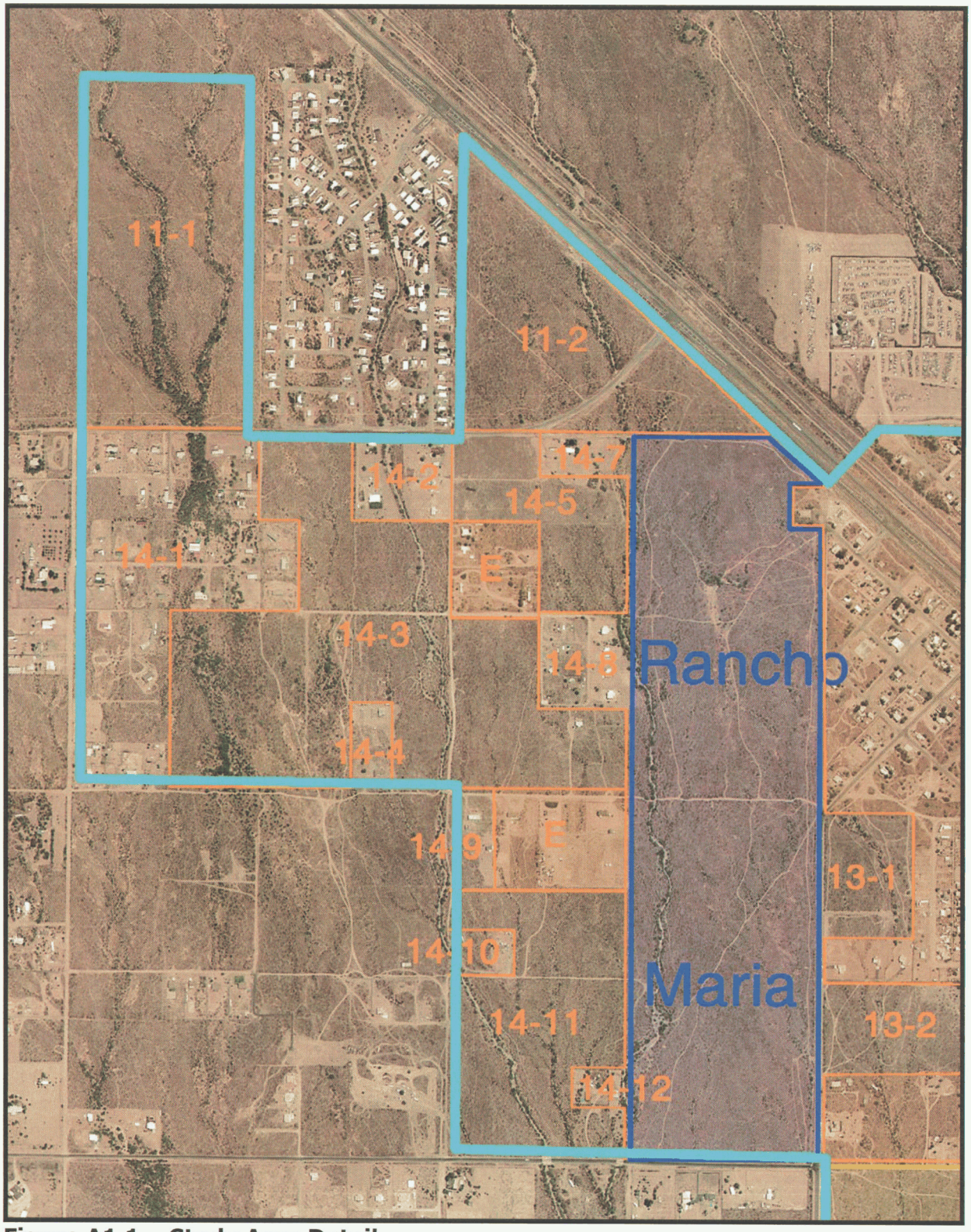


Figure A1.1 – Study Area Detail

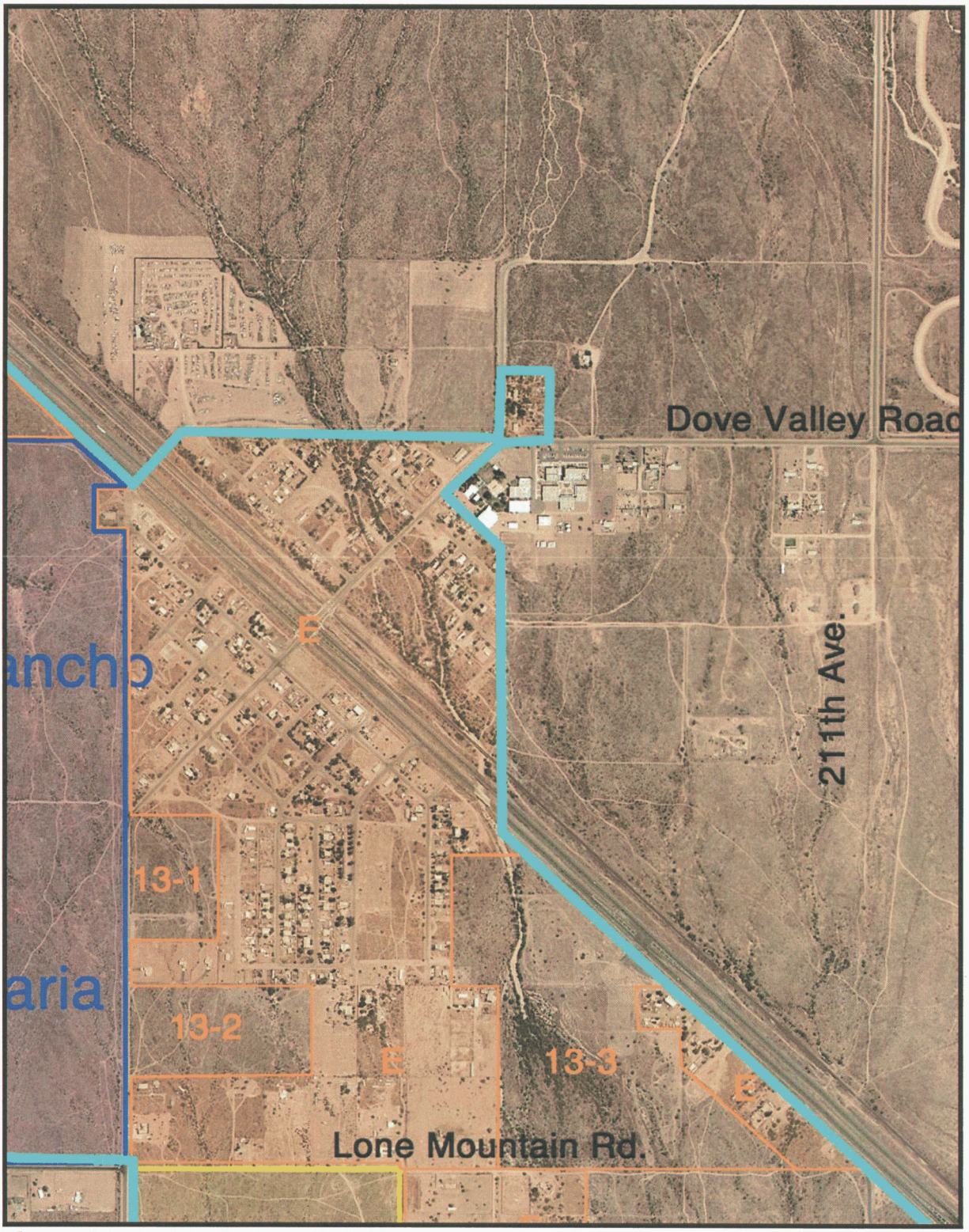


Figure A1.2 – Study Area Detail

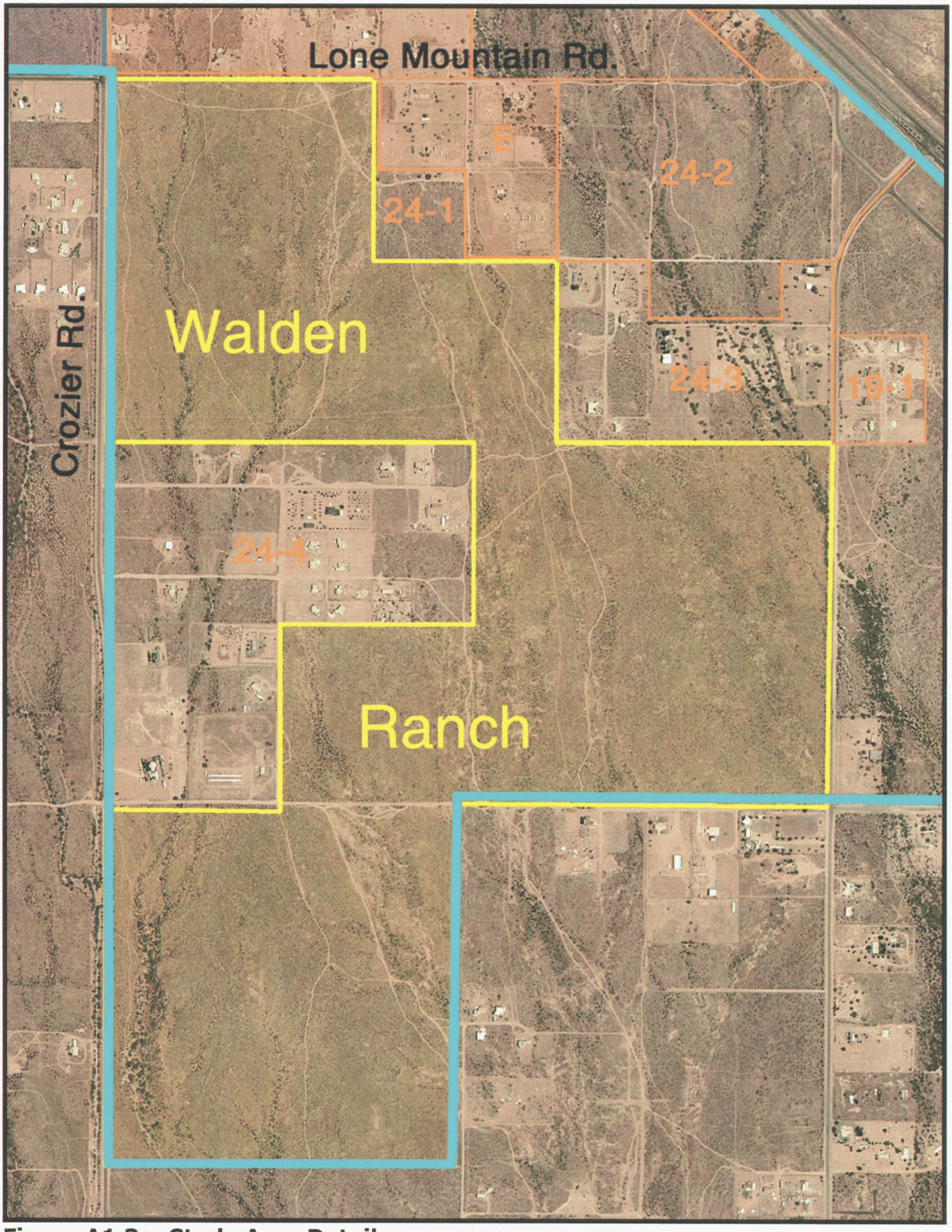


Figure A1.3 – Study Area Detail

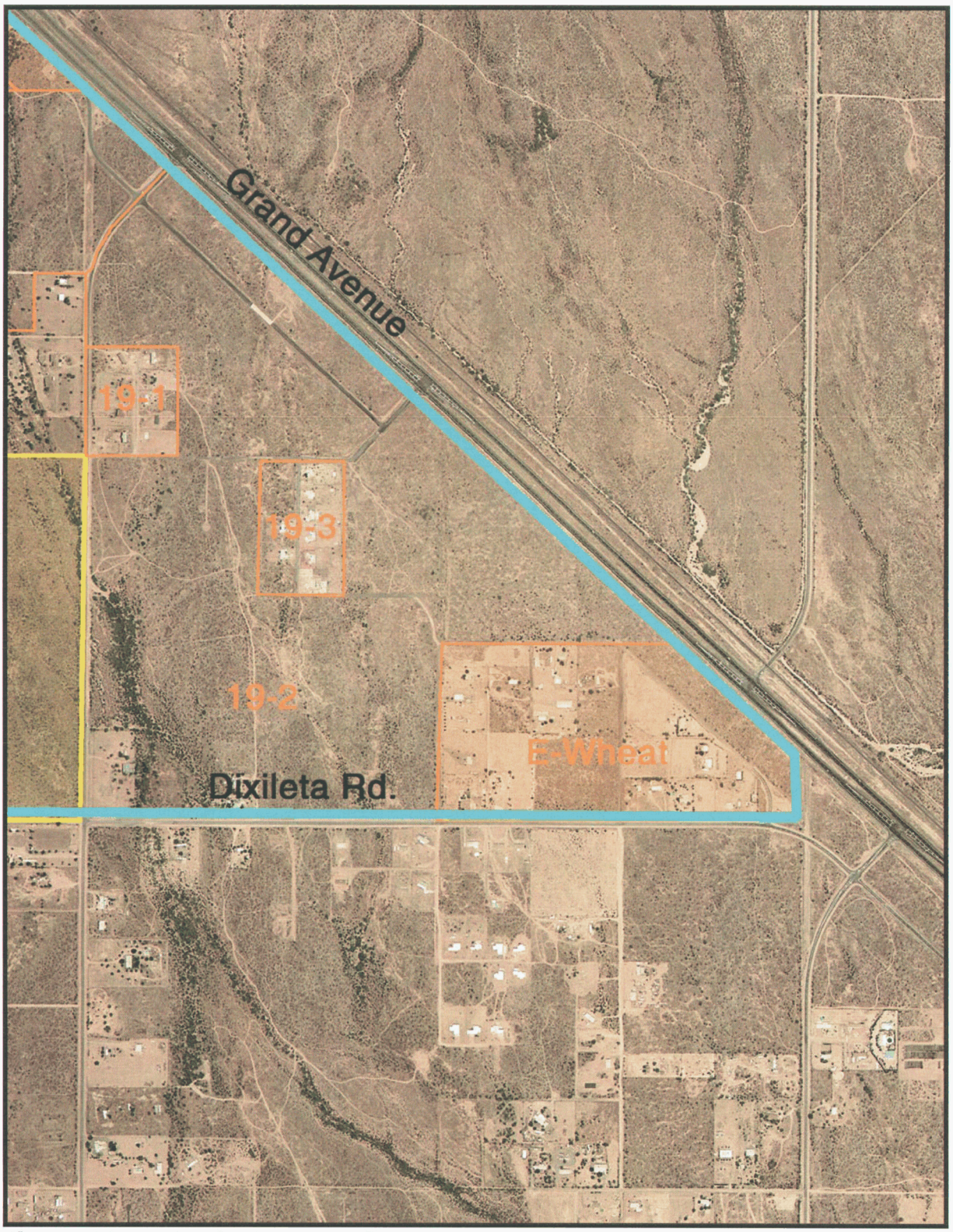


Figure A1.4 – Study Area Detail

APPENDIX 2

Detailed Planning and Demand Calculations

Table A2.1 — **Water Master Planning Factors**

Population and Demand Factors

Land Use	Housing Density (du/Acre)	Pop Density (capita/DU)	Demand (per day) Gallons Per Capita	Gallons Per	Unit	Fire Requirement
EXIST WE	0.8	3.0	-	330	Dwelling Unit	N/A
LDR	2.0	3.0	150	-	Dwelling Unit	Residential
MDR	3.0	3.0	150	-	Dwelling Unit	Residential
DRY LOT	0.8	3.0	-	-	Dwelling Unit	N/A
COMM			-	1,700	Acre	Commercial
SCHOOL				3,000	Acre	Commercial
PARK				4,000	Acre	N/A
EMP				1,700	Acre	Commercial

Peaking Factors

1.8 = Peak Day Factor (PDF) — Peak Day = PDF * Avg Day
3.0 = Peak Hour Factor (PHF) — Peak Hour = PHF * Avg Day

Storage Factors

40% = Equalization Factor
Operational = Equalization Factor * Peak Day
Fire = Fire Flow * Duration

Fire Flows

Requirement	Flow		Duration	
Commercial	3,000	gpm	3	hours
Residential	1,750	gpm	2	hours
N/A	0	gpm	0	hours

Table A2.2 — **Analysis of Existing Service Area**

Parcel	Pressure Zone	Land Use	Acres	Dwelling Units / Other	Pop Density (capita/DU)	Population	Demand Per Capita	Demand Per Other	Demands (gpd) Avg Day	Peak Day	Peak Hour	Demands (gpm) Avg Day	Peak Day	Fire	Peak Hour	Storage (gallons) Operational	Fire
Existing	1	EXIST WE		215	3.0	645	-	330	70,950	127,710	212,850	49	89	-	148	51,084	-
Existing Wheat	2	EXIST WE		15	3.0	45	-	330	4,950	8,910	14,850	3	6	-	10	3,564	-
Infill	1	EXIST WE		100	3.0	300	-	330	33,000	59,400	99,000	23	41	-	69	23,760	-
		TOTALS	**-**	**330**		**990**			**108,900**	**196,020**	**326,700**	**76**	**136**	**-**	**227**	**78,408**	**-**
												Peak Day + Fire:		**136**		**Total Storage:**	**78,408**

Table A2.3 — **Analysis of Growth Areas**

Parcel	Pressure Zone	Land Use	Acres	Dwelling Units / Other	Pop Density (capita/DU)	Population	Demand Per Capita	Demand Per Other	Demands Avg Day (gpd)	Demands Peak Day (gpd)	Demands Peak Hour (gpd)	Demands Avg Day (gpm)	Demands Peak Day (gpm)	Demands Fire (gpm)	Demands Peak Hour (gpm)	Storage Operational (gallons)	Storage Fire (gallons)
11-1	1	LDR	80	160	3.0	480	150	-	72,000	129,600	216,000	50	90	1,750	150	51,840	210,000
11.2	1	MDR	65	195	3.0	585	150	-	87,750	157,950	263,250	61	110	1,750	183	63,180	210,000
14-1	1	DRY LOT	65	52	3.0	156	-	-	-	-	-	-	-	-	-	-	-
14.2	1	DRY LOT	10	6	3.0	18	-	-	-	-	-	-	-	-	-	-	-
14-3	1	LDR	80	160	3.0	480	150	-	72,000	129,600	216,000	50	90	1,750	150	51,840	210,000
14-4	1	DRY LOT	5	1	3.0	3	-	-	-	-	-	-	-	-	-	-	-
14-5	1	MDR	25	75	3.0	225	150	-	33,750	60,750	101,250	23	42	1,750	70	24,300	210,000
14-6	1	MDR	30	90	3.0	270	150	-	40,500	72,900	121,500	28	51	1,750	84	29,160	210,000
14-7	1	DRY LOT	10	1	3.0	3	-	-	-	-	-	-	-	-	-	-	-
14-8	1	DRY LOT	10	8	3.0	24	-	-	-	-	-	-	-	-	-	-	-
14-9	1	DRY LOT	5	1	3.0	3	-	-	-	-	-	-	-	-	-	-	-
14-10	1	DRY LOT	4	3	3.0	10	-	-	-	-	-	-	-	-	-	-	-
14-11	1	LDR	53	106	3.0	318	150	-	47,700	85,860	143,100	33	60	1,750	99	34,344	210,000
14-12	1	DRY LOT	3	1	3.0	3	-	-	-	-	-	-	-	-	-	-	-
Rancho Maria	1	MDR	117	383	3.0	1,149	150	-	172,350	310,230	517,050	120	215	1,750	359	124,092	210,000
Rancho Maria	1	COMM	23	-	-	-	-	1,700	39,100	70,380	117,300	27	49	3,000	81	28,152	540,000
13-1	1	MDR	15	45	3.0	135	150	-	20,250	36,450	60,750	14	25	1,750	42	14,580	210,000
13-2	1	MDR	20	60	3.0	180	150	-	27,000	48,600	81,000	19	34	1,750	56	19,440	210,000
13-3	1	MDR	55	165	3.0	495	150	-	74,250	133,650	222,750	52	93	1,750	155	53,460	210,000
24-1	2	MDR	10	30	3.0	90	150	-	13,500	24,300	40,500	9	17	1,750	28	9,720	210,000
24-2	2	MDR	75	225	3.0	675	150	-	101,250	182,250	303,750	70	127	1,750	211	72,900	210,000
24-3	2	DRY LOT	50	7	3.0	21	-	-	-	-	-	-	-	-	-	-	-
24-4	2	DRY LOT	120	30	3.0	90	-	-	-	-	-	-	-	-	-	-	-
Walden Ranch	2	MDR	485	1,685	3.0	5,055	150	-	758,250	1,364,850	2,274,750	527	948	1,750	1,580	545,940	210,000
Walden Ranch	2	COMM	10	-	-	-	-	1,700	17,000	30,600	51,000	12	21	3,000	35	12,240	540,000
Walden Ranch	2	COMM	7.5	-	-	-	-	1,700	12,750	22,950	38,250	9	16	3,000	27	9,180	540,000
Walden Ranch	2	PARK	7.5	-	-	-	-	4,000	30,000	54,000	90,000	21	38	-	63	21,600	-
Walden Ranch	2	SCHOOL	12	-	-	-	-	3,000	36,000	64,800	108,000	25	45	3,000	75	25,920	540,000
19-1	2	DRY LOT	8	6	3.0	19	-	-	-	-	-	-	-	-	-	-	-
19-2	2	MDR	243	729	3.0	2,187	150	-	328,050	590,490	984,150	228	410	1,750	683	236,196	210,000
19-3	2	DRY LOT	8	6	3.0	19	-	-	-	-	-	-	-	-	-	-	-
		TOTALS	**1,711**	**4,231**		**12,693**			**1,983,450**	**3,570,210**	**5,950,350**	**1,377**	**2,479**	**3,000**	**4,132**	**1,428,084**	**540,000**
													Peak Day + Fire:	**5,479**		**Total Storage:**	**1,968,084**

Table A2.4 — **Summary West End Service Area**

Parcel	Land Use	Acres	Dwelling Units / Other	Pop Density (capita/DU)	Population	Demand Per Capita	Demand Per Other	Demands Avg Day (gpd)	Demands Peak Day (gpd)	Demands Peak Hour (gpd)	Demands Avg Day (gpm)	Demands Peak Day (gpm)	Demands Fire (gpm)	Demands Peak Hour (gpm)	Storage Operational (gallons)	Storage Fire (gallons)
Existing Areas		-	330	-	990	-	-	108,900	196,020	326,700	76	136	-	227	78,408	-
Growth Areas		1,711	4,231	-	12,693	-	-	1,983,450	3,570,210	5,950,350	1,377	2,479	3,000	4,132	1,428,084	540,000
	TOTALS	**1,711**	**4,561**		**13,683**			**2,092,350**	**3,766,230**	**6,277,050**	**1,453**	**2,615**	**3,000**	**4,359**	**1,506,492**	**540,000**
												Peak Day + Fire:	**5,615**		**Total Storage:**	**2,046,492**

Table A2.5 — **Summary West End Service Area**

Pressure Zone	Land Use	Acres	Dwelling Units / Other	Pop Density (capita/DU)	Population	Demand Per Capita	Demand Per Other	Demands Avg Day (gpd)	Demands Peak Day (gpd)	Demands Peak Hour (gpd)	Demands Avg Day (gpm)	Demands Peak Day (gpm)	Demands Fire (gpm)	Demands Peak Hour (gpm)	Storage Operational (gallons)	Storage Fire (gallons)
Zone 1		675	1,827	60	5,482	-	-	790,600	1,423,080	2,371,800	549	988	3,000	1,647	569,232	540,000
Zone 2		1,036	2,734	27	8,201	-	-	1,301,750	2,343,150	3,905,250	904	1,627	3,000	2,712	937,260	540,000
	TOTALS	**1,711**	**4,561**		**13,683**			**2,092,350**	**3,766,230**	**6,277,050**	**1,453**	**2,615**	**3,000**	**4,359**	**1,506,492**	**540,000**
											Peak Day + Fire Zone 1		**3,988**		**Total Storage**	**2,046,492**
											Peak Day + Fire Zone 2		**4,627**			

APPENDIX 3

Results of RBF Consulting Distribution System Modeling

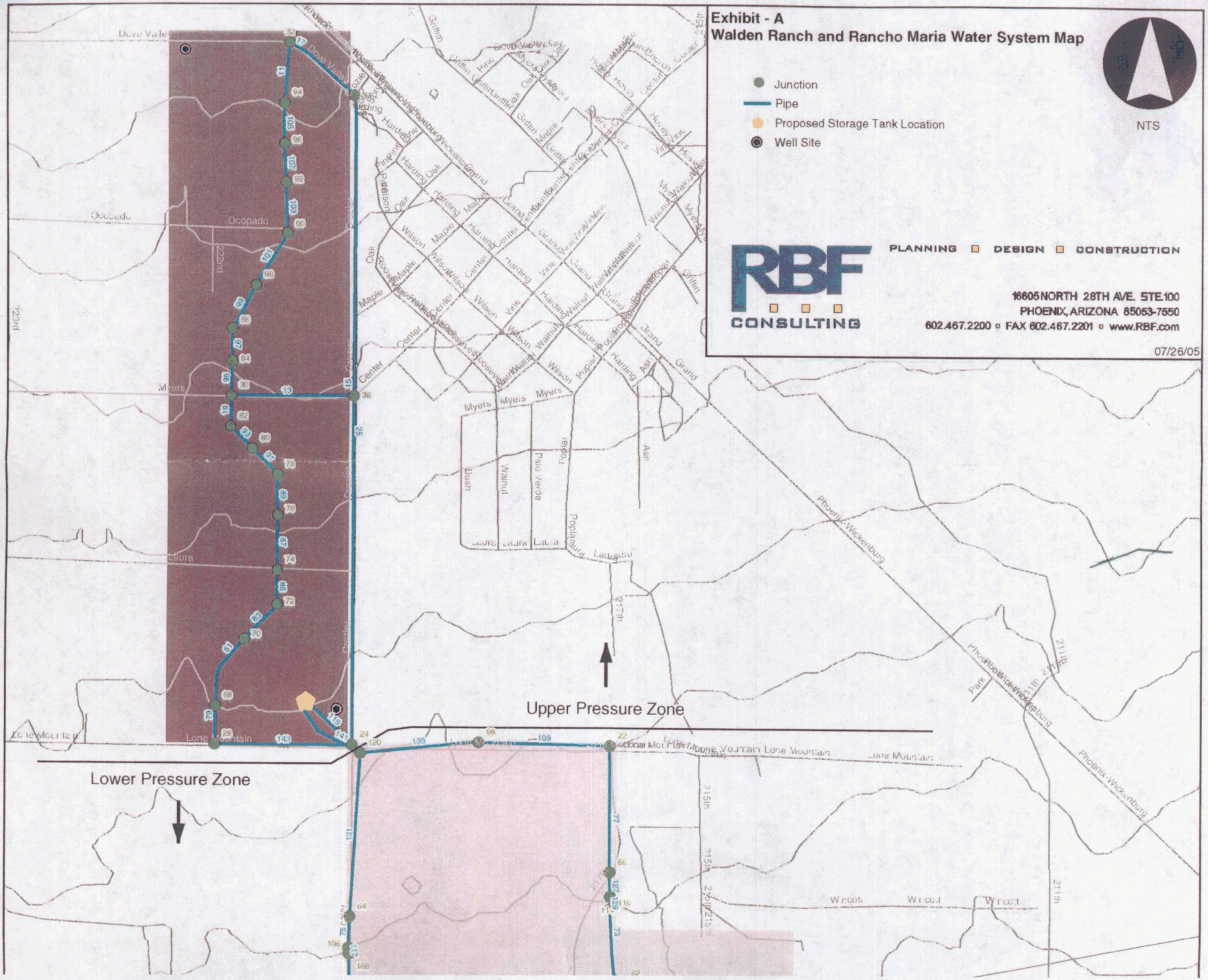
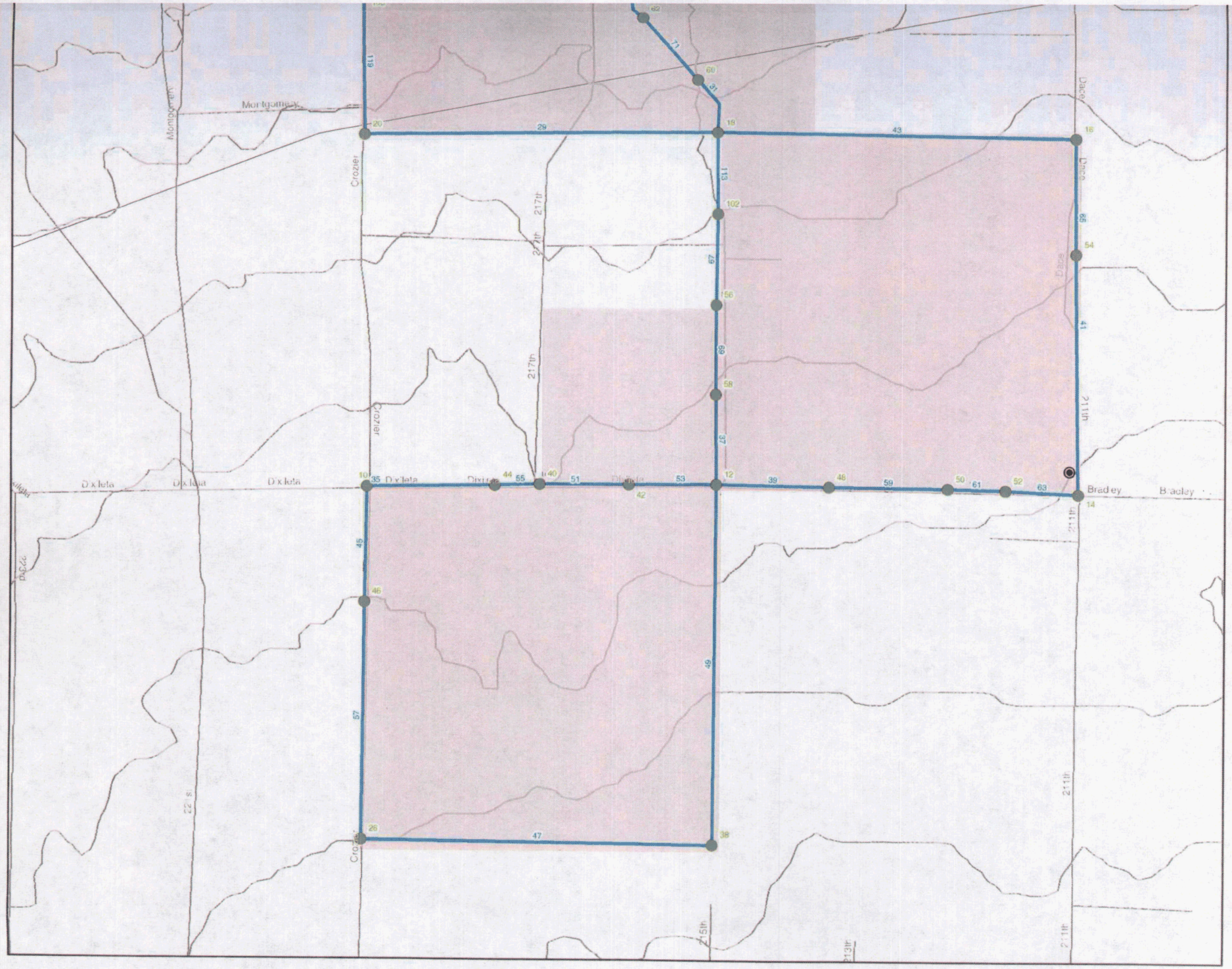


Exhibit - A
Walden Ranch and Rancho Maria Water System Map
Junction
Pipe
Proposed Storage Tank Location
Well Site
NTS
RBF CONSULTING
PLANNING DESIGN CONSTRUCTION
16605 NORTH 28TH AVE. STE 100
PHOENIX, ARIZONA 85053-7550
602.467.2200 FAX 602.467.2201 www.RBF.com
07/26/05
Upper Pressure Zone
Lower Pressure Zone
Dove Valley
Ocopado
Myers
Laura
Lone Mountain
Center
Griffin
Wilson
Maple
Oak
Harding
Vine
Walnut
Grand
Myers
Bush
Palo Verde
Poplar
Laura
Ash
Phoenix-Wickenburg
Park
Wrecot
215th
217th
211th
22nd
23rd
25


Montgomery
Montgomery
Crozier
Crozier
Crozier
Dixieta
Dixieta
Dixieta
Dixieta
Dixieta
Dixieta
Dixieta
Dacey
Dacey
Dacey
Dacey
Bradley
Bradley
217th
217th
211th
211th
211th
211th
215th
213th
22 st
Dixie
Dixie
82
71
60
31
20
29
19
43
18
113
102
67
56
69
58
37
12
39
48
59
50
61
52
63
14
54
68
41
35
44
55
40
51
42
53
10
45
46
57
49
26
47
38

Appendix B

Average Day Demands H2OMap Water Results

Scenario: Average Day Demand
Steady State Analysis
Junction Report

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
10	4.44	1,605.81	1,796.22	82.50
102	26.00	1,619.81	1,796.75	76.67
106	0.00	1,640.00	1,803.94	71.04
108	0.00	1,640.00	1,796.99	68.02
114	0.00	1,640.44	1,798.84	68.63
116	0.00	1,639.42	1,798.72	69.02
12	8.88	1,605.07	1,796.31	82.87
120	0.00	1,652.38	1,803.95	65.68
14	0.00	1,599.08	1,796.41	85.50
16	0.00	1,617.14	1,796.65	77.78
18	0.00	1,626.64	1,796.99	73.81
20	0.00	1,625.91	1,796.99	74.13
22	13.33	1,649.94	1,800.28	65.14
24	13.02	1,653.97	1,849.93	84.91
26	0.00	1,590.15	1,796.25	89.30
28	0.00	1,655.98	1,849.88	84.02
30	0.00	1,678.42	1,849.83	74.27
32	26.90	1,695.00	1,849.81	67.08
34	0.00	1,700.00	1,849.82	64.92
36	0.00	1,678.59	1,849.84	74.20
38	8.88	1,584.42	1,796.27	91.80
40	133.11	1,610.03	1,796.21	80.67
42	48.89	1,605.98	1,796.25	82.44
44	27.56	1,607.23	1,796.21	81.89
46	10.70	1,599.69	1,796.23	85.16
48	40.22	1,603.79	1,796.32	83.42
50	46.22	1,602.78	1,796.34	83.87
52	20.83	1,601.76	1,796.37	84.32
54	49.00	1,611.69	1,796.54	80.10
56	109.42	1,614.71	1,796.51	78.78
58	32.22	1,609.27	1,796.40	81.08
60	31.33	1,631.12	1,797.40	72.05
62	51.56	1,635.93	1,798.03	70.24
64	35.11	1,640.00	1,803.94	71.04
66	43.77	1,642.09	1,799.06	68.01
68	7.11	1,659.92	1,849.87	82.31
70	9.78	1,669.04	1,849.85	78.35
72	5.78	1,663.89	1,849.84	80.57
74	11.56	1,666.66	1,849.84	79.37
76	11.11	1,671.21	1,849.83	77.40
78	10.22	1,674.10	1,849.83	76.14
80	8.44	1,675.42	1,849.83	75.57
82	11.11	1,685.00	1,849.83	71.42
84	13.33	1,680.89	1,849.82	73.20

Scenario: Average Day Demand
Steady State Analysis
Junction Report

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
86	16.00	1,683.51	1,849.82	72.06
88	12.00	1,686.94	1,849.81	70.57
90	7.11	1,691.17	1,849.81	68.74
92	16.44	1,694.91	1,849.81	67.12
94	16.00	1,700.57	1,849.81	64.67
96	16.00	1,697.78	1,849.81	65.88
98	76.89	1,654.15	1,801.61	63.90
10	4.44	1,605.81	1,796.22	82.50
102	26.00	1,619.81	1,796.75	76.67
106	0.00	1,640.00	1,803.94	71.04

Appendix C

Peak Day Demand H2OMap Water Results

Scenario: Peak Day Demand
Steady State Analysis
Junction Report

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
10	0.00	1,605.81	1,793.72	81.42
102	46.80	1,619.81	1,795.21	76.00
106	0.00	1,640.00	1,799.48	69.10
108	0.00	1,640.00	1,799.42	69.08
114	0.00	1,640.44	1,797.14	67.90
116	0.00	1,639.42	1,797.05	68.30
12	15.98	1,605.07	1,793.99	81.86
120	0.00	1,652.38	1,801.97	64.82
14	0.00	1,599.08	1,794.25	84.57
16	0.00	1,617.14	1,794.94	77.04
18	0.00	1,626.64	1,795.90	73.34
20	0.00	1,625.91	1,798.36	74.72
22	23.99	1,649.94	1,798.36	64.31
24	23.44	1,653.97	1,849.81	84.85
26	0.00	1,590.15	1,793.80	88.24
28	0.00	1,655.98	1,849.64	83.91
30	0.00	1,678.42	1,849.48	74.12
32	48.42	1,695.00	1,849.44	66.92
34	0.00	1,700.00	1,849.46	64.76
36	0.00	1,678.59	1,849.52	74.06
38	15.98	1,584.42	1,793.88	90.76
40	239.60	1,610.03	1,793.70	79.59
42	88.00	1,605.98	1,793.80	81.38
44	49.60	1,607.23	1,793.71	80.80
46	19.26	1,599.69	1,793.74	84.08
48	72.40	1,603.79	1,794.00	82.42
50	83.20	1,602.78	1,794.06	82.88
52	37.50	1,601.76	1,794.13	83.36
54	88.20	1,611.69	1,794.62	79.27
56	196.96	1,614.71	1,794.55	77.93
58	42.00	1,609.27	1,794.24	80.15
60	56.39	1,631.12	1,796.13	71.50
62	92.80	1,635.93	1,796.52	69.58
64	63.20	1,640.00	1,799.71	69.20
66	78.79	1,642.09	1,797.31	67.25
68	12.80	1,659.92	1,849.61	82.19
70	17.60	1,669.04	1,849.56	78.22
72	10.40	1,663.89	1,849.54	80.44
74	20.80	1,666.66	1,849.52	79.23
76	20.00	1,671.21	1,849.50	77.26
78	18.40	1,674.10	1,849.49	76.00
80	15.20	1,675.42	1,849.49	75.43
82	20.00	1,685.00	1,849.49	71.27
84	24.00	1,680.89	1,849.47	73.05

Scenario: Peak Day Demand
Steady State Analysis
Junction Report

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
86	28.80	1,683.51	1,849.46	71.90
88	21.60	1,686.94	1,849.45	70.41
90	12.80	1,691.17	1,849.44	68.58
92	29.60	1,694.91	1,849.44	66.95
94	28.80	1,700.57	1,849.44	64.50
96	28.80	1,697.78	1,849.44	65.71
98	138.40	1,654.15	1,799.54	63.00

Appendix D

Peak Hour Demand H2OMap Water Results

Scenario: Peak Hour Demand
Steady State Analysis
Junction Report

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
10	0.00	1,605.81	1,797.95	83.25
102	26.00	1,619.81	1,798.38	77.38
106	0.00	1,640.00	1,804.14	71.12
108	0.00	1,640.00	1,798.58	68.71
114	0.00	1,640.44	1,800.09	69.18
116	0.00	1,639.42	1,799.99	69.58
12	0.00	1,605.07	1,798.04	83.61
120	0.00	1,652.38	1,804.15	65.76
14	0.00	1,599.08	1,798.11	86.24
16	0.00	1,617.14	1,798.30	78.50
18	0.00	1,626.64	1,798.58	74.50
20	0.00	1,625.91	1,798.58	74.82
22	0.00	1,649.94	1,801.26	65.56
24	0.00	1,653.97	1,849.96	84.92
26	0.00	1,590.15	1,797.98	90.05
28	0.00	1,655.98	1,849.91	84.03
30	0.00	1,678.42	1,849.87	74.29
32	0.00	1,695.00	1,849.87	67.10
34	0.00	1,700.00	1,849.87	64.94
36	0.00	1,678.59	1,849.88	74.22
38	0.00	1,584.42	1,798.01	92.55
40	133.11	1,610.03	1,797.94	81.42
42	48.89	1,605.98	1,797.98	83.19
44	27.56	1,607.23	1,797.94	82.64
46	10.70	1,599.69	1,797.96	85.91
48	31.33	1,603.79	1,798.04	84.17
50	32.89	1,602.78	1,798.06	84.62
52	20.83	1,601.76	1,798.08	85.07
54	49.00	1,611.69	1,798.21	80.82
56	109.42	1,614.71	1,798.19	79.50
58	23.33	1,609.27	1,798.10	81.82
60	18.00	1,631.12	1,798.93	72.71
62	51.56	1,635.93	1,799.43	70.84
64	35.11	1,640.00	1,804.14	71.12
66	33.56	1,642.09	1,800.27	68.54
68	7.11	1,659.92	1,849.90	82.32
70	9.78	1,669.04	1,849.89	78.36
72	5.78	1,663.89	1,849.89	80.59
74	11.56	1,666.66	1,849.88	79.39
76	11.11	1,671.21	1,849.88	77.42
78	10.22	1,674.10	1,849.88	76.16
80	8.44	1,675.42	1,849.87	75.59
82	11.11	1,685.00	1,849.87	71.44
84	13.33	1,680.89	1,849.87	73.22

Scenario: Peak Hour Demand
Steady State Analysis
Junction Report

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
86	16.00	1,683.51	1,849.87	72.08
88	12.00	1,686.94	1,849.87	70.59
90	7.11	1,691.17	1,849.87	68.76
92	16.44	1,694.91	1,849.86	67.14
94	16.00	1,700.57	1,849.87	64.69
96	16.00	1,697.78	1,849.86	65.90
98	76.89	1,654.15	1,802.29	64.19

Appendix F

Fire Flow Analysis H2OMap Water Results

Note: The available flows in this section are not representative. The actual system will only be able to supply a flow equal to the capacity of the booster pump(s) that are running at the time of the fire event.

Scenario: Fire Flow Analysis
Junction Report

ID	Static Demand (gpm)	Static Pressure (psi)	Fire Flow Demand (gpm)	Residual Pressure (psi)	Available Flow @ Hydrant (gpm)	Available Flow Pressure (psi)
10	0.00	81.42	3,000.00	24.49	3,148.32	20.10
102	46.80	76.00	3,000.00	38.86	3,992.04	20.16
106	0.00	69.10	3,000.00	45.87	4,895.73	20.24
108	0.00	69.08	3,000.00	45.62	4,863.19	20.24
12	15.98	81.86	3,000.00	35.84	3,662.49	20.13
14	0.00	84.57	3,000.00	36.85	3,649.30	20.13
16	0.00	77.04	3,000.00	33.10	3,553.83	20.13
18	0.00	73.34	3,000.00	41.49	4,233.71	20.18
20	0.00	74.72	3,000.00	47.67	4,753.10	20.23
22	23.99	64.31	3,000.00	39.50	4,431.33	20.19
24	23.44	84.85	3,000.00	80.13	13,192.21	21.73
26	0.00	88.24	3,000.00	29.22	3,288.92	20.11
28	0.00	83.91	3,000.00	71.68	7,638.10	20.58
30	0.00	74.12	3,000.00	58.93	6,217.70	20.39
32	48.42	66.92	3,000.00	45.47	4,736.88	20.22
34	0.00	64.76	3,000.00	43.68	4,606.59	20.21
36	0.00	74.06	3,000.00	59.53	6,363.88	20.40
38	15.98	90.76	3,000.00	34.43	3,485.42	20.12
40	239.60	79.59	3,000.00	25.86	3,447.39	20.10
42	88.00	81.38	3,000.00	30.76	3,490.77	20.12
44	49.60	80.80	3,000.00	26.02	3,257.85	20.10
46	19.26	84.08	3,000.00	25.90	3,208.65	20.10
48	72.40	82.42	3,000.00	35.18	3,672.73	20.13
50	83.20	82.88	3,000.00	35.03	3,667.10	20.13
52	37.50	83.36	3,000.00	35.47	3,635.74	20.13
54	88.20	79.27	3,000.00	33.42	3,630.62	20.13
56	196.96	77.93	3,000.00	36.82	3,964.38	20.14
58	42.00	80.15	3,000.00	36.30	3,739.63	20.14
60	56.39	71.50	3,000.00	40.27	4,242.92	20.18
62	92.80	69.58	3,000.00	39.46	4,270.60	20.17
64	63.20	69.20	3,000.00	46.95	5,105.99	20.25
66	78.79	67.25	3,000.00	39.32	4,329.26	20.18
68	12.80	82.19	3,000.00	69.21	7,293.93	20.53
70	17.60	78.22	3,000.00	64.10	6,721.40	20.45
72	10.40	80.44	3,000.00	65.79	6,722.98	20.45
74	20.80	79.23	3,000.00	64.29	6,589.84	20.43
76	20.00	77.26	3,000.00	62.01	6,399.62	20.41
78	18.40	76.00	3,000.00	60.64	6,299.21	20.39
80	15.20	75.43	3,000.00	60.05	6,263.55	20.39

Scenario: Fire Flow Analysis
Junction Report

ID	Static Demand (gpm)	Static Pressure (psi)	Fire Flow Demand (gpm)	Residual Pressure (psi)	Available Flow @ Hydrant (gpm)	Available Flow Pressure (psi)
82	20.00	71.27	3,000.00	55.96	6,017.62	20.36
84	24.00	73.05	3,000.00	56.48	5,867.48	20.34
86	28.80	71.90	3,000.00	54.27	5,595.31	20.31
88	21.60	70.41	3,000.00	51.52	5,280.82	20.28
90	12.80	68.58	3,000.00	48.54	4,988.69	20.25
92	29.60	66.95	3,000.00	46.23	4,816.25	20.23
94	28.80	64.50	3,000.00	43.17	4,593.57	20.21
96	28.80	65.71	3,000.00	44.62	4,695.00	20.22
98	138.40	63.00	3,000.00	42.53	5,055.14	20.24

APPENDIX 4

Cost Estimates

West End Water Co.
Off-Site Facilities Cost Estimate
January 3, 2005

Table A4.1 - Off-Site Water System Cost Estimate

System Component	Size	Quantity	Unit	Unit Cost	Cost	Total Cost (1)
Wittmann Booster Station						
Storage Tank	250,000 gallon	1	ea	$ 187,500	$ 187,500	$ 243,750
Booster Pump	200 gpm	2	ea	$ 7,500	$ 15,000	$ 19,500
Electrical / Controls		1	lot	$ 15,000	$ 15,000	$ 19,500
Subtotal						$ 282,750
Wittmann Well						
Well Drilled and Cased	12"	1	ea	$ 405,000	$ 405,000	$ 526,500
Well Pump and Equip.	325 gpm	1	ea	$ 75,000	$ 75,000	$ 97,500
Well Site Electrical		1	lot	$ 75,000	$ 75,000	$ 97,500
Site Work		1	lot	$ 40,000	$ 40,000	$ 52,000
Land		1	lot	$ 20,000	$ 20,000	$ 26,000
Well Transmission Main	6" diameter	2,100	lf	$ 30.00	$ 63,000	$ 81,900
Subtotal						$ 881,400
Walden Ranch Booster Station						
Storage Tank	800,000 gal	2	ea	$ 425,000	$ 850,000	$ 1,105,000
Hydropneumatic Tank	10,000 gal	2	ea	$ 40,000	$ 80,000	$ 104,000
3-Phase Service Entrance		1	lot	$ 125,000	$ 125,000	$ 162,500
Electrical and Controls		1	lot	$ 200,000	$ 200,000	$ 260,000
Generator		1	ea	$ 75,000	$ 75,000	$ 97,500
Booster Pump	1,500 gpm	3	ea	$ 22,000	$ 66,000	$ 85,800
Booster Pump	500 gpm	5	ea	$ 12,000	$ 60,000	$ 78,000
Chlorination Equipment		1	ea	$ 40,000	$ 40,000	$ 52,000
Piping		1	lot	$ 500,000	$ 500,000	$ 650,000
Site Work and Fencing		1	lot	$ 200,000	$ 200,000	$ 260,000
Subtotal						$ 2,854,800
Walden Ranch Wells						
Well Drilled and Cased	16"	3	ea	$ 600,000	$ 1,800,000	$ 2,340,000
Well Pump and Equip.	1,000 gpm	3	ea	$ 200,000	$ 600,000	$ 780,000
Well Site Electrical		3	lot	$ 150,000	$ 450,000	$ 585,000
Site Work		3	lot	$ 120,000	$ 360,000	$ 468,000
Land		1	lot	$ 25,000	$ 25,000	$ 32,500
Well Transmission Main	12" diameter	5,200	lf	$ 45.00	$ 234,000	$ 304,200
Subtotal						4,509,700.00
(1) Includes 30% for Engineering Overhead and Contingency				**Total Estimate Off-Site Cost**		**$ 8,528,650**
				Total Estimated New Dwelling Units		**4,331**
				Estimated Cost per Dwelling Unit		**$ 1,969**

West End Water Co.
On-Site Facilities Cost Estimate
Rancho Maria and Walden Ranch Developments
January 3, 2005

Table A4.2 - On-Site Water System Cost Estimate

System Component	Size	Quantity	Unit	Unit Cost	Cost	Total Cost (1)
Rancho Maria Development						
Backbone Mains	12" Diameter	13,464	ea	$ 45	$ 605,880	$ 787,644
Subdivision Mains	per lot	383	lots	$ 850	$ 325,550	$ 423,215
Services	per lot	383	lots	$ 200	$ 76,600	$ 99,580
Meters and Meter Installations	per lot	383	lots	$ 200	$ 76,600	$ 99,580
Hydrants	per lot	383	lots	$ 200	$ 76,600	$ 99,580
Subtotal						$ 1,509,599
			Estimated Cost per Dwelling Unit			**$ 3,942**
Walden Ranch Development						
Backbone Mains	12" Diameter	31,152	ea	$ 45	$ 1,401,840	$ 1,822,392
Subdivision Mains	per lot	1,685	lots	$ 850	$ 1,432,250	$ 1,861,925
Services	per lot	1,685	lots	$ 200	$ 337,000	$ 438,100
Meters and Meter Installations	per lot	1,685	lots	$ 200	$ 337,000	$ 438,100
Hydrants	per lot	1,685	lots	$ 200	$ 337,000	$ 438,100
Subtotal						$ 4,998,617
			Estimated Cost per Dwelling Unit			**$ 2,967**

EXHIBIT
A-5.
Admitted

COUNTY OF MARICOPA

State of Arizona

Office of the Clerk

Board of Supervisors

State of Arizona) ss.
County of Maricopa)

I, Lori Pacini, Deputy Clerk of the Board of Supervisors, do hereby certify that the following is a true and correct excerpt from the minutes of the meeting of the ***Board of Supervisors*** *held on* ***February 1, 2006.*** *These minutes are currently pending approval by the Board:*

WEST END WATER CO., PUBLIC SERVICE FRANCHISE EXTENSION, APPROVED

(Attached)

IN WITNESS WHEREOF, *I have hereunto set my hand and affixed the Official Seal of the County of Maricopa. Done at Phoenix, the County Seat, on February 22, 2006.*

Lori Pacini
Deputy Clerk of the Board of Supervisors

cc: JC Campbell, President
County Counsel
File (F17643)

FORMAL SESSION
February 1, 2006

FRANCHISE – WEST END WATER CO.

Chairman Stapley called for a public hearing to solicit comments on the application filed by West End Water Co., for a public service franchise extension to construct, maintain and operate a domestic water distribution system for a period of 25 years beginning February 22, 2004, or for a period of one year after the franchised area or a portion thereof is annexed by a municipality, whichever is shorter, for the supplying of this service along, upon, under and across public highways, roads, alleys and thoroughfares (excepting State highways) within that portion of Maricopa County, Arizona, known and described as follows, to-wit: (F23155)

> Northwest ¼ of Section 25, Township 5 North, Range 3 West, of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

No protests having been received and no speakers coming forth at the Chairman's call, motion was made by Supervisor Wilson, seconded by Supervisor Brock, and unanimously carried (5-0) to grant the said franchise extension as applied for and to impose such restrictions and limitations upon said applicant as to the use of such public highways, roads, alleys and thoroughfares as may be deemed best for the public safety and welfare and to include in such franchise the statutory provisions set forth in Title 40, Chapter 2, Article 4, A.R.S., 1956, requiring the grantee of said franchise to pay such expenses, damages and compensations, if any, as may result from the use and operation of said franchise and as in said statute specified.

BEFORE THE BOARD OF SUPERVISORS

OF

MARICOPA COUNTY, STATE OF ARIZONA

IN THE MATTER OF THE APPLICATION OF	)	
	)	
	)	
	)	
West End Water Co	)	FRANCHISE
	)	
	)	
	)	
	)	

FOR A FRANCHISE

BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF MARICOPA COUNTY, STATE OF ARIZONA, THAT:

WHEREAS, West End Water Co. hereinafter designated as the Grantee, praying for the right, privilege, license and franchise to construct, maintain and operate a Public Service Franchise for a portion of Maricopa County, Arizona bearing date of February 22, 2004, for a period not to exceed twenty-five (25) years or for a period of one (1) year after the franchised area or a portion thereof is annexed by a municipality, whichever is shorter, for the supplying of this service, along, upon, under and across public highways, roads, alleys and thoroughfares (excepting State Highways).

Grantee doing business in Maricopa County, Arizona bearing date of February 1, 2006, praying for the right, privilege, license and franchise extension for a domestic water distribution system for a portion of Maricopa County, Arizona to provide a domestic water distribution system within that portion of Maricopa County, Arizona, known and described as follows, to-wit:

Northwest ¼ of Section 25, Township 5 North, Range 3 West, of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

and not within the confines of any incorporated city or town, and under such restrictions and limitations and upon such terms as the Board of Supervisors may provide, not inconsistent with the laws of the State of Arizona, or the orders and rules of the Corporation commission of the State of Arizona, and that the Board take such proceedings herein as is provided by laws of the State of Arizona; and

WHEREAS, upon filing said application, the said Board of Supervisors on the 4th day of January 2006 ordered that public notice of the intention of said Board to make such grants be given by publishing a notice in the official newspaper of Maricopa County, published in the County of Maricopa, State of Arizona, and that 9:00 a.m., on the 1st day of February 2006, at the meeting room of said Board of Supervisors located at 205 West Jefferson Street, in the City of Phoenix, Arizona, be set as the time and place of hearing the said application; and

WHEREAS, the said application coming on regularly for hearing on said day and it appearing by the affidavit of the duly authorized agent of the said time and place set for the consideration of such application has been published for at least once a week for the three-week period prior to said date set forth herein, to-wit:

In the issues of the said newspaper on January 12, January 19, and January 26, 2006, and it appearing that no sufficient protest has been filed by the qualified electors of the said County petitioning said

Board of Supervisors to deny such license and franchise, and it further appearing the best interests of Maricopa County will be served by the granting of said application and the franchise referred to therein;

NOW, THEREFORE, the Board of Supervisors of Maricopa County, State of Arizona, acting on behalf of said County does hereby grant unto West End Water Co., doing business in Maricopa County, Arizona, subject to the terms, conditions and limitations hereinafter contained, the right, privilege, license and franchise extension to construct, maintain and operate a domestic water distribution system, for a period of not to exceed twenty-five (25) years beginning February 22, 2004, or for a period of one (1) year after the franchised area is annexed by a municipality, whichever is shorter, for the supplying of this service along, upon, under and across the pubic highways, roads, alleys and thoroughfares (excepting State highways) within that portion of Maricopa County, Arizona, hereinabove described, under such restrictions and limitations and upon such terms as this Board at any time may provided, not inconsistent with the laws of the State of Arizona, or the orders and rules of the Corporation Commission of the State of Arizona, specifically providing, however, that:

1) All rights hereunder are granted under the express condition that the Board of Supervisors of said Maricopa County shall have the power at any time to impose such restrictions and limitations and to make such regulations on such highways, roads, and thoroughfares as may be deemed best for the public safety, health, welfare and convenience.

2) All rights hereby granted shall be exercised so as to not interfere or conflict with any easements or rights-of-way heretofore granted by said Board of Supervisors and now in force.

3) All rights hereby granted shall be exercised so as not to interfere or conflict with any easement, either public or private, of whatsoever nature, which has been acquired in or to the proper use of said highway, roads, and thoroughfares, or any portion thereof.

4) All rights hereby granted shall be exercised so as not to interfere or conflict with or endanger in any way the proper use by the public of said highways, roads, and thoroughfares, or any portion thereof.

5) That the said Grantee shall bear all expenses incurred including damages and compensation for the alteration of the course, direction, surface, grade or alignment of any of the said highways, roads and thoroughfares necessarily made by the said grantee for the purpose of this franchise; that said grantee will maintain his equipment from time to time as may be needed, without the necessity of notice from Maricopa County. In the event the said grantee shall fail to make any repairs within ten days from the time same becomes necessary, then Maricopa County may cause the same to be made, and said grantee agrees to pay Maricopa County the cost thereof.

6) That all property of the franchise be installed and operated by the said grantee and shall be placed, removed or relocated, initially and throughout the term of this franchise, along, in, over, under and across the said highway, roads and thoroughfares, in such a manner and location as the Board of Supervisors or its duly authorized agents may designate. Such placement, removal or relocation shall be done at the sole expense of the grantee upon a determination by the Board of Supervisors of Maricopa County that such placement, removal or relocation is necessary.

If the grantee fails or refuses to so remove or relocate, Maricopa County may so remove or relocate, at the sole expense of grantee, such expense to include any and all damages and compensation of whatsoever nature arising therefrom.

In this section the term "property" includes conduits, pipe, wires, poles, or other structures and appliances used to supply or deal in gas, electricity, lights, water, heat, refrigeration, power, telephones, telegraph, television and other public utilities.

Any finding or determination made by the Board of Supervisors pursuant hereto shall be final and binding upon the grantee whether or not such findings or determinations relates to the requirements of public safety or welfare, the use of public roads or the need for proposed improvements, and whether or not the function to be served by such removal or relocation is of a governmental or proprietary nature.

7) That said grantee shall indemnity and save harmless, the said County of Maricopa from all costs, expense and liabilities in connection with the granting of this franchise and exercise of the same by them.

8) That the rights of any person claiming to be injured in any manner by the maintenance of said projects and equipment shall not be affected hereby.

9) That the terms and conditions of this franchise shall inure to the benefit of, and be binding upon, all the heirs and assigns of the said Grantee.

10) That the franchise extension and privilege herein granted shall not be deemed to be exclusive and the said Board of Supervisors hereby expressly reserves the right and power to grant from time to time similar franchises and privileges over the same territory and highways, roads and thoroughfares.

11) This franchise extension is granted upon the express condition that the Certificate of Convenience and Necessity be procured from the Corporation Commission of the State of Arizona and the Certificate of Assured Water Supply be procured from the Arizona Department of Water Resources and proof thereof submitted to the Board of Supervisors within six months from the date of granting of this franchise; and if such Certificates are not granted within six months from said date, then this franchise to be void, otherwise to be in full force and effect for the time herein specified.

12) All materials and construction methods used with the public right-of-way shall conform to the applicable standards, specifications and special provisions currently in effect in Maricopa County.

13) The Franchise holder shall obtain a construction permit from the Office of the County Engineer prior to construction of any facilities in the public right-of-way.

DATED this 1st day of February 2006.

Chairman, Board of Supervisors

ATTEST:

Clerk, Board of Supervisors

EXHIBIT
A-6
Admitted

MAG 208 WATER QUALITY MANAGEMENT PLAN AMENDMENT PROCESS

1. Request to Amend the MAG 208 Plan - The jurisdiction (MAG member agency) in which the facility would be located initiates a request to include the new wastewater treatment plant in the 208 Plan. Prior to the official request, the jurisdiction may also request an informal review of the draft 208 amendment by MAG staff to ensure that all pertinent items have been addressed in the document.

2. MAG Water Quality Advisory Committee - The MAG Water Quality Advisory Committee reviews the draft 208 Plan amendment and then authorizes a public hearing to be conducted. According to federal regulations, the hearing must be advertised 45 days in advance and the document must be available for public review 30 days prior to the hearing. A hearing notice is also sent to interested parties 30 days prior to the public hearing.

   The public hearing is conducted by MAG. A court reporter prepares an official transcript of the hearing. If written or verbal comments are received, a response to comments is prepared by the entity requesting the amendment.

   The MAG Water Quality Advisory Committee reviews the response to comments and then makes a recommendation to the MAG Management Committee. In general, the MAG Water Quality Advisory Committee meetings are conducted on an as needed basis.

3. MAG Management Committee - The MAG Management Committee reviews the recommendation from the Water Quality Advisory Committee. The Management Committee then makes a recommendation to the MAG Regional Council. In general, the MAG Management Committee meets on a monthly basis.

4. MAG Regional Council - The MAG Regional Council reviews the recommendation from the Management Committee. The Regional Council then takes official action to approve the 208 Plan amendment. The Regional Council is the decision-making body of MAG. In general, the MAG Regional Council meets on a monthly basis.

5. State Water Quality Management Working Group - The State Water Quality Management Working Group reviews the 208 Plan amendment approved by the MAG Regional Council. The Working Group then makes a recommendation to the Arizona Department of Environmental Quality. In general, the State Water Quality Management Working Group meets on a quarterly basis.

6. Arizona Department of Environmental Quality - The Arizona Department of Environmental Quality submits the 208 Plan amendment to the Environmental Protection Agency for approval.

7. Environmental Protection Agency - The Environmental Protection Agency approves the 208 Plan amendment and notifies the State of the approval action.

EXHIBIT
A-7
Admitted

Marvin E. Collins
4601 W. Desert Hollow Drive
Glendale, AZ 85310
623-581-0394
mcollins40@cox.net

Qualification Summary

Experienced professional with comprehensive background skills, and experience in the management of water and wastewater operations in the private sector. Strong skills in operations, project management, planning, budgeting and information technology systems. Significant experience in customer service, public relations, and working with community leaders and elected officials. An effective leader of people and manager of process. Highly motivated, quality-focused, with ability to see big picture while still managing day-to-day operations.

Professional Experience

Sunrise and West End Water Companies Co., Peoria, AZ **February 2002-Present**

Manager

Responsible for all aspects of the day-to-day operations of two water systems.

- **Establish and maintain effective relationships with regulators, developers, community leaders and others.**
- **Represent company before the Arizona Corporation Commission, the Arizona Department of Water Resources and the Arizona Department of Environmental Quality.**
- **Review company operations and initiated corrections to ensure compliance with regulatory requirements and procedures.**
- **Conduct analyses of energy costs for company, 2002 review resulted in $8,000 reduction in annual energy cost**
- **Prepare Consumer Confidence Reports and all other publications for distributions to customers.**

Citizens Water Resources, Phoenix, AZ **1966-2002**

Manager, Customer and Community Relations: **1999-2002**

Responsible for customer and community relations for Citizens' Maricopa County water/wastewater operations.

- **Managed customer service and billing functions.**
- **Managed the conversion of company's billing system from a stand-alone, local system to an integrated multi-state system.**
- **Negotiated an agreement with the City of Surprise for extensive operations and maintenance support. This resulted in a revenue increase of over $150,000 the first year.**
- **Developed an outstanding working relationship with local elected officials and community leaders that greatly enhanced the company's image in the community.**

- **Represented the company before local and state jurisdictions and at community boards and organizations.**

Manager of Administration: **1993-1999**

Provided direct supervision for all of Citizens' administrative services group functions in Maricopa County.

- **Supervised customer service, information technology, accounting, purchasing, water conservation, and several regulatory activities.**
- **Negotiated the purchase of the Town of Youngtown's water and wastewater systems.**
- **Developed and implemented the company's first water conservation rate; monitored the effects of the rates and reported those results to the Arizona Corporation Commission.**
- **Developed and implemented a water conservation program mandated by Arizona Department of Water Resources.**

Manager, Operations: **1989-1993**

Overall responsibility for day-to-day operations of water production and distribution and wastewater treatment and collections.

- **Developed and implemented capital, as well as, operational and maintenance budgets.**
- **Supervised 40 employees.**
- **Supervised well pump replacements and well repairs**
- **Reviewed all water and wastewater quality reports for submittal to regulatory agencies.**
- **Employee performance reviews and salary adjustments.**

Other Positions Held with Citizens Prior to 1989

Assistant Manager (Maricopa County)	**1974-1989**
Assistant Manager (Illinois)	**1971-1974**
Construction Inspector (Rio Rico, AZ)	**1969-1971**
Serviceman (Tucson, AZ)	**1966-1969**

Professional Memberships/Affiliations

- **Northwest Valley Chamber of Commerce - Chairperson –Elect**
- **Surprise Economic Advisory Board – Vice Chairperson**
- **Arizona Water and Pollution Control Association – Life Member**
- **Surprise Economic Development Corp. – Past Chairperson**
- **American Water Works Association**
- **American Management Association**
- **Rotary Club**

Certifications

Arizona Grade 2 Water Treatment and Distribution Operator
Arizona Grade 2 Wastewater Treatment and Collection Operator

EXHIBIT
A-8
Admitted

Ray L. Jones P.E.
Principal
ARICOR Water Solutions

PROFESSIONAL SUMMARY

Ray Jones formed ARICOR Water Solutions in May of 2004. As the Principal of ARICOR Water Solutions, Mr. Jones provides strategic solutions to communities' water needs through a combination of regulatory experience, management expertise, engineering knowledge and operational experience. Prior to forming ARICOR Water Solutions, Ray Jones served as President of Arizona-American Water Company, the largest private water and wastewater utility in the State of Arizona. Mr. Jones joined American Water in 2002 with American's purchase of the water and wastewater assets of Citizens Communications Company. Mr. Jones began his water career in 1985 as an Engineer for Citizens' Arizona Operations. He held increasingly responsible positions in Engineering and Development Services and was promoted to Engineering and Development Services Manager for Citizens' Arizona Operations in 1990. In 1998, Mr. Jones was named Vice President and General Manager of Citizens Arizona Operations, responsible for the regulated and unregulated water and wastewater operations in Arizona, serving approximately 250,000 people. In total, Mr. Jones has over 20 years of experience in the management, operation, planning, design, and construction of water and wastewater systems.

EMPLOYMENT HISTORY

2004 – Present

ARICOR Water Solutions
Principal

ARICOR Water Solutions offers a wide range of services to the private and public sectors. Representative projects include water resources strategy development, water rights evaluation and development of regulatory strategies. Services also include consultation on water and wastewater utility formation, management and operations. ARICOR Water Solutions provides water, wastewater and water resource master planning, and owner representation, including value engineering and program management. Finally, ARICOR Water Solutions supports water solutions with contract operations and expert witness testimony and litigation support.

2002 to 2004

Arizona-American Water Company
President

Responsible for leadership of the Arizona business activities of Arizona-American Water Company. Key responsibilities include developing and evaluation new business opportunities, developing strategic plans, establishing effective government and community relations, insuring compliance with all regulatory requirements, and providing management and guidance to key operations and support personnel.

1998 to 2002

Citizens Water Resources, Arizona Operations
Vice President and General Manager

Responsible for leadership of the Arizona regulated and unregulated business activities of Citizens Water Resources. Key responsibilities included developing and evaluation new business opportunities, developing strategic plans, establishing effective government and community relations, insuring compliance with all regulatory requirements, and providing management and guidance to key operations and support personnel. As General Manager, Mr. Jones emphasized growth of both the regulated and unregulated businesses in Arizona. Several key development agreements were negotiated, expanding the regulated water and wastewater service areas by over 9,000 acres with the potential to serve over 40,000 people both water and wastewater service at build-out. Unregulated operation, maintenance and wholesale service contracts were renewed and expanded providing for continuing significant growth in the sector.

1990 to 1998 **Citizens Water Resources, Arizona Operations**
Engineering and Development Services Manager

Responsible for management of a diverse group of business growth related activities. Responsibilities include: marketing of operation and maintenance services (unregulated business growth), management of new development activity (regulated business growth), management of engineering functions (infrastructure planning, construction and operations support), management of water resources planning and compliance, management of growth-related regulatory functions (CC&N's and Franchises), and management of capital budgeting functions and capital accounting functions. Mr. Jones' responsibilities included providing testimony before the Arizona Corporation Commission on numerous occasions. Mr. Jones participated in the negotiation of numerous development agreements that resulted in record growth and significant expansion of Citizen's water and wastewater service areas. Under Mr. Jones' leadership, Citizens established itself as a recognized leader in water resources management.

1985 to 1990 **Citizens Water Resources, Arizona Operations**
Civil Engineer

Responsible for the planning, coordination and supervision of capital expansion and major maintenance and rehabilitation projects as assigned. Responsible for development of capital program for Maricopa County Operations. Responsible for providing engineering support and analysis to operations personnel.

EDUCATION

Arizona State University – Master of Business Administration (1991)
University of Kansas – Bachelor of Science in Civil Engineering (1985)

PROFESSIONAL CERTIFICATION

Registered Professional Engineer – Civil Engineering – Arizona
Professional Engineer – Civil Engineering – California
Certified Operator – Wastewater Treatment, Wastewater Collection, Water Treatment, Water Distribution – Arizona

PROFESSIONAL AFFILIATIONS

- Director - Water Utilities Association of Arizona (1998 – 2004)
- Member - American Society of Professional Engineers
- Member - American Water Works Association
- Member - Arizona Water Pollution Control Association
- Member - Water Environment Federation

CIVIC AND COMMUNITY INVOLVEMENT

- Director and Member of the Executive Committee- WESTMARC (1998 – Present)
- Chairman – Corporate Contributions Committee, West Valley Fine Arts Council Diamond Ball
- Board Member, Manager & Past Chairman – North Valley Little League Softball
- Member – Technical Advisory Committee – Governor's Water Management Commission (2001)

1/17/06

COMMISSIONERS
JEFF HATCH-MILLER- Chairman
WILLIAM MUNDELL
MARC SPITZER
MIKE GLEASON
KRISTIN K. MAYES

BRIAN C. MCNEIL
Executive Director

RECEIVED

ARIZONA CORPORATION COMMISSION

2005 NOV -4 P 4: 22

AZ CORP COMMISSION
DOCUMENT CONTROL

November 4, 2005

RECEIVED
NOV - 8 2005

EXHIBIT
A-9
Admitted

J. Scott Rhodes
Jennings, Strouss & Salmon, P.L.C.
The Collier Center, 11th Floor
201 East Washington Street
Phoenix, Arizona 85004-2385

RE: West End Water Company – Application for Extension of its Certificate of Convenience and Necessity (CC&N) Docket No. W-01157A-05-0706
INSUFFICIENCY LETTER

Dear Sir:

In reference to the above mentioned application filed on October 5, 2005, this letter is to inform you that the application has not met the sufficiency requirements as outlined in the Arizona Administrative Code. The deficiencies are:

1. Based on the information provided in the application, West End does not have adequate production and storage capacity to serve its existing customer base. Please explain how West End plans to develop the additional capacity needed to serve growth in its existing service area plus the expected 443 new connections in the requested area.

2. There is no engineering plan included in the application that shows how West End intends to extend service to the requested area. Please provide a set of design plans for the proposed water facilities. The plan should include the proposed water source, distribution facilities and show the site map of the proposed water treatment plant. If final design plans are not available, please provide preliminary plans.

3. Please provide an estimate of the water facilities costs necessary to serve the proposed CC&N extension area. The cost should include a description of the major components with the cost of the component (i.e., wells, number and size of storage tanks, etc.). The method of financing for the major components should be described in as much detail as possible.

4. The Utilities Division's CC&N map shows that the requested area is adjacent to Beardsley Water Company's service area. However, there is no information in the application to show that West End Water Company is better positioned to be the water provider in the requested area compared to Beardsley Water Company. Please explain how it is in the public interest to grant this application.

MEMORANDUM

EXHIBIT
A-10
Admitted
PENGAD-Bayonne, N. J.

TO: Blessing Chukwu
Executive Consultant III
Utilities Division

FROM: Barb Wells
Information Technology Specialist
Utilities Division

RECEIVED
DEC - 7 2005

THRU: Del Smith
Engineering Supervisor
Utilities Division

DATE: December 5, 2005

RE: **WEST END WATER COMPANY (DOCKET NO. W-01157A-05-0706)**

The area requested by West End for an extension has been plotted with no complications using the legal description provided with the application (a copy of which is attached).

Also attached is a copy of the map for your files.

:bsw

Attachments

cc: Docket Control
Mr. J. Scott Rhodes
Ms. Deb Person (Hand Carried)
File

COUNTY: *Maricopa*

RANGE 3 West

W-2074 (2)
Beardsley Water Company, Inc.

W-1157 (2)
West End Water Company

West End Water Company
Docket No. W-01157A-05-0706
Application for Extension

TR5N3W 10 AUG 2004

ATTACHMENT "B"

COUNTY	SECTION	TOWNSHIP	RANGE
Maricopa	25	5N	3W

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:

NW 1/4 of Section 25 R5N T3W

WEST END WATER CO.

9098 W. Pinnacle Peak Road
Peoria, Arizona 85383
Phone: (623) 972-6133
Fax: (623) 566-8925

RECEIVED
JAN - 9 2006

EXHIBIT
A-11
Admitted
PENGAD-Bayonne, N. J.

January 4, 2006

Docket Control
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, Arizona 85007

Re: West End Water Company – Application for Extension of its Certificate of Convenience and Necessity (CC&N) Docket No. W-01157A-05-0706

Dear Madam/Sir:

The purpose of this letter is to address the issues raised in Ms. Blessing N. Chukwu's letter dated November 4, 2005, regarding the above named docket. The responses are numbered to correspond to Ms. Chukwu's numbered issues.

1. West End Water Company ("West End") retained ARICOR Water Solutions LC to prepare a water master plan for its service area located south of Grand Avenue (the "Master Plan"). The Master Plan is enclosed as Exhibit 1. The Master Plan presents West End's plan for expansion of the West End water system to allow it to serve its existing customer base, the proposed Walden Ranch development (including the 443 proposed connections in the requested CC&N expansion area) and additional growth anticipated in the portion of the West End service area south of Grand Avenue. The Master Plan details provisions for additional wells, a new storage and booster pumping facility and necessary backbone piping.

2. The Master Plan includes preliminary plans for the planned additions to the West End water system. Design plans have not yet been prepared.

3. The Master Plan includes an estimate of the cost of the facilities proposed to serve the existing customer base, the proposed Walden Ranch development (including the 443 proposed connections in the requested CC&N expansion area) and additional growth anticipated in the portion of the West End service area south of Grand Avenue. The cost for Off-Site Facilities is estimated at $1,969 per dwelling unit (See Appendix 4, Table A4.1). The cost for On-Site Facilities in Walden Ranch is estimated at $2,967 per dwelling unit (See Appendix 4, Table A4.2). Accordingly, the total cost for serving the 443 units in the requested CC&N expansion area is estimated to be $4,936 per dwelling unit or $2.187 million in total.

   The new water facilities, as proposed in the Master Plan, will be financed through a combination of developer advances and West End-provided funding. It is anticipated the developer of Walden Ranch will provide, as an advance in aid of construction, that portion of the planned facilities required to serve the Walden Ranch project, including the requested CC&N expansion area.

4. The requested CC&N expansion area represents approximately 30% of the proposed Walden Ranch development. The remaining 70% of the development is within the existing CC&N of West End. With 70% of the development within its CC&N, West End is able to integrate the water system for the requested CC&N expansion area with the water system for the remainder of

the Walden Ranch development and the water system planned for the entire West End CC&N located south of Grand Avenue. This integrated water system provides significant economies of scale benefiting West End customers in the requested CC&N extension area and the existing West End CC&N, as well as the developer of Walden Ranch. If the proposed expansion area was served by Beardsley Water Company, West End would not be able to integrate the water system for the requested CC&N expansion area with the remainder of the development, causing a loss of economies of scale and the related benefits to West End, its customers, future water customers in the proposed CC&N expansion area and the developer of Walden Ranch.

5. West End has two water systems. Its main system is the Wittmann system, ADEQ ID# 07-067. West End also operates the Wheat system, ADEQ ID# 07-167, serving 15 customers in the far southeast portion of its CC&N.

6. The Water Use Data Sheet submitted for the application is for the Wittmann system that will be expanded to serve the requested CC&N expansion area.

7. The developer of Walden Ranch is currently conducting the necessary hydrogeological studies in advance of preparing an application for Certificate of Assured Water Supply for the Walden Ranch development including the requested CC&N expansion area.

8. A request for service is attached as Exhibit 2.

9. Construction documents have not yet been prepared for water facilities for the requested CC&N expansion area. Accordingly, Approvals to Construct have not been requested or received from the Arizona Department of Environmental Quality or its designee in Maricopa County, the Maricopa County Environmental Services Department. Approvals to Construct will be obtained when the construction documents are prepared.

10. West End has filed a franchise extension application with Maricopa County.

11. West End believes that the Master Plan submitted herewith provides sufficient information for the Commission to approve the requested CC&N expansion.

Cordially,

Marvin E. Collins

Marvin E. Collins

MEC:ks

Enclosures: Exhibit 1: ARICOR Water Solutions Master Plan
Exhibit 2: Request for Service letter

EXHIBIT 1

ARICOR
Water Solutions

WEST END WATER CO.
WATER SYSTEM MASTER PLAN

For
Water Service Area
Located South of Grand Avenue

January 3, 2006

Prepared for:
West End Water Co.
9098 W. Pinnacle Peak Road
Peoria, AZ 85383

Registered Professional Engineer (Civil)
CERTIFICATE NO.
23778
RAY L.
JONES
Date Signed 1-3-06
ARIZONA, U.S.A.

Prepared By:
ARICOR Water Solutions LC
25213 N. 49th Drive
Glendale, AZ 85310
(623) 341-4771 FAX (623) 582-5160

TABLE OF CONTENTS

1. Executive Summary **1**

2. Introduction **2**
2.1 Scope of Work 2
2.2 Study Area 2
2.3 Topographic Conditions 4
2.4 Growth and Development 4
2.5 Existing Water System 4

3. Planning Criteria **5**
3.1 Demands 5
3.1.1 Existing Water Service Area 5
3.1.2 New Developments 6
3.2 Fire Flows 6
3.3 Pressure & Flow 7
3.4 Storage 7
3.5 Booster Pumps 8
3.6 Wells 8

4. Projected Demands **9**
4.1 Projected Customer Growth 9
4.2 Projected Demand 9

5. Proposed Facilities **11**
5.1 Storage, and Booster Pumping 11
5.2 Wells 11
5.3 Distribution System 12
5.4 Cost Estimates 12

6. Conclusions **13**

Registered Professional Engineer (Civil)
CERTIFICATE NO.
23778
RAY L.
JONES
Date Signed 1-3-06
ARIZONA, U.S.A.

LIST OF TABLES

Table 2.1 – Wittmann Booster Station Facilities 4
Table 2.2 – Wheat Booster Station Facilities 4
Table 3.1 – Annual Average Day, Existing Service Area 5
Table 3.2 – Maximum Month Average Day, Existing Service Area 5
Table 3.3 – Estimated Peak Day, Existing Service Area 5
Table 3.4 – Planning Factors, Existing Service Area 6
Table 3.5 – Population and Demand Factors, New Developments 6
Table 3.6 – Peaking Factors, New Developments 6
Table 3.7 – Fire Flow Requirements, New Developments 6
Table 3.8 – Pressure Standards 7
Table 3.9 – Pressure Zones 7
Table 3.10 – Pipeline Velocity Standards 7
Table 3.11 – Storage Criteria 8
Table 4.1 – Build-Out Dwelling Units and Population 9
Table 4.2 – Non-Residential Planning Data 9
Table 4.3 – Projected Demands by Area 10
Table 4.4 – Projected Demand by Pressure Zone 10

ARICOR
Water Solutions

Table 5.1 – Sizing and Phasing of Storage and Booster Pumping Facilities 11
Table 5.2 – Well Requirement for Walden Ranch Booster Station 12

LIST OF FIGURES

Figure 1.1 - Study Area and Vicinity Map 3

Appendix 1 - Detailed Planning Area Maps
Appendix 2 - Detailed Planning and Demand Calculations
Appendix 3 - Results of RBF Consulting Distribution System Modeling
Appendix 4 - Cost Estimates

1. Executive Summary

The intent of this report is to provide a regional water master plan to support planned growth and development in the portion of West End Water Co.'s certificated area south of Grand Avenue. The report recommends locations and sizing of regional water supply, storage and booster pumping facilities and incorporates distribution system analysis performed by RBF Consulting for the proposed Walden Ranch and Rancho Maria developments.

Planning criteria were established for West End Water Co. based on analysis of existing usage patterns and through comparison to neighboring water providers. Adopted planning factors allow detailed estimation of demand considering varying residential development densities, commercial, school and park development. Peaking factors of 1.8 for the peak day flow and 3.0 for the peak hour flow were adopted. The 2003 International Fire Code was used as the basis for fire flow requirements. Adopted fire flows are 1,750 gallons per minute for residential development and 3,000 gallons per minute for commercial development. Standards for well capacity, storage, booster pumping and distribution system pressure and flow were adopted in order to provide dependable service with appropriate levels of redundancy.

At build-out, the Study Area is projected to contain 4,561 homes with a population of 13,683 people. The annual average day demand is projected to be 1.983 million gallons with a peak day of 3.570 million gallons. At least four new wells will be required to provide a redundant supply for the peak day. Additional wells may be required depending upon the aquifer yield. Booster pumps will be sized to meet the peak day plus fire flow of 5,615 gallons per minute. Total water storage will be 2.046 million gallons, providing 540,000 gallons of fire storage and 1.506 million gallons for operational and emergency uses.

Two pressure zones have been established. West End Water Co.'s existing Wittmann Booster Station will pump into the upper pressure zone. The new Walden Ranch Booster Station will provide service to the upper and lower zones. The Walden Ranch Booster Station will have 1.6 million gallons of storage and 5,500 gallons per minute if firm pumping capacity. A minimum of three wells with a firm capacity of 1,040 gallons per minute will supply the Wittmann Booster Station. The Wittmann Booster Station will be expanded through the addition of a 250,000-gallon storage tank and 400 gallons per minute of booster pumping capacity. One additional 325 gallon per minute well will be constructed to pump to the Wittmann Booster Station.

Distribution system improvement will be evaluated as actual development occurs using the criteria established in this report. Rancho Maria and Walden Ranch Development will install a 12" looped backbone piping system to serve those developments.

Cost estimates have been prepared showing that backbone facilities will cost approximately $1,969 per dwelling unit. On-site facilities for the Rancho Maria and Walden Ranch developments are projected to be $3,942 and $2,967, respectively.

2. Introduction

2.1 Scope of Work

West End Water Co. (West End) retained ARICOR Water Solutions LC to prepare a regional water master plan to support planned growth and development in the portion of its certificated area south of Grand Avenue. The report evaluates regional water supply, storage and booster pumping capacities required at build-out of the study area. The report recommends locations and sizing of regional water supply, storage and booster pumping facilities. The report incorporates distribution system analysis performed by RBF Consulting for the proposed Walden Ranch and Rancho Maria developments.

2.2 Study Area

The study area is within Sections 11, 12, 13, 14, 24 and 25 of Township 5 North, Range 3 West and Section 19 of Township 5 North, Range 2 West and is detailed on Figure 1.1. The Study Area contains:

1. The existing water service area of West End, located both north and south of Grand Avenue.
2. That portion of the existing West End water certificated area located south of Grand Avenue.
3. The proposed expansion of West End water certificated area (CC&N Expansion Area) consisting of approximately 160 acres located in the northwest quarter of Section 25, T5N, R3W.

Figure 1.1 - Study Area and Vicinity Map

ARICOR
Water Solutions

2.3 Topographic Conditions

The Study Area slopes generally from the northwest to the southeast. The highest elevation in the Study Area is approximately 1,740 ft at the extreme northwest corner of the Study Area. The lowest elevation is approximately 1,584 ft at the southeast corner of the proposed CC&N Expansion Area. The total elevation change is approximately 156 feet across the study area.

2.4 Growth and Development

The existing West End water certificated area is of a rural nature and largely undeveloped. The developed areas consist of single-family homes on both subdivided lots and varying acreages. Most of the homes within the West End certificated area are provided water service by West End. However, significant numbers of homes are served by private wells. Historically, West End has experienced slow growth, averaging approximately one new connection per year.

Two new master planned subdivisions are planned in the Study Area. Rancho Maria covers approximately 140 acres and is planned for 383 single-family homes with 23 acres of commercial development. Walden Ranch covers approximately 520 acres and is planned for 1,685 single-family homes, and elementary school, park and 17.5 acres of commercial development. With the addition of Rancho Maria and Walden Ranch developments to the West End water service area, West End is expected to experience rapid growth in the future.

2.5 Existing Water System

West End's existing water system consists of the components detailed in Table 2.1 known as the Wittmann Booster Station, the components detailed in Table 2.2 known as the Wheat Booster Station, and a water distribution system consisting of pipelines ranging from 6" in diameter to 1" in diameter.

Table 2.1 – Wittmann Booster Station Facilities

Item	Quantity	Capacity Each	Total Capacity
8" Well	1 ea.	250 gpm	250 gpm
Booster Pump	2 ea.	80 gpm	160 gpm
Booster Pump	1 ea.	240 gpm	240 gpm
Hydropneumatic Tank	1 ea.	5,000 gal.	5,000 gal.
Storage Tank	2 ea.	100,000 gal.	200,000 gal.

Table 2.2 – Wheat Booster Station Facilities

Item	Quantity	Capacity Each	Total Capacity
6" Well	1 ea.	25 gpm	gpm
Booster Pump	1 ea.	40 gpm	40 gpm
Booster Pump	1 ea.	20 gpm	20 gpm
Hydropneumatic Tank	1 ea.	6,000 gal.	6,000 gal.
Storage Tank	1 ea.	10,000 gal.	10,000 gal.

3. Planning Criteria

3.1 Demands

3.1.1 Existing Water Service Area

Water usage data for the twelve-month period from August 2004 through July 2005 was reviewed to establish usage patterns for the existing West End water service area. The annual average day data and maximum month average day data is presented in Table 3.1 and Table 3.2, respectively.

Table 3.1 – Annual Average Day, Existing Service Area

Year	Total Production (gallons)	Customers		Average Day (gpd)	
		Year-End	Average	System	Customer
8-04/7-05	25,836,000	215	215	70,784	329

Table 3.2 – Maximum Month Average Day, Existing Service Area

Month/Yr	Peak Month Total Production	Customers		Max Month Avg Day (gpd)	
		Month-End	Average	System	Customer
7/05	3,325,000	215	215	107,258	499
Max Month Average Day / Annual Average Day =					1.52

West End does not maintain daily water usage records, requiring the peak day demand to be estimated. A factor of 1.25 times the maximum month average day is often used to estimate the peak day demand. Table 3.3 presents the estimated West End peak day demand using the 1.25 factor.

Table 3.3 – Estimated Peak Day, Existing Service Area

	System (gpd)	Customer (gpd)
Max Month Average Day	107,258	499
Assumed Peak Day / Maximum Month Average Day	1.25	1.25
Estimated Peak Day	134,073	624
Calculated Peak Day / Annual Average Day =		1.89

The water use data and peaking factors for West End presented above are typical for a small water system serving a rural population. The annual average day is somewhat below what would be expected in a newer urban subdivision, which can be expected to have larger homes and more intensive landscaping. The calculated peak day is slightly above the normally expected peaking factor of 1.8, likely due to the small size of the water system. The peak day factor can be expected to drop as the system grows.

West End does not maintain hourly flow records needed to determine and actual peak day water demand. Many water systems use 3.0 times the annual average day to estimate the peak hour demand. The 3.0 factor appears to be consistent with the West End water use data.

Based on the above data and discussion, the factors presented in Table 3.4 will be used to estimate the water demand from current and future customers within the existing service area of West End.

Table 3.4 – Planning Factors, Existing Service Area

Annual Average Day =	330	gallons per dwelling unit
Peak Day Factor =	1.8	times annual average day
Peak Hour Factor =	3.0	times annual average day

3.1.2 New Developments

Based upon the planned Rancho Maria and Walden Ranch developments, it is expected that future developments within the West End water service area will include urban subdivisions consistent with those constructed throughout the City of Surprise. Table 3.5 presents planning factors that will be used to estimate annual average day water demand from new developments within the West End water service area. The factors are typical of those used by other water provides in the Surprise area.

Table 3.5 – Population and Demand Factors, New Developments

Land Use	Description	Housing Density (du/Acre)	Pop Density (capita/DU)	Demand (per day)		
				Gallons Per Capita	Gallons Per	Unit
EXIST WE	Exisitng West End Service Area	0.8	3.0	-	330	Dwelling Unit
LDR	New Low Density SF Homes	2.0	3.0	150	450	Dwelling Unit
MDR	New Medium Density SF Homes	3.0	3.0	150	450	Dwelling Unit
DRY LOT	Homes Served by Private Wells	0.8	3.0	-	-	Dwelling Unit
COMM	Commercial Development			-	1,700	Acre
SCHOOL	Elementary School				3,000	Acre
PARK	Park with Turf				4,000	Acre
EMP	Employment Based Development				1,700	Acre

Table 3.6 presents peaking factors that will be used to estimate maximum day and peak day water demands from new developments within the West End water service area. The factors are typical of those used by other water provides in the Surprise area.

Table 3.6 – Peaking Factors, New Developments

1.8 = Peak Day Factor (PDF)	Peak Day = PDF * Annual Average Day
3.0 = Peak Hour Factor (PHF)	Peak Hour = PHF * Annual Average Day

3.2 Fire Flows

West End does not have an established fire flow requirement and much of the existing water system is not sufficiently sized to provide fire flows. It is estimated that limited portions of the existing water distribution system could support fire flows of up to 500 gallons per minute. However, current booster pumping capacity limits fire flow to a maximum of 250 gpm.

Table 3.7 presents fire flow requirements that will be used for new developments. The requirements are based on 2003 International Fire Code as adopted by the City of Surprise.

Table 3.7 – Fire Flow Requirements, New Developments

Requirement	Flow		Duration	
Commercial	3,000	gpm	3	hours
Residential	1,750	gpm	2	hours

3.3 Pressure & Flow

In order to provide reliable water service that meets customer expectations and regulatory standards the pressure standards shown in Table 3.8 will be used.

Table 3.8 – Pressure Standards

Condition	Minimum	Maximum
Static	55 psi	80 psi
Average Day Flow	55 psi	80 psi
Maximum Day Flow	55 psi	80 psi
Peak Hour Flow	50 psi	80 psi
Max Day plus Fire	20 psi	80 psi

The maximum pressure requirement of 80 psi may be increased to 100 psi provided that individual pressure reducing valves are provided all water services where the pressure exceeds 80 psi.

Due to the elevation change across the Study Area, two pressure zones will be established to meet the pressure standards. Lone Mountain Road lies at approximately 1,650 ft elevation and represents a natural division between the pressure zones. Using Lone Mountain Road as the pressure zone boundary results in the pressure zones detailed in Table 3.9.

Table 3.9 – Pressure Zones

	HGL	Low Elevation	High Elevation	Low Pressure	High Pressure	80 psi Elevation
Zone 1 (High Zone)	1870	1636	1740	56.4	101.4	1685
Zone 2 (Low Zone)	1780	1584	1650	56.4	85.0	1595

In order to reduce the risk of pipeline damage due to water hammer, flow rates shall be limited in accordance with Table 3.10.

Table 3.10 – Pipeline Velocity Standards

Scenario	Requirement
Maximum Day Flow	< 5 fps
Peak Hour Flow	< 7 fps
Max Day plus Fire	< 10 fps

3.4 Storage

As a small rural system with a single well, West End's current storage is sized for compliance with A.A.C. R18-5-503, which requires that storage capacity be equal to the average daily demand during the peak month (Maximum Month Average Day) less firm well capacity[1]. Due to growth expected from the planned Rancho Maria and Walden Ranch developments, West End will quickly grow into a significantly sized system. As systems increase in size, it is prudent to install multiple wells, providing a redundant or firm source of supply for the peak day demand. Under this scenario, the minimum storage required by A.A.C. R18-5-503 is reduced to zero.

The storage requirement for multiple well water systems with firm peak day capacity is typically designed to buffer the wells from demand variation over the course of the peak day. Storage is sized to deliver demand flow in excess of the peak day flow rate (peak hour flows) from storage. Storage is refilled during periods when demands are below the peak day flow rate. In addition to this equalization storage,

[1] Total daily production capacity minus the production from the largest producing well.

the entire design fire flow is typically retained in storage and a provision for emergency needs is often added.

The required storage volume for West End will be calculated based on the storage criteria listed in Table 3.11.

Table 3.11 – Storage Criteria

Function	Requirement
Equalization	30% of Maximum Day
Emergency	10% of Maximum Day
Fire	3,000 gpm x 3 hours

3.5 Booster Pumps

Booster pumps must be able to meet both normal system demands and fire flows on a reliable basis. The largest normal system demand is the peak hour demand. Fire flows could occur at any system demand, however for planning and design purposes they are considered to occur at the peak day flow rate.

The required booster pump capacity will be calculated as the larger of the peak hour flow or the peak day plus fire flow, with the largest booster pump at each pumping station out of service.

3.6 Wells

Wells must be able to reliably produce the peak day flow. Required well capacity for West End will be the peak day demand with the largest well out of service.

4. Projected Demands

4.1 Projected Customer Growth

The West End water certificated area is largely undeveloped with significant numbers of existing homes being served by private wells. In order to project future growth in the certificated area, the Study Area was divided into planning areas. Each planning area was placed into one of the following five categories in consideration of its location, the terrain and the current usage:

- Existing West End Water Service Area
- Projected Low Density Residential Development
- Projected Medium Density Residential Development
- Dry Lot (Homes served by private wells)

Rancho Maria and Walden Ranch were treated as separate planning areas using the actual density and land development data for each project.

For the existing West End service area, based on examination of aerial photography, it is estimated that 100 additional customers will be added at build-out of the service area. For the new growth areas, the housing density and population density factors in Table 3.5 were used to project build-out dwelling units and population for the unplanned areas with the actual planning data being used for the Rancho Maria and Walden Ranch developments.

Detailed maps showing the planning areas are presented in Appendix 1. Appendix 2 presents projected units and population by planning area. Table 4.1 summarizes the residential planning data and Table 4.2 summarizes the non-residential planning data.

Table 4.1 – Build-Out Dwelling Units and Population

Pressure Zone	Land Use	Acres	Dwelling Units / Other	Pop Density (capita/DU)	Population
Zone 1	Residential	675	1,827	60	5,482
Zone 2	Residential	1,036	2,734	27	8,201
	TOTALS	**1,711**	**4,561**		**13,683**

Table 4.2 – Non-Residential Planning Data

Summary Non-Residential		
Parcel	Land Use	Acres
Rancho Maria	COMM	23.0
Walden Ranch	COMM	17.5
Walden Ranch	PARK	7.5
Walden Ranch	SCHOOL	12.0
	TOTALS	**60.0**

4.2 Projected Demand

Projected water demands for the Study Area are presented in Table 4.3 and Table 4.4. The demands were determined using the planning criteria discussed in Chapter 3 of this report and the land use data detailed above. Appendix 2 presents detailed calculations of projected water demand by planning area.

Table 4.3 – Projected Demands by Area

	Demands			Demands				Storage	
	Avg Day	Peak Day	Peak Hour	Avg Day	Peak Day	Fire	Peak Hour	Operational	Fire
Parcel	(gpd)			(gpm)				(gallons)	
Existing Areas	108,900	196,020	326,700	76	136	-	227	78,408	-
Growth Areas	1,983,450	3,570,210	5,950,350	1,377	2,479	3,000	4,132	1,428,084	540,000
TOTALS	**2,092,350**	**3,766,230**	**6,277,050**	**1,453**	**2,615**	**3,000**	**4,359**	**1,506,492**	**540,000**
				Peak Day + Fire:		**5,615**		**Total Storage:**	**2,046,492**

Table 4.4 – Projected Demand by Pressure Zone

	Demands			Demands				Storage	
	Avg Day	Peak Day	Peak Hour	Avg Day	Peak Day	Fire	Peak Hour	Operational	Fire
Pressure Zone	(gpd)			(gpm)				(gallons)	
Zone 1	790,600	1,423,080	2,371,800	549	988	3,000	1,647	569,232	540,000
Zone 2	1,301,750	2,343,150	3,905,250	904	1,627	3,000	2,712	937,260	540,000
	2,092,350	**3,766,230**	**6,277,050**	**1,453**	**2,615**	**3,000**	**4,359**	**1,506,492**	**540,000**
				Peak Day + Fire Zone 1		**3,988**		***Total Storage***	**2,046,492**
				Peak Day + Fire Zone 2		**4,627**			

5. Proposed Facilities

5.1 Storage, and Booster Pumping

Water storage and booster pumping will be provided on a regional basis for the Study Area. Two existing facilities, the Wittmann Booster Station and the Wheat Booster Station, are detailed in Table 2.1 and Table 2.2. The Wittmann Booster Station is located in Pressure Zone 1 will be expanded and remain a part of the regional storage and booster pumping solution. The Wheat Booster Station is located in Pressure Zone 2 and will be abandoned when the small Wheat distribution system is interconnected with the regional distribution system.

A new storage and booster station is planned on to be located within the Walden Ranch project to provide service to the Rancho Maria and Walden Ranch developments. This new facility, the Walden Ranch Booster Station, will be planned and sized to supply water not only to the Rancho Maria and Walden Ranch developments, but also to serve as a regional facility.

The Walden Ranch Booster Station will pump to both pressure zones from common storage. Fire and peaking booster pump capacity will be shared between the two pressure zones. This will be accomplished by providing fire and peaking capacity in Pressure Zone 1 with a pressure-reducing valve between the two zones to allow the capacity to be used in either pressure zone.

Pressure Zone 2 will have independent booster pumping capacity to meet approximately 90% of the peak day demand. During fire or peak flows above this level, water will be supplied through pressure reducing valve from the Pressure Zone 1 boosters.

Table 5.1 details the recommended sizing and phasing of the Wittmann and Walden Ranch Booster Stations to meet these requirements.

Table 5.1 – Sizing and Phasing of Storage and Booster Pumping Facilities

	Zone 1		Zone 2			All Zones	
	Booster Pump Capacity	Firm Pumping Capacity	Booster Pump Capacity	Zone 1 PRV Capacity	Firm Pumping Capacity	Firm Pumping Capacity	Storage
Wittmann Booster Station							
Existing Facilities	400	160				160	200,000
Future Phase	400	400				400	250,000
Total	**800**	**560**				**560**	**450,000**
Walden Ranch Booster Station							
Phase I	5,000	3,500	500	3,200	3,700	4,000	800,000
Phase II	500	500	1,000	-	1,000	1,500	800,000
Sub-Total	**5,500**	**4,000**	**1,500**	**3,200**	**4,700**	**5,500**	**1,600,000**
Study Area Total	**6,300**	**4,560**	**1,500**	**3,200**	**4,700**	**6,060**	**2,050,000**

5.2 Wells

Wells will be provided at each of the booster station sites and at remote locations connected by transmission pipelines to the booster stations. The total well capacity with the largest well out service must meet the peak day demand. Well capacity should be distributed roughly proportional to the storage capacity at each booster station with the redundant well connected to the larger Walden Ranch Booster Station.

In conjunction with expansion of the Wittmann Booster Station, a second well with a minimum capacity of 325 gpm should be constructed and connected to the Wittmann Booster Station. This will provide a total well capacity of 575 gpm or 22% of the peak day demand. This is approximately equivalent to the percentage of storage provided at the Wittmann Booster Station.

The Walden Ranch Booster Station should be developed with a total firm well capacity of 2,040 gpm. The number of wells required will vary depending upon aquifer yield. Table 5.2 provides the number of wells required to provide 2,040-gpm firm capacity at various well capacities.

Table 5.2 – Well Requirement for Walden Ranch Booster Station

Well Capacity	Wells Required
1000 gpm	3
900 gpm	4
800 gpm	4
700 gpm	4
600 gpm	5
500 gpm	5

5.3 Distribution System

Distribution system improvements should be evaluated as actual development occurs using the criteria presented in this report.

RBF Consulting (RBF) has recommended a looped 12" piping system to serve Rancho Maria and Walden Ranch. RBF modeled the system using MWHsoft's H20Map Water GIS Suite 5.0. The results of the RBF modeling, demonstrating compliance with the planning requirements presented in this report, are attached as Appendix 3.

Since both the existing Wittmann system and Wheat system are served by single wells, the distribution system to be constructed to serve Rancho Maria and Walden Ranch should be interconnected with the existing distribution systems at the earliest practical date.

5.4 Cost Estimates

Detailed cost estimates for the required storage, booster pumping and well facilities (off-site facilities) are contained in Appendix 4, Table A4.1. The total estimated cost is $8,528,650 or $1,969 per new dwelling unit.

Detailed cost estimates for the on-site facilities required for the Rancho Maria and Walden Ranch developments are contained in Appendix 4, Table A4.2.

APPENDIX 1

Detailed Planning Area Maps

6. Conclusions

The West End water system currently meets requirements for serving its small rural customer base. Significant new urban developments are planned in and near the West End Certificated area. These new developments will have water demands, including fire flow demands, in excess of those currently experienced by West End. The existing West End facilities will be inadequate to serve the new developments.

In order to meet the increased water demands of the new developments, including a proposed expansion to the West End certificated area, West End should develop a regional water storage and booster station in the Walden Ranch Development capable of pumping to both West End Pressure Zones. The new booster station should be planned and designed to provide fire flows in accordance with the 2003 International Fire Code adopted by the City of Surprise.

Since, significant growth is expected in the remaining undeveloped portions of the West End certificated area, The Walden Ranch Booster Station should be sized so that it will be able to serve the expected build-out of the Study Area. The existing Wittmann Booster Station should be expanded to accommodate the expected infill growth in and around the existing distribution system. Once the Wheat distribution system is interconnected with the main West End distribution system, the Wheat well and booster station may be abandoned.

The distribution system proposed by RBF Consulting is adequate to serve the proposed Rancho Maria and Walden Ranch developments and meets West End requirements. Future extensions to the distribution system should be planned and designed using the criteria presented in this report.

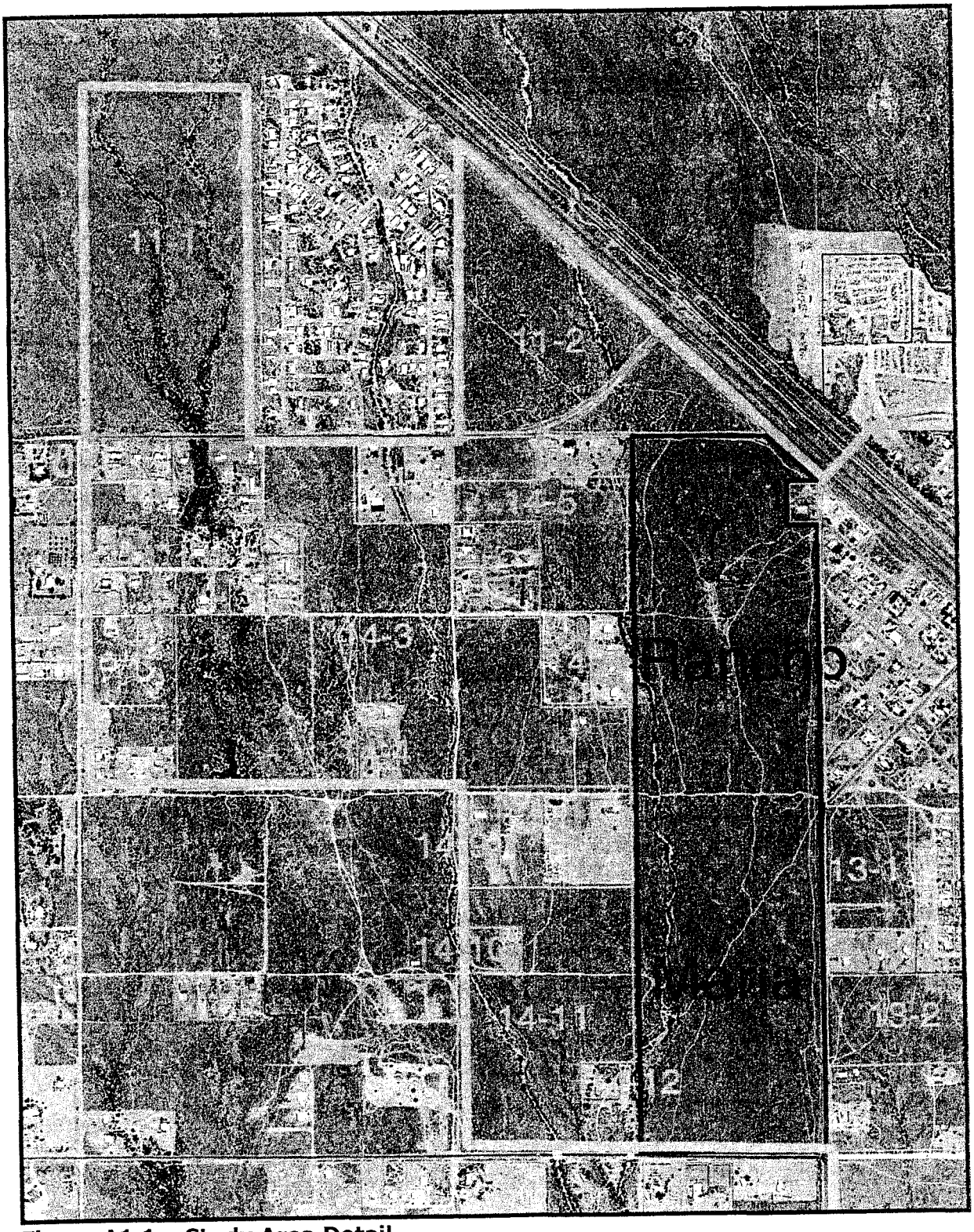


Figure A1.1 – Study Area Detail

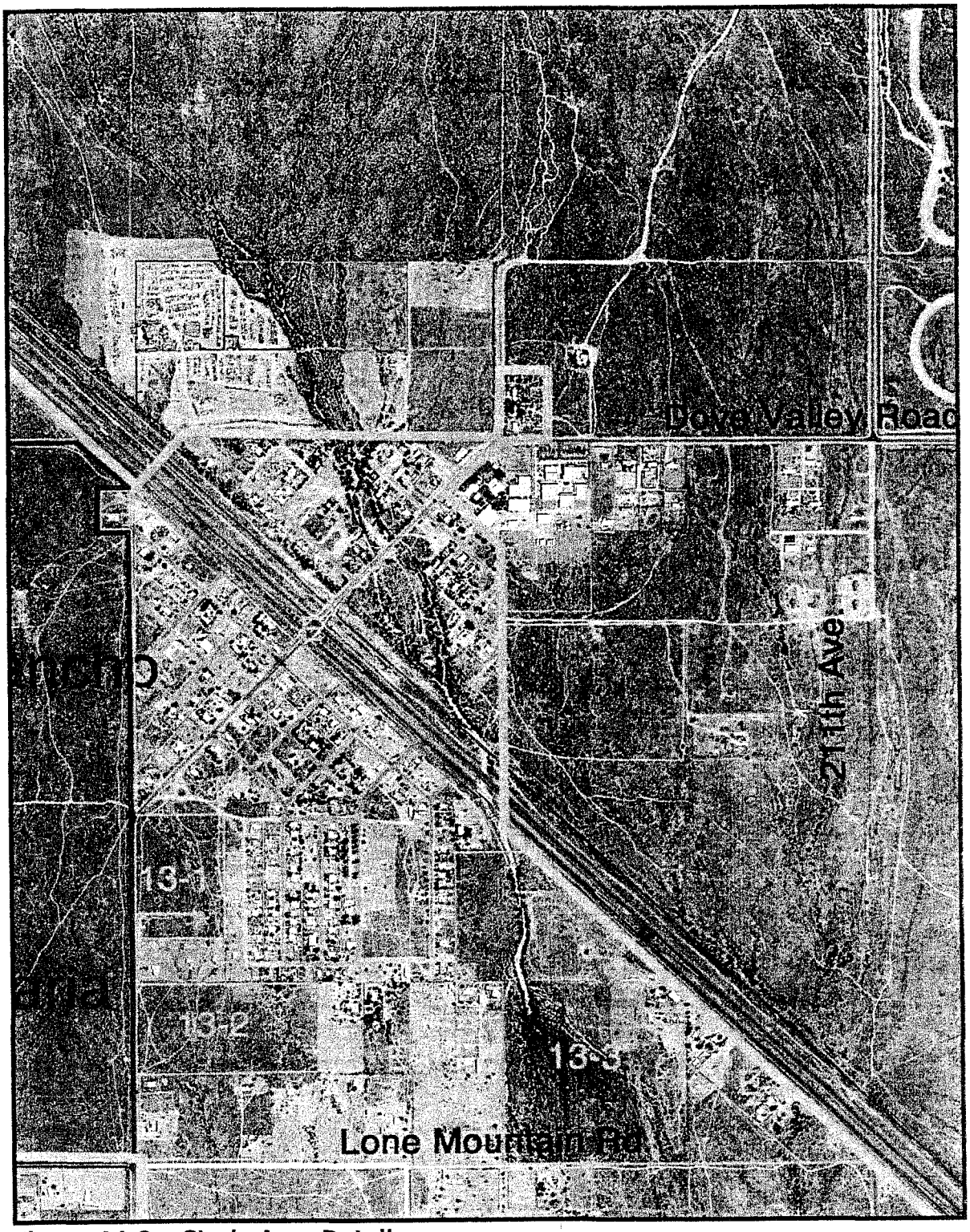


Figure A1.2 – Study Area Detail

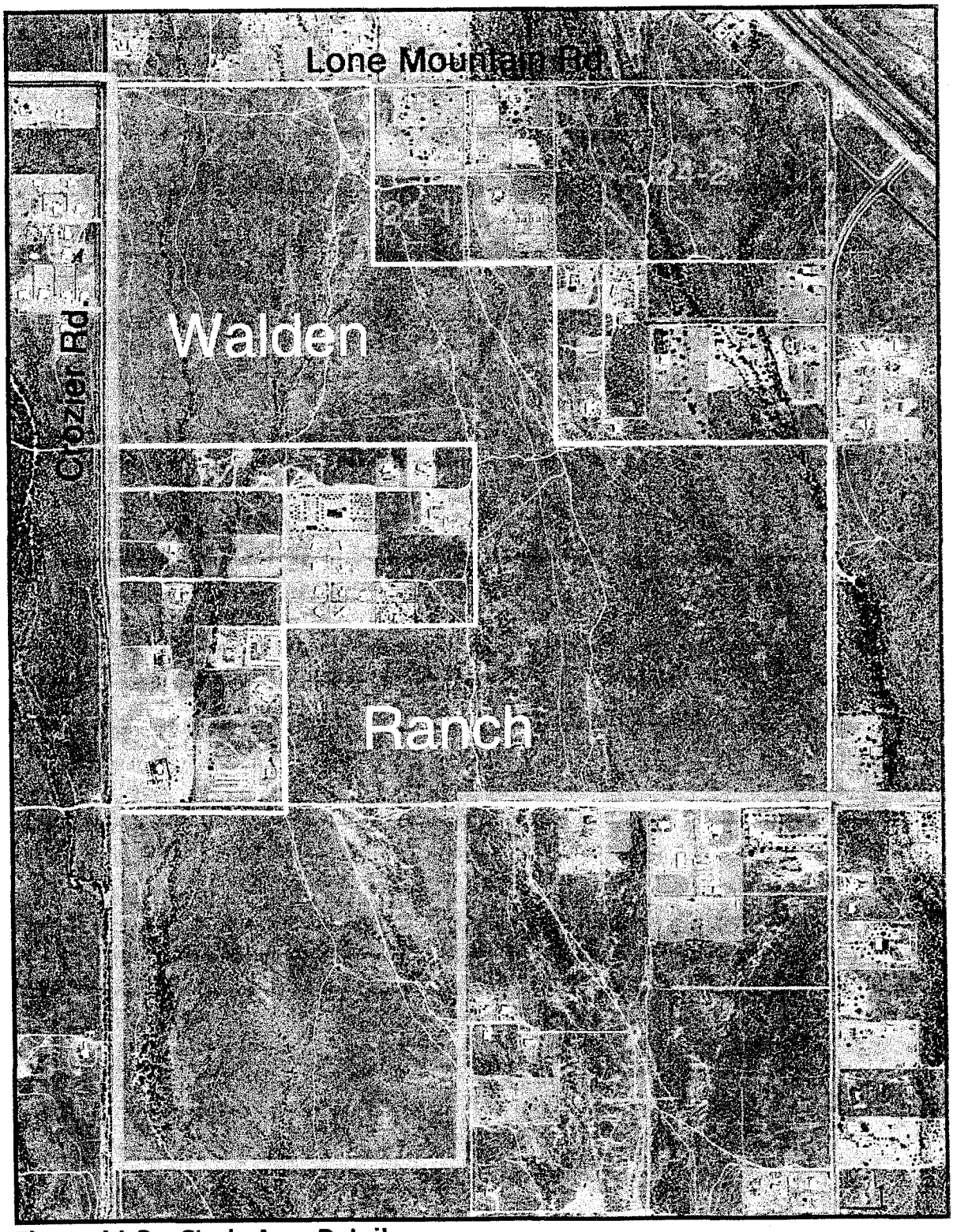


Figure A1.3 – Study Area Detail

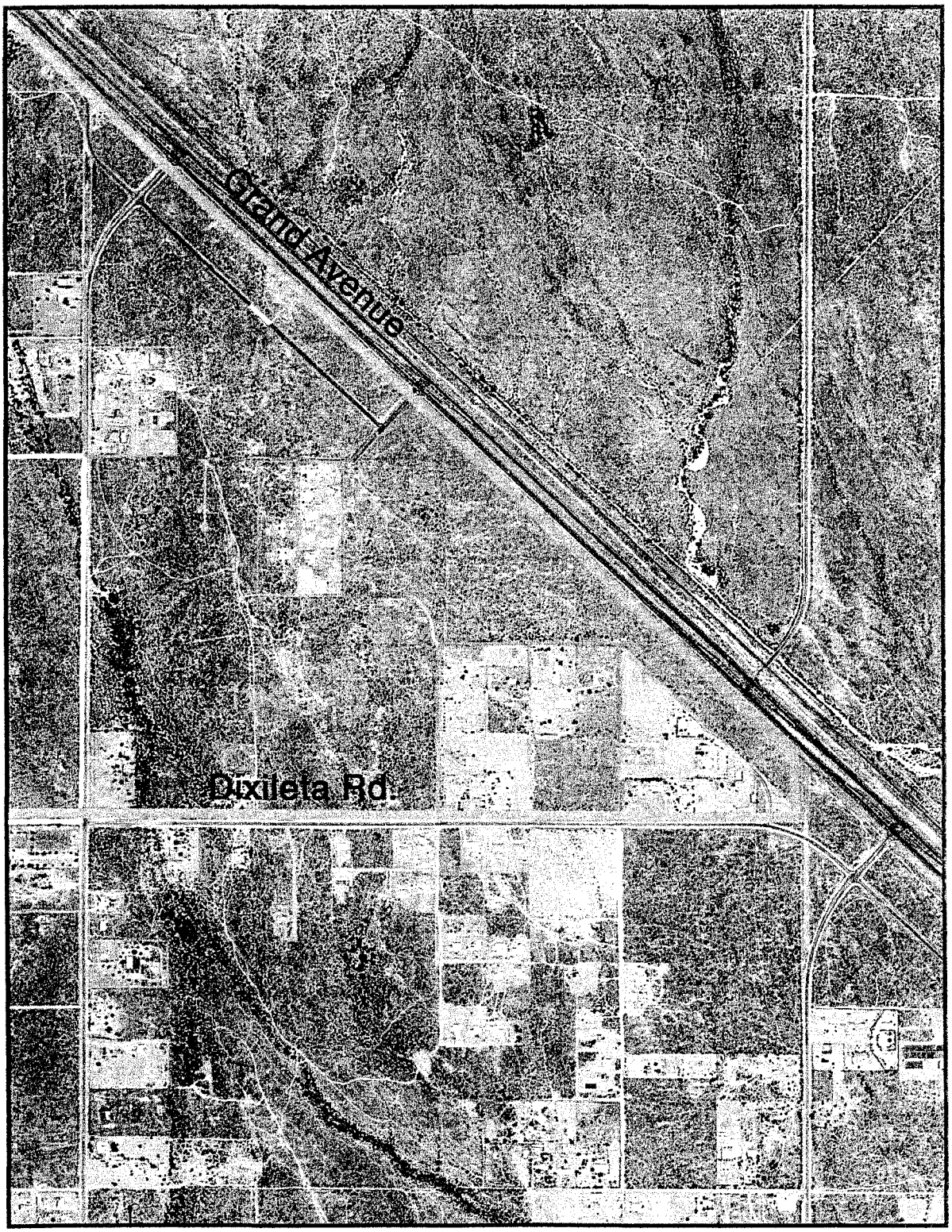


Figure A1.4 – Study Area Detail

APPENDIX 2

Detailed Planning and Demand Calculations

Table A3.1 — Water Master Planning Factors

Population and Demand Factors

Land Use	Housing Density (du/Acre)	Pop Density (capita/DU)	Demand (per day) Gallons Per Capita	Gallons Per	Unit	Fire Requirement
EXIST WE	0.8	3.0	-	330	Dwelling Unit	N/A
LDR	2.0	3.0	150	-	Dwelling Unit	Residential
MDR	3.0	3.0	150	-	Dwelling Unit	Residential
DRY LOT	0.8	3.0	-	-	Dwelling Unit	N/A
COMM			-	1,700	Acre	Commercial
SCHOOL				3,000	Acre	Commercial
PARK				4,000	Acre	N/A
EMP				1,700	Acre	Commercial

Peaking Factors

1.8 = Peak Day Factor (PDF) — Peak Day = PDF * Avg Day

3.0 = Peak Hour Factor (PHF) — Peak Hour = PHF * Avg Day

Storage Factors

40% = Equalization Factor

Operational = Equalization Factor * Peak Day

Fire = Fire Flow * Duration

Fire Flows

Requirement	Flow		Duration	
Commercial	3,000	gpm	3	hours
Residential	1,750	gpm	2	hours
N/A	0	gpm	0	hours

Table A3.2 — Analysis of Existing Service Area

Parcel	Pressure Zone	Land Use	Acres	Dwelling Units / Other	Pop Density (capita/DU)	Population	Demand Per Capita	Demand Per Other	Demands (gpd) Avg Day	Demands (gpd) Peak Day	Demands (gpd) Peak Hour	Demands (gpm) Avg Day	Demands (gpm) Peak Day	Demands (gpm) Fire	Demands (gpm) Peak Hour	Storage (gallons) Operational	Storage (gallons) Fire
Existing	1	EXIST WE		215	3.0	645	-	330	70,950	127,710	212,850	49	89	-	148	51,084	-
Existing Wheat	2	EXIST WE		15	3.0	45	-	330	4,950	8,910	14,850	3	6	-	10	3,564	-
Infill	1	EXIST WE		100	3.0	300	-	330	33,000	59,400	99,000	23	41	-	69	23,760	-
		TOTALS	-	330		990			108,900	196,020	326,700	76	136	-	227	78,408	-
												Peak Day + Fire:			136	Total Storage:	78,408

Table A3.3 — **Analysis of Growth Areas**

Parcel	Pressure Zone	Land Use	Acres	Dwelling Units / Other	Pop Density (capita/DU)	Population	Demand Per Capita	Demand Per Other	Demands Avg Day (gpd)	Demands Peak Day (gpd)	Demands Peak Hour (gpd)	Demands Avg Day (gpm)	Demands Peak Day (gpm)	Demands Fire (gpm)	Demands Peak Hour (gpm)	Storage Operational (gallons)	Storage Fire (gallons)
11-1	1	LDR	80	160	3.0	480	150	-	72,000	129,600	216,000	50	90	1,750	150	51,840	210,000
11.2	1	MDR	65	195	3.0	585	150	-	87,750	157,950	263,250	61	110	1,750	183	63,180	210,000
14-1	1	DRY LOT	65	52	3.0	156	-	-	-	-	-	-	-	-	-	-	-
14.2	1	DRY LOT	10	6	3.0	18	-	-	-	-	-	-	-	-	-	-	-
14-3	1	LDR	80	160	3.0	480	150	-	72,000	129,600	216,000	50	90	1,750	150	51,840	210,000
14-4	1	DRY LOT	5	1	3.0	3	-	-	-	-	-	-	-	-	-	-	-
14-5	1	MDR	25	75	3.0	225	150	-	33,750	60,750	101,250	23	42	1,750	70	24,300	210,000
14-6	1	MDR	30	90	3.0	270	150	-	40,500	72,900	121,500	28	51	1,750	84	29,160	210,000
14-7	1	DRY LOT	10	1	3.0	3	-	-	-	-	-	-	-	-	-	-	-
14-8	1	DRY LOT	10	8	3.0	24	-	-	-	-	-	-	-	-	-	-	-
14-9	1	DRY LOT	5	1	3.0	3	-	-	-	-	-	-	-	-	-	-	-
14-10	1	DRY LOT	4	3	3.0	10	-	-	-	-	-	-	-	-	-	-	-
14-11	1	LDR	53	106	3.0	318	150	-	47,700	85,860	143,100	33	60	1,750	99	34,344	210,000
14-12	1	DRY LOT	3	1	3.0	3	-	-	-	-	-	-	-	-	-	-	-
Rancho Maria	1	MDR	117	383	3.0	1,149	150	-	172,350	310,230	517,050	120	215	1,750	359	124,092	210,000
Rancho Maria	1	COMM	23	-	-	-	-	1,700	39,100	70,380	117,300	27	49	3,000	81	28,152	540,000
13-1	1	MDR	15	45	3.0	135	150	-	20,250	36,450	60,750	14	25	1,750	42	14,580	210,000
13-2	1	MDR	20	60	3.0	180	150	-	27,000	48,600	81,000	19	34	1,750	56	19,440	210,000
13-3	1	MDR	55	165	3.0	495	150	-	74,250	133,650	222,750	52	93	1,750	155	53,460	210,000
24-1	2	MDR	10	30	3.0	90	150	-	13,500	24,300	40,500	9	17	1,750	28	9,720	210,000
24-2	2	MDR	75	225	3.0	675	150	-	101,250	182,250	303,750	70	127	1,750	211	72,900	210,000
24-3	2	DRY LOT	50	7	3.0	21	-	-	-	-	-	-	-	-	-	-	-
24-4	2	DRY LOT	120	30	3.0	90	-	-	-	-	-	-	-	-	-	-	-
Walden Ranch	2	MDR	485	1,685	3.0	5,055	150	-	758,250	1,364,850	2,274,750	527	948	1,750	1,580	545,940	210,000
Walden Ranch	2	COMM	10	-	-	-	-	1,700	17,000	30,600	51,000	12	21	3,000	35	12,240	540,000
Walden Ranch	2	COMM	7.5	-	-	-	-	1,700	12,750	22,950	38,250	9	16	3,000	27	9,180	540,000
Walden Ranch	2	PARK	7.5	-	-	-	-	4,000	30,000	54,000	90,000	21	38	-	63	21,600	-
Walden Ranch	2	SCHOOL	12	-	-	-	-	3,000	36,000	64,800	108,000	25	45	3,000	75	25,920	540,000
19-1	2	DRY LOT	8	6	3.0	19	-	-	-	-	-	-	-	-	-	-	-
19-2	2	MDR	243	729	3.0	2,187	150	-	328,050	590,490	984,150	228	410	1,750	683	236,196	210,000
19-3	2	DRY LOT	8	6	3.0	19	-	-	-	-	-	-	-	-	-	-	-
		TOTALS	1,711	4,231		12,693			1,983,450	3,570,210	5,950,350	1,377	2,479	3,000	4,132	1,428,084	540,000
													Peak Day + Fire:		5,479	Total Storage:	1,968,084

Table A3.4 — **Summary West End Service Area**

Parcel	Land Use	Acres	Dwelling Units / Other	Pop Density (capita/DU)	Population	Demand Per Capita	Demand Per Other	Demands Avg Day (gpd)	Demands Peak Day (gpd)	Demands Peak Hour (gpd)	Demands Avg Day (gpm)	Demands Peak Day (gpm)	Demands Fire (gpm)	Demands Peak Hour (gpm)	Storage Operational (gallons)	Storage Fire (gallons)
Existing Areas		-	330	-	990	-	-	108,900	196,020	326,700	76	136	-	227	78,408	-
Growth Areas		1,711	4,231	-	12,693	-	-	1,983,450	3,570,210	5,950,350	1,377	2,479	3,000	4,132	1,428,084	540,000
	TOTALS	1,711	4,561		13,683			2,092,350	3,766,230	6,277,050	1,453	2,615	3,000	4,359	1,506,492	540,000
												Peak Day + Fire:		5,615	Total Storage:	2,046,492

Table A3.5 — **Summary West End Service Area**

Pressure Zone	Land Use	Acres	Dwelling Units / Other	Pop Density (capita/DU)	Population	Demand Per Capita	Demand Per Other	Demands Avg Day (gpd)	Demands Peak Day (gpd)	Demands Peak Hour (gpd)	Demands Avg Day (gpm)	Demands Peak Day (gpm)	Demands Fire (gpm)	Demands Peak Hour (gpm)	Storage Operational (gallons)	Storage Fire (gallons)
Zone 1		675	1,827	60	5,482	-	-	790,600	1,423,080	2,371,800	549	988	3,000	1,647	569,232	540,000
Zone 2		1,036	2,734	27	8,201	-	-	1,301,750	2,343,150	3,905,250	904	1,627	3,000	2,712	937,260	540,000
	TOTALS	1,711	4,561		13,683			2,092,350	3,766,230	6,277,050	1,453	2,615	3,000	4,359	1,506,492	540,000
											Peak Day + Fire Zone 1		3,988		Total Storage	2,046,492
											Peak Day + Fire Zone 2		4,627			

APPENDIX 3

Results of RBF Consulting Distribution System Modeling

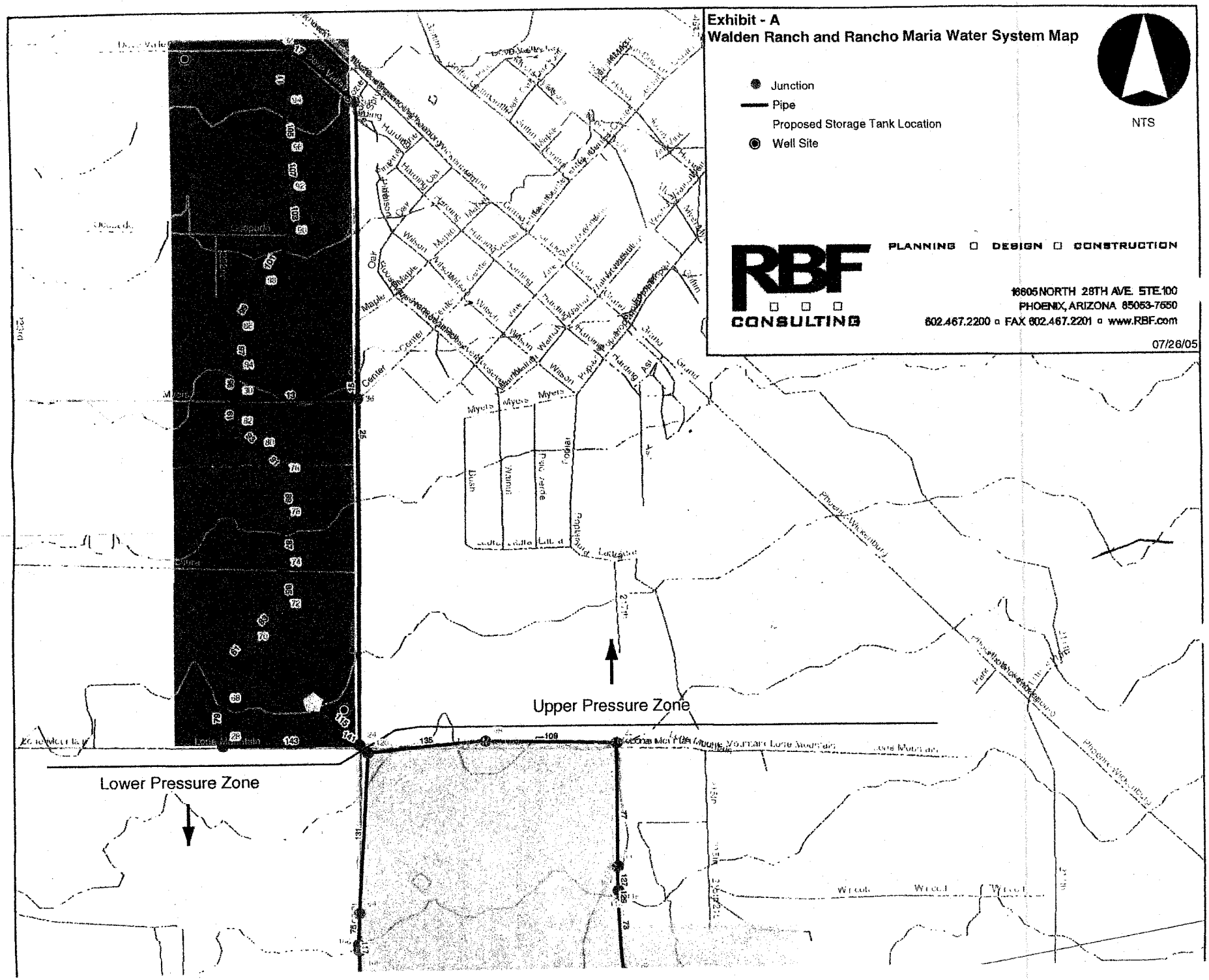
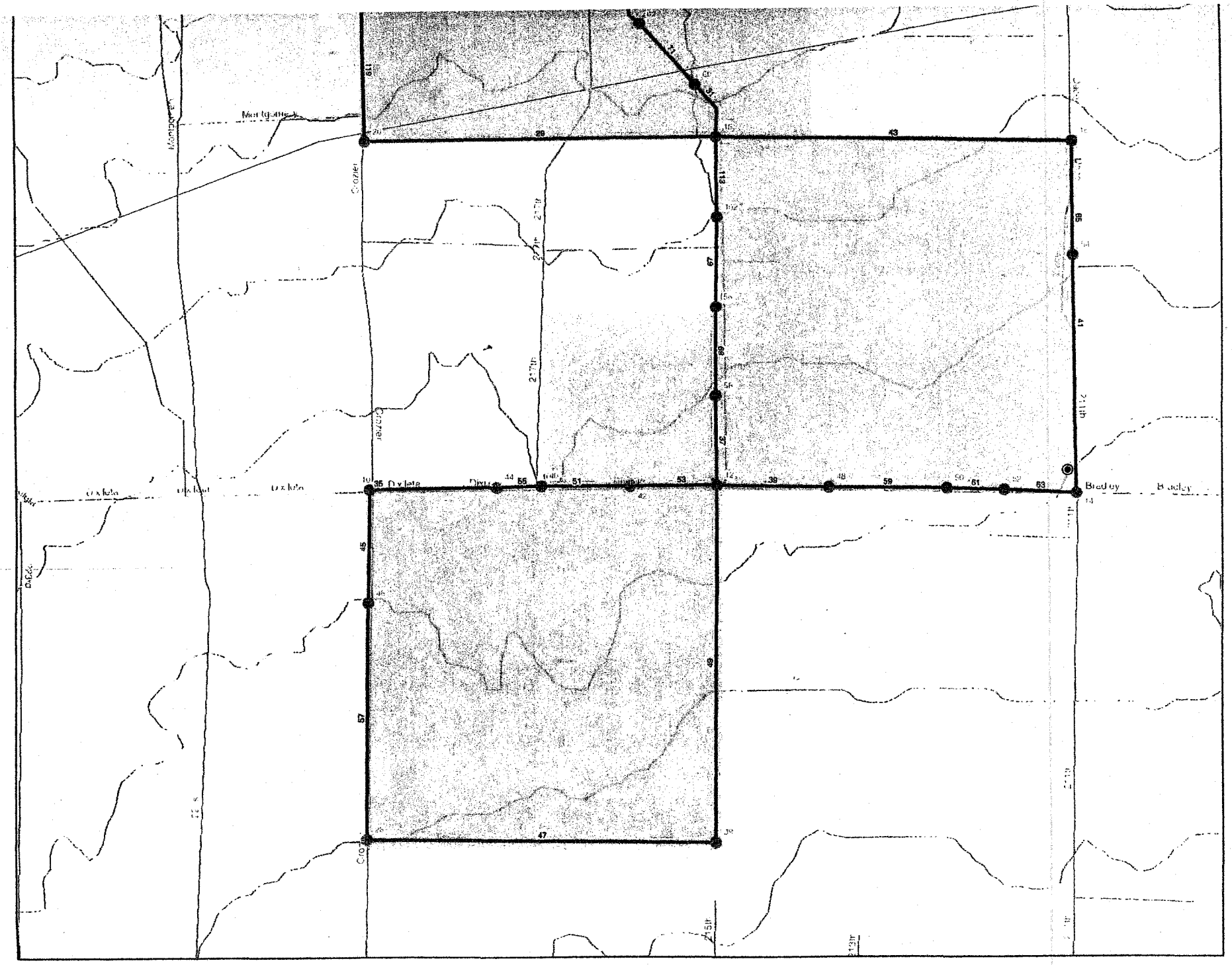


Exhibit - A
Walden Ranch and Rancho Maria Water System Map
Junction
Pipe
Proposed Storage Tank Location
Well Site
NTS
RBF CONSULTING
PLANNING □ DESIGN □ CONSTRUCTION
16605 NORTH 28TH AVE. STE.100
PHOENIX, ARIZONA 85053-7550
602.467.2200 ▫ FAX 602.467.2201 ▫ www.RBF.com
07/26/05
Upper Pressure Zone
Lower Pressure Zone


Montgomery
Crozier
Oxlota
Dixie
Bradley
Bradley

Appendix B

Average Day Demands H2OMap Water Results

Scenario: Average Day Demand
Steady State Analysis
Junction Report

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
10	4.44	1,605.81	1,796.22	82.50
102	26.00	1,619.81	1,796.75	76.67
106	0.00	1,640.00	1,803.94	71.04
108	0.00	1,640.00	1,796.99	68.02
114	0.00	1,640.44	1,798.84	68.63
116	0.00	1,639.42	1,798.72	69.02
12	8.88	1,605.07	1,796.31	82.87
120	0.00	1,652.38	1,803.95	65.68
14	0.00	1,599.08	1,796.41	85.50
16	0.00	1,617.14	1,796.65	77.78
18	0.00	1,626.64	1,796.99	73.81
20	0.00	1,625.91	1,796.99	74.13
22	13.33	1,649.94	1,800.28	65.14
24	13.02	1,653.97	1,849.93	84.91
26	0.00	1,590.15	1,796.25	89.30
28	0.00	1,655.98	1,849.88	84.02
30	0.00	1,678.42	1,849.83	74.27
32	26.90	1,695.00	1,849.81	67.08
34	0.00	1,700.00	1,849.82	64.92
36	0.00	1,678.59	1,849.84	74.20
38	8.88	1,584.42	1,796.27	91.80
40	133.11	1,610.03	1,796.21	80.67
42	48.89	1,605.98	1,796.25	82.44
44	27.56	1,607.23	1,796.21	81.89
46	10.70	1,599.69	1,796.23	85.16
48	40.22	1,603.79	1,796.32	83.42
50	46.22	1,602.78	1,796.34	83.87
52	20.83	1,601.76	1,796.37	84.32
54	49.00	1,611.69	1,796.54	80.10
56	109.42	1,614.71	1,796.51	78.78
58	32.22	1,609.27	1,796.40	81.08
60	31.33	1,631.12	1,797.40	72.05
62	51.56	1,635.93	1,798.03	70.24
64	35.11	1,640.00	1,803.94	71.04
66	43.77	1,642.09	1,799.06	68.01
68	7.11	1,659.92	1,849.87	82.31
70	9.78	1,669.04	1,849.85	78.35
72	5.78	1,663.89	1,849.84	80.57
74	11.56	1,666.66	1,849.84	79.37
76	11.11	1,671.21	1,849.83	77.40
78	10.22	1,674.10	1,849.83	76.14
80	8.44	1,675.42	1,849.83	75.57
82	11.11	1,685.00	1,849.83	71.42
84	13.33	1,680.89	1,849.82	73.20

Scenario: Average Day Demand
Steady State Analysis
Junction Report

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
86	16.00	1,683.51	1,849.82	72.06
88	12.00	1,686.94	1,849.81	70.57
90	7.11	1,691.17	1,849.81	68.74
92	16.44	1,694.91	1,849.81	67.12
94	16.00	1,700.57	1,849.81	64.67
96	16.00	1,697.78	1,849.81	65.88
98	76.89	1,654.15	1,801.61	63.90
10	4.44	1,605.81	1,796.22	82.50
102	26.00	1,619.81	1,796.75	76.67
106	0.00	1,640.00	1,803.94	71.04

Appendix C

Peak Day Demand H2OMap Water Results

Scenario: Peak Day Demand
Steady State Analysis
Junction Report

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
10	0.00	1,605.81	1,793.72	81.42
102	46.80	1,619.81	1,795.21	76.00
106	0.00	1,640.00	1,799.48	69.10
108	0.00	1,640.00	1,799.42	69.08
114	0.00	1,640.44	1,797.14	67.90
116	0.00	1,639.42	1,797.05	68.30
12	15.98	1,605.07	1,793.99	81.86
120	0.00	1,652.38	1,801.97	64.82
14	0.00	1,599.08	1,794.25	84.57
16	0.00	1,617.14	1,794.94	77.04
18	0.00	1,626.64	1,795.90	73.34
20	0.00	1,625.91	1,798.36	74.72
22	23.99	1,649.94	1,798.36	64.31
24	23.44	1,653.97	1,849.81	84.85
26	0.00	1,590.15	1,793.80	88.24
28	0.00	1,655.98	1,849.64	83.91
30	0.00	1,678.42	1,849.48	74.12
32	48.42	1,695.00	1,849.44	66.92
34	0.00	1,700.00	1,849.46	64.76
36	0.00	1,678.59	1,849.52	74.06
38	15.98	1,584.42	1,793.88	90.76
40	239.60	1,610.03	1,793.70	79.59
42	88.00	1,605.98	1,793.80	81.38
44	49.60	1,607.23	1,793.71	80.80
46	19.26	1,599.69	1,793.74	84.08
48	72.40	1,603.79	1,794.00	82.42
50	83.20	1,602.78	1,794.06	82.88
52	37.50	1,601.76	1,794.13	83.36
54	88.20	1,611.69	1,794.62	79.27
56	196.96	1,614.71	1,794.55	77.93
58	42.00	1,609.27	1,794.24	80.15
60	56.39	1,631.12	1,796.13	71.50
62	92.80	1,635.93	1,796.52	69.58
64	63.20	1,640.00	1,799.71	69.20
66	78.79	1,642.09	1,797.31	67.25
68	12.80	1,659.92	1,849.61	82.19
70	17.60	1,669.04	1,849.56	78.22
72	10.40	1,663.89	1,849.54	80.44
74	20.80	1,666.66	1,849.52	79.23
76	20.00	1,671.21	1,849.50	77.26
78	18.40	1,674.10	1,849.49	76.00
80	15.20	1,675.42	1,849.49	75.43
82	20.00	1,685.00	1,849.49	71.27
84	24.00	1,680.89	1,849.47	73.05

Scenario: Peak Day Demand
Steady State Analysis
Junction Report

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
86	28.80	1,683.51	1,849.46	71.90
88	21.60	1,686.94	1,849.45	70.41
90	12.80	1,691.17	1,849.44	68.58
92	29.60	1,694.91	1,849.44	66.95
94	28.80	1,700.57	1,849.44	64.50
96	28.80	1,697.78	1,849.44	65.71
98	138.40	1,654.15	1,799.54	63.00

Appendix D

Peak Hour Demand H2OMap Water Results

Scenario: Peak Hour Demand
Steady State Analysis
Junction Report

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
10	0.00	1,605.81	1,797.95	83.25
102	26.00	1,619.81	1,798.38	77.38
106	0.00	1,640.00	1,804.14	71.12
108	0.00	1,640.00	1,798.58	68.71
114	0.00	1,640.44	1,800.09	69.18
116	0.00	1,639.42	1,799.99	69.58
12	0.00	1,605.07	1,798.04	83.61
120	0.00	1,652.38	1,804.15	65.76
14	0.00	1,599.08	1,798.11	86.24
16	0.00	1,617.14	1,798.30	78.50
18	0.00	1,626.64	1,798.58	74.50
20	0.00	1,625.91	1,798.58	74.82
22	0.00	1,649.94	1,801.26	65.56
24	0.00	1,653.97	1,849.96	84.92
26	0.00	1,590.15	1,797.98	90.05
28	0.00	1,655.98	1,849.91	84.03
30	0.00	1,678.42	1,849.87	74.29
32	0.00	1,695.00	1,849.87	67.10
34	0.00	1,700.00	1,849.87	64.94
36	0.00	1,678.59	1,849.88	74.22
38	0.00	1,584.42	1,798.01	92.55
40	133.11	1,610.03	1,797.94	81.42
42	48.89	1,605.98	1,797.98	83.19
44	27.56	1,607.23	1,797.94	82.64
46	10.70	1,599.69	1,797.96	85.91
48	31.33	1,603.79	1,798.04	84.17
50	32.89	1,602.78	1,798.06	84.62
52	20.83	1,601.76	1,798.08	85.07
54	49.00	1,611.69	1,798.21	80.82
56	109.42	1,614.71	1,798.19	79.50
58	23.33	1,609.27	1,798.10	81.82
60	18.00	1,631.12	1,798.93	72.71
62	51.56	1,635.93	1,799.43	70.84
64	35.11	1,640.00	1,804.14	71.12
66	33.56	1,642.09	1,800.27	68.54
68	7.11	1,659.92	1,849.90	82.32
70	9.78	1,669.04	1,849.89	78.36
72	5.78	1,663.89	1,849.89	80.59
74	11.56	1,666.66	1,849.88	79.39
76	11.11	1,671.21	1,849.88	77.42
78	10.22	1,674.10	1,849.88	76.16
80	8.44	1,675.42	1,849.87	75.59
82	11.11	1,685.00	1,849.87	71.44
84	13.33	1,680.89	1,849.87	73.22

Scenario: Peak Hour Demand
Steady State Analysis
Junction Report

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
86	16.00	1,683.51	1,849.87	72.08
88	12.00	1,686.94	1,849.87	70.59
90	7.11	1,691.17	1,849.87	68.76
92	16.44	1,694.91	1,849.86	67.14
94	16.00	1,700.57	1,849.87	64.69
96	16.00	1,697.78	1,849.86	65.90
98	76.89	1,654.15	1,802.29	64.19

Appendix F

Fire Flow Analysis H2OMap Water Results

Note: The available flows in this section are not representative. The actual system will only be able to supply a flow equal to the capacity of the booster pump(s) that are running at the time of the fire event.

Scenario: Fire Flow Analysis
Junction Report

ID	Static Demand (gpm)	Static Pressure (psi)	Fire Flow Demand (gpm)	Residual Pressure (psi)	Available Flow @ Hydrant (gpm)	Available Flow Pressure (psi)
10	0.00	81.42	3,000.00	24.49	3,148.32	20.10
102	46.80	76.00	3,000.00	38.86	3,992.04	20.16
106	0.00	69.10	3,000.00	45.87	4,895.73	20.24
108	0.00	69.08	3,000.00	45.62	4,863.19	20.24
12	15.98	81.86	3,000.00	35.84	3,662.49	20.13
14	0.00	84.57	3,000.00	36.85	3,649.30	20.13
16	0.00	77.04	3,000.00	33.10	3,553.83	20.13
18	0.00	73.34	3,000.00	41.49	4,233.71	20.18
20	0.00	74.72	3,000.00	47.67	4,753.10	20.23
22	23.99	64.31	3,000.00	39.50	4,431.33	20.19
24	23.44	84.85	3,000.00	80.13	13,192.21	21.73
26	0.00	88.24	3,000.00	29.22	3,288.92	20.11
28	0.00	83.91	3,000.00	71.68	7,638.10	20.58
30	0.00	74.12	3,000.00	58.93	6,217.70	20.39
32	48.42	66.92	3,000.00	45.47	4,736.88	20.22
34	0.00	64.76	3,000.00	43.68	4,606.59	20.21
36	0.00	74.06	3,000.00	59.53	6,363.88	20.40
38	15.98	90.76	3,000.00	34.43	3,485.42	20.12
40	239.60	79.59	3,000.00	25.86	3,447.39	20.10
42	88.00	81.38	3,000.00	30.76	3,490.77	20.12
44	49.60	80.80	3,000.00	26.02	3,257.85	20.10
46	19.26	84.08	3,000.00	25.90	3,208.65	20.10
48	72.40	82.42	3,000.00	35.18	3,672.73	20.13
50	83.20	82.88	3,000.00	35.03	3,667.10	20.13
52	37.50	83.36	3,000.00	35.47	3,635.74	20.13
54	88.20	79.27	3,000.00	33.42	3,630.62	20.13
56	196.96	77.93	3,000.00	36.82	3,964.38	20.14
58	42.00	80.15	3,000.00	36.30	3,739.63	20.14
60	56.39	71.50	3,000.00	40.27	4,242.92	20.18
62	92.80	69.58	3,000.00	39.46	4,270.60	20.17
64	63.20	69.20	3,000.00	46.95	5,105.99	20.25
66	78.79	67.25	3,000.00	39.32	4,329.26	20.18
68	12.80	82.19	3,000.00	69.21	7,293.93	20.53
70	17.60	78.22	3,000.00	64.10	6,721.40	20.45
72	10.40	80.44	3,000.00	65.79	6,722.98	20.45
74	20.80	79.23	3,000.00	64.29	6,589.84	20.43
76	20.00	77.26	3,000.00	62.01	6,399.62	20.41
78	18.40	76.00	3,000.00	60.64	6,299.21	20.39
80	15.20	75.43	3,000.00	60.05	6,263.55	20.39

Scenario: Fire Flow Analysis
Junction Report

ID	Static Demand (gpm)	Static Pressure (psi)	Fire Flow Demand (gpm)	Residual Pressure (psi)	Available Flow @ Hydrant (gpm)	Available Flow Pressure (psi)
82	20.00	71.27	3,000.00	55.96	6,017.62	20.36
84	24.00	73.05	3,000.00	56.48	5,867.48	20.34
86	28.80	71.90	3,000.00	54.27	5,595.31	20.31
88	21.60	70.41	3,000.00	51.52	5,280.82	20.28
90	12.80	68.58	3,000.00	48.54	4,988.69	20.25
92	29.60	66.95	3,000.00	46.23	4,816.25	20.23
94	28.80	64.50	3,000.00	43.17	4,593.57	20.21
96	28.80	65.71	3,000.00	44.62	4,695.00	20.22
98	138.40	63.00	3,000.00	42.53	5,055.14	20.24

APPENDIX 4

Cost Estimates

West End Water Co.
Off-Site Facilities Cost Estimate
January 3, 2005

Table A4.1 - Off-Site Water System Cost Estimate

System Component	Size	Quantity	Unit	Unit Cost	Cost	Total Cost (1)
Wittmann Booster Station						
Storage Tank	250,000 gallon	1	ea	$ 187,500	$ 187,500	$ 243,750
Booster Pump	200 gpm	2	ea	$ 7,500	$ 15,000	$ 19,500
Electrical / Controls		1	lot	$ 15,000	$ 15,000	$ 19,500
Subtotal						$ 282,750
Wittmann Well						
Well Drilled and Cased	12"	1	ea	$ 405,000	$ 405,000	$ 526,500
Well Pump and Equip.	325 gpm	1	ea	$ 75,000	$ 75,000	$ 97,500
Well Site Electrical		1	lot	$ 75,000	$ 75,000	$ 97,500
Site Work		1	lot	$ 40,000	$ 40,000	$ 52,000
Land		1	lot	$ 20,000	$ 20,000	$ 26,000
Well Transmision Main	6" diameter	2,100	lf	$ 30.00	$ 63,000	$ 81,900
Subtotal						$ 881,400
Walden Ranch Booster Station						
Storage Tank	800,000 gal	2	ea	$ 425,000	$ 850,000	$ 1,105,000
Hydopneumatioc Tank	10,000 gal	2	ea	$ 40,000	$ 80,000	$ 104,000
3-Phase Service Entrance		1	lot	$ 125,000	$ 125,000	$ 162,500
Electrical and Controls		1	lot	$ 200,000	$ 200,000	$ 260,000
Generator		1	ea	$ 75,000	$ 75,000	$ 97,500
Booster Pump	1,500 gpm	3	ea	$ 22,000	$ 66,000	$ 85,800
Booster Pump	500 gpm	5	ea	$ 12,000	$ 60,000	$ 78,000
Chlorination Equipment		1	ea	$ 40,000	$ 40,000	$ 52,000
Piping		1	lot	$ 500,000	$ 500,000	$ 650,000
Site Work and Fencing		1	lot	$ 200,000	$ 200,000	$ 260,000
Subtotal						$ 2,854,800
Walden Ranch Wells						
Well Drilled and Cased	16"	3	ea	$ 600,000	$ 1,800,000	$ 2,340,000
Well Pump and Equip.	1,000 gpm	3	ea	$ 200,000	$ 600,000	$ 780,000
Well Site Electrical		3	lot	$ 150,000	$ 450,000	$ 585,000
Site Work		3	lot	$ 120,000	$ 360,000	$ 468,000
Land		1	lot	$ 25,000	$ 25,000	$ 32,500
Well Transmision Main	12" diameter	5,200	lf	$ 45.00	$ 234,000	$ 304,200
Subtotal						4,509,700.00
(1) Includes 30% for Engineering Overhead and Contingency			**Total Estimate Off-Site Cost**			**$ 8,528,650**
			Total Estimated New Dwelling Units			**4,331**
			Estimated Cost per Dwelling Unit			**$ 1,969**

West End Water Co.
On-Site Facilities Cost Estimate
Rancho Maria and Walden Ranch Developments
January 3, 2005

Table A4.2 - On-Site Water System Cost Estimate

System Component	Size	Quantity	Unit	Unit Cost	Cost	Total Cost (1)
Rancho Maria Development						
Backbone Mains	12" Diameter	13,464	ea	$ 45	$ 605,880	$ 787,644
Subdivison Mains	per lot	383	lots	$ 850	$ 325,550	$ 423,215
Services	per lot	383	lots	$ 200	$ 76,600	$ 99,580
Meters and Meter Installations	per lot	383	lots	$ 200	$ 76,600	$ 99,580
Hydrants	per lot	383	lots	$ 200	$ 76,600	$ 99,580
Subtotal						$ 1,509,599
			Estimated Cost per Dwelling Unit			**$ 3,942**
Walden Ranch Development						
Backbone Mains	12" Diameter	31,152	ea	$ 45	$ 1,401,840	$ 1,822,392
Subdivison Mains	per lot	1,685	lots	$ 850	$ 1,432,250	$ 1,861,925
Services	per lot	1,685	lots	$ 200	$ 337,000	$ 438,100
Meters and Meter Installations	per lot	1,685	lots	$ 200	$ 337,000	$ 438,100
Hydrants	per lot	1,685	lots	$ 200	$ 337,000	$ 438,100
Subtotal						$ 4,998,617
			Estimated Cost per Dwelling Unit			**$ 2,967**

WITTMAN 510, LLC
8501 N. Scottsdale Road, Suite 165
Scottsdale, Arizona 85253
(480) 947-5900 Phone (480) 947-5900 Fax

EXHIBIT 2

March 03, 2005

Marvin E. Collins
West End Water Co.
9098 W. Pinnacle Peak Rd.
Peoria, AZ 85383

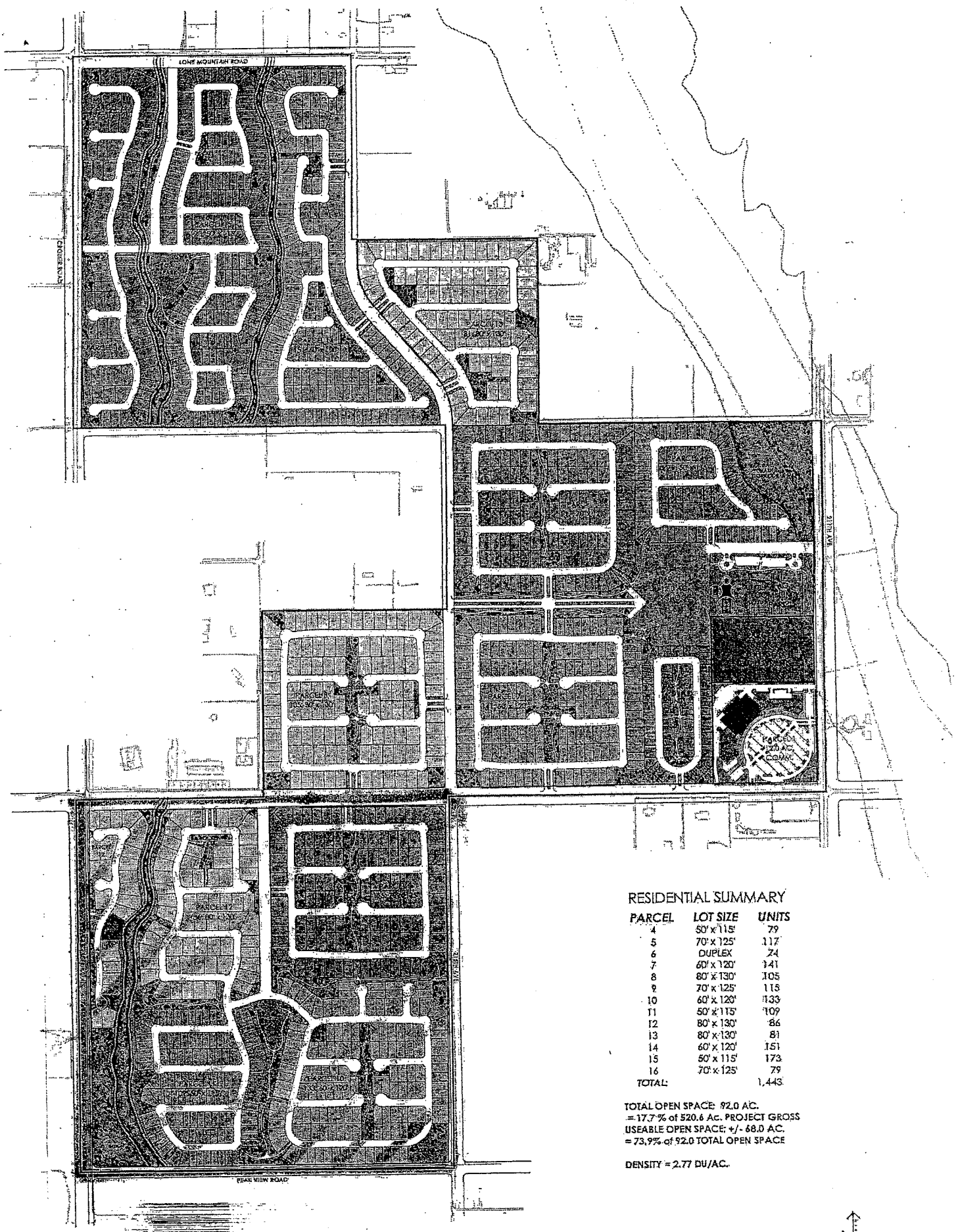
RE: Request for Water Service

Dear Marvin,

Wittman 510 L.L.C., along with the other developers we met with last week, will be initiating the master water studies for service within your certificated service area for our projects. Please have this letter serve as our request for water service for the area referenced on the attached exhibit contiguous to your service area and currently outside to your existing service area.

Sincerely,

Gary K. Jones
602-625-9052



RESIDENTIAL SUMMARY

PARCEL	LOT SIZE	UNITS
4	50' x 115'	79
5	70' x 125'	117
6	DUPLEX	24
7	60' x 120'	141
8	80' x 130'	105
9	70' x 125'	115
10	60' x 120'	133
11	50' x 115'	109
12	80' x 130'	86
13	80' x 130'	81
14	60' x 120'	151
15	50' x 115'	173
16	70' x 125'	79
TOTAL:		1,443

TOTAL OPEN SPACE: 92.0 AC.
= 17.7 % of 520.6 Ac. PROJECT GROSS
USEABLE OPEN SPACE: +/- 68.0 AC.
= 73.9% of 92.0 TOTAL OPEN SPACE

DENSITY = 2.77 DU/AC.

WALDEN RANCH
CONCEPTUAL LOTTING PLAN

SCALE 1" = 200'
AUGUST 30, 2004

GREEY|PICKETT

March 3, 2005

COMMISSIONERS
JEFF HATCH-MILLER- Chairman
WILLIAM MUNDELL
MARC SPITZER
MIKE GLEASON
KRISTIN K. MAYES

ARIZONA CORPORATION COMMISSION

BRIAN C. MCNEIL
Executive Director

RECEIVED
2006 FEB -3 P 4: 39
AZ CORP COMMISSION
DOCUMENT CONTROL

February 3, 2006

RECEIVED
FEB - 7 2006

EXHIBIT
A-12
Admitted

J. Scott Rhodes
Jennings, Strouss & Salmon, P.L.C.
The Collier Center, 11th Floor
201 East Washington Street
Phoenix, Arizona 85004-2385

RE: West End Water Company – Application for Extension of its Certificate of Convenience and Necessity (CC&N) Docket No. W-01157A-05-0706
SUFFICIENCY LETTER

Dear Sir:

In reference to the above mentioned application filed on October 5, 2005, and the supporting documents filed on January 4, 2006, and January 30, 2006, this letter is to inform you that the application has met the sufficiency requirements as outlined in the Arizona Administrative Code ("A.A.C.").

Pursuant to the A.A.C. R14-2-411(C), the Commission has 150 calendar days for its substantive review. This includes conducting a hearing and preparing a proposed Opinion and Order to present to the Commission at an Open Meeting.

If you have any questions concerning this matter, please do not hesitate to contact me at 602-542-0840 and Dorothy Hains at 602-542-7274.

Very truly yours,

Blessing N. Chukwu
Executive Consultant III

BNC
cc: Docket Control
Del Smith
Lyn Farmer
Brian Bozzo
Vicki Wallace

ORIGINAL

WEST END WATER CO.

9098 W. Pinnacle Peak Road
Peoria, Arizona 85383
Phone: (623) 972-6133
Fax: (623) 566-8925

RECEIVED

2006 JAN 30 P 1: 22

AZ CORP COMMISSION
DOCUMENT CONTROL

EXHIBIT
A-13
Admitted

January 30,2006

Docket Control
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, AZ 85007

Re: West End Water Co. - Application for Extension of its Certificate of Convenience ~~and Necessity (CC&N), Docket No. W-01157A-05-0706~~

Dear Madam/Sir:

The purpose of this letter is to address the issues raised in our meeting with Ms. Blessing Chukwu and Ms. Dorothy Hains on January **23,2006.**

1. Please find enclosed a copy of a construction schedule titled, "Facilities Phasing Analysis," prepared by Aricor Water Solutions. This construction schedule is West End's plan for expansion of the West End water system to allow it to serve its existing customer base, the proposed Walden Ranch development (including the **443** proposed connections in the requested CC&N expansion area) and additional growth anticipated in the portion of the West End service area south of Grand Avenue. The construction schedule indicates the timing for additional wells, storage and booster pumping facilities.

2. Please find enclosed a summary of steps taken to date by West End Water Co. to reduce unaccounted for water loss.

3. Wastewater service to the area will be supplied by the City of Surprise. The area is within the City of Surprise MAG 208 planning area.

4. West End Water Co. is the water company best suited to provide water service to the requested certificate extension area because:

    a. The expansion area is contiguous to West End's service area and is part of the master planned community of Walden Ranch. The proposed extension area represents approximately 30% of Walden Ranch with approximately 70% of Walden Ranch being in the current CC&N of West End Water Co. Only with West End Water Co. **as** the water provider for the certificate expansion area will all customers in Walden Ranch have the same water provider, thereby avoiding consumer confusion and water rate inequities among Walden Ranch residents.

    b. Only West End Water Co. has received a request for service from the developers of Walden Ranch.

c. In anticipation of rapid growth in its certificated area, West End Water Co. has prepared a comprehensive water master plan for the portion of its service area south of Grand Avenue, including the requested certificate expansion area. The water master plan provides for an integrated water system for the existing CC&N and the requested certificate extension area, avoiding piecemeal system planning and expansion common with many small water companies. The West End Water Co, water master plan sizes water supply, storage, booster pumping and distribution facilities to meet all regulatory standards, provide appropriate system-redundancy and reliability, and to provide fire flows meeting the requirements of the 2003 International Fire Code, including a 3,000 gallon-per-minute fire flow.

d. Due to the pending development of Walden Ranch (portion within West End's CC&N) and the Rancho Maria master planned communities, West End Water Co. can economically provide the needed water supply, storage and booster pumping facilities through the incremental upsizing of facilities to be constructed to serve the Walden Ranch and Rancho Maria developments.

e. By integrating the facilities required to serve the certificate extension area with the facilities needed to serve West Water Co.'s existing certificated area, as detailed in its water master plan, significant economies of scale in both construction cost and operating cost will be experienced by West End Water Co. in the provision of water service in the certificate extension area. These economies of scale will provide significant economic benefit to the residents of Walden Ranch located in the certificate expansion area through water rate savings.

E West End Water Co. has made application to Maricopa County to expand the existing franchise area to include the expansion area. A hearing for approval is scheduled before the Maricopa County Board of Supervisors on February 1,2006.

Cordially,

Marvin E Collins
by KS

Marvin E. Collins
Manager

MEC:ks
Enc.

West End Water Company
Facilities Phasing Analysis
Prepared by Aricor Water Solutions

1/23/2 06

Table 1 - Booster Pump Requirement

	Total	2006	2007	2008	2009/2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Peak Day Requirement (gpm)																				
Existing Customers	95	95																		
Infill	41	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Walden Ranch	-																			
Residential	948			158	158	158	158	158	158											
Commercial	37					4	4	4	4	4	4	4	4	4						
Park	38				38															
School	45					45														
Rancho Maria	-																			
Residential	215			43	43	43	43	43												
Commercial	48					5	5	5	5	5	5	5	5	5						
Additional Development	1,149	-	-	-	-	-	-	-	88	88	88	88	88	88	88	88	88	88	88	88
Annual Customer Demand	2,615	97	2	203	241	257	212	212	257	99	99	99	99	99	90	90	90	90	90	90
Cumulative Peak Day Customer Demand		97	99	302	543	799	1,011	1,223	1,480	1,579	1,678	1,777	1,876	1,975	2,073	2,164	2,254	2,344	2,435	2,525	2,615
Fire Flow Requirement		250	250	1,750	1,750	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Peak Day + Fire		347	349	2,052	2,293	3,799	4,011	4,223	4,480	4,579	4,678	4,777	4,876	4,975	5,073	5,164	5,254	5,344	5,435	5,525	5,615
Firm Well Capacity Required			99	302	543	799	1,011	1,223	1,480	1,579	1,678	1,777	1,876	1,975	2,073	2,164	2,254	2,344	2,435	2,525	2,615
Firm Booster Capacity Required			349	2,052	2,293	3,799	4,011	4,223	4,480	4,579	4,678	4,777	4,876	4,975	5,073	5,164	5,254	5,344	5,435	5,525	5,615

Table 2 - Storage Requirement

	Total	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Storage Requirement (gallons)																					
Existing Customers	54,648	54,648																			
Infill	23,790	1,188	1,188	1,188	1,188	1,188	1,188	1,188	1,188	1,188	1,188	1,188	1,188	1,188	1,188	1,188	1,188	1,188	1,188	1,188	1,188
Walden Ranch	-																				
Residential	545,940			90,990	90,990	90,990	90,990	90,990	90,990												
Commercial	21,420					2,142	2,142	2,142	2,142	2,142	2,142	2,142	2,142	2,142	2,142						
Park	21,890				21,890																
School	25,920					25,920															
Rancho Maria	-																				
Residential	124,992			24,818	24,818	24,818	24,818	24,818													
Commercial	28,152					2,815	2,815	2,815	2,815	2,815	2,815	2,815	2,815	2,815	2,815						
Additional Development	660,960	-	-	-	-	-	-	-	50,843	50,843	50,843	50,843	50,843	50,843	50,843	50,843	50,843	50,843	50,843	50,843	50,843
Annual Additional Operational Storage		55,836	1,188	116,996	136,596	147,874	121,954	121,954	147,978	56,988	56,988	56,988	56,988	56,988	56,988	52,031	52,031	52,031	52,031	52,031	52,031
Cumulative Total Operational Storage			57,024	174,020	312,617	460,490	582,444	704,398	852,376	909,364	966,352	1,023,341	1,080,329	1,137,317	1,194,306	1,246,337	1,298,368	1,350,399	1,402,430	1,454,461	1,506,492
Fire Storage Requirement			30,000	210,000	210,000	540,000	540,000	540,000	540,000	540,000	540,000	540,000	540,000	540,000	540,000	540,000	540,000	540,000	540,000	540,000	540,000
Total Storage Requirement			87,024	384,020	522,617	1,000,490	1,122,444	1,244,398	1,392,376	1,449,364	1,506,352	1,563,341	1,620,329	1,677,317	1,734,306	1,786,337	1,838,368	1,890,399	1,942,430	1,994,461	2,046,492

West End Water Company
Facilities Phasing Analysis
Prepared by Aricor Water Solutions

1/23/2006

Table 3 - Well Phasing Analysis

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Well Facilities (gpm)																				
Wittman No. 1	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250
Wheat Well	25	25	25	25	25	25	25	25	25	25	25	-	-	-	-	-	-	-	-	-
Walden Ranch No. 1	-	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750
Walden Ranch No. 2	-	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750
Walden Ranch No. 3		-	-	-	-	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750
Walden Ranch No. 4	-	-	-	-	-	-	-	-	-	750	750	750	750	750	750	750	750	750	750	750
Wittman Well No. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	325	325	325	325	325
Total Well Capacity	275	1,775	1,775	1,775	1,775	2,525	2,525	2,525	2,525	3,275	3,275	3,250	3,250	3,250	3,250	3,575	3,575	3,575	3,575	3,575
Firm Well Capacity		1,025	1,025	1,025	1,025	1,775	1,775	1,775	1,775	2,525	2,525	2,500	2,500	2,500	2,500	2,825	2,825	2,825	2,825	2,825
Required Firm Well Capacity		99	302	543	799	1,011	1,223	1,480	1,579	1,678	1,777	1,876	1,975	2,073	2,164	2,254	2,344	2,435	2,525	2,615
Excess (Deficit) Well Capacity		926	723	482	226	764	552	295	196	847	748	624	525	427	336	571	481	390	300	210

Table 4 - Booster Pumping Phasing Analysis

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Booster Pumping facilities (gpm)																				
Wittman Booster Station	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
Wittman Booster Station Expansion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400	400	400	400	400
Wheat Booster Station	60	60	60	60	60	60	60	60	60	60	60	-	-	-	-	-	-	-	-	-
Walden Ranch Booster Station (PH. 1)	-	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500
Walden Ranch Booster Station (PH. 2)	-	-	-	-	-	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Total Booster Capacity	460	5,960	5,960	5,960	5,960	7,460	7,460	7,460	7,460	7,460	7,460	7,400	7,400	7,400	7,400	7,800	7,800	7,800	7,800	7,800
Firm Booster Capacity	180	4,180	4,180	4,180	4,180	5,680	5,680	5,680	5,680	5,680	5,680	5,660	5,660	5,660	5,660	6,060	6,060	6,060	6,060	6,060
Required Firm Booster Capacity		349	2,052	2,293	2,799	4,011	4,223	4,480	4,579	4,678	4,777	4,876	4,975	5,073	5,164	5,254	5,344	5,435	5,525	5,615
Excess (Deficit) Booster Capacity		3,831	2,128	1,887	381	1,669	1,457	1,200	1,101	1,002	903	784	685	587	496	806	716	625	535	445

Table 5 - Storage Phasing Analysis

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Storage Facilities (gallons)																				
Wittman Booster Station	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Wittman Booster Station Expansion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	250,000	250,000	250,000	250,000	250,000
Wheat Booster Station	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	-	-	-	-	-	-	-	-	-
Walden Ranch Booster Station (PH. 1)	-	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000
Walden Ranch Booster Station (PH. 2)	-	-	-	-	-	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000
Total Storage Capacity	210,000	1,010,000	1,010,000	1,010,000	1,010,000	1,810,000	1,810,000	1,810,000	1,810,000	1,810,000	1,810,000	1,800,000	1,800,000	1,800,000	1,800,000	2,050,000	2,050,000	2,050,000	2,050,000	2,050,000
Required Storage Capacity		87,024	384,020	522,617	1,000,490	1,122,444	1,244,398	1,362,378	1,449,364	1,506,852	1,563,341	1,620,329	1,677,317	1,734,306	1,786,337	1,838,368	1,890,399	1,942,430	1,994,461	2,046,492
Excess (Deficit) Storage Capacity		922,976	625,980	487,383	9,510	687,556	565,602	447,624	360,636	303,148	246,659	179,671	122,683	65,694	13,663	211,632	159,601	107,570	55,539	3,508

West End Water Company
Facilities Phasing Analysis
Prepared by Aricor Water Solutions

1/23/2008

Table 6 - Facilities Phasing Summary

Facilities Phase	Year	Storage	Well Capacity	Booster	Firm Booster
Wittman Booster Station	Existing	200,000	250	400	160
Wheat Booster Station	Existing	10,000	25	80	20
Wheat Booster Abandonment	2017	(10,000)	(25)	(80)	(20)
Wittman Booster Station Expansion	2021	250,000		400	400
Walden Ranch Booster Station (PH. 1)	2007	600,000		5,500	4,000
Walden Ranch Booster Station (PH. 2)	2011	600,000		1,500	1,500
Wittman Well No. 2	2021		325		
Walden Ranch No. 1	2007		750		
Walden Ranch No. 2	2007		750		
Walden Ranch No. 3	2011		750		
Walden Ranch No. 4	2015		750		
Totals		2,050,000	3,575	7,800	6,060

WEST END WATER *CO.*

January **30,2006**

UNACCOUNTED WATER

West End Water Co. (WEWC) was originally Spear Seven Water Company that was issued a **CC&N** in **1946.** The water system is primarily small diameter water lines that provide service to smaller lots in the original Wittmann platted subdivisions. There are larger acreage parcels surrounding the Wittmann area. Some receive water service from WEWC and others have their own wells.

WEWC is concerned about the unaccounted water loss and has implemented a lost water control program that has significantly reduced lost water. WEWC is committed to continue its lost water control program with the goal of less than 10% unaccounted water loss.

The following actions are components of WEWC's lost water control program and are undertaken to reduce the percentage of unaccounted water loss.

1. Well pump meter is regularly tested to verify accuracy.

2. WEWC removed and tested **5%** of the meters in the distribution system, representing the oldest meters in the system. All of the meters tested within AWWA accuracy standards. As conditions dictate, WEWC will periodically test additional meters for accuracy. Any meters not meeting AWWA accuracy standards will be replaced.

3. WEWC personnel physically check water lines for leaks on a periodic basis. Checks include surface visual inspection of all water lines and excavation of selected water lines in washes and drainage areas to ensure that there are no undetected leaks. To date, significant leakage has not been identified.

4. WEWC personnel survey the water distribution system to identify unauthorized connections to the water system on a periodic basis. West End Water Co. recently found two (2) unauthorized connections and the individuals were prosecuted through Maricopa County. Due to success in this area of its lost water control program, WEWC will aggressively continue its program of identifying and eliminating unauthorized connections.

Due to its lost water control program, WEWC has Seen a consistent downward trend for unaccounted water during **2005,** with the calendar year 2005 lost water being **15.4%.** Attached is a chart showing gallons pumped and accounted for water for the calendar year 2005.

WEST END WATER CO.
UNACCOUNTED WATER 2005

WEST END WATER CO.

MONTH	PUMPED (GALLONS)	TOTAL ACCOUNTED FOR	DIFFERENCE	PERCENTAGE
JANUARY	1,721,000	1,287,310	433,690	25.2%
FEBRUARY	1,374,000	1,129,790	244,210	17.8%
MARCH	1,674,000	1,493,990	180,010	10.8%
APRIL	2,143,000	1,834,640	308,360	14.4%
MAY	2,897,000	2,397,430	499,570	17.2%
JUNE	3,490,000	2,938,180	551,820	15.8%
JULY	4,048,000	3,324,830	723,170	17.9%
AUGUST	2,986,000	2,573,540	412,460	13.8%
SEPTEMBER	3,347,000	2,791,588	555,412	16.6%
OCTOBER	2,339,000	2,069,312	269,688	11.5%
NOVEMBER	2,044,000	1,858,140	185,860	9.1%
DECEMBER	2,041,000	1,781,270	259,730	12.7%
TOTAL	30,104,000	25,480,020	4,623,980	15.4%

January 26, 2006

BEFORE THE ARIZONA CORPORATION COMMISSION

JEFF HATCH-MILLER
Chairman
WILLIAM A. MUNDELL
Commissioner
MARC SPITZER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN K. MAYES
Commissioner

RECEIVED
2006 MAY 23 P 12: 37
AZ CORP COMMISSION
DOCUMENT CONTROL

IN THE MATTER OF THE APPLICATION OF WEST END WATER COMPANY FOR AN EXTENSION OF ITS CERTIFICATE OF CONVENIENCE AND NECESSITY.	DOCKET NO. W-01157A-05-0706

APPLICANT'S NOTICE OF FILING

At the request of the Staff, the Applicant is filing a copy of its Exhibit A-5 which is a true and correct excerpt from the minutes of the meeting of the Maricopa County Board of Supervisors approving Applicant's request for an extension of its franchise.

Dated this 23rd day of May, 2006.

JENNINGS, STROUSS & SALMON, P.L.C.

By _____
J. Scott Rhodes
The Collier Center, 11th Floor
201 East Washington Street
Phoenix, Arizona 85004-2385
Attorneys for Applicant, West End Water Company

EXHIBIT
A-14
admitted

A-14

1276512_1.DOC(54069.8)

ORIGINAL and13 copies filed this 23rd day of May, 2006, with:

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

COPY delivered this 23rd day of May, 2006:

Hon. Amy Bjelland
Administrative Law Judge
Hearing Division
ARIZONA CORPORATION COMMISSION
1200 West Washington Street
Phoenix, Arizona 85007

Earnest G. Johnson, Director
Utilities Division
ARIZONA CORPORATION COMMISSION
1200 West Washington Street
Phoenix, Arizona 85007

Christopher Kempley, Chief Counsel
Legal Division
ARIZONA CORPORATION COMMISSION
1200 West Washington Street
Phoenix, Arizona 85007

COPY mailed this 23rd day of May, 2006, to:

Joan S. Burke, Esq.
Danielle D. Janitch, Esq.
OSBORN MALEDON PA
2929 North Central Avenue
Suite 2100
Phoenix, Arizona 85012-2793
Facsimile: (602) 640-6074
Attorneys for City of Surprise

City Attorney
CITY OF SURPRISE
12425 West Bell Road
Facsimile: (623) 583-1399
Surprise, Arizona 85374

By: Michele Gross

COUNTY OF MARICOPA

State of Arizona

Office of the Clerk

Board of Supervisors

State of Arizona) ***ss.***
County of Maricopa)

I, Lori Pacini, Deputy Clerk of the Board of Supervisors, do hereby certify that the following is a true and correct excerpt from the minutes of the meeting of the ***Board of Supervisors*** *held on* ***February 1, 2006.*** *These minutes are currently pending approval by the Board:*

WEST END WATER CO., PUBLIC SERVICE FRANCHISE EXTENSION, APPROVED

(Attached)

IN WITNESS WHEREOF, *I have hereunto set my hand and affixed the Official Seal of the County of Maricopa. Done at Phoenix, the County Seat, on February 22, 2006.*

Lori Pacini
Deputy Clerk of the Board of Supervisors

cc: JC Campbell, President
County Counsel
File (F17643)

FORMAL SESSION
February 1, 2006

FRANCHISE – WEST END WATER CO.

Chairman Stapley called for a public hearing to solicit comments on the application filed by West End Water Co., for a public service franchise extension to construct, maintain and operate a domestic water distribution system for a period of 25 years beginning February 22, 2004, or for a period of one year after the franchised area or a portion thereof is annexed by a municipality, whichever is shorter, for the supplying of this service along, upon, under and across public highways, roads, alleys and thoroughfares (excepting State highways) within that portion of Maricopa County, Arizona, known and described as follows, to-wit: (F23155)

> Northwest ¼ of Section 25, Township 5 North, Range 3 West, of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

No protests having been received and no speakers coming forth at the Chairman's call, motion was made by Supervisor Wilson, seconded by Supervisor Brock, and unanimously carried (5-0) to grant the said franchise extension as applied for and to impose such restrictions and limitations upon said applicant as to the use of such public highways, roads, alleys and thoroughfares as may be deemed best for the public safety and welfare and to include in such franchise the statutory provisions set forth in Title 40, Chapter 2, Article 4, A.R.S., 1956, requiring the grantee of said franchise to pay such expenses, damages and compensations, if any, as may result from the use and operation of said franchise and as in said statute specified.

BEFORE THE BOARD OF SUPERVISORS

OF

MARICOPA COUNTY, STATE OF ARIZONA

IN THE MATTER OF THE APPLICATION OF	)	
West End Water Co	)	FRANCHISE
FOR A FRANCHISE	)	

BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF MARICOPA COUNTY, STATE OF ARIZONA, THAT:

WHEREAS, West End Water Co. hereinafter designated as the Grantee, praying for the right, privilege, license and franchise to construct, maintain and operate a Public Service Franchise for a portion of Maricopa County, Arizona bearing date of February 22, 2004, for a period not to exceed twenty-five (25) years or for a period of one (1) year after the franchised area or a portion thereof is annexed by a municipality, whichever is shorter, for the supplying of this service, along, upon, under and across public highways, roads, alleys and thoroughfares (excepting State Highways).

Grantee doing business in Maricopa County, Arizona bearing date of February 1, 2006, praying for the right, privilege, license and franchise extension for a domestic water distribution system for a portion of Maricopa County, Arizona to provide a domestic water distribution system within that portion of Maricopa County, Arizona, known and described as follows, to-wit:

Northwest ¼ of Section 25, Township 5 North, Range 3 West, of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

and not within the confines of any incorporated city or town, and under such restrictions and limitations and upon such terms as the Board of Supervisors may provide, not inconsistent with the laws of the State of Arizona, or the orders and rules of the Corporation commission of the State of Arizona, and that the Board take such proceedings herein as is provided by laws of the State of Arizona; and

WHEREAS, upon filing said application, the said Board of Supervisors on the 4th day of January 2006 ordered that public notice of the intention of said Board to make such grants be given by publishing a notice in the official newspaper of Maricopa County, published in the County of Maricopa, State of Arizona, and that 9:00 a.m., on the 1st day of February 2006, at the meeting room of said Board of Supervisors located at 205 West Jefferson Street, in the City of Phoenix, Arizona, be set as the time and place of hearing the said application; and

WHEREAS, the said application coming on regularly for hearing on said day and it appearing by the affidavit of the duly authorized agent of the said time and place set for the consideration of such application has been published for at least once a week for the three-week period prior to said date set forth herein, to-wit:

In the issues of the said newspaper on January 12, January 19, and January 26, 2006, and it appearing that no sufficient protest has been filed by the qualified electors of the said County petitioning said

Board of Supervisors to deny such license and franchise, and it further appearing the best interests of Maricopa County will be served by the granting of said application and the franchise referred to therein;

NOW, THEREFORE, the Board of Supervisors of Maricopa County, State of Arizona, acting on behalf of said County does hereby grant unto West End Water Co., doing business in Maricopa County, Arizona, subject to the terms, conditions and limitations hereinafter contained, the right, privilege, license and franchise extension to construct, maintain and operate a domestic water distribution system, for a period of not to exceed twenty-five (25) years beginning February 22, 2004, or for a period of one (1) year after the franchised area is annexed by a municipality, whichever is shorter, for the supplying of this service along, upon, under and across the pubic highways, roads, alleys and thoroughfares (excepting State highways) within that portion of Maricopa County, Arizona, hereinabove described, under such restrictions and limitations and upon such terms as this Board at any time may provided, not inconsistent with the laws of the State of Arizona, or the orders and rules of the Corporation Commission of the State of Arizona, specifically providing, however, that:

1) All rights hereunder are granted under the express condition that the Board of Supervisors of said Maricopa County shall have the power at any time to impose such restrictions and limitations and to make such regulations on such highways, roads, and thoroughfares as may be deemed best for the public safety, health, welfare and convenience.

2) All rights hereby granted shall be exercised so as to not interfere or conflict with any easements or rights-of-way heretofore granted by said Board of Supervisors and now in force.

3) All rights hereby granted shall be exercised so as not to interfere or conflict with any easement, either public or private, of whatsoever nature, which has been acquired in or to the proper use of said highway, roads, and thoroughfares, or any portion thereof.

4) All rights hereby granted shall be exercised so as not to interfere or conflict with or endanger in any way the proper use by the public of said highways, roads, and thoroughfares, or any portion thereof.

5) That the said Grantee shall bear all expenses incurred including damages and compensation for the alteration of the course, direction, surface, grade or alignment of any of the said highways, roads and thoroughfares necessarily made by the said grantee for the purpose of this franchise; that said grantee will maintain his equipment from time to time as may be needed, without the necessity of notice from Maricopa County. In the event the said grantee shall fail to make any repairs within ten days from the time same becomes necessary, then Maricopa County may cause the same to be made, and said grantee agrees to pay Maricopa County the cost thereof.

6) That all property of the franchise be installed and operated by the said grantee and shall be placed, removed or relocated, initially and throughout the term of this franchise, along, in, over, under and across the said highway, roads and thoroughfares, in such a manner and location as the Board of Supervisors or its duly authorized agents may designate. Such placement, removal or relocation shall be done at the sole expense of the grantee upon a determination by the Board of Supervisors of Maricopa County that such placement, removal or relocation is necessary.

If the grantee fails or refuses to so remove or relocate, Maricopa County may so remove or relocate, at the sole expense of grantee, such expense to include any and all damages and compensation of whatsoever nature arising therefrom.

In this section the term "property" includes conduits, pipe, wires, poles, or other structures and appliances used to supply or deal in gas, electricity, lights, water, heat, refrigeration, power, telephones, telegraph, television and other public utilities.

Any finding or determination made by the Board of Supervisors pursuant hereto shall be final and binding upon the grantee whether or not such findings or determinations relates to the requirements of public safety or welfare, the use of public roads or the need for proposed improvements, and whether or not the function to be served by such removal or relocation is of a governmental or proprietary nature.

7) That said grantee shall indemnity and save harmless, the said County of Maricopa from all costs, expense and liabilities in connection with the granting of this franchise and exercise of the same by them.

8) That the rights of any person claiming to be injured in any manner by the maintenance of said projects and equipment shall not be affected hereby.

9) That the terms and conditions of this franchise shall inure to the benefit of, and be binding upon, all the heirs and assigns of the said Grantee.

10) That the franchise extension and privilege herein granted shall not be deemed to be exclusive and the said Board of Supervisors hereby expressly reserves the right and power to grant from time to time similar franchises and privileges over the same territory and highways, roads and thoroughfares.

11) This franchise extension is granted upon the express condition that the Certificate of Convenience and Necessity be procured from the Corporation Commission of the State of Arizona and the Certificate of Assured Water Supply be procured from the Arizona Department of Water Resources and proof thereof submitted to the Board of Supervisors within six months from the date of granting of this franchise; and if such Certificates are not granted within six months from said date, then this franchise to be void, otherwise to be in full force and effect for the time herein specified.

12) All materials and construction methods used with the public right-of-way shall conform to the applicable standards, specifications and special provisions currently in effect in Maricopa County.

13) The Franchise holder shall obtain a construction permit from the Office of the County Engineer prior to construction of any facilities in the public right-of-way.

DATED this 1st day of February 2006.

Chairman, Board of Supervisors

ATTEST:

Clerk, Board of Supervisors

NEW APPLICATION
WEST END WATER CO.

9098 W. Pinnacle Peak Road
Peoria, Arizona 85383
Phone: (623) 972-6133
Fax: (623) 566-8925

ORIGINAL

EXHIBIT
COS-1
Admitted

January 3,2006

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

W-01157A-06-0004

Re: West End Water Co. Rate Adjustment Application for Annual Revenues Less than $250,000.00

Dear Madam/Sir:

Please find enclosed the original and fifteen (15) copies of a Water Rate Adjustment Application for West End Water Co. for a test year ending June 30,2005. Also enclosed are three (3) copies of checklist items 5-11. The existing rates have been in effect for several years and the last change became effective on August 1,1987, per Decision No. 55651.

West End Water Co. has had negative earnings every year for quite some time. The number of customers has remained flat and operation and maintenance expenses continue to increase. The rate adjustment application is a request to recover expenses.

The water supply for West End Water Co. is from wells located within the service area and the water from the wells are in compliance with the safe drinking water regulations including the new Arsenic standard that becomes effective on January 23,2006. West End Water Co.'s property taxes are current.

If you have any questions I can be reached at (623) 972-6133.

Sincerely,

JD Campbell
President

JDC:ks
Enc.

RECEIVED
2006 JAN -4 A 11:45
AZ CORP COMMISSION
DOCUMENT CONTROL

WEST END WATER CO.

9098 W. Pinnacle Peak Road
Peoria, Arizona 85383
Phone: (623) 972-6133
Fax: (623) 566-8925

RECEIVED

2006 JAN -4 A 11:45

AZ CORP COMMISSION
DOCUMENT CONTROL

January *3,2006*

Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

The attached customer notification letter, page *32* of the rate application, was sent to each and every customer of record on January 3,2006, by first class mail.

WEST END WATER CO.

By: _____
J D Campbell, President

CORPORATE ACKNOWLEDGMENT

STATE OF ARIZONA)
) ss.
County of Maricopa)

On **this?** the 3rd **day of** January, 2006, before me, the undersigned officer, **personally appeared J D Campbell who ack**nowledges himself to be the President of West End Water Co., **an Arizona corporat**ion, and that, **as** such officer, being authorized so to do, verifies the above statement is true and correct by signing the name of the corporation, by himself as such officer.

My commission expires: _____
Notary Public

OFFICIAL SEAL
KATHRYN A. SHANNON
NOTARY PUBLIC - State of Arizona
MARICOPA COUNTY
My Comm. Expires Dec. 29, 2009

West End Water Co.
CUSTOMER NOTIFICATION

January 3,2006

West End Water Co. has applied to the Arizona Corporation Commission for an adjustment in rates. The current rates have been in effect since 1987. An increase in rates is necessary at this time due to increases in operating and maintenance expenses.

Based on the Company's unaudited Test Year results, West End Water Co. realized a loss of ($82,598.00). The Company is requesting a revenue increase of $71,371.00 or 69.16% of total revenues. Please see pages 9 and 11 of the Company's application for the current and proposed rates.

The application is available for inspection during regular business hours at the offices of the Commission in Phoenix at 1200 West Washington Street, Phoenix, AZ 85007 or at the Company's office at 9098 West Pinnacle Peak Road, Peoria, AZ 85383.

Please be advised that the rates and charges approved by the Commission may be higher or lower than the rates and charges requested in the Application for a rate increase.

Customer input is an important part of the Commission's analysis of the requested adjustment and is a factor in determining whether a hearing will be conducted. Customers should bring to the Commission's attention any questions or concerns related to the Company's Application, including service, billing procedures or other factors important in determining the reasonableness of charges. Customers have the right to intervene in this matter. customers wishing to communicate with the Commission, or request information on intervention in the proceedings should contact the Commission's Consumer Services Section at 800-222-7000(if located outside the Phoenix local calling area), or 602-542-4251 in the Phoenix local calling area.

Customers are advised that the Commission may act upon the Application for an increase in rates without a hearing. Regardless of whether a formal hearing is held, customer comments submitted in writing will be placed in the official file, which the Commission reviews prior to making its final decision on the Application. It is important that customers contact the Commission within fifteen (15) days of the receipt of this notice so that the Commission's staff can consider customer comments and concerns in developing its recommendation to the Commission.

Revised 8/27/02

West End Water Co.
WATER RATE APPLICATION CHECKLIST

Please use the following checklist to ensure that all necessary attachments are included in the application Provide an explanation for any omitted item. Please include **15** copies of this application in your application submission. Also, please include three packets with copies of checklist items **5-11.**

ORIGINAL APPLICATION PACKAGE ITEMS

[X] 1. The Arizona Department of Environmental Quality ("ADEQ") or Maricopa County Environmental Services Department ("MCESD") compliance status report. Use the appropriate request form in the appendix at the end of this application to obtain the status report. A separate form should be used for each public water system, as defined by ADEQ, that is part of this application. Submit the completed status report(s) obtained by ADEQ or MCESD with your application.

[X] 2. The Arizona Department of Revenue ("ADOR") certificate of compliance letter of good standing. Use the tax clearance application in the appendix at the end of this application in order to obtain the certificate of compliance. (send in the certificate of compliance with your application.)

[X] 3. The utility's most recent ADEQ annual sampling fee invoice for its Monitoring Assistance Program.

[X] 4. Invoices for each plant asset purchase in excess of **$150** for the Test Year, as well as all of the intervening years since the utility's prior Test Year as itemized on page **13/**

Please provide **3** packets with copies of the following information to support entries on the Income Statement on page **19.**

[X] 5. A breakdown by name, position, salary, and duties for the Salaries and Water Expense (Acct. **601)**

[X] 6. Invoices for Purchased Water during the Test Year. (Account **610**)

[X] 7. Invoices for Purchased Power during the Test Year. (Account **615**)

[X] 8. Invoices for Repairs and Maintenance in excess of **$150** incurred during the Test Year **(Acct. 620)**

[X] 9. Invoices for Outside Services in excess of **$150** incurred during the Test Year (Acct. **630)**

[X] 10. Invoices for Water Testing during the Test Year (Acct. **635)**

[X] Statements from the county for Property Tax Expenses incurred during the Test Year (Acct. **408.11)**

Revised 6/13/03

GENERAL INSTRUCTIONS

Processing the request for a rate adjustment requires completion of ALL PARTS of this application. Complete the Narrative Description of the Application for Rate Adjustment on pages 3 and 4, as well as the statements on pages 5 and 6. Read the accompanying instructions and fill in the entries on pages 9 through 31. Dollar amounts should be rounded to the nearest dollar. NO ENTRY SHOULD BE LEFT BLANK. If an amount is zero, enter a zero. **Any application that is found to be insufficient will not be processed until the deficiencies are corrected** per **A.A.C. R14-2-103.B.7.**

A completed application also requires notification of customers of the rate request. The format of the customer notification letter is provided on page 32 of this application. Use the language and form of this letter in notifying customers. The customer notification must be provided to customers on the same date as the rate application is filed. A copy of the notice, together with a notarized cover letter stating the method of customer notification and the date the notification was sent to the customers, must accompany the application form.

Please provide any supplementary information the Company believes will assist in the evaluation of the rate request. For example, if expense items are substantially different from the latest annual report filed with the Commission, or if significant plant additions have been made since the prior rate increase, attach supporting explanations for those changes to the application. Clearly label any attachments and staple them to the application.

Selection of a Test Year for the utility is an important part of the application. A test year older that the year reflected in the most current Annual Report with the Utilities Division is usually considered outdated. Questions regarding the selection of a Teat Year should be addressed to the Chief of Accounting and Rates at (602) 542-0743.

Please contact the *Arizona* Department of Environmental Quality (and/or its authorized county agencies) and request a compliance status report. Submit a copy of this report as part of this filing. Please refer to the appendix of thii application form.

Please contact the Arizona Department of Revenue and a certificate of compliance letter of good standing regarding taxes. Submit a copy this compliance certificate. Please refer to the appendix of this application form.

After you have included all the required items from the checklist on the previous page, please submit the original and fifteen copies of the completedapplication with a cover sheet to:

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

Also, please include three packets with copies of checklist items 5 11 (see page 1) in you application filing with the Docket Control Center

West End Water Co.
NARRATIVE DESCRIPTIONS OF APPLICATION FOR RATE ADJUSTMENT

Instructions:

Please provide the reasons for your requested rate adjustment by checking the appropriate box(es) below. If desired, the Company may also attached a written narrative regarding its reasons for the requested rate adjustment. Your narrative may also include efforts made by the utility to control costs/expenses and/or mitigate the amount of the rate adjustment.

[x] Changes in current, compared to past operations, that necessitate the rate adjustment Please Explain:

Significant Increases were experienced in Salaries & Wages, Repairs and Maintenance, Water Testing, Property Taxes, Transportation Expenses, Depreciation, Office Supplies, and Insurance.

[ ] Descriptions and/or calculations of adjustments made to amounts that are included in this application that are different than amount recorded in your books/ledgers (pro forma adjustments) Please Explain:

[x] Significant factors influencing your revenues, expenses and/or rate base. Please Explain:

Very slow customer growth with increasing costs in pumping power, materials, labor etc.

[x] Anticipated growth/decline in customers expected in the next two years, the amount of anticipated construction to serve those customers, and how financed: the type of customers served by the utility, e.g. residential, irrigation, small retail businesses, large commercial, etc. Please Explain:

Slow customer growth, only expecting to add 5 or 6 customers per year in the next two years.

[ ] Anticipated construction. Please Explain:

[x] Efforts made to encourage conservation of water through proposed rate design or through other means
Please Explain:

A three tier rate structure is being requested with progressively higher rates for u s ater than average usage.

			Ratio of Tier Prices to First Tier Price
The proposed rates would be:	$ 3.65	First Tier	100%
	$ 4.00	Second Tier	110%
	$ 4.45	Third Tier	122%

[ ] Other factors
Please Explain:

Attach additional pages as necessary

Revised8/27/02

Company Name: West End Water Co.	Test Year Ended: June 30, 2005

AFFILIATE RELATIONSHIP

Please indicate a yes or no answer to the questions below and provide an explanation where necessary.

A parent-subsidiary relationship, or affiliation, with another entity includes corporations, partnerships, sole proprietorship, limited liability corporation (LLCs), as well as common ownership of a water company and another entity, such as a development company or wastewater company

Are any assets owned jointly with any affiliated or subsidiary entities?

[ ] Yes [X] No

If Yes, please provide a description of each jointed owned asset, it cost, and the percentage of the asset armed by the utility. please note the amounts reported on pages 13 and 15 should only include the percentage of plant owned by the utility.)

Were any of the assets constructed or acquired from an affiliated or subsidiary *entity?*

[ ] Yes [X] No

If Yes, please identify the affiliated *entity,* the relationship with the utility, and a detailed listing of all transactions reflected in the Plant Accounts. Also include detail for other balance sheet accounts, such as Advances, Contributions in Aid of Construction, inter-company payables and receivables, as well as affiliated revenues and expenses from the Company's Income Statement.

Revised 8/27/02

STATEMENTS IN SUPPORT OF RATE REQUEST

West End Water Co. ("The Company") requests an adjustment in the existing rates charged by the Company. The information contained in this application is based upon a twelve-month Test Year ending June 30,2005. The Company had total operating revenues of $103,194.00, served 229 metered customers and no unmetered customers and sold 23,173,000 gallons of water during the test year.

The Company is requesting a increase in the amount of $71,371.00.

The annual operating revenues, if the Company is granted the rate adjustment, will be $174,565.00

The Company is current on all property taxes.	X YES	NO
The Company is current on all sales tax.	**X YES**	**NO**
The Company currently has a Curtailment Plan Tariff on file with the Commission.	YES	X NO
The Company currently has a Backflow Prevention Tariff on file with the Commission.	YES	X NO

The Company notified its customers of its application for a rate adjustment on 12/29/05. **A COPY OF THE LETTER WITH A NOTARIZED COVER LETTER STATING THE METHOD OF CUSTOMER NOTIFICATION, AS WELL AS THE DATE OF TEE NOTIFICATION, IS ATTACHED. (see page 32)**

By completing this application in support of the Company's request for a rate adjustment, the Company realizes that Original Cost Less Depreciation ("OCLD)plant information will be used to determine the fair value rate base, i.e., the Company waives the right to Reconstruction Cost New.

The utility company ownership is one of the following

- [ ] Sole Proprietorship
- [ ] Partnership
- [ ] "C" Corporation
- [x] "S" Corporation
- [ ] Limited Liability Corporation ("LLC")
- [ ] Association -- Cooperative
- [ ] Other, please specify:

Note: If a corporation, please list stockholders and the respective number of share owned below.

Stockholder	Number of Shares *Owned*
JD Campbell	**100**

I have read and completed this application, and to the best of my knowledge all of the information contained herein, and attached to this application, is true and correct:

Name of Authorized Representative	Company Name:	West End Water Co.
		JD Campbell
	Address:	**9098 W.** Pinnacle Peak Road
		Peoria, **AZ 85383**
	Phone Number	**623-972-6133**
	Fax Number	**623-566-8925**
Title:	**President of Company**	
Signature:		
Date:	1-3-06	
Email Address:	jdcampbell9098@qwest.net	
Website Address:		

Revised 8/27/02

CURRENT AND PROPOSED RATES AND CHARGES INSTRUCTIONS

Complete the schedules on pages 9 and 11 showing rates and charges currently in effect, and those proposed by the Company. Specify the customer class or classes (i.e., residential, commercial industrial, irrigation, all, or other classes) in the space provided.

MONTHLY CHARGE:

Enter the monthly minimum (or service) charge and gallons included in the minimum for each meter size. For example, enter "$12.00 for zero gallons." Propose a monthly minimum or service) charge for every meter size listed on page 9. Also, enter the commodity (or excess) charge for the gallonage the customer will be charged for gallons used over those included in the minimum charge. For example, enter "$1.25 per 1,000 gallons." If excess charges vary with gallonage used, enter the rate and gallons covered in each tier of consumption in the space provided. For example:

First Tier	Up to 3,000 gallons	$1.00 per 1,000 gallons
Second Tier	3,001 to 10,000 gallons	$1.50 per 1,000 gallons
Third Tier	over 10,000 gallons	$2.50 per 1,000 gallons

If a flat rate, rather than a meter rate, is currently approved or proposed, enter the monthly rate in the space provided. A "flat rate" is a charge that is not based on gallons used. (For example, $10.00 for all the water you can use.) If the Company currently has a *flat* rate and wishes to continue this rate, please contact the Chief of Accounting and Rates at 602-542-0743. It is likely that Staff will not recommend the *continuation* of *such a rate.*

Company Name: West End Water Co.	Test Year Ended: June 30, 2005

CURRENT AND PROPOSED RATES AND CHARGES

CUSTOMER CLASS [ ] Residential [ ] Commercial [ ] Industrial

[ ] Irrigation [X] All [ ] Other, specify _____

MONTHLY CHARGE

MINIMUM OR SERVICE CHARGES	CURRENT RATES $	GALLONS		PROPOSED RATES $	GALLONS	
5/8" x 3/4" Meter	$ 11.00	for	1,000	$ 16.50	for	-
3/4 " Meter	$ 16.50	for	1,000	$ 21.50	for	-
1" Meter	$ 27.50	for	1,000	$ 34.50	for	-
1 1/2" Meter	$ 55.00	for	1,000	$ 75.00	for	-
2" Meter	$ 88.00	for	1,000	$ 108.00	for	-
3" Meter	$ 176.00	for	1,000	$ 215.00	for	-
4" Meter	N/A	for	-	N/A	for	-
5" Meter	N/A	for	-	N/A	for	-
6" Meter	N/A	for	-	N/A	for	-

GALLONS IN EXCESS OF MINIMUM	Current Rates Rate	Gallons		Proposed Rates Rate	Gallons	
Commodity Charge in Excess of Minimum (Charge per 1,000 Gallons						
First Tier	$ 2.43	Up to	Infinity	$ 3.65	Up to 3,000	
Second Tier				$ 4.00	3,001 to 10,000	
Third Tier				$ 4.45	Over 10,001	
FLAT RATE		Per Month			Per Month	

Note: If rates and charges vary across customer classes, duplicate the form and complete one for each rate class. (e.g. residential, commercial) unless "All" is checked.

The Company is requesting that Meter and Service Deposits be refunded in the summer months, rather than in the fall months. Cash flow is highest in the summer months.

Revised 8/27/02

SERVICE CHARGES INSTRUCTIONS

Installation Charge (R14-2-405.B)	to cover the cost of installing all customer piping up to the meter, as well as the cost of installing the meter. Propose a charge for every meter size listed on page 11.
	initial establishment, reestablishment, or reconnection
Establishment (After Hours) (R14-2-403.D.Z)	A charge covering the cost to establish a new account for a person requesting service during a period other than regular working hours.
Meter Test (R14-2-408.F)	A charge for testing the accuracy of a meter upon a customer's request. No charge will be levied if the meter is found to be in error by more than +/-three (3) percent.
Deposit (R14-2-403.8)	A refundable security deposit not exceeding two times the average residential class bill for residential customers, and not exceeding two and one-half times a non-residential customer's estimated maximum monthly bill.
Deposit Interest (R14-2-403.8.3)	Annual percentage interest rate applied to customer deposits. A six percent rate shall be applied if the company does not specify an interest rate with the Commission.
Re-establishment (R14-2-403.D.1)	A charge for service at the same location where the same customer had ordered a service disconnection within the preceding twelve-month period.
Deferred Payment (R14-2-409.G.6)	Applicable monthly finance charges (interest rate) applied in a deferred payment agreement between the company and a customer.
Meter Re-read (R14-2-408.C.2)	Charge for customer requested re-read of meter applicable when the original reading was found not to be in error.

Revised 8/27/02

Company Name: West End Water Co.	Test Year Ended: June 30, 2005

CURRENT AND PROPOSED RATES AND CHARGES

CUSTOMER CLASS [ ] Residential [ ] Commercial [ ] Industrial

[ ] Irrigation [X] All [ ] Other, specify _____

SERVICE LINE AND METER INSTALLATION CHARGES	CURRENT CHARGES	PROPOSED CHARGES
5/8" x 3/4" Meter	$ 150	$ 520
3/4 " Meter	$ 200	$ 600
1" Meter	at cost	$ 690
1 1/2" Meter	at cost	$ 935
2" Meter Turbo	at cost	at cost
2" Meter Compound	at cost	at cost
3" Meter Turbo	at cost	at cost
3" Meter Compound	at cost	at cost
4" Meter Turbo	at cost	at cost
4" Meter Compound	at cost	at cost
6" Meter Turbo	at cost	at cost
6" Meter Compound	at cost	at cost

Establishment	$ 10.00	$ 35.00
Establishment (After Hours)	$ 25.00	$ 50.00
Reconnection (Delinquent)	$ 15.00	$ 35.00
Reconnection (Delinquent) after hours	N/A	$ 50.00
Meter Test	$ 25.00	$ 30.00
Deposit	PER ACC RULE	PER ACC RULE
Deposit Interest	PER ACC RULE	PER ACC RULE
Re-establishment (Within 12 months)	PER ACC RULE	PER ACC RULE
NSF Check	$ 10.00	$ 30.00
Deferred Payment	PER ACC RULE	PER ACC RULE
Meter Re-read	$ 10.00	$ 10.00
Late Fee	1.50%	1.50% per month

N/A No Tariff on File

Note: If rates and charges vary across customer classes, duplicate the form and complete one for each rate class. (e.g. residential, commercial) unless "All" is checked.

Revised 8/27/02

OFFICIAL RECORDS OF
MARICOPA COUNTY RECORDER
HELEN PURCELL
20050918505 07/01/2005 05:00
ELECTRONIC RECORDING

75004324-3-9-7--
Fontesm

EXHIBIT
OS-2
Admitted

FIDELITY NATIONAL TITLE

WHEN RECORDED RETURN TO:

Woodside Walden, LLC
8950S. 52nd Street, #115
Tempe, AZ 85284

7/8 75004324

SPECIAL WARRANTY DEED

This Special Warranty Deed is given by Walden Farms, LLC, an Arizona limited liability company ("Grantor"), to Woodside Walden, LLC, an Arizona limited liability company ("Grantee").

For valuable consideration, Grantor hereby conveys to Grantee, that certain real property located in Maricopa County, Arizona, more particularly described on Exhibit A attached hereto an incorporated herein by this reference (the "Property").

Together with all of Grantor's right, title and interest in and to all rights, appurtenances and privileges thereunto belonging.

Subject to taxes and assessments not yet delinquent, reservations in patents and all easements, rights-of-way, encumbrances, liens, covenants, conditions, and restrictions, obligations, liabilities, and other matters as may appear of record, or be referred to in matters of record, and all matters that an accurate ALTA survey of the Property or physical inspection of the Property would disclose, and the applicable zoning and use regulations of any municipality, county, state, or the United States that affects the Property.

Grantor hereby binds itself and its successors and assigns to warrant and defend the title against the acts of Grantor and no other, subject to the matters set forth above.

Dated this 1st day of July, 2005.

Walden Farms, LLC,
an Arizona limited liability company

By: Kevin V. Walden
Kevin V. Walden, Manager

By: Earl Geller
Earl Geller, Manager

By: Willis Arnold
Willis Arnold, Manager

Order No.: 75004324 - B

EXHIBIT "ONE"

PARCEL NO. 1:

The Northwest quarter of the Northwest quarter of Section 24, Township 5 North, Range 3 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona;

EXCEPTING THEREFROM all coal, oil, gas and other mineral deposits, as reserved in the Patent to the land.

PARCEL NO. 2:

The Southwest quarter of the Northwest quarter of Section 24, Township 5 North, Range 3 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona;

EXCEPTING THEREFROM all coal, oil, gas and other mineral deposits, as reserved in the Patent to the land.

PARCEL NO. 3:

The North half of the Southeast quarter of the Northwest quarter of Section 24, Township 5 North, Range 3 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona;

EXCEPTING THEREFROM all coal, oil, gas and other mineral deposits, as reserved in the Patent to the land.

PARCEL NO. 4:

The North 745.80 feet of the West 659.96 feet of the Southeast quarter of Section 24, Township 5 North, Range 3 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona;

EXCEPTING THEREFROM all coal, oil, gas and other mineral deposits, as reserved in the Patent to the land.

PARCEL NO. 5:

The South half of the Southeast quarter of the Northwest quarter of Section 24, Township 5 North, Range 3 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona;

EXCEPTING THEREFROM all coal, oil, gas and other mineral deposits, as reserved in the Patent to the land.

PARCEL NO. 6:

The West half of the Southwest quarter of the Northeast quarter of Section 24, Township 5 North, Range 3 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona;

EXCEPTING THEREFROM all coal, oil, gas and other mineral deposits, as reserved in the Patent to the land.

Order No.: 75004324 - B

PARCEL NO. 7:

The West half of the Northeast quarter of the Northwest quarter of Section 24, Township 5 North, Range 3 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona;

EXCEPTING THEREFROM all coal, oil, gas and other mineral deposits, as reserved in the Patent to the land.

20050918505
OFFICIAL RECORDS OF
MARICOPA COUNTY RECORDER
HELEN PURCELL

The foregoing instrument is
a full, true and correct
copy of the original record
in this office.
Attest: 05/19/2006 02:33:19 PM

By _____ Recorder

AZ CORPORATION COMMISSION
FILED

JUN 29 2005 "EXP"

FILE NO. L.1211676-0

EXHIBIT
COS-3
Admitted

ARTICLES OF ORGANIZATION

OF

WOODSIDE WALDEN, LLC

1. Name. The name of the limited liability company is:

   Woodside Walden, LLC.

2. Known Place of Business. The address of the company's known place of business in Arizona is:

   One Agave Center
   8950 South 52nd Street, Suite 115
   Tempe, AZ 85284

3. Statutory Agent. (In Arizona) The name and address of the statutory agent of the company is:

   Paracorp Incorporated
   1850 North Central Avenue, Suite 1160
   Phoenix, AZ 85004

   Acceptance of Appointment by Statutory Agent:

   I, Paracorp Incorporated, having been designated to act as Statutory Agent, hereby consent to act in that capacity until removed or resignation is submitted in accordance with the Arizona Revised Statutes.

   See attached registered agent consent form signed by Paracorp.
   Signature of Statutory Agent

   _____

   [If signing on behalf of a company serving as statutory agent, print company name here]

4. Management. Management of the limited liability company is vested in a manager or managers. The names and addresses of each person who is a manager AND each member who owns a twenty percent or greater interest in the capital or profits of the limited liability company are:

   Scott "Chip" Nelson, Manager
   39 East Eagleridge Drive, Suite 102
   North Salt Lake, UT 84054

$ PAID
01030800

L-1771676-0

Gene Morrison, Manager
One Agave Center
8950 South 52nd Street, Suite 115
Tempe, AZ 85284

Woodside Group, Inc., Member
39 East Eagleridge Drive, Suite 102
North Salt Lake, UT 84054

EXECUTED this 29 day of June 2005.

Gene Morrison, Organizer

PHONE: (801) 299-6700 FAX: (801) 299-0550

L-1211676-0

STATE OF ARIZONA

REGISTERED AGENT CONSENT FORM

DATE: June 28, 2005

COMPANY NAME: WOODSIDE WALDEN, LLC

REGISTERED AGENT NAME AND ADDRESS:

Paracorp Incorporated
638 North Fifth Avenue
Phoenix, AZ 85003

Paracorp Incorporated, having been designated to act as Statutory Agent, hereby consents to act in that capacity for the above-referenced company until removed or resignation is submitted in accordance with the Arizona Revised Statutes.

Barbara Geiger, Secretary
Paracorp Incorporated

ARIZONA CORPORATION COMMISSION
CORPORATIONS DIVISION
RESUBMISSION COVER SHEET

THIS DOCUMENT BECOMES A PUBLIC RECORD - Instructions: use a separate cover sheet for each document

Legal Entity Name/proposed name for Corporation: Woodside Walden, LLC

L-12116 76-0

Please Check or Complete the Appropriate Sections:

A. ☒ New Entity Filing ☐ CHANGE to Existing Entity ☐ Resubmission of Corrected Documents

2. ☒ Domestic (from Arizona) ☐ Foreign (organized in another state or country)

3. ☐ Profit/business Corporation (B) ☐ Nonprofit Corporation (NP) ☒ LLC ☐ LLP ☐ Other

4. Payment: ☐ Check # ☒ Cash ☐ MCD account #
Amount: $ 75 ☐ No fee required ☐ See attached for submission of funds instructions

5. Processing: ☒ Expedited (3 to 10 business days, $25 Additional Fee Per Document)
Completed as soon as possible or visit www.cc.state.az.us/corp for current processing times.

☐ Regular Visit www.cc.state.az.us/corp for current processing times

B. Filing Type: (Check one only)
☐ Articles of Dissolution
☐ Articles of Incorporation
☒ Articles of Organization
☐ Application to Transact Business (B)
☐ Application to Conduct Affairs (NP)
☐ Application for New Authority
☐ Application for Registration
☐ Articles of Amendment
☐ Articles of Amendment & Restatement
☐ Publication of
☐ Articles of Correction
☐ Merger of (name)
☐ Other

RECEIVED
JUN 29 2005
ARIZONA CORP. COMMISSION
CORPORATIONS DIVISION

C. Special Instructions:

D. Extras
☐ Certified Copies ____ ($10.00 $5 per for one or 10 or fewer for LLC)
☐ Good Standing Certificate ____ ($10.00 $5 per)
☐ Expedite Certified Copies ($25 each)
☐ Expedite Good Standing ($25 each)

E. HOW DELIVERY VIA: ☒ Mail ☐ Pick Up ☐ Other
The following individual should be called to pick up completed documents:

Name: Phone: ( )

Pick-up by: Date:

Please allow approximately 10 business days. Documents will be mailed if they are not picked up in 10 business days. Documents for which a check is required will be mailed to the following address:

Name: Jonathan Hendricks

Address: 8950 S. 52nd Street #115

City, State, Zip: Tempe AZ 85284

CHECK
REVIEWER

$ PAID 75.00
010030

http://images.azcc.gov/scripts/cgi/dwispart2.pl?COMMAND=4&SESSIONID=7bzvQkd9... 5/19/2006

FORMAL COMPLAINT

RECEIVED

2000 NOV -1 P 1:08

AZ CORP COMMISSION
DOCUMENT CONTROL

EXHIBIT
CDS-4
Admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

CARL J. KUNASEK
CHAIRMAN
JIM IRVIN
COMMISSIONER
WILLIAM A. MUNDELL
COMMISSIONER

IN THE MATTER OF THE COMPLAINT OF WISER INVESTMENTS, L.L.C.; AND A & B INVESTMENTS, INC.; AGAINST SUNRISE WATER COMPANY	DOCKET NO. W-02069A-00-0885 **FORMAL COMPLAINT** **(Emergency Hearing Requested)**

Wiser Investments, L.L.C. ("Wiser"), an Arizona limited liability company, and A&B Investments, Inc. ("A&B"), an Arizona corporation, by and through their attorneys undersigned, hereby submit the following formal complaint against Sunrise Water Company ("Sunrise"). With regard to such formal complaint, Wiser requests an expedited and emergency hearing on the sole issue of whether Sunrise is obligated to sign an "Intent to Serve" letter, as is discussed below. Sunrise's refusal to sign such a letter in a form acceptable to the Arizona Department of Water Resources ("ADWR") is without basis and will serve only to frustrate Wiser's development plans.[1] Complainants Wiser and A&B further complain and allege as follows:

COUNT NO. 1

1. Wiser is developing approximately 80 acres of property within the incorporated boundaries of the City of Peoria, Arizona, a legal description of which property is attached to this Complaint as Exhibit A.

[1] Sunrise has provided Wiser with a self-drafted letter purporting to be a "Will Serve" letter. ADWR will not accept this letter as it is not on an approved agency form. ADWR also requires that Sunrise execute an application to include Silver Canyon within the Groundwater Replenishment District ("GRD") of which GRD application on behalf of Complainants, Wiser will request similar expedited relief from this Commission.

Snell & Wilmer
L.L.P.
LAW OFFICES
One Arizona Center, 400 E. Van Buren
Phoenix, Arizona 85004-2202
(602) 382-6000

2. The above property is presently being developed by Wiser as part of a residential subdivision known as Silver Canyon Ranch ("Silver Canyon").

3. It is anticipated that Silver Canyon will have no more than 91 lot sites, depending on the final zoning approved by the Peoria City Council.

4. A&B was the owner and developer of approximately 60 acres being developed as the Silver Crest and Summit subdivisions, a description of which is attached as Exhibit B.

5. A family trust of which Bruce A. Agenter, a full-time resident of Scottsdale, Arizona, and his spouse are the sole trustees, owns all the equity in Wiser.

6. Mr. Agenter is also an officer of A&B.

7. The property owned by Wiser and A&B, which is described in Exhibits A and B, is within the certificated water utility service area of Sunrise, an Arizona corporation, pursuant to authority granted Sunrise by the Arizona Corporation Commission ("Commission"), and within an Active Management Area ("AMA") as determined by the ADWR.

8. Wiser has requested water service from Sunrise for Silver Canyon.

9. Sunrise has refused to provide water service to Silver Canyon, or even execute an appropriate "Intent to Serve" letter, unless Wiser enters into a main extension agreement requiring the following advances and contributions: a) a refundable advance-in-aid equal to the estimated cost of all on-site water distribution facilities; and, (b) a refundable advance-in-aide of the estimated cost of the off-site system improvements and expansions listed on Exhibit C, attached hereto.

10. Sunrise had previously demanded that A&B provide, at its expense, the entire cost of a new 12-inch water transmission line not used exclusively for either Silver Crest or Summit, thus requiring Complainant A&B to bear the an additional cost for backbone utility plant of approximately $54,200.

11. Upon final approval of Silver Canyon by Peoria, Wiser is ready, willing and able to commence construction of all on-site facilities at Silver Canyon in accordance with the plans and

Snell & Wilmer
L.L.P.
LAW OFFICES
One Arizona Center, 400 E. Van Buren
Phoenix, Arizona 85004-2202
(602) 382-6000

specifications to be approved by Sunrise and subject to Sunrise's inspection prior to its acceptance of such facilities, which facilities would be provided to Sunrise as an advance-in-aid of construction.

12. The off-site improvements and additions described in Exhibit C and in Paragraph No. 10 above will not be used exclusively for providing water service to Silver Canyon or to Silver Crest and Summit, as required by A.A.C. R14-2-406 (B) ("Rule 406").

13. Sunrise has conducted no analysis of whether the incremental investment required (if any) for the off-site improvements and additions is disproportionate to the anticipated revenues to Sunrise from Silver Canyon and/or from other Sunrise customers to be served by the off-site improvements and additions, as is required by Rule 406.

14. Neither Rule 406 nor Sunrise's tariffs authorize Sunrise to demand an advance or contribution for the off-site improvements and additions described above.

15. No Commission decision or order has authorized Sunrise to collect from Wiser or A&B any capacity expansion or similar fee for the construction of new and/or additional backbone utility plant.

COUNT NO. 2

16. Complainants Wiser and A&B hereby incorporate by reference the allegations contained in Paragraphs 1-15 of this Complaint.

17. Sunrise is owned and/or controlled by Mr. J.D. Campbell and his spouse.

18. Mr. Campbell and one or more members of his family own or control various entities engaged in real estate development, or personally engage in such development, within the Sunrise service area in direct competition with Wiser and A&B.

Snell & Wilmer
L.L.P.
LAW OFFICES
One Arizona Center, 400 E. Van Buren
Phoenix, Arizona 85004-2202
(602) 382-6000

19. On information and belief, Sunrise has not requested that J.D. Campbell-controlled real estate enterprises or projects pay for similar off-site improvements or additions to the Sunrise water system.

20. Upon information and belief, Sunrise has offered water service to other developers within its certificated water service area on terms and conditions more favorable than those demanded of Wiser and A&B.

COUNT NO. 3

21. Complainant A&B hereby incorporates by reference the allegations contained in Paragraphs 1-20 of this Complaint.

22. On December 7, 1998, A&B entered into a line extension agreement (Water Facilities Agreement No. 98-004) with Sunrise for the Silver Crest and Summit subdivisions, which agreement was subsequently approved by the Commission.

23. The amounts advanced by A&B to Sunrise under the above agreement ($154,560) were in excess of the actual cost of constructing the water facilities covered by such agreement and are therefore refundable to A&B pursuant to Rule 406.

24. Sunrise has failed to make the above refunds to A&B within 30 days of completion of the facilities and Sunrise's receipt of final invoices.

COUNT NO. 4

25. Complainant Wiser hereby incorporates by reference the allegations contained in Paragraphs 1-24 of the Complaint.

26. To the extent the Commission finds that a new well, storage tank or other off-site facilities are reasonably necessary for the provision of water service to Silver Canyon and other potential Sunrise customers, Sunrise has failed to make made adequate investment in utility facilities needed to provide water service within its certificated service area.

Snell & Wilmer
L.L.P.
LAW OFFICES
One Arizona Center, 400 E. Van Buren
Phoenix, Arizona 85004-2202
(602) 382-6000

27. Complainants A&B have previously provided Sunrise with more than adequate advances in order to provide water service to their properties.

28. The estimate of cost for such off-site facilities is grossly overstated and unreasonable.

COUNT NO. 5

29. Complainants Wiser and A&B hereby incorporate by reference the allegations contained in Paragraphs 1-28 of this Complaint.

30. Sunrise has entered into various line extension or similar advance-in-aid agreements with other developers within its service area.

31. Upon information and belief, Sunrise has collected funds pursuant to such agreements for water facilities that subsequently were never built.

COUNT NO. 6

32. Complainants Wiser and A&B hereby incorporate by reference the allegations contained in Paragraphs 1-31 of this Complaint.

33. Wiser requested Sunrise to provide a "preliminary sketch and rough estimate of the cost of installation" to be paid by Wiser for Silver Canyon in the way of an advance-in-aid.

34. Sunrise refused to provide Wiser such an estimate until Wiser advanced Sunrise the sum of $4,000.

35. Some 60 days after Wiser had provided the advance demanded by Sunrise, Sunrise provided Wiser with an estimate of cost for off-site improvements but not the "estimated reasonable cost of all mains, including all valves and fittings."

36. Sunrise has never provided Wiser with a preliminary sketch of any facilities related to Silver Canyon, off or on-site.

Snell & Wilmer
L.L.P.
LAW OFFICES
One Arizona Center, 400 E. Van Buren
Phoenix, Arizona 85004-2202
(602) 382-6000

37. The mailing address of Wiser is P.O. Box 6410, Scottsdale, Arizona 85261-6410. All communications, pleadings and correspondence should be served upon:

Bruce A. Agenter
Wiser Investments, L.L.C.
P.O. Box 6410
Scottsdale, Arizona 85261-6410

and

Thomas L. Mumaw, Esq.
Snell & Wilmer, L.L.P.
One Arizona Center
Phoenix, Arizona 85004-0001
Phone: (602) 382-6396
Fax: (602) 382-6070
E-mail: mumawt@swlaw.com

* * *

WHEREFORE, Complainants request that the Commission enter an Order or Orders:

A. finding that Sunrise is obligated to provide public utility water service to Silver Canyon in accordance with the Commission's rules and regulations and directing Sunrise to take all steps necessary to provide water service to Silver Canyon, including but not limited to the execution of an Intent to Serve letter;

B. finding that Sunrise is not legally entitled to any advance or contribution of funds from Wiser for off-site improvements or additions prior to or as a condition of extending water service to Silver Canyon;

C. finding that Sunrise has discriminated against Wiser and other non-affiliated developers within its certificated service area;

D. finding that A&B is entitled to a refund or credit for the cost of the 12-inch transmission line it has already constructed on Sunrise's behalf;

E. finding that A&B is entitled to a refund of its 1998 advance to Sunrise that was in excess of the actual cost of constructing facilities under that 1998 agreement.

F. finding that Sunrise was required to provide Wiser the "preliminary sketch and rough estimate referenced in Count No. 6 of the Complaint without charge and ordering Sunrise to refund $4,000 to Wiser.

G. directing Sunrise to make adequate investment so as to be able to provide water service to Complainant's properties;

Snell & Wilmer
L.L.P.
LAW OFFICES
One Arizona Center, 400 E. Van Buren
Phoenix, Arizona 85004-2202
(602) 382-6000

H. directing Sunrise to make refunds to other developers of any amounts advanced for facilities that were not constructed by Sunrise.

I. finding that Sunrise's certificate of convenience and necessity should be revoked if Sunrise does not follow the directives of the Commission as contained in such Order or Orders;

J. levying a fine against Sunrise for its violations of: A.R.S. §§ 40-334, 40-361 and 40-374; Article 15, § 12 of the Arizona Constitution; and A.A.C. R14-2-406; and

K. granting Complainants such other and additional relief as the Commission determines to be just and proper.

RESPECTFULLY SUBMITTED this 1st day of November, 2000.

SNELL & WILMER L.L.P.

BY Thomas L. Mumaw

Thomas L. Mumaw
One Arizona Center
Phoenix, Arizona 85004

Attorneys for Wiser Investments, L.L.C., and A&B Investments, Inc.

Snell & Wilmer
L.L.P.
LAW OFFICES
One Arizona Center, 400 E. Van Buren
Phoenix, Arizona 85004-2202
(602) 382-6000

EXHIBIT A

Order Number: 259991

LEGAL DESCRIPTION

Parcel No. 1:

The Northeast quarter of the Southwest quarter of the Northeast quarter of Section 11, Township 4 North, Range 1 East, of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

Parcel No. 2:

The West half of the East half of the Northwest quarter of the Northeast quarter of Section 11, Township 4 North, Range 1 East, of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

Parcel No. 3:

The South 990 feet of the North 2310 feet of the following described property:

The Northwest quarter of the Northwest quarter of the Southeast quarter and the West half of the West half of the Northeast quarter of Section 11, Township 4 North, Range 1 East, of the Gila and Salt River Base and Meridian, Maricopa County, Arizona..

Parcel No. 4:

The Northwest quarter of the Northwest quarter of the Southeast quarter and the West half of the West half of the Northeast quarter of Section 11, Township 4 North, Range 1 East, of the Gila and Salt River Base and Meridian, Maricopa County, Arizona;

EXCEPT the North 2310 feet thereof; and

EXCEPT the South half of the Northwest quarter of the Northwest quarter of the Southeast quarter of said Section 11.

Parcel No. 5:

The South half of the Northwest quarter of the Northwest quarter of the Southeast quarter of Section 11, Township 4 North, Range 1 East, of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

Parcel No. 6:

The East half of the East half of the Northwest quarter of the Northeast quarter of Section 11, Township 4 North, Range 1 East, of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

Parcel No. 7:

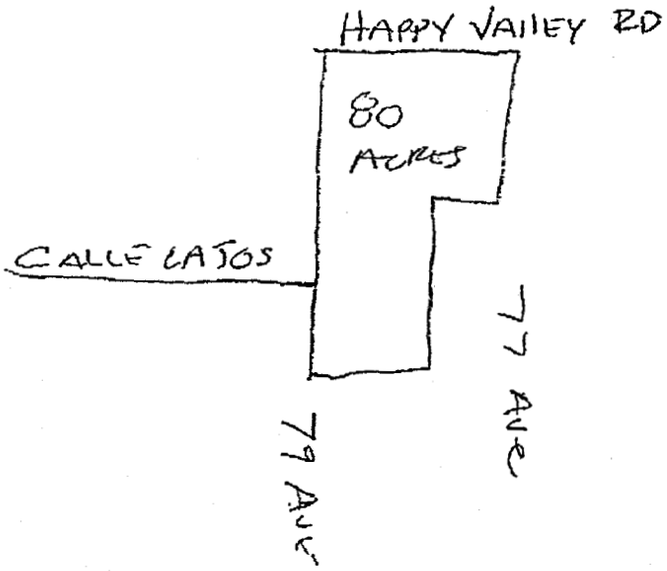
The North half of the Northwest quarter of the Northwest quarter of the Northeast quarter of Section 11, Township 4 North, Range 1 East, of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

Parcel No. 8:

The Southwest quarter of the Northwest quarter of the Northeast quarter of Section 11, Township 4 North, Range 1 East, of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

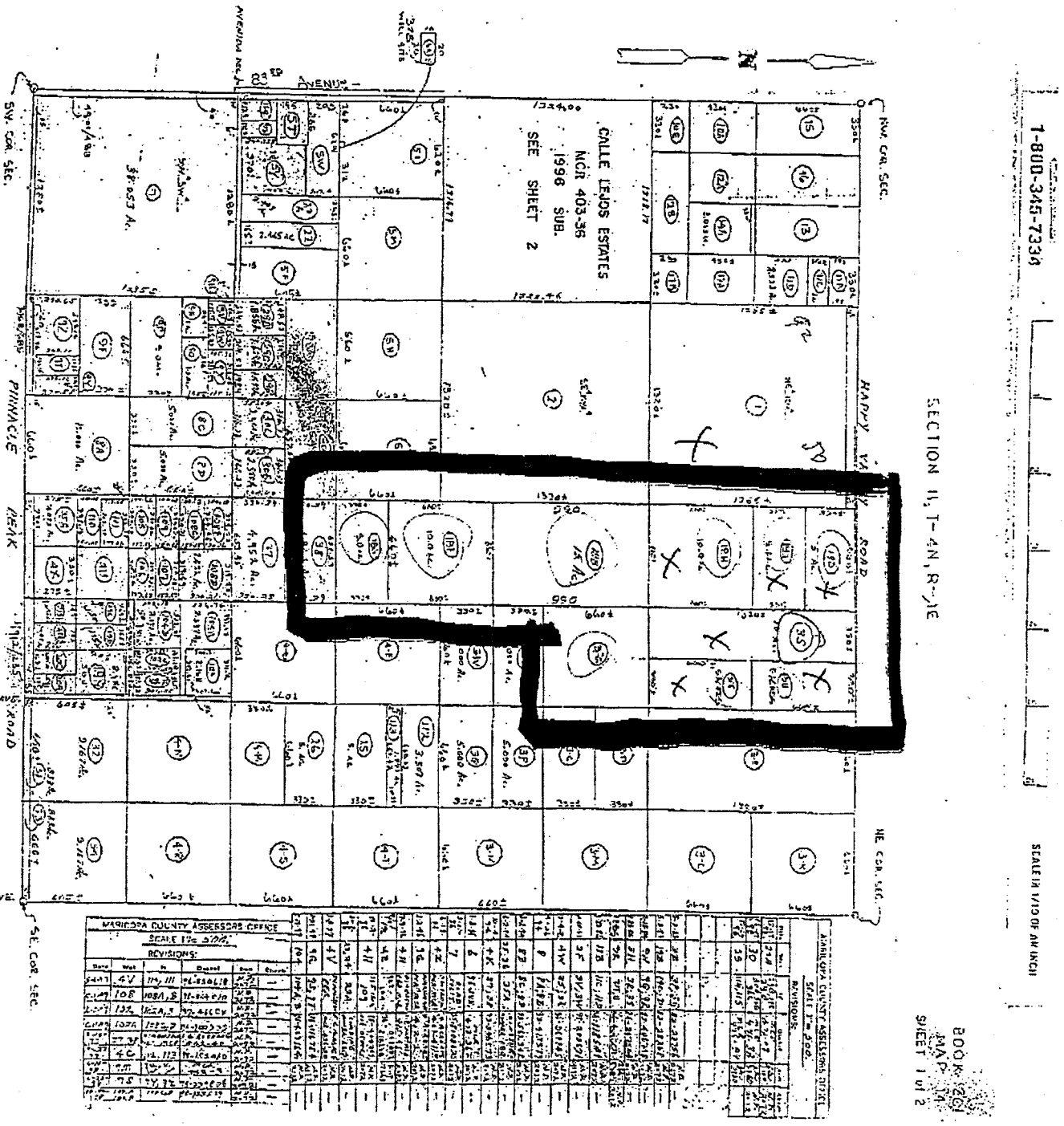
Parcel No. 9:

The South half of the Northwest quarter of the Northwest quarter of the Northeast quarter of Section 11, Township 4 North, Range 1 East, of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.



~~Attn: Bruce~~

FEB 04 2000



SUMMIT AT SUNRISE MOUNTAIN

Legal Description

That portion of the Southeast quarter of the Northeast quarter of Section 10, Township 4 North, Range 1 East, of the Gila and Salt River Base and Meridian, Maricopa County, Arizona, more particularly described as follows:

BEGINNNG at the East quarter corner of said Section 10; thence North 90 degrees 00 minutes 00 seconds West recorded North 89 degrees 59 minutes 57 seconds West measured along the South line of said Southeast quarter for a distance of 1322.34 feet recorded 1322.49 feet measured to a point on the West line of said Southeast quarter; thence North 00 degrees 00 minutes 12 seconds East along said West line for a distance of 623.42 feet recorded 623.30 feet measured; thence South 90 degrees 00 minutes 00 seconds East for a distance of 1321.44 feet recorded South 89 degrees 59 minutes 57 seconds East for a distance of 1321.60 feet measured to a point on the East line of said Southeast quarter; thence South 00 degrees 04 minutes 45 seconds East along said East line for a distance of 623.42 feet recorded 623.30 feet measured to the TRUE POINT OF BEGINNING.

SILVER CREST AT TREASURE CANYON and

LEGAL DESCRIPTION

The Southeast quarter of the Northwest quarter of Section Eleven (11), Township Four (4) North, Range One (1) East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

EXHIBIT C

RBF CONSULTING

August 15, 2000

Job Number 45-098569

J.D. Campbell
Sunrise Water Company
9098 West Pinnacle Peak Road
Peoria, AZ 85382

Subject: Silver Canyon Ranch Water Infrastructure

Dear Mr. Campbell:

The subdivision Silver Canyon Ranch has 90 lots. This development was not considered in the water demand analysis submitted to the Corporation Commission. The additional 90 units add an average day demand of approximately 76,140 gallons per day (53 gallons per minute). This is more than eight percent (8%) of the total water demand on the system. We have revised our demand analysis accordingly, and have included it with this letter.

Also attached are copies of the Engineer's Opinion of Probable Costs for improvements associated with this project. These improvements are justified based on the revised demand analysis calculations. Please feel free to contact me at RBF Consulting with any questions related to this information.

Sincerely,

Scott M. Larson, P.E.
Vice President
Water Resources

Registered Professional Engineer (Civil) CERTIFICATE NO. 11589 SCOTT MARVIN LARSON Date Signed 8-16-00 ARIZONA, U.S.A.

REVISED PEAK DEMAND CALCULATIONS

Gallons Pumped: *25,535,000 gallons* (June 2000)

Average Day Demand, Peak Month: *851,167 gallons per day* = 25,535,000 gallons ÷ 30 days

Total Customers: *1,006 customers*

Average Day Usage per Customer: *848 gallons/day/customer* = 851,167 gallons/day ÷ 1,006 customers

Average Day Usage per Person: *282 gallons/person/day* (Note: each customer represents 3 persons—assuming 3 persons per dwelling unit)

Peak Day Demand per Person: *319 gallons/person/day* = 1.13 × 282 gallons/person/day

Number of Units Served: *997 units*

- Existing System October 1999 = 913 units
- Silver Crest development = 59 units
- Summit development = 16 units
- ***Proposed Silver Canyon development = 90 units***
- Additional developments = 9 units

Required Pumping Capacity, Peak Day: *1,040,259 gallons/day* = 319 gallons/person/day × 1,087 units × 3 persons/unit

18-hour Pumping Capacity: *963 gallons/minute* = *1,040,259* gallons/day ÷ 1,080 minutes

24-hour Pumping Capacity: *722 gallons/minute* = *1,040,259* gallons/day ÷ 1,440 minutes

Capacity of Available Sources: *709 gallons/minute*

- Well #2 = 199 gallons/minute
- Well #3 = 185 gallons/minute
- Well #4 = 325 gallons/minute

Source Capacity with Largest out of Service: *384 gallons/minute*

Engineer's Opinion of Probable Cost
for Ranch at Silver Canyon

	Description	Quantity	Unit	Unit Price	Total Price
1	*Well - drilled and cased 8" to 1,200'	1	L.S.	$261,480	$261,480
2	*Well site	1	L.S.	$40,000	$40,000
3	30 hp well pump and motor installed (100 gpm at 773 ft)	1	L.S.	$17,550	$17,550
4	Well site electric controls	1	L.S.	$6,000	$6,000
5	Hydropneumatic tank (3,000 gal)	1	L.S.	$10,000	$10,000
6	Storage (100,000 gal welded steel tank) includes tank, foundation, manifold, and site piping	1	L.S.	$119,150	$119,150
7	Booster pumps (15 hp) at well site	2	Each	$10,000	$20,000
8	Booster pump & manifold extension at 83rd Ave & Hatfield & pump station	1	L.S.	$25,000	$25,000
9	150 KW Generator	1	L.S.	$44,000	$44,000
10	Block fence (6' high) around well site	540	L.F.	$27	$14,580
11	Walk Through Wrought Iron Gate	1	L.S.	$500	$500
12	Drive Through Wrought Iron Gate (16-foot Wide)	1	L.S.	$1,500	$1,500
13	8" C-900 CL 200 Pipe On 83rd Ave 660' from Avenida del Sol to Mariposa Grande	660	L.F.	$25	$16,500
14	8" PVC C-900 CL 200 Pipe From Camino de Oro east 200' to west side of 83rd Ave; then north 430' to tie into existing 8" line	630	L.F.	$25	$15,750
15	‡ 3-Phase Power	1	L.S.	$30,000	$30,000
16	Motor Control Cabinet and Wiring	1	L.S.	$20,000	$20,000
17	SWC Supervision & Overhead (10%)				$64,201
18	Engineering Fees (7%)				$44,941
19	Contingency (10%)				$64,201
	TOTAL				$815,353

* Well site location is to be determined. A parcel within the subdivision is not acceptable to SWC because a well in that area is unlikely to have sufficient sustainable production capacity.
† See attached price proposal from Meners.
‡ Price will vary depending on actual site location and APS design requirements

STATE OF ARIZONA)
) ss.
County of Maricopa)

Bruce A. Agenter, being first duly sworn, upon his oath, deposes and says;

That he is a trustee for the BASE Trust , which holds the entire equity interest in Complainant Wiser Investments and Corporate Secretary of Complainant A&B Investments and is authorized to execute this verification for and on behalf of Complainants; that he has read the foregoing Complaint and knows the contents thereof, to be true to the best of his knowledge, information and belief.

BRUCE A. AGENTER

SUBSCRIBED AND SWORN to before me this 31 day of October, 2000.

Alice M. Brown
Notary Public

My Commission Expires:

Jan. 21, 2002

OFFICIAL SEAL
ALICE M. BROWN
NOTARY PUBLIC-ARIZONA
MARICOPA COUNTY
My Comm. Expires Jan. 21, 2002

MEMORANDUM

This is a new application.

To: Managers

From: Docket Control **Date Routed:** 11/8/00 **Initials:** CLP

Please list staff assignments, if any.

Initial & date by your name & pass the folder to the next manager on the list.

Please note: We need a 24 hour turn around per manager.

This folder should be returned to Docket Control by 11/14/00

No Water or Sewer

Kalleberg	Jarress	Williams	Kennedy	Olea
Initial	Initial	Initial	Initial RSK	Initial
Date	Date 11/8	Date	Date 11-9-00	Date
Shand		**DiNunzio**	**Bostwic**	**Wells**
Initial		Initial	Initial	Initial
Date		Date 11/13/00	Date 11-9-00	Date
		Fisher		**D. Smith**
		Initial		Initial OS
		Date 11/22/00		Date 11/13
Assigned Staff:	Assigned Staff:	Assigned Staff:	Assigned Staff: John Bostwick	Assigned Staff:

DOCKET: W-02069A-00-0885

COMPANY: Sunrise Water Company

CASE TYPE: K

DESC: Formal Complaint

DO NOT REMOVE THE COPY FROM THE FOLDER! IF YOU NEED A COPY, PLEASE MAKE ONE. THANK YOU!!

11/03/2000 11:58 AM

Docket Prepared By_____

SUMMARY OF CASE

UTILITIES DIVISION

DOCKET NO. W-02069A-00-0885 TYPE OF CASE Complaint

APPLICANT
RESPONDENT
COMPLAINANT Sunrise Water Company

APPLICATION SUBMITTED BY_____

PLACE Phoenix DATE 2-7-2001

BEFORE: Chairman_____

Commissioner_____

Commissioner_____

Hearing Officer Marc E. Stern

APPEARANCES: (For Applicants) Brown + Bain by Mr. Michael W. Patten

APPEARANCES: (In Opposition) Snell + Wilmer by Mr. Thomas L. Mumaw.

APPEARANCES: (Staff) _____

DISPOSITION OF CASE Matter to resume on February 14, 2001
Matter subsequently resolved.

Dawna J. Boswell
Official Reporter

COMMISSION REMARKS:_____

Docket Prepared By _____

SUMMARY OF CASE

UTILITIES DIVISION

DOCKET NO. W-02069A-00-0885 TYPE OF CASE Complaint

APPLICANT
RESPONDENT
COMPLAINANT Wiser Investments, L.L.C. and A&B Investments, Inc.

APPLICATION SUBMITTED BY _____

PLACE 1200 West Washington, Phoenix, Arizona DATE June 22, 2001

BEFORE: Chairman _____

Commissioner _____

Commissioner _____

Administrative Law Judge Marc E. Stern

APPEARANCES: (For Applicants) SNELL & WILMER, L.L.P., By Mr. Thomas L. Mumaw

APPEARANCES: (In Opposition) ROSHKA HEYMAN & DeWULF, PLC, By Mr. Michael W. Patten

APPEARANCES: (Staff) _____

DISPOSITION OF CASE Taken under advisement.

Dawna J. Boswell, C.C.R. No. 50326
Official Reporter

COMMISSION REMARKS: _____

0000042274

BEFORE THE ARIZONA CORPORATION COMMISSION

DOCKETED

MAR 2 5 2002

DOCKETED BY

EXHIBIT COS-5 Admitted

WILLIAM A. MUNDELL
CHAIRMAN
JIM IRVIN
COMMISSIONER
MARC SPITZER
COMMISSIONER

WISER INVESTMENTS, L.L.C. AND A&B INVESTMENTS, INC.

Complainants,

vs.

SUNRISE WATER COMPANY,

Respondent.

DOCKET NO. W-02069A-00-0885

DECISION NO. 64661

OPINION AND ORDER

DATE OF PRE-HEARING CONFERENCE: December 7, 2000

DATES OF HEARING: February 7 and June 22, 2001

PLACE OF HEARING: Phoenix, Arizona

ADMINISTRATIVE LAW JUDGE: Marc E. Stern

APPEARANCES: Snell & Wilmer, L.L.P. by Mr. Thomas L. Mumaw, on behalf of Wiser Investments, L.L.C. and A&B Investments, Inc.; and

Roshka, Heyman and DeWulf, by Mr. Michael W. Patten, on behalf of Sunrise Water Company.

BY THE COMMISSION:

On November 1, 2000, Wiser Investments, L.L.C. ("Wiser") and A&B Investments, Inc. ("A&B") (collectively "Complainants") filed with the Arizona Corporation Commission ("Commission") a complaint against Sunrise Water Company ("SWC" or "Respondent").

On November 27, 2000, SWC filed its Answer to the Complaint.

On November 29, 2000, by Procedural Order, the Commission scheduled a pre-hearing conference for December 7, 2000.

On December 7, 2000, the pre-hearing conference took place as scheduled with the parties present to attempt to resolve the issues raised in the Complaint.

On December 11, 2000, by Procedural Order, a hearing was scheduled for February 7, 2001.

On February 7, 2001, the hearing was convened as scheduled with the parties present with counsel. Following the presentation of a portion of the case, the proceeding was continued to February 14, 2001.

On February 13, 2001, the Complainants and the Respondent requested a brief continuance while they further attempted to settle the dispute.

On February 14, 2001, by Procedural Order, the proceeding was continued to February 28, 2001.

On February 26, 2001, counsel for the respective parties telephonically requested a continuance until after March 12, 2001 because of scheduling conflicts.

On February 28, 2001, by Procedural Order, the proceeding was continued until March 13, 2001. The parties subsequently requested a further continuance of the proceeding because they continued to attempt to reach a settlement in the case.

On April 4, 2001, by Procedural Order, the proceeding was continued until April 24, 2001. Shortly thereafter, the parties requested that the hearing be cancelled because they were expecting to reach a settlement. Pursuant to this request, the hearing was cancelled.

On May 29, 2001, the parties jointly requested a hearing be rescheduled on June 22, 2001 because they had been unable to arrive at a mutually beneficial agreement to resolve the Complaint herein.

On June 22, 2001, the proceeding was reconvened before a duly authorized Administrative Law Judge of the Commission at its offices in Phoenix, Arizona. Following the conclusion of the hearing, closing briefs were filed and the matter taken under advisement pending the filing of a Recommended Opinion and Order with the Commission.

* * * * * * * * * *

Having considered the entire record herein and being fully advised in the premises, the Commission finds, concludes, and orders that:

FINDINGS OF FACT

1. Pursuant to authority granted by the Commission, SWC provides public water utility service to approximately 1,100 customers in the vicinity of Peoria, Maricopa County, Arizona.

2. SWC's current rates and charges were made effective in Decision No. 53721 (August 31, 1983).

3. SWC presently provides service to three subdivisions, Eagle Canyon with 69 lots, Silver Crest with 59 lots, and Summit with 16 lots that have been or are being developed by Complainants[1].

4. On November 1, 2000, Complainants filed a Complaint against SWC in which it was alleged that Complainants are in the process of developing a new 80 acre residential subdivision, Silver Canyon Ranch ("Silver Canyon")[2], within SWC's certificated service area.

5. In conjunction with the development of Silver Canyon, Complainants have requested water service from SWC. Complainants allege that SWC has refused to provide a properly executed "Intent to Serve" letter in a form acceptable to the Arizona Department of Water Resources ("ADWR") unless Complainants execute a main extension contract ("Contract"). The contract requires advances and contributions equal to the estimated cost of all on-site water distribution facilities and the estimated cost of the off-site system improvements, totaling $815,353, as a condition to serve Silver Canyon. Complainants have also requested SWC to enroll Silver Canyon in the Central Arizona Groundwater Replenishment District.

6. Complainants primarily request that the Commission enter an Order finding that SWC: should take all steps necessary to provide service to Silver Canyon including executing a proper "Intent to Serve" letter; should not require Complainants to enter into a Contract for off-site improvements prior to, or as a condition of, extending service to Silver Canyon; should refund or credit the $54,200 cost of a 12-inch transmission line; should refund that portion of its advance under the 98 Contract in excess of its actual cost in the amount of $154,600; should refund the sum of $4,000 collected by SWC for a preliminary sketch and rough estimate for the cost of the Silver Canyon Contract, which Complainants allege was collected in violation of A.A.C. R14-2-406(B)(2); should make refunds due to other unknown developers; and should provide service in accordance

[1] Service to Eagle Canyon had been extended under Water Facilities Contract No. 97-004 ("97 Contract") and service to Silver Crest and Summit under Water Facilities Contract No. 98-004 ("98 Contract").

[2] Depending upon zoning and plat approval by the City of Peoria, Silver Canyon will contain not less than 60, nor more than 91 residential lots.

with the Commission's rules.

7. The off-site improvements to provide service to Silver Canyon will purportedly include a new well, additional storage and related facilities.

8. Complainants allege that they had previously been required by SWC to pay the entire cost of a 12-inch water transmission line of $54,200 which they contend was not used exclusively for either Silver Crest or Summit. Complainants believe the main constitutes additional "backbone plant" and are requesting a refund.

9. Based on the record and testimony by Mr. Daniel Tobar, a civil engineer called as an expert witness by the Complainants, SWC has three producing wells (not counting a fourth well paid for by Complainants under the 97 Contract) and storage capacity of 731,000 gallons of water. Mr. Tobar testified that SWC has water resources available far in excess of what is needed to provide service to Silver Canyon. He indicated that with the addition of the fourth well, which pumps 325 gallons of water per minute, the overall picture will be even better when it comes on line.

10. Based on Mr. Tobar's testimony, additional off-site improvements for backbone plant are not needed to provide service to Silver Canyon.

11. According to Mr. Bruce Agenter, a co-owner of Wiser and a principal with A&B, the developers are ready to proceed with plat plans for Silver Canyon with the City of Peoria ("City"), but SWC's willful failure to provide Complainants with an acceptable form of "Intent to Serve" letter has led to delays in further development.

12. Under the terms of the 97 Contract dated December 24, 1997, service was extended to the Eagle Canyon subdivision and reflected an advance of $157,500 for off-site facilities including the new fourth well. These facilities added 489 additional residential units to SWC's service capacity and easily enabled SWC to serve the 69 units at Eagle Canyon being developed by Complainants at the time, leaving an excess capacity of 420 units. Under the 97 Contract, Complainants also advanced an additional $140,754 for additional on-site water distribution facilities and related expenses, for a total of $298,254.

13. Under the terms of the 98 Contract dated December 7, 1998, service was extended to the 59 unit Silver Crest subdivision and the 16 unit Summit subdivision. Under the 98 Contract,

Complainants advanced the sum of $154,560 purportedly for off-site facilities necessary to extend service. An additional $161,525 was provided and expended under the 98 Contract for on-site advances for water distribution facilities, for a total of $316,085.

14. During the hearing, Mr. Agenter contended that a portion of the two contracts discussed above was to cover the $54,200 cost of a new 12-inch water main which was not used exclusively for either Silver Crest or Summit and would be utilized to extend service to a parcel to the east of the Complainants' property, consisting of approximately 45 acres owned by Mr. J.D. Campbell, SWC's president.

15. Although Mr. Agenter requested copies of the receipts to verify the expenditures made for off-site facilities under the terms of 97 Contract and the 98 Contract, SWC only provided documentation for the 97 Contract and not the 98 Contract. Invoices for the 97 Contract appear to validate its charges. However, Complainants have not received an accounting with respect to the 98 Contract, or the refund due pursuant to A.A.C. R14-2-406(B)(4), of $154,600. However, since it appears that approximately $3,000 was expended for engineering expenses, only $151,600 is claimed due by Complainants. There was no documentary evidence that the 98 Contract bore any relationship to the 97 Contract as claimed by Respondents.

16. Complainants contend that SWC has also charged other developers for main extension agreements and investments in other off-site facilities which were not constructed.

17. Mr. Agenter also pointed out that SWC had, in violation of A.A.C. R14-2-406(B)(2), required Complainants to pay $4,000 to SWC towards their advance to extend service to Silver Creek for a preliminary sketch and rough estimate, but SWC failed to provide him a preliminary sketch of either the on-site or the off-site facilities or the on-site estimates as required pursuant to A.A.C. R-14-2-406(B)(2).

18. There is no evidence that the additional facilities, including a well described in SWC's estimate for the proposed off-site advance for Silver Canyon, would be exclusively used by Silver Canyon or that the cost of the additional facilities is disproportionate to anticipated revenues to be derived from future customers using the facilities.

19. Based on the record, there is insufficient evidence that the Complainant should be

required to pay for any or all of the amounts alleged by Respondents' engineer for off-site facilities to serve Silver Canyon.

20. Based on the evidence, the funds advanced for off-site facilities under the terms of the 97 and 98 Contracts are being utilized to provide service to SWC customers other than those located in the Eagle Canyon, Silver Crest or Summit subdivisions.

21. According to Mr. Agenter, SWC has entered into main extension agreements with other developers without requesting advances for off-site facilities.

22. In the past five years, Respondent has invested only $73,000 of its own funds in backbone plant.

23. In response to the Complaint herein, Respondents argued that the Complainants were attempting to circumvent their responsibilities and shift the burden of development and its related cost to the ratepayers by requiring the water company to finance the cost of infrastructure for off-site facilities resulting in an increase in rate base which possibly could result in an increase in rates for existing customers.

24. While the Respondent argued that Complainants were premature in seeking a commitment for water service without a corresponding advance to fund additional off-site utility plant, Respondent delayed in providing Complainants with the proper form of an "Intent to Serve" letter which would assist the Complainants in securing approval of a preliminary plat from the City.

25. SWC maintains that its estimated off-site advance required for Silver Canyon is not inflated and is based upon prudent management of the water utility by avoiding overbuilding its system at the expense of investors and ratepayers. SWC argued that since the Complainants had not yet filed for rezoning of their property or submitted a preliminary plat to the City for approval, it is unknown how many lots will be contained within Silver Canyon.

26. Although the Respondent provided evidence that it had provided a letter on SWC's letterhead to the Complainants advising them of its intent to serve Silver Canyon, the record did not establish that it was in the proper form of an "Intent to Serve" letter required by ADWR on an agency approved form.

27. SWC's argument that the Complainants are attempting to contractually reserve

existing capacity for what it terms "speculative development" does not have sufficient merit to rebut the Complainants' evidence herein, which establishes that Respondent has sufficient water production and storage facilities to serve Silver Canyon.

28. In rebuttal to Complainants' allegations concerning the 12-inch main to service Silver Crest and Summit, Mr. Campbell pointed out a contributing factor to the cost of the 12-inch main was that it was upgraded to meet the requirements of the City's fire flow requirements.

29. In response to allegations concerning more favorable treatment to other developers, SWC stated that Complainants had received refunds of up to 20 percent over 20 years under the 97 and 98 Contracts as opposed to the more typical refund of 10 percent.

30. With respect to other claims made by Complainants on behalf of other developers, that SWC had charged other developers for facilities which had not been constructed and not refunded, SWC objected to the Complainants asserting these claims without authorization or without supporting evidence.

31. With respect to the Complainants' claim that SWC should refund the $4,000 paid at SWC's request for a preliminary sketch and rough estimate for the cost of an advance for a main extension for Silver Canyon, SWC submitted invoices which totaled $3,803.72. SWC argued that the monies were used for an engineering analysis that provided a detailed estimate of costs to serve Silver Canyon if it contains 90 lots.

32. However, according to Complainants, the detailed engineering analysis performed by SWC was premature because SWC failed to provide an "Intent to Serve" letter to Complainants, which is required for the City to provide zoning and plat approval. The City's zoning and plat approval is necessary before SWC can properly conduct its detailed engineering analysis.

33. Decision No. 58119 (December 23, 1992), found that, under A.A.C. R14-2-406, the Respondent water company was not legally entitled to any advance or contribution of funds for off-sites prior to, or as a condition of, extending water service to a new subdivision unless the compnay could demonstrate that the off-site facilities were required exclusively to serve the subdivision and that the cost of the facilities was disproportionate to ancitipated revenues. Similarly, we find that in order for the Complainants to be required to advance funds for off-site "backbone" facilities, SWC

must show that there is both a need for new off-site facilities and that the facilities would be used exclusively by the Respondents' future customers in the Silver Canyon subdivision. Additionally, SWC would have to prove that the cost of the additional off-site facilities was disproportionate to the anticipated new revenues from future customers to meet the requirements of A.A.C. R14-2-406(B)(1).

34. It has been shown by the preponderance of the Complainants' evidence there is no need for any funds to be advanced for the construction of additional off-site "backbone facilities" to serve Silver Canyon. In fact, we do not understand why SWC did not provide a properly executed "Intent to Serve" letter in a form acceptable to ADWR, or any of the other apparent strategies to delay preliminary plat approval for Complainants. We will order SWC to provide this letter hereinafter.

35. We do not agree with SWC's refusal to provide the "Intent to Serve" letter and its argument that it will be overextended by the request for service for Silver Canyon. SWC argues that the developers of Silver Canyon are trying to take advantage and utilize facilities ahead of other prospective developers, but the weight of the evidence establishes that Silver Canyon's developers are willing to go forward with their development at this time. There was no evidence of any other developers or prospective customers with a higher priority for service than Silver Canyon's request of unused capacity at this time. We find that SWC is not entitled to any advance or contribution for off-site improvements prior to, or as a condition of, extending water service to Silver Canyon.

36. We find that the Complainants do not have standing to raise complaints on behalf of other developers. However, since SWC has not had its utility plant or rates reviewed since Decision No. 53721 in 1983, we will require SWC to file for a rate review. We further direct Staff to review SWC's actions with respect to main extension agreements in a separate Docket.

37. Based upon our review of the record, with respect to the 12-inch transmission main, we find that there is insufficient evidence to establish the Complainants' claim in this case since the Respondent presented evidence that the City required this oversized main for fire protection purposes for increased flows to the Silver Crest and Summit subdivisions developed by the Complainants. Thus, a refund of $54,200 will not be approved.

38. With respect to the 98 Contract, we believe that a refund should be made to the Complainants for the advance to SWC for off-site backbone plant in the amount of $151,560. There is no documentary evidence linking the 98 Contract with the 97 Contract and the vast majority of receipts submitted in evidence with respect to the 97 and 98 Contracts pre-dated the signing of the 98 Contract. Further, there was no accounting for the 98 Contract.

39. With respect to Complainants' claim that SWC should refund the $4,000 paid for a "preliminary sketch and rough estimate of the cost of installation" for a main extension for Silver Canyon, we believe that the evidence supports the Complainants' claim. Clearly, SWC was aware that zoning and preliminary plat approval had not yet been granted and without such approvals, detailed plans and cost estimates requiring a deposit under A.A.C. R14-2-406(B)(2) should not have been required. The monies should be refunded or credited, at the Complainants' choice, to the expense of the detailed plans and cost estimates of the Silver Canyon main extension contract hereinafter.

CONCLUSIONS OF LAW

1. SWC is a public service corporation with the meanings of Article XV, Section 2 of the Arizona Constitution and A.R.S. §§ 40-246 and 40-334.

2. The Commission has jurisdiction over SWC and over the subject matter of the Complaint.

3. As the holder of a Certificate of Convenience and Necessity, SWC is obligated to provide service to all applicants for service including the Complainants herein without attaching unreasonable or pre-conditions for such service that violate the Commission's rules.

4. A.A.C. R14-2-406(B)(1) requires a water utility to establish both that additional off-site facilities are necessary and that they will be used exclusively by an applicant for service before such utility can require an advance or contribution for such facility as a condition of extending service to that applicant. It must also be shown that the cost of the additional facilities is disproportionate to anticipated revenues to be derived from future customers using those facilities.

5. A.A.C. R14-2-406(B)(4) specifies that where a water utility's actual cost of construction is less than the amount advanced by the customer, the utility shall make a refund to the

customer within 30 days after the completion of the construction or the utility's receipt of invoices related to that construction.

6. SWC should issue an "Intent to Serve" letter to Complainant in a form acceptable to ADWR and all other necessary documentation.

7. SWC should refund or credit, at Complainants' choice, the $4,000 paid for a preliminary sketch and rough estimate of the cost of installation for a main extension for Silver Canyon.

8. Based on our findings in Findings of Fact Nos. 34, 35, 36 38 and 39, SWC shall comply and provide the relief described therein and should refund, within 60 days of the effective date of this Decision, the $151,560 due to Complainants or its failure to comply could result in a finding of contempt of the Commission in violation of A.R.S. § 40-425.

ORDER

IT IS THEREFORE ORDERED that Sunrise Water Company shall, within 30 days of the effective date of this Decision, execute and submit as appropriate, an "Intent to Serve" letter in the form prescribed by the Arizona Department of Water Resources for Silver Canyon Ranch, as well as any other documents customarily required of a water utility in Maricopa County to extend service to the Complainants' properties, including but not limited to the enrollment of Complainants' properties into the Central Arizona Groundwater Replenishment District.

IT IS FURTHER ORDERED that Sunrise Water Company shall, within 30 days of the effective date of this Decision, enter into a main extension agreement for Silver Canyon Ranch, which agreement shall not require the advancement of funds for a well, additional storage, booster pumps, or any other off-site facilities and for which a $4,000 credit shall be applied, if not refunded, at the Complainant's choice, against the estimated cost of on-site facilities at Silver Canyon Ranch.

IT IS FURTHER ORDERED that Sunrise Water Company shall comply with Findings of Fact Nos. 34, 35, 36, 38 and 39 and Conclusion of Law Nos. 6, 7 and 8 hereinabove.

IT IS FURTHER ORDERED that Sunrise Water Company shall, in the future, comply with the requirements of Commission Rule A.A.C. R-14-2-406 with respect to main extension agreements.

. . .

IT IS FURTHER ORDERED that Sunrise Water Company shall refund to the Complainants the sum of $151,560, within 60 days of the effective date of this Decision.

IT IS FURTHER ORDERED that Sunrise Water Company shall file, within 120 days of the effective date of this Decision, information and data sufficient for Staff to conduct a rate review.

IT IS FURTHER ORDERED that this Decision shall become effective immediately.

BY ORDER OF THE ARIZONA CORPORATION COMMISSION.

CHAIRMAN COMMISSIONER COMMISSIONER

IN WITNESS WHEREOF, I, BRIAN C. McNEIL, Executive Secretary of the Arizona Corporation Commission, have hereunto set my hand and caused the official seal of the Commission to be affixed at the Capitol, in the City of Phoenix, this 25TH day of MARCH, 2002.

BRIAN C. McNEIL
EXECUTIVE SECRETARY

DISSENT _____

MES:mlj

64661

SERVICE LIST FOR: WISER INVESTMENT et al. v. SUNRISE WATER COMPANY

DOCKET NO. W-02069A-00-0885

Bruce A. Agenter
WISER INVESTMENTS
P.O. Box 6410
Scottsdale, AZ 85261

Thomas L. Mumaw
SNELL & WILMER
One Arizona Center
Phoenix, AZ 85004

J. D. Campbell
SUNRISE WATER CO.
9098 West Pinnacle Peak Road
Peoria, AZ 85282

Michael W. Patten
ROSHKA HEYMAN & DEWULF
400 East Van Buren, Ste. 800
Phoenix, AZ 85004

Christopher Kempley, Chief Counsel
Legal Division
ARIZONA CORPORATION COMMISSION
1200 West Washington
Phoenix, AZ 85007

Ernest Johnson, Director
Utilities Division
ARIZONA CORPORATION COMMISSION
1200 West Washington
Phoenix, AZ 85007

UTILITIES DIVISION
DECISIONS MAILING LIST

Decision No.: 64661 Date Mailed: 3/26/02
Company: Sunrise
Docket No.: W020069A OU 0885 Type:
Transcript No.(s):

- [ ] Original goes to the Executive Secretary
- [x] Commission Chairman
- [x] Commissioner
- [x] Commissioner
- [x] Utilities Director (+ 2 copies)
- [x] Tucson A.C.C.
- [x] Hearing Division
- [x] Legal Division
- [x] Docket (~~X~~ 2 copy)
- [x] Decision Folder
- [x] RUCO

Interested Parties:
44

Originator(s)

INTERESTED PARTIES: WATER/SEWER/ELECTRIC

- [ ] 4 Regular Mailing Matters
- [x] 15 County Board of Supervisors
- [x] Carole A. O'Brien – (AZ Dept. of Revenue): Water & Sewer/CC&N/Rates
- [ ] Jose Saguid – (AZ Dept. of Revenue): Electric/CC&N/Rates
- [ ] David Derron – (AZ Dept. of Revenue): Telecomm/CC&N/Rates
- [x] J. Calkins (AZ Dept. of Environmental Quality): Water Quality Division
- [x] netscan
- [x] D.D.

TOTAL 37

U-19 put 2. Next OM @ 1:30 pm

Open Meeting Cover Sheet
Utilities and Hearing Divisions

RECEIVED

2002 JAN 24 P 3:22

AZ CORP COMMISSION
DOCUMENT CONTROL

Company Name Wiser Investments / Sunrise Water Co.

d/b/a/

Docket Number W-02069A-00-0885

Docket Number

UTILITIES Submitted (Pink cover sheet)	
☐	1st Original + 3 copies - Go to Cantrece, then Shelly
☐	2'd Original and 1 extra copy for the filing basket
☐	3 Commissioners (Spitzer, Irvin, Mundell)
☐	Hearing - 2 copies
☐	Legal - 1 copy
☐	RUCO - 1 copy
☐	Director - All remaining copies

HEARING Submitted	
☑	1st Original + 3 copies - Go to Cantrece, then Shelly
☐	2'd Original and 1 extra copy for the filing basket
☐	3 Commissioners (Spitzer, Irvin, Mundell)
☐	Legal - 1 copy (Do NOT send Securities matters)
☐	RUCO - 1 copy
☐	Director - All remaining copies

List names of all non-A.C.C. people from service list on last page of document (Last names only.)

1. Agenter
2. Mumaw
3. J.D. Campbell
4. Patten
5.
6.
7.
8.
9.
10.

WILLIAM A. MUNDELL
CHAIRMAN
JIM IRVIN
COMMISSIONER
MARC SPITZER
COMMISSIONER

OPEN MEETING ITEM

ARIZONA CORPORATION COMMISSION

BRIAN C. McNEIL
EXECUTIVE SECRETARY

U-19

RECEIVED

2002 JAN 24 P 3:22

AZ CORP COMMISSION
DOCUMENT CONTROL

DATE: January 24, 2002

DOCKET NO: W-02069A-00-0885

TO ALL PARTIES:

Enclosed please find the recommendation of Administrative Law Judge Marc E. Stern. The recommendation has been filed in the form of an Opinion and Order on:

WISER INVESTMENTS, L.L.C. et al. v. SUNRISE WATER CO.
(COMPLAINT)

Pursuant to A.A.C. R14-3-110(B), you may file exceptions to the recommendation of the Administrative Law Judge by filing an original and ten (10) copies of the exceptions with the Commission's Docket Control at the address listed below by **4:00 p.m.** on or before:

FEBRUARY 4, 2002

The enclosed is NOT an order of the Commission, but a recommendation of the Administrative Law Judge to the Commissioners. Consideration of this matter has tentatively been scheduled for the Commission's Working Session and Open Meeting to be held on:

FEBRUARY 26 AND 27, 2002

For more information, you may contact Docket Control at (602)542-3477 or the Hearing Division at (602)542-4250.

BRIAN C. McNEIL
EXECUTIVE SECRETARY

0000026682

BEFORE THE ARIZONA CORPORATION COMMISSION

WILLIAM A. MUNDELL
Chairman
JIM IRVIN
Commissioner
MARC SPITZER
Commissioner

Arizona Corporation Commission
DOCKETED
OCT 16 2002
DOCKETED BY

EXHIBIT
COS-6
Admitted

WISER INVESTMENTS, L.L.C. AND A&B INVESTMENTS, INC.,

Complainants

vs.

SUNRISE WATER COMPANY,

Respondent.

Docket No. W-02069A-00-0885

DECISION NO. 65270

ORDER

BY THE COMMISSION: .

On November 1, 2000, Wiser Investments, L.L.C. ("Wiser") and A&B Investments, Inc. ("A&B")(collectively "Complainants") filed with the Commission a complaint against Sunrise Water Company ("Sunrise" or "Respondent"). Sunrise filed its Answer to the Complaint on November 27,2000. The Commission conducted hearings concerning this matter on February 7, 2001 and June 22, 2001. On March 25, 2002, the Commission issued Decision No. 64661. Decision 64661 found that Sunrise violated A.A.C. R14-2-406, concerning main extension agreements, and ordered Sunrise to refund $151,560 within 60 days. Decision 64661 also ordered Sunrise to:

1) execute an "Intent to Serve" letter for the Silver Canyon Ranch subdivision;
2) enter into a main extension agreement for Silver Canyon Ranch, and refund or credit $4,000 to Complainants;
3) comply with A.A.C. R14-2-406; and
4) file a rate review within 120 days.

Decision 64661 also ordered Staff to conduct a review of Sunrise's actions with respect to main extension agreements in a separate docket. After Decision No. 64661, Sunrise timely filed a

Motion for Rehearing. The Motion for Rehearing was denied by operation of law, and Sunrise subsequently filed:

1) in this docket, an "Emergency Request for Modification of Decision" (filed May 23, 2002);

2) a Complaint in the Superior Court of Arizona in and for the County of Maricopa, Docket No. CV2002-010678, purportedly under A.R.S. § 40-254 (filed June 4, 2002);

3) a Notice of Direct Appeal in the Arizona Court of Appeals, Docket No. 1CA-CC-02-0001 (filed June 4,2002).

Staff and Complainants responded to Sunrise's Emergency Request, and the Emergency Request was denied by Procedural Order dated July 25,2002.

Sunrise and Complainants have entered into a "Settlement Agreement and Release" ("Agreement"), and have filed a "Joint Request for Modification of Decision". The Agreement is attached hereto as Exhibit 1. Sunrise and Complainants request that the Commission modify Decision 64661 by reducing the amount of the refund owed by Sunrise from $151,560 to $105,000. The Agreement provides that if we reduce the refund to $105,000 the pending cases in the Superior Court and the Court of Appeals will be dismissed.

We strongly encourage parties to settle matters before the Commission conducts hearings or enters an order in a matter. We emphasize that our orders must be complied with until we grant relief from the order. The Agreement has been voluntarily entered into by Sunrise and Complainants. Accordingly, we will reduce the amount of refund owed by Sunrise from $151,560 to $105,000. We do not adopt or approve any of the other provisions of the Agreement. We emphasize that all other provisions of Decision 64661 remain in full force and effect.

* * * * * * * * * *

Having considered the entire record herein and being fully advised in the premises, the Commission finds, concludes, and orders that:

FINDINGS OF FACT

1. Sunrise and Complaints have voluntarily entered into the Agreement.

2. Staff, Sunrise and Complaints request that we reduce the amount of refund owed by Sunrise from $151,560 to $105,000.

3. Sunrise has agreed to dismiss the pending cases in the Superior Court and the Court of Appeals if we reduce the amount of refund owed by Sunrise from $151,560 to $105,000.

CONCLUSIONS OF LAW

1. Sunrise is a public service corporation as defined by Article XV § 2 of the Arizona Constitution.

2. The Commission has jurisdiction over Sunrise and the subject matter of this order.

3. Pursuant to A.R.S. § 40-252, we may modify our prior orders.

4. It is reasonable and in the public interest to reduce the amount of refund owed by Sunrise from $151,560 to $105,000

5. No other provision of Decision 64661 should be affected or altered by this order, and all remaining provisions of Decision 64661 remain in full force and effect.

6. This order does not constitute approval of the provisions of the Agreement not described in Findings of Fact 2 and 3.

...

...

...

...

...

...

...

...

...

...

...

...

ORDER

IT IS THEREFORE ORDERED that Decision 64661 be modified pursuant to A.R.S. § 40-252 by reducing the amount of refund owed by Sunrise from $151,560 to $105,000.

IT IS FURTHER ORDERED that no other provisions of Decision 64661 are affected or altered by this order, and all remaining provisions of Decision 64661 remain in full force and effect.

IT IS FURTHER ORDERED that this order shall be effective immediately.

BY ORDER OF THE ARIZONA CORPORATION COMMISSION

CHAIRMAN COMMISSIONER COMMISSIONER

IN WITNESS WHEREOF, I, _____, Executive Secretary of the Arizona Corporation Commission, have hereunto, set my hand and caused the official seal of this Commission to be affixed at the Capitol in the City of Phoenix, this 16th day of October 2002.

BRIAN C. McNEIL
Executive Secretary

DISSENT_____

TJS:vk

The original and fifteen (15) copies of the foregoing were filed this _____ day of October, 2002, with:

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

DECISION NO. 65270

Copies of the foregoing were mailed/hand-delivered this _____ day of October, 2002 to:

Jeffrey B. Guldner
Jeffrey W. Crockett
Gary David Ansel
Snell & Wilmer
One Arizona Center
400 E. Van Buren
Phoenix, AZ 85004-2223
Attorneys for Wiser Investments, LLC and A&B Investments, Inc.

Robert J. Novak
Scott Rhodes
Robert R. Taylor
The Collier Center, Floor 11
201 East Washington Street
Phoenix, AZ 85004-2385
Attorneys for Sunrise Water Company

FORMAL COMPLAINT

ARIZONA CORPORATION COMMI

0000007726

COMPLAINT

2003 DEC -2 P 4: 58

AZ CORP COMMISSION
DOCUMENT CONTROL

Arizona Corporation Commission
DOCKETED

DEC 0 2 2003

DOCKETED BY

December 1, 2003

COMPLAINANT:

A&B Investments, Inc.
P. O. Box 6410
Scottsdale, AZ 85261-6410

W-02069A-03-0863

RESPONSIBLE PARTY:
Bruce A. Agenter
(OFC) 480-443-4225, (MOB) 602-694-4545, (FAX) 480-443-4190

UTILITY: SUNRISE WATER COMPANY, 9098 W. PINNACLE PK. RD., PEORIA, AZ 85382

EXHIBIT
COS-7
Admitted

RE: STARLIGHT CANYON – 81ST AVE., N. OF PINNACLE PEAK

GROUNDS FOR COMPLAINT:
1.) We have asked Sunrise Water Company for clarification of the invoices sent to us for payment. It seems to us we are being billed for more than the water line extension agreement requires. I requested clarification from Sunrise Water Company (copy attached). Sunrise Water Company responded with a letter suggesting we are in breach of our contract by not paying invoices we received only 3 days earlier (copy attached). We. would like to finalize our agreement with Sunrise Water Company as soon as possible.

NATURE OF RELIEF SOUGHT:
For Sunrise Water Company to provide us invoicing to make clear the outstanding balance owed or credits due us and to reimburse us for any expenses we incur to finalize our agreement

GROUNDS FOR COMPLAINT:
2.) We were charged for off-site facilities that it appears will also be used for a development the owner of Sunrise Water Company is in the process of developing.

NATURE OF RELIEF SOUGHT:
For the owner of Sunrise Water Company to share in the cost of these facilities equally with us on a per lot basis.

GROUNDS FOR COMPLAINT:
3.) We were required by Sunrise Water Company to make 3 tie-ins that added approximately 50% to the cost of the Water Distribution for our project. It appears this will benefit the owner of Sunrise Water Company's project and was probably not required for our project. It appears this has not been a requirement for other projects Sunrise Water Company's owner has developed or is in the process of developing..

NATURE OF RELIEF SOUGHT:
For Sunrise Water Company to share in an equal per lot basis for any Distribution Facilities we installed that will benefit Sunrise Water Company's owners projects as well. For developments in the Sunrise Water Company's area to be treated the same as properties developed by Sunrise Water Company's owner and associates.

GROUNDS FOR COMPLAINT:
4.) It appears the statements Sunrise Water Company made at a previous Corporation Commission hearing were not entirely accurate.

NATURE OF RELIEF SOUGHT:
For Sunrise Water Company to correct any incorrect statements for the record.

I appreciate your assistance in this matter.

Attached please find a copy of one of the 53 pages of invoices Sunrise Water Company faxed to us. This copy is one example of the invoices needing clarification.

Sincerely,

Bruce A. Agenter
A&B Investments, Inc.

Enclosures: (8 pages)

SUNRISE WATER CO.

9098 W. Pinnacle Peak Road
Peoria, Arizona 85383

Phone: 623-972-6133 Fax: 623-566-8925

e-mail: jdcampbell9098@qwest.net

November 6, 2003

VIA FAX: 480-443-4190

Mr. Bruce Agenter
A & B Investments, Inc.
8129 N. 87th Place
Scottsdale, AZ 85258

Re: Water Facilities Agreement No. 03-001 for Starlight Canyon dated February 25, 2002 (the "Agreement")

Dear Mr. Agenter:

You are in breach of the referenced contract because you have demanded that Sunrise Water Co. (SWC) install water meters to supply some of the lots in the Starlight Canyon subdivision prior to full performance and satisfaction of all the duties, obligations, conditions and requirements imposed on you, the Developer, under the referenced Agreement. Specifically, you have failed to pay SWC for its out-of-pocket costs for Starlight Canyon in the amount of $11,743.97 stated on the October 31, 2003 schedule enclosed with our letter dated November 3, 2003, pursuant to Section 2.D(3) of the Agreement.

In the interest of facilitating completion of the homes which are in progress at this time, SWC will waive its rights under Section E(1) of the Agreement and accept payment for installation of the subject water meters, but does not waive any other rights or remedies under the Agreement.

To clarify, SWC will not delay home construction in Starlight Canyon by refusing to install meters or to commence water delivery, although SWC has the clear right under the Agreement to do so. By waiving this right under the Agreement, SWC is <u>not</u> waiving its rights in regard to your breach of the Agreement. Accordingly, if payment of $11,743.97 (as outlined in our November 3, 2003, letter) is not received by November 17, 2003, we will pursue our available remedies, including but not limited to, an action to collect not only those expenses listed on the October 31, 2003 schedule, but also every other expense paid or incurred by SWC in connection with Starlight Canyon, plus interest and attorney's fees.

Sincerely,

Marvin E. Collins

Marvin E. Collins
Manager

SUNRISE WATER CO.

9098 W. Pinnacle Peak Road
Peoria, Arizona 85383

Phone: 623-972-6133 Fax: 623-566-8925

e-mail: jdcampbell9098@qwest.net

November 18, 2003

VIA FAX: 480-443-4190

Mr. Bruce Agenter
A & B Investments, Inc.
8129 N. 87th Place
Scottsdale, AZ 85258

Re: Starlight Canyon
Balance Payable to Sunrise Water Co.

Dear Mr. Agenter:

Sunrise Water Co. has not received the payment of $11,743.97 requested in our November 6, 2003, letter to be paid no later than November 17, 2003.

We disagree with the points set forth in your November 6, 2003, reply and are therefore forwarding the matter to our legal counsel for collection. To avoid any misunderstanding, Sunrise Water Co. will provide meters and water service upon request so that your development will in no way be delayed by this dispute. By doing so, we are neither acquiescing to your non-payment nor waiving any claims or remedies. To the contrary, we have instructed our legal counsel to prepare a complaint against you for breach of contract.

Sincerely,

Marvin E. Collins

Marvin E. Collins
Manager

MEC:ks

8129 N. 87th Pl.
Scottsdale, AZ
85258

Telephone:
480/609-4380
Telecopier:
480/443-4190

A&B

INVESTMENTS, INC.

Scottsdale, Arizona

November 6, 2003

Mr. Marvin Collins
Sunrise Water Co.
9098 W. Pinnacle Peak Rd.
Peoria, AZ. 85383

Dear Mr. Collins:

Re: Starlight Canyon

Thank you for your faxed letter today. Also thank you for your assistance with providing temporary construction water to the homes under construction at Starlight Canyon.

I believe the wording "Breach of Contract" to be a little harsh as I did not "demand" water meters as you have suggested. I "requested" water meters (please see my letter dated 11-3-03 (copy attached). I also believe I made it clear in our phone conversation that we did not necessarily need "meters" but some method to test our plumbing, water in case of a small fire and for general construction while finalizing our agreement with Sunrise Water Co. I believed this to be a reasonable request, please refer to Sec. 8.E. (2) of the agreement. It states "If necessary, prior to the full performance of this Agreement, the Company may provide temporary water service to Developer, and his respective Contractors and Subcontractors and employees, on an as-available basis for construction related purposes within the Development. (copy attached). I have made no attempt to "cause the establishment of water utility service to any dwelling or person with out the prior written approval of the Company". (Please revisit E. (1) of the agreement (copy attached).

The statement that we "have failed to pay Sunrise Water Co. for its out-of-pocket costs for Starlight Canyon" also seems harsh considering I only received the revised schedule of Sunrise Water Co.'s non-reimbursed out-of pocket expenses by fax at 2:00 PM on October 31st and a further Sunrise Water Co. revision by fax at 4:00 PM on Monday, November 3rd. We are willing to pay Sunrise Water Co. for its out-of-pocket expenses in connection with construction of Starlight Canyon Distribution Facilities as our agreement states C. (5) (copy attached). I simply stated in my faxed letter to you on November 3rd that "It appears that from looking at the Water Line Facilities Agreement for Starlight Canyon the amount of out-of-pocket expenses for the distribution facilities should be any cost incurred after 10-08-02." (copy attached)

8129 N. 87th Pl.
Scottsdale, AZ
85258

Telephone:
480/609-4380
Telecopier:
480/443-9673

A&B

INVESTMENTS, INC.

Scottsdale, Arizona

I have received no explanation as to why we are being billed for items not related to the construction of the Distribution Facilities. I believe this to be a reasonable request. It seems to me that if there is a "Breach" of this contract it would be Sunrise Water Co.'s failure to complete the offsite facilities as agreed. Please see section 1 of the agreement. (copy attached)

Please review your invoices and let me know your thoughts prior to November 13th.

Thank you for your prompt attention to this matter

Sincerely,

Bruce Agenter

BAA/kzc

Attachments (5) copies

8129 N. 87th Pl.
Scottsdale, AZ
85258

Telephone:
480/609-4380
Telecopier:
480/443-4190

A&B

INVESTMENTS, INC.

Scottsdale, Arizona

November 3, 2003

Sent via Facsimile: (623) 566-8925

Mr. Marvin Collins
Sunrise Water Co.
9098 W. Pinnacle Peak Rd.
Peoria, AZ 85383

Dear Mr. Collins:

Re: Starlight Canyon

It appears that from looking at the Water Line Facilities Agreement for Starlight Canyon the amount of out-of-pocket expenses for distribution facilities should be any cost incurred after 10-8-02, this is the date of the pre-job meeting. (Per the inspectors report from Nickel Inspections Service, Inc. dated 10-8-02)

As you know we requested water meters be set for lots 7 & 11 at Starlight Canyon on October 9th. Please let me know if they can possibly be installed tomorrow or Wednesday. I will have the check delivered to your office today.

Please call me on my cell phone 602-694-4545 should you have any questions.

Sincerely,

Bruce Agenter

BAA:pes

CC: Ms. Mancelyn Howard (fax #602-843-8661)

Attachments: (4) Copies

Quality, the Maricopa County Environmental Services Department, and the City of Peoria. Upon the transfer of the Distribution Facilities, as provided herein, Developer shall retain no right, title or interest in them. Prior to such transfer, all risk of loss shall be with Developer, and the Company shall have no right or interest in the Distribution Facilities. Issuance of Company's Letter of Acceptance of the Distribution Facilities is conditioned upon the Contractor's transfer to Company of its warranties of workmanship and materials.

E. **Commencement of the Company's Obligation to Serve.**

(1) It is understood and agreed that the Company shall not be obligated or required to provide water utility service to any dwelling, lot or area within the Development unless this Water Facilities Agreement has been approved by the Arizona Corporation Commission and until Developer has fully performed and satisfied all duties, obligations, conditions, and requirements imposed on them hereunder. Under no circumstances shall Developer cause or attempt to cause the establishment of water utility service to any dwelling or person without the prior written approval of the Company. However, Developer may represent to or advise any third party that water utility service will be available pursuant to the terms of this Agreement.

(2) If necessary, prior to the full performance of this Agreement, the Company may provide temporary water service to Developer, and his respective Contractors and Subcontractors and employees, on an as-available basis for construction related purposes within the Development.

construction contract to the Company to enable the Company to have ten (10) days to review the contract. The Company shall approve the contract within ten (10) days or it shall be deemed approved by the Company.

(3) The construction contract between Developer and Contractor shall include provisions entitling Company and its inspector to inspect and approve the construction and installation work while it is being performed.

(4) An itemized preliminary cost estimate of the Distribution Facilities to be constructed pursuant to this Agreement is attached hereto and made a part hereof as Part II of Exhibit "B", Schedule A. Developer shall pay all actual costs and expenses associated with the construction and installation of the Distribution Facilities.

(5) The Developer shall pay to the Company actual overheads which shall include but not be limited to reasonable expenses paid or incurred by SWC for engineering, inspection, legal, and Mancelyn Howard consulting services in connection with construction of the Starlight Canyon distribution facilities.

During construction of the Distribution Facilities, Developer shall pay to SWC monthly costs paid or incurred by SWC in connection with the Subdivision for engineering, professional inspection and legal including consulting services of Mancelyn Howard.

(6) The size, design, type and quality of materials and of the system, location in the ground and manner of installation, shall be specified by the Company and shall conform with the requirements of the Arizona Department of Environmental Quality, the Maricopa County Environmental Services Department and any other public agencies having

SUNRISE WATER COMPANY
MAY 2001
JOB NO. 98509
PROGRESS BILLING REPORT
INVOICE NO 1 85007

PHASE OF WORK		AMOUNT OF CONTRACT	PERCENT OF COMPLETION	AMOUNT OF CONTRACT FEE EARNED	PREVIOUSLY INVOICED TO DATE	AMOUNT REMAINING	AMOUNT OF THIS INVOICE
PROFESSIONAL FEES							
PRINCIPAL	6.75 HRS @ $155/HR	$1,046.25		$1,046.25	$0.00	$0.00	$1,046.25
TECHNICIAN	6 00 HRS @ $ 55/HR	$330 00		$330.00	$0.00	$0.00	$330.00.

STARLIGHT CANYON

12

30

ORIGINAL

0000007731

MEMORANDUM

RECEIVED

2004 JAN 26 P 3: 59

AZ CORP COMMISSION
DOCKET CONTROL

TO: Docket Control

FROM: Ernest G. Johnson
Director
Utilities Division

DATE: January 26,2004

EXHIBIT
COS-8
Admitted

RE: A&B INVESTMENTS, INC. V. SUNRISE WATER COMPANY COMPLAINT IN THE PROVISION OF WATER SERVICE IN MARICOPA, ARIZONA (DOCKET NO. W-02069A-03-0863)

Attached is the Preliminary Staff Report for the above referenced complaint resulting from Staffs inspection and compliance review **required by the Procedural Order of December 30, 2003.** Staff recommends Sunrise Water Company, be required to demonstrate common facilities are funded consistent with the Arizona Administrative Code, refund any advance that is inconsistent and submit a rate application to ensure equitable funding of future common facilities.

EGJ:JEF:hml

Originator: Jim Fisher

Arizona Corporation Commission
DOCKETED

JAN 2 6 2004

DOCKETED BY

W02069A030863A&B V. SUNRISE

Service List for: A&B Investments, Inc. v. Sunrise Water Company
Docket No. W-02069A-03-0863

Mr. Bruce A. Agenter
A&B Investments, Inc.
Post Office Box 6410
Scottsdale, Arizona 85261

Scott Rhodes
Jennings, Strouss and Salmon, PLC
201 East Washington Street, 11th Floor
Phoenix, Arizona 85004

Mr. Christopher C. Kempley
Chief, Legal Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Mr. Ernest G. Johnson
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Ms. Lyn Farmer
Chief, Hearing Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

STAFF REPORT
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

A&B INVESTMENTS, INC.

V.

SUNRISE WATER COMPANY

DOCKET NO. W-02069A-03-0863

PRELIMINARY STAFF REPORT
IN THE A & B INVESTMENTS, INC.
COMPLAINT AGAINST
SUNRISE WATER COMPANY

JANUARY 2004

W02069A030863A&B V. SUNRISE

STAFF ACKOWLEDGEMENT

The Preliminary Staff Report for A & B Investments, Inc., V. Sunrise Water Company (Docket No. W-02069A-03-0863) was the responsibility of the Staff members listed below. Bradley Morton was responsible for the review and analyses of the Complaint. Dorothy Hains was responsible for the engineering and technical analysis. Jim Fisher was responsible for review of contract compliance matters.

Contributing Staff:

Bradley G. Morton

Bradley Morton
Consumer Services Specialist

Dorothy Hains

Dorothy Hains
Utilities Engineer

Jim Fisher
Executive Consultant II

EXECUTIVE SUMMARY
A&B INVESTMENTS, INC. V. SUNRISE WATER COMPANY
DOCKET NO. W-02069A-03-0863

On December 2,2003, A&B Investments, Inc. ("A&B") filed a complaint against Sunrise Water Company ("Sunrise" or "Company") regarding Sunrise's requirements for various payments on a Main Extension Agreement ("MXA") to serve Starlight Canyon ("Starlight"), an 18 home subdivision located at the northeast comer of Pinnacle Peak Road and 81st Avenue.

On March 14, 2002, Utilities Division Staff administratively approved the Starlight MXA. The MXA required A&B to provide $87,280 to fund construction of water facilities to ensure service to Starlight. According to the MXA, $6,800 was also required from A&B as a non-refundable Contribution in Aid of Construction to fund Williams Road Well Site improvements to meet fire flow. The contract also required A&B to pay "reasonable expenses paid or incurred" by Sunrise in connection with the construction of Starlight.

Staffs review of the available documentation supports a finding that the Sunrise Williams Road Well Site infrastructure was funded through four (4) separate MXA's. The Sunrise Williams Road Well Site is located in the south eastern comer of the Sunrise service area and is used to provide water and water pressure throughout a large segment of the service area. Staffs review of the system supports a finding that the entire system, not just Starlight, benefits from the available back-up booster pump.

According to the complaint, A&B is also concerned that Sunrise's billed expenses should reflect the contractual obligation of being reasonable for the construction of Starlight. During the previous complaint, Sunrise employed a number of consultants and A&B has now been billed for expenses of those consultants during the period of litigation. Staff believes that Sunrise should provide A&B with clear descriptions of the billed services to ensure only allowable costs are submitted to A&B for collection per the terms of the MXA.

Sunrise's use of MXA's to fund the off-site common facilities of the Williams Road Well Site appears ripe to warrant Commission review. The Williams Road Well Site is situated adjacent to numerous properties, including property owned by the utility's owner, that arguably obtain a current and future benefit from the water production, storage, pressure and transportation funded by the above discussed MXA's.

Staff recommends that Sunrise be required to demonstrate that the funding of the Williams Road Well Site common facilities is consistent with R14-2-406 B.1. Staff further recommends that in the event Sunrise is unable to demonstrate the common facilities were constructed for the exclusive use of the party advancing the funds, Sunrise should be required to refund those advances.

Staff further recommends that in any Commission decision in this matter that Sunrise Water Company be required to file a rate case. The rate case should be filed no later than June 1, 2004 and use a test year ending December 31,2003.

TABLE OF CONTENTS

	Page
Introduction	1
Background	1
Staff Review	2
Sunrise's Funding of Off-Site Facilities	3
Recommendations	4

ATTACHMENTS

Facilities Map	1

Introduction

On December 2, 2003, A&B Investments, Inc. ("A&B") filed a complaint against Sunrise Water Company ("Sunrise" or "Company") regarding Sunrise's requirements for various payments on a Main Extension Agreement ("MXA") to serve Starlight Canyon ("Starlight"), an 18 home subdivision located a the northeast comer of Pinnacle Peak Road and 81st Avenue.

On December 30,2003, a Procedural Order was issued by the Hearing Division requiring Utilities Division Staff ("Staff") to review the MXA and conduct a site inspection to determine whether the terms of the MXA are being met and whether any possible violation of the Commission's Rules or prior orders have occurred.

On January 7, 2004, Staff contacted the Company to obtain related documentation. On January 14, 2004, Staff conducted a site visit of Starlight and Sunrise's water production well site at the northwest corner of 79th Avenue and Williams Road ("Williams Road Well Site").

Background

On March 14, 2002, Staff administratively approved the Starlight MXA. The MXA required A&B to provide $87,280 to fund construction of water facilities to ensure service to Starlight. According to the MXA, $6,800 was also required from A&B as a Contribution in Aid of Construction to fund Williams Road Well Site improvements to meet fire flow. The contract also required A&B to pay "reasonable expenses paid or incurred" by Sunrise in connection with the construction of Starlight.

On March 25, 2002, in Decision No. 64661, the Commission found for A&B in a previous complaint against Sunrise. That complaint was initially filed November 1, 2000. In that complaint A&B argued that the costs of a production well at the Williams Road Well Site should not have been required to be wholly funded by the developer. In its decision on the matter, the Commission found no evidence that the Williams Road well would be "exclusively used" by A&B. The Commission wrote in part that "the funds advanced for off-site facilities under the terms of the (MXA) are being utilized to provide service to SWC customers other than those located in (A&B subdivisions.)"

In Decision No. 64661 Sunrise was required to file for rate review. Subsequent to Sunrise filing the initial documents for Staffs review, Sunrise represented to Staff that the utility was in the process of being acquired by Algonquin Water Resources of America, Inc. and that a rate case would eliminate the sale of the utility. Staff relied on the representations of Sunrise and was of the opinion that a change in the management of Sunrise would be in the public interest. Therefore, Staff did not require further action on the rate case while it had a reasonable expectation that Sunrise would be acquired. To date, no sale of Sunrise has occurred and the Commission has not reviewed the rates of Sunrise. The Company's current rates were authorized in Decision No. 53721 (August 31, 1983) based on a Test Year ended July 31, 1982.

On December 2, 2003, A&B filed a complaint against Sunrise regarding Sunrise's requirements for various payments on a MXA to fund the construction of facilities to serve Starlight. Starlight is generally located north and west of the Williams Road well site and adjacent to the First Free Will Baptist Church ("The Church") on the east end of the Starlight property.

Staff Review

Staffs review of the available documentation supports a finding that the Sunrise Williams Road Well Site infrastructure was funded through four (4) separate MXA's. The A&B MXA discussed in Decision No. 64661 funded the water production well itself. The well site obtained a 100,000 gallon storage tank through a December 29, 1999 MXA funded by Pleasant Vale Development, Co, LLC. The Church funded a 12-inch transmission line interconnecting the well site and storage facilities to the south eastern portion of Sunrise's service area. Sunrise has also required A&B to fund part of the cost of a reserve booster pump located at the Williams Road Well Site in the now disputed March 14,2002 MXA.

The Sunrise Williams Road Well Site is located in the south eastern corner of the Sunrise service area and is used to provide water and water pressure through out a large segment of the service area. The well site is interconnected to the system through the Church funded 12-inch transmission line. The 12-inch transmission line proceeds north from the well site along 79th Avenue to Pinnacle Peak Road.

During the Staff site review of January 14, 2004, Sunrise disclosed that a large vacant parcel, directly south of Starlight, and bounded by the Church funded 12-inch transmission line on the east and north is currently slated for development by Mr. J.D. Campbell, the current owner of Sunrise.

The March 14,2002 A&B MXA interconnects the Starlight subdivision with the existing Church laterals in the adjacent property to the east. In the December 2, 2003 A&B Complaint, it is alleged by A&B that the funds required for the booster pump were would not be "exclusively used" by Starlight. Staffs review of the system supports a finding that the entire system, not just Starlight, benefits from the available back-up booster pump.

According to the complaint, A&B is also concerned that Sunrise's billed expenses reflect the contractual obligation of being reasonable for the construction of Starlight. Sunrise employed a number of consultants for the complaint litigation and A&B has now been billed for expenses of those consultants during the period of litigation. Staff believes that Sunrise has a burden to ensure only those expenses associated with the MXA are billed to A&B. Staff believes that Sunrise should provide A&B with clear descriptions of the billed services to ensure only allowable costs are submitted to A&B for collection per the terms of the MXA.

On December 30,2003, a Procedural Order was issued by the Hearing Division requiring Staff to review the MXA and conduct a site inspection to determine whether the terms of the

MXA are being met and whether any possible violation of the Commission's Rules or prior orders have occurred.

Decision No. 64661 specifically required Sunrise to comply with Arizona Administrative Code R14-2-406, the main extension rules. In the normal course of business a water utility will submit a proposed MXA for Staff review and administrative approval. Staff reviews the contract for consistency with the rule and engineering principles.

The MXA rule applies to refundable agreements. A non-refundable agreement is inconsistent with the rule and requires a variance from the Commission to allow a utility to require non-refundable plant additions through a MXA. The March 14, 2002 A&B MXA contained a non-refundable portion related to the now disputed payment for the booster pump at the Williams Road Well Site. Staff believes that the available documentation supports a finding that the March 14,2002 A&B MXA is neither exclusively for the use of Starlight, nor refundable per the requirements of the Arizona Administrative Code. Staffs administrative approval of the MXA was inadvertent and the Company should have received Commission authorization for the contribution.

Sunrise's Funding of Off-Site Facilities

The Arizona Administrative Code at R14-2-406 B.1. states in part "In the event that additional facilities are required to provide pressure, storage or water supply exclusively for the new service or services requested... the estimated reasonable cost of such additional facilities may be included in refundable advances in aid of construction to be paid to the Company." In Decision No. 64661, the Commission found that as Sunrise had required a developer to advance funds for distinct pieces of off-site infrastructure that were not used exclusively for the associated development, those funds should be refunded.

Sunrise's use of MXA's to fund the off-site common facilities of the Williams Road Well Site seems to be ripe for a similar review. The Williams Road Well Site is situated adjacent to numerous properties, including property owned by the utility's owners, that arguably obtain a current and future benefit from the water production, storage, pressure and transportation funded by the above discussed MXA's. Staff recommends that Sunrise be required to demonstrate that the funding of the Williams Road Well Site common facilities is consistent with R14-2-406 B.1. Staff further recommends that in the event Sunrise is unable to demonstrate the common facilities were constructed for the exclusive use of the party advancing the funds, Sunrise should be required to refund those advances.

Staff has recognized that utility funding of distinct facilities that provide benefit to large segments of a water system should be apportioned equally. Staff has advocated, and the Commission has approved, hook-up fee tariffs to fund common facilities. Staff and Sunrise have discussed the benefit for Sunrise to apportion the costs of common facilities in an equitable manner. Sunrise has consistently refused to seek approval of a hook-up fee tariff as it would necessitate a rate case to determine fair value.

Staff believes that the facts in this case as they are known today, support a requirement that Sunrise be required to file a rate application to afford the parties the opportunity to ensure a proper determination of rate base and rate of return. A full rate case would also provide the Commission an opportunity to determine how future common facilities should be funded, i.e., equity, financing, MXA's, or hook-up fees.

Recommendations

Staff recommends that Sunrise Water Company be required to demonstrate that the funding of common facilities is consistent with the Arizona Administrative Code.

Staff recommends that in the event Sunrise Water Company is unable to demonstrate that the funding of common facilities is consistent with the Arizona Administrative Code, the utility should refund the advance to the effected party.

Staff further recommends that in any Commission decision in this matter that Sunrise Water Company be required to file a rate case. The rate case should be filed no later than June 1, 2004 and use a test year ending December 31,2003.

City Of Surprise Annexation Areas

SURPRISE
ARIZONA

Beyond Expectations

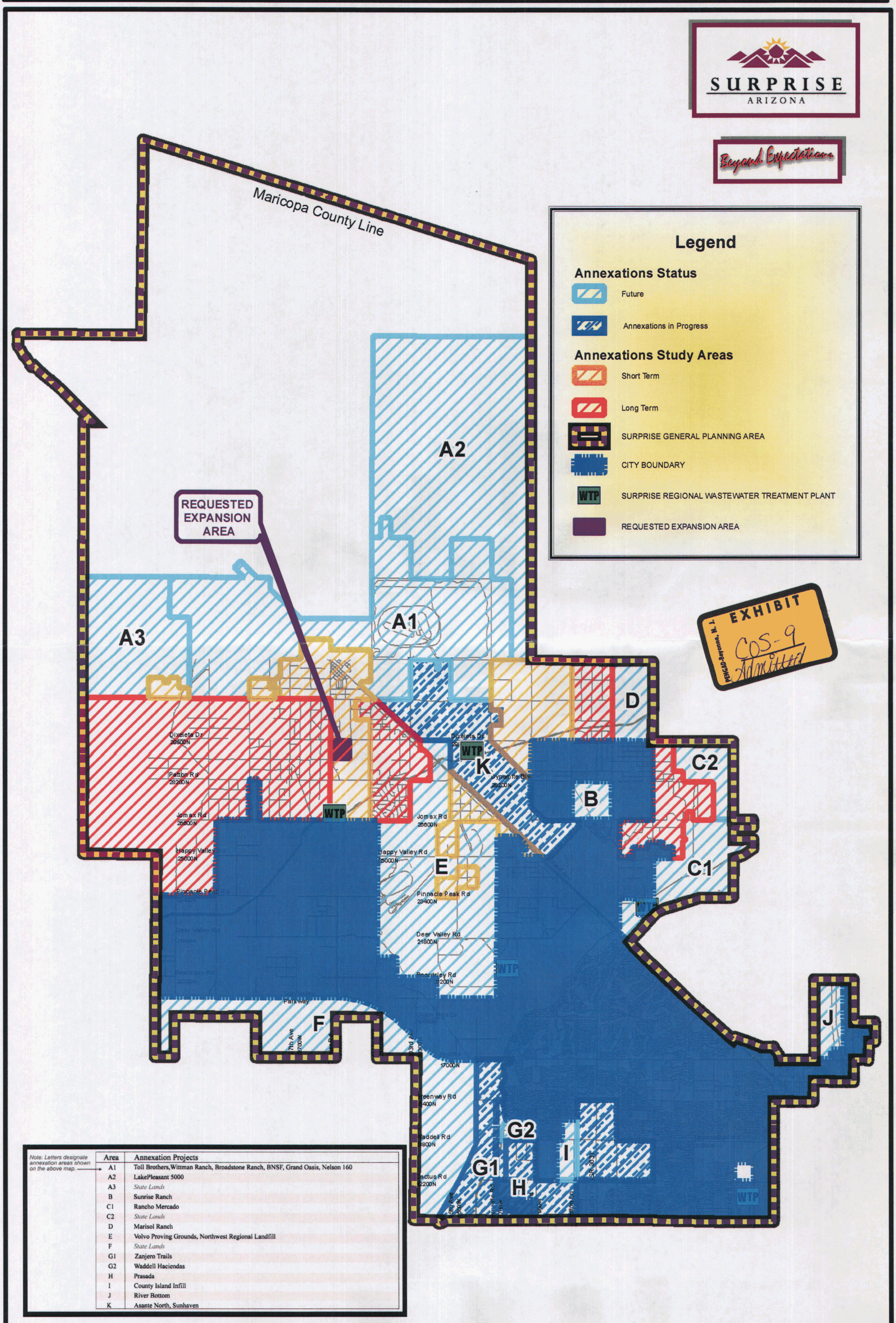


EXHIBIT
COS-9
Admitted
PENCOD-Reporters, Inc.

Note: Letters designate annexation areas shown on the above map.	Area	Annexation Projects
	A1	Toll Brothers,Wittman Ranch, Broadstone Ranch, BNSF, Grand Oasis, Nelson 160
	A2	LakePleasant 5000
	A3	*State Lands*
	B	Sunrise Ranch
	C1	Rancho Mercado
	C2	*State Lands*
	D	Marisol Ranch
	E	Volvo Proving Grounds, Northwest Regional Landfill
	F	*State Lands*
	G1	Zanjero Trails
	G2	Waddell Haciendas
	H	Prasada
	I	County Island Infill
	J	River Bottom
	K	Asante North, Sunhaven

Date of Last Revision: May06

COS-10

EXHIBIT
COS-10
Admitted

SURPRISE

ARIZONA

City Council Adopted
Resolution No. 00-130
November 30, 2000
Ratified by public vote
on March 13, 2001
Amended December 22, 2005

ACKNOWLEDGMENTS

The ***Surprise General Plan 2020: "Imagine the Possibilities"*** truly represents the largest community-driven planning effort in the history of the City of Surprise. Hundreds of people have been involved at various stages of the planning process over the past two years. The City of Surprise would like to express its appreciation to the many dedicated individuals who provided valuable input throughout this very important process. In addition to the many residents who completed surveys, attended Future Search Conferences, and participated in workshops, the following individuals were instrumental in the preparation of the ***Surprise General Plan 2020.***

Surprise City Council
Mayor Joan Shafer
Vice Mayor Johnny Montoya
Roy Villanueva
Thomas Allen
Tucker Smith
Jim Anderson
Debbie Johnson

Planning and Zoning Commission
Chairman Carl Cox
Robert Gonzalez
Daniel Wayne Morris
Antonio Segarra
Ken Senft
Karen Creighton
Martha Bails

Former Commission Members
Donald Jones
Darrell Belk
Mariah Bradford

Surprise Advisory Committee (SAC)
Barry Clark, Resident of Surprise
Isaias Gutierrez, Resident of Surprise
Debra Sydenham, ADOC
Greg Keller, State Land Department
Mathew Holm, Maricopa County Planning
Chris Brownlow, Luke Air Force Base
Debbie Wilden, Northwest Valley Chamber
Mark Kaushagen, Del Webb
Paul Gilbert, Attorney at Law
Paul Cragan, City Attorney
Pat Mendez, Police Department
Chief John Walter, Fire Department
Robert Nilles, Finance
Robert Zobel, Public Works Manager
Ron Padian, Resident of Surprise
Paul Herndon, Arizona Public Services
Dr. Margo Seck, Dysart School District
Neil Urban, Maricopa County Planning
Blaine Akine, Citzens Water Resources
Susan Conklu, MCDOT
Don Rogers, SEDCO
Russ Ewers, Arizona Traditions
Al DeShazo, Assistant City Manager
David Reuter, Public Relations
Richard Williams, Water Services
Ellis Perl, P.E., City Engineer
Scott Phillips, Planning

Former SAC Members
Dick McComb, Former City Manager
Anne Blech, MCDOT
Sharon Sargent-Flack, Manager's Office
Shirley Berg, Community Development
Rosemary Ybarra-Hernandez, Com. Srvs.
Leslie Dornfeld, MAG
Mike Branham, Assistant City Manager
Ed Packard, Planner
Mario Suarez, Long Range Planner

General Plan Project Managers
John Guenther, Acting Planning Director
Mario Suarez, Former Long Range Planner

Consultant Team

PARTNERS FOR STRATEGIC ACTION, INC.
(Prime Consultant)
13771 Fountain Hills Blvd., Ste. 360
Fountain Hills, Arizona 85268

Peggy Fiandaca, AICP, Project Manager
Curtis L. Dunham, AICP, Project Planner
Jeannette Reyes, Associate

In Association With:

NEILL/VECCHIA & ASSOCIATES, INC.

3295 N. Civic Center Blvd.
Suite 11
Scottsdale, Arizona 85251

Jon Vlaming, AICP

DAVID EVANS & ASSOCIATES, INC.

7878 N. 16th Street
Suite 250
Phoenix, Arizona 85020

Lori Labrum, P.E.
Sophie Cole

RESEARCH ADVISORY SERVICES

49 E. Thomas Road
Suite 103
Phoenix, Arizona 85012

R. Anthony Sissons, AICP

City of Surprise Staff Team

Anthony Chinyere, Assistant Planning Manager
Desmond McGeough, Planner II
Lisa Padron, Associate Planner

General Plan Updates completed by
City of Surprise Community Development Staff

Surprise General Plan 2020
"Imagine the Possibilities"

Table of Contents

1.0 INTRODUCTION 1

1.1 General Plan Overview 1
1.2 Role and Purpose 1
1.3 Growing Smarter Act 1
1.4.General Plan Requirements 2
1.5 Process Work Program 3
1.6 Public Input Process 5
1.7 Using the General Plan 8
1.8 Organization of the General Plan Document 11

2.0 COMMUNITY DESCRIPTION 12

2.1 Planning Area 12
2.2 Regional Context 12
2.3 Historic Overview 15
2.4 Physical Characteristics 16
2.5 Critical Issues 18

3.0 STRATEGIC FRAMEWORK 19

3.1 Community Vision 19
3.2 Overall Community Goals 20
3.3 Growth Management Philosophy 20

4.0 COMMUNITY ELEMENTS 24

4.1 Land Use Element 25

4.1.6 Special Planning Areas 37
Special Planning Area 1 40
Special Planning Area 2 43
Special Planning Area 3 45
Special Planning Area 4 48
Special Planning Area 5 49
Special Planning Area 6 50

4.1.7 Growth Areas 51
SR 303 Corridor (South of Bell Road) 52
Original Townsite/Surprise Center 52
South Dysart Road 55
Grand Avenue - SR 303 56
Jomax Road - Grand Avenue 56
Jomax Road - 163rd Avenue 56
Sun Valley Parkway - 211th Avenue 57
243rd Avenue - Sun Valley Parkway 57

4.2 Transportation/Circulation Element 58
4.3 Economic Development Element 74
4.4 Housing Element 80
4.5 Open Space and Recreation Element 89
4.6 Public Services Element and Cost of Development Plan 102
4.7 Revitalization Element 112
4.8 Environmental Planning/Water Resources Element 122
4.9 Community Design Element 129

5.0 IMPLEMENTATION PROGRAM 139
5.1 Implementation Introduction 139
5.2 Monitoring the General Plan 139
5.3 General Plan Amendment 139
5.4 General Plan Update 141
5.5 General Plan Action Program 141

6.0 APPENDIX

GENERAL PLAN GLOSSARY OF TERMS 154
GENERAL PLAN ACRONYMS 157

List of Tables

1-1 Process Work Program 4
2-1 City of Surprise Annexation History 15
4-1 Surprise Land Use Designation Acreage by Type 35
4-2 Planning Area Build-Out Population Projections 37
4-3 Current Incorporated Area Build-Out Population Projections 37
4-4 Persons Per Square Mile 39
4-5 SPA 1 Population Projections 41
4-6 SPA 1 Student Population Generated by Residential Densities 42
4-7 SPA 2 Population Projections 44
4-8 SPA 2 Student Population Generated by Residential Densities 44
4-9 SPA 3 Population Projections 47
4-10 SPA 3 Student Population Generated by Residential Densities 47
4-11 SPA 4 Population Projections 48
4-12 SPA 4 Student Population Generated by Residential Densities 49
4-13 SPA 5 Population Projections 50

List of Tables (continued)

4-14 SPA 5 Student Population Generated by Residential Densities 50
4-15 SPA 6 Population Projections 51
4-16 SPA 6 Student Population Generated by Residential Densities 51
4-17 Surprise Park Standards 96
4-18 City Build-Out Park Acreage Recommendations 97
4-19 Year 2020 Special Planning Area Park Acreage Needs 98
4-20 Year 2020 Special Planning Area Park Standards 98
4-21 City of Surprise Open Space Standards 100
4-22 Build-Out and Year 2020 SPA Open Space Acreage Needs 101
4-23 Revitalization Area Build-Out 118

List of Figures

2-1 Planning Area 13
2-2 Regional Context Map 14
2-3 Topography 17
4-1 Land Use Plan 36
4-2 Special Planning Areas 38
4-3 Growth Areas 54
4-4 2030 Roadway Plan 64
4-5 MAG/Valley Metro 68
4-6 Short Term Transit Improvements 69
4-7 Transit Improvements 70
4-8 Alternative Modes Plan 73
4-9 Open Space and Recreation Plan 95
4-10 Original Townsite Revitalization Plan 119
4-11 Land Subsidence/Earth Fissures 123
4-12 Community Design Plan 133

List of General Plan Major Amendments

CASE NO.	NAME	CITY COUNCIL APPOVAL DATE
GPA03-247	Luke AFB Aux One Airfield Preservation	12/11/03
GPA03-248	NEC of El Mirage Road and Bell Road	12/11/03
GPA03-249	Expansion of Planning Area north of State Route 74	12/11/03
GPA04-186	Cactus Lane Ranch	11/23/04
GPA04-219	Luke AFB Auxiliary 1 Airfield	11/23/04
GPA05-213	DaimlerChrysler Proving Grounds	12/22/05
GPA05-276	State Land / Rancho Mercado	12/22/05
GPA05-277	Transportation Element	12/22/05

EXECUTIVE SUMMARY

Imagine a Community that has...

- ***five distinct areas, all very unique in character but with common bonds***
- ***provided for housing, employment, entertainment, shopping, educational, and recreational opportunities***
- ***developed unique and exciting entryways that give a great first impression and leave no doubt you have arrived***
- ***created a vibrant central development – The Surprise Center -- that houses the government center and serves as the gathering place for residents and visitors***
- ***led the way in the preservation of the West Valley's most recognizable and cherished landmark, the White Tank Mountains***
- ***preserved its heritage and revitalized older neighborhoods***
- ***developed a comprehensive trail system that can be enjoyed by all***
- ***made solid decisions about growth to ensure long-term stability***
- ***preserved open space that provides parks and recreation facilities that are recognized for their excellence***
- ***overcome transportation challenges through innovative land use and circulation planning and transit development***
- ***through pro-active leadership and inspired public involvement turned possibilities into realities!***

The ***Surprise General Plan 2020 "Imagine the Possibilities"*** portrays the vision for the community. Supported by extensive public participation, it will enrich the lives of present and future generations.

This plan does not promote growth and development as usual! It provides a new direction for guiding and managing growth. It serves as a:

✓ Growth management plan;
✓ Statement of policy and expression of vision;
✓ Toolbox to help shape physical and socio-economic development;
✓ Plan to meet and exceed State of Arizona planning requirements; and
✓ Plan of Action for the City of Surprise.

Through the components of land use, transportation, recreation, open space, preservation and community facilities, and with the support and input of the public and various groups, a unique character has been identified for the community.

The public involvement process, including extensive involvement with the City Council and Planning and Zoning Commission, debated divergent interests such as:

- Agricultural preservation vs. urban development;
- Environmental protection in the face of urban expansion and population growth;
- Public and private transportation corridors in light of regional expansion and economic development;
- Recognition of land use compatibilities with surrounding air and land traffic; and
- Preservation of dominant cultures and lifestyles that confront new communities and citizens.

The lifeblood of a society flows as the people envision livable communities promoting neighborliness, interaction, sense of community, and robust commercial and industrial ventures that drive the economy.

To orient you to the document the key characteristics of each Special Planning Area are identified.

Special Planning Areas (SPA)
There are six SPAs that comprise the entire planning area shown in Figure 4-2. The boundaries for the SPAs were determined by analyzing current and projected development trends, land ownership boundaries, community needs, and physical delineation features.

Population projections at build-out (all available land is developed) for average densities is 674,801 with a density of 2,779 persons per square mile, a commercial space population support of 617,850 and employment space population of 392,847 at 58.2 jobs per 100 population (refer to Table 4-2).

Special Planning Area 1
SPA 1 is bounded on the west and north by the Beardsley Canal, Peoria Avenue on the south and the Surprise corporate boundaries on the east. This SPA is basically the historic center and currently developing City of Surprise. It includes the area called the Original Townsite, retirement master-planned communities in the west area of the planning area, employment-designated uses in the southeast portion adjacent to the City of El Mirage and a large mixed use district along the future 303 freeway. It also has existing agriculture in the western section in large parcels primarily owned by one landowner. Luke Air Force Base noise contours impact the southeastern tip.

The area encompasses 28,110 acres or approximately 44 square miles. 17,551 acres are currently in the incorporated boundaries of the City of Surprise. This is 62.4 percent of the SPA's total area.

SPA 1 is the most predictable in terms of future development patterns because much of the area has been developed and/or planned. Additionally, many landowners are currently submitting or have development plans approved by the city. The area has a large retirement population within the SPA that lowers the population per household average.

Key characteristics are:

- Commercial property of 860 acres (2.8 percent of SPA 1) has been designated. Based on the assumptions, this will support a population of 228,932.
- 2,822 (10.0 percent) acres of employment property designated. Based on the assumptions, this will accommodate 98,341 jobs giving this SPA an employment-to-population ratio of .44 at mid-range densities.
- Contains two principal arterials, SR 303 (Estrella Parkway) and US 60 (Grand Avenue) and four major arterials, Waddell Road, Dysart Road, Reems Road and Bell Road.
- A major mixed-use gateway is proposed at Peoria Avenue and SR 303. The gateway is envisioned as the future front door to Surprise.
- There are two major transit routes identified for SPA 1, the SR 303 corridor and the Bell Road corridor. The Bell Road corridor will provide connection from the residential land uses in SPA 1 to the commercial centers located along Bell Road. Due to the large volumes of traffic projected for Bell Road, transit facilities must be emphasized in order to promote mobility in the future.
- The projected student population for SPA 1 totals 53,517 for K through 8th Grades and 19,097 for 9 through 12th Grades as indicated in Table 4-6.

Special Planning Area 2

SPA 2 encompasses 14,444 acres or approximately 22.6 square miles. 4,259 acres of this SPA are within the incorporated boundaries of the City. This is 29 percent of the total SPA area.

Key characteristics are:

- 13,230 acres of residentially designated property, which makes up 91.6 percent of the SPA's total area. Open space designated within SPA 2 is 384 acres (2.6 percent of total SPA area).
- Contains the optimum employment area for high-tech and research-related firms since it contains the only employment designated parcel within the planning area that has no noise or vibration factors (e.g. aircraft, railroad).
- At the low range of densities, the estimated population will be 64,251.
- Projected student population totals 14,070 for K through 8th Grades and 5,082 for 9 through 12th Grades as indicated in Table 4-7.
- 163rd Avenue is identified as a major arterial.
- Commercial development in this SPA is intended to be of the neighborhood services variety (i.e., under 25 acres).
- Maintenance of the rural character and scenic quality is stressed.
- One principal arterial and three major arterials are Grand Avenue, Jomax Road, 163rd Avenue, and the proposed Grand Avenue frontage road. 163rd Avenue will be the major north-south connection and is intended to be maintained as a scenic corridor. Grand Avenue will be a primary transportation corridor for both automobiles and transit.
- Land use identified at the Grand Avenue and Jomax Road intersection is employment. The transportation plan identifies this location as a future park-and-ride facility to be served by the future transit routes along Jomax Road and Grand Avenue.
- The proposed major arterials have been identified to contain on-road bicycle facilities.

Special Planning Area 3

SPA 3 encompasses 37,689 acres or approximately 59 square miles. 18,947 acres are currently in the incorporated boundaries of the city. This is 50.9 percent of the total SPA area.

Key characteristics are:

- Designated a mixed-use gateway on 243rd Avenue and Sun Valley Parkway. This gateway is envisioned to be a high-end, mixed-use commercial development.
- Preservation of the White Tank Mountain foothills area. The land use plan indicates that if the land is not acquired for preserve, the underlying land use that is acceptable is Rural Residential (0-1 du/acre) in the area south of Sun Valley Parkway.
- Major washes throughout the area and the APS power corridor provide a tremendous opportunity to provide greenways and trail connections.
- Assuming half of the mixed-use designated property will be in commercial uses, there are 534 acres (1.4 percent of SPA area) of commercial property designated in this SPA. This is estimated to support a population of 142,150.
- Over 3,600 acres is restricted by Luke Air Force Base Auxiliary Field #1, Volvo Proving Grounds, and the Northwest Valley Landfill. These facilities are not included in the employment analysis.
- Total build-out population of the currently incorporated area would be 111,537 at the mid-range density scenario.
- Projected student population totals 36,716 for K through 8th Grades and 13,281 for 9 through 12th Grades as indicated in Table 4-10.
- There are three major parkways, 243rd Avenue, Jomax Road and Sun Valley Parkway.
- The long-term transit plan identifies transit routes along a number of roads including Sun Valley Parkway, Deer Valley Road, Jomax Road, 243rd Avenue, and 227th Avenue.
- On-road bicycle facilities are proposed throughout the planning area.

Special Planning Area 4

SPA 4 encompasses 30,193 acres or approximately 47.2 square miles. None of this SPA is currently within the incorporated boundaries of the City. Should the SPA develop at the low density range, the estimated population will be approximately 25,324. Approximately 77.1 percent is designated rural residential.

Key characteristics are:

- Projected student population for SPA 4 totals 14,436 for K through 8th Grades and 5,141for 9 through 12th Grades.
- There are 347 acres of commercially designated property which is estimated to support a population of 121,806.
- There are approximately 1,459 acres of employment-designated property with an additional 5,484 acres of land by the Daimler-Chrysler proving ground.
- Two principal arterials, SR 74 and Grand Avenue, and three major arterials, Lone Mountain Road, Dove Valley Road, and 243rd Avenue. The only proposed minor arterial is 211th Avenue. The only future transit route identified for this area is the

Grand Avenue corridor, and it is expected that the need for this route will not occur for 15 to 20 years.

Special Planning Area 5

SPA 5 consists of 37,196 acres, of which 29,126 are designated for residential purposes (78.3 percent of SPA 5 area). The vast majority (94.5 percent) of the residentially designated land is Rural Residential. Population impacts are likely to be on the low side. If the SPA develops at the high end, the population is estimated to be 93,099.

Key characteristics are:

- Projected student population totals 11,343 for K through 8th Grades and 4,040 for 9 through 12th Grades.
- The population supported by the 91 commercially designated and 50 percent of mixed-use acres is estimated to be 26,082. As development occurs it is anticipated that additional commercially designated property will be identified near population centers.

Special Planning Area 6

SPA 6 consists of 45,567 acres, of which 100% is designated for rural residential purposes. Population impacts are likely to be on the low side. If the SPA develops at the high end, the population is estimated to be 128,498.

Key characteristics are:

- Projected student population totals 19,274 for K through 8th Grades and 6,424 for 9 through 12th Grades.

SURPRISE
ARIZONA

Surprise General Plan 2020 – "Imagine the Possibilities"

"Good communities happen by choice,
not by chance."
- Margaret Thatcher -

1.0 INTRODUCTION

1.1. General Plan Overview

The City of Surprise is at a crossroads; it is a community in transition. The city is experiencing tremendous physical growth and demographic change. As Surprise races into the 21st Century, effective management of growth and determining the community's future direction is of critical importance.

Surprise General Plan 2020: "Imagine the Possibilities" is an update of the original 1987 Surprise Comprehensive Development Guide. Due to the tremendous growth of Surprise and the West Valley, as well as new state law requirements, the City Council contracted with a team of consultants led by Partners for Strategic Action, Inc. (PSA) to update the Comprehensive Development Guide. Other consultant team members included: Neill/Vecchia and Associates, David Evans and Associates, and Research Advisory Services.

1.2 Role and Purpose

The ***Surprise General Plan 2020*** is a growth management plan. It is a statement of policy and an expression of the community's vision for the future. The plan is an important tool to help guide and shape the city's physical development. The General Plan includes the community's statement of vision, development goals, objectives, and policies, as well as an implementation program to realize the vision.

1.3 Growing Smarter Act

The Growing Smarter Plus legislation, that became effective in May 2000, builds upon the 1998 Growing Smarter Act. These requirements created a new framework for the land planning process in cities and counties in Arizona. The ***Surprise General Plan 2020: "Imagine the Possibilities"*** exceeds the requirements of Growing Smarter as well as the General Plan requirements outlined in Arizona Revised Statutes (ARS) 9-461.05.

1.4 General Plan Requirements

Surprise General Plan 2020: "Imagine the Possibilities" includes the following elements:

Land Use Element designates the proposed general distribution, location, and amount of land for housing, business, industry, recreation, public facilities, and open space. The planning area is divided into five "Special Planning Areas" that are described in the Land
Use Element section. Each land use category is described; density or intensity requirements are identified; and clear definitions are provided that facilitate utilization of the plan on a day-to-day basis. Within the Land Use Element, "Growth Areas" are identified that represent where the City of Surprise anticipates focusing development over the next 20 years. The element identifies those "target areas" suitable for enhanced land use density/intensity, planned multi-modal transportation and infrastructure expansion, and improvements designed to support a planned concentration of a variety of uses, such as residential, office, commercial, and employment uses.

Transportation/Circulation Element identifies the general location and extent of existing and proposed major arterials, collector streets, street classifications, and standards. The element emphasizes multi-modal transportation options. Public transportation and non-vehicular circulation facilities (e.g., pedestrian) are also discussed and proposed. The Transportation/Circulation Element supports the proposed land use pattern outlined in the Land Use Element.

Economic Development Element provides a framework for determining future land use. The Economic Development Element includes policies and strategies designed to address issue areas through opportunity targets or strategic clusters.

Housing Element consists of policies to ensure the provision of adequate sites for all types of housing at various densities.

Open Space and Recreation Element incorporates, as appropriate, information and standards related to open space and recreation based on the Land Use Element to serve the city. The element presents an analysis of forecasted needs as well as policies for managing and protecting open space areas and resources.

Public Services Element and Cost of Development Plan identifies the appropriate public facilities and services that are needed to support the proposed land use pattern. This element also provides a Cost of Development Plan. It identifies policies that the City of Surprise will use to require development to pay its fair share toward the cost of additional public service needs generated by new development, with appropriate exceptions when in the public interest.

Revitalization Element analyzes conditions and issues of mature neighborhoods and areas. The element identifies specific policies to enhance the city's character and ensure long-term vitality. The element includes a revitalization plan and policies for the Original Townsite.

Environmental Planning Element identifies areas within the planning area targeted for conservation. Sustainability is addressed in terms of conservation of natural resources, water resources, land utilization, and water and air quality. The element evaluates the land use plan's impact on required criteria (i.e., air quality, water quality, and natural resources) and presents policies and strategies to address anticipated effects, if any, associated with proposed development under the General Plan. The element also includes policies related to a Water Resource Element.

Community Design Element defines the character of the planning area by evaluating the urban form characteristics of the Land Use Element. This element addresses community
design elements and strategies that further Surprise's vision, goals, and objectives for a more visually attractive and environmentally responsive city.

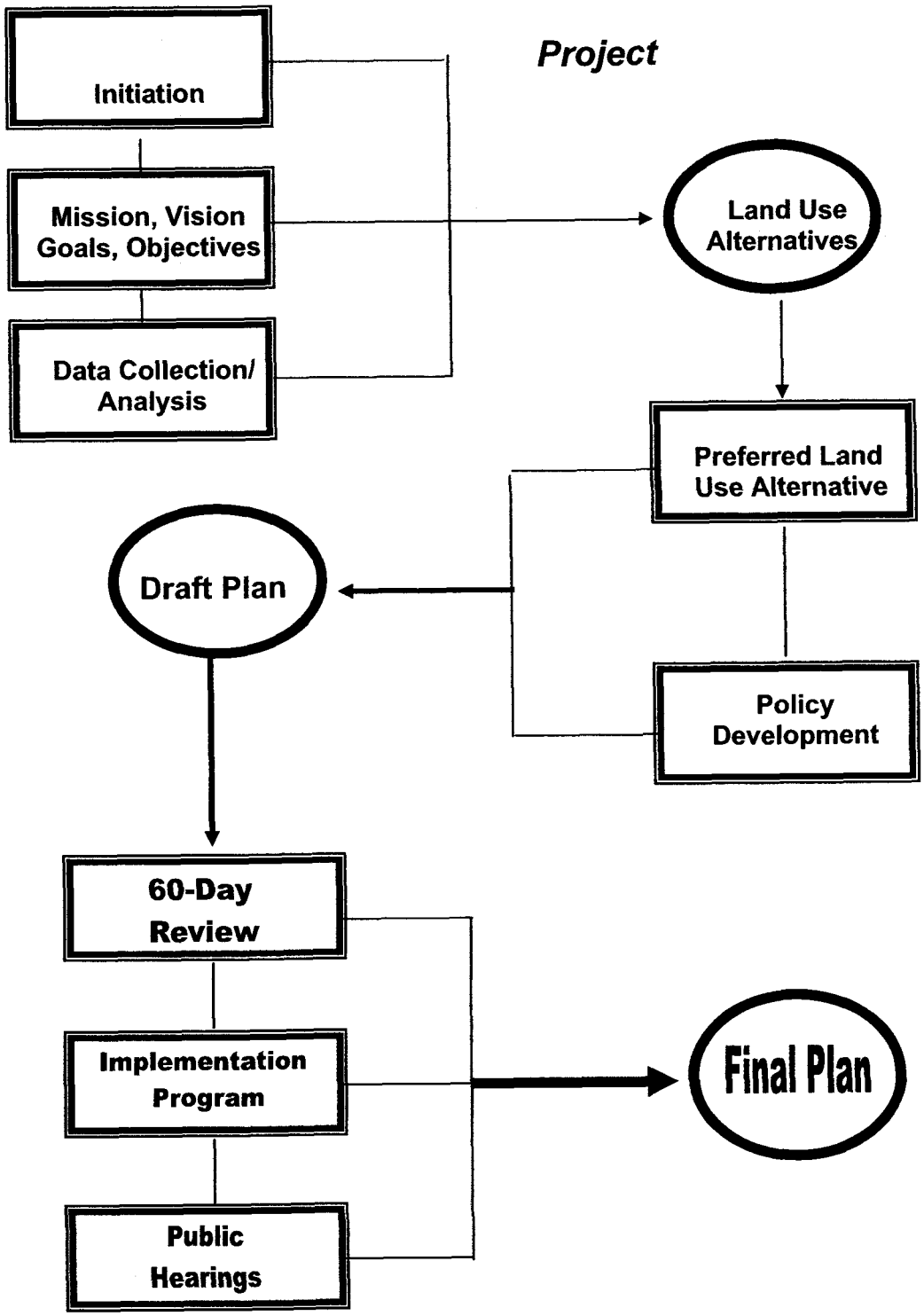
Implementation Element outlines the specific action strategies for the City of Surprise to ensure implementation of the General Plan. The element also addresses how the General Plan will be reviewed and updated.

It is important to recognize that the plan elements do not stand alone. They are closely interrelated to provide a comprehensive picture of the community's resources, its needs and desires, and strategies to address future development. As defined by the Arizona Revised Statutes (ARS), the plan is "general" in nature and is intended to provide general development guidance and function as a statement of policy. Therefore, it serves as the guide to local decision-making about the community's future development.

1.5 Process Work Program

Surprise General Plan 2020: "Imagine the Possibilities" began in February 1998 when the City Council awarded the contract to the PSA Team. A Surprise Advisory Committee (SAC) was formed that included key staff members and other agency stakeholders, such as the Arizona State Land Department and Maricopa County, as well as individuals representing major businesses (e.g., utilities), landowners, and citizens at large. The overall study approach is graphically illustrated on Table 1-1, Process Work Program.

Table 1-1, Process Work Program – February 1998 through November 2000



1.6 Public Input Process

The Process Work Program was based on the City of Surprise's fundamental desire to solicit widespread involvement by citizens, landowners, and stakeholders to ensure consensus on the community's vision for development. The public involvement process was designed to achieve three objectives: communicate, educate, and involve. At the initiation of the process, a Public Involvement Plan (PIP) was adopted by the City Council (Resolution No. 98-56). The City of Surprise public involvement process met the Growing Smarter Act that requires ensuring "*effective, early and continuous public participation in the development and major amendment of the General Plan from all geographic, ethnic and economic areas of the municipality.*"

Surprise General Plan 2020 process was coordinated with two Maricopa County planning processes that occurred simultaneously. The Northwest Valley Transportation Study performed by a consultant hired by the Maricopa County Department of Transportation (MCDOT) examined the West Valley's transportation needs. The study incorporated the City of Surprise land use and population projection assumptions into the transportation model. The model output was utilized as part of the General Planning process. Additionally, the Maricopa County Planning Department conducted the White Tank/Grand Avenue Area Plan. The planning area encompassed approximately 760 square miles including all of the incorporated boundaries and a significant portion of the City of Surprise planning area. The two study efforts were coordinated with the City of Surprise General Plan Update process. The following list summarizes the key elements to the public involvement process.

Surprise Advisory Committee (SAC). The SAC was appointed by the City Council to provide oversight and guidance in the plan's development. The SAC met nine times to provide guidance to the consultant team and staff during the 32-month process.

Community Telephone Survey. A telephone survey instrument was developed by the SAC and consultant team and was administered to 386 Surprise residents. The telephone interviewing was completed between July 24 and July 28, 1998 by subconsultants to PSA, Research Advisory Services, Inc. and Behavior Research Center (professional telephone research interviewers). The sample size had a maximum margin of error of 4.85 percentage points, at a 95 percent confidence level. This means, in theory, that in nineteen cases out of twenty, findings from a sample of this size would not vary more than 4.85 percentage points from the results that would be obtained if all the households in Surprise had been surveyed. The survey sample was highly representative of the community's demographics.

Youth Design Charrette. A full-day design charrette was held November 12, 1998 with Dysart High School students (ages 15 to 18). Approximately 40 students attended this event. They were divided into three teams to learn about planning principles, develop a community vision and goals, and create three Land Use Plans. At the end of the day, each team presented their work that was evaluated by a "council of peers." A considerable amount of excitement and enthusiasm was generated as well as creative ideas for the General Plan land use alternatives.

Future Search Conference #1. The ultimate goal of the Future Search Conference was to involve all stakeholders in a search for an achievable future. The first full-day event was held June 27, 1998. It offered a unique opportunity to communicate, educate, empower, partner, and build consensus on issues that impact the General Plan's development. Approximately 85 people attended the event, where issues were discussed, vision statements were developed, future land use plans were designed, and potential policies were identified. Future Search Conference participants were solicited and asked to pre-register for the meeting. Prior to the meeting, all registrants were sent an issue paper. The issue paper provided background information about the city, the state of its current development patterns and demographics, and development issues facing the city. The first Future Search Conference provided the foundation for the plan's development.

Community Characteristics Survey. The survey was conducted with all Future Search Conference #1 attendees participating. The slide show consisted of 80 slides of various aspects of community development. For example, the slides depicted images of all ranges of housing types and densities, roadways, parks, streetscapes, employment centers, and signage. The purpose was to receive input on what the participants thought of the various images.

Future Search Conference #2. The second Future Search Conference was held March 20, 1999. It was a half-day event that attracted over 80 participants. The purpose of the second conference was to present and discuss the draft land use and circulation plan. An issue paper was distributed that included a draft map and description of the land use patterns as well as vision, goals, objectives, and definitions. A community survey was distributed to collect information from the participants.

Original Townsite Workshops. Three community workshops, two of which were full-day Saturday events, were held with the residents of the Original Townsite. Notices were sent to every household in the area in Spanish and English. In addition, a Spanish/English interpreter was present at all meetings. The meetings were held on the following dates:

#1 November 17, 1998 (15 participants)
#2 April 29, 2000 (200 participants)
#3 June 3, 2000 (over 100 participants)

As a result of the April 29th workshop, an Original Townsite Task Force was organized to work with the staff and the consultant to address the area's concerns. Several meetings of the Task Force were held to complete the Revitalization Element.

Community Workshops/Open Houses. At key milestones throughout the process, community workshops were organized and held on the following dates:

October 14, 1999
February 22, 2000
March 25, 2000
April 10, 2000
May 1, 2000
May 6, 2000
June 24, 2000

Transportation Planning Workshop. The consultant team, staff, and members from MCDOT met in a half-day workshop on January 27, 1999 to discuss the transportation/circulation plan. All members of the SAC were invited to attend. The purpose of the workshop was to discuss issues, identify regional linkages, and reach consensus on the plan.

Agricultural Preservation. On April 21, 2000 a focus group was conducted with farmers and agricultural landowners to discuss current and future plans. Prior to the focus group, a survey was distributed and 48 questionnaires were returned. The results were used as a framework for the discussions.

Landowner/Developer Meetings. Throughout the process, staff and PSA were available to meet one-on-one with interested landowners or their representatives. Approximately 30 meetings were conducted to discuss landowner land use plans and their relationship to the draft General Plan. On March 21, 2000 a special workshop was held to receive comments specifically from landowners and developers on the 60-Day Review Draft General Plan.

Joint City Council/Planning and Zoning Commission Workshops. As the plan was evolving, three joint meetings (May 1, 1999, June 19, 1999, and February 12, 2000) were held with the City Council and Planning and Zoning Commission members. The first workshop was to specifically discuss the draft land use and transportation plan as well as the policy framework. The second workshop was to provide an urban development overview and a discussion with developers about the land development process. The third workshop was to review the draft plan before initiating the formal 60-day review process. These workshops were designed specifically for the two bodies to discuss the plan. However, they were posted as open meetings and many citizens and stakeholders participated as well. Prior to the 60-day review process, two additional joint City Council/Planning and Zoning Commission meetings were held (February 12 and February 29, 2000). Lastly, two additional workshops were held (May 18 and August 31, 2000) to discuss how all of the comments were being incorporated into the document prior to the public hearings.

Parks and Recreation Commission. A key element of the plan was the Open Space and Recreation Element. On three occasions during the process the consultant met with the Surprise Parks and Recreation Commission to receive input and reach consensus on the final element. Staff provided regular updates on the process of the plan.

Public Hearings. In accordance with hearing requirements outlined in Arizona State Statutes, hearings were held with the Surprise Planning and Zoning Commission (October 10 and October 24, 2000) and City Council (November 2, 16, and 30, 2000)

Project Web Page. A ***Surprise General Plan 2020: "Imagine the Possibilities"*** web site was established early in the process as a link on the Surprise home page. The web site was updated regularly throughout the planning process. Anyone contacting the home page could e-mail directly to PSA with comments or questions regarding the General Plan process. Basic information about the process and schedule, upcoming meetings, surveys and survey results, and draft maps were all included on the web site.

Newspaper Articles. Throughout the process, regular news articles were included in the local newspapers. The two Future Search Conferences and public hearings received considerable press coverage. The newspapers provided a communication conduit to the public about the dialogue occurring during the process and maintained resident interest.

Comment Matrix. Throughout the 60-day review process, comments were received from citizens, landowners, developers, and stakeholder agencies. All comments were catalogued, a comment matrix developed, and identification of how comments were addressed was documented.

1.7 Using the General Plan

Surprise General Plan 2020: Imagine the Possibilities is a statement of policy regarding future growth and development within the planning area. It is important to note that nearly 70 square miles of the planning area are currently under the City of Surprise's jurisdiction. The rest of the area is located within unincorporated Maricopa County and is therefore under the control of the county Board of Supervisors. The intent of evaluating such a large planning area is to understand the existing development status and future influences upon and within the area that may someday be located within the City of Surprise incorporated municipal boundaries.

When reviewing the ***Surprise General Plan 2020*** it is important to have a clear understanding of some very important concepts that provide the document's policy direction.

Vision	Surprise's philosophy and unique image of the future.
Community Goals	A desired end that, if pursued over the long-term, will ultimately result in the attainment of a desired living environment. Goals are statements that provide general direction and serve as the description of the desired future for Surprise. They are fundamental to the community and provide the "big picture" of what Surprise wants for its future.

Special Planning Areas	The General Plan area is divided into five Special Planning Areas (SPA). These areas are designated to ensure that land resources are utilized efficiently and that the community's long- term development needs are addressed. The goal of each area is to ensure a balanced mix of land uses, adequate support resources (e.g., parks, water, infrastructure), proper ratio of people to jobs, and an efficient transportation network.
Growth Areas	These are targeted areas that the city envisions planned development to be encouraged. The community is supportive of a mix of uses, multi-modal transportation, and infrastructure expansion and improvements.
Element Statement	An explanation of the element's purpose.
Element Issue Identification	Each element begins with an explanation of critical issues facing the planning area that the plan must address.
Element Goals	A desired end that if pursued over the long-term will ultimately result in the attainment of a preferred living environment described in the element.
Objective	A desired short-term end that if pursued and accomplished with other objectives, will ultimately result in the attainment of the goal to which it relates.
Policies	A means to attain the established objectives and ultimately the established goals. Policies prescribe a course of action for the city.
Implementation	Specific steps that must be taken to ensure action toward implementing the General Plan.
Land Use Plan	A map that graphically depicts, in a general fashion, how land uses will be distributed throughout the planning area and how the city will accommodate future population and job growth.

When considering a proposed development project, the city staff, Planning and Zoning Commission, and City Council will evaluate the proposal on how it relates to the previous key components. Ensuring plan continuity and linkages between the various components is critical to implementation. The following diagram illustrates "Plan Continuity and Linkage" of the various components. It is the burden of the applicant to determine if the proposal is in compliance with the General Plan. Therefore, it is important to understand and review the Land Use Plan as well as the text. The plan text further defines how growth and development will occur within the Surprise planning area.

PLAN CONTINUITY AND LINKAGE

Strategic Framework

Community Vision
Overall Community Goals
Growth Management Philosophy

↓

Specific Elements

Statement of Purpose
Issue Identification
Goal Statements
Objectives
Policies

↓

Strategic Implementation

General Plan Review and Amendment
Action Strategies, Timeframes, Responsibilities
City Adoption
General Plan Citizen Ratification

1.8 Organization of the General Plan Document

The remainder of the ***Surprise General Plan 2020: "Imagine the Possibilities"*** document is organized in a series of chapters that include:

Chapter 2.0	***Community Description*** provides an overview of the Surprise planning area and its relation to the Phoenix Metropolitan Area.
Chapter 3.0	***Strategic Framework*** presents the community's vision, overall community goals, and growth management philosophy that provide the foundation for the ***Surprise General Plan 2020***.
Chapter 4.0	***Community Elements*** provides the organization and discussion of the various elements required by State Law.
Chapter 5.0	***Implementation Program*** outlines specific actions to ensure that the plan's intent is met. It also describes how the plan will be reviewed and updated.
Chapter 6.0	***Appendix*** includes supplemental background information to the General Plan.

"I desire no future that will break the ties of the past."

- George Eliot -

2.0 COMMUNITY DESCRIPTION

2.1 Planning Area

The planning area for the ***Surprise General Plan 2020*** is approximately 306.57 square miles as shown in Figure 2-1, Surprise Planning Area. It includes significant areas to the north and west of the current incorporated boundaries (i.e., approximately 70 square miles) of the City of Surprise. The planning area is divided into six "Special Planning Areas (SPA)" that are described in Chapter 4.0: Community Elements. SPAs 1, 2, and 3 are located within the "primary planning area" that includes lands that are anticipated to be developed over the next 20 years. It also comprises areas where the City of Surprise can work closely with Maricopa County to assist in directing that growth. SPAs 4,5 and 6 are located within the "secondary planning area," that is considered the city's "sphere of influence." How the sphere of influence develops could positively or negatively impact the City of Surprise's development patterns.

2.2 Regional Context

Surprise is located 25 minutes northwest of downtown Phoenix along US Route 60/State Highway 93 in the Northwest Valley of the Phoenix Metropolitan Area. It is strategically positioned about 13 miles west of Interstate 17, three miles from SR 303, and 18 miles north of Interstate 10. Surprise is 25 miles from Sky Harbor International Airport. Located in the City of Glendale, Luke Air Force Base is 2.5 miles south of the Surprise strip annexed area. The City of Surprise is bordered on the east by the cities of Peoria and El Mirage and on the west by the Town of Buckeye. The unincorporated retirement communities are north (Sun City West) and east (Sun City) of the City of Surprise. South of the City of Surprise is the City of Glendale. The unincorporated communities of Morristown, Circle City, and Wittmann are located within the Secondary Planning Area. The White Tank Mountain Regional Park is located in the southwest portion of the planning area. Lake Pleasant Regional Park is located approximately ten miles to the northeast of the planning area. Sun City and Sun City West are adjacent to the eastern boundary of the planning area.

FIG. 2-1
MAP

FIG. 2-2
MAP

2.3 Historic Overview

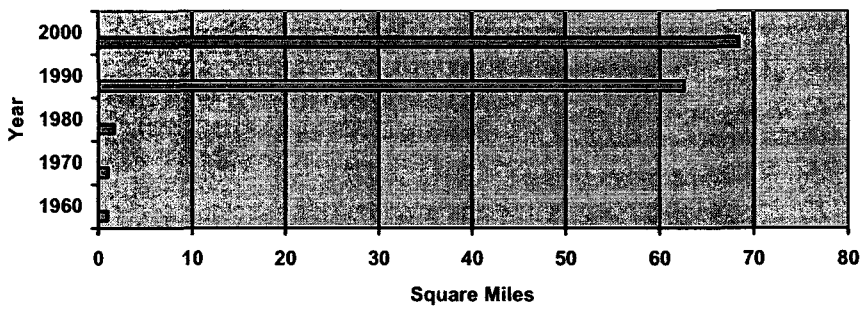
The area now known as Surprise received its first residents in 1937. The two families that settled the Original Townsite consisted of eight people who operated one service station and occupied four small dwelling units. They utilized a gasoline-powered auxiliary power unit to produce electricity and collected water from a nearby well. The surrounding land was either vacant or under agricultural production with their nearest neighbors located over two miles away.

By 1950 the area population had grown to nearly 300 residents with two service stations, two grocery stores and numerous substandard houses and cabins. Surprise became an incorporated town on December 12, 1960 and boasted a population of nearly 1,600 people located on a Townsite of 640 acres. At the time of incorporation, only 169 acres of the Townsite were developed.

The existing incorporated area was expanded for the first time on November 14, 1978, when a 10-foot strip of land encircling roughly 26 miles of unincorporated land was annexed by the city. The purpose of the strip annexation was to reserve this unincorporated land until future development occurred in the area, at which time the city would annex the land into its incorporated area. The 1987 Surprise Comprehensive Development Guide included this area as well as other lands bordered by Perryville Road and Grand Avenue as its study area boundary.

As shown in Table 2-1, City of Surprise Annexation History, what was once a small farming village now encompasses more than 70 square miles, including urban and commercial developments, ranches, and industrial parks.

Table 2-1, City of Surprise Annexation History
(Square miles of incorporated area)



Over nearly 50 years, Surprise has grown from 500 residents to a city with an estimated population of over 30,000 in November 2000. The city offers a broad range of lifestyles, from small family subdivisions to secluded ranches. Surprise also offers a significant presence of retirement communities that address the needs and lifestyles of active adults. The city covers a wide variety of recreational facilities within or proximate to its boundaries including seven golf courses.

2.4 Physical Characteristics

The topography of the planning area is shown in Figure 2-3. Topography should be understood to determine the developability and provision of infrastructure to serve the city's residential, employment and service needs. The planning area, located in the northwest region of the Phoenix Metropolitan Area, generally exhibits a slope ranging between two and four percent. The region generally drains from north to south, north of Grand Avenue. South of Grand Avenue, the planning area drains northwest to southeast with the exception of the White Tank Mountains, that drains from south to north and east to west.

The northern boundary of the planning area (SR 74) slopes from west to east at elevations ranging from approximately 1,900 to 2,000 feet above sea level. The southern boundary (northern boundary of White Tank Mountain Regional Park and Peoria Avenue) exhibits elevations from 1,800 to 2,200 feet above sea level at the park to elevations ranging from approximately 1,100 to 1,400 feet. The western boundary (271st Avenue and 254th Avenue) drains from south to southeast, ranging in elevation from approximately 1,600 to 2,000 feet above sea level. The eastern boundary ranges from approximately 1,900 feet at the intersection of SR 74 and Sarival Avenue to 1,100 feet at the intersection of Dysart Avenue and Peoria Avenue. The highest point of the planning area is an elevation of 2,345 feet above sea level. The northeast quadrant, and the lowest point of 1,119 feet above sea level, is located near the intersection of Dysart Road and Peoria Avenue.

The planning area contains both natural and man-made landforms that are, and will continue to influence the pattern of development within the city and its planning area. A natural landform located within the planning area includes Bunker Peak at an elevation of 1,817 feet above sea level. Manmade landforms located within the planning area include McMicken Dam at an elevation of 1,361 feet above sea level. Landforms that frame the planning area include White Tank Mountain Regional Park to the west, Hieroglyphic Mountains to the northeast, and the Vulture Mountains to the northwest.

Fig 2-3
MAP

2.5 Critical Issues

Early in the process, a list of critical issues were identified that the General Plan would explore. These issues were developed through discussions with staff, Planning and Zoning Commission, and City Council as well as the general public. The following are some of the issues identified:

- ✓ ***Reinvest/revitalize the Original Townsite area and other mature neighborhoods.***
- ✓ ***Determine viability of agriculture preservation.***
- ✓ Determine appropriate land uses on noise impacted areas near Luke Air Force Base.
- ✓ Establish non-vehicular connections to the Agua Fria River.
- ✓ Evaluate edge treatment of the city and El Mirage.
- ✓ Evaluate SR 303 for appropriate uses.
- ✓ Utilize the recharge area for open space/recreational activities.
- ✓ Delineate open space buffer for regional park.
- ✓ Protect the Upper Sonoran Desert outside of the White Tank Mountain Regional Park.
- ✓ Identify near and long-term land use strategy for landfill and adjacent area.
- ✓ Determine appropriate land uses in noise impacted areas around Luke Air Force Base Auxiliary Field #1 and the proving grounds.
- ✓ Evaluate appropriate uses along Sun Valley Parkway.
- ✓ Preserve wash corridors.
- ✓ Establish better north-south and east-west transportation connections.

"Nothing happens unless first a dream."

- Carl Sanburg -

3.0 STRATEGIC FRAMEWORK

The ***Surprise General Plan 2020*** *"Strategic Framework"* provides a description of the desired future for the planning area. This chapter establishes the overall policy statement regarding Surprise's future growth and development. The Strategic Framework includes the Community Vision, Overall Community Goals, and Growth Management Philosophy. The Strategic Framework gives city staff and elected and appointed decision-makers the ability to determine if rezoning or development requests are in compliance with the ***Surprise General Plan 2020: "Imagine the Possibilities."***

3.1 Community Vision

Community visioning is simply the process through which a community imagines the future. It could be said that human progress has always depended upon the capacity of foresight. Foresight also lies at the heart of the community visioning process. In short, if we wish to create a better community, we must first envision that community.

The ***Surprise General Plan 2020*** is based on a strong foundation of an overriding vision and a comprehensive series of goals, objectives, and policies. This foundation provides the fundamental framework for the implementation of the community's future development. The Surprise Vision Statement is a philosophy and unique image of the future that would be better than what now exists. It is a dream rooted in reality.

> ***Surprise's Community Vision:***
> *Surprise is a diverse community that values its heritage and naturally sensitive areas within the planning area. This commitment is evidenced by the community's dedication to community sustainability and maintaining the historic city center's unique sense of place within the growing and expanding city. It is a community that provides opportunities for interaction and involvement by all citizens in creating and recreating the city. The suburban ambiance has been maintained resulting in strong neighborhoods that are woven together by trails, greenbelts, and public areas. The community offers a balance of residential, employment, and commercial land uses that are compatibly located and produce a sustainable urban form efficiently supported by infrastructure. It provides a wide array of opportunities for people to live, work, and play in Surprise. It is no surprise that people choose to call Surprise home.*

3.2 Overall Community Goals

Overall Community Goals provide general direction to policy makers, landowners, and residents and serve to further describe the future state of the planning area. They are fundamental to the community and provide the overall framework for what the residents of Surprise expect and desire for its future. There are ten fundamental *"Overall Community Goals"* that further define the community's vision and ensure the quality of life residents expect.

Goal 1: Carefully manage and phase in growth and development to achieve orderly, directed, sustainable development.

Goal 2: Encourage the development and/or revitalization of sound and stable neighborhoods.

Goal 3: Develop an efficient, effective, attractive, cost effective, and safe multi-modal transportation system.

Goal 4: Increase the jobs-to-population ratio (or promote industry/economic diversity).

Goal 5: Maintain and support a strong, financially sound and organized local government with the ability to provide adequate community services and facilities.

Goal 6: Maintain a demographically, culturally, and economically diverse community that celebrates its heritage.

Goal 7: Encourage the provision of quality and diverse housing as well as creative subdivision designs of all price ranges for present and future residents.

Goal 8: Provide and create an atmosphere for the development of a mix of shopping opportunities for visitors and residents.

Goal 9: Maintain a high level of public safety services and facilities in the community.

Goal 10: Create and maintain a high quality of life through the provision of adequate open space, and recreational opportunities (e.g., ball fields, libraries, cultural centers).

3.3 Growth Management Philosophy

The City of Surprise has experienced explosive growth during the 1990s. The planning area is currently under tremendous development pressure due to the strong residential real estate market. Ensuring that the city is adequately prepared to support new growth and development is a fundamental goal of the General Plan. Additionally, citizens and community leaders alike want to ensure that growth is managed properly and consistently with the community's vision.

The following principles describe Surprise's Growth Management Philosophy.

Ensuring a Well-Balanced Community
The Land Use Plan is not a zoning map. It is a policy guide on how the city should develop over the next 10 to 20 years and beyond. The Land Use Plan is supported by a comprehensive, multi-modal transportation network.

A comprehensive range of land uses is presented to ensure that Surprise is sustainable over the long-term. Therefore, the plan provides for every level of housing, a variety of employment opportunities appropriate to specific locations, commercial development needed to support local and regional retail needs, recreational/open spaces to ensure that the unique natural washes, mountains, and terrain are preserved, and adequate public facilities to support the community long-term. All of these uses are needed to ensure that the City of Surprise can be fiscally responsible and responsive to the needs of a growing community. The plan does not deny landowners the ability to utilize their land, but it does outline where appropriate land uses should be designated.

Special Planning Areas (SPA)
The Surprise Land Use Plan has designated five SPAs. These areas are designated to ensure that land resources are utilized efficiently and that the community's long-term development needs are addressed. The goal of each of the SPAs is to ensure a balanced mix of land uses, adequate support resources (e.g., parks, infrastructure), proper ratio of people to jobs, and an efficient and effective multi-modal transportation network. The goal of each of the areas is to provide opportunities for people to live, work, and play in close proximity. SPAs 1, 2, and 3 represent a land inventory to support development needs projected for the next 15 to 20 years based on past and present growth demands.

Growth Areas
Within the Special Planning Areas, eight "growth areas" have been identified in compliance with the Growing Smarter legislation. Some of the "growth areas" straddle different SPAs. These growth areas are intended to encourage and concentrate future development in an attempt to maximize infrastructure, ensure housing/jobs balance, and promote multi-modal transportation connections.

Development Master Planning
The City of Surprise has a successful history of using master-planned developments to create a desirable urban form and quality neighborhoods. Master planning is a preferred type of development to promote quality standards and sustainable land use. The City of Surprise advocates using master plans to allow flexibility in developing large tracts of land within the planning area. The Land Use Element discusses further the development master-planning concept.

Promote Infill Development
Encouraging a compact urban form is critical for ensuring long-term sustainability for the City of Surprise. The city will promote infill development in areas that are served by existing infrastructure and supported by public services. The Land Use Element provides policies to encourage infill development.

Quality Learning Opportunities
Ensuring quality educational and life-long learning opportunities is important to the city's economic future and quality of life. Workforce development to meet the needs of current and future industries is critical. Improving the programs and ensuring adequate facilities from K-8 as well as secondary and post-secondary is a fundamental component of the General Plan. Also, ensuring a state-of-the-art library system that allows access to all residents is important.

Population-to-Jobs Balance
In order to maintain a high quality of life, Surprise is striving to provide enough employment in close proximity to where people live to reduce commute times and congestion and maintain quality air. A fundamental goal of the General Plan is to achieve an overall population-to-jobs balance that meets the Maricopa County average of five jobs for every ten residents.

Economic Development Opportunities
The General Plan is supportive of a healthy, thriving economy with opportunities for quality, livable-wage employment for its residents. It was an objective when determining employment locations that a variety of employment opportunities be provided to address the future needs of businesses. The plan envisions clean industries appropriate to Surprise. The City of Surprise has a separate *Focused Future Strategic Plan for Economic Development* that outlines specific strategies for recruiting quality jobs to the area. The General Plan provides appropriate locations for a variety of employment opportunities. In order to ensure a strong quality of life, it is critical for the city to provide quality jobs within the community so people can live, work, and play in close proximity. Otherwise, people will have to continue to travel out of the city for work continuing to impact the transportation system, air quality, and family quality of life.

Providing Mobility and Transportation Choices
The development pattern must support a diverse range of transportation choices for residents and visitors, including walking, bicycling, public transit, and automobile travel. The plan envisions a multi-modal transportation system that balances mobility across all the modes, provides access to land uses, and gives citizens a greater range of alternative means of traveling for different trip purposes. Additionally, the plan envisions a comprehensive network of trails for leisure travel.

Greater Opportunities for Housing Choice
The planning area allows Surprise to offer a full range of housing choices from apartments to entry-level starter homes to high-end executive housing to rural large lot development. The objective of the plan is to maximize the geographic and natural surroundings of the planning area to ensure the widest range of housing choices for current and future residents of Surprise. In addition, it is also important to reinvest in mature areas of the city to ensure the provision of affordable, stable neighborhoods. It is critical for the City of Surprise to look beyond short-term market trends and plan for the community's long-term move-up and executive housing needs.

There are six residential categories identified on the Land Use Plan and discussed in the Land Use Element. The categories identify gross densities. "Gross Density" means the

number of households or dwelling units allowed per acre of total land area.

- Rural Residential (0-1 DU/AC)
- Suburban Residential (1-3 DU/AC)
- Low Density Residential (3-5 DU/AC)
- Medium Density Residential (5 - 8 DU/AC)
- Medium/High Density Residential (8 - 15 DU/AC)
- High Density Residential (15 - 21 DU/AC)

Control of "density" as referred to in the plan is the limitation on the occupancy of land.

Protection of Sensitive Land Areas
In the northern and eastern slopes of the White Tank foothills as well as areas within the planning area where sensitive vegetation (i.e., Palo Verde-Saguaro) is located, protection must be addressed. Also important for protection is the buffer around Luke Air Force Base, McMicken Dam, water recharge and riparian areas, and wildlife travel pattern areas.

*"What is a city? A city is more than buildings and roads.
A city is families to feed and to house; children to educate; men and women
to employ and to transport. A city is businesses to build; profits to be made;
culture and recreation to be enjoyed; opportunities to be realized.
But, more important than anything, a city is people.
A city is all of us."*

- Annette Strauss -

4.0 COMMUNITY ELEMENTS

Based on the Strategic Framework, the results of the Existing Conditions Analysis, and considerable public discussion, the foundation for the development of the Community Elements was established. This Chapter discusses the required community elements as they relate to the entire planning area. The elements included in this Chapter are:

4.1 Land Use Element
4.2 Transportation/Circulation Element
4.3 Economic Development Element
4.4 Housing Element
4.5 Open Space and Recreation Element
4.6 Public Services Element and Cost of Development Plan
4.7 Revitalization Element
4.8 Environmental Planning Element
4.9 Community Design Element

Each Element is organized in the following sections:

A. Element Statement
B. Element Introduction
C. Element Issues Identification
D. Element Goals, Objectives, and Policies
E. Element Plan

4.1 Land Use Element

4.1.1 Land Use Element Statement

The Surprise Land Use Element provides an efficient, balanced, and compatible land development and infill pattern of housing, employment, supportive public facilities and services, and dedicated open space for residents and workers.

4.1.2 Land Use Introduction

The Land Use Element provides the general guidelines for making future land use decisions. It also guides future growth of the planning area through the year 2020. The Land Use Element discusses the current land use pattern and how the community desires to grow, while the Land Use Plan graphically depicts, in a general fashion, how land uses will be distributed throughout the planning area and how the city will accommodate future growth. **It is critical to utilize the text and plan together when determining future land use decisions.**

4.1.3 Land Use Issues Identification

Balance of Land Uses. The Land Use Element must identify an appropriate balance of the various land uses to ensure that infrastructure is maximized and adequate services, employment, and recreation are provided in close proximity to where people live.

Agricultural Lands. Historically, agriculture has played a major role within the planning area. Most of the agricultural land is owned by a few landowners. There is a desire by residents to preserve agriculture long-term within the planning area. However, in discussions with the agricultural landowners, their long-term interests are to sell their property for development. The City of Surprise recognizes the Agricultural Preservation District that intends to preserve agricultural lifestyle and buffer Luke Air Force Base.

Revenue Enhancement. The city's economy (discussed further in the Economic Development Element) is currently driven by new growth and construction. The city must diversify its economic base and maintain an adequate amount of land to attract income-generating uses, such as employment, office, and commercial development.

Market Trends vs. Long-Term Needs. To ensure community sustainability, the City of Surprise must balance current market trends (e.g., single-family residential) with the need to provide the full range of land uses within the planning area (e.g., employment, commercial).

Arizona State Land Ownership. Within the 306 square mile planning area, there is a mix of land ownership. The Arizona State Land Department administers substantial holdings throughout the planning area. The State Land Department began their conceptual planning process in late 2000 in an attempt to prepare the land for distribution. All of the State Trust land in the planning area is subject to the 1998 Arizona Preserve Initiative (API). The API is designed to encourage preservation of selected parcels of State Trust land, in and around urban areas, for open space. State law details a process by which Trust land can be leased for up to 50 years or sold for conservation purposes. Leases and sales must occur at public auction.

Large Retirement Population. The planning area has a large retirement population located within age restrictive master planned developments. The City of Surprise wants to ensure a mix of neighborhoods to maintain a family-oriented community.

Development Master Planning. The City of Surprise encourages development diversity and innovation through development master planning. Large-scale developments utilizing this process have the potential for mixed land use opportunities, a range of housing choices, from rural to large executive style homes, open space and recreational opportunities, and an appropriate multi-modal transportation system connected to schools, libraries, parks, retail, and employment centers. Development agreements can be used to define appropriate standards to ensure implementation of the goals, objectives, and policies of the ***Surprise General Plan 2020*** in specific development master planning projects. Once approved by the City Council, a development master plan represents a general plan amendment and becomes the controlling planning document for the particular property. Approval procedures (i.e., notice requirements and public hearings) must follow the same requirements as the general plan adoption process. See 5.0: Implementation Program for more specific guidelines and definitions of major and minor amendments.

Range of Residential Density. To date, developers have built similar residential products at very affordable price ranges. It is important for the planning area to provide the full-range of housing that allows residents options to remain in the community as their need for shelter changes throughout their life. The range of housing opportunities is critical to support the economic development effort and to reduce the need to travel long distances to work.

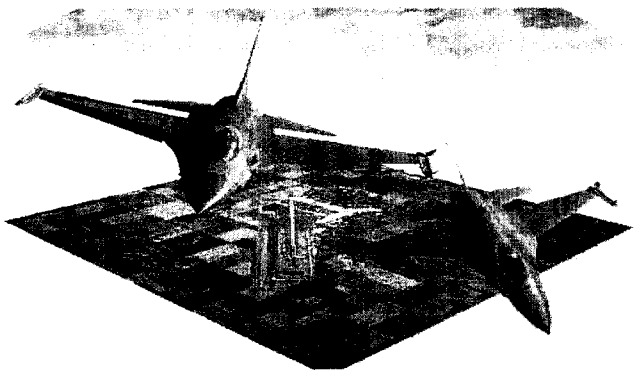
Diversity of Planning Area. The planning area varies greatly in terms of its terrain, vegetation, and landform. It is critical to be sensitive to this diversity and create a unique development pattern that is compatible with the natural environment.

Compatibility. Ensuring compatibility between land uses and adequate transitions from one use to the next is important to create a well-planned community. The city will take into consideration compatibility or buffering with surrounding uses when making land use decisions.

Urban Form. The Surprise planning area is quite large in comparison to the area that is currently under the city's jurisdiction. It is the city's goal to ensure that this planning area maintains an appropriate urban form as Surprise's urban area expands in both physical and social aspects. The urban form may be characterized by its rural and suburban sectors of Surprise's built environment. The general plan outlines policies to encourage a compact urban form in appropriate areas that maximizes infrastructure and encourages multi-modal transportation. The urban form is also defined by a comprehensive network of open space and trails that connect activity centers within the planning area as well as connecting to other regional park systems.

Sense of Place. It is the ultimate goal of the ***Surprise General Plan 2020*** to create and maintain a unique "sense of place" visitors and residents alike recognize that. It is important to ensure that there are landmarks throughout the community that create a recognizable sense of place that is uniquely Surprise. The major components of this identity are described in the Community Design Element.

Luke Air Force Base. Luke Air Force Base noise contours impact the southern portion of the planning area as well as around Auxiliary Field #1. The City of Surprise has and will continue to experience growth pressure in and around these facilities. The city is dedicated to ensuring land use compatibility with the noise and other potential impacts of Luke Air Force Base.



Surprise Center. In May 2000, the City of Phoenix traded land it owned in Surprise for 926 acres adjacent to Luke Air Force Base. Surprise Center Development Company, an affiliate of Westcor and Carefree Partners, owns the Surprise land. As part of the trade, the developers gave the City of Surprise 115 of the 640 acres to build a municipal center with recreational and aquatic facilities, city offices, and a library.

4.1.4 Land Use Goals, Objectives, and Policies

Community Goal: *Carefully manage and phase in growth and development to achieve orderly, directed development .*

Objective: Promote a compatible mix of land uses throughout the planning area.

Policies:

1. Minimize the amount of job leakage that is occurring in the city by ensuring that adequate employment-designated areas are maintained.

2. Encourage the location of residential neighborhoods close to activity centers to minimize travel times and patterns. Development and implementation of buffering criteria by February 1, 2001 that ensure compatible transition between land uses.

3. Support development proposals that replace incompatible zoning with uses that are compatible with the general plan land uses, particularly development proposals that reduce overall density in selected locations.

4. Locate higher density/intense residential land uses and transportation-dependent uses near major roadway corridors to promote an efficient transportation system.

5. Determine appropriate public facility levels of service and infrastructure supply/capacity to support new and existing residents and employees.

6. Support and encourage compatible land uses around Daimler-Chrysler and Volvo proving grounds to ensure the long-term economic viability of these existing uses.

7. Support compatible land uses adjacent to the Northwest Valley Landfill.

8. Encourage the development of unique, compatible mixed-use developments at the designated "Gateway" areas throughout the planning area.

9. Support the development of a resort in the foothills of the White Tank Mountains.

10. Encourage the development of a unique mixed-use development project at the Surprise Center that provides a signature project for the City of Surprise.

Objective: Practice comprehensive development master planning that evaluates areas and incorporates a mix of compatible land uses.

Policies:

1. Strive to master-plan large parcels of the city and critically review the treatment of edges and their impact on adjacent land uses.

2. Promote clustering (i.e., average density) developments in appropriate locations such as within the foothills of the White Tank Mountains and adjacent to the regional park to protect environmentally sensitive areas and to preserve open space. Clustering is a development design technique that permits a reduction in lot area and bulk requirements, provided there is no increase in the number of lots, and the remaining land area is devoted to open space. In large-lot or multi-family developments, clustering may also be accomplished by placing building pads close to each other as mechanisms are in place to protect the remaining open space.

3. Encourage large master-planned communities to utilize fencing that allows for wildlife movement in close proximity to major washes and other sensitive areas in order to maintain wildlife travel patterns.

Objective: Preserve the natural environment and scenic resources within the planning area by ensuring compatible development that protects environmentally sensitive areas.

Policies:

1. Establish a hillside development overlay zone for the foothill area adjacent to the White Tank Mountain Regional Park (i.e., Special Planning Area 3).

2. Protect slopes 10 percent or greater from development.

3. In environmentally safe areas within the planning area, the city shall encourage the use of building envelopes that encourage the provision of natural buffers between buildings in order to protect sensitive landforms, vegetation and/or wildlife corridors. Building envelopes designate the specific areas that can be disturbed in any way during or following construction. The area outside the building envelope must be maintained in a natural state.

4. Evaluate environmentally constrained areas for appropriateness as open space.

5. Encourage clustering as defined above in areas for the preservation of natural open space within residential neighborhoods. The integration of natural open space within clustered developments should promote openness within housing developments (i.e., Special

Planning Areas 1, 2, and 3).

6. Preserve the vistas of the White Tank Mountains.

Objective: Work to maintain an agricultural presence within the planning area.

Policy:

1. Document existing agricultural areas and identify incentives for long-term preservation. Promote businesses that embrace agricultural practices as part of the city's economic development strategy (i.e., The Farm at South Mountain).

Objective: Support the construction of viable commercial centers throughout the planning area.

Policies:

1. Encourage private developers to locate regionally oriented retail and service uses or other high intensity employment uses along major roadways with proper access, transitioning to lower intensity uses buffered adequately from residential uses.

2. Discourage strip commercial developments and encourage clustering of commercial developments with strict aesthetic, landscaping and design guidelines. Free-standing pads are discouraged, except where expressly permitted in relation to overall gross leasable area and compatibility with center design.

3. Require private developers to design and locate supportive commercial sites in close proximity to population centers. The purpose is to ensure that adequate commercial services are available within a short distance of where people live.

4. Encourage the development of the Surprise Center as a mixed-use development project that is the signature centerpiece of the City of Surprise.

Objective: Strengthen existing neighborhoods and ensure compatible development.

Policies:

1. Identify and assist older, maturing existing neighborhoods to ensure their long-term stability and improvement.

2. Encourage master-planned developers to connect neighborhoods through a series of planned trails and functional open space.

Objective: Encourage phased annexations in compliance with the ***Surprise General Plan 2020*** following a cost/benefit analysis.

Policies:

1. Establish a fiscal impact analysis system for all potential annexations that evaluates the projected revenues versus the cost of providing services.

2. Work closely with Maricopa County to ensure that development outside of the incorporated city boundaries is consistent with the City of Surprise standards and in accordance with the ***Surprise General Plan 2020*** to ensure a smooth transition when annexed.

Objective: Protect the public health, safety, and welfare in areas around Luke Air Force Base.

Policies:

1. Ensure compatible future land use and development patterns adjacent to and surrounding Luke Air Force Base.

2. Continue to communicate with the public about the importance of Luke Air Force Base to the West Valley and City of Surprise economy.

3. Establish a close working relationship with the officials of Luke Air Force Base to discuss and share information about future plans and operations at the base.

4. The City of Surprise recognizes the 1988 noise contours around Luke Air Force Base (i.e., shown on the Land Use Plan).

5. Luke Air Force Base noise contours lines are established based on description or determinations of a legal nature and approved by the city.

Objective: Encourage equestrian-friendly developments.

Policies:

1. Coordinate overall city trail activities with the regional trail system to preserve the equestrian lifestyle within the planning area.

2. Coordinate with the City of Peoria on the implementation of the Peoria Trails Master Plan and the West Valley Corridor to establish a strong regional equestrian system as well as adequate equestrian facilities.

3. Establish rural character overlay and design guidelines to promote single family large lot development that protects the equestrian and agriculture heritage of the planning area.

4.1.5 Land Use Plan

The Surprise planning area is 228 square miles, while the city's incorporated land area as of November 2000 is approximately 70 square miles. Considerable discussion occurred in determining the boundaries for the planning area. The land within the planning area is intended to represent areas in which the City of Surprise may consider annexing at some time in the future. Therefore, it was important to plan the area even though the city does not have legal authority over the land. By planning the area outside the incorporated boundaries and working closely with Maricopa County, it is the intent that the county will consider the ***Surprise General Plan 2020*** when making decisions that might impact those lands that could be annexed by Surprise at some point in the future.

Land Use Definitions

To assist in guiding growth and development consistent with the community's vision, it is important to understand the intent of the different land use districts designated on the Surprise Land Use Plan. The following definitions that relate to the designations on the Land Use Plan should be used. The residential land uses are characterized as a range of dwelling units per acre (DU/AC).

NOTE: Within all land use designations, actual uses within the high noise or accident potential zones of both Luke Air Force Base and Luke Air Force Base Auxiliary Field #1 shall be in accordance with Arizona Revised Statutes §28-8481(J).

Rural Residential (0-1 DU/AC)
The Rural Residential category is intended to be a setting for a predominance of large-lot single-family housing in a rural setting. Development in these areas consist mainly of homes on one acre lots (gross) or larger, ranging up to ten acres in more remote, unincorporated areas in the county. The basic character of development is rural, with most natural features of the land retained. Keeping of horses or other livestock is permitted in certain areas subject to the adopted Rural Development Standards and Design Guidelines Policy. Public services are not required at a level as great as in higher density development. No commercial or industrial development is anticipated.

Airport Preservation (0-2 DU/AC)
The Airport Preservation designation refers to appropriate areas where service uses, proving grounds, warehouse, business park, and/or manufacturing-type industrial uses are allowed. These uses are encouraged within the F-16 high noise impact area. This designation also allows for incidental supportive commercial use, and single-family residential uses having a density range of 0 to 2 dwelling units per acre outside of the F-16 65 ldn sound boundaries. All future residential development within this category inside the high noise impact area shall be in compliance with A.R.S. section 28-8481. The overall intent of this designation is to maximize intensity of land uses and to locate those land uses in areas that are compatible with operations at Luke Auxiliary Airfield # 1.

Suburban Residential (1-3 DU/AC)
The Suburban Residential category is intended for large-lot, single-family housing. Suitability is determined on the basis of location, access, existing land use pattern, and natural and man-made constraints. Suburban Residential designated areas range from one to three dwelling units per acre. Limited Neighborhood Commercial is permitted in this category to serve local residents where deemed appropriate by the city.

Low Density Residential (3-5 DU/AC)

The Low Density Residential category is intended for predominantly single-family detached residential development. Residential densities of up to five dwelling units per acre (gross) are typical of this category. In general these areas are quiet residential single-family neighborhoods but in some areas a mix of single-family, duplexes, townhouses, and low rise apartments would also be suitable, provided that the average density of such areas does not exceed five dwelling units per acre. This designation may also include such supporting land uses as neighborhood shops and services, parks and recreation areas, religious institutions, and schools. A full range of urban services and infrastructure is required.

Medium Density Residential (5-8 DU/AC)

The Medium Density Residential category may include detached or attached single-family residential developments. This category may also include a mix of single-family homes, duplexes, manufactured, and modular homes. The gross density range for this category is five to eight dwelling units per acre. This category may also include such supporting land uses as neighborhood shops and services, parks and recreation areas, religious institutions, and schools. A full range of urban services and infrastructure is required.

Medium/High Density Residential (8-15 DU/AC)

The Medium/High Density Residential category may include duplexes, manufactured and modular homes, apartments, townhouses, and other forms of attached or detached housing on smaller lots. The gross density range for this category is 8 to 15 dwelling units per acre. This category may also include such supporting land uses as neighborhood shops and services, parks and recreation areas, religious institutions, and schools. A full range of urban services and infrastructure is required.

High Density Residential (15-21 DU/AC)

The High Density Residential category provides for apartment and condominium complexes ranging from 15 to 21 gross dwelling units per acre. This category may also include supporting land uses as parks and recreation areas, religious institutions, and schools. A full range of urban services and infrastructure is required.

Agriculture

The Agriculture designation denotes areas that are intended to remain in agricultural production over the long-term. There are additional locations within the planning area that are expected to remain in agricultural production for the short-term. However, these areas are anticipated to transition to other land uses over time. According to Growing Smarter, agricultural land must be designated to provide residential development up to one dwelling unit per acre.

Commercial

The Commercial designation, as shown on the Land Use Plan, denotes retail areas larger than 25 acres. These sites are typically considered community or regional commercial and may include major tenants and smaller stores or services. These commercial uses are intended to have direct access to major roadways. The City of Surprise may approve community and neighborhood commercial under 25 acres within other land use designations (i.e., residential) that may not be shown on the Land Use Plan, if appropriate. Criteria for locating commercial in non-commercial land use designations, may include but is not limited to, market feasibility, adequate access, buffering, and compatibility to surrounding land uses will be considered when determining the appropriate locations for commercial.

Proving Grounds
Within the planning area, the Volvo Corporation has a proving ground that is used to test new vehicles and equipment. This use is expected to continue in the future.

Landfill
The Landfill designation is where the Northwest Regional Landfill (1,200 acres) is located. The fairly new landfill has a 80-year life span. Therefore, this use will continue in the foreseeable future.

Military
The Military designation is land owned or leased by Luke Air Force Base and is intended for air base-related uses. Auxiliary Field #1 has a runway that is used to train military pilots as well as uses such as small target practice. This use is intended to continue into the foreseeable future.

Employment
The Employment designation refers to appropriate areas where professional office, tourism/recreational uses (e.g., resorts, amusement facilities), service uses, office/warehouse, and/or manufacturing-type industrial uses is encouraged. This use allows incidental supportive residential in appropriate locations that is adequately buffered on a case-by-case basis. Supportive residential may be a component of an employment related development where deemed appropriate. The specific allowable use will be determined based upon the particular site, adjacent land use impact, buffering techniques, intensity of development, and traffic implications. However, the overall intent of this designation is to locate employment uses and generate jobs for Surprise.

Resort Development
The northern foothills of White Tank Mountain Regional Park offer a unique opportunity for a high-end resort development project. A resort for the purposes of the White Tank Mountain development area is a hotel and recreation facility that includes residential accommodations consistent with a temporary use. The area's unique and sensitive environment should be planned for uses that can be integrated with the natural environment and positioned to take advantage of the unique setting. Another resort area has been identified off of SR 60 south of SR 74 in the northwest corner of the planning area. The area is a key entry to the Surprise planning area and the natural environment makes it an attractive area for tourists. The locations on the Land Use Plan are intended to show general potential locations.

Original Townsite
The Original Townsite is the area that includes the first 640 acres that were incorporated in December 1960. The area is unique in character and demographics. Specific guidelines for the Original Townsite are included in the Revitalization Element.

Surprise Center
The area is intended as a mixed-use 640-acre development project to include private sector commercial and employment land uses as well as municipal uses. The City of Surprise Municipal Center will include, but not limited to, recreational and aquatic facilities, city offices, and a library. The Surprise Center is intended to be a signature centerpiece for the City of Surprise.

Mixed-Use
Within the planning area are several "Mixed-Use" gateways located at primary entry areas to the City of Surprise. These areas are intended to provide a unique mixed-use area that makes a unified statement that the visitor is entering the City of Surprise. The Mixed-Use Gateway is intended to complement the surrounding area while providing a mix of commercial, employment, and public uses, such as a community college and civic facilities, with residential uses in a master-planned way that creates a unique, special environment. No one-land use is intended to dominate a Mixed-Use Gateway. For example, the southern Mixed-Use Gateway is intended to be a high-intensity entry that might include a community college site/educational facility or spring training facility combined with higher intensity uses that benefit from the visibility afforded from SR 303.

Open Space
This designation denotes areas that are to be precluded from development except for public recreational facilities or nature preserves. Open space areas should be left in a natural state due to topographic, drainage, vegetative, and landform constraints or the need to provide buffers between potentially incompatible land uses. The plan strives to create a linked open space system through the preservation of washes, public utility easements, and major corridors that link to the regional park and trail systems. State Trust lands or privately held lands identified as park or open space may be developed at a maximum of one dwelling unit per acre per Growing Smarter legislation.

Public Facilities
This designation denotes acreage dedicated for public or semi-public uses that may include police/fire substations, schools, libraries, community centers, wastewater treatment plants, etc. The boundaries of the land use designations (i.e., districts and district boundaries) shown on the Land Use Plan (Figure 4-1) are located along significant natural or manmade features wherever possible to assist in identification. These features include drainageways, washes, roadways, existing subdivisions, land ownership, powerlines, or existing development areas. These

boundaries represent general recommendations for future development. However, the precise location of the boundaries may not always be exact or critical. Variations of several hundred feet, particularly where no significant natural or man-made features are present, may be acceptable. It will be the responsibility of the City Council, with recommendation from the Planning and Zoning Commission and Surprise Community Development Department, as well as guidance provided by the ***Surprise General Plan 2020,*** to establish and define the boundaries if questions arise.

The land uses within the Surprise planning area are shown in Table 4-1 and comprise the following percentages:

Table 4-1, Surprise Land Use Designation Acreage by Type

Designation	Acres	Percentage of Total
Rural Residential	103,521	53.39%
Suburban Residential	13,070	6.74%
Low Density Residential	32,811	16.92%
Medium Density Residential	5,359	2.76%
Medium/High Density Residential	767	0.40%
High Density Residential	440	0.23%
Commercial	2,079	1.07%
Employment	13,046	6.73%
Mixed-Use	2,993	1.54%
Surprise Center	654	0.34%
Original Townsite	660	0.34%
Agriculture	518	0.27%
Landfill	1,198	0.62%
Open Space	6,425	3.31%
Public Facilities	417	0.22%
Military	1,071	0.55%
Proving Grounds	1,530	0.79%
Airport Preservation	7,333	3.78%
TOTAL	193,892	100% (rounded)

Note: Two possible resort locations are shown on the Land Use Plan in preferred locations. However, no acreage is designated for the resorts.

Figure 4.1
Land Use Plan MAP

4.1.6 Special Planning Areas

Add 71 S.M. for SPA6 = ± 301 S.M Total

To effectively plan for the 227.98 square mile planning area, smaller areas were ~~identified called~~ "*Special Planning areas (SPA).*" There are six SPAs that comprise the entire planning area shown in Figure 4-2. The boundaries for the SPAs were determined by analyzing current and projected development trends, land ownership boundaries, community needs, and physical delineation features.

SPAs are designated to ensure that land resources are utilized efficiently and that the community's long-term development needs are addressed. The goal of each area is to ensure a balanced mix of land uses, adequate support resources (e.g., parks and infrastructure), proper ratio of people to jobs, and an efficient transportation network.

The following is a summary of the Special Planning Areas (Table 4-2) at build-out based on the Land Use Plan designations. Table 4-3, summarizes the build-out projected population by SPA for the current incorporated boundaries utilizing mid range densities. Build-out is defined as the entire planning area being developed with the land use designations identified on the Land Use Plan within the density ranges. Build-out is a condition, not a timeframe. When the community will reach build-out is unknown because it depends on market trends. However, it is important for the City of Surprise to pro-actively plan under the assumption that at some point the community will build-out. It is critical for the city to adequately provide the necessary services, infrastructure, and facilities to support the projected land uses. Additionally, this build-out projection will change depending on how the General Plan changes over time.

Table 4-2, Planning Area and Incorporated Boundaries Build-Out Population Projections

Total Population at Build-Out – Mid Range Densities:	**674,801**
Population per Square Mile:	2,779
Commercial Space Population Support:	617,850
Employment Space Population Support/Ratio:	392,847/ 58.2 jobs per 100 pop.
Total Population at Build-Out – Low Range Densities:	**409,045**
Population per Square Mile:	1,684
Retail Space Population Support:	617,850
Employment Space Population Support/Ratio:	392,847/ 96.0 jobs per 100 pop.
Total Population at Build-Out – High Range Densities:	**974,348**
Population per Square Mile:	4,012
Retail Space Population Support:	617,850
Employment Space Population Support/Ratio:	392,847/ 40.3 jobs per 100 pop.

Source: Partners for Strategic Action, Inc. (November 2000)

Table 4-3, Current Incorporated Area Build-Out Population Projections

Mid Range Density	SPA 1	SPA 2	SPA 3	SPA 4	SPA 5	Total
	132,185	16,344	111,537	0	13,778	273,844

Source: Partners for Strategic Action, Inc. (November 2000)

Figure 4-2
SPA MAP

The projected numbers in Tables 4-2 and 4-3 are based on the general plan land use designations. Much of the planning area is designated residential and of this area, a vast majority is designated as Rural, Suburban, and Low Density Residential. As the area grows, there will be continued pressure to re-designate land to higher residential densities. Varying from the land use designations in the general plan can have compounding impacts, such as:

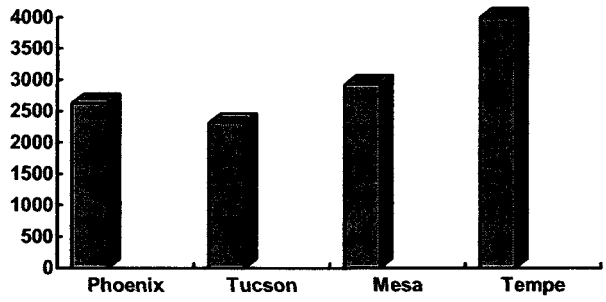
- ✓ Area that is changed from Rural Residential to Low Density Residential increases the estimated population for that area by 800 percent at mid-range densities in each category.
- ✓ Every acre that is changed from Low Density Residential to Medium Density Residential increases the target population for that area by 217 percent at the mid-range densities in each category.
- ✓ Every acre that is changed from Medium Density Residential to High Density Residential increases the target population for that area by 277 percent at the mid-range densities in each category.

These examples are not provided to say that reclassifying property to different capacities is always imprudent. They do say that because of the sheer size of the planning area, changes will have resounding effects on population estimates made and should be weighed against the effect they will have on infrastructure, transportation, commercial services available, and the employment-to-population ratio.

Density Comparative Analysis

In order to place these numbers in perspective, several other Valley cities were analyzed as to their current densities.

Table 4-4, Persons per Square Mile (1990)



Keep in mind, these other communities (excluding Tempe, which is nearing build-out), are not even near build-out.

Each of the SPAs have been analyzed to determine the potential population and to ensure that employment, shopping, and educational facilities will be available to serve the expected population in each SPA.

Population estimates were made using the average density in each residential land use category. For example, Low Density Residential permits 3 to 5 dwelling units per acre. The figure used for estimates is four dwelling units per acre. This is also referred to as the mid-range density scenario.

The amount of students that will be generated by the residential development in each SPA has also been calculated. This was done utilizing the population projections previously described and the average number of students generated per household from the 1990 United States Census for Maricopa County. The Census figures provide three different ratios for different types of development – low density, medium density, and high density. The type of development has a direct correlation to how many students are generated from each household.

Special Planning Area 1

Description. SPA 1 is bounded on the west and north by the Beardsley Canal, Peoria Avenue on the south, and the Surprise corporate boundaries on the east. This SPA is basically the historic center and currently developing City of Surprise. It includes the area called the Original Townsite, retirement master-planned communities south and west of Bell Road, and employment-designated uses in the southeast portion adjacent to the City of El Mirage. SPA 1 has a long agriculture heritage and current farming activities are underway in the western section of the planning area. There are large sections of agricultural land primarily owned by one landowner. Luke Air Force Base noise contours impact the southeastern tip of SPA 1.

SPA 1 encompasses 28,110 acres or approximately 43.9 square miles of which 17,551 acres are currently in the incorporated boundaries of the City of Surprise. This is 62.4 percent of the total SPA area.

Existing Conditions. SPA 1 is the most predictable in terms of future development patterns because much of the area has been developed or planned. Additionally, many landowners are currently submitting or having development plans approved by the city. The SPA has a large retirement population that lowers the population per household total.

The SPA has substantial commercial development. Grand Avenue and Bell Road have been developed as major commercial corridors. As a result of the commercial development, these roadways are reaching or exceeding traffic volume limits.

The area is home to the historic heart of the city and revitalization of the Original Townsite is very important. The strategy outlined in the Revitalization Element dictates how this area will be improved. The proposed SR 303 is within this SPA, which offers the City of Surprise tremendous economic development opportunities.

The transportation network in SPA 1 is continually expanding concurrent with development. There are presently two principal arterials and four major arterials in this SPA - Grand Avenue, SR 303 are principal arterials, Bell Road, Waddell Road, Reems Road and Dysart Road. The remainder of the roadway network is comprised of minor arterial cross sections.

SPA 1 Plan Overview. SPA 1 is expected to have a mix of economic activities. There are significant parcels for commercial, employment with rail access, and a mixed-use area that could have an educational and/or recreational focus.

SPA 1 has lower persons per household ratio of 2.64 than the other SPAs because of the large retirement population in Sun City Grand. Total acreage in SPA 1 is 28,110 of which 76 percent (21,373 acres) is designated for residential uses. Based on mid-range residential densities, SPA 1 will have an estimated 223,223 residents at build-out under the mid-range density scenario.

Population figures are based on very small amounts of high and medium high density residential uses as shown in Table 4-5, SPA 1 Population Projections. It is anticipated that there may be some development in these categories based on the proximity to SR 303, possibly a community college in the mixed-use designation. A higher target population is likely.

Commercial property of 860 acres (3.1 percent of SPA 1) has been designated. Based on the assumptions, this will support a population of approximately 228,932. In addition to this commercially designated property, the Surprise Center development within SPA 1 will have significant space available for commercial activities, as will the Mixed-Use gateway area located on SR 303. These factors ensure that this SPA will be able to support the projected population even if it develops above the mid-range density scenario. Additionally, the commercial development in this SPA will be intended to bring activity from the other SPAs as well as from outside of the community.

SPA 1 has 2,514 (8.9 percent) acres of employment designated. This will accommodate 87,607 jobs giving this SPA an employment-to-population ratio of .44 at mid-range densities. This is below the .5 target but it is assumed that the substantial commercial activities that are expected for this SPA will push the area well over the desired ratio.

Should the SPA develop at the low-density range, the estimated population will be 194,141 (this is highly unlikely due to prior project approvals) and should the SPA develop at the high end of the density range, the population is estimated to be 282,079. Build-out population of the currently incorporated area at the mid-range density scenario is approximately 132,000.

Table 4-5, SPA 1 Population Projections

Land Use	Built Acreage	DU*/acre Mid-Range	Total Dwelling Units	Population
Rural Residential (0-1 du/ac.)	1,137	.50	568	1,500
Suburban Residential (1-3 du/ac.)	1,647	2.0	3,294	8,696
Low Density Residential (3-5 du/ac.)	13,807	4.0	55,228	145,801
Medium Density Residential (5-8 du/ac.)	2,916	6.5	18,954	50,038
Medium High Density (8-15 du/ac.)	0	11.5	0	0
High Density Residential (15-21du/ac.)	207	18	3,726	9,836
Total	19,714		81,770 **	215,871**

*DU = Dwelling units per acre
** Does not include potential units or populations within mixed use designations

Assumptions:

- 2.64 persons per household
- 20 percent of residential property will contain other uses
- Commercial property has a floor-to-area ratio of .22
- Employment property has a floor-to-area ratio of .20
- 36 square feet of commercial space needed per resident

- 250 square feet of space required per employee
- Mixed-use designation could contain some residential development. This has not been calculated

The projected student population for SPA 1 is 53,517 for K through 8th grades and 19,097 for 9 through 12th grades as indicated in Table 4-6, SPA 1 Student Population Generated by Residential Densities.

Table 4-6, SPA 1 Student Population Generated by Residential Densities (based on mid-range projections)

Land Use	K through 8th Population	9th through 12th Population
Rural/Low/Medium Density	53,207	18,950
Medium High Density	0	0
High Density	310	147
TOTAL	**53,517**	**19,097**

Source: Partners for Strategic Action, Inc. (2000) and 1990 U.S. Census School Children/Household Type

SPA 1 currently contains three principal arterials, SR 303 (Estrella Parkway), Waddell, and US 60 (Grand Avenue) and two major arterials, Dysart Road and Bell Road. The transportation network in SPA 1 is significant and provides access to the fastest growing area of the City of Surprise. It is extremely important that the transportation infrastructure recommended is implemented to provide access and mobility to the residents.

Development of SR 303 is an important component to the city's overall transportation network. The corridor is envisioned to be developed as an employment and commercial corridor with supportive higher density residential appropriate with a principal arterial.

SR 303 will be a major transportation corridor for not only SPA 1, but for the entire planning area. SR 303 is classified as a principal arterial that in the future will be able to sufficiently carry approximately 100,000 vehicles per day. The SR 303 corridor splits SPA 1 and will provide vehicular access from the City of Glendale and the City of Peoria. The SR 303 corridor will be the focus of a future transit route servicing not only residential land uses, but commercial and employment as well. The transit route along SR 303 will provide connection to and from Bell Road and other future east-west corridors.

A major mixed-use gateway is proposed at Peoria Avenue and SR 303. The gateway is envisioned as the future front door to Surprise. The gateway is intended to offer a unique mix of uses (e.g., commercial, employment, public uses). Throughout the process, residents have expressed a desire to have a community college within the planning area and this might be the appropriate location. Another use discussed was a spring training facility.

SPA 1 is comprised mainly of residential land uses. With this composition comes a strong future need for transit. Although there is not a transit system presently, this plan recommends bus pullouts on all major arterials in SPA 1. As development occurs, the cost of transit implementation increases. It is important that the transit facilities be established in the near term for the required need in the future. There are two major transit routes identified for SPA 1, the SR 303 corridor and the Bell Road corridor. The Bell Road corridor will provide connection from the residential land uses in SPA 1 to the commercial centers located along Bell Road. Due

to the large volumes of traffic projected for Bell Road, transit facilities must be emphasized in order to continue mobility in the future.

The recommended road network in SPA 1 indicates a two-mile spacing between major arterials and a one-mile spacing of minor arterials. The City of Surprise road network has several barriers that limit the expansion of the transportation system. The Agua Fria River, the Beardsley Canal, and the railroad present limited barriers to a complete north-south and east-west grid system for the roadway network. Working within these constraints, the transportation network outlined for the City of Surprise is sufficient to manage the land uses identified in the general plan. The bicycle facilities identified for SPA 1 are the Sun Valley Parkway, Dysart Road, Waddle Road, Cactus Road, and roadways throughout the Original Townsite.

Special Planning Area 2

Description. SPA 2 is bounded by Grand Avenue to the south and west, the Central Arizona Project Canal on the north, the eastern boundary of the planning area, and to the south by the Beardsley Canal just north of Sun City West. SPA 2 encompasses 14,444 acres or approximately 22.6 square miles of which 4,259 acres of this SPA are within the incorporated boundaries of the city. This is 29 percent of the total SPA area.

Existing Conditions. The SPA is primarily undeveloped with large washes that weave through the area. The topography in the northeastern portion is dominated by foothills. Currently Grand Avenue is the principal arterial and the major arterial is Jomax Road. The railroad runs along Grand Avenue along the southern boundary of the SPA. Due to the topographic constraints of the area, it will be difficult to develop very large developments. The topography presents opportunities to create unique developments that maintain large portions of open space.

There is one principal arterial and two major arterials that currently serve SPA 2. They are Grand Avenue, Jomax Road, and 163rd Avenue. There are currently no existing multi-modal facilities in this SPA.

SPA 2 Plan Overview. Based on the topography, this is a residentially focused area as shown in Table 4-7, SPA 2 Population Projections. It also has been estimated that 30 percent of the residentially designated land will not be built upon because of the terrain. There are 13,402 acres of residentially designated property, which makes up 92.7 percent of the SPA's total area. Open space designated within SPA 2 is 384 acres (2.6 percent of total SPA area).

There is approximately 243 acres of commercially designated property in this SPA. Should residential land use increase, additional commercial property may need to be designated in this SPA.

Employment uses represent 233 acres (1.6 percent) within SPA 2. This SPA contains the optimum employment area for high-tech and research-related firms since it contains the only employment designated parcel within the planning area that has no noise or vibration factors (e.g., aircraft, railroad). The employment- to-population ratio of .08 is acceptable for this residentially oriented area. SPA 2 will have a high-technology employment focus. This SPA has the appropriate location for business park-type development to support the High

Technology and Bio-Industry Clusters outlined in the *Surprise Strategic Plan for Economic Development.* The area will also support railroad-related employment uses.

Should this SPA develop at the low range of densities, the estimated population will be 64,251. If the SPA develops at the high end of the density range, the population is estimated to be 128,969. The area of SPA 2 that is currently in the incorporated boundaries of the city will have an estimated build out population of 16,000 at the mid-range density scenario.

Table 4-7, SPA 2 Population Projections

Land Use	Built Acreage	DU*/acre Mid-Range	Total Dwelling Units	Population
Rural Residential (0-1 du/ac.)	4,393	.50	2,196	6,193
Suburban Residential (1-3 du/ac.)	3.113	2.0	6,226	17,557
Low Density Residential (3-5 du/ac.)	5,883	4.0	23,532	66,360
Medium Density Residential (5-8 du/ac.)	0	6.5	0	0
Medium High Density (8-15 du/ac.)	0	11.5	0	0
High Density Residential (15-21 du/ac.)	0	18	0	0
Total	13,229		31,954	90,110

Source: Partners for Strategic Action, Inc. (2000)

*DU = Dwelling units per acre

Assumptions:

- 2.82 persons per household
- 30 percent of residential property will contain other uses
- Commercial property has a floor-to-area ratio of .22
- Employment property has a floor-to-area ratio of .20
- 36 square feet of commercial space needed per resident
- 250 square feet of space required per employee

The projected student population for SPA 2 is 22,017for K through 8th grades and 7,842 for 9 through 12th grades as indicated in Table 4-8, SPA 2 Student Population Generated by Residential Densities.

Table 4-8, SPA 2 Student Population Generated by Residential Densities (based on mid-range projections)

Land Use	K through 8th Population	9th through 12th Population
Rural/Low/Medium Density	22,017	7,842
Medium High Density	0	0
High Density	0	0
TOTAL	**22,017**	**7,842**

Source: Partners for Strategic Action, Inc. (2000) and 1990 U.S. Census School Children/Household Type

Major commercial facilities are located across Grand Avenue in SPA 3. This SPA is primarily designated as a residentially oriented area on larger lots due to the unique topography and washes. The area's rural character and scenic quality is intended to be maintained.

An employment center is designated on 163rd Avenue. This is critical to the overall success of the City of Surprise's economic development strategy. The employment center is the only property within the planning area that is away from the vibrations generated from the railroad or

a major roadway like Grand Avenue. This will allow Surprise to market to high-technology or research firms that prefer a campus-like setting.

There is one principal arterial and three major arterials proposed to serve SPA 2. They are Grand Avenue, Jomax Road, 163rd Avenue, and the proposed Grand Avenue frontage road. 163rd Avenue will be the major north-south connection through SPA 2. 163rd Avenue is intended as a scenic corridor that will provide a connection from Grand Avenue to SR 74. The proposed Jomax Road alignment will provide east-west access from SPA 2 to the proposed SR 303.

There are three future transit routes identified in SPA 2. The first is a continuation of the Grand Avenue Corridor through SPA 1. Grand Avenue will be a primary transportation corridor for both automobiles and transit. The land use identified at the Grand Avenue and Jomax Road intersection is employment. The transportation plan identifies this location as a future park-and-ride facility to be served by the future transit routes along Jomax Road and Grand Avenue.

Due to the residential nature of SPA 2, pedestrian and bicycle facilities are proposed to provide transit connections. Providing well-lit roadways with cross-sections that support both walking and cycling, multi-modal transportation is encouraged.

The proposed major arterials in SPA 2 have been identified to contain on-road bicycle facilities. 163rd Avenue will provide connection from the Grand Avenue corridor to the bicycle facilities identified for SR 74. 163rd Avenue provides north-south travel into and out of SPA 2. The Jomax Road bicycle route will provide east-west travel through SPA 2 to SPA 1 and SPA 3. The Jomax Road facility will make a transition to the El Mirage bicycle corridor and facilitate travel to the Original Townsite.

Special Planning Area 3

Description. SPA 3 is bounded by Jomax Road to the north, Grand Avenue and the McMicken Dam to the east, White Tank Mountain Regional Park to the south, and the Town of Buckeye to the west. SPA 3 encompasses 37,698 acres or approximately 58.9 square miles of which 18,947 acres are currently in the incorporated boundaries of the city. This is 50.3 percent of the total SPA area.

Existing Conditions. The SPA is dominated by various existing large land uses. These land uses include Volvo Proving Grounds, Northwest Regional Landfill, Phoenix Raceway, and Luke Air Force Base Auxiliary Field #1. These land uses are intended to remain into the foreseeable future. The area is also dissected by the Central Arizona Project Canal and a 640 KV powerline corridor. The SPA is adjacent to the northern boundary of the White Tank Mountain Regional Park. There is currently no access to the park from the planning area. Maintaining the environmental sensitivity of the foothills of the White Tank Mountain Regional Park will be important.

Sun Valley Parkway is a principal arterial that bisects the SPA connecting the planning area with the Town of Buckeye. There have been development interests in this SPA and considerable development interest in the Town of Buckeye adjacent to the planning area. The area is dominated by unique topography and major washes. Creating compatible land uses around major existing land uses (i.e., Volvo Proving Grounds, Northwest Regional Landfill, LAFB Auxiliary Field #1, and Speedworld) will be critical. These uses are intended to remain long-

term. Additionally, the APS power corridor can form a barrier to the SPA if it is not turned into an asset.

With the exception of Sun Valley Parkway, the transportation system in SPA 3 has not been substantially developed. There is no existing transit service to the area and there is only one existing bicycle facility and that is a bicycle lane contained on Sun Valley Parkway.

SPA 3 Plan Overview. There is a Mixed-Use Gateway designated at 243rd Avenue and Sun Valley Parkway. This gateway is envisioned to be a high-end, mixed-use commercial development. The area is strategically located to take advantage of the proposed development within the Buckeye planning area. Sun Valley Parkway and 243rd Avenue are major arterials.

The ultimate goal of the SPA is to preserve the White Tank Mountain foothill area. There is a citizen initiative underway to acquire this area for preserve land. The general plan indicates that if the land is not acquired for preserve, the underlying land use that is acceptable is Rural Residential (0-1 DU/AC) in the area south of Sun Valley Parkway. A resort is designated on the north slope and is envisioned to take advantage of the views, natural desert environment, and hillside development.

The major washes throughout the area and the APS power corridor provide a tremendous opportunity to provide greenways and trail connections. These corridors provide access for animals and people to travel through the area. Another unique feature of this SPA is the proposed Water Recharge Project.

SPA 3 has 23,770 acres designated for a variety of residential uses. Since this is the largest of the SPAs, population impacts will be greatly affected by the actual densities that occur within the various residential land use designations. Table 4-9, SPA 3 Population Projections outlines the various population projections per residential density.

Assuming half of the mixed-use designated property will be in commercial uses, there are 534 acres (i.e., 1.4 percent of SPA area) of commercial property designed in this SPA. This is estimated to support a population of 142,150.

Over 3,600 acres of SPA 3s total area is restricted by Luke Air Force Base Auxiliary Field #1, Volvo Proving Grounds, and the Northwest Valley Landfill. These facilities have not been included in the employment analysis. Employment uses comprise 11.8 percent of the total land in SPA 3. However, reuse of one or all of these facilities is possible in the decades ahead, which could allow other designations to be feasible for these areas.

This SPA has a .73 employment-to-population ratio. Considering the amount of commercial, mixed-use, and resort potential, this ratio will in actuality be much higher. For this reason, there is adequate employment-designated land within SPA 3.

Should the SPA develop at the low density range, the estimated population will be 118,880. If the SPA develops at the high end, the population is estimated to be 238,558. Total build out population of the currently incorporated area would be 111,537 at the mid-range density scenario.

Table 4-9, SPA 3 Population Projections

Land Use	Acreage	DU*/acre Mid-Range	Total Dwelling Units	Population
Rural Residential (0-1 du/ac.)	9,484	.50	4,742	13,372
Suburban Residential (1-3 du/ac.)	3,600	2.0	7,200	20,304
Low Density Residential (3-5 du/ac.)	6,735	4.0	26,940	75,970
Medium Density Residential (5-8 du/ac.)	1,140	6.5	7,410	20,896
Medium High Density (8-15 du/ac.)	236	11.5	2,714	7,653
High Density Residential (15-21 du/ac.)	105	18	1,890	5,329
Total	21,300		50,896	143,554

DU* = Dwelling units per acre

Assumptions:

- 2.82 persons per household
- 20% of residential property will contain other uses
- Commercial property has a floor-to-area ratio of .22
- Employment property has a floor-to-area ratio of .20
- 36 square feet of commercial space needed per resident
- 500 square feet of space required per employee (based on assumed uses in this area)

The projected student population for SPA 3 totals 36,716 for K through 8th grades and 13,281 for 9 through 12th grades as indicated in Table 4-10, SPA 3 Student Population Generated by Residential Densities.

Table 4-10, SPA 3 Student Population Generated by Residential Densities (based on mid-range projections)

Land Use	K through 8th Population	9th through 12th Population
Rural/Low/Medium Density	34,880	12,422
Medium High Density	1,261	588
High Density	575	271
TOTAL	**36,716**	**13,281**

Source: Partners for Strategic Action, Inc. (2000) and 1990 U.S. Census School Children/Household Type

There are two major arterials that provide access to SPA 3. They are Jomax Road and Sun Valley Parkway. These two major arterials border SPA 3 on the north and the south and provide east-west access into this area. The primary north-south corridors in SPA 3 are 193rd Avenue, 211th Avenue, and 243rd Avenue. These three corridors are classified as minor arterials and provide connection to both Jomax Road and Sun Valley Parkway.

The long-term transit plan for SPA 3 identifies transit routes along Jomax Road, Sun Valley Parkway, and 243rd Avenue. These routes provide service to the Grand Avenue Corridor and the Bell Road Corridor. The need for transit facilities in this SPA will be determined by the rate of development.

On-road bicycle facilities are proposed for 243rd Avenue and Jomax Road. An off-road facility has been identified along the McMicken Dam and the CAP, which in the future will provide connection from the Agua Fria River multi-use facility to the White Tank Mountain recreational facility.

Special Planning Area 4

Description. SPA 4 is located north of the Central Arizona Project Canal east of Grand Avenue, south of SR 74 and west of the planning area's boundary. SPA 4 encompasses 26,921 acres or approximately 42.1 square miles. None of this SPA is currently within the incorporated boundaries of the city.

Existing Conditions. The existing Daimler-Chrysler Proving Grounds located at Dove Valley Road and 211th Avenue dominates SPA 4. A major update in 2005 changed the land use of this area to reflect the imminent development of this area. The SPA has the railroad adjacent to Grand Avenue. The area has major washes and varied topography. The land ownership patterns are checkerboard with the Arizona State Trust lands. The area is primarily vacant with scattered home sites. There are no existing transit facilities in SPA 4.

Nadaburg Elementary School is located just off Grand Avenue and 211th Avenue (3219 Center Street). Approximately 500 children attend Kindergarten through 8th grades. There is a pre-school and special education program.

SPA 4 Plan Overview. SPA 4 encompasses a total of 26,921 acres with 19,966 acres designated for residential uses as shown in Table 4-11. This is 74.1 percent of the SPA area. Approximately 86.6 percent of this is designated rural residential. There will undoubtedly be pressures to increase the density of areas within this SPA that could significantly affect the projections for SPA 4.

Should the SPA develop at the low-density range, the estimated population will be 12,757. If the SPA develops at the high end, the population is estimated to be 76,554.

Table 4-11, SPA 4 Population Projections

Land Use	Built Acreage	DU*/acre Mid-Range	Total Dwelling Units	Population
Rural Residential (0-1 du/ac.)	17,309	.50	8,654	24,404
Airport Preservation (0-2)	1,149	1.0	1,149	3,240
Low Density Residential (3-5 du/ac.)	1,508	4.0	6,032	17,010
Total	22,461		15,835	44,654

DU* = Dwelling units per acre

Assumptions:

- 2.82 persons per household
- 30 percent of residential property will contain other uses
- Commercial property has a floor-to-area ratio of .22
- Employment property has a floor-to-area ratio of .20
- 36 square feet of commercial space needed per resident
- 250 square feet of space required per employee

The projected student population for SPA 4 totals 14,436 for K through 8th grades and 5,141 for 9 through 12th grades as indicated in Table 4-12, SPA 4 Student Population Generated by Residential Densities.

Table 4-12, SPA 4 Student Population Generated by Residential Densities (based on mid-range projections)

Land Use	K through 8th Population	9th through 12th Population
Rural/Low/Medium Density	14,436	5,141
Medium High Density	0	0
High Density	0	0
TOTAL	**14,436**	**5,141**

Source: Partners for Strategic Action, Inc. (2000) and 1990 U.S. Census School Children/Household Type

There are 405 acres of commercially designated property in SPA 4, which is estimated to support a population of 109,674.

There are approximately 1,459 acres of employment-designated property. This use is intended to continue well into the future.

Based on the remoteness of this area, it is probably wise to overestimate the property needed for employment and commercial uses. This area is approximately 42 square miles and at target densities would have fewer than 1,000 people per acre at build-out. This is an unlikely scenario. The employment-to-population ratio of 1.6. is justified due to the low estimated population.

The proposed roadway network for SPA 4 includes two principal arterials, SR 74 and Grand Avenue; and three major arterials, Lone Mountain Road, Dove Valley Road, and 243rd Avenue. Presently, the only proposed minor arterial is 211th Avenue. The only future transit route identified for this area is the Grand Avenue corridor, and it is expected that the need for this route will not occur for 15 to 20 years.

Special Planning Area 5

Description. SPA 5 is bounded by Grand Avenue on the north and east, the Central Arizona Project Canal on the south, and the Town of Buckeye to the west. SPA 5 encompasses 40,449 acres or approximately 63 square miles of which 2,881 acres are currently within the incorporated boundaries of the city. This is 8 percent of the total SPA area.

Existing Conditions. Three established unincorporated communities, Morristown, Circle City, and Wittmann are located primarily along the south side of Grand Avenue. The area has large Arizona State Trust land holdings.

The area is primarily designated as low density residential. Commercial designations straddle SPA 4 along Grand Avenue supporting both areas. New major arterials are designated for 242nd and Jomax Avenues. Patton Road is designated as a minor arterial.

SPA 5 Plan Overview. SPA 5 consists of 40,449 acres, of which 36,204 are designated for residential purposes (89.5 percent of SPA 5 area). The vast majority (71 percent) of the residentially designated land is Rural Residential. For this reason, population impacts are likely

to be on the low side. It is not realistic to assume that in approximately 63 square miles there will be no high or medium high density housing.

Should the SPA develop at the low range of density, the estimated population will be 6,449. If the SPA develops at the high end, the population is estimated to be 93,553. Population at build out in the currently incorporated area of SPA 5 would be 13,778 at the mid-range density scenario. Table 4-13, SPA 5 Population Projections outlines the various population projections per residential density.

Table 4-13, SPA 5 Population Projections

Land Use	Built Acreage	DU*/acre Mid-Range	Total Dwelling Units	Population
Rural Residential (0-1 du/ac.)	25.652	.50	12,826	38,812
Suburban Residential (1-3 du/ac.)	785	2.0	1.570	4.427
Airport Preservation (0-2 du/ac.)	4,683	1.0	4,683	13,206
Low Density Residential (3-5 du/ac.)	1.828	4.0	7,312	20,619
Total	32,948		26,391	77,064

Source: Partners for Strategic Action, Inc. (2000)

DU* = Dwelling units per acre

Assumptions:

- 2.82 persons per household
- 30 percent of residential property will contain other uses
- Commercial property has a floor-to-area ratio of .22
- Employment property has a floor-to-area ratio of .20
- 36 square feet of commercial space needed per resident
- 250 square feet of space required per employee

The projected student population for SPA 5 totals 11,343 for K through 8th grades and 4,040 for 9 through 12th grades as indicated in Table 4-14, SPA 5 Student Population Generated by Residential Densities.

Table 4-14, SPA 5 Student Population Generated by Residential Densities (based on mid-range projections)

Land Use	K through 8th Population	9th through 12th Population
Rural/Low/Medium Density	11,343	4,040
Medium High Density	0	0
High Density	0	0
TOTAL	**11,343**	**4,040**

Source: Partners for Strategic Action, Inc. (2000) and 1990 U.S. Census School Children/Household Type

The population supported by the 91 commercially designated and 50 percent of mixed-use acres is estimated to be 26,082. As this SPA develops, it is anticipated that additional commercially designated property will be identified near population centers.

The employment-to-population ratio of 2.0 is acceptable based on this SPAs potential to exceed build out projections.

Special Planning Area 6

Description. SPA 6 is located north of the State Route 74 east of the 287th Avenue alignment, south of the Yavapi County line and west of the 187th Avenue alignment. SPA 6 encompasses 45,567 acres or approximately 71.2 square miles. None of this SPA is currently within the incorporated boundaries of the city.

Existing Conditions. . The area has major washes and varied topography. The Arizona State Land Trust is the owner of approximately 25,489 acres (39.8 sq mi) in SPA 6, which is 56 percent of the total area in SPA 6.

SPA 6 Plan Overview. SPA 4 encompasses a total of 45,567 acres. One hundred percent of this is designated rural residential. In the future, there will undoubtedly be pressures to increase the density of areas within this SPA that could significantly affect the projections for SPA 6.

Should the SPA develop at the mid-density range, the estimated population will be 64,248. If the SPA develops at the high end, the population is estimated to be 128,498.

SPA 6 Population Projections

Land Use	Built Acreage	DU*/acre Mid-Range	Total Dwelling Units	Population
Rural Residential (0-1 du/ac.)	45,567	.50	22,783	64,248

DU* = Dwelling units per acre

The projected student population for SPA 6 totals 19,274 for K through 8th grades and 6,424 for 9 through 12th grades as indicated in the table below, SPA 6 Student Population Generated by Residential Densities.

SPA 6 Student Population Generated by Residential Densities (based on mid-range projections)

Land Use	K through 8th Population	9th through 12th Population
Rural/Low/Medium Density	19,274	6,424

4.1.7 Growth Areas

The purpose of the "Growth Area" section of the Land Use Element is to indicate where the City of Surprise anticipates focusing development over the next 20 years. The Element identifies those "target areas" suitable for planned multi-modal transportation and infrastructure expansion. It also identifies improvements designed to support a planned concentration of a variety of uses, such as residential, office, commercial, tourism, and industrial. The Element also includes policies and strategies that are designed to make automobile, transit, and other multi-modal circulation more efficient, make infrastructure expansion more economical, and provide for a rational pattern of land development. Another key component is to conserve significant natural resources and open space areas in the Growth Areas and coordinate their location to similar areas outside the growth area boundaries. Promotion of public and private construction of timely and financially sound infrastructure expansion through the use of

infrastructure funding and financing planning that is coordinated with development activity is also considered.

Over the next ten years, growth is anticipated to occur within SPAs 1, 2, and 3 based on current development trends. Within these three SPAs, there are eight identified "Growth Areas." These areas meet the guidelines described above. The Growth Areas are shown on Figure 4-3, Growth Areas.

SR 303 Corridor (South of Bell Road)

Description. This Growth Area falls within the western portion of SPA 1 and is defined by the half mile on each side of the SR 303 from Bell Road on the north to the city limits at Peoria Avenue on the south.

Growth Area Plan. This Growth Area currently consists of mostly agricultural uses with very little inhabitancy. Timing of development in this area will be based upon the pace of SR 303 development. The Land Use Plan calls for some fairly intense development along this corridor including medium density residential, commercial development, employment uses, and mixed-use areas, as well as the southern gateway to the community.

These activities will require that substantial new infrastructure be developed. Arterial roads at each mile will need development and/or improvement as well as tying the corridor into the community-wide multi-modal transportation system. New water and sewer lines will need to be installed to accommodate new residents and businesses in addition to new water resources and wastewater treatment facilities.

The mixed-use area at the southern gateway is also a targeted location for an institution of higher learning and will need to have advanced telecommunications facilities. This gateway area has also been discussed as a potential spring training facility site.

Original Townsite/Surprise Center

Description. The Original Townsite/Surprise Center is bordered to the north by Bell Road, east by El Mirage Road, south by Greenway Road and west by Bullard Avenue. Grand Avenue also bisects this Growth Area.

Growth Area Plan. This area is the heart of the historic and current developing area of the city. The focus of the city's involvement in the area will be to revitalize the Original Townsite area and development of a new multi-use area currently called Surprise Center. The city has made significant investments in the area over the past decade and continued investment to encourage infill and historic preservation is a focus of the Revitalization Element.
The Surprise Center is an exciting opportunity for the City of Surprise to develop a signature civic and commerce center. Making the connection between the Original Townsite and surrounding neighborhoods to Surprise Center will be critical.

Walking is a key component of a successful multi-modal transportation system. Walking is part of virtually every trip (including those by automobile) and it is essential for transit use. As conditions for walking are improved and more people are willing to walk short distances to bus stops, transit can become a better choice for more people. Walking can also directly substitute

for automobile trips of short length. The result will be a changed balance of automobile and other modes, with benefits for traffic flow and air quality.

The transportation vision for this Growth Area is to enhance vehicular movements while creating a pedestrian-friendly atmosphere that enables residents and visitors to maneuver to commercial, transit, and recreational facilities.

Fig 4-3
GROWTH AREAS MAP

At the present time, there is one park-and-ride facility located in the area of Surprise City Hall. The park-and-ride facility is currently intended to serve car pool users, as there are no existing transit routes servicing the City of Surprise. The proposed transportation plan identifies one additional park-and-ride facility at the Community Center. This park-and-ride facility is ideally located adjacent to the Grand Avenue Corridor and is the likely location for future light rail and transit service. The location of the park-and-ride facility should be emphasized to provide pedestrians and cyclists of the Growth Area with safe and convenient access.

The proposed transit routes, identified for the Growth Area, are Grand Avenue, Bell Road on the north, Greenway Road on the south, El Mirage Road on the east, and Dysart Road on the west.

The majority of the land use in the Original Townsite is residential. Because of the residential nature of this area the Original Townsite is a prime location for implementation of neighborhood traffic calming techniques. The use of traffic calming in the Original Townsite is planned to encourage both walkers and cyclists to enjoy the community's friendly atmosphere.

Establishing on-road bike lanes or off-road multi-use paths throughout the planning area will provide improved circulation. Multi-use path connections to the adjacent washes will provide a link to local multi-use facilities as well as to planned regional multi-use recreational facilities.

At the present time Grand Avenue acts as a physical barrier separating the communities on the east from the communities on the west. For the future promotion of non-vehicle related transportation, one pedestrian/bicycle crossing facility has been identified. The intent of this facility is to promote interaction between the two sections of the Original Townsite and provide a link to the future transit system. The Arizona Department of Transportation began a 12-month study in August 2000 to analyze future transit possibilities.

South Dysart Road

Description. This Growth Area has an employment focus with approximately 200 acres of public facilities designated property located west of Dysart Road and North of Peoria Avenue.

Growth Area Plan. This Growth Area is important to increasing the employment-to-population ratio in the community. There are over 1,000 acres of employment-designated property that have access to rail service and this parcel is less than three miles from the SR 303 and two miles from Grand Avenue.

To support this area's large area of employment-related property, a transportation corridor (Waddell Road, Cactus Road, or Peoria Avenue) needs to be selected to connect with SR 303 in order to accommodate commercial traffic. Cactus Road may be the logical choice since it bisects the parcel.

Water and wastewater services must be provided as well as high-capacity utilities (i.e., electric, gas, and telecommunications).

In addition, there are over 7,000 acres of residentially designated land to the west of this Growth Area that could provide the labor force to support the employment uses. It will be critical to develop bike paths, sidewalks, trails, and transit options to connect these neighborhoods to the Growth Area and to encourage non-automobile travel to this employment area.

Grand Avenue - SR 303

Description. This Growth Area is designated to be an important commercial and employment center for the northern portion of SPA 1 and the southern portion of SPA 2. The area is defined by the intersection of Grand

Avenue and SR 303 and travels north across the Beardsley Canal up 163rd Avenue. Grand Avenue and the Beardsley Canal bisect this Growth Area.

Growth Area Plan. Design of the freeway interchange must be such that it maximizes Surprise's economic opportunities for this Growth Area. Access to the commercial areas abutting Grand Avenue must also be ensured.

Design of the commercial development should focus on taking advantage of the Beardsley Canal and open space to make this a unique development area.

SR 303 will be a major transportation corridor for not only SPA 1, but for the entire planning area. SR 303 is classified as a principal arterial that in the future will be able to sufficiently carry approximately 100,000 vehicles per day. The SR 303 corridor splits SPA 1 and will provide vehicular access from the Cities of Glendale and Peoria. The SR 303 corridor will be the focus of a future transit route servicing not only residential land uses, but commercial and employment as well. The transit route along SR 303 will provide connection to and from the Bell Road corridor.

Jomax Road - Grand Avenue

Description. This Growth Area consists of a mix of high intensity uses bounded to the east by Citrus Valley Road, south by Happy Valley Road, west by 195th Avenue and north by the Central Arizona Project Canal.

Growth Area Plan. This area is in almost the geographic center of the entire planning area and is an important mixed-use development for SPAs 2 and 3. There is a very large commercial area that will accommodate many types of uses including a regional center. There is also a large employment area with over one-mile of railroad frontage and substantial areas of medium and high density residential. It is anticipated that there will be a substantial amount of people living, working, and shopping in this area.

East-west transportation on Jomax Road across Grand Avenue and the railroad will be critical to this area reaching its multi-use potential.

Jomax Road – 163rd Avenue

Description. This area is on the northwest corner of the Jomax Road and 163rd Avenue intersection.

Growth Area Plan. This Growth Area in SPA 2 is the optimum area for high-technology firms or the development of a university-type research park. It is the only major employment- designated area in the southern portion of the planning area that does not have any noise or vibration constraints from aircraft or the railroad.

This development will be among a large area of low density residential and will need to be integrated with the natural surroundings and the residential areas.

Sun Valley Parkway – 211th Avenue

Description. This Growth Area is bordered by the Northwest Valley Landfill on the east, Sun Valley Parkway to the south, 219th Avenue to the east, and the Volvo Proving Ground and Luke Air Force Base Auxiliary Field #1 to the north.

Growth Area Plan. The area is an important residential center for SPA 3 with a mix of medium, medium high and high-density residential designations. At build-out, target densities indicate that over 20,000 people will be residing in this Growth Area. Water and wastewater facilities will need to be developed to accommodate this concentration of residents. This will be an attractive development because of the substantial open spaces and viewsheds provided by the adjoining land uses. It will be important to preserve these open areas.

This is anticipated to be an area with a high percentage of residents in the workforce. Transit will be necessary to the SR 303 Corridor, Grand Avenue and Jomax Road, and Dysart Road Growth Areas. Should the university or college be developed at the southern gateway, it is also anticipated that students will also reside in this Growth Area.

243rd Avenue - Sun Valley Parkway

Description. This Growth Area consists of the square mile of land at the intersection of 243rd Avenue and the Sun Valley Parkway.

Growth Area Plan. Serving as the western gateway to the City of Surprise, this area is designated for commercial and mixed uses. Based on the proximity to the White Tank Mountain

Regional Park and the surrounding terrain in both the City of Surprise and Town of Buckeye, this area is anticipated to become the site for higher end, low density housing for residents with higher incomes. Resort visitors would also be a target for this development. Therefore, high-end retail and commercial activities (e.g., Scottsdale Fashion Square) will be encouraged in this Growth Area. In order to achieve this, the natural setting must be preserved and the built environment must be carefully structured.

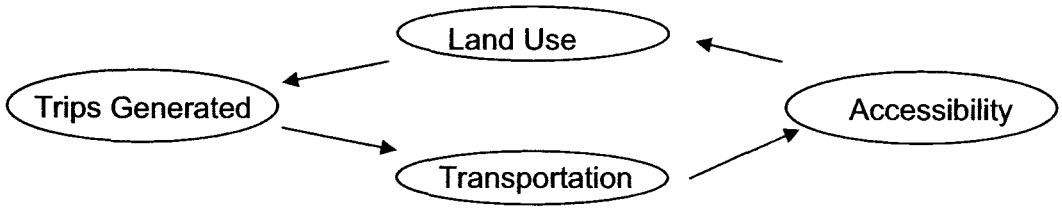
East-west transportation (i.e., Sun Valley Parkway) must be a focus since this unique development will have the capacity to draw from outside of the planning area. 243rd Avenue will provide convenient access to this area from the northern portions of SPA 3 and SPA 4 (which is also anticipated to have substantial amounts of higher-end housing). Transit and non-automobile travel options need to be developed especially to serve the higher density development in the 211th and Sun Valley Parkway Growth Area.

4.2 Transportation Element

4.2.1 Transportation Element Statement

The Surprise Transportation Element ensures that residents and visitors have a safe, efficient, effective, and convenient multi-modal transportation system. The system provides internal efficient travel connections while providing access regionally. The Transportation Element strives to assure extension of the regional grid street system. The element addresses current as well as projected future needs and is closely tied to the Land Use Element.

Land Use/Circulation Relationship



4.2.2 Transportation Introduction

The purpose of the Transportation Element of the ***Surprise General Plan 2020*** is to plan sufficient transportation networks for the future. Transportation is a means to an end. People travel because they want to get somewhere. These places can be identified as origins and destinations; in day-to-day life they are where people live, work, shop, and go for recreation. Because this plan sets the stage for future development it considers where people are doing these activities today and where they will be doing them tomorrow.

Another component that must be considered is how people are getting from place to place. This is referred to as the mode of transportation (i.e., automobiles, buses, trains, golf carts, walking, and bicycles).

The connection between land use and circulation is a fundamental concept in transportation. Transportation and land use are inexorably connected. Everything that happens regarding land use has transportation implications and every transportation action affects land use.

Land use and transportation have effects on each other and there are two basic principles to keep in mind. The first is that land use patterns affect travel decisions and travel decisions affect land use patterns, sometimes simultaneously. Second, the activity patterns of families and businesses change depending on what norms, values, and preferences they may have. Accessibility can be measured by the number of travel opportunities or destinations within a particular travel radius, measured in terms of either travel time or distance. On the other hand, mobility is a measure of the ability to move efficiently between origins and destinations. Thus, the layout of the circulation network and the level of service it offers directly influence mobility. Land development generates travel, and travel generates the need for new facilities, which in turn increases accessibility and attracts further development.

4.2.3 Transportation Issue Identification

Provide Adequate Transportation Network Capacity. The transportation network in the City of Surprise Metropolitan Planning Area should provide for adequate spacing of major roadways in both the east-west and north-south directions.

Develop a Transportation Network compatible with Planned Land Uses. The future transportation network must provide sufficient roadway capacity to serve the future land uses at a build-out condition.

Neighborhood Preservation. In order to preserve Surprise's neighborhoods, a transportation network must be designed to discourage traffic from using local streets as cut-through routes to avoid congestion on arterial streets. Additionally, buffer areas must be provided through the planning process.

Develop a Safe Pedestrian Environment. In order to encourage the use of multi-modal transportation systems it is imperative that pedestrian connections are identified to provide access to and from transit corridors.

Infrastructure Development Cost. Policies should be developed to ensure that the cost of transportation infrastructure is adequately borne by the development community. The transportation improvement plan should be prioritized to accommodate the development of proposed growth areas and associated land uses.

Provide Adequate Lighting On All Transportation Corridors. To provide maximum safety for both pedestrians and vehicles, street lighting standards should be developed as part of the City's development codes.

Provide Adequate and Cost-Effective Landscaping on all Corridors. The City's development codes should include requirements for drought resistant landscaping along all roadway corridors which reflects the character of the specific planning area within with the corridor lies.

Long-Range Multi-Modal Transportation Plan. This element is based upon content of the Surprise Transportation Plan, a long range multi-modal transportation plan developed by the Surprise Transportation Commission-

4.2.4 Transportation Goals, Objectives, and Policies

This document incorporates two broad areas of goals: value based goals and modal based goals. Each of these two types of goals is followed by objectives. Value based goals are derived from community values as expressed in previous planning activities and public forums as well as the community outreach efforts conducted as part of the General Plan update process. Modal based goals are derived from the operation of transportation modes (roadways, transit services, bicycle and pedestrian paths) and how they achieve the results desired within the value based goals.

Value Based Goals

The Surprise transportation system needs to be based on values inherent to the community, such as the following:

Safe Travel.

- All elements of the Surprise transportation system should be built, maintained, and operated in a safe and effective manner.
- Transportation systems should be designed and operated in accordance with all applicable safety standards.
- A full range of safety programs should be funded and implemented including traffic enforcement, public information, and school education programs.
- Surprise should seek to accommodate the mobility needs of the elderly and disabled.

Support for Alternative Modes of Travel.

- Surprise should seek to provide useful options for those who prefer alternatives to the automobile.
- Surprise should seek to expand the range and service levels of the regional transit into appropriate areas of Surprise, to provide an attractive and convenient alternative to automobile travel.
- Surprise should seek to develop a comprehensive, coordinated and continuous system of bicycle facilities and multi-use pedestrian facilities.
- Surprise should continue to provide and expand demand management strategies to help reduce traffic congestion and encourage alternative modes of travel.

Quality Neighborhoods and Environments.

- Transportation should not adversely impact neighborhoods or the environment.
- Traffic calming programs for neighborhoods should continue and be enhanced.
- Transportation facilities should be built and maintained in accord with all applicable environmental standards and in accord with aesthetic expectations of the community.
- The City should support regional programs to improve air quality.
- The City should support noise walls and other mitigation measures along freeways, expressways, and rail corridors.

Fair and Adequate Funding.

- Transportation funding should be fair and adequate to meet transportation needs.
- Dedicated funding sources should be pursued when feasible, such as dedicated sales tax revenues for transit, developer fees for new roads, highway user revenues to maintain roads, and aviation user fees for airports.
- External funding sources including federal, state, regional, and county funding should be pursued to the maximum extent feasible.
- The City should join other communities to continue and enhance state and regional sources of funding.

Strong Economy.

- The transportation system should help support a strong economy in Surprise and the region.
- Road improvements should be supported to minimize congestion and support access to employment opportunities within Surprise and throughout the region.
- Transit services should be enhanced to ensure that all populations have access to employment opportunities in the community and throughout the region.
- Transportation systems need to support the movement of freight as well as people.

- Transportation improvements should be prioritized to encourage and support development and redevelopment activities and to support employment, educational and retail centers that contribute to Surprise's economic vitality.

Cost Effective Quality Service.

- The Surprise transportation system should provide quality service in a cost-effective manner.
- New technologies (such as intelligent transportation systems) should be pursued to maximize the effectiveness of the system.
- Construction projects should be planned to minimize travel disruption.

Regional Connectivity.

- The Surprise transportation system should be fully and effectively connected to the regional transportation system.
- Surprise should continue to work to extend regional transit services into our community.
- Surprise should continue to support construction of regional freeways providing improved access to Surprise and the region.
- Surprise should continue to participate with county, regional, and state transportation agencies to ensure appropriate funding for future transportation projects and programs that should benefit Surprise and other cities within the West Valley.

Integrated Land Use and Transportation.

- Land use patterns and transportation systems should be integrated to help reduce congestion and provide convenient access.
- Surprise should provide a mix of land uses and modal choices, which can help to reduce the number of vehicle trips.
- Surprise should seek to balance the availability of jobs and housing to help minimize the length of trips.

New Development Meets Transportation Needs.

- New development should fully address transportation needs.
- Impact fees should be levied and collected to help pay for the cost of transportation infrastructure related to new development.
- Include bicycle, pedestrian, and trail facilities.
- Maximize pedestrian opportunities in activity centers.
- Support mixed use development in selected locations.
- Ensure dedication of adequate right-of-way for ultimate arterial profiles.
- Ensure that adequate off-street parking should be required for new development.

Modal Based Goals

The Surprise transportation system needs to capitalize on the strengths of each mode of transportation.

Streets.

- An effective road system should be built, operated, and maintained to ensure access and mobility within the community and throughout the region.
- New development should include adequate road improvements to meet current and future needs.
- As travel demands grow, incremental improvements should be made to the existing road system including street widening, grade separations, turning lanes, and traffic signal improvements.
- The street system should be maintained in a safe and cost-effective manner.

- The City should support completion and enhancements to the regional freeway/expressway system.
- Transportation improvements should be balanced against the need to preserve neighborhood character and the environmental quality of the area.
- Speed bumps, traffic circles, and other traffic calming techniques should be used as appropriate to discourage speeding and through traffic within existing neighborhoods.
- The City of Surprise is committed to the future improvement of Grand Avenue to its full capacity as a recognized regional transportation corridor.
- The City of Surprise is committed to the completion of SR 303L as a fully controlled access freeway that meets future mobility needs.

Transit.

- A viable and cost-effective transit system should be implemented that supports a variety of community goals and is integrated with regional facilities.
- The City of Surprise is committed to providing a full range of transit services, including local and regional fixed route transit, commuter express services, appropriate facilities.
- Extension of bus route services and frequency increases should be based on customer demand, environmental conditions, and available resources.
- In order to meet the needs of underserved populations and provide travel alternatives to everyone, local bus service should be expanded. This includes expanded bus service to match the increased level of bus service in the City of Phoenix, as well as future bus route extensions.
- Commuter rail transit should be encouraged in the BNSF corridor between Surprise and downtown Phoenix to minimize congestion and support economic development.
- Bus pullouts should be constructed near the intersection of major arterial streets when warranted.

Bicycle.

- The Surprise bicycle system should serve as a model for other northwest valley cities.
- The bicycle system should be continuous and provide access to all parts of the City.
- When feasible, grade separations and separate bicycle facilities should be provided.

Pedestrian.

- Pedestrian facilities should provide access for all people to activities throughout the community.
- Pedestrian facilities should provide access to work, shopping, schools, and other activity centers.
- The City should provide for handicapped access to pedestrian circulation routes, including sidewalks.

Demand Management.

- The City fiber optic system for traffic management should include extra conduits for commercial use.
- The City should support telecommuting and alternative work schedules for its employees.
- The City should support regional demand management programs such as the travel reduction program and the vanpool program.

4.2.5 Transportation Modal Elements

Roadways

Recommended Functional Classification System

Figure 4-4 presents the recommended functional classification system for Surprise Metropolitan Planning Area roadways under "buildout" conditions. Functional classification is a system of dividing roadways into specific categories based upon access and mobility functions. The following categories are included in the Functional Classification System for the Surprise Transportation Plan:

- *Freeways*: Freeways are divided highways with four or more travel lanes that are designed to carry large volumes of high-speed traffic and serve long, regional trips. Freeways have full access control, with entry and exit restricted to grade-separated traffic interchanges. All roadways classified as freeways on Figure 4.4 are portions of the State Highway System, and are under the jurisdiction of the Arizona Department of Transportation (ADOT).

Fig 4-4
2030 ROADWAY PLAN

- *Expressways*: Expressways are partially access-controlled roadways whose primary function is to facilitate subregional travel. The typical expressway has a limited number of at-grade intersections, but portions of the route may have full access control. In this region, some roadways classified as expressways are envisioned to be upgradeable to freeway standards when demand warrants and funding becomes available. This can be achieved by restricting access to predetermined locations that can be converted to grade separations over time. SR 74 is such a roadway, and ADOT has planned for the eventual evolution of the corridor to a fully controlled access freeway. All roadways classified as expressways on Figure 4.4 are portions of the State Highway System, and are under the jurisdiction of the ADOT.

- *Parkways*: Parkways are high capacity surface streets with substantial access control and potential grade separations that are designed to accommodate regional travel over significant distances. A minimum of six through lanes is the typical width.

- *Major Arterials*: Major arterials are designed to move high volumes of traffic over substantial distances, but may also provide direct access to adjacent properties. In the Valley, arterial streets are usually located on one-mile section lines and intersections are at-grade. Six through lanes is the normal width.

- *Minor Arterials:* Minor arterials are similar to major arterials but with somewhat lower design requirements. Four through lanes is the normal width.

- *Collectors:* Collector streets are designed to carry lower traffic volumes for shorter distances than arterials. Collector streets receive traffic from neighborhoods and distribute it to arterials, and vice versa. They serve more of a land access function as opposed to providing mobility for long-distance traffic. Two to four through lanes is the typical width. Collector streets are not shown on Figure 4.4.
- Local Streets. Local streets provide access directly to local property and are not designed to accommodate through traffic. Two lanes is the usual width. Local streets are also not shown on Figure 4.4.

Since collector and local roadways are usually developed as part of planned area developments to support the specific land uses and site plan configurations, these roadways are not shown on Figure 4.4. The above classification descriptions show some latitude in describing roadway cross-sections. As urbanized areas continue to grow and spread, increases in traffic volume occur on roadways in built-out areas. It is often difficult to acquire the rights-of-way necessary to widen these roadways to the full capacity warranted by current and future conditions without causing serious impacts on adjacent land uses. The standards shown allow some flexibility in seeking creative solutions to local and regional traffic demands.

Sun Valley Parkway

Sun Valley Parkway has been functionally designated as a "Parkway". The roadway also experiences significant recreational bicycle use. The Town of Buckeye, Maricopa County, and the City of Surprise all recognize that this roadway showcases the White Tank Mountain Regional Park which the roadway circumnavigates. The view angles away from the mountains are also dramatic. These views should be preserved, and development which abuts this roadway should be undertaken with an awareness of the special character of this roadway corridor.

To this end, the Sun Valley Parkway has been designated as a "Scenic Corridor". Specific urban design character guidelines should be developed for this corridor to preserve the native vegetation and unique visual characteristics of the corridor.

Roadway Level of Service

The level of service (LOS) concept is utilized to determine the efficiency of existing and future roadway and intersection operations. Level of service provides a comparative measure of the efficiency of traffic operations and is reported in levels "A through F", with "A" representing the best and "F" representing the worst level of congestion or driver discomfort. Levels of service on roadway segments are defined as follows:

Level of Service A – Free flowing conditions. The operation of vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only by the geometric features of the highway and driver preferences.

Level of Service B – Indicative of free flow, but the presence of other vehicles begins to have a noticeable impact on speeds and freedom to maneuver.

Level of Service C – Represents a range in which the influence of traffic density on operations becomes marked. The ability to maneuver within the traffic stream, and to select an operating speed, is now clearly affected by the presence of other vehicles.

Level of Service D – Borders on unstable flow. Speeds and ability to maneuver are severely restricted because of traffic congestion.

Level of Service E – Operations at or near capacity, and quite unstable.

Level of Service F – Represents forced or breakdown flow.

The City of Surprise strives to achieve a level of service D or better on all roadways. Any roadway where the level of service falls to a level of service E or F is considered congested and requires review for improvements. Where feasible, capacity improvements or other remedial actions are usually recommended if the level of service is worse than D.

Transit

Surprise currently has no scheduled public transit service except for Surprise Dial-A-Ride, a paratransit service for the elderly and disabled. The nearest regional fixed route bus services are currently five miles south in Peoria and six miles east in Glendale.

The Regional Transportation Plan adopted by the Maricopa Association of Governments in September of 2004 calls for a significant expansion of regional transit services into portions of Maricopa County which are currently unserved, including Surprise. Proposition 400, the funding measures to implement the Regional Transportation Plan, was passed by voters in November of 2004, extending the ½ cent sales tax for transportation an additional 20 years, until 2025. This fund will be divided between freeway, arterial roadway and transit projects. Commuter express service to downtown Phoenix via the Grand Avenue corridor will be extended to Surprise in the fall of 2005, and BRT service along Bell Road and to regional destinations on the SR 101L freeway will begin in 2008. Much of the balance of regional transit service to be extended to Surprise through Proposition 400 (both frequent stop trunk line and limited stop BRT and express services) will not occur until later stages of the 20 year plan. Regional transit services included in the Regional Transportation Plan (RTP) for Surprise are shown in Figure 4-5. The levels of transit service provided in the RTP are not adequate to accommodate projected demand given the rate of development in Surprise. In an attempt to bridge the gap for the short term, the Surprise Transportation Commission has recommended that circulator services should be extended to other West Valley activity centers with higher levels of regional transit connectivity. Destinations include Arrowhead Towne Center, Luke Air Force Base, and Estrella Mountain Community College. These circulator routes are shown Figure 4-6.

The Transit Plan is shown on Figure 4-7. This network is recommended by the Surprise Transportation Commission and is based upon expected mobility demands under build-out conditions for Surprise. The network is congruent with the Roadway Plan and the Land Use Element of the ***Surprise General Plan 2020***.

Alternative Modes

Alternative Modes of Transportation include walking, bicycling and the use of golf carts and other small motorized devices. Surprise seeks to provide for a mix of mobility options to address our various travel needs. In addition to bike lanes on selected roadways, these travel options may use sidewalks, multi-purpose paths and trails.

Pedestrian

The most basic transportation option is walking. Walking is the most popular form of exercise in the United States and can be performed by people of all ages and income

Fig 4-5
MAG/VALLEY METRO

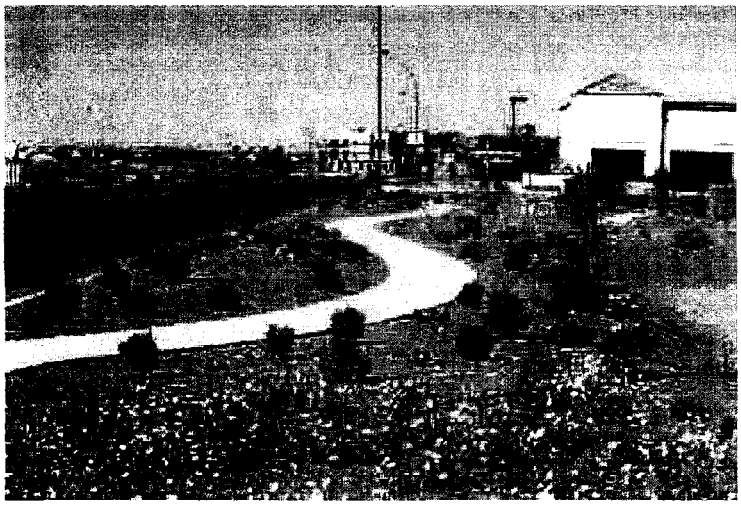
Fig 4-6
SHORT TERM TRANSIT IMPROVEMENTS

Fig 4-7
TRANSIT IMPROVEMENTS

levels. However, it is not often considered as a means of travel. This is mainly because pedestrian facilities are generally an afterthought and not planned as an integral part of the transportation system.

The relatively large size of the Surprise planning area makes it difficult to implement a successful pedestrian system. Currently, sidewalks line both sides of Bell Road, Reems Road north of Bell Road, and the roads within Sun City West. Bell Road and Reems Road currently do not experience a large number of pedestrian traffic, but this may change with the completion of developments along both stretches of road. Sun City West is a pedestrian friendly community with large sidewalks and many attractions within walking distance.

Sidewalks and other pedestrian facilities are insufficient in other areas of Surprise to support a successful pedestrian transportation system. The intent of the Transportation Element of the General Plan is to provide a safe and sufficient pedestrian circulation system. The Alternative Modes Plan includes multi-purpose paths, and a variety of trail corridors for pedestrian activity. Trails include local routes and also corridors included in the Maricopa County Regional Trails Plan. The Alternative Modes Plan is shown on Figure 4-8.



Bikeway System

Like pedestrians, bicyclists are often overlooked when considering transportation facilities. Cycling, however, is a very efficient mode of travel. Bicycles take up little space on the road or when parked. They do not contribute to air or noise pollution and offer relatively higher speeds than walking. Bicycling should be encouraged to reduce the use of automobiles for short trips in order to reduce some of the negative aspects of urban growth. Linked trips using bicycles and transit are possible since all regional Valley Metro buses have bike racks on the front. Noise, air pollution, and traffic congestion could be mitigated if more short trips were taken by bicycle or on foot. Riding a bike the short distances between residences and transit stops helps reduce our vehicle impacts during peak travel hours. Typically, a short trip that would be taken by bicycle is two miles; on foot, the average distance commonly walked is around a half-mile.

The Alternative Modes Plan includes three types of bicycle designations. Bike lanes are within the roadway, next to the curb. Bike lanes are proposed for both collector and arterial roadways. Multi-purpose paths are behind the curb and sized to accommodate both bicyclists and pedestrians. Multi-purpose paths are proposed for all parkway cross sections. Bike routes are roadways which have no bike lane designated within the roadway but which are accepted recreational bicycle corridors of regional significance, such as Sun Valley Parkway, which sees significant recreational use. The Alternative Modes Plan is intended to support both commuter and recreational bicyclists with local and regional links.

Golf Cart Circulation

Numerous adult communities promoting a resort lifestyle for their residents have been developed in the City of Surprise planning area during the past twenty years. These communities often incorporate golf courses with clubhouses and recreation centers. These communities provide amenities that encourage the uses of golf carts as a means of transportation. During the development of the ***Surprise General Plan 2020*** several issues concerning current and future conflicts between golf carts and automobiles were identified. These

issues are generally focused on adult communities in and near Sun City and Sun City West. Concerns include increased traffic on major streets, the increasing difficulty for golf cart drivers to cross these streets, and safe access for golf cart users to shopping areas and grocery stores. The City of Surprise supports the use of electric vehicles, but has emphasized that the vehicles must be operated in accordance with existing Arizona law. Arizona law provides the following restrictions (ARS 28-966):

1. A neighborhood electric vehicle shall not be operated at a speed of more than twenty-five miles per hour (25 MPH).
2. A neighborhood electric vehicle shall not be driven on a highway that has a posted speed limit of more than thirty-five miles per hour (35 MPH). This section does not prohibit a neighborhood electric vehicle from crossing a highway that has a posted speed limit of more than thirty-five miles per hour at an intersection.
3. A neighborhood electric vehicle shall have a notice of the operational restrictions applying to the vehicle permanently attached to or painted on the vehicle in a location that is in clear view of the driver.

The need for golf carts to reach destinations by crossing major roads makes for potentially hazardous situations. The use of golf carts to cross over into areas that are not signed or built to accommodate them may result in a serious safety hazard. Thus, golf carts are best confined to recreational (e.g., golf course) and neighborhood usage. On streets that carry heavy traffic, golf carts should be allowed only if the posted speed meets state requirements and if the drivers of other vehicles are made aware of the presence of golf carts in the area. Any golf cart used on City of Surprise streets should be equipped and insured in the manner prescribed by state law. Further, golf carts used on the City of Surprise streets should be adequately equipped with safety devices, such as seat belts, brake lights, headlights, hazard lighting, and other such devices. Golf carts should also be properly licensed.

Fig 4-8
ALTERNATIVE MODES PLAN

4.3 Economic Development Element

4.3.1 Economic Development Element Statement

The Economic Development Element provides for a strong, local economy that raises the residents' standard of living by attracting and retaining compatible commercial, office, and industrial ventures to allow residents to have quality employment opportunities, shopping, and services without leaving the community. The local economy also has the ability to draw dollars into the community via tourism and unique commercial developments.

4.3.2 Economic Development Introduction

The Economic Development Element provides a general foundation for building the local economy. Its purpose is to serve as the city's policy support for the implementation of the *Surprise Strategic Plan for Economic Development* that was completed in 1997 and continues to guide economic development efforts. Economic development efforts are important to a majority of Surprise's residents. In fact, 62 percent of those surveyed during the General Plan Update Telephone Survey felt that the city should spend money to attract new employers and 64 percent of respondents felt the city should provide tax advantages to encourage companies to move to Surprise.

The *Surprise Strategic Plan for Economic Development* contains specific goals and strategies to expand the economic base in the community and create quality jobs. The following definition is identified in the plan.

> *"Economic development is a resource for creating employment opportunities for individuals, growth opportunities for enterprises, and raising people's standard of living."*

The strategic plan discusses the need to address economic "clusters" and "foundations." Foundations are necessary to promote economic growth (i.e., infrastructure, capital, tax and regulatory environment, human resources, quality of life, technology, and information/telecommunication infrastructure). Clusters are concentrations of firms across several industries that will bring quality employment opportunities to Surprise.

While these concepts are still valid, lessons have been learned in the last decade. Economic change is occurring at an ever-faster rate. The realization that Arizona is in danger of being left behind as the "New Economy" revs up for its run in the 21st century is becoming apparent throughout Arizona. Recently the Governor appointed a statewide task force to determine how Arizona can be successful in competing in this New Economy. The New Economy is one in which people work with their brains instead of their hands. Globalization, innovation, constant change, and evolution are key components of success.

According to a report released in October 1999 titled, *The New Economy: A Guide for Arizona* published by Arizona State University's Morrison Institute, Arizona lags in some areas that are basic to participating in the New Economy. For example, Arizona ranks 22nd among states in the per capita number of science and engineering graduate students; does not compare
favorably on the percentage of scientists and engineers in the workforce; and has a low percentage of the nation's chemists, space scientists, and mathematical scientists.
Even though the New Economy carries with it the idea of instant communication and a world without borders, the Morrison Institute Acting Director emphasizes that "place still matters; but for different reasons."

"Companies must locate the brains of their business in a location that will provide them with a critical mass of competitors, suppliers, and customers; a strong talent pool, unique institutions; and a desirable quality of life." Some of the amenities that cutting-edge companies and their employers are looking for are: top-notch university research; telecommunications infrastructure; and community meeting places such as coffee bars, parks, and recreational areas.

Successful economic development is a long-term endeavor. Economies do not change and diversify overnight. A major challenge of the implementation of the ***Surprise General Plan 2020*** will be to resist the temptation and external pressure to give in to short-term market trends.

Parcels that have been designated for commercial, employment, and mixed uses were based on the population projections stemming from the various residential land uses and proposed densities. The amount of property designated for economic uses was calculated to ensure that there would be enough space available for activities that will allow the residents of Surprise to work and shop in the community.

It is critical that the key commercial and employment areas be designed using sound planning principals that include transportation access to major arterials in close proximity to principal roads and the availability of communication infrastructure.

Housing development will undoubtedly encroach on these areas and there will be pressure put on the city to re-classify these parcels to residential. Based on current projections, this could have negative, long-term ramifications on Surprise's economy and its ability to serve its citizens.

4.3.3 Economic Development Issue Identification

Business Strategy. The *Surprise Focused Future Strategic Plan for Economic Development* outlines two clusters that will be specifically targeted for business expansion and recruitment: Bio Industry and High Technology. Recently the City of Surprise has adopted the Senior Living Cluster as a priority. The General Plan complements and enhances efforts in these areas.

Low Employment-to-Population Ratio. The City of Surprise has a low employment-to- population ratio typical of a bedroom/retirement community. To diversify the economy, increase the tax base, lower retail leakage, and avoid major traffic congestion, employment opportunities need to be developed so citizens can work and live in Surprise. Increasing this ratio is critical to ensuring sustainability and implementing the community's vision.

Increased Competition. Surprise is faced with tremendous competition on the West Side of the Phoenix Metropolitan Area for employment development. Tolleson, Avondale, Goodyear, Glendale, and Peoria are Surprise's current major competitors. All of these communities have been experiencing solid job growth in recent years.

Market Trends. With the current market trends toward housing development, how does the City of Surprise ensure an adequate, long-term supply of commercial and employment property? There are huge amounts of undeveloped land in the community and within the
planning area. The General Plan must designate areas for commercial and employment related uses to co-exist with current and planned large residential areas.

Potential Tourism Market. The City of Surprise has not tapped into the tourism-related market. The community lacks hotels/motels, restaurants, and a big tourism draw. The plans for the water recharge park and discussions about a spring training facility could change this. The ***Surprise General Plan 2020*** must address ways to maximize these types of amenities.

Economic Diversification. The City of Surprise was in a dubious financial condition at the start of the 1990s. The city has recovered and is now running at a surplus. However, a large portion of the increased revenues has come from one-time fees and taxes on new home construction. It will be critical for the city to diversify its economy to replace these revenues when building slows down in order to maintain current service levels.

Technology. Mention the "New Economy" and the focus shifts automatically to technology. As Harvard Business School professor Michael Porter says "Today there is no such thing as a low-tech industry. There are only low-tech companies." In other words, any company in any industry can be more productive and more competitive by using technology well. Communities and businesses that are not on the cutting edge of technology will not be competitive and will be left behind.

Transportation Issues Related to Economic Development. Addressing transportation issues will be critical to the area's potential for economic growth. Developing and implementing a coordinated regional transportation plan is important in order for goods and services to move easily to markets.

Labor Force. Surprise's primary and secondary labor markets encompass much of the West Valley. If specialized labor force needs are required, there is an excellent chance those skills can be found in the region.

Revenues. While the city has enjoyed a substantial increase in sales tax revenues, much of this occurred as a result of growth in the form of one-time revenues from sales tax on construction. The city cannot become reliant on this source of income and must diversify its commercial base to provide consistent revenues that are not reliant on the housing market.

Telecommuting. There is an increasing trend toward more telecommuting for employers and employees. Employees are limited to a central office without enhanced telecommunications in residential areas.

Telecommunications. The future of telecommunications is all driven by economics. Access to telecommunications infrastructure (e.g., bandwidth, satellite) is becoming more critical to small expanding businesses. The changes in telecommunication are occurring at an ever-increasing rate. The new telecommunication infrastructure might not look as it does today. The issue for communities is to ensure that businesses are able to get their needed services delivered on time and when promised. The City of Surprise has the opportunity to develop into a "wired" community as it grows.

Home-Based Business Growth. There is a growing trend nationally toward home-based businesses. Entrepreneurs can choose to locate anywhere and choose a location because of its quality of life. These businesses are becoming a growing and important segment of the economy. However, growth potential is tied to maintaining an area's quality of life and ensuring enhanced telecommunications.

4.3.4 Economic Development Goals, Objectives, and Policies

Community Goal: *Increase the jobs-to-population ratio, keep dollars in the community, and bring dollars from outside of the community.*

Objective: Raise and maintain the employment-to-population ratio at the Maricopa County average level of five jobs for every ten residents.

Policies:

1. The *Focused Future Strategic Plan for Economic Development* will be the primary tool utilized to lead economic development efforts in the community.

2. Ensure that adequate land is reserved for business development as the population grows.

3. Avoid placing non-compatible uses adjacent to designated employment and commercial areas that will make future development of these uses difficult and unappealing (e.g., single family homes abutting a business park without buffering).

4. Concentrate infrastructure development in the Growth Areas that support employment uses.

5. Develop a comprehensive telecommunications master plan that will make provisions for upgrading the current telecommunications system and create guidelines for installing upgraded telecommunications infrastructure in employment, commercial, and residential developments.

Objective: Strengthen the organizational structure for addressing economic development in the City of Surprise.

Policies:

1. Build a strong ongoing understanding and/or partnerships between the City of Surprise, Northwest Chamber of Commerce, and educational institutions related to supporting economic development.

2. Strengthen relationships and partnerships with regional organizations (e.g., Greater Phoenix Economic Council) as well as surrounding West Valley cities (i.e., Peoria, Glendale, Goodyear, El Mirage and Buckeye) related to economic development.

3. Annually review, update, and modify long-term economic development policies, priorities, and strategic direction.

4. Develop plans of action to support priorities and direction with performance indicators to measure economic development success.

Objective: Achieve a unique economic development character for each of the Special Planning Areas that provide an overall balance for the entire community.

Policies:

1. Specific economic development plans shall be adopted for each of the SPAs.

2. Economic activities shall be carefully monitored to ensure balance and compatibility within each SPA.

3. Work with agricultural operations within the planning area to maximize value-added economic opportunities.

Objective: Expand the community's ability to educate and train the local workforce.

Policies:

1. Ensure that educational institutions are a priority in land use planning decisions.

2. Maintain a site for and pursue the development of a community college or university in Surprise.

3. Strengthen the partnerships between the city and school districts to offer programs in Surprise.

4. Encourage the development of a "one stop" career center.

Objective: Provide employment and shopping opportunities in proximity to residential areas.

Policies:

1. Maintain employment and commercial related land uses as prescribed in each Special Planning Area.

2. Provide multi-modal transportation to employment and activity centers from residential areas.

3. Strengthen the business district along Grand Avenue by facilitating the organization of a merchant's association geared to addressing common issues and working to improve the area's economic viability.

Objective: Expand the tourism industry in Surprise.

Policies:

1. Take advantage of the natural and man-made waterways for potential tourism-related attraction development (e.g., preserve the Agua Fria River area that is in the planning area and Beardsley Canal).

2. Continue the development of the Water Recharge project.

3. Work closely with Maricopa County and the State Land Department to ensure that lands around White Tank Mountain Regional Park are preserved and remain attractive for tourism/resort-type development.

4. Develop and distribute promotional materials promoting Surprise's new parks and recreation facilities as well as its visitor attractions.

5. Attract and maintain recreational/tourism-related businesses in the planning area.

Objective: Ensure a stable municipal revenue stream to provide community services and develop new amenities.

Policies:

1. Reserve sites for commercial development to accommodate residents and minimize retail leakage to other communities.

2. Utilize the community mixed-use gateways as activity centers to draw shoppers from other communities to Surprise.

3. Ensure that local sales and property tax revenues and service fees are adequate to maintain standards of service.

4. Encourage the development of a wide range of employment opportunities; especially basic sector industries (e.g., manufacturing).

5. Support the continued operation of the Daimler-Chrysler and Volvo Proving Grounds.

4.4 Housing Element

4.4.1 Housing Element Statement

The Housing Element strives to assure that a full range of housing is provided and available at all prices. It also ensures that the quality of the housing stock remains high and that homes are properly located to create strong, stable neighborhoods.

4.4.2 Housing Element Introduction

Housing is viewed as a fundamental human need. Clean safe housing is important for residents at all income levels to ensure a high quality of life. The need to plan effectively for housing within quality neighborhoods is and will continue to be a community priority since residential land uses are predominate within the planning area. Housing is an important component of long-term community sustainability. The purpose of the Housing Element of the General Plan is to provide a means to develop and sustain an adequate supply of quality housing at all price ranges.

Since the mid-1990's, the City of Surprise has experienced phenomenal growth in residential development. Developers and homebuyers are attracted to the community because of its high-standard quality of life defined by the community's affordability, clean air, and quality neighborhoods. However, because of the community's rapid growth, maintaining a balance of housing types, sizes, and prices is critical.

The determination of quality housing involves a number of qualities, including, but not limited to, building code standards. This determination includes choices relative to location, size, cost, condition, and other factors influencing the market. Secondary issues such as neighborhood conditions, site planning and design, and exterior materials also influence the quality of the residential environment. The way these factors occur together influences the long-term health of a neighborhood, and therefore, deserves close attention. As the community continues to age and neighborhoods such as the Original Townsite area and the residential neighborhood in Section 10 (near Grand Avenue and Pinnacle Peak Road) gets older, conservation policies are needed to sustain positive neighborhood characteristics after the homes are built.

4.4.3 Housing Issue Identification

High-End Housing. The City of Surprise's housing mix is deficient in higher-end executive housing. Surprise has not been able to attract developers to build higher-end housing. Providing the full-range of housing is critical for the city's economic development effort.

Maintaining Neighborhood Quality. Most of the city's housing stock is less than ten years old. However, as the City of Surprise ages, neighborhoods and homes also continue to age. It is critical to ensure that homes and neighborhoods maintain the quality residents have come to expect. Deterioration is determined by homes in need of paint, new roofs, landscaping in disrepair, and building code violations. Today, Surprise prides itself in its quality neighborhoods and consistent oversight will be required to maintain these neighborhoods long-term.

Housing Affordability. The City of Surprise is recognized for its affordability. First-time homebuyers have been able to purchase quality homes in master-planned neighborhoods. Monitoring housing affordability as the city matures will be important. The key is to ensure the widest range of housing to meet the needs of a growing city.

Age-Restricted Development. In recent years, several age-restricted neighborhoods have been developed in the City of Surprise. The city has supported these developments as a way of meeting another segment of the housing market. However, it is the city's goal to ensure that the community offers a mix of housing choices for a variety of family types and sizes.

4.4.5 Housing Element Goals, Objectives, and Policies

Community Goal: *Encourage the development of sound and stable neighborhoods.*

Objective: Ensure a broad range of housing for all family types and household income levels.

Policies:

1. Compile and maintain a housing profile to monitor the city's housing characteristics.

2. Acknowledge that the provision of new housing is primarily the job of the private sector. In responding to market demands, the city should encourage development of all types of housing through expeditious and proper application of land use planning, zoning regulations, site design review, and building inspections to enhance the quality of life in Surprise.

3. Conduct a comprehensive update of the Surprise Zoning Ordinance in accordance with the ***Surprise General Plan 2020***.

4. Conduct a comprehensive update of the Surprise Subdivision Regulations in accordance with the Surprise General Plan.

5. Develop community design standards for all residential areas that promote quality-housing products.

6. Locate housing in close proximity to education, neighborhood commercial centers, parks and recreation amenities, libraries, and public safety facilities.

7. The city recognizes that older neighborhoods can represent affordable and viable housing opportunities. Programs and policies aimed at renovation and conservation that facilitate reinvestment opportunities should be encouraged.

Objective: Ensure sound and stable neighborhoods throughout the city.

1. Neighborhoods should improve over time, not deteriorate. Institute a program that will stabilize and upgrade neighborhoods in transition (e.g., rehabilitation assistance, property maintenance programs).

2. Locate residential areas that are appropriately sited and protected from incompatible uses yet integrated through both pedestrian and vehicular linkages.

3. Locate residential areas that are appropriately sited with minimal adverse impact on the natural environment.

4. New developments within or next to existing residential areas should enhance or contribute to the character or qualities of that area.

5. Strengthen neighborhoods through building the capacity of residents to promote and protect their neighborhoods.

6. Encourage developers to cooperate and communicate with residents and homeowners' associations during the development review process prior to the official public hearings.

7. Housing developments should be adequately provided with community facilities and services. Desirable community facilities and services include: parks with tot lots, benches, larger retention areas with Ramada's, shade trees and a safe place for spontaneous games, and multi-purpose trails for passive recreational and neighborhood interaction.

8. Encourage information sharing between Maricopa County and other regional groups for review of future housing needs.

9. Promote and sustain those qualities that make Surprise's stable neighborhoods especially desirable:

   - Promote durable materials in construction that are compatible with the area's climatic and energy factors
   - Encourage a substantial level of exterior detail and positive site-design features
   - Utilize open spaces to the fullest extent possible
   - Create a pedestrian environment
   - Establish buffers between density transitions
   - Minimize through or overflow vehicular traffic
   - Maximize privacy, safety, security, and a sense of community involvement
   - Facilitate private investment and reinvestment in properties

Objective: Provide a maximum range of affordable housing alternatives.

Policies:

1. Develop an affordable housing study for the city that identifies needs, housing program(s) and financial/subsidy programs that can be used to rehabilitate, preserve, and improve the existing housing stock. The Arizona Housing and Infrastructure Development Technical Assistance Program could provide consulting and technical assistance in the development of the study and other appropriate housing programs.

2. Increase the pool of dollars available for affordable housing projects by utilizing all available local, state, and federal resources to assist in the provision of adequate, safe housing for persons of low and moderate income.

3. Encourage the establishment and strengthen the capacity of non-profit housing providers geared to affordable housing.

4. Establish a program that waives building permit and development fees for up-front construction and associated building permit fees for affordable housing development projects. Identify infill areas in the city that have appropriate infrastructure in place for affordable housing.

5. Establish a down-payment assistance program to reduce the principal owed on a mortgage, allowing low- and moderate-income households to become homeowners.

6. Provide outreach, education, and enforcement to ensure that citizens have a clear understanding of the issues regarding "Fair Housing" and what to do if they are subjected to discrimination.

7. Establish a fast-track approval program that reduces the processing time for new developments that will provide affordable housing.

8. Expand the Home Rehabilitation Program that assists with the rehabilitation of owner-occupied homes. The program offers loans to rehabilitate substandard housing units in order to bring the units into compliance with the Uniform Building Code, as well as loans for emergency home repairs where there is an immediate threat to the homeowner's health and safety.

4.4.6 Housing Plan

The city's arterial roadway network affects the shape of neighborhoods by establishing a grid of physical boundaries and limiting access to these high-speed thoroughfares through the regulation of medians, collector road connections, and traffic lights. In SPAs 1 and 2, many sections or square miles are expected to contain densities adequate to support a school, neighborhood park, and neighborhood commercial uses, yet be limited to prevent urban densities and over-congestion on adjacent arterial roads. Other key features in neighborhood planning are encouraged:

- Curvilinear collector streets providing continuous access to centrally located schools and/or parks, but not allowing non-stop through travel between arterial roads.

- Vehicular and pedestrian access to commercial services and shopping. This allows residents to shop without having to cross or travel along arterial streets.

- In addition to stabilizing elements such as parks and schools, linear open spaces and bike paths serve to physically integrate different subdivisions as well as augment recreational opportunities. Neighborhood identity is enhanced, strengthening neighborhood stability and conservation. The key is to establish a framework at the time of neighborhood or area planning with the master developer.

- Architectural consistency in mixed-use pads of sub-neighborhood residential developments sometimes is appropriate to strengthen neighborhood identity.

- Planning should respect and preserve the character of established neighborhoods. Buffers, infill standards and strategies, density gradations, and neighborhood communication are part of this category.

The factors of neighborhood stability and preservation are complex and difficult to define precisely. The reason why only some neighborhoods retain their qualities is often unclear; however, the city believes that stabilizing elements play a principle role in neighborhood dynamics and life cycles. These elements include churches, parks, schools, as well as the concepts of identity and permanence. Streetscape appearance, recreational activity, material durability in building, and balance of residential choices seem to enhance these concepts.

Neighborhood Dynamics

An important concept considered when analyzing neighborhoods is the neighborhood cycle. The neighborhood cycle refers to the process by which family and subdivision changes interact over a period of time. For example, an area that has grown rapidly often begins with new houses and a large majority of young families. These families tend to have or grow to a high children-per-family ratio, predominately with children of preschool or of early elementary school age. After 10 to 15 years, the children have grown up and moved out. Some homes are then sold because the family housing needs have changed. This allows new families, often younger than the now mature families, to move in to fill the vacancies. The neighborhood as a whole becomes more mixed in terms of age groups and more stable. Likewise, homes experience a similar type of cycle or a series of stages, also affecting the stability and desirability of the neighborhood. There are many definitions of the stages of housing and the neighborhood of which they are a part of. These descriptions differ more in detail than in general. Those common to Surprise in general can be categorized by the following:

Stage 1: Healthy, Viable Neighborhoods. New neighborhoods where housing is being constructed in addition to those in the older areas. Characteristics of this state include high rates of ownership, a smooth functioning real estate market, adequate public services, good schools, low crime rate, well maintained neighborhoods, and conventional financing readily available.

Stage 2: Beginning of Decline. As a neighborhood ages, maintenance requirements increase to keep housing competitive with newly constructed units. Remodeling is necessary in the neighborhood or it will begin to lose residents and/or not be able to attract those who desire broad housing choices. During this stage, home ownership, income, and quality of life begin to decline. Changes in number of persons per household are observed. Residential property begins to be converted into larger number of units. Some difficulty in financing occurs as confidence in the future stability of the neighborhood begins to wane.

Stage 3: Clearly Declining. Maintenance and modernization requirements become critical as reinvestment in housing is put off for a longer period of time. As the rate of home ownership declines further, changes in social structure continue to occur as those of lower income replace existing residents. Property values begin to decline or at least the rate of increase is less than the rate of increase in the rest of the city. Serious problems are experienced in getting financing.

Stage 4: Accelerated Decline. The socio-economic level of the population continues to decline as only those with the fewest choices remain or move into the area. Minimal maintenance and repairs occur. Housing becomes badly deteriorated. Absentee landlords own most of the property. The buildings are generally old, maintenance and operating costs high, and reinvestment is minimal. Property values continue to fall. Investors and residents view the future negatively. Population declines in number with increasing vacancies.

Concerns come when neighborhoods decline into later stages or decline from Stage 1 too quickly. Neighborhood decline depends on the stability of neighborhood dynamics that in turn are dictated by the quality, durability, and appearance of individual units and lots. In economic terms, a neighborhood declines because it can no longer attract potential owners who can afford to buy and maintain the housing. Once decline begins, it normally continues downward through time without public intervention; however, not all neighborhoods pass through the various cycles. Some remain stable over time, with long-term stabilization typically occurring in Stage 2. This should be the city's goal for all neighborhoods. Most of Surprise's neighborhoods fall within the top categories. Not only can this be attributed to the relatively young age of the community's housing, but also because the city promotes the inclusion of stabilizing elements during the area or neighborhood planning process. These elements, together with the quality elements of the individual homes and lots, work together to form a solid basis for neighborhood longevity. Things such as schools, parks, churches, community centers (public and private), architectural/landscape themes or continuity, and other focused amenities are neighborhood building blocks. Improvement or enhancement of these elements in existing areas, (e.g., rehabilitation efforts geared to individual properties) can help to stabilize or reverse downward cycles. This may become an important responsibility of infill development or city-assisted revitalization.

Neighborhood Sustainability

The preservation of Surprise's neighborhoods is a major goal of the Housing Element. Planning should not stop once buildout occurs, rather, should strive to sustain the original qualities of a neighborhood as it matures and experiences a continuous interaction of social and economic dynamics. Physical condition and appearances as well as impacts of new development can have a positive influence on the longevity of an area. Healthy neighborhoods not only provide residents with a sense of satisfaction, but also facilitate the sale potential and opportunities for new or moving residents. Citizen involvement in the planning process helps the city focus attention where it is needed. The Surprise Housing Element strives to maintain neighborhood sustainability and applies the following guidelines in a fair and consistent manner to residential development to help sustain neighborhood stability, resource conservation, and lot suitability.

- Lot suitability shall include provisions for adequate yard space (passive recreation), shaded areas, and sufficient off-site parking.

- Neighborhood stability shall address aspects of streetscape appearance of yards and home exteriors, durability of exterior materials, and provisions for useable common open space and project amenities.

- Resource conservation shall include shading and/or orientation of western building exposures, energy efficiency, and water conservation.

Residential Development Guidelines

The city recognizes that the concept of development quality should be addressed and applied at all levels of planning. Historically, the city has adopted Residential Design Guidelines for low density development (i.e., one to five dwelling units per acre and PAD development in low density designated areas). In all future Design Guidelines for each residential zoning classification, the city will take into consideration the following goals and elements, in addition to other requirements of the General Plan, when reviewing residential development projects.

- Partnering with adjacent landowners to master plan individual parcels as an integrated development.
- Residential land use arrangements will reflect a commitment to provide for low density and detached unit products in vicinity of schools and parks, that would afford families greater access to these areas. Higher density residential land uses would be located along major thoroughfares along with commercial and employment sites, and areas where higher densities provide a logical transition between dissimilar land uses.
- Incorporation of transit facilities or demonstrating a direct relationship with Regional Public Transit Agency (RPTA) existing or future plans for light rail, bus, or community character.
- Ensuring the potential increase in density will not generate vehicular traffic levels of service below "C" for the adjacent arterial roadway network at project build-out. Collector road circulation will be designed to maximize access to schools and/or parks but preclude uninterrupted travel between actual roadways; and, allow vehicular access to and from commercial shopping areas without having to travel over arterial roadways. Wider sidewalks may be required near parks or schools.
- Ensuring that the potential increase in density will not diminish the projects' ability to attain an assured water supply nor to convey wastewater.
- Providing that the city can adequately treat all projected flows or sewage.
- Oversizing necessary trunk utilities to not only accommodate the increased loads of the project, but the development plans of future surrounding projects.
- The project must maintain the standards outlined in the Public Services Element and Cost of Development Plan for police and emergency response times.
- Coordination with the local school districts is required to ensure that the school system has the ability to accommodate the population increase created by the project. A school site and/or money will be provided in accordance with the governing school districts' requirements.
- Ensuring compatible yet diverse architectural style and use of several types of colors and materials for structures.
- Provision of varied streetscapes to minimize homogeneity within residential developments.

Project Integration

The topic of residential integration includes proper transition between different land uses within a phased project, compatibility with existing developments, architectural continuity as a unifying element, and

development consistency with approved plans (as per builder commitments). The city recognizes that variety and change are necessary components of the housing environment. Planning to ensure project or lifestyle compatibility helps optimize market alternatives without disruptive land use conflicts. The Surprise Housing Plan strives for residential project individuality yet assures compatibility with surrounding residential neighborhoods. Some of the guidelines to ensure project integration include the following.

- Within mixed-residential projects, arrange land uses so that the transition between low density and higher intensity land uses is gradual, not abrupt.

- Residential densities generally should increase by no more than 50 percent from one phase to another; however, higher differentiations may be mitigated by greenbelt separation, streets, or other physical features.

- New residential projects shall respect the densities, lifestyles, and structural qualities characterizing adjacent, existing neighborhoods and developments.

    - ✓ Matching adjacent lot sizes, providing landscape buffers, and/or greater building setbacks than normally required shall treat significant lot size disparities. Building heights shall be consistent unless endorsed otherwise by affected residents.

    - ✓ The city will assess each situation to determine whether new developments should be consistent with the value and square footage of homes built in neighboring tracts.

    - ✓ Where multi-family development occurs adjacent to single family subdivisions, buildings in excess of one story shall be designed to eliminate or mitigate view corridors and minimize building mass.

- Large master plans or mixed-residential development proposals should apply consistent architectural symbols and details over the entire project. Once a subdivision is approved for a certain residential product, the city will assure that equal products will continue through build-out once home sales and building begins.

Market Forces

With fluctuating economic conditions, land prices, and consumer preferences, long-term housing market predictions are almost always futile and potentially counter productive. The city can rely on other policies to help maintain an adequate supply of housing affordable by various income groups (households). For example, Surprise has responded positively to new higher density, detached homes introduced over the past several years as an affordable alternative to townhomes and condominiums. The city will utilize planning techniques to maintain housing adequacy and quality yet be responsive to market forces. The Surprise Housing Plan offers the following guidelines.

- The city will continue to track housing data and maintain a current housing profile. Developers and homebuilders may be asked to provide support information in conjunction with large scale or unique proposals.

- Overly speculative or premature zoning shall be discouraged to help control land costs keeping residential acreage available for future residential production.

- The city will continue to emphasize the continued planning and construction of single family dwelling units during the next five years to enhance newly developing neighborhoods as well as provide a firm basis for continued neighborhood expansion. The city will continue to monitor and sustain housing balances as changing conditions dictate.

- Continue to promote and implement a reasonable variation of rents and selling prices in new large-scale developments. Encourage custom, large-lot, and executive housing opportunities, as well as entry and mid-level homes.

- The city should anticipate renewed interest in the areas of modular or production line housing construction and similar technologies. As long as recognized quality standards are met, accommodations should be provided consistent with conventional construction methods.

4.5 Open Space and Recreation Element

4.5.1 Open Space and Recreation Element Statement

The Open Space and Recreation Element presents a comprehensive, high-quality park, recreation, and open space system that links and has access to other proximate regional parks, open spaces, schools, libraries, and activity centers. It is supported by a well-organized recreation program.

4.5.2 Open Space and Recreation Introduction

The Open Space and Recreation Element provides the general guidelines to enhance the provision of parks, recreation, and open space within the City of Surprise and its planning area. The element identifies the city's philosophy relative to the desired level of facilities and their interrelationship with land use, transportation, and public facilities programming.

4.5.3 Open Space and Recreation Issue Identification

Operation and Maintenance. The lack of staffing for operation and maintenance of public parks has prompted the construction of detention basins maintained by homeowners associations that function as open space, yet do not add to the level of service for park acreage.

Original Townsite. The existing parks located in the Original Townsite are in need of revitalization and enhancement. There are opportunities within the Original Townsite to create walking trails and increase much-needed public park areas.

Zoning for Open Space. While open space is a designated land use in the original Comprehensive Development Guide, the zoning ordinance does not have a specific zoning category for implementation. According to Growing Smarter Plus (Arizona State law) "a municipality shall not designate private land or State Trust land as open space without written consent or providing an alternative that is an economically viable designation (i.e., at least 1 du/ac) in the general plan or zoning ordinance." The ***Surprise General Plan 2020*** recognizes and complies with this State Statute.

Regional Coordination on Canals, Dams, and Rivers. The existing canals, dams, and rivers in the planning area are potential trail opportunities to link parks, open space, and schools. However, agreements do not currently exist between the city and other entities for operation and maintenance.

Acquisition of Preservation Areas. The existence of steep-sloped, Palo Verde-Saguaro vegetated areas provide the opportunity for preservation of open space, but mechanisms and financial resources to acquire land does not currently exist.

Opportunities to Create New Pedestrian and Equestrian Trail Systems. Existing rural neighborhoods are being surrounded by new development. Compatibility issues, as related to the keeping of animals and continued equestrian uses within neighborhoods, should be resolved. Opportunities to create new equestrian and pedestrian uses should be supported.

Changing Demographics. The city's changing demographic composition requires the inclusion of recreational facilities and programs for all age groups, not just senior citizens.

Community Attitudes Toward Parks and Open Space. In July 1998, a community telephone survey was conducted to determine residents' opinions of various issues related to the update of the city's general plan. The survey was administered to 386 residents. A summary of the survey as it relates to park and open space issues includes the following:

- ✓ Over 55 percent stated that they agree that many recreational opportunities exist in the city.
- ✓ While over 83 percent stated that the city contains plentiful open space, it may be somewhat misleading considering the significant amount of land under private agricultural production and the vacant land managed by the Arizona State Land Department.
- ✓ Over 50 percent of the respondents stated that the provision of children's play areas, bicycle and pedestrian paths, indoor recreation center, cultural arts programs, trail system, picnic areas, and a swimming pool are high priorities.
- ✓ Over 50 percent of the respondents stated that the provision of equestrian trails and golf courses are low priorities.
- ✓ The provision of lighted sports fields, outdoor basketball courts, and tennis courts were identified as a high priority by only 33 to 45 percent of the respondents. (It should be noted that only 20 percent of the respondents were less than 39 years of age, which may not represent the true need for these facilities.)

4.5.4 Open Space and Recreation Goals, Objectives, and Policies

Community Goal: *Create and maintain a high quality of life through the provision of adequate open space and recreational opportunities.*

Objective: Identify the conceptual locations, types, and general standards for parks.

Policies:

1. Utilize the park classifications (e.g., neighborhood park/school, community park, and urban park/sports complex) to increase and enhance recreational acreage within the city.

2. Define a park as a tract of land that contains a mix of active and passive recreation facilities potentially including tot lots, defined and improved play field and/or sport court areas, and picnic/seating/shade areas that are landscaped/hardscaped in a pleasing manner. Parks should generally be located in the center of their service area and can be developed jointly with schools and serve as retention basins for storm water.

3. Establish a standard of six acres of parkland per 1,000 population accomplished through general locational and size requirements for park types.

4. Fund and staff full-time maintenance personnel to manage the city's existing and new park resources in a high-quality manner.

5. Prepare and adopt a Parks Master Plan to determine the specific size, facilities, and locations for new parks; revitalization activities for existing parks; and programs/enhancements for existing public and private recreation programs.

6. Prepare a specific park plan for the McMicken Dam Recharge Project, located on the north side of McMicken Dam.

Objective: Continue to improve, expand, and construct parks in conjunction with housing growth, demographic composition, and user desires.

Policies:

1. Review the Open Space and Recreation Element in the city's consideration of development proposals to determine the need for new parks and their requirements generated by the proposed project.

2. Increase the amount of park and open space identified in the city's development agreements to total 13 percent (i.e., equally divided between parks and open space areas) of the net project area.

3. Evaluate the appropriate impact fee or dedication of land in-lieu of impact fee to assemble the land and fund park design and development.

4. Prepare a Capital Improvements Program (CIP) that will include the design, development, and revitalization of parks utilizing available resources over a six-year timeframe.
5. Community or urban parks should be developed when the residentially designated land within its service area is 50 percent built-out.

6. Neighborhood or school parks proposed as an amenity in a subdivision shall be developed in conjunction with the first phase of the proposed development.

Objective: Coordinate park planning and improvements with other jurisdictional entities in the region.

Policies:

1. Coordinate with the Maricopa County Parks Department to buffer adjacent uses, protect/provide access, and potentially expand the White Tank Mountain Regional Park.

2. Coordinate with Maricopa County Planning and Development Department to incorporate adopted city park and open space standards within proposed projects developed at urban densities.

3. Coordinate with the Town of Buckeye and City of Peoria to maintain appropriate park service area coverage where common jurisdictional boundaries exist.

4. Communicate on a frequent basis with the Arizona State Land Department and gain their consent for the appropriate designation, disposition, or acquisition of land classified as open space under their management within the Surprise planning area.

Objective: Enhance the amount and variety of recreation activities available to city residents.

Policies:

1. Survey city residents every three years to determine their desires for new recreational activities and programs.

2. Initiate and gain partnerships with all school districts (e.g., Dysart Unified School District), charter school providers, or other educational providers within the planning area to utilize their facilities for city-sponsored recreation programs.

Objective: Identify the appropriate location of natural open space areas and corridors within the Surprise planning area.

Policies:

1. Define open space as either natural or developed. Natural area open space is a tract of land that is preserved in its natural state. Developed open space has been created by man to convey a sense of openness that may contain passive recreation activities such as seating, viewing etc., as well as golf courses, landscape tracts and retention basins for storm water.

2. Create an open space zoning classification within the city's municipal code to implement the designation of open space in the general plan.

3. Ensure that property owners provide approval, in writing, prior to rezoning lands for open space per Arizona State Statutes.

4. Designate areas identified as "Conservation Areas" on the *MAG Desert Spaces Plan* as open space.

5. Strive to achieve an open space standard of six acres per 1,000 residents.

6. Evaluate the annual contribution of funds to maintain and enhance White Tank Mountain Regional Park.

7. Monitor the planning and design process of the West Valley Recreation Corridor that focuses on the connectivity of the Agua Fria/New River Corridor from Estrella Regional Park to north of Lake Pleasant Regional Park for pedestrians, bicyclists, and equestrians.

8. Work with the Town of Buckeye and Maricopa County to identify and implement open space corridors between White Tank Mountain Regional Park and the Hassayampa River.

9. Utilize natural washes as part of the comprehensive trail system throughout the planning area. Washes should also be considered as natural drainage basins.

Objective: Identify the appropriate locations for man-made open space areas and corridors within the Surprise planning area.

Policies:

1. Work with the City of Peoria, City of El Mirage, Maricopa County, Bureau of Reclamation and Maricopa Water District to utilize McMicken Dam, Central Arizona Project canal, Beardsley Canal, and Agua Fria River as the primary open space linkages between White Tank Mountain Regional Park, Lake Pleasant Regional Park, and Estrella Mountain Regional Park.

2. Protect ridge/crestline, steep-sloped (more than 10 percent), and Palo Verde-Saguaro vegetation areas as open space through the use of density transfer or purchase of development rights, acquisition, donation, or other acceptable methods.

3. Discourage development within the boundaries of the 100-year floodplain and encourage the dedication of a continuous 25-foot minimum setback on both sides of the 100-year floodplain boundary as a buffer and potential trail corridor.

4. Ensure that the natural drainage channels are protected and used as a connected trails system to link open space, recreational facilities, schools and other public facilities.

5. Development near floodplains (i.e., within 100 feet) will require a hydrology study to determine appropriate setbacks greater than 25 feet.

4.5.5 Open Space and Recreation Plan

The Open Space and Recreation Plan, as shown in Figure 4-9, presents the proposed locations for the hierarchy of parks and open space to serve the existing and future residents of the city. The common standard of park acreage historically promulgated by the National Recreation and Park Association (NRPA) is that 6.25 to 10.0 acres of park acreage be provided per 1,000 population. In addition, the same amount of acreage should be provided in open
space. The assessment of existing and planned park acreage with the existing population established the benchmark to determine the adequacy of parkland in the city. The existing park acreage (41 acres) creates an existing level of service (LOS) of 2.2 acres per 1,000 residents (based on a 1998 population of 18,830). A total of 212 acres of parkland exists or is planned and/or approved to be located in the city at the present time. If these parks are dedicated and developed at the time the city population reaches 41,278, the level of service would increase to 6.1 acres per 1,000 residents, which is the LOS recommended in this plan. Even though the enhanced standard is less than the national standard for park acreage, it provides a realistic level of service recommendation in terms of future implementation. It should be noted that many communities do not achieve the national standard, but it does provide a laudable recreation goal to enhance the quality of life in the community. In terms of open space, this plan is recommending that six acres be provided per 1,000 residents.

General park standards for each of the recommended park types assist in the provision of well-functioning and adequate overlapping of park service areas. The city's standards for neighborhood, neighborhood-school, community, and large urban park/sports complex are presented in Table 4-17, Surprise Park Standards. Each park type is provided with a summary description, general service area coverage and siting considerations, optimum size, and level of service determination for providing park acreage.

Figure 4-9
Open Space and Recreation Plan

Table 4-17, Surprise Park Standards

Classification	Description	Service Radius/ Siting Criteria	Park Size	Determines LOS*
Neighborhood Park	Serves as the recreational and social focus of the neighborhood	½ Mile Not constrained by physical barriers	5 to 10 Acres (5 Acres Min.)	Yes
Neighborhood Park/School	Can fulfill the space requirements for other park classes	½ Mile (El. School) 1.5 Miles (Jr.-High School) Determined by location of school enrollment boundary	Varies Depends on functio	Yes Does not count school only uses
Community Park	Focus is on meeting community needs	3 Miles Serves two or more neighborhoods	30 to 50 Acres	Yes
Large Urban Park/Sports Complex	Serves larger focus when other park types are lacking	Varies Generally serves entire community	50 to 75 Acres (50 Acres Min.)	Yes
Natural Area Open Space	Preserves significant resources for open space and visual aesthetics/buffering	Varies Based on resource availability and opportunity	Varies	No
Greenways	Open space linkages for parks within the community	Varies Based on resource availability and opportunity	Varies	No
Private Open Space Park/ Recreation Facility	Privately owned, yet contribute to the public system	Varies Dependent on Requirements of specific use	Varies	Dependent on type of use

Source: Park, Recreation, Open Space and Greenway Guidelines; National Recreation and Park Association; 1996

*Level of Service (LOS)-ratio of park and recreation acreage expressed as acres/1,000 that represents the minimum amount of ground space needed to provide a typical community's desired level of quality of park and recreation services.

Based on the population projections identified in the Land Use Element, park acreage projections were determined for the entire Surprise planning area. The projections are based on the provision of the three park types identified previously and spatially distributed within each Special planning area. If the build-out population projections are achieved in this General Plan, a total of 2,865 acres of parkland will be necessary in the Surprise planning area. These projections are based on a build-out population of 509,378 residents.

Table 4-18, City Build-Out Park Acreage Recommendations

	Special Planning Area						
Park Type	**1**	**2**	**3**	**4**	**5**	**Total**	**%**
Neighborhood Park/School	392	171	466	47	72	1,148	40
Community Park	187	135	240	146	251	959	33
Urban Park/Sports Complex	258	113	308	31	48	758	27
Total	837	419	1,014	224	371	2,865	100
Percentage	29	15	35	8	13	100	

Source: Neill/Vecchia & Associates, Inc., November 2000

Notes to Table 4-18
(1) Mini Parks are not recommended to be located in the Surprise planning area, except for the Original Townsite.
(2) The provision of Sports Complexes may substitute for Urban Parks.

The provision of neighborhood parks is expected to comprise approximately 40 percent of the planning area with the distribution of community parks comprising almost 33 percent. The urban parks total nearly 27 percent of the total park acreage projected to be needed. Parks in SPA 3 are expected to capture more than one-third of all park development followed by SPA 1 (29 percent). The remaining three SPAs (2, 5, and 4) are expected to capture 15, 13, and 8 percent, respectively, based on the geographic distribution of population within the Surprise planning area.

Year 2020 Park Needs

By the year 2020, the area is expected to require 1,557 acres of parkland. The needed park acreage has been organized by the Special Planning Area to determine the specific acreage based on projected population growth as shown in Table 4-19, Year 2020 Special Planning Area Park Acreage Needs. Special Planning Area 1 is expected to capture 41 percent of the 20-year need, followed closely by the projected acreage in Special Planning Area 3 (39 percent). The parkland is expected to be comprised of neighborhood parks (either as stand-alone parks or developed jointly with public or charter schools), community parks, and urban parks/sport complexes. While the city has several existing mini-parks, their small size and maintenance considerations have precluded the recommendation for additional inventory of these park types within the city. A total of 774 acres of neighborhood parkland, comprising approximately 50 percent of the Surprise Planning Area, is anticipated to be developed with the majority located in Special Planning Area 1.

Approximately 268 acres of community park acreage is projected, comprising approximately 17 percent of the overall park acreage total. Again, the majority of the community parks will be located in Special Planning Area 1. The addition of urban parks and/or sports complexes is expected to total 515 acres or 33 percent of all park acreage projected to locate within the planning area.

Table 4-19, Year 2020 Special Planning Area Park Acreage Needs

	Special Planning Area						
Park Type	**1**	**2**	**3**	**4**	**5**	**Total**	**%**
Neighborhood Park/School	313	157	304	N/A	N/A	774	50
Community Park	115	52	101	N/A	N/A	268	17
Urban Park/Sports Complex	209	104	202	N/A	N/A	515	33
Total	637	313	607	0	0	1,557	100
Percentage	41	20	39	0	0	100	

Planned/Approved Acreage:	Based on the following standards:
131 acres Mini, Neighborhood, Park/School	Neighborhood Park-3 ac./1,000 pop.
33 acres Community Park	Community Park-1 ac./1,000 pop.
87 acres Urban Park/Sports Complex	Urban Park-2 ac./1,000 pop.
211 Acres Total	Overall-6 Acres per 1,000 pop.

Source: Neill/Vecchia & Associates, Inc., August 2000

In addition to the projected need for acreage, it is also important to identify the number of parks needed and the targeted amount of acreage that is necessary for the city to meet its level of service goal of six acres per 1,000 population in each SPA.

These projections are presented below in Table 4-20, Year 2020 Special Planning Area Park Standards.

Table 4-20, Year 2020 Special Planning Area Park Standards

Special Planning Area 1	
Number of Neighborhood Parks Needed	23
Average Acreage Required per Park	13.6
Number of Community Parks Needed	4
Average Acreage Required per Park	28.7
Number of Urban Park/Sports Complexes Needed	2
Average Acreage Required per Park	104.5
Total Number of Parks	29
Special Planning Area 2	
Number of Neighborhood Parks Needed	15
Average Acreage Required per Park	10.5
Number of Community Parks Needed	2
Average Acreage Required per Park	26.0
Number of Urban Parks/Sports Complexes	2
Average Acreage Required per Park	52.0
Total Number of Parks	19

Special Planning Area 3	
Number of Neighborhood Parks Needed	21
Average Acreage Required per Park	14.5
Number of Community Parks Needed	3
Average Acreage Required per Park	33.7
Number of Urban Parks/Sports Complexes Needed	2
Average Acreage Required per Park	101
Total Parks	26
Totals for SPAs 1, 2, 3	
Number of Neighborhood Parks Needed	59
Average Acreage Needed per Park	13.1
Total Acreage Needed	774
Number of Community Parks Needed	9
Average Acreage Needed per Park	29.8
Total Acreage Needed	268
Number of Urban Parks/Sports Complexes Needed	6
Average Acreage Needed per Park	85.8
Total Acreage Needed	515
Overall Total Parks Needed	74
Overall Total Acreage Required	1,557

Source: Neill/Vecchia & Associates, Inc., November 2000

If the city is to achieve its goal for park acreage, a total of 74 parks will be needed over the next 20 years that comprise a total of 1,557 acres. A total of 59 neighborhood parks will be needed at an overall average size of slightly more than 13 acres. Nine community parks will be needed at an overall average size of nearly 30 acres. Six urban parks/sports complexes will be needed at an average size of nearly 86 acres.

The projected need for neighborhood parks in Special Planning Area 1 includes 23 parks developed at an average size of nearly 14 acres. A total of 15 neighborhood parks are anticipated to be needed in Special Planning Area 2 over the next 20 years at an average size of more than 10 acres each. For Special Planning Area 3, a total of 21 neighborhood parks will be needed at a typical size of nearly 15 acres per park.

The need for community parks is anticipated to require four parks developed at an average size of nearly 29 acres each in Special Planning Area 1. The projected population growth in Special Planning Area 2 is expected to need two parks developed at an average size of about 26 acres each. Special Planning Area 3 will need three community parks at an average size of nearly 34 acres each.

In Special Planning Area 1, the provision of urban parks/sports complexes will require two parks at an average size of nearly 105 acres each. Two parks are needed in Special planning area 2 sized at approximately 52 acres each. An additional two urban parks are anticipated in Special Planning Area 3 averaging approximately 101 acres in size.

Open Space Needs

In terms of open space, the existing and planned inventory of open space amounts to nearly 448 acres that does not account for the golf course acreage or portions of White Tank Mountain Regional Park contained within the boundary of the planning area. If the city desires to match the amount of parkland with open space acreage, an additional 56 acres would be necessary, based on the desired park acreage scenario presented previously. This acreage could be comprised of additional landscaped retention basin areas within planned area developments (PADs); open space buffers adjacent to White Tank Mountain Regional Park; or a linear park system developed along the McMicken Dam/Beardsley Canal and the Agua Fria River as identified in the Open Space and Recreation Plan.

Table 4-21, City of Surprise Open Space Standards

Classification	Description	Service Radius/ Siting Criteria	Park Size	Determines LOS*
Natural Area Open Space	Preserves significant natural resources for open space and visual aesthetics/ buffering	Varies Based on resource availability and opportunity	Varies	No
Greenways/ Retention Basins	Open space linkages for parks within the community	Varies Based on resource availability and opportunity	Varies	No
Private Open Space Park/ Recreation Facility	Privately owned, yet contribute to the public system	Varies Dependent on requirements of specific use	Varies	Dependent on type of use

Source: Park, Recreation, Open Space and Greenway Guidelines; National Recreation and Park Association; 1996

In terms of the projected need for open space for each Special Planning Area, a comparison of the needs over the next 20 years and at planning area build-out is presented on Table 4-22, Build-Out and Year 2020 SPA Open Space Acreage Needs. By the year 2020 the planning area is projected to contain approximately 1,815 acres of open space comprising 37 percent of the planning area. Nearly 900 acres of open space is anticipated to be needed in Special Planning Area 1. Special Planning Area 2 is anticipated to require one-third as much acreage. Special Planning Area 3 is anticipated to require over 600 acres over the next 20 years. It should be noted that the 20-year open space needs for Special Planning Areas 4 and 5 have not been calculated due to the lack of significant infrastructure improvements taking place in these areas. At full build-out of the planning area, the combined open space located in Special Planning Areas 1 and 3 will comprise approximately three-fourths of the entire supply within the planning area.

Table 4-22, Build-Out and Year 2020 SPA Open Space Acreage Needs

	Special Planning Area (SPA)						
Open Space	**1**	**2**	**3**	**4**	**5**	**Total**	**%**
Year 2020 Need	893	314	608	N/A	N/A	1,815	37
Build-Out Need	1,089	418	1,014	225	371	3,117	63
Percentage	35	13	33	7	12	100	100

Notes to Table 4-22
Year 2020 need is based on a factor of 82 percent of the build-out of SPA 1; 75 percent of the build-out of SPA 2; and 60 percent of SPA 3.

Source: Neill/Vecchia & Associates, Inc., November 2000

4.6 Public Services Element and Cost of Development Plan

4.6.1 Public Services and Cost of Development Statement

The Public Services Element and Cost of Development Plan presents a functional, efficient, and cost-effective system of public facilities and community services to serve an expanding population and employment base in a sustainable manner.

4.6.2 Public Services and Cost of Development Introduction

The Public Services Element and Cost of Development Plan of the ***Surprise General Plan 2020*** provides an overview of the various public safety, public administration, and school and health facilities located within the Surprise planning area. It is critical that the City of Surprise has the necessary public facilities and services to support new and existing growth and development as well as adequate policies in place to determine what role the public sector plays in financing public services and facilities.

4.6.3 Public Services and Cost of Development Issue Identification

Public Administration Facilities. The City of Surprise's current administrative offices are capable of handling the growth in the near term. In FY 2000-01, funds are allocated to create new space for the court and police departments. Over the next ten years, the City of Surprise will outgrow its existing space and will need to develop a new City Complex.

Water Resources. The city currently owns 7,373-acre feet of Central Arizona Project (CAP) water allocation that was purchased from the McMicken Irrigation District. Additional water allocations will need to be purchased in the future to keep pace with development needs.

Surface Water Treatment. In the near future, it will be necessary to develop surface water treatment plants to satisfy the city's water needs. Eventually, treated surface waters will be the majority of supply, with groundwater augmenting and providing an emergency backup.

Sewer Facilities. In order to adequately keep pace with the growth, the City of Surprise must bring additional facilities on-line. The city is currently designing a multi-phased master plan for the southern sewer service area and will soon initiate plans to locate a second water reclamation plant site to service SPAs 2 and 3.

Public Safety. Maintaining a safe community is a critical component of Surprise's quality of life. As the community grows, adding proportional services, facilities, and programs to maintain a safe community is critical.

Cost of Development. The City of Surprise recently has adopted an impact fee ordinance. The impact fee ordinance determines the appropriate fees to cover the costs associated with new development.

Northwest Valley Landfill. The landfill is located at Deer Valley Road and 195th Avenue. Recent estimates show that this large landfill has enough capacity for approximately 75 years.

4.6.4 Public Services and Cost of Development Goals, Objectives, and Policies

Community Goal: *Create and maintain a high level of public safety services and facilities in the community.*

Objective: Provide a high level of public safety, emergency, and medical services to city residents and businesses.

Policies:

1. Continue to improve the automatic aid agreement with surrounding governmental entities allowing fire and medical emergency services to respond despite jurisdictional boundaries.

2. Develop a new public safety building (construction to begin in FY 2000-2001).

3. Maintain a 4.5 minute police response time for emergency calls, a 5.5 minute response time for urgent calls, and a 10 minute response time for service calls.

4. Maintain National Standards for patrol officers of 2.0 patrol officers per 1,000 residents and 2.5 police department personnel per 1,000 residents.

5. Station full-time police officers at the Reems Road station when deemed appropriate.

6. Continue to work to lower the city ISO rating.

7. The construction of new fire stations is based on the following factors: response time, population density, square miles served per station, geographical/topographical features, and special communication needs.

8. Locate fire stations based on need, budget and service level required for citizens.

9. Relocate the police department substation from Fire Station 302.

10. Institute a "Crime Prevention Through Environmental Design" (CPTED) program. The definition of CPTED used by the National Crime Prevention Institute is "the proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime, and an improvement in the quality of life."

11. Institute a "Community Arson Response Team" (CART).

12. Institute a "Public Safety Education Program". The program would be aimed at school children, parents, and seniors. The program would inform citizens about fire issues and fire awareness.

13. Institute a long-term plan for the fire department with assistance from a technical consultant.

14. The fire department shall adopt and maintain service delivery objectives, based on fire standards.

15. Expand and review the existing Advanced Life Support Program and arrival time in incidents.

Objective: Reduce and/or eliminate localized and community-wide flooding issues.

Policies:

1. Require habitable structures to have finished floor elevations a minimum one-foot above the 100-year flood level.

2. Require storm water flows that exceed street capacity service standards to be conveyed in surface methods or underground drainage structures.

3. Ensure construction of a storm drainage system that conveys storm water to natural and man-made outfalls.

4. Adopt grading and drainage ordinance to ensure that new properties are developed in a manner that reduces flood hazards to a minimum.

5. Require on-site retention of storm water for all developments. Site adjacent to a channel or natural drainageway, having adequate outlet capacity to a major drainage outfall, or less than one-half acre in size may have on-site retention requirements waived.

6. Require developers to construct and pay for drainage facilities when their need precedes or exceeds the need of the city.

7. Ensure that major drainage channels are designed to convey the 100-year storm.

8. Ensure that local streets can accommodate a 10-year storm.

9. Ensure that collector streets can carry 10-year storm flows between curbs, and 50-year storm flows between property lines.

10. Ensure that arterials and major arterials are designed to carry 10-year storm flows with one dry lane in each direction.

11. Ensure that retention/detention basins on all new developments can store water from a 100-year 2-hour storm event.

12. Prepare a priority improvement plan concerning which storm water facilities should be constructed that has the greatest impact on reducing flooding.

Community Goal: *Carefully manage and phase development to achieve orderly, sustainable community growth.*

Objective: Prohibit new development where public utilities, facilities, and services cannot be established without unduly taxing the existing service provision or users.

Policies:

1. Require private developers to install all public utilities and facilities to state and municipal standards, as required by their proposed development project.

2. Establish on an annual basis a CIP focused on each of the SPAs and Growth Areas that identifies and ranks major public improvement projects, estimates costs, establishes timing, and identifies review sources in support of residential and economic development.

3. Update the Water Master Plan consistent with the ***Surprise General Plan 2020.***

4. Maintain an up-to-date Sanitary Sewer Master Plan that brings in new areas of development to the north and west within the Special planning areas.

5. Maintain the city's current designation as water provider through continued 100-year assured water supply capacity.

6. Based on the Sanitary Sewer Master Plan, the city will generate one or more new Sanitary Sewer Service Areas. Their topography, geographic location, population, and other pertinent criteria will evaluate these new areas.

7. Utilize the adopted land use plan and growth-phasing plan to determine the appropriate timing and cost of potable water and sewage collection service.

8. Determine the appropriate financing and resources to adequately fund future municipal facilities and services.

9. Consider the implementation of a dual water system to allow the use of reuse water and domestic water in new development areas.

10. Prepare an integrated solid waste management plan that guides the management of the city's solid waste. The plan should provide direction to meet the objectives of the Environmental Protection Agency's policies on solid waste; state and regional solid waste goals; and objectives of the City Council.

11. Continue to ensure adequate buffering and landscaping around the perimeter of the landfill as expansion occurs.

Objective: Ensure that the City of Surprise has adequate municipal facilities to serve the needs of the residents.

Policies:

1. Centrally locate municipal buildings in a campus environment to serve the city's administrative needs.

2. Conduct an analysis to determine if it is cost-effective and when it is appropriate to develop satellite service centers to accommodate some city services.

3. Develop a municipal library that is adequately staffed, stocked with books, with the latest technology, and a comprehensive program to meet the current and future needs of the City of Surprise.

Objective: Ensure that new development pays its "fair share" of growth and allows that community improvements are systematically provided to address growth.

Policies:

1. Maintain an annually updated CIP and tie this process into the annual budget process.

2. Implement, monitor the effectiveness of, and periodically update the comprehensive Impact Fee Ordinance.

3. Continually research and determine the viability of additional funding sources. This includes additional development fees, creative utilization of municipal bonding, creation of improvement districts, and grants.

4. Aggressively invest funds accruing in development fee accounts to maximize return.

5. Maximize public/private partnerships in infrastructure development.

6. Annually audit development fees to determine if their levels are meeting needs.

7. Periodically update development fees to ensure legal basis and compliance with Arizona Revised Statutes.

8. Annexation policies and decision will be closely tied to the CIP.

9. When evaluating development proposals, all indirect costs shall be considered (e.g., recreation programs, and public safety).

Objective: Work closely with each of the school districts within the planning area to ensure that educational facility needs are met when new development occurs.

Policies:

1. Locate and site an appropriate mix of high quality primary, secondary, and post-secondary educational facilities in the city to support the population growth.

2. All developers requesting project approval must work with the local districts to determine the impact on the school system and implement strategies agreed to by the school district to address impact.

Objective: Maximize the community's investment in infrastructure and services.

Policies:

1. Channel growth in areas that have existing infrastructure.

2. Utilize the Special Planning Area policies to promote infill development.

3. Develop and implement an aggressive water conservation program to delay/minimize major expenditures in the water and wastewater systems.

4. Financing mechanisms utilized by the city shall result in a net improvement to the development and not place a long-term financial impact on the entire community.

5. Utilize a cost-benefit analyses to evaluate development proposals.

6. Financing mechanisms shall not be of a term that exceeds the useful life of the project developed through the mechanism.

4.6.5 Cost of Development Plan

The Cost of Development Plan outlines strategies that the City of Surprise will utilize to ensure that new growth will pay its "fair share" of costs for the services it will demand. Since the Cost of Development Plan is so closely tied to the Public Services Element, the goals, policies and objectives of this element have been combined in the previous section.

The City of Surprise hired a consultant (Tischler & Associates, Inc.) in 1999 to create a Development Fee Study. The process to develop the study consisted of using the land use plan; population and employment projections based on the land use plan, and current and projected infrastructure and services. The result of the study was the adoption of an Impact Fee Ordinance in July 2000. The City of Surprise had a development fee of $3,050 for the majority of current development (i.e., each single family home). Approximately 87 percent of this fee was allocated toward water resources, water delivery, and wastewater treatment. There was a nominal fee for parks and recreation, library, and public improvements (e.g., police, fire, and public works).

The results of the Development Fee Study showed a need to significantly increase the scope and volume of future development fees to address rapid growth. The types of services that the Cost of Development Plan addresses are:

- ✓ Water resources and delivery
- ✓ Wastewater collection and treatment
- ✓ Public works
- ✓ Public safety (police, fire, EMS)
- ✓ Parks and recreation, and open space and library system development
- ✓ General government

The Cost of Development Plan is tied very closely with the Surprise CIP process. Therefore, while the majority of the ***Surprise General Plan 2020*** focuses on a 2020-planning horizon, this element will relate more to the CIP's 2005-planning horizon.

Service Projections. According to the Development Fee Study developed by Tischler & Associates, Inc. and based on projections of the land use plan, the following increased service needs are anticipated.

Water Resources and Delivery
The City of Surprise currently serves a small proportion of current residents with water, however, this number is expected to increase significantly in the coming years. It is anticipated that the city will serve many of the new customers in SPA 1 and a majority of customers in SPAs 2 and 3. For this reason, it is anticipated that the city will need to increase its water resources by nearly 4,000 acre feet per year by 2005 and 44,000 acre feet per year by 2020.

Part of developing the additional water resources will be the development of significant water recharge facilities. It is anticipated that approximately $7,000,000 will need to be allocated toward the development of these facilities by the year 2005.

Much of the water delivery system in SPAs 1, 2, and 3 will be "starting from scratch." Based on overall projections, city staff estimates that it will cost approximately $2,835,000 to develop the water system (i.e., lines, storage, wells) per section (i.e., one square mile).

Wastewater Collection and Treatment
Wastewater flow is projected to increase by approximately 377 percent by the year 2005 and be ten times the current flow in 2020. An estimated $33,000,000 is projected to be needed to fund reclamation facilities to meet the 2005 demand.

Public Works
The Public Works Department will be significantly impacted by projected growth. New traffic signals, bus bays, buildings, and equipment and vehicles will need to be funded.

Estimated cost for traffic signals and bus bays is $460,000 per square mile and the cost for a new public works facility is estimated to be $700,000. Purchase of equipment and vehicles needed to maintain current levels of service is estimated to cost over $2.1 million.

Public Safety (i.e., Police, Fire, EMS)
Additional administrative facilities and police vehicles will need to be acquired to maintain current levels of service as the community grows. Total costs to develop police and court facilities are $1.1 million by 2005 and equipment and vehicles will cost just over $900,000.

Two new fire stations and an administration building are projected needs at an estimated cost of $2.57 million. Additional fire and EMS equipment that will need to be acquired will cost $1,427,000.

Parks and Recreation, Open Space, Libraries
Construction of a community park is anticipated in the five-year planning horizon at an estimated cost of $6 million. Library and recreation facilities anticipated to be developed will total $20 million. There will be additional parks, recreation, and open space needs as outlined in the Open Space and Recreation Element that will be programmed in the Surprise CIP.

Municipal Library
The City of Surprise recognizes the importance of a municipal library to the quality of life and recreational amenities of the community. The city is discussing the development of a municipal library as part of the Surprise Center multi-use development project. As the community continues to grow, the need for a municipal library to support the leisure needs of the community will become a priority. Following are selected standards developed by the International Federation of Library Associations and Institutions that should be used as a planning guide.

Facility Location
Branch library within 1 mile of most residents
Main library within 2.5 miles of most residents

Minimum Book Stocks

In smallest libraries	3 volumes per capita
In medium and larger libraries	2 volumes per capita
Reference books	Up to 10 percent of total stock (at least 100 volumes)

Note: When children 14 years of age or younger constitute 25 percent to 30 percent of the population, children's books should comprise one third of the total books.

Annual Additions to Library Collections

In smallest libraries	300 volumes per 1,000 population
In medium and larger libraries	250 volumes per 1,000 population
Children's books	One third of additions if children (14 or younger) comprise 25 percent to 30 percent of the population
Reference books in libraries serving Populations of more than 50,000	10 percent of all additions

Staffing

Total non-manual staff (professional, clerical, administrative):

In smallest library	1 full-time qualified librarian with clerical assistance
In medium and larger libraries	33 percent of total staff
In less compact libraries with many branches	40 percent of total staff

Note: In a large library system, one third of professional libraries should be specialized in children's works.

General Government

As the community grows, it is anticipated that additional administrative facilities and vehicles and equipment will be needed. City Hall development projects are estimated to cost over $3.8 million while anticipated expenditures for vehicles and equipment are $407,000.

Financing Mechanisms Available to Finance Public Service Expansion

The City of Surprise encourages development to occur in areas that require little or no extension of infrastructure or services. The areas that are immediately adjacent to existing services or within infill areas are the most cost-effective. If new development requires the extension of infrastructure or public facilities, the burden of those impacts are the responsibility of the developer in accordance with the Surprise Development Impact Fee Study and policies/standards in the ***Surprise General Plan 2020.*** The following are additional financing mechanisms that the City of Surprise could use if deemed appropriate to upgrade existing or developing new public facilities and services.

Pay-As-You-Go

Utilizing current revenues is the optimum way to pay for service expansion. Current revenues consist mostly of local sales and property taxes, state-shared revenues, and grants. Unfortunately, revenues usually follow development while most service expansions must occur prior to or simultaneously with development.

Revenue Bonds

Revenue bonds are a method of borrowing to finance service expansions. The bonds are paid back through future revenues that are legally pledged to the bond issuer. Revenues generally utilized for debt service are privilege taxes (sales tax), Highway User Revenues Funds (HURF) (i.e., payments made to municipalities from state fuel taxes), and user fees. Bonding must be approved by a public vote.

General Obligation Bonds
General Obligation Bonds (G.0.) are a method of borrowing to finance service expansion. These bonds are based on the full taxing authority of the municipality and are generally paid back through property taxes. The municipality may bond for up to 20 percent of its secondary assessed valuation with an additional six percent available for special projects. Bonding must be approved by a public vote.

Certificates of Participation/Municipal Property Corporations
These are methods of borrowing that are paid back by municipal revenues. They are usually not legally tied to a specific revenue stream such as revenue bonds. These methods can be utilized by action of the City Council and are not subject to public vote.

Development Impact Fees
Fees that are established by the municipality based on the cost of expanding services to accommodate new development. These fees are then passed on to the project developer as part of the cost of the development. Development impact fees can be fairly narrow in scope (i.e., impact of development on the wastewater treatment facility) to very broad in scope (i.e., covering all utilities, public safety, municipal operations, parks/recreation/open space, library services, etc.).

User Fees
Fees that are charged for services such as water and sewer fees or park and recreation venue admissions. The fee structure can be developed to not only cover operating costs but service the debt for financing expanded services.

Special Financing Districts
Commonly called Tax Increment Financing in other states, this funding mechanism is typically utilized for redevelopment and revitalization purposes.

4.7 Revitalization Element

4.7.1 Revitalization Element Statement

The Revitalization Element ensures a preserved and rehabilitated stock of existing housing and employment located in mature and underutilized areas of the city served with adequate vehicular access and mobility, as well as public facilities and services.

4.7.2 Revitalization Element Introduction

The Revitalization Element provides the general guidelines to enhance and revitalize vacant and underutilized areas within the City of Surprise. The Element identifies the city's philosophy relative to its approach in both preserving viable mature areas as well as the selective development activities that enhance the viability of these areas. The Revitalization Element relates to all designated revitalization areas within the city. However, the Element includes very specific policy direction and a revitalization plan for the Original Townsite since this area is the first area of priority. Over time other revitalization areas will be designated and the element will serve as a policy guide.

4.7.3 Revitalization Element Issue Identification

Historic Presence. The city's recent expansion and accelerated growth must not take all of the focus away from the historic core of the city. The Original Townsite is the recognized historic core of Surprise. The area contains a mix of development including historic homes, substandard properties, affordable neighborhoods, and viable employment areas.

Family Orientation. The Original Townsite is a culturally rich area that is family oriented. There are many families that have called the area home for generations. In recent years, the City of Surprise has invested in the area with the new recreation center and other public services. However, this area continues to lack parks and family-oriented support services.

Property Maintenance and Underutilized Land. Even though many properties are well cared for, some properties suffer from a lack of maintenance. Additionally, there has been a lack of investment in the Original Townsite evidenced by the minimal development of long-term vacant parcels.

Transit Service Limits. The Original Townsite is not served with transit. Lack of income in this area reduces vehicle ownership and places more reliance on public bus service.

Transportation Barriers and Infrastructure Impediments. The Original Townsite is bordered and transected by one principal (Grand Avenue), two major (Bell Road and Dysart Road) and two minor (Greenway Road and El Mirage Road) arterial roadways. The Original Townsite also suffers from a lack of curb and gutter in several areas.

Safety. The presence of drug dealing in certain areas and a lack of lighting reduces the feeling of security by residents.

Maturing Neighborhoods. As the city continues to grow, older neighborhoods will continue to get older. Ensuring that the quality of these neighborhoods remain stable is critical.

Attitudes Toward Revitalization. In July 1998, a community telephone survey was conducted to determine residents' opinions of various issues related to the update of the city's General Plan. The survey was administered to 386 residents. A summary of the survey as it relates to revitalization issues includes the following:

- ✓ Over 90 percent agreed that the city should invest in neighborhood improvements.
- ✓ Over 65 percent agreed that the city should preserve and revitalize the Original Townsite.
- ✓ Over 63 percent agreed that the city should purchase and restore historic buildings.
- ✓ Over 63 percent agreed that they would consider using public transportation if it was convenient.

4.7.4 Revitalization Element Goal, Objectives and Policies

Community Goal: *Encourage the development and/or revitalization of sound and stable neighborhoods, employment areas, and parks/open space.*

Objective: Determine appropriate areas for municipal reinvestment and prioritize for implementation.

Policies:

1. Designate revitalization areas (e.g., Original Townsite) as an infill incentive district that potentially qualifies desired projects for expedited development review and impact fee reductions.
2. Evaluate the area bounded by Jomax Road on the north, Yorkshire Drive on the south, Grand Avenue on the east, and 199th Avenue on the west as a future revitalization area.
3. Utilize the Original Townsite Revitalization Plan as the guiding Land Use, Circulation and Urban Design Plan to evaluate development, revitalization, and redevelopment proposals.
4. Revise the city's zoning map to establish conformity with the Revitalization Plan.
5. Create a specific plan for the revitalization area that includes land use, circulation, public facilities, and urban design components.

Objective: Provide a balanced mix of residential, employment and public facilities within the Original Townsite Revitalization Area.

Policies:

1. Protect and preserve the existing owner occupied single family neighborhoods located in the Original Townsite.

2. Continue to promote the infill of single family, owner occupied housing within areas identified in the Revitalization Plan for low-density residential use.

3. Work to remove existing intensive zoning for commercial (i.e., C-3) and industrial uses (i.e., I-1 and I-2) in the Original Townsite.

4. Survey the existing parks to identify a prioritized list of improvements and prepare a park revitalization plan for Three Star, Gaines, and Bicentennial Park.

5. Implement the design of Lizard Run Art Park as an open space linkage in the community and coordinate with the City of El Mirage to provide a connection to the Agua Fria River and the West Valley Multi-Modal Corridor.

Objective: Restrict direct vehicular access through revitalization areas.

Policies:

1. Evaluate the potential of traffic calming techniques (i.e., stop signs, speed bumps, "necking down") on selected streets to minimize the amount and speed of through traffic adjacent to low density residential neighborhoods.

2. Create a modified roadway network in the southwest portion of the Original Townsite revitalization area that minimizes cut-through traffic and allows parcel assemblage along the south and west side of Grand Avenue for mixed-use gateway development (i.e., high density residential, commercial, office, and parks).

Objective: Enhance the provision and access to transit within the revitalization area.

Policies:

1. Work closely with the Regional Public Transit Agency (RPTA) to strategically locate bus routes and stops/facilities along the perimeter of revitalization areas.

2. Promote the future northerly extension of light rail service (on the existing track) and one station stop on the perimeter of the Original Townsite revitalization area.

3. Evaluate the potential of a transit circulator route that primarily serves the Original Townsite as well as other proximate activity centers along the Bell Road Corridor.

4. Determine the potential for transit park-and-ride lots at strategic locations along the perimeter of the Original Townsite.

Objective: Create a safe environment for residents within revitalization areas (e.g., Original Townsite).

Policies:

1. Provide appropriate levels of street lighting within residential areas.

2. Increase the number of organized Block Watch groups.

3. Work with the police department to enhance education and enforcement.

Objective: Promote a pedestrian circulation system that connects the defined Original Townsite revitalization area internally and externally.

Policies:

1. Continue to construct sidewalks, curbs, and gutters on all streets with connections to all existing parks, community facilities, employment, and open space areas.

2. Coordinate with the Arizona Department of Transportation (ADOT) to design and construct one pedestrian overpass on Grand Avenue, linking both sides of the Original Townsite.

3. Connect Lizard Run Art Park with the future West Valley Recreation Corridor along the Agua Fria River.

Objective: Enhance private, residential property in the Original Townsite revitalization area.

Policies:

1. Conduct a voluntary comprehensive exterior (i.e., paint, exterior façade, landscaping) inventory and assessment of all existing owner occupied, detached single family structures in the revitalization area more than 20 years old to determine their condition and costs for rehabilitation.

2. Conduct a voluntary comprehensive interior (i.e., electrical, plumbing, structural, heating, ventilation and air conditioning) inventory and assessment of existing owner occupied, detached single family structures in the revitalization area more than 40 years old to determine their condition for financial assistance and reinvestment.

3. Work with the neighborhood to conduct a comprehensive clean-up program, conducted twice yearly, to remove debris from residential and commercial properties.

Objective: Define the most viable financial resources to enhance the Original Townsite.

Policies:

1. Work with area residents, businesses and property owners to prepare and adopt a Strategic Investment Plan targeted to the Original Townsite to evaluate and leverage federal, state and local funding resources.

2. Continue to apply for Community Development Block Grant (CDBG) funds to finance housing and recreational improvements.

3. Communicate with local banks to access Community Reinvestment Act funds for neighborhood improvements.

4. Evaluate and maximize the opportunity to leverage municipal investment resources with Federal Housing and Urban Development (HUD), Department of Justice (DOJ) and Arizona Department of Commerce (DOC) grant programs and technical resources.

5. Investigate the need to establish a non-profit/city housing entity to lead housing rehabilitation efforts.

Objective: Enhance the environmental quality of the Original Townsite revitalization area.

Policies:

1. Create a streetscape theme for Greasewood Street, Cottonwood Street, Grand Avenue, Santa Fe Avenue, and Sunny Lane.

2. Evaluate the preparation of a drainage master plan for the revitalization area.

3. Establish at least one new park southwest of Grand Avenue.

4. Increase the acreage and facilities of Bicentennial Park.

5. Establish one new park south and west of the Cottonwood Street/Nash Street intersection.

6. Evaluate the use of appropriate noise buffering techniques (e.g., berming, landscaping, walls) to minimize railroad-generated noise on the north side of Santa Fe Drive.

7. Determine necessary buffering techniques for the low and medium density area west of El Mirage Road.

8. Relocate in accordance with adopted city procedures and ordinances, all existing non-residential uses within the Original Townsite that could pose an environmental threat to residents.

9. Establish several community gardens on vacant lots within the Original Townsite.

Objective: Identify the most viable organizational structure to induce revitalization activities.

Policies:

1. Utilize the Surprise Economic Development Department to initially lead development and revitalization implementation efforts in areas such as the Original Townsite.

2. Explore the opportunity to establish a low interest loan pool through the use of Community Reinvestment Act (CRA) funding from area banks, and other available resources to incubate new small businesses and revitalize existing owner occupied housing in revitalization areas.

3. Determine if a non-profit community development corporation (CDC) is a viable entity to guide long-term enhancement efforts in revitalization areas such as the Original Townsite.

Objective: Create a desirable internal and external image and identity for the Original Townsite.

1. Incorporate the Original Townsite name into a graphic identity and revise all city-referenced documents accordingly.

2. Create a specific Original Townsite brochure for the area that can be incorporated in other marketing materials for the city and WESTMARC.

3. Coordinate with non-profit groups (e.g., Sun City Pickers, Boy/Girl Scouts) to keep the city clean from litter and conduct community events and projects.

4. Evaluate the "adopt a roadway" program, where citizens volunteer to keep a segment of an Original Townsite arterial or collector roadway clean. A sign acknowledges their community contribution.

4.7.5 Original Townsite Revitalization Plan

The Original Townsite Revitalization Plan includes recommendations for land use, circulation, and urban design within the Original Townsite. These recommendations are graphically illustrated on Figure 4-10, Original Townsite Revitalization Plan and should serve as the guideline to approve future land uses for all new and rehabilitated structures located within the approximate 664-acre revitalization area. While the ultimate land use pattern may not exactly match Figure 4-10, the intent is to create a compatible pattern of residential, commercial, mixed-use, and related support uses.

The major intent of the revitalization plan is to provide a conducive environment that preserves and enhances the existing single family, owner occupied neighborhoods. In areas where the existing zoning is commercial, yet the recommended land use is residential, the city would be willing to rezone the property (with the property owners written permission) to make existing zoning and recommended land use compatible. In areas where the existing land use is residential and the recommended use is commercial or mixed-use, the existing use will remain in place until the owner decides to sell (at fair market value). Specifically, if the mixed-use gateway designated area is proposed, the city will require that all affected properties agree to sell based solely on each property owner's decision to do so. A proposed mixed-use gateway project will not be considered by the city unless all property owners are in support.

The land use types are consistent with the overall Land Use Plan for the entire city and include a total of eight categories. The density/intensity of each designation is contained in Table 4-23, Revitalization Area Build-out.

Table 4-23, Revitalization Area Build-Out

Land Use	Acreage	Percent	DU's/Acre	FAR	DU's	Sq. Ft.
Low Density Residential	345	52%	3.0	NA	1035	NA
Medium Density Residential	20	3%	6.5	NA	130	NA
High Density Residential	3	0%	18.0	NA	54	NA
Mixed-Use Gateway	12	2%	NA	NA	NA	NA
Commercial	165	25%	NA	0.20	NA	1,437,480
Public Facilities	30	5%	NA	0.05	NA	65,340
Park	40	6%	NA	NA	NA	NA
Open Space/Trail	9	1%	NA	NA	NA	NA
Grand Avenue/Railroad Right of Way	40	6%	NA	NA	NA	NA
Total	664	100%	NA	NA	1219	1,502,820

Source: Neill/Vecchia & Associates, Inc., August 2000

Land use recommendations include residential, employment, and supportive uses within the Original Townsite. Residential uses comprise of approximately 368 acres or 55 percent of the revitalization area and include low density, medium density and high density categories. Low density recommended areas include 345 acres and are centrally located within the revitalization area based on the desire to expand and infill existing single family detached housing and to protect owner occupied areas from principal, major and minor arterial streets. Medium density recommended areas include 20 acres and include three enclaves within the revitalization area. These areas comprise mobile home parks, public housing, and lower density apartments. The only high density residential area includes three acres and is an existing two-story apartment complex located at the southwest corner of Nash and Cottonwood Streets.

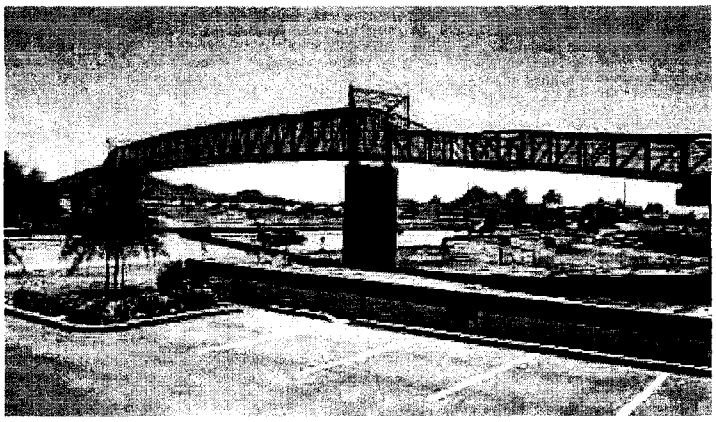
Employment use is comprised of numerous commercial and one mixed-use designated tracts that total approximately 117 acres or 27 percent of the revitalization area. These tracts are located on the south side of Bell Road, east side of Dysart Road, and portions of the north and south sides of Grand Avenue. The tracts that front on Bell Road and Dysart Road have developed as a mix of both commercial retail, lodging, and office uses. City Hall is currently located within the northeast portion of the Bell Road commercial frontage. A small enclave of four neighborhood commercial tracts is located at the intersection of Greasewood and Ocotillo Streets. These tracts are intended for small grocery or retail uses that cater to the surrounding neighborhood. One tract of mixed-use gateway will allow the integrated development of commercial/office and high density residential uses. The intent of this designated area is to respond to appropriate market conditions, allow planned area development in a high quality manner that denotes the Grand Avenue Gateway to the city, and leverages the future potential of light rail transit.

Figure 4-10
Original Townsite Revitalization Plan

Supportive uses include public facilities, parks, and open space/trails. Supportive uses represent approximately 79 acres or percent of the revitalization area. Public facility uses comprise three tracts that total approximately 30 acres within the Original Townsite. The Maricopa County Sheriff's Department operates a substation at the northwest corner of the revitalization area. The El Mirage Water Company utilizes the small parcel on the north side of Marshall Drive for a potable water storage tank. The City of Surprise utilizes the large parcel that fronts on Grand Avenue for its maintenance and operations center. In the past, a portion of this parcel was used as City Hall, but significant staff additions prompted a move of the existing facility in the early 1990s.

Parks are very important to the Original Townsite because they provide recreational opportunities for residents of all ages. The revitalization area contains four existing parks including Bicentennial Park, Gaines Park, Three Star Park, and Fox Hill Run Park that collectively comprise approximately 40 acres. Due to the age of three of these parks, each should be critically evaluated to determine if existing facilities are functionally adequate, desired by adjacent residents, or lack needed improvements. These parks have been augmented with four additional parks that comprise approximately 32 acres. These new parks provide accessible recreation for proximate residents. It should be noted that the city will continue to honor the underlying zoning of these parks in the future. If the land is acquired or dedicated for a park, the city should conduct a contest to name the parks.

Open space/trail use comprises six separate tracts that include a total of nine acres. These tracts are located in the northeast portion of the defined revitalization area and include the Lizard Run Art Park and the Burlington Northern Railroad right-of-way. The park is a linear pedestrian connection that provides surface water drainage between the commercial uses that front Bell Road and proximate residential neighborhoods located to the south. The city has worked hard to use volunteers and community art projects to enhance the corridor. The city should partner with the City of El Mirage to continue the art park southeast to connect with the Agua Fria River. The recent planning and future implementation of the West Valley Multi-Modal Corridor for the Agua Fria River, from New River to the confluence of the Gila River, makes this an important connection for the city to link the Original Townsite with a regional open space network. The railroad right-of-way is envisioned to be upgraded with man-made or natural buffering treatments. These treatments are envisioned to reduce train noise, increase safety, and visually enhance the Santa Fe Avenue corridor.



Vehicular and non-vehicular circulation is also an important component within the Original Townsite. The transecting and perimeter network roadways include principal, major, and minor arterial roadways that severely limit external non-vehicular connections. While one day Grand Avenue may provide mass transit service, it now effectively divides the area in two sections. The presence of a pedestrian overpass could assist in connecting the two areas and provide mass transit rider access.

Due to their connectivity to the perimeter arterial streets, Greasewood Street, Cottonwood Street, and Sunny Lane function as minor collector roadways, but should be signed for slow speeds due to their adjacency to low density residential uses. The remaining street network should be designated as local streets.

Non-vehicular pedestrian/bicycle circulation is envisioned to occur on paved sidewalks fronting both sides of each street. The Lizard Run Art Park, if connected to the Agua Fria River, will create a linkage from Original Townsite employment areas and neighborhoods to the future regional path system for residents. The presence of a neighborhood transit circulator could also serve the transportation needs of residents who do not own a car. The circulator could loop around the Original Townsite and surrounding activity nodes stopping at selected locations (i.e., within a ¼ mile distance) from Original Townsite homes. For transit service outside the Original Townsite, future park-and-ride lots may be located at the periphery of the area.

Community design is critical to evoke the Hispanic character of the Original Townsite. A primary "Gateway" is located at the entry of the city from the south on Grand Avenue at Greenway Road. The gateway is envisioned to include identity signage, entry monumentation and a unique landscape/hardscape theme for the city. It is important to recognize that no one particular land use can dominate the "Gateway Area." An activity node is located at the City Hall complex to denote its attraction and use by the residents of the city. However, the designation may be short lived with the future location of the Surprise Center that is planned as a mixed-use (i.e., residential, retail, commercial, office) project located at the former City of Phoenix property south of Bell Road, between Bullard Avenue and Litchfield Road. The implementation of streetscape designs for selected portions of Greasewood Street, Cottonwood Street, Santa Fe Avenue, and Sunny Lane is envisioned to create an aesthetic and environmentally friendly neighborhood for its residents. A consistent palette of trees, shrubs and groundcover should be selected from the city's approved list of drought tolerant vegetation. Other furnishings could include benches, trash receptacles, thematic lighting, and specialty paving at selected intersections.

4.8 Environmental Planning/Water Resources Element

4.8.1 Environmental Planning/ Water Resources Element Statement

The Environmental Planning/Water Resources Element is intended to ensure a safe, healthy, sustainable environment in which to live, work, and play.

4.8.2 Environmental Planning/ Water Resources Element Introduction

The Environmental Planning/Water Resources Element identifies policies and strategies targeted for conservation and development community-wide. The Element discusses critical issues that must be addressed and serves as a guide to future city decision-making. This Element meets the requirements for an Environmental Planning and Water Resources Element outlined in Growing Smarter/Growing Smarter Plus. A comprehensive environmental analysis is included in the Existing Conditions Document completed as part of this study.

4.8.3 Environmental Planning Issue Identification

Preservation of Washes. The planning area has very diverse terrain with several major and many minor washes that transverse the area. These washes create a unique environment that must be sensitively incorporated into any community design.

Hillside Preservation. To date, most of the land that has been developed in the community has been extremely flat. However, the large planning area presents opportunities for hillside preservation.

Cultural Resources. There appears to be evidence of the presence of archaeological resources within the planning area. These resources are extremely important to document the historic human presence in the northwest Salt River Valley. The citizens of Surprise place a high value on preserving its heritage and cultural resources. As new development occurs and the city expands, inventory and preservation of cultural resources should be addressed.

Land Subsidence and Earth Fissures. Land subsidence has been identified in several south-central Arizona locations (Figure 4-11, Land Subsidence and Earth Fissures). This phenomenon occurs when water is removed from underground reservoirs and the weight of the overlying material compresses causing the land to settle. Once compressed, alluvial deposits take up less space than before and the ground surface sinks. The amount of subsidence varies according to study and location. Land subsidence also creates another potential problem: earth fissures. Earth fissures are cracks in the ground surface that occur because of uneven or differentiated land subsidence. Depending on circumstances, fissures can form gullies as much as 50 feet wide and 10 to 15 feet deep. Once fissures begin, they tend to increase in number and length, spreading at uneven speeds and directions for several miles.

Figure 4-11, Land Subsidence and Earth Fissures

The southern portion of the planning area and other areas around Luke Air Force Base have been identified to have land subsidence and earth fissure problems. Land subsidence and the accompanying earth fissures will probably occur in this area as long as groundwater overdraft continues. As such, there is increased potential for property damage since earth fissures can occur in previously unnoticed areas, although exactly when or where new fissures will occur is unknown and hard to predict.

Noise Impacts. Within the planning area there are several existing land uses that produce high noise levels. Additionally, much of the existing City of Surprise is impacted in varying degrees by the noise generated from overflights from Luke Air Force Base and major roadways. The General Plan must consider noise impacts and critically evaluate the compatibility of future adjacent land uses (e.g., proving grounds, Luke Air Force Base Auxiliary Field #1).

Impacts on Water Supply. Careful management of the water supply and the determination of the impacts that new developments have on the water supply is critical. The city will be embarking on a comprehensive water resources master plan to ensure that future growth projected in the General Plan will be adequately served by water.

Air Quality. Many residents moved to the City of Surprise due to its clean air and wide-open spaces. It is imperative that the plan promote good planning that minimizes negative impacts on air quality.

4.8.4 Environmental Planning/Water Resources Goals, Objectives, and Policies

Community Goal: *Carefully manage and phase orderly community growth to achieve sustainable development.*

Objective: Ensure that the implementation of the General Plan does not negatively impact the supply and quality of the city's water resources.

Policies:

1. Place priority on the construction of facilities that transport and process surface and renewable water resource supplies.

2. Maintain water rights to ensure a positive projected 20-year balance between supply and usage.

3. Pursue opportunities to acquire additional water supplies to support the city's long-term interests.

4. Evaluate the use of a treated effluent conveyance system to irrigate large expanses of turf (i.e., golf courses, public utilities, and roadway right-of-ways).

5. Generate groundwater credits that will offset the use of pumped groundwater, as a supply source.

6. Develop surface water treatment plants to satisfy the city's potable water needs. Eventually treated surface waters will comprise the majority of the supply with groundwater augmenting and providing an emergency backup.

7. The city's Intergovernmental Agreement (IGA) with the City of El Mirage expires in approximately 2002 for water delivery in the Original Townsite. The city must ensure continued water service to this area.

8. Provide all future water service in areas that are not currently covered by an existing water franchise. It is the city's intent to not allow additional water service franchises into the planning area.

9. Require development to provide the equivalent of 3,000 gallons per minute of well capacity and a 1,000,000-gallon water supply facility for every square mile of land developed.

10. Utilize tank farm water supply facilities wherever possible. They will have multiple storage tanks and service large pressure zone defined areas.

11. Require sixteen-inch and larger "plant-to-plant" water lines that connect the common water supply facilities in a defined service area. This provides the ability to serve uninterrupted water throughout an entire service area even when one or more facilities are out of service.

12. Require twelve-inch "looping" water lines that provide multiple paths of water flow to ensure continuous pressurized service during heavy demand and emergency conditions.

13. Actively pursue and support programs and activities that reduce the amount of waste that must be landfilled.

14. Continually pursue efforts to minimize vehicular and aviation noise within the planning area.

Objective: Ensure that the land use pattern is compact and sustainable to maintain a high level of air quality.

Policies:

1. Ensure that the housing-to-jobs ratio is attained within each of the SPAs. By locating employment near where people live, commute times will be reduced, efficient traffic movements will be promoted, and air quality will improve.

2. Monitor the development of employment and residential uses on a regular basis within each of the SPAs so that at each review of rezoning applications it can be determined whether the goals are being reached.

3. Work with major landowners to encourage the development of land for employment uses instead of residential uses in appropriate areas.

4. Ensure that all roadways are paved and maintained to reduce particulates in the air.

5. Protect air quality through the development and enforcement of dust control measures on agricultural and development-related uses.

6. Work with local businesses to promote transit and rideshare usage.

7. Actively support the development of a regional public transportation system.

8. Work with Maricopa Association of Governments, Maricopa County, and State of Arizona to ensure that regional air quality attainment goals are met.

Objective: Protect the planning area's visual, cultural, and natural attributes that have been designated as a key community value.

Policies:

1. Protect major natural washes and floodplains by designating them as open space to minimize further flood hazards, maintain natural/riparian areas for wildlife mitigation, and provide natural groundwater recharge of the aquifer.

2. Avoid development in flood-prone areas and limit grading practices that contribute to flooding and erosion.

3. Only allow floodplain-compatible uses in flood-prone areas.

4. Restrict the removal of gravel and other natural resources from washes and flood-prone areas for commercial purposes.

5. Site open spaces, parks, and trails adjacent to major washes that would provide connectivity throughout the region.

6. Provide visual and non-vehicular physical links to the White Tank Mountain Regional Park.

7. Actively participate in the implementation of the Agua Fria Watercourse Master Plan facilitated by the Maricopa County Flood Control District.

8. Encourage citizen initiatives to identify, acquire, and preserve sensitive natural open space within the SPAs, such as the White Tank Mountain foothill areas.

9. Strive to preserve the scenic quality of the White Tank Mountains and foothills.

10. Encourage new development in areas identified by the Community Development Director as historically significant to receive a written response from the Arizona State Historic Preservation Office (SHPO) regarding the effects of urbanization on historical or cultural resources.

11. Develop an area-wide plan for reclaiming and recycling storm water and wastewater through a viable tertiary treatment and redistribution program for the irrigation of developed open space, recreation, and public roadway and trail rights-of-way.

12. Encourage water conservation in all new development through the utilization of drought-tolerant plant materials, efficient irrigation system (drip/low flow), and through water-conserving fixtures in all new residential and commercial construction.

13. Utilize recycled products when and where appropriate in its operations.

14. Encourage energy conservation in the development approval process through the use of techniques such as:
    - Appropriate building orientation and site planning.
    - Energy-efficient building construction techniques.
    - Use of active and passive solar energy systems.
    - On-site transportation system management (TSM) for commercial and mixed-use developments.

15. Ensure that all commercial and industrial activities are carefully monitored relative to the use, production, and disposal of hazardous materials, and that all-hazardous materials handling is routed away from residential neighborhoods.

16. Restrict residential development from future seismic and subsidence areas identified within the planning area.

17. Require that all disturbed land not used for agricultural purposes be re-vegetated to protect such areas from both wind and water erosion.

Objective: Preserve existing habitat areas of wildlife and desert plant species.

Policies:

1. Aggressively ensure that damage upon the Palo Verde-Saguaro plant community caused by blading is repaired and the community is returned to its natural state.

2. Develop a plan to encourage indigenous vegetation and riparian habitats to be maintained and enhanced where possible. Where protection is not possible, the city shall develop and adopt a Native Plant Ordinance to save valuable plant material.

3. Prepare and adopt an environmentally sensitive land ordinance related to appropriate development within significant landform, steep slope, and vegetatively important areas of the planning area.

4. Protect wildlife habitat and corridors by avoiding sensitive natural features, such as wetlands, riparian areas, sensitive plant and animal sites, and migration corridors. When it is not possible to avoid these natural areas, these areas shall be protected by using innovative planning, design, buffering, and management practices.

5. Prepare a Native Plant Ordinance relative to the protection, enhancement, and relocation of indigenous species within the planning area.

6. Encourage new development in areas identified by the Community Development Director as sensitive to receive a written response from Arizona Game and Fish regarding the effects of

the project on special status flora and fauna species.

7. Enforce the protection of threatened and/or endangered species.

Objective: Ensure the quality of life within the planning area by minimizing the impacts of noise.

Policies:

1. Encourage noise contours to be drawn around Daimler-Chrysler and Volvo Proving Grounds, and around Luke Air Force Base Auxiliary Field #1.

2. Encourage the Air Force to minimize flights after 10:00 p.m. or before 7:00 a.m.

3. Support public awareness programs about the noise contours and their importance for compatible land use planning in the vicinity of the Luke Air Force Base area.

4. Noise buffering along major roadways (e.g., SR 303, Grand Avenue, and Sun Valley Parkway).

5. Ensure noise mitigation along all high-volume roadways (e.g., SR 303, Grand Avenue, Sun Valley Parkway).

4.9 Community Design Element

4.9.1 Community Design Element Statement

The Community Design Element encourages the development of a "sense of place" that weaves together both new and old neighborhoods with employment areas, public facilities and open space, creating an aesthetic, cohesive community environment.

4.9.2 Community Design Introduction

Creating a visually pleasing, yet functional natural and built environment is critical to the City of Surprise. The city has always promoted innovative and quality design that reinforces the community's desired image. The purpose of the Community Design Element is to guide city decision-making.

4.9.3 Community Design Issue Identification

Cultural Presence. The Original Townsite exhibits a strong Hispanic character. The city should embrace its ethnic history in its revitalization and community identity efforts.

Design Diversity. The rapid pace of development and lack of adopted development guidelines has created too much uniformity of the city's housing stock and commercial areas.

Street Appeal. While several major thoroughfares have been landscaped well, the city lacks coordinated streetscaping amenities for its major and minor arterial streets.

External Perception. Within the Phoenix Metropolitan Area, the city is perceived as a retirement haven. The changing demographics of its new citizens will prompt a new image for Surprise.

Community Bonding. The recent predominance of housing construction and privately maintained and operated parks has created minimal opportunities for social interaction. Future neighborhoods should promote new retail commercial development that can also assist in providing informal community meeting places and connections to neighborhoods.

Agrarian Character. If the city is interested in preserving its agricultural heritage, the existing character of the southern planning area with its citrus, flowers, and grape fields must mesh with expanding urban development.

Public Art. The inclusion of public art is one mechanism identified by the public to create identity within different regions of the city. The West Valley Art Museum is an existing resource for local artisans.

Natural Landmarks. White Tank Mountain Regional Park is a significant landform in the planning area. A strong desire exists to protect and preserve the north and east areas outside of the park in their natural condition.

Municipal Landmark. Even though the city has a visible presence with its location on Bell Road, it should have a defined presence within the community. A municipal campus that can accommodate city administrative and support personnel well into the future is a necessary component to define the city identity and sense of place.

Attitudes Toward Community Design. In July 1998 a community telephone survey was conducted to determine residents' opinions of various issues related to the update of the city's General Plan. The survey was administered to 386 residents. A summary of the survey as it relates to community design issues includes the following:

- ✓ Over 87 percent think there is good housing quality and choice in the city.
- ✓ Over 78 percent think the city should be a relaxed refuge from pressure in the future.
- ✓ Over 69 percent think the city should be a mix of retirement and family-oriented development.
- ✓ Over 57 percent believe the city has grown too fast over the past few years.
- ✓ Over 74 percent agree that the city should plan and develop a central business and government area.
- ✓ Over 80 percent believe it is either important or very important that master-planned residential development offer a variety of styles and looks.
- ✓ Over 82 percent believe that trails and roadways should connect master planned residential developments.
- ✓ Nearly 95 percent believe that residential communities should contain open space, trails, and parks.

4.9.4 Community Design Goals, Objectives and Policies

Community Goal: *To develop a comprehensive, thematic design theme for the City of Surprise.*

Objective: Guide the site planning and architectural design for all land use types identified in the Land Use Element.

Policies:

1. Create and adopt a comprehensive set of design guidelines for detached single family residential, multi-family residential, employment and public uses including building orientation (i.e., to capture or reduce solar energy, massing, intensity, colors, building materials, and signage).

2. Create a streamlined and functional design review process to enforce the design guidelines and enhance the visual quality of the city.

3. Develop a program for view protection as an essential element of the community's design, project review, and approval process within all SPAs.

Objective: Regulate the appearance of the future built and revitalized environment through landscaping materials and their placement on private property, public rights-of-ways and facilities, and parks and open space.

Policies:

1. Continue to utilize and augment the city's approved list of low water use plants to also include non-allergic vegetation as acceptable species for site development, streetscape, and public improvements.

2. Prepare streetscape design guidelines that will identify the appropriate landscape palette, signage and monumentation standards for primary and secondary city gateways, major and minor arterial roadways, and utility interface.

Objective: Develop a well-designed graphic identity and incorporate into a hierarchy of community gateways, activity nodes, and directional signage in the city.

Policies:

1. Include with the design guidelines components that address the city's identity, potential theme(s), interface with subdivisions, and interface between regional uses.

2. Design a comprehensive signage/monumentation package for primary gateway, secondary gateway, and activity node locations.

3. Evaluate the implementation and financing of a municipal public art program through the city's Community Development Department.

Objective: Promote opportunities for social interaction through gathering places, non-vehicular circulation facilities, and linkages to parks, schools and public open space.

Policies:

1. Strongly encourage the incorporation of outdoor eating/seating areas in proposed commercial eating/drinking establishments.

2. Prepare a trail master plan that will effectively link activity areas with residential neighborhoods and community facilities/parks for pedestrian, bicycle, and equestrian access and circulation.

3. Develop an intergovernmental agreement with the Dysart School District and other districts to leverage the community's use of school facilities after hours and on weekends.

4. Utilize the sites of future regional and local transit facilities as opportunities for integrated commercial development, childcare facilities, and other supportive uses.

5. Evaluate the opportunity to relocate the city administrative facilities to a location within the Original Townsite/Surprise Center Growth Area.

Objective: Protect the natural environment in the future expansion of the city.

Policies:

1. Prepare and adopt an Environmentally Sensitive Lands Ordinance.

2. Prepare and adopt a Native Plant Protection, Salvage and Renovation Ordinance.

3. Maintain and enhance the scenic corridor status of Grand Avenue (i.e., north of the CAP canal) and SR 74 (i.e., from Grand Avenue to 163rd Avenue).

4. Prepare scenic corridor studies for Sun Valley Parkway (i.e., from McMicken Dam to City Limits), 163rd Avenue (i.e., from Grand Avenue to SR 74), and Castle Hot Springs Road (north of Morristown).

4.9.5 Community Design Plan

The key features of the Community Design Plan include a mix of community planning and design components to enhance the natural and built environment and the internal and external perception of the city. Community planning elements include the designation of four character areas (i.e., rural, rural/resort, suburban, or urban) based on their general density or intensity of development as identified in the land use map. The boundaries of the character areas were identified as both the man-made barriers and land use transitions that define each character area. The character areas identified in Figure 4-12, Community Design Plan, have been organized based on the five SPAs identified previously that utilized Grand Avenue as the north-south boundary and the McMicken Dam and CAP canal as the east-west boundaries for each SPA.

Community design components include the enhancement and designation of scenic corridors; identification of primary and secondary streetscapes, primary and secondary gateways, and activity nodes; buffering of freeway/parkway corridors, and canal/dam open space linkages.

Figure 4-12, Community Design Plan

The key community character elements for the City of Surprise planning area include the following:

Rural. These areas generally relate to the rural residential land use category. These character areas exhibit large lots (i.e., one-acre minimum) for single family detached housing. A rural character is appropriate to retain in areas influenced by agricultural uses and located within environmentally sensitive (i.e., landform, topography/drainage, and vegetation) areas that should be carefully planned and developed. Appropriate site planning techniques may include:

- Clustering to preserve natural desert or agricultural areas
- Transfer of development rights
- Use of building envelopes
- Protection of rock outcrop areas
- Preservation of natural drainage washes
- Use of native plant palette for lot landscaping/desert restoration
- Inclusion of sensitively designed equestrian and pedestrian trails

Connection to community sewer collection and treatment will be encouraged. These areas are generally located in the northwestern and southwestern regions of the planning area.

Rural/Resort. These areas also generally relate to the rural residential category. Rural resort areas provide large lot residential uses that function as stand alone neighborhoods or are developed in a master plan approach that may relate to integrated resort development. The resort may be developed with a golf, tennis and/or spa theme. These components are carefully sited within environmentally sensitive areas and should be designed into the existing landforms and vegetation in a pleasing manner. Appropriate site planning techniques may include:

- Appropriate architecture to the Sonoran Desert.
- Protection of threatened-endangered/high density plant and animal communities/corridors.
- Preservation/enhancement of existing natural drainage patterns and views/vistas.
- Protection of rock outcrop areas.
- Clustering to preserve natural desert areas.

Connection to community sewer collection and treatment is required. These areas are located in the southwestern region of the planning area.

Suburban. These areas relate to the residential and low density residential designations and contain neighborhood oriented retail opportunities and community facilities. Due to the density/intensity of development, mass site

grading may be employed to prepare the land for site development. Even so, appropriate site planning techniques exist to:

- Protect rock outcrop areas.
- Protect existing washes and mature native vegetation.
- Restore/enhance natural open space areas and salvage appropriate plant material.

These mechanisms assist in the accelerated integration of the built and natural environments. Connection to community sewer collection and treatment is required. Suburban character areas are concentrated in the central and south central regions of the planning area.

Urban. These areas are typically developed as medium and high density residential and contain neighborhood and community commercial, employment and community facilities. Due to the density/intensity of development, mass site grading will be employed to prepare the land for development. However, sensitive site planning can include:

- Protection of existing washes.
- Retention of agricultural features/acreage.
- Salvage of appropriate plant material.

Because the natural environment will be changed the inclusion of developed park, recreation, and open spaces becomes an important element in the context of urban development. Connection to community sewer collection and treatment is required. These areas are located adjacent to gateways and activity nodes within the southeastern region of the planning area.

Gateways. These areas provide a sense of arrival into the Surprise planning area. The presence of city identity/signage enhances external perceptions and announces to city visitors and residents that they have entered Surprise. Gateway treatments can take the form of signage that incorporates the logo of the city, landscaping and potentially public art that portrays a sense of entry. A hierarchy of gateways has been identified for the city including primary and secondary types. Primary City Gateways have been identified for the intersections of:

- 255th Avenue and Sun Valley Parkway
- SR 303 and Peoria Avenue
- SR 303 and Grand Avenue
- Bell Road and 115th Avenue
- Grand Avenue and Greenway Road
- 187th Avenue and SR 74
- 267th Avenue and Grand Avenue

Secondary City Gateways have been identified for the intersections of:

- Dysart Road and Peoria Avenue
- Jomax Road and 139th Avenue
- Dove Valley Road and 267th Avenue
- Jomax Road and 267th Avenue

Activity Nodes. These areas include high intensity employment, commercial and mixed-use areas within the Surprise planning area. Activity nodes are the focus of non-residential activity that supports surrounding neighborhoods and city-wide economic growth objectives. These nodes are identified for the intersections of:

- 144th Avenue and Paradise Lane
- Sun Valley Parkway and 243rd Avenue
- Dove Valley Road and 243rd Avenue
- Bell Road and SR 303
- Peoria Avenue and SR 303
- Jomax Road and 163rd Avenue
- Jomax Road and Grand Avenue
- Grand Avenue and Dove Valley Road (Wittmann)
- 243rd Avenue and Grand Avenue (Circle City)
- Grand Avenue and Castle Hot Springs Road (Morristown)

Parkway Corridors. These corridors require the use of distance, vegetative or man made screening to reduce vehicular generated noise produced from all principal and selected major arterial roadways. The city contains four high volume vehicular transportation corridors that have been designated as parkways, including:

- SR 303
- Grand Avenue
- 243rd Avenue
- Jomax Road

SR 303 is an eleven-mile, at-grade corridor planned to be located with a variety of adjacent residential and employment uses. SR 303 should be screened and buffered based on the future recommendations of Primary Streetscape Guidelines. The southern segment of Grand Avenue (i.e., south of the CAP canal) also could require future mitigation, depending on the proximity and density of adjacent residential land uses. Grand Avenue is located adjacent to Sun City West, Sun City Grand as well as future residential development programmed for the corridor north of McMicken Dam. The recommendation for 243rd Avenue to function as a parkway is based on its service as a major arterial roadway; a low density residential land use separator between suburban and rural designated areas; and the approximately 12.5 miles of roadway continuity that indirectly links SR 74 and Interstate 10 via the Sun Valley Parkway. The

recommendation for Jomax Road to be developed as a parkway is also based on its function as a major arterial roadway, a corridor that provides opportunities for urban residential densities and its future regional connectivity between the City of Peoria and the Town of Buckeye.

Scenic Corridors. These areas are intended to protect the visual quality of the land adjacent to selected principal and major arterial roadways within the Surprise planning area. Two scenic corridors have been identified, plans prepared and boundaries adopted in the past that should be respected in the future. The Wickenburg Highway Scenic Corridor Development Guide provides scenic overlay zoning district regulations for Grand Avenue, from Greenway Road to the intersection of SR 74. The corridor also extends north to the Maricopa-Yavapai County boundary. The width of the corridor extends two miles on both sides of Grand Avenue. The recommendation of the ***Surprise General Plan 2020***, with respect to these adopted specific plans is to:

- Begin the Wickenburg Highway Scenic Corridor at the CAP canal, extending north to the Surprise planning area boundary
- Embrace the recommendations of the SR 74 Scenic Corridor from 179th Avenue (Citrus Road alignment) to Grand Avenue
- Establish the Sun Valley Scenic Corridor from McMicken Dam to 255th Avenue
- Establish the 163rd Avenue Scenic Corridor from Grand Avenue to SR 74

The existing undeveloped nature of the Sun Valley and 163rd Avenue corridors including their indigenous vegetation, open views and expansive vistas make the evaluation and potential of these two roadways very important for the city to act on now.

Streetscapes. Streetscapes involve the use of landscaping, paving, furniture, signage, and lighting, interconnected path systems and appropriate building materials to enhance roadways. Streetscapes are an important mechanism in the built environment to buffer vehicular noise and reduce the impact of arterial roadways. A hierarchy of streetscape types is important to consider because they relate to the specific principal, major and minor arterial roadways identified within the Transportation/Circulation Plan. A general summary of each streetscape type includes:

- Primary streetscape areas are designated along both sides of major arterial roadways within the planning area. The streetscape could include landscaping; lighting, gateway treatments and signage selected from future adopted city design guidelines.
- Secondary streetscape areas are designated along both sides of minor arterial roadways within the planning area. The streetscape could include landscaping, lighting, signage and potentially pedestrian, bicycle and equestrian trails selected from future adopted city design guidelines.

Regional Linkages. The provision of open space linkages is an important component to enhance the quality of life. Existing man-made structures such as canals, earthen dams, waterways, and utility easements provide opportunities to link residential, employment, recreation, public facilities, and open space in a meaningful way. Natural area open space includes waterways such as rivers and washes as well as steep slope and unique landforms that enhance the network of open space in a community. In the Surprise planning area, the key regional open space linkages include:

- Beardsley Canal
- McMicken Dam
- Central Arizona Project Canal
- Agua Fria River
- Trilby Wash
- Rose Garden Lane Utility Corridor

The Beardsley Canal is one facility that was originally constructed to convey irrigation water. The canal is located at-grade on the south side of McMicken Dam and extends approximately six miles south of Peoria Avenue and ten miles north of the planning area boundary where it terminates at Lake Pleasant. The canal could provide direct access to White Tank Mountain Regional Park from Olive Avenue and regional connections to the northern areas of Peoria and Phoenix. McMicken Dam is the earthen dam constructed by the U.S. Army Corps of Engineers to protect Luke Air Force Base in 1956. The elevated structure could provide a multi-use trail that would connect White Tank Mountain Regional Park with the Agua Fria River and Lake Pleasant Regional Park. To the northwest, the CAP canal transports Colorado River water from Lake Havasu to Tucson. Only 12 miles of the canal cross the planning area, but its segment to the east in Peoria has been identified for multi-use path development. A potential trail extension to the west could provide a linkage to the Hassayampa River.

The Agua Fria River is now the focus of planning and development for the West Valley Recreation Corridor. The corridor plan will recommend a variety of multi-modal circulation, landscape and public facility improvements that will extend south from New River to the confluence of the Salt River. Trilby Wash is a natural wash that conveys surface water from the northern and western regions of the planning area to the McMicken Dam Retention Area. The wash connects with numerous other drainage washes on the west side of the planning area that could form a backbone open space system in the future. The Rose Garden Utility Corridor is a major overhead powerline corridor located approximately one mile north of the Sun Valley Parkway. The corridor could provide a direct connection between the city, the Town of Buckeye and the Hassayampa River. Indirect connections could also create additional linkages to the White Tank Mountain Regional Park.

"What the future holds for us depends on what we hold for the future. Hard-working "todays" make high-winning tomorrows."

- William E. Holler -

5.0 IMPLEMENTATION

5.1 Implementation Introduction

Measuring the success of any plan or planning effort is dependent upon the effective implementation of action strategies. The ***Surprise General Plan 2020*** serves as the blueprint or guide for future development of the city. However, it is critical that the plan is put into action through a comprehensive strategic implementation program. The city's role in implementing the plan is to provide direction to private and public sector development and investment. This chapter discusses the specific strategies for implementing, reviewing, and updating the General Plan.

5.2 Monitoring the General Plan

The Community Development Department will be responsible for the regular monitoring of the implementation of the General Plan. At least quarterly, staff will provide a written status report to the Planning and Zoning Commission and City Council on development activity, the implementation program, and evaluation of the city's position in relationship to key performance indicators (e.g., jobs to population ratio, public safety response time) in the General Plan. The quarterly reports will also assist in determining if any major or minor amendments should be initiated by the city. The potential city initiated major amendments must occur before October of every year (i.e., major amendment review period). The Community Development Department will produce an Annual Report that provides an overview of the General Plan implementation process. The Annual Report will be distributed to residents, published in the newspaper, and included on the web site.

5.3 General Plan Amendment

In 1998 the State of Arizona passed revisions to the section of law that defined General Plan "major amendments" in terms of increases or decreases in land use intensity or in changes to major streets. This was combined with a requirement for a 2/3 majority vote for approvals by city councils. In February 2000, the statutes for General Plans were again modified. The new requirements took effect in May 2000. The new wording eliminated any reference to streets as well as land use intensity. The new language refers to *"substantial alteration of the municipality's land use mixture or balance as established in the municipality's existing General Plan land use element."*

Defining Major Amendment to the General Plan. A major amendment to the ***Surprise General Plan 2020*** is any proposal that would result in a change to the land use plan that would substantially alter the city's planned mixture or balance of uses. It is important to examine the implications of the project on the cumulative impact on the entire Growth Area (i.e., if located within) and/or Special Planning Area and the entire City of Surprise. The criteria for determining whether or not a proposed amendment to the General Plan is a major amendment include the relative size and amount of change proposed in addition to its relationship with surrounding land uses and its impact upon major public infrastructure. Following are the criteria for determining a major amendment to the ***Surprise General Plan 2020***:

- A change in the Land Use Plan land use designation on 320 or more acres
- An increase or decrease in the planned number of single family residential dwelling units of 500 or more dwelling units
- An increase or decrease in the planned number of multi-family residential dwelling units of 200 or more dwelling units
- An increase or decrease in the planned number of acres designated for employment (e.g., industrial, office, retail, resort) types of uses of 40 acres or more
- An increase or decrease in the planned number of acres designated for open space uses of 160 acres or more
- A change in the basic philosophy of the Special Planning Areas (i.e., balance of jobs to population) that impact the sustainability of the SPA
- Any change in the Land Use Plan designation from one of the following land use categories into another that covers 40 acres or more
    - Residential
    - Commercial
    - Employment

Exception: Amendments to the General Plan Land Use Element that result in a decrease in land use intensity and are initiated by the property owner will not be considered to be a major amendment.

Defining Minor Amendments to the General Plan. "Minor Amendments" to the General Plan are considered as minor text changes and corrections that do not impact the substantive portions of the land use plan's mixture or balance.

Procedure for General Plan Amendments. Per Arizona State Statutes, the City of Surprise will consider major amendments to the General Plan once each year. October of every year will be when the public hearings will be held by the city to consider major amendments to the General Plan. The major amendment applications must be submitted within the same year they are heard and a 2/3 majority vote of the City Council is needed to approve them. In addition, all major amendments must meet the public involvement criteria outlined in the state statutes that reads, *"effective, early, and continuous public participation in the development and major amendment of the General Plan from all geographic, ethnic, and economic areas of the municipality."*

5.4 General Plan Update

State law requires that a comprehensive update of the General Plan be conducted and ratified by the citizens of Surprise at least once every ten years. With regular monitoring of the implementation program, the Community Development Department, Planning and Zoning Commission, and City Council will determine when an update will be needed. Substantial population shifts, socio-economic changes, technological changes, and expansion of the planning area might indicate a need to update the plan sooner than the ten year period.

5.5 General Plan Action Program

The following Action Program provides the framework for ensuring that the General Plan is implemented. The Action Program is presented under the following headings:

Action:	Provides a brief description of the action strategy.
Responsibility:	Identifies a responsible party for initiating or overseeing that the strategy is accomplished.

Additionally, the Action Program is organized by the targeted timeframe for the strategy to be completed.

Year 0-1 Timeframe
Year 1-3 Timeframe
Year 3-5 Timeframe

General Studies and Planning

Action	Time Frame 0-1 yr.	1-3 yr.	3-5 yr.	Responsibility
Monitor landfill usage and life.				Public Works
Hazardous waste identification.				Public Works
Development of recycling stations city-wide.				Public Works
Develop a sustainable community planning program that includes water resource reuse, traffic movement and studies, interactive streetscapes, and economic development.				Community Development
Establish work groups to address transportation issues, parks, planning, economic development to include the various school districts, Maricopa Association of Governments (MAG), and Arizona State Land Department.				All Departments
Review population projection updates and include fire, police, water services, finance, MAG and economic development in the process. Model population projections will be developed for inclusion in the GIS forecasting and mapping.				Community Development
Annually evaluate performance relating to the General Plan objectives, Surprise Strategic Plan, and annual budget.				All Departments
Operational coordination and implementation of the General Plan with regular City Council reports. Establish Interdepartmental Liaison Committee to review and address Council issues related to the General Plan.				All Departments
Develop social plan to address issues such as: housing, youth, children and support programs.				Community Services; Community Development

Finance

Action	Time Frame 0-1 yr.	1-3 yr.	3-5 yr.	Responsibility
Develop a city-wide fiscal impact analysis and CIP system for new annexations and large developments.				Administration; Finance; Legal; City Council
Perform periodic city-wide rate studies to ensure rates are covering cost of service.				Administration; Finance; Legal; City Council
Implement, monitor, and update the city-wide user and impact fee ordinances. Coordinate with all departments to determine needs.				Administration; Finance; Legal; City Council
Quantify General Plan elements (e.g., revenues, maintenance, operations, cost to develop each square mile to taxpayers for infrastructure).				Finance; Community Development
Develop a five-year business plan based on the General Plan and Strategic Plan. Business plan will include revenue and tax base analysis.				Finance

Preservation/Conservation

Action	Time Frame 0-1 yr.	1-3 yr.	3-5 yr.	Responsibility
Develop a hillside development overlay district.				Community Development
Create and adopt an Environmentally Sensitive Lands Ordinance.				Community Development
Prepare an Intergovernmental Agreement with the entities that control/administer the McMicken Dam and Central Arizona Project.				Community Development; Legal; Water Services
Update and refine the city's adopted low-water plant list.				Community Development; Water Services
Prepare and adopt a Native Plant Protection, Salvage and Renovation Ordinance.				Community Development
Prepare and adopt scenic corridor studies for Sun Valley Parkway, 163rd Avenue and Castle Hot Springs Road.				Community Development
Appoint a task force in conjunction with Maricopa County to investigate agriculture preservation options and incentives.				Community Development; Water Services
Develop a Vista Protection Study.				Community Development

Develop standards for public use of drainage basin washes.				Community Development; City Engineer

Parks, Recreation, Open Space, and Trails

Action	Time Frame 0-1 yr.	1-3 yr.	3-5 yr.	Responsibility
Prepare and adopt a parks and recreation master plan that includes park criteria for various facilities.				Community Services; Water Services
Prepare a specific park master plan for the McMicken Dam Reach.				Community Services; Water Services
Revise the city standard in development agreements to require 13 percent parkland/open space or fee in lieu dedication.				Community Services
Prepare and adopt an impact analysis/fee structure for parkland.				Community Services; Finance
Create, administer and tabulate a recreation survey.				Community Services
Create a formal partnership agreement with Dysart Unified School District and other school districts for school-recreational joint use facilities.				Community Services; Water Services
Work to acquire open space on the north and east side of White Tank Mountain Regional Park.				Community Development; Finance
Prepare/adopt White Tank/Hassayampa Open Space Corridor Master Plan.				Community Development
Create an open space zoning district classification.				Community Development
Include capital improvements/personnel for parks and recreation facilities and services in the city's CIP.				Community Services; Water Services
Prepare and adopt a master trails plan and implementation program. Partner and develop realistic open space criteria with respect to active/passive trails, recreation, open space, and parks.				Community Services
Monitor and assist in the design and implementation of the West Valley Recreation Corridor Master Plan.				Community Development; Water Services
Prepare an intergovernmental agreement with the Bureau of Reclamation, Maricopa Water District, and Maricopa County Flood Control District to allow alternative modes access on McMicken Dam and adjacent to the Central Arizona Project Canal.				Community Development; Legal; Water Services
Coordinate an updated parks master plan for White Tank Mountain Regional Park.				Community Services

Establish a regular communication link with the Arizona State Land Department.				Community Development

Determine the viability of an annual contribution to maintain and enhance the White Tank Mountain Regional Park.				Finance; Administration; City Council
Develop a railroad corridor streetscape plan.				Community Development
Develop a trail system master plan to include the integration of trails between private developments, public spaces, and surrounding jurisdictions. Establish a Task Force reporting to the Parks and Recreation Director and commission to assist in the master plan development				Community Services
Interface with homeowners associations and privately–held parks to coordinate park development and maintenance.				Community Services
Report regularly to residents on the ratio of open space maintained within the planning area.				Community Services
Establish a task force to include county and state representatives to ensure regional park, trail, and open space linkages.				Community Services

Multi-Modal Transportation

Action	Time Frame 0-1 yr.	1-3 yr.	3-5 yr.	Responsibility
Monitor/assist in the construction of the West Valley Multi-Modal Transportation Corridor.				Engineering
Locate, design, and construct overhead pedestrian walkways over Grand Avenue (e.g., Original Townsite area).				Engineering; Community Development
Develop a traffic safety program to identify and program projects for traffic safety improvements.				Engineering
Evaluate the potential of "necking down" block ends in low-density residential areas.				Engineering; Community Development
Develop planning cost figures and identify potential funding sources for the proposed transportation network.				Engineering
Develop City of Surprise Roadway Design Guidelines.				Engineering
Develop recommendations for the design of transit, bike, and pedestrian networks.				Engineering; City Council
Develop planning cost figures and identify potential funding sources for the proposed transportation network.				Engineering
Prioritize capital improvements necessary for implementation of transportation network.				Engineering

Coordinate with MCDOT for regional adoption of the locally adopted transportation network.	■			Engineering; Community Development
Annually update the CIP to include street and circulation improvements to implement the Transportation/Circulation Element.	■			Engineering
Develop methodologies for preserving neighborhoods through the reduction of cut-through traffic.		■		Engineering
Maintain a city-wide traffic volume count program to serve as a basis for future planning.		■		Engineering
Develop a traffic safety program to identify and program projects for traffic safety improvements.		■		Engineering; Police Dept.; Fire Dept.
Develop pavement preservation maintenance and management program.	■			Engineering
Develop short-, medium-, and long-term community working groups to monitor short-, medium- and long-range transit needs for the city.		■		Engineering
Work with surrounding communities to continue to extend east-west roadway connections.	■			Engineering
Coordinate with MCDOT to develop mechanisms for achieving traffic flow in areas where major corridors have been terminated.	■			Engineering; Community Development
Coordinate with MCDOT, MAG, adjacent communities and Corps of Engineers on transportation related issues.	■			Engineering; Community Development
Examine design standards for roads (geometrics).		■		Engineering; Community Development
Enhance communication with MAG and MCDOT regarding transportation challenges facing the planning area.		■		Engineering; Community Development
Identify and work closely with various groups (e.g., PORA) within the region.		■		Engineering; Community Development
Identify roadwork network improvement studies and assist in coordination with the Regional Council and City Council.		■		Engineering; Community Development
Identify role of traffic engineer (transportation planner) to develop programs and policies in respect to pathways (i.e., signals, roads), public transportation, bicycling and multi-modal transportation.		■		Engineering; Community Development
Identify appropriate public safety access across railroad.		■		Engineering; Community Development

Develop a public transportation master plan and establish a committee to update transit information, goals/objectives, and project priorities. The plan shall identify major routes and opportunities for LRT and buses. It will examine car pooling of vehicles for movement and park-and-ride information (i.e., locations, usage, strategies).				Engineering; Community Development
Work with the surrounding cities, MCDOT, and ADOT on signal coordination.				Engineering; Community Development

Land Use

Action	Time Frame 0-1 yr.	1-3 yr.	3-5 yr.	Responsibility
Continue to work closely with Maricopa County and participate in planning efforts within the planning area in order to ensure compatible implementation of the General Plan.				Community Development
Bi-annually conduct a Future Search Conference to bring the citizens of Surprise together to discuss growth and development issues.				Community Development
Review and revise the Zoning Ordinance to comply with updated General Plan policies (e.g., density bonus/transfers, mixed-use).				Community Development
Annually review the Surprise General Plan.				Community Development
Review and revise Subdivision Regulations to comply with updated General Plan policies.				Community Development
Update the city's design guidelines to comply with the General Plan policies.				Community Development
Work closely with Arizona State Land Department to ensure state lands are planned in compliance with the General Plan.				Community Development
Update the city's annexation plan.				Administration; Legal; Community Development; City Council
The City of Surprise and Arizona State Land Department will study integrating the state's conceptual plans around the Volvo Proving Grounds and White Tank Mountains. All changes to the General Plan will constitute a major amendment and will involve Planning and Zoning Commission, City Council, and public review before being adopted.				Community Development
Coordinate with all school districts to identify appropriate future school locations.				Community Development

By February 1, 2001 develop a buffering strategy between mixed-land uses, changes in density, and rural vs. urban residential densities.	■			Community Development
Develop an equestrian zoning classification.		■		Community Development
Develop rural design guidelines.	■			Community Development
Regularly identify development options based on community issues raised during public forums.			■	Community Development
Develop an Environmental Study to evaluate appropriate hillside usage and other issues.	■			Community Development

Revitalization

Action	Time Frame 0-1 yr.	1-3 yr.	3-5 yr.	Responsibility
Revise and adopt the city zoning map for the Original Townsite.		■		Community Development
Establish a low-interest loan pool for Original Townsite improvements.			■	Community Development
Prepare and adopt a specific plan for the Original Townsite revitalization area.		■		Community Development
Conduct voluntary external (i.e., housing more than 20 years old) and internal (i.e., houses more than 40 years old) structural analysis within the Original Townsite		■		Community Development
Continue to submit CDBG grant funding for curb, sidewalk, drainage, water system, and lighting improvements in the Original Townsite.	■			Community Development; Finance; Water Services, Engineering
Coordinate future transit and light rail routing with the RPTA to provide direct access in the Original Townsite.		■		Engineering; Community Development
Accommodate the location of intensive commercial and industrial uses in the Original Townsite to a more appropriate location.			■	Community Development
Implement the Lizard Run Art Park Master Plan.	■			Community Services
Coordinate with the RPTA to develop a park-and-ride transit facility adjacent to the Original Townsite.		■		Community Development; Engineering
Establish the Original Townsite as an Infill Incentive District.		■		Community Development; Finance; Administration

Prepare park revitalization plans for Three Star, Gaines, and Bicentennial Parks and incorporate into the city's Capital Improvements Program.		■		Community Services; Water Services
Prepare park plans for three proposed parks to be located in the Original Townsite.		■		Community Services; Water Services
Work with the City of El Mirage to establish an open space connection from the Original Townsite to the Agua Fria River.	■			Community Services
Develop a specific plan for the mixed-use gateway area within the Original Townsite and encourage land assemblage by the private sector.		■		Community Development
Coordinate future transit routing along the periphery of the Original Townsite.		■		Community Development; Engineering
Establish a network of Block Watch Groups in the Original Townsite.	■			Police Dept.
Conduct biannual community clean up program.		■		Community Services
Determine the access to Community Reinvestment Act funds to implement community improvements.	■			Community Development
Research and apply for HUD, DOJ and DOC grants.	■			Community Development; Finance
Create, adopt, and implement a streetscape master plan.		■		Community Development; Engineering
Prepare a drainage master plan for the Original Townsite.		■		Engineering; Water Services
Develop a master plan for train noise buffering along Sante Fe Drive.		■		Engineering; Community Development
Establish several community gardens on vacant lots within the original townsite.		■		Community Services
Create a non-profit community development corporation to focus on Original Townsite improvements.			■	Community Services
Develop a graphic identity for the Original Townsite.		■		Community Development
Create an informational/marketing brochure for the Original Townsite.	■			Economic Development
Establish and adopt a roadway program to keep them clean of litter.		■		Community Services
Appoint an Original Townsite Task Force to continue to work on the implementation of the Revitalization Element and address area issues.	■			Community Development

Public Facilities and Services

Action	Time Frame 0-1 yr.	1-3 yr.	3-5 yr.	Responsibility
Work closely with local school districts to ensure that adequate planning for school facilities occurs and joint-use facilities are developed.				Community Services; Water Services
Develop a civic complex master plan.				Administration
Develop a Municipal Library.				Community Services
Develop and implement a Sewer Master Plan.				Water Services
Establish on an annual basis a CIP focused on SPAs and Growth Areas.				Engineering; Administration; Finance; Water Services; Community Development
Prepare an integrated Solid Waste Management Plan.				Engineering
Integrate Water, Sewer, and Recharge Master Plans into other city master plans and programs.				Administration; Water Services
Prepare an integrated, city-wide recycling plan.				Sanitation Department
Continue to strive to lower the city's ISO rating.				Fire Dept.; Police Dept.; Building Safety

Water Services

Action	Time Frame 0-1 yr.	1-3 yr.	3-5 yr.	Responsibility
Develop and implement a Water Recharge Master Plan.				Water Services; Legal; Administration
Develop and implement a Water Master Plan.				Water Services
Study establishing a dual water system to allow reuse.				Water Services
Investigate the establishment of a pre-treatment program.				Water Services
Establish a water services liaison committee to include City Council representation to make capital planning decisions and economic development.				Water Services
Develop procedures and standards for rural water system.				Water Services

Community Design/Character/Image

Action	Time Frame 0-1 yr.	1-3 yr.	3-5 yr.	Responsibility
Create and appoint a design review board.				Community Development
Specific area plans and corridor plans should be developed to further define and regulate the character of the area (e.g., SR 303 Corridor, Sun Valley Parkway, Grand Avenue, Bell Road, Special Planning Areas).				Community Development; Engineering
Create and implement a comprehensive signage/monumentation package for use at city gateways.				Community Development; Engineering; Administration
Prepare and adopt design guidelines.				Community Development
Evaluate/create new city logo.				Administration; Public Relations
Prepare and adopt streetscape design guidelines.				Community Development; Engineering
Create and fund a municipal public art program.				Administration; Legal; Community Services

Economic Development

Action	Time Frame 0-1 yr.	1-3 yr.	3-5 yr.	Responsibility
Annually monitor sales tax and property tax revenues to determine if they are at proper levels to sustain municipal services and ensure that taxation rates are not hampering economic development efforts.				Finance; Administration
Update the *Surprise Focused Future for Economic Development* to include strategies to address New Economy issues.				All Departments
Develop a telecommunication master plan to support economic development.				Economic Development
Organize a strong economic development department within the city.				Administration
Further define each Special Planning Area, develop projections, and develop specific economic development strategies for each SPA.				All Departments

Develop a feasibility and market study to attract a community college or university campus.				Economic Development
Organize a Grand Avenue Merchant's Association.				Economic Development
Facilitate the development of a "one stop" career center.				Economic Development
Continually monitor and maintain the city's jobs to population ratio city-wide and within each SPA.				Economic Development
Establish an intergovernmental liaison for economic development.				Economic Development
Develop a telecommunications plan.				Economic Development
Work to enhance health care facilities in the Surprise planning area.				Economic Development

Housing

Action	Time Frame 0-1 yr.	1-3 yr.	3-5 yr.	Responsibility
Compile and maintain a housing profile.				Community Services
Expand and strengthen the Surprise Housing Program.				Community Services; Administration
Establish a Neighborhood Capacity Building Program.				Community Services
Conduct an Affordable Housing Study.				Community Services; Community Development
Expand the financial assistance options to support housing rehabilitation.				Community Services; Finance

Public Safety

Action	Time Frame 0-1 yr.	1-3 yr.	3-5 yr.	Responsibility
Develop a public safety master plan to include proposed locations for police and fire stations.				Police Dept.; Fire Dept.; Administration
Conduct an operational analysis and statistical review of the police department.				Police Dept.
Conduct an operational analysis and statistical review of the fire department.				Fire Dept.
Develop a new public safety building.				Administration; Finance; Police Dept.; Fire Dept.

Institute a Crime Prevention Through Environmental Design (CPTED) Program.				Police Dept.; Community Development
Institute a regional Community Arson Response Team (CART).				Fire Dept.
Institute a Public Safety Education Program to include Community Citizen's Patrol and Block Watch.				Fire Dept.; Police Dept.
Evaluate transportation system from a public safety standpoint.				Engineering; Community Development; Police Dept.
Monitor and continue to improve fire services throughout the city.				Fire Dept.
Develop policy for sprinkler protection of all buildings.				Engineering; Community Development; Fire Dept.
Identify rural needs and develop effective fire response and protection.				Fire Dept.
Develop task oriented teams for life safety protection to include hazmat and technical rescue.				Fire Dept.
Explore ambulance service feasibility and emergency response master plan.				Fire Dept.
Explore regional fire and public safety training facility in the City of Surprise.				Fire Dept.; Police Dept.
Complete an emergency planning study that will identify emergency planning routes, potential gathering places, access routes, and support facilities.				All Departments

Information Technology

Action	Time Frame 0-1 yr.	1-3 yr.	3-5 yr.	Responsibility
Complete and regularly update the city's GIS for use by all departments.				All Departments
Upgrade internal and external electronic telecommunications system.				All Departments

GENERAL PLAN GLOSSARY OF TERMS

Actuated Signal control provides variable-length green timing for vehicular phases that are equipped with detectors.

American Disabilities Act of 1990 prohibits discrimination on the basis of disability by public accommodations and requires places of public accommodation and commercial facilities to be designed, constructed, and altered in compliance with the accessibility standards established.

Annexation is a legal process that the city uses to bring previously unincorporated land into its jurisdiction.

Arizona State Trust lands granted by Congress to Arizona when it became a Territory in 1863. Today, these lands are held in trust for 14 beneficiaries that include public schools, colleges, and prisons. By Constitution, the State Land Department acts as the Trustee to determine the land's highest and best use. State Trust lands must be revenue producing.

Arizona Revised Statutes are the laws of the State of Arizona.

Canamex is an established trade corridor that runs from Canada to Mexico. The Canamex corridor was established by the National Highway System Designation Act of 1995.

Capital Improvement Plan (or Program) (CIP) is a five or six year plan of infrastructure improvements that prioritizes and identifies appropriate funding sources. The CIP is closely tied to the general plan.

Chicanes are physical constrictions built at the curbs of a road to create curves in a formerly straight street, resulting in a series of lateral undulations. This acts to make cars move in a serpentine pattern.

Cluster Development allows the reduction of lot sizes below the zoning ordinance's minimum requirements; if the land thereby gained is preserved as permanent open space for the community. Unbuildable lands (i.e., drainageways, and steep hillsides) are not typically eligible for these trade-offs.

Cost-Benefit Analysis is an approach to evaluate the advantages and disadvantages of a project, policy, action, etc. in which an attempt is made to quantify the various results, so that the pros and cons can more objectively be compared with one another.

Density is the number of households or dwelling units allowed or built per acre of land.

Economic Clusters are geographic concentrations of competitive firms in related industries that do business with each other. Each cluster includes companies selling primarily outside the region, as well as support firms supplying raw materials, components, and business services.

Economic Foundations are supportive activities for economic clusters. Examples include human resources, technology, finance, and physical infrastructure.

Fiscal Year (FY) for the City of Surprise starts July 1 and ends June 30 of every year.

General Plan is a community's general policies regarding its long-term physical development of the jurisdiction.

Growth Areas are targeted areas that the city envisions planned development to be encouraged. These areas support a mix of uses, multi-modal transportation, and infrastructure expansion/improvements.

Gross Density means the number of households or dwelling units allowed per acre of total land area.

Growing Smarter legislation was passed by the Arizona State Legislature and signed by the Governor. Growing Smarter Plus became effective in May 2000 and built upon the 1998 Growing Smarter Act that created a new framework for the land planning process in cities and counties.

Jurisdiction refers to the City of Surprise and/or the authority provided to the City of Surprise to govern and legislate through the Arizona Revised Statutes.

Infrastructure consists of the necessary physical facilities (e.g., water, and sewer) to support municipal operations.

Insurance Services Office (ISO) rates the fire readiness of individual communities as an informational service to potential insurers. ISO rates are based on the adequacy of a community's water supply, its fire department, and its fire alarm system. Public protection classifications range from the most desirable rate of 1 to the least desirable of 10.

Mixed-Use Gateways are intended to provide a unique mixed-use area that makes a unified statement that the visitor is entering the City of Surprise. The Mixed-Use Gateway is intended to complement the surrounding area while providing a mix of commercial, employment, and public uses, such as a community college and civic facilities, with residential uses in a master-planned way that creates a unique, special environment. No one-land use is intended to dominate a mixed-use gateway.

Multi-Modal Transportation provides for all aspects of transportation personal vehicles, mass transit, pedestrians, and bicycles. A multi-modal transportation plan provides an opportunity for growth in all of these areas.

Original Townsite is the area that includes the first 640 acres that were incorporated in December 1960.

Primary Planning Area is the sub-area that represents where development is intended or projected to occur over the next 20 years.

Right-of-Way is the passage over the property of another. The public may acquire it through implied dedication and most commonly refers to the land on which a road or railroad is located. Utility pathways and drainage ways are usually referred to as easements.

Secondary Planning Area is the sub-area that represents area that is within the Surprise Sphere of Influence and development that occurs in this area will impact the City of Surprise.

Special Planning Areas (SPA) are designated to ensure that land resources are utilized efficiently and that the community's long-term development needs are addressed. The goal of each SPA is to ensure a balanced mix of land uses, adequate support resources (e.g., parks, infrastructure), proper ratio of people to jobs, and an efficient and effective multi-modal transportation network. There are five SPAs in the Surprise planning area.

Sphere of Influence refers to the regional area where political or development interests can impact the City of Surprise.

Surprise Center is land (i.e., 640 acres) received in trade from the City of Phoenix and is intended for a mixed-use project to include a municipal center with recreational and aquatic facilities, city offices, and a library.

Traffic Calming is the use of various traffic management devices to address concerns about speed, cut through traffic, and safety on neighborhood roads.

Urban Design gives form, in terms of both beauty and function, to physical improvements. The term implies a more fundamental approach than "beautification" and is concerned with the location, mass, and design of various urban components, combining the concerns of urban planning, architecture, and landscape architecture.

GENERAL PLAN ACRONYMS

The following are acronyms that are used in the ***Surprise General Plan 2020*** either in text or on graphics.

ADA	American Disabilities Act
ADOT	Arizona Department of Transportation
API	Arizona Preserve Initiative
ARS	Arizona Revised Statutes
CAP	Central Arizona Project
CART	Community Arson Response Team
CDBG	Community Development Block Grant
CDC	Community Development Corporation
CIP	Capital Improvement Plan or Program
CPTED	Crime Prevention Through Environmental Design
CRA	Community Reinvestment Act
DOC	Arizona Department of Commerce
DOJ	Department of Justice
DU/AC	Dwelling Units per Acre
EMS	Emergency Medical Service
EOP	Edge of Pavement
FY	Fiscal Year
GIS	Geographic Information System
GO	General Obligation Bonds
HOA	Homeowner's Association
HUD	US Housing and Urban Development
HURF	Highway User Revenue Funds
IGA	Intergovernmental Agreement
ISO	Insurance Services Office
LAFB	Luke Air Force Base
LOS	Level of Service
MAG	Maricopa Association of Governments
MCDOT	Maricopa County Department of Transportation
MPH	Miles per Hour
NRPA	National Recreation and Park Association
PAD	Planned Area Development
PIP	Public Involvement Plan
PSA	Partners for Strategic Action, Inc.
ROW	Right-of-Way
RPTA	Regional Public Transit Agency
SAC	Surprise Advisory Committee
SHPO	Arizona State Preservation Office
SPA	Special Planning Area
SR	State Route
TSM	Transportation System Management
TWLTL	Two Way Left Turn Lane

ORIGINAL

UTIL- 15332

SW-20379A-05-0489, et al.

0000027864

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION OF PERKINS MOUNTAIN UTILITY COMPANY FOR A CERTIFICATE OF CONVENIENCE AND NECESSITY.	DOCKET NO. SW-20379A-05-0489
IN THE MATTER OF THE APPLICATION OF PERKINS MOUNTAIN WATER COMPANY FOR A CERTIFICATE OF CONVENIENCE AND NECESSITY.	DOCKET NO. W-20380A-05-0490

EXHIBIT
COS-11.
Admitted

RECEIVED
2005 DEC 13 P 4: 14
AZ CORP COMMISSION
DOCUMENT CONTROL

At: Phoenix, Arizona

Date: December 5, 2005

Filed: DEC 13 2005

REPORTER'S TRANSCRIPT OF PROCEEDINGS

ARIZONA REPORTING SERVICES, INC.
Court Reporting
Suite Three
2627 North Third Street
Phoenix, Arizona 85004-1126

By: MICHELE E. BALMER, RPR
Certified Court Reporter
Certificate No. 50489

Prepared for:

ACC

ORIGINAL

1 INDEX TO EXAMINATIONS

2 WITNESS PAGE

3 RAY L. JONES, P.E.

4 Direct Examination by Mr. Metli 17
Cross-Examination by Mr. Evans 38
5 Cross-Examination by Mr. Ronald 46
Examination by ALJ Bjelland 47
6

7 SCOTT FISHER

8 Direct Examination by Mr. Evans 49

9
RONALD LUDDERS
10
Direct Examination by Mr. Ronald 57
11 Cross-Examination by Mr. Metli 71

12
BLESSING NKIRUKA CHUKWU
13
Direct Examination by Mr. Ronald 82
14 Cross-Examination by Mr. Metli 91
Examination by ALJ Bjelland 96
15

16

17

18

19

20

21

22

23

24

25

1 Q. Can you identify that document? Have you seen
2 this document before?
3 A. I have not seen it before this morning, but I
4 do know what it is and why it was prepared.
5 Q. Okay. Can you explain what that document is?
6 A. Yes. As part of a CC&N filing, it is
7 traditionally to include a request for service from all
8 landowners in the requested area.
9 Since the Sports Entertainment property was not
10 yet owned by Rhodes Homes or one of its affiliates,
11 when I had forwarded -- I had prepared a request for
12 service letters for all of the Rhodes Homes affiliated
13 entities to submit to the utility companies.
14 When I presented those to Rhodes Homes, knowing
15 that they did not yet own this parcel, their office
16 prepared this letter to Sports Entertainment so that
17 they could get a request for service for the optioned
18 portion of the property from the actual underlying
19 current landowner.
20 Q. So the June 27, 2005 letter deals specifically
21 with the optioned property?
22 A. Yes.
23 Q. I'm going to direct your attention to the
24 second letter dated June -- well, it's actually dated
25 June 23, 2005 from Sports Entertainment to Perkins

1 Mountain. Do you have that in front of you?
2 A. Yes, I do.
3 Q. Have you ever seen this letter or that document
4 before?
5 A. This is an unsigned copy, but I believe it is
6 the same letter we received signed and filed in the
7 application. I could check that if you want to take a
8 minute here. I do have the full application.
9 Q. Sure.
10 A. I don't find that letter in the application.
11 So I have taken that to mean that perhaps it was never
12 signed and returned. Maybe that's why it's an unsigned
13 copy in here.
14 Q. Next I'm going direct your attention to the
15 third letter in Exhibit 2, dated July 7, 2005, from
16 Sports Entertainment to Perkins Mountain Water and
17 Perkins Mountain Utility Company.
18 Do you have that in front of you?
19 A. Yes, I see that letter.
20 Q. Have you ever seen this letter before?
21 A. No. I had not seen that before this morning.
22 Q. Just finally, Mr. Jones, just briefly, why is
23 it the company's position not to include the additional
24 120 acres in the CC&N application at this time?
25 A. Well, I think there's probably several reasons,

1 but I think a good summary would be that it's simply
2 premature at this time.
3 Q. Would there be any reason why when development
4 was planned the company couldn't come back in front of
5 this Commission and request an extension?
6 A. No. There would be no reason. And, in fact, I
7 believe our position is it would be more appropriate to
8 wait until we had a request for service, we knew the
9 nature of the development that was going to occur on
10 the property, and there had been proper hydrological
11 studies done to insure that there was adequate water
12 supply to serve whatever that identified development
13 was on the property.
14 Therefore, you can properly estimate costs to
15 serve the property and prepare an appropriate line
16 extension agreement and application to include it in
17 the CC&N at that time.
18 Q. And going back to Exhibit I-1, could you go to
19 sub Exhibit 4, the map. Do you have that?
20 A. Yes. I see the map.
21 Q. Based upon the map, do you see any other
22 problems at this time with including the 120 acres in
23 this application?
24 A. Well, you will note that the 120 acres
25 represents the white triangle north of White Hills

1 Road, bounded to the north by what is labeled on here
2 as Michael Avenue. The development of White Hills Road
3 may present certain obstacles to serving the property.
4 It may not. It depends on how that road is developed.
5 And, again, when the property is ready to be
6 served and it's actually submitted a request for
7 service and the nature of the development is known,
8 those impacts could be determined. And it would be
9 better at that time to decide if this was the
10 appropriate way to serve the property or not.
11 MR. METLI: Your Honor, at this time I move my
12 Exhibits A-1 through A-4 into evidence.
13 ALJ BJELLAND: All right. Any objection?
14 (No response.)
15 ALJ BJELLAND: No objections. I'll go ahead
16 and admit all of those exhibits, a-1 through A-4.
17 Thank you.
18 (Exhibits A-1, A-2, A-3, and A-4 were received
19 into evidence.)
20 MR. METLI: Thank you, Your Honor. I have
21 nothing further for Mr. Jones. I offer him for
22 cross-examination.
23 ALJ BJELLAND: All right. Mr. Evans, do you
24 have some cross-examination questions for Mr. Jones?
25 MR. EVANS: Yes, Your Honor. Just a few brief

SURPRISE
ARIZONA

EXHIBIT
CDS-12
Admitted

CITY OF SURPRISE
WATER SERVICES DEPARTMENT
Fact Sheet

General Services:

1. 24-hour customer service
2. Information available online at water and wastewater service websites

Billing Services:

1. Automatic bill payment
2. Prepaid billing (5% discount and billed January 1 of each year)
3. Payment drop box at the City of Surprise
4. Accept payments at local Arizona American Offices

Operations Services (Full Time Equivalents):

1. Water Operations Services
    a. Director (0.5)
    b. Managers (2)
    c. Management Assistant (0.5)
    d. Project Managers (1)
    e. Administrative Staff (1)
    f. Operators (2 + supervisor)
    g. Maintenance Staff (3 + supervisor)
    h. Distribution Staff (3 + supervisor)
    i. Environmental Compliance Staff (1)
    j. Meter Readers (1)
    k. Meter Installation/Repairs (1)
    l. Utility Locators (1)
2. Wastewater Operations Services
    a. Director (0.5)
    b. Managers (2)
    c. Management Assistant (0.5)
    d. Project Managers (1)
    e. Business Analyst (1)
    f. Infrastructure Specialist (1.4)
    g. Administrative Staff (3)
    h. Operators (1 supervisor, 3 foremen, and 7 operators)
    i. Maintenance Staff (5 + foremen)
    j. Collections Staff (2)
    k. Environmental Compliance Staff (3)
    l. Laboratory Technician (1)
    m. Utility Locators (2)

SURPRISE
ARIZONA

EXHIBIT
COS-13
Admitted

CITY OF SURPRISE
WATER SERVICES DEPARTMENT
Water Customers

Calendar Year *	Customer Growth	Total Customers	Customer Growth Rate (%)
2006	272	12,670	----
2005	2744	12,398	28.42
2004	3063	9,654	46.47
2003	1500	6,591	29.46
2002	932	5,091	22.41
2001	1694	4,159	68.72
2000	1274	2,465	106.97

*Calendar Year data was extrapolated from Fiscal Year data.

Notes:
1. 2006 Customer Growth data as of February 2006
2. Customer Growth Rate = (Customer Growth) / (prior year Total Customers)

5/19/2006

City Of Surprise Water Infrastructure Progress

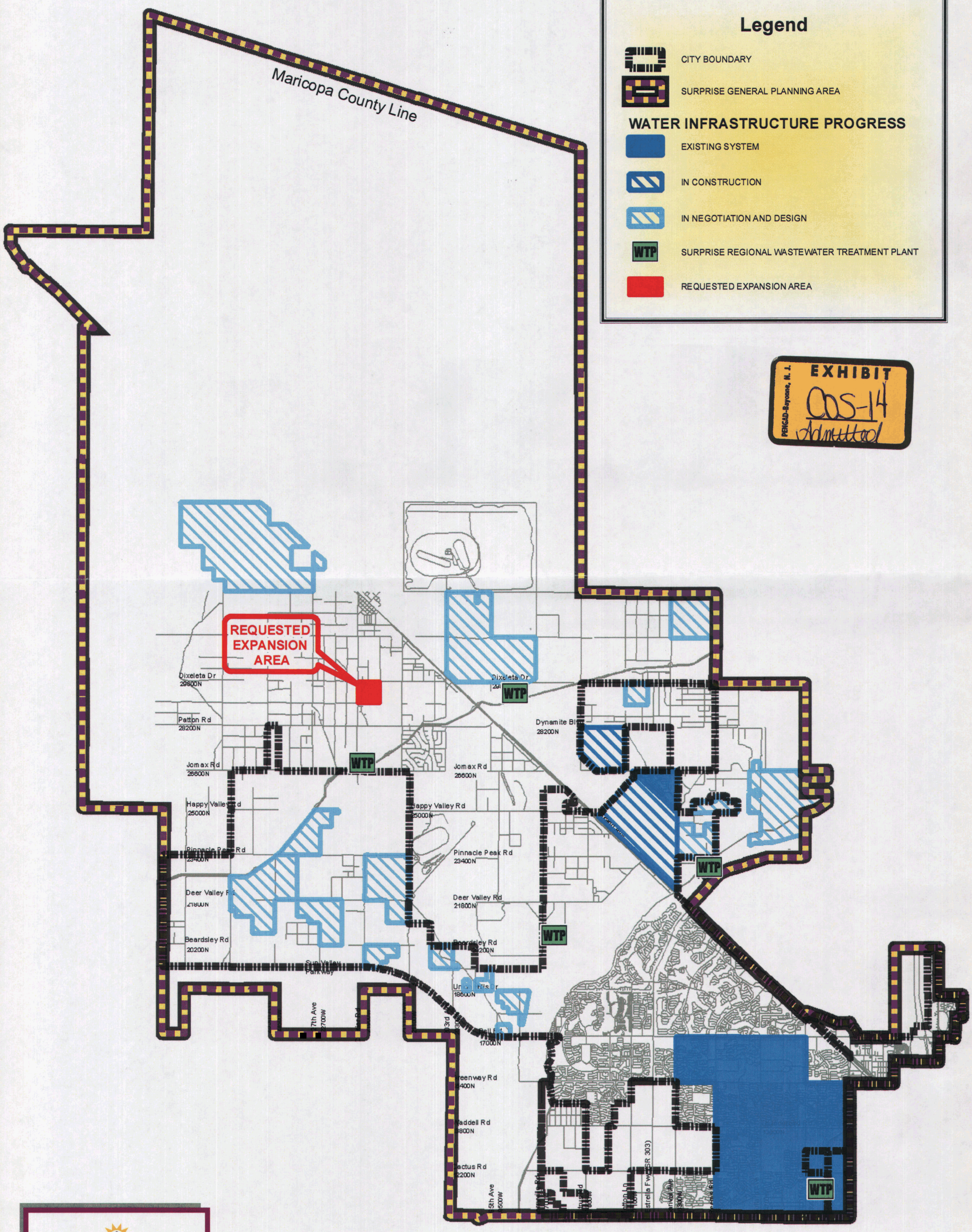


EXHIBIT
COS-14
Admitted
PENGAD-Bayonne, N. J.

Date of Last Revision: May06

EARL, CURLEY & LAGARDE, P.C.
ATTORNEYS AT LAW

Telephone (602) 265-0094
Fax (602) 265-2195

3101 North Central Avenue
Suite 1000
Phoenix, Arizona 85012

EXHIBIT
COS-15
admitted

April 20, 2006

RECEIVED
APR 21 2006
CITY OF SURPRISE
WATER SERVICE DEPT.

Janice See, Planner
City of Surprise
12425 W. Bell Rd., #D-100
Surprise, AZ 85374

Re: Walden Ranch

Dear Janice:

First of all, I want to thank you for taking the time to drive out to the Walden Ranch area with Stella and me last week. There is nothing like actually seeing the area to bring some life into an application.

As discussed, I have been meeting with the City of Surprise for over two-years on this application starting with Scott Phillips and then working with Andy Jochums and Desmond McGeough, and finally with LaTonya Finch. Unfortunately, every time that we seemed to reach an agreement, the party that we were dealing with left for another job. Hopefully, this won't happen with you.

It was Stella's and my impression that after viewing the site, you appeared to feel comfortable with supporting the application (it is not my intention to put words into your mouth – if you still have a problem with some of the aspects of the application, please let me know). You did, however, state that you would like to see whether we could request a rural standard for streets. We will contact the County and make such a request as I believe it is a good suggestion.

Additionally, Stella has replaced some outdated plans which were referenced in your last correspondence to the County and the new plans have been submitted to you for your review. Because of the number of plans which have been sent to the City, if you would like us to send you another set and perhaps even sit down one more time to solicit your input, we would be happy to do so.

As you can imagine, having been in the queue with the County for over two-years, my client is anxious to move forward with this matter. He is particularly anxious to move forward in light of the City Council's policy decision to allow for this property to Rancho Maria and Broadstone Ranch to commence planning for a master sewer plan for these properties in advance of annexation. Hence, if another meeting is required to tweak the plan to address your concerns, we would be glad to do so.

Thanks again for all of your help and it has been a pleasure working with you.

Sincerely,

Michael J. Curley

MJC/drm

cc: Gene Morrison
Stella Sheridan
Rich Williams

O:\INDEX\WOODSIDE\See 4-13-06.doc

Carol,

- copy to my desk top file for: "Walden Ranch."

4/28/06 • Orig. to James

Shaw,
Thy

EXHIBIT
COS-16
Admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

RECEIVED
2006 MAY -1 P 3: 14
AZ CORP COMMISSION
DOCUMENT CONTROL

JEFF HATCH-MILLER
Chairman
WILLIAM A. MUNDELL
Commissioner
MARC SPITZER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN K. MAYES
Commissioner

IN THE MATTER OF THE APPLICATION OF WEST END WATER COMPANY FOR EXTENSION OF EXISTING CERTIFICATE OF CONVENIENCE AND NECESSITY	)))))	**DOCKET NO. W-01157A-05-0706** **NOTICE OF FILING TESTIMONY OF RICHARD WILLIAMS**

The City of Surprise hereby gives notice that the Testimony of Richard Williams is attached and has been filed this same date.

Dated this 1st day of May, 2006.

OSBORN MALEDON, P.A.

By _____

Joan S. Burke
Danielle D. Janitch
2929 North Central Avenue, Suite 2100
Phoenix, Arizona 85012-2793
(602) 640-9000
jburke@omlaw.com
djanitch@omlaw.com
Attorneys for the City of Surprise

1246656

Original and thirteen (13) copies of the foregoing were filed this 1st day of May, 2006, with:

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

Copies of the foregoing mailed this 1st day of May, 2006, to:

J. Scott Rhodes, Esq.
Jennings, Strouss & Salmon, PLC
201 E. Washington St., 11th Floor
Phoenix, AZ 85004-2385

Amy Bell Bjelland
Administrative Law Judge
Hearing Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

David Ronald, Staff Counsel
Legal Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Blessing Chukwu
Arizona Corporation Commission
1200 West Washington Street
Phoenix, AZ 85007

Joni Garrett-Mason

BEFORE THE ARIZONA CORPORATION COMMISSION

JEFF HATCH-MILLER
Chairman
WILLIAM A. MUNDELL
Commissioner
MARC SPITZER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN K. MAYES
Commissioner

IN THE MATTER OF THE APPLICATION OF WEST END WATER COMPANY FOR EXTENSION OF EXISTING CERTIFICATE OF CONVENIENCE AND NECESSITY	)	DOCKET NO. W-01157A-05-0706

TESTIMONY

OF

RICHARD WILLIAMS

ON BEHALF

OF

THE CITY OF SURPRISE

MAY 1, 2006

Table of Contents

I. INTRODUCTION AND QUALIFICATIONS 1

II. PURPOSE AND SCOPE OF TESTIMONY 2

III. THE CITY OF SURPRISE WATER AND SEWER SERVICE PLANNING 2

IV. OPPOSITION TO THE COMPANY'S APPLICATION 6

V. RESPONSE TO THE APRIL 21, 2006 STAFF REPORT 7

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS

A. My name is Richard Williams. My business address is Surprise Water Services Department, 12425 West Bell Road, Suite D 100, Surprise, AZ 85374-9002.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by the City of Surprise as Director of the Surprise Water Services Department.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL BACKGROUND AND TRAINING?

A. I have been the Director of the Surprise Water Services Department for the past ten years. Prior to that, I was employed at the City of Avondale as the Chief Water Reclamation Facility Operator from approximately 6/94 to 7/95.

I have over thirty years of combined water and wastewater experience, ongoing years of water and wastewater training, and I hold the following current ADEQ operator certifications: Grade 4 Water Distribution System Operator, Grade 3 Water Treatment Plant Operator, Grade 4 Wastewater Treatment Plant Operator and Grade 4 Wastewater Collection System Operator. I received a Technical Certification from the Southern Maine Vocational Technical Institute.

Q. WHAT ARE YOUR RESPONSIBILITIES AS DIRECTOR OF THE SURPRISE WATER SERVICES DEPARTMENT?

A. I administer, manage and oversee all water and sewer service related issues within the City of Surprise and its associated General Planning Area ("GPA"). These duties include but are not limited to: infrastructure master planning, development agreements related to infrastructure, design, construction and perpetual operation and maintenance of City owned facilities. I report directly to the City of Surprise Assistant City Manager's office. In my capacity as Director, I frequently perform economic, demographic, financial and market analysis related to water and sewer services for the City of Surprise and its GPA. This includes analysis for water and sewer service areas that are currently served by the City of Surprise, as well as

water and sewer service areas that will be served by the City of Surprise in the future.

Q. PLEASE DESCRIBE ANY OTHER RELEVANT WORK EXPERIENCE.

A. My first employment in Arizona was working as the General Manager for a small private water/wastewater contract operating company. While I served as General Manager, the company contracts grew over 100%. Therefore, I am experienced with planning for and dealing with the various challenges that water and wastewater service providers face when confronted with a rapidly growing service area.

While working in New England, I was responsible for operation, expansion, billing and collection related to my employer's water systems.

II. PURPOSE AND SCOPE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The purpose of my direct testimony is to:

1. Describe the City of Surprise's plans for providing water and sewer services within its GPA;
2. Explain why West End Water Company's Application to expand its existing CC&N should be denied; and
3. Respond to the April 21, 2006 Staff Report.

Q. HAVE YOU REVIEWED THE APRIL 21, 2006 STAFF REPORT FILED IN THIS CASE, AS WELL AS THE WEST END WATER COMPANY'S OCTOBER 4, 2005 APPLICATION, JANUARY 4, 2006 LETTER, AND JANUARY 30, 2006 LETTER?

A. Yes.

III. THE CITY OF SURPRISE WATER AND SEWER SERVICE PLANNING

Q. WHY DID THE CITY OF SURPRISE INTERVENE IN THIS CASE?

A. The City of Surprise owns the City of Surprise Water Services Department, which provides water services, through the use of a subcontractor, and sewer services to City residences and businesses. Further, the City of Surprise shortly will be

providing sewer services to not only City residences and businesses, but also to many residences and businesses presently located outside of the City but within its GPA. The City of Surprise anticipates providing water and sewer services to the area targeted by the West End Water Company for future service. The City of Surprise and its citizens will be directly and substantially affected by the outcome of the requested extension because West End Water Company's Application seeks authority to provide water utility service to an area that is within the City of Surprise's planned annexation area and which the City intends to serve.

Q. IS THE AREA THAT WEST END WATER COMPANY HAS TARGETED FOR FUTURE WATER SERVICE ("THE REQUESTED AREA") WITHIN THE CITY OF SURPRISE'S GPA?

A. Yes. The Requested Area is presently within the City of Surprise's GPA. Further, the City of Surprise intends to move diligently in annexing land within its GPA. Pursuant to that strategy, it anticipates that the entire GPA will be annexed by no later than 2020.

Q. WHAT IS THE CURRENT STATUS OF ANNEXATION WITHIN THE CITY OF SURPRISE'S GPA?

A. Today, there are annexation projects ongoing throughout the GPA, as shown by the Tentative Annexation Map, prepared on March 24, 2006, attached hereto as Exhibit A. For example, it is expected that Annexation Areas B and H will be annexed within the next four months and Annexation Areas A, C, E, F, G and J will be annexed shortly thereafter.

Q. **WHAT IS THE CITY OF SURPRISE'S PLAN FOR ANNEXING THE REQUESTED AREA?**

A. The Requested Area is part of the Walden Ranch development. As stated above, the City intends to move diligently in annexing the entire GPA, which would include the entire Walden Ranch development. Currently, the southern boundary of the Walden Ranch development is within 1 mile of the City of Surprise's corporate city limits. However, the City of Surprise expects to complete the annexation of two other nearby developments, Sun Haven Ranch and Asante North, by July 2006, as well as the annexation of certain State Trust lands by later this year. When these

annexations are completed, the City of Surprise's corporate limits will be within ½ mile on the north and east of Walden Ranch development.

At this time, the City is conducting short term planning for annexation of the Requested Area, including researching whether to approach annexation from the south or east following the anticipated July 2006 annexation. (*See* Exhibit A.) Devising a fixed annexation solution at this time, prior to the completion of the anticipated July 2006 annexations, is difficult because the surrounding area is highly fragmented, with multiple landowners.

Q. HOW IS WATER SERVICE PRESENTLY PROVIDED TO THE CITY OF SURPRISE AND ITS GPA?

A. Presently, in addition to the City of Surprise Water Services Department, ten private water companies and one additional municipality provide services within the City of Surprise and its GPA. Attached hereto as Exhibit B is a map showing these water providers and their respective service areas. West End Water Company is one of the ten private water companies.

Q. IS THE CITY OF SURPRISE WATER SERVICES DEPARTMENT PLANNING TO EXPAND ITS SERVICE AREA IN THE FUTURE?

A. Yes. The City of Surprise has adopted a General Plan, Infrastructure Master Plan, and Water Resources Master Plan. Under these plans, the City of Surprise anticipates that the City of Surprise Water Services Department will become the water service provider in the GPA to all areas not currently served by existing legal private water companies.

Consistent with these plans, the City of Surprise Water Services Department recently agreed to enter into a Pre-Annexation Development Agreement with the proposed Broadstone Ranch development, located in Special Planning Area 5 of the GPA, approximately one mile north of the Walden Ranch development. (*See* Exhibit A.) Under this agreement, the City of Surprise has agreed to provide water service to any areas of the Broadstone Ranch development that are not currently covered by an existing legal water Franchise or CCN, and sewer services to the entire Broadstone Ranch development, prior to annexation of Broadstone Ranch

development. In return, Broadstone Ranch development has agreed to work to expedite its annexation into the City of Surprise. This effort to provide water and sewer services outside the City limits, until annexation is possible, is expected to continue throughout the GPA.

Q. HOW IS SEWER SERVICE PRESENTLY PROVIDED TO THE CITY OF SURPRISE AND ITS GPA?

A. Presently, in addition to the City of Surprise Water Services Department, one private sewer company, Arizona American, provides services within the City of Surprise and its GPA. Attached hereto as Exhibit C is a map showing these sewer providers and their respective service areas.

Further, the City of Surprise has been designated as the sewer service provider for all future development within its entire GPA, as it identified and included all GPA lands within the City of Surprise's "Maricopa Association of Government" Section 208 Sewer Service Planning Area. Arizona American, the only competing sewer provider within the GPA, has no current plans to expand its sewer services to add additional customers within the City of Surprise GPA.

Q. HOW WILL SEWER SERVICES BE PROVIDED TO THE REQUESTED AREA?

A. The Requested Area is within the City of Surprise's "Maricopa Association of Government" Section 208 Planning Area. Therefore, the City of Surprise Water Services Department will provide sewer services to the Requested Area once sewer facilities are constructed and available.

While awaiting permanent sewer facilities, the Walden Ranch development (within the Requested Area) will use-temporary, on-site septic systems (approved by the Maricopa County Environmental Services Department) and dry on-site sewer lines will also be installed. Once the City's regional sewer system infrastructure is available, the temporary septic systems will be properly abandoned and the on-site dry sewers will be connected to the City's regional sewer collection system.

IV. OPPOSITION TO WEST END WATER COMPANY'S APPLICATION

Q. WHAT IS THE CITY OF SURPRISE'S POSITION CONCERNING EXPANSION OF EXISTING PRIVATE WATER COMPANY SERVICE AREAS WITHIN THE GPA, AS WELL AS THE CREATION OF NEW PRIVATE WATER COMPANIES SEEKING TO PROVIDE WATER SERVICES WITHIN THE GPA?

A. The City of Surprise vigorously opposes both. The City of Surprise Water Services Department is planning to be the water provider to all areas in the GPA (which the City of Surprise anticipates will be entirely annexed by 2020) not currently served by existing legal private water companies.

Q. WHY IS INTEGRATED MUNICIPAL WATER AND SEWER SERVICE IN THE LONG-TERM INTEREST OF ALL RESIDENTS AND BUSINESSES WITHIN THE GPA?

A. Having one, integrated municipal water and sewer service provider, as opposed to a dozen, or so, small, private water service providers and a separate municipal sewer service provider is in the long-term interest of all residents and businesses within the GPA. An integrated system will:

- best promote water and wastewater policy goals;
- ensure uniform pricing across the City;
- provide an immediate assured water supply;
- provide an immediate CAP allotment;
- provide reclaimed water for reuse and recharge purposes;
- provide enhanced regulatory compliance/enforcement through reduced providers;
- reduce customer confusion;
- provide a strong sense of customer security;
- promote unified water conservation efforts by the City;
- facilitate the City's economic development plans; and
- minimize the risk of local area shortages.

Long term water use and distribution goals can be better met by an integrated utility that distributes clean water and efficiently uses and distributes reclaimed water. Consequently, when assessing competing applications to serve an area, the

Commission should (barring exceptional circumstances not present in this case) select the public utility that provides integrated water ***and*** wastewater services. The integrated City of Surprise utilities will provide the best long term solution to the water and sewer requirements within the GPA of the City of Surprise.

Q. CAN WEST END WATER COMPANY PROVIDE INTEGRATED WATER AND SEWER SERVICE IN THE REQUESTED AREA?

A. No. Only the City of Surprise can offer integrated services.

V. RESPONSE TO THE APRIL 21, 2006 STAFF REPORT

Q. DO YOU AGREE WITH STAFF'S POSITION ON THIS MATTER?

A. No. Staff's April 21, 2006 Report merely notes that the City of Surprise intervened in this case before recommending approval of the West End application subject to several conditions. The City of Surprise believes that Staff should consider whether the City of Surprise Water Services Department would not be better suited to service the Requested Area given the above information.

Q. DO YOU HAVE AN COMMENTS ABOUT WEST END WATER COMPANY'S WITTMANN SYSTEM'S 19 PERCENT WATER LOSS, NOTED ON PAGE 5 OF THE STAFF REPORT?

A. Yes. It is my belief that municipal owned water systems typically provide better water conservation than privately owned water companies. The high percentage of water loss by West End Water Company is illustrative. West End Water Company operates an older water system, which is prone to more water loss than more recently built systems. Because the West End Water Company is a private company and is subject to Arizona Corporation Commission regulation, it operates at a disadvantage. A municipal water company, unlike a private water company, does not need to apply to the Arizona Corporation Commission to obtain rate increases and to fund improvements, replacements or rehabilitation. Also, a municipal water provider serves solely to benefit the long and short term interests of its customers. A private water company must, by definition, be a profitable investment over the long-term for its owners. Thus, the private water company makes system improvement decisions with one eye on customer needs and the other eye on shareholder

tolerance for low investment returns. The absence of these pressures makes it easier for municipal owned water providers to build, maintain, and run more efficient water systems. Here, the City of Surprise Water Services Department operates newer water systems with less water loss than the West End Water Company.

Q. DOES THE WEST END WATER COMPANY PROPOSE DUAL WATER SYSTEMS, WITH BOTH POTABLE AND NON-POTABLE SYSTEMS, WITHIN THE REQUESTED AREA?

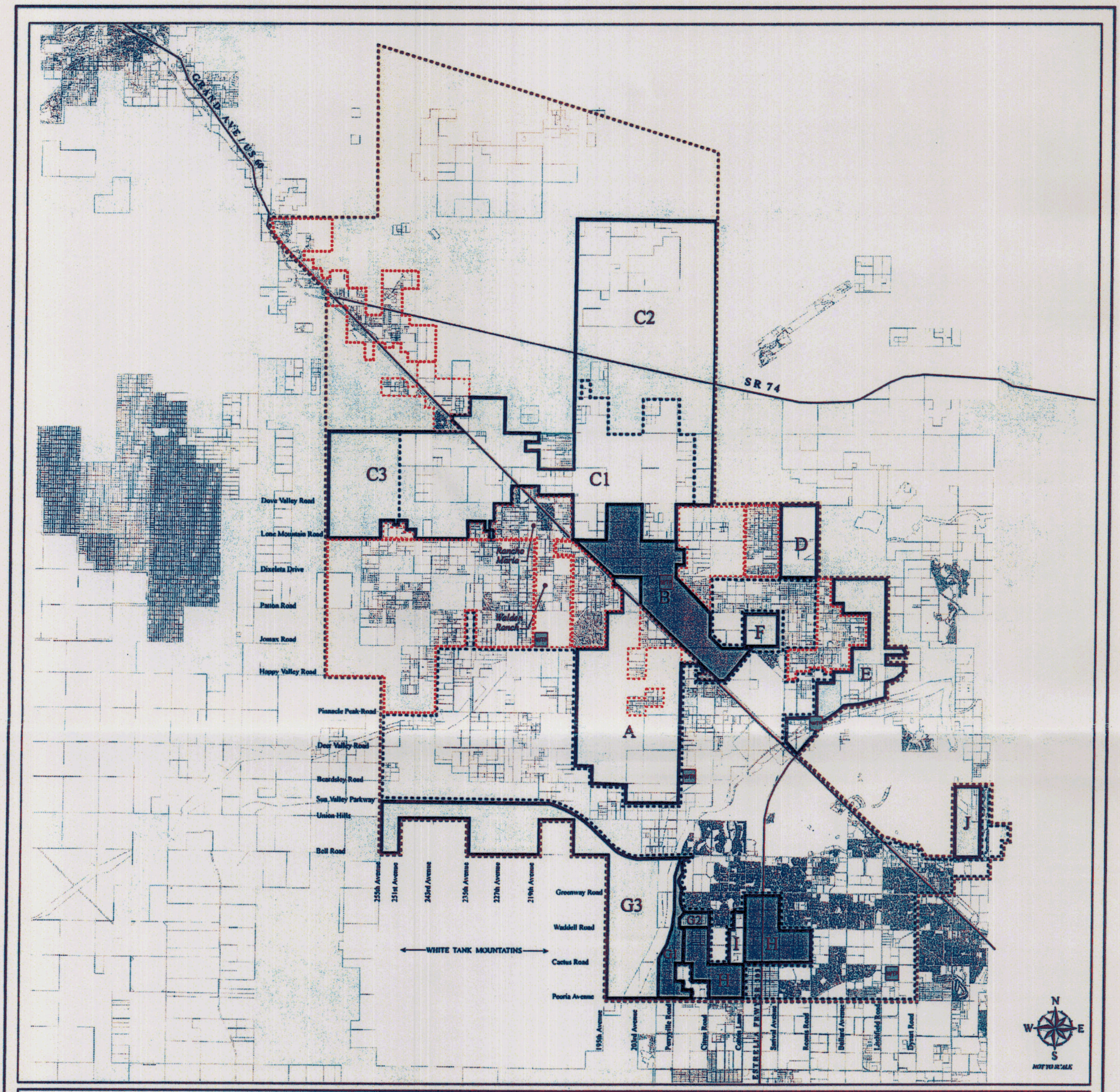
A. From reviewing the West End Water Company's application and related filings, it does not appear to be proposing a dual water system for the Requested Area.

Q. IF THE CITY OF SURPRISE WATER SERVICES DEPARTMENT WERE TO SERVICE THE REQUESTED AREA, WOULD IT REQUIRE A DUAL WATER SYSTEM?

A. Although it is not yet formalized by a vote of the City Council, City of Surprise Water Services Department policy is to require dual water systems in all new service areas. Currently, the City of Surprise Water Services Departments is working with ongoing development in Special Planning Areas 2 and 3 to accelerate standardization of dual water systems. Should the City of Surprise Water Services Department provide service to the Requested Area, it will make its best efforts for such a dual system to be built.

Q. DOES THAT CONCLUDE YOUR TESTIMONY?

A. Yes, it does.



CITY OF SURPRISE TENTATIVE ANNEXATION MAP

LEGEND

- State Lands
- Bureau of Land Management
- Annexations in Progresss
- Short Term Research Area
- Long Term Research Area
- Incorporated Area
- General Planning Area
- WTP — Wastewater Treatment Plant

Note: Letters designate annexation areas shown on the above map.

Area	Annexation Projects
A	Voivo Proving Grounds, Northwest Regional Landfill
B	Asante North, Sunhaven Ranch
C1	Chrylser Proving Grounds, Wittman Ranch, Broadstone Ranch, BNSF, Grand Oasis, Nelson 160
C2	LakePleasant 5000
C3	*State Lands*
D	Marisol Ranch
E	Rancho Mercado
F	Sunrise Ranch
G1	Zanjero Trails
G2	Waddell Haciendas
G3	*State Lands*
H	Prasada
I	County Island Infill
J	River Bottom

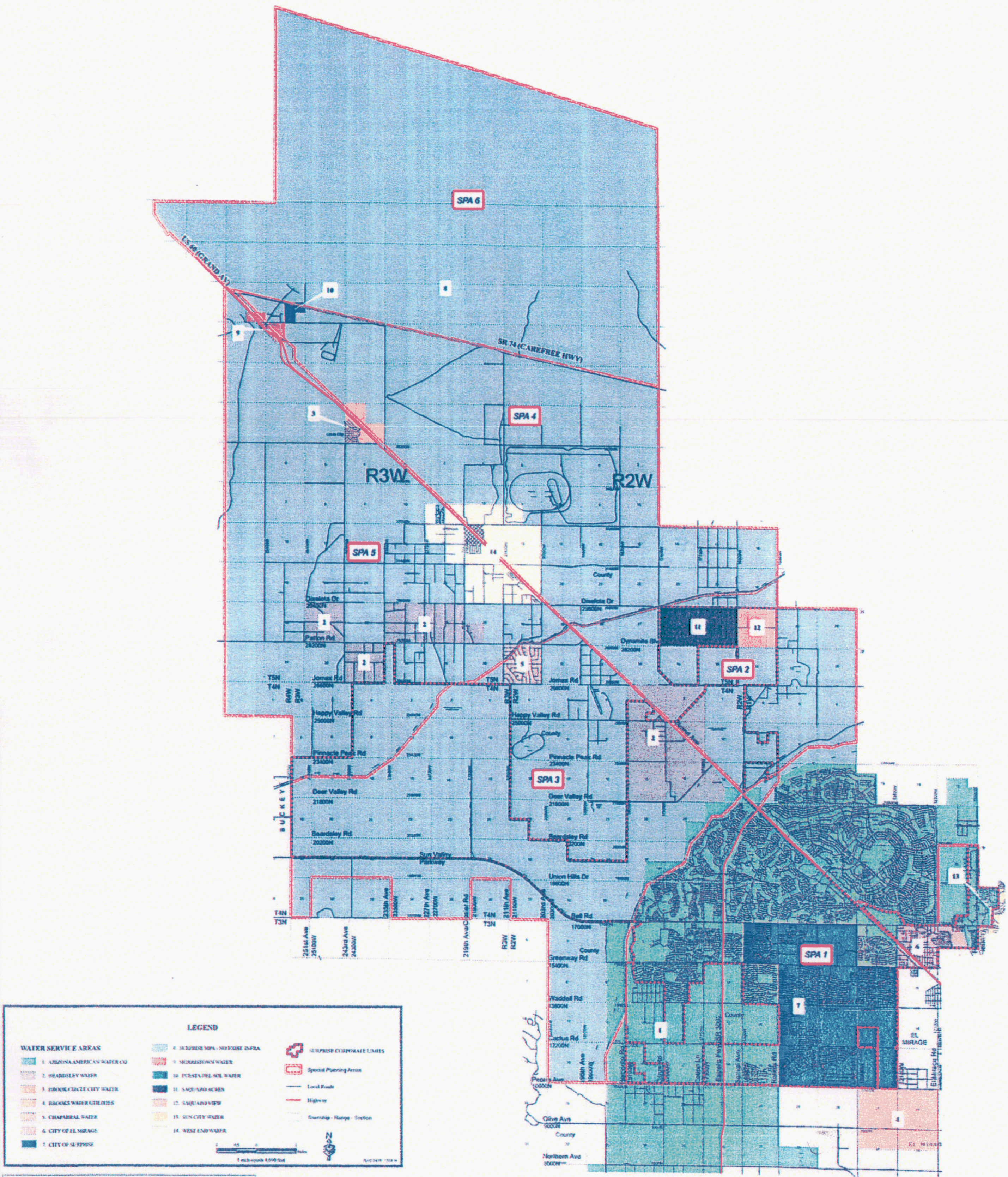
SURPRISE
ARIZONA

3/24/06

A

SURPRISE
ARIZONA

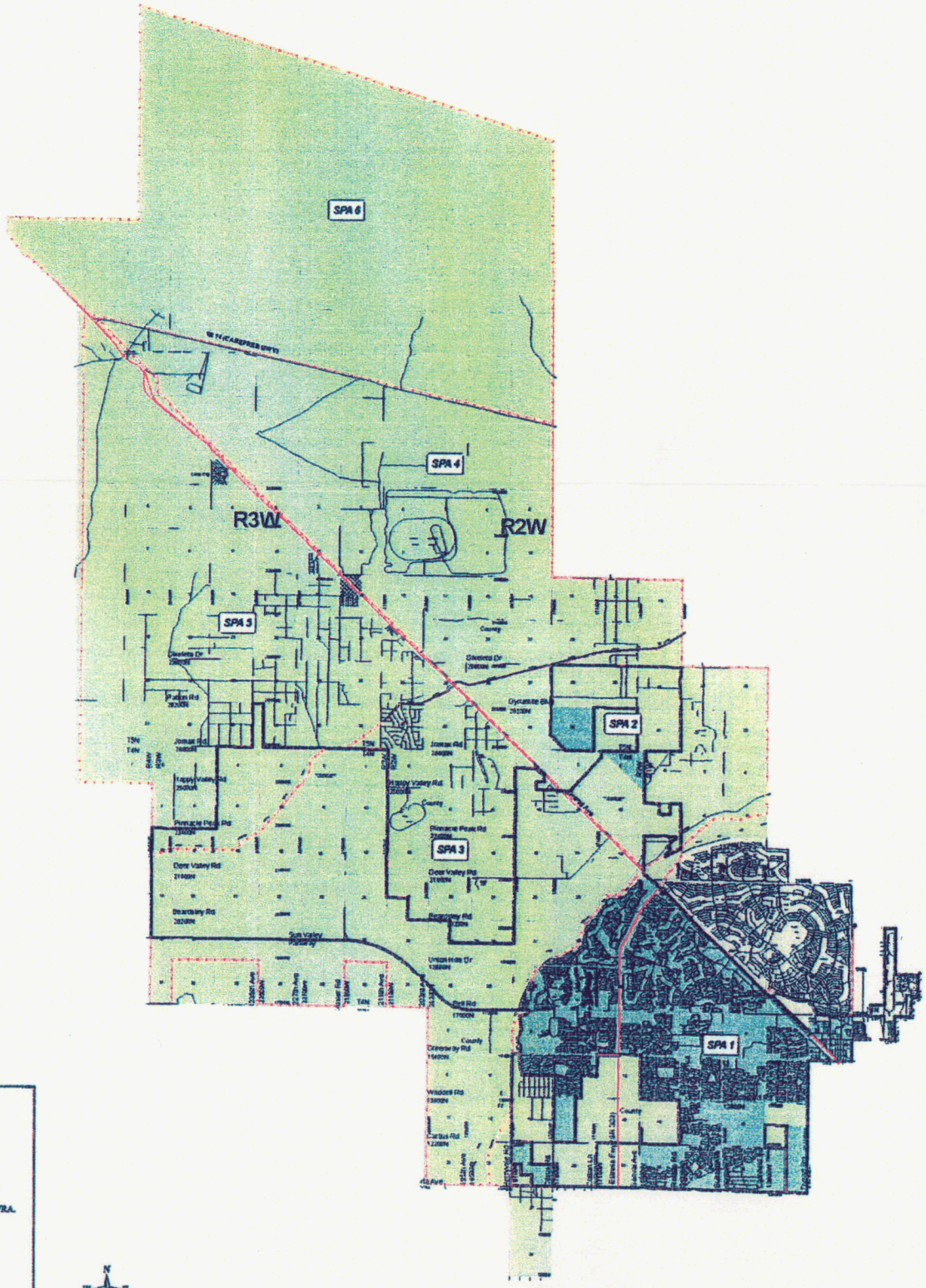
WATER PROVIDERS in the CITY of SURPRISE GENERAL PLAN AREA



For additional information contact the city of Surprise Water Services Dept. at 623-875-4290.
NOTE: The City of Surprise makes no claims concerning the accuracy of the data provided nor assumes any liability resulting from the use of the information here-in.

B

Sewer Providers for City of Surprise General Planning Area



LEGEND

SEWER PROVIDERS

- ARIZONA AMERICAN
- SURPRISE SSA - EXIST. INFRA.
- SURPRISE MPA - NO EXIST. INFRA.
- Special Planning Areas
- Surprise Corporate Limits
- LOCAL ROADS
- HIGHWAY
- Township - Range - Section

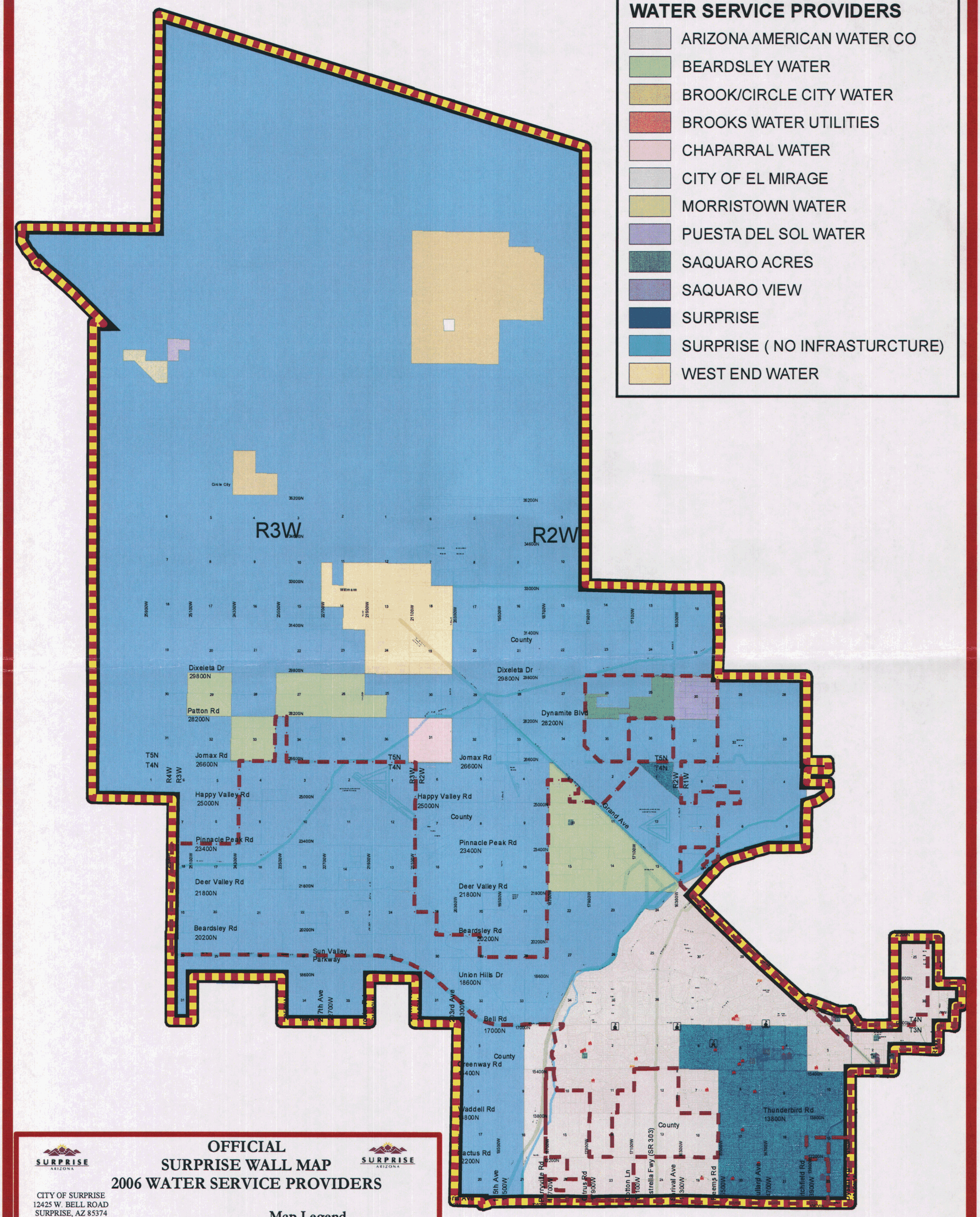
For additional information contact the city of Surprise Water Services Dept. at 623-875-4290.
NOTE: The City of Surprise makes no claims concerning the accuracy of the data provided nor assumes any liability resulting from the use of the information here-in.

C

EXHIBIT
COS-17
Admitted

WATER SERVICE PROVIDERS

- ARIZONA AMERICAN WATER CO
- BEARDSLEY WATER
- BROOK/CIRCLE CITY WATER
- BROOKS WATER UTILITIES
- CHAPARRAL WATER
- CITY OF EL MIRAGE
- MORRISTOWN WATER
- PUESTA DEL SOL WATER
- SAQUARO ACRES
- SAQUARO VIEW
- SURPRISE
- SURPRISE (NO INFRASTURCTURE)
- WEST END WATER



OFFICIAL
SURPRISE WALL MAP
2006 WATER SERVICE PROVIDERS

SURPRISE ARIZONA

CITY OF SURPRISE
12425 W. BELL ROAD
SURPRISE, AZ 85374
623.583.4840
623.583.3858 FAX
www.surpriseaz.com

INCORPORATED: 1960
ELEVATION: 1,130 FEET
COUNTY: MARICOPA
AREA: 76.5 SQUARE MILES
POPULATION: 95,000 ESTIMATED

SURPRISE CITY COUNCIL 623.583.5899
JOAN SHAFER, MAYOR
CLIFF ELKINS (DISTRICT 1)
MARTHA BAILS (DISTRICT 2)
GARY "DOC" SULLIVAN (DISTRICT 3)
DANNY ARISMENDEZ, VICE MAYOR (DISTRICT 4)
JOE JOHNSON (DISTRICT 5)
GWYN FORO (DISTRICT 6)

CITY MANAGER 623.875.4242
JAMES RUMPELTES

Map Legend

Points of Interest

- Assisted Living
- Church
- Fire Station
- Library
- Post Office
- School
- Government Facility
- Museum
- City Pool
- Park
- Recreation

City Corporate Limits
Special Planning Areas

0 1 2 Miles

N

DATE: 4/21/06

COS-19

City of Surprise
Water Services Department
Office: (623) 875-4290
Fax Direct: (623) 583-2892

SURPRISE
ARIZONA

Interoffice Memo

To: Jim Fisher, Arizona Corporation Commission
Cc: Steven Borst, Maricopa County Environmental Services Department

From: Rich Williams, Sr., Director

Date: October 4, 2004

Re: Copper Mountain Ranch Project

Although currently within the unincorporated area of Maricopa County, this project is within the City of Surprise (COS) General Plan 2020 (GP2020) boundaries and also the City's MAG 208 Plan sewer service area.

The following relevant facts pertain to this and all similar projects within the City's GP2020 area:

- The project must enter into a COS Pre-Annexation Development Agreement, in order to develop initially within the unincorporated County area, and then annex into the City once annexation is feasible by the appropriate criteria.
- The City will be the sewer service provider. Neither expansion of existing, nor additional new sewer utility companies will be allowed to serve the project or area.
- The City will consider reasonable temporary on-site septic system solutions, with installation of dry on-site sewer lines designed in concert with the City's sewer master plan, until the City 's regional infrastructure is in place. Once the City's regional infrastructure is available the temporary septic systems must be properly abandoned and permanent connection of the on-site dry sewers made to the City's regional sewer collection system.
- Any lands within the City's General Plan 2020 area that are not currently served by an existing legal water franchise or CC&N, must provide water infrastructure as required by the City through a Pre-Annexation development agreement. Neither expansion of existing, nor additional new water utility companies will be allowed to serve projects that are in the City's designated water service area.

EXHIBIT
COS-19
admitted