



0000027924

Transcript Exhibit(s)

SW-20379A-05-0489

W-20380A-05-0490

---

---

---

---

AZ CORP COMMISSION  
DOCUMENT CONTROL

2005 DEC 13 P 4: 14

RECEIVED

MEMORANDUM

RECEIVED LEGAL

TO: Docket Control  
Arizona Corporation Commission

2005 NOV 10 P 2:32

FROM: Ernest G. Johnson  
Director  
Utilities Division

AZ CORP COMMISSION  
DOCUMENT CONTROL

Date: November 10, 2005



RE: STAFF REPORT FOR PERKINS MOUNTAIN UTILITY COMPANY AND PERKINS MOUNTAIN WATER COMPANY - APPLICATIONS FOR CERTIFICATES OF CONVENIENCE AND NECESSITY FOR WASTEWATER AND WATER SERVICES (DOCKET NOS. SW-20379A-05-0489 AND W-20380A-05-0490)

Attached is the Staff Report for Perkins Mountain Utility Company and Perkins Mountain Water Company applications for Certificates of Convenience and Necessity for wastewater and water services. Staff is recommending approval with conditions.

EGJ:BNC:rdp

Originator: Blessing Chukwu

Attachment: Original and 13 copies

RECEIVED  
NOV 10 2005  
LEGAL DIV.  
ARIZ. CORPORATION COMMISSION

Service List for: Perkins Mountain Utility Company and Perkins Mountain Water Company  
Docket Nos. SW-20379A-05-0489 and W-20380A-05-0490

Ms. Deborah R. Scott  
Ms. Kimberly A. Grouse  
Snell & Wilmer  
One Arizona Center  
400 East Van Buren Street  
Phoenix, Arizona 85004

Mr. Booker T. Evans, Jr.  
Ms. Kimberly A. Warshawsky  
2375 East Camelback Road, Suite 700  
Phoenix, Arizona 85016

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

PERKINS MOUNTAIN UTILITY COMPANY  
AND  
PERKINS MOUNTAIN WATER COMPANY

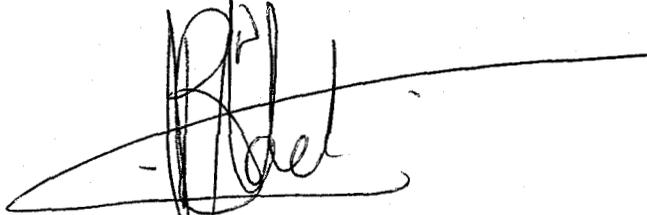
DOCKET NOS. SW-20379A-05-0489  
AND  
W-20380A-05-0490

APPLICATIONS FOR CERTIFICATES OF  
CONVENIENCE AND NECESSITY

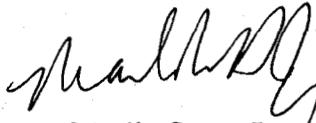
NOVEMBER 2005

## STAFF ACKNOWLEDGMENT

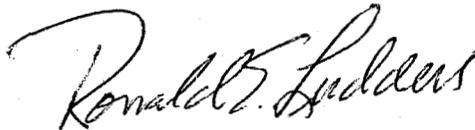
The Staff Report for Perkins Mountain Utility Company and Perkins Mountain Water Company (Docket Nos. SW-20379A-05-0489 and W-20380A-05-0490) was the responsibility of the Staff members signed below. Blessing Chukwu was responsible for the review and analysis of the Companies' application. Marlin Scott, Jr. was responsible for the engineering and technical analysis. Ronald E. Ludders was responsible for the review and recommendation on rate base and usage rates.

A handwritten signature in black ink, appearing to read 'Blessing Chukwu', with a long horizontal line extending to the right.

Blessing Chukwu  
Executive Consultant III

A handwritten signature in black ink, appearing to read 'Marlin Scott, Jr.', with a stylized, cursive style.

Marlin Scott, Jr.  
Utilities Engineer

A handwritten signature in black ink, appearing to read 'Ronald E. Ludders', with a cursive style.

Ronald E. Ludders  
Public Utilities Analyst V

**EXECUTIVE SUMMARY**  
**PERKINS MOUNTAIN UTILITY COMPANY AND**  
**PERKINS MOUNTAIN WATER COMPANY**  
**DOCKET NOS. SW-20379A-05-0489 and W-20380A-05-0490**

On July 7, 2005, Perkins Mountain Utility Company ("PMUC" or "Wastewater Company") and Perkins Mountain Water Company ("PMWC" or "Water Company") collectively referred to as ("The Utilities") filed applications with the Arizona Corporation Commission ("ACC" or "Commission") for Certificates of Convenience and Necessity ("CC&N") to provide wastewater and water services in portions of Mohave County, Arizona. On September 14, 2005, the Utilities filed an amendment to the applications to include a revised legal description. On August 25, 2005, Sports Entertainment, LLC ("Sports Entertainment") filed a request that the Utilities include a portion of Sports Entertainment's parcel in the proposed CC&N area. On September 19, 2005, Staff filed a Sufficiency Letter indicating that the application had met the sufficiency requirements of Arizona Administrative Code. On September 27, 2005, Sports Entertainment, LLC filed an Application to Intervene.

PMUC and PMWC are Nevada Corporations, in good standing with the ACC Corporation Division, and formed to provide wastewater and water utility services to all of the residents and businesses in the Golden Valley South and The Villages at White Hills master-planned communities, and are seeking CC&Ns for these areas. Golden Valley South is expected to be comprised of more than 33,000 dwelling units at build-out whereas, The Village at White Hills is expected to comprise of more than 20,000 dwelling units. Rhodes Home Arizona, LLC ("Rhodes") is the developer for Golden Valley South and The Village at White Hills.

Sports Entertainment in its letter to Staff and in its Application to Intervene alleged that the Utilities had failed to include 120 acres of its 440 acre property in the master plan to provide services and requested that the whole property be included in the master plan to provide services. Staff believes that the inclusion of the 120 acres to the Utilities requested (The Village at White Hills) CC&N area is in the public interest since the 120 acres is near to or contiguous to the Utilities requested CC&N area.

Staff has reviewed the proposed total plant-in-service along with the Utilities' engineering reports and found the plant facilities and cost to be reasonable and appropriate. However, approval of the CC&N applications does not imply any particular future treatment for determining the rate base. No "used and useful" determination of the proposed plant-in-service was made, and no conclusions should be inferred for rate making or rate base purposes in the future.

**Water Service CC&N**

Staff recommends the Commission approve PMWC application for CC&N within portions of Mohave County, Arizona, as amended, to provide water service, subject to the following conditions:

1. That the Commission find that the fair value rate base of PMWC's property devoted to water service is \$2,307,375.

2. That the Commission approve Staff's rates as shown on Water Schedule REL-5-Rate Design in the attached Rate Analyst Report. In addition to collection of its regular rates, PMWC may collect from its customers a proportionate share of any privilege, sales or use tax.
3. That the Commission require PMWC to file with Docket Control, as a compliance item, a tariff consistent with the rates and charges authorized by the Commission within 30 days of the decision in this matter.
4. That the Commission require PMWC to notify the Director of the Utilities Division, through the compliance section, within 15 days of providing service to its first customer.
5. That the Commission require PMWC to file a rate application no later than six-months following the fifth anniversary of the date it begins providing service to its first customer.
6. That the Commission require PMWC to maintain its books and records in accordance with the NARUC Uniform System of Accounts for Water Utilities.
7. That the Commission require PMWC to use the depreciation rates recommended by Staff.
8. That the Commission require PMWC to seek other means of financing that do not include contributions.
9. That the Commission require PMWC's charge for minimum deposit be as per A.A.C. R14-2-403(B)(7).
10. That the Commission require PMWC to provide utility services to all of the 440 acres of land that is owned by Sports Entertainment.
11. That the Commission require PMWC to file with Docket Control, as a compliance item, an amended legal description for The Village at White Hills CC&N area including the entire 440 acres of land that is owned by Sports Entertainment no later than 15 days after the effective date of the order granting this application.
12. That the Commission require PMWC to file with Docket Control, as a compliance item, copies of the ATC for phase 1 of each project when received by the Company, but no later than 24 months after the effective date of the order granting this application.
13. That the Commission require PMWC to file with Docket Control, as a compliance item, copies of the developer's Letter of Adequate Water Supply demonstrating the availability of adequate water for the requested areas within 24 months after the effective date of the order granting this application.
14. That the Commission require PMWC to file with Docket Control, as a compliance item, for review and approval by the Director of the Utilities Division, a curtailment tariff within 90 days after the effective date of any decision and order pursuant to this application. The tariff shall generally conform to the sample tariff found posted on the

Commission's web site ([www.cc.state.az.us/utility](http://www.cc.state.az.us/utility)) or available upon request from Commission Staff.

15. That the Commission require PMWC to file with Docket Control, as a compliance item in this docket, a copy of all related franchise agreements for the requested area within 365 days of the decision in this matter.
16. That the Commission require PMWC to file with Docket Control, as a compliance item, for Staff review and approval, a copy of the fully executed main extension agreements for water facilities for Phase I of the extension area within 365 days of a decision in this case.

Staff further recommends that the Commission's Decision granting the requested CC&N to PMWC be considered null and void should PMWC fail to meet Conditions Nos. 3, 11, 12, 13, 14, 15 and 16 listed above within the time specified.

### **Wastewater Service CC&N**

Staff recommends the Commission approve PMUC application for CC&N within portions of Mohave County, Arizona, as amended, to provide wastewater service, subject to the following conditions:

1. That the Commission find that the fair value rate base of PMUC's property devoted to wastewater service is \$2,581,198.
2. That the Commission approve Staff's rates as shown on Wastewater Schedule REL-5-Rate Design in the attached Rate Analyst Report. In addition to collection of its regular rates, PMUC may collect from its customers a proportionate share of any privilege, sales or use tax.
3. That the Commission require PMUC to file with Docket Control, as a compliance item, a tariff consistent with the rates and charges authorized by the Commission within 30 days of the decision in this matter.
4. That the Commission require PMUC to notify the Director of the Utilities Division, through the compliance section, within 15 days of providing service to its first customer.
5. That the Commission require PMUC to file a rate application no later than six-months following the fifth anniversary of the date it begins providing service to its first customer.
6. That the Commission require PMUC to maintain its books and records in accordance with the NARUC Uniform System of Accounts for Wastewater Utilities.
7. That the Commission require PMUC to use the depreciation rates recommended by Staff.
8. That the Commission require PMUC to seek other means of financing that do not include contributions.
9. That the Commission require PMUC's charge for minimum deposit be as per A.A.C. R14-2-603(B)(7) and (8).

10. That the Commission require PMUC to provide utility services to all of the 440 acres of land that is owned by Sports Entertainment.
11. That the Commission require PMUC to file with Docket Control, as a compliance item, an amended legal description for The Village at White Hills CC&N area including the entire 440 acres of land that is owned by Sports Entertainment no later than 15 days after the effective date of the order granting this application.
12. That the Commission require PMUC to file with Docket Control, as a compliance item, copies of the ATC for phase 1 of each project when received by PMUC, but no later than 24 months after the effective date of the order granting this application
13. That the Commission require PMUC to file with Docket Control, as a compliance item, copies of each project's APP within 24 months after a decision is issued in this proceeding
14. That the Commission require PMUC to obtain Section 208 approval from ADEQ within 24 months from the effective date of the decision in this matter and file with Docket Control as a compliance item in this docket, a copy of the Section 208 approval for the requested area within 24 months from the effective date of the decision in this matter.
15. That the Commission require PMUC to file with Docket Control, as a compliance item in this docket, a copy of all related franchise agreements for the requested area within 365 days of the decision in this matter.

Staff further recommends that the Commission's Decision granting the requested CC&N to PMUC be considered null and void should PMUC fail to meet the Conditions Nos. 3, 11, 12, 13, 14 and 15 listed above within the time specified.

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION .....	1
BACKGROUND.....	1
REQUEST FOR SERVICE.....	2
THE PROPOSED WASTEWATER SYSTEM.....	3
COST ANALYSIS.....	3
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (“ADEQ”) COMPLIANCE.....	3
CLEAN WATER ACT SECTION 208 PLAN.....	4
WASTEWATER DEPRECIATION RATES .....	4
THE PROPOSED WATER SYSTEM .....	4
COST ANALYSIS.....	5
FINANCE OF UTILITY FACILITIES .....	5
ADEQ COMPLIANCE.....	6
ARIZONA DEPARTMENT OF WATER RESOURCES (“ADWR”) COMPLIANCE .....	6
ARSENIC .....	6
CURTAILMENT PLAN TARIFF .....	6
WATER DEPRECIATION RATES.....	7
FAIR VALUE RATE BASE.....	7
REVENUE AND EXPENSES .....	7
RATE DESIGN .....	8
FRANCHISE .....	8
RECOMMENDATIONS .....	9
WATER SERVICE CC&N.....	9
WASTEWATER SERVICE CC&N .....	10

ATTACHMENT(S)

ENGINEERING REPORT.....	A
RATE ANALYST REPORT.....	B
ENGINEERING MAP .....	C

## **Introduction**

On July 7, 2005, Perkins Mountain Utility Company ("PMUC" or "Wastewater Company") and Perkins Mountain Water Company ("PMWC" or "Water Company") collectively referred to as ("The Utilities") filed applications with the Arizona Corporation Commission ("ACC" or "Commission") for Certificates of Convenience and Necessity ("CC&N") to provide wastewater and water services in portions of Mohave County, Arizona. On September 14, 2005, the Utilities filed an amendment to the applications to include a revised legal description.

On August 8, 2005, the ACC Utilities Division ("Staff") filed an Insufficiency Letter, indicating that the Utilities' applications did not meet the sufficiency requirements of Arizona Administrative Code ("A.A.C.") R14-2-402(C) and R14-2-602(B). A copy of the Insufficiency Letter was sent to the Utilities via U.S mail. In the letter, Staff listed the deficiencies to be cured for administrative purposes.

On August 25, 2005, Mr. Scott Fisher of Sports Entertainment, LLC ("Sports Entertainment") filed a request that the Utilities include a portion of Sports Entertainment's parcel in the proposed CC&N area.

On August 29, 2005, and September 14, 2005, the Utilities provided additional documentation to support their relief requested.

On September 19, 2005, Staff filed a Sufficiency Letter indicating that the application had met the sufficiency requirements of A.A.C.

On September 21, 2005, a procedural order was issued which consolidated the above mentioned applications for purposes of hearing. The procedural order was subsequently amended on September 26, 2005.

On September 27, 2005, Sports Entertainment filed an Application to Intervene in both dockets.

## **Background**

PMUC and PMWC are Nevada Corporations, in good standing with the ACC Corporation Division, and formed to provide wastewater and water utility services to all of the residents and businesses in the Golden Valley South and The Villages at White Hills master-planned communities, and are seeking CC&Ns for these areas.

Golden Valley South is a master planned community which includes an active retiree community with an 18-hole golf course, an interconnected community for all age groups, an industrial/business park area and community commercial areas. Golden Valley South is nine square-miles (approximately 5,750 acres) and is located approximately five miles southwest of

Kingman, Arizona. The development is expected to be comprised of more than 33,000 dwelling units at build-out.

The Village at White Hills is planned as a self-contained community that would provide affordable homes for commuters to the Las Vegas metropolitan area. The development is four and half square-miles (approximately 2700 acres) and is located approximately 40 miles northwest of Kingman. The Village at White Hills is expected to serve both residents and traveler and comprise of more than 20,000 dwelling units.

Rhodes Home Arizona, LLC ("Rhodes") is the developer for Golden Valley South and The Village at White Hills.

### **Request for Service**

The Utilities filed with the applications the request for service the Utilities received from Desert Communities, Inc. and America Land Management, LLC for Golden Valley South and Sedora Holdings, LLC (aka Sedora, LLC) for The Village at White Hills. No request for service was submitted in the applications by the Utilities for the Sports Entertainment's property which was identified in the applications as part of The Village at White Hills.

On August 15, 2005, Sports Entertainment sent a letter to Staff indicating that the Utilities had notified Sports Entertainment requesting that the Utilities be allowed to provide utility services to Sports Entertainment's property located in The Village at White Hills. The letter further stated that the Utilities had failed to include a portion of the property and that Sports Entertainment would like to request that the whole property be included in the master plan to provide services. On September 27, 2005, Sports Entertainment filed an Application to Intervene in the docket.

Sports Entertainment owns approximately 440 acres of land ("Parcel Number 317-36-051" or "Subject Property") in Section 30 of Township 27 North, Range 20 West, in the White Water Hills area of Mohave County. The remaining 200 acres of land in Section 30 of Township 27 North, Range 20 West, Southwest of the Subject Property, are Federal land. According to the Application to Intervene, Sports Entertainment granted to Sagebrush Enterprises, Inc. an Option to purchase 320 acres of the Subject Property ("Option Property") and Sagebrush Enterprises, Inc. has exercised its Option to Purchase the Option Property. Sports Entertainment anticipates to close the sale of the 320 acres to Sagebrush Enterprises, Inc. in 2006. After the sale in 2006, Sports Entertainment will own only the remaining 120 acres of the Subject Property.

Staff has had discussions with both the representatives of the Utilities and Sports Entertainment regarding the August 15, 2005 letter, specifically the issue of including the remaining 120 acres in the Utilities' plan to provide utility services. Staff believes that the inclusion of the 120 acres to the Utilities requested (The Village at White Hills) CC&N area is in the public interest since the 120 acres is near to or contiguous to the Utilities requested CC&N area. As such, Staff recommends that the Utilities be required to provide utility services to all of

the 440 acres of land that is owned by Sports Entertainment. Staff further recommends that the Utilities be required to file with Docket Control an amended legal description for The Village at White Hills including the entire 440 acres of land that is owned by Sports Entertainment no later than 15 days after the effective date of the order granting this application.

### **The Proposed Wastewater System**

For Golden Valley South, PMUC is proposing to construct an 8.0 million gallon per day ("MGD") activated sludge wastewater treatment plant ("WWTP") and approximately 100,000 lineal feet of collection system to serve 152 customers in the first year and 2,042 customers by the fifth year.

For The Villages at White Hills, PMUC is proposing to construct a 6.0 MGD activated sludge WWTP and approximately 41,000 lineal feet of collection system to serve zero customers in the first year and 1,025 customers by the fifth year. A reclaimed water system is also being proposed that will consist of pump station/storage sites and 25,000 lineal feet of force mains for beneficial use for irrigation of large landscaped areas or golf course if ultimately included in the land plan.

### **Cost Analysis**

PMUC submitted an estimated total plant-in-service spreadsheet by the National Association of Regulatory Utility Commissioners ("NARUC") plant account which combined the two development projects (see PMUC's Schedule A-11 in the attached Engineering Report):

Year 1:	\$4,548,325
Year 2:	\$7,937,725
Year 3:	\$9,541,950
Year 4:	\$16,915,025
Year 5:	\$19,024,350

Staff has reviewed the proposed total plant-in-service along with PMUC's engineering reports and found the plant facilities and cost to be reasonable and appropriate. However, approval of this CC&N application does not imply any particular future treatment for determining the rate base. No "used and useful" determination of the proposed plant-in-service was made, and no conclusions should be inferred for rate making or rate base purposes in the future.

### **Arizona Department of Environmental Quality ("ADEQ") Compliance**

PMUC does not have any plant facilities at this time; therefore, an ADEQ compliance status is not applicable at this time.

The Wastewater Company has not received its ADEQ Certificate of Approval to Construct ("ATC") for construction of the facilities. Staff recommends that PMUC file with Docket Control, as a compliance item, copies of the ATC for phase 1 of each project when received by PMUC, but no later than 24 months after the effective date of the order granting this application.

Since an Aquifer Protection Permit ("APP") represents a fundamental authority for the designation of a wastewater service area and a wastewater provider, Staff recommends that PMUC file with Docket Control, as a compliance item, copies of each project's APP within 24 months after a decision is issued in this proceeding

### **Clean Water Act Section 208 Plan**

Environmental quality regulations require PMUC to obtain approval of an individual wastewater facility plan, often referred to as "Section 208 Plan" from the designated water quality planning agency. Since the developments are in Mohave County and Mohave County does not have a Designated Planning Authority, the Section 208 Plan will be processed by ADEQ.

Staff recommends that PMUC obtain Section 208 approval from ADEQ within 24 months from the effective date of the decision in this matter and file with Docket Control as a compliance item in this docket a copy of the Section 208 approval for the requested area within 24 months from the effective date of the decision in this matter.

### **Wastewater Depreciation Rates**

PMUC has adopted Staff's typical and customary Wastewater Depreciation Rates. These rates are presented in Table A of the attached Engineering Report and it is recommended that PMUC use these depreciation rates by individual NARUC category as delineated in Table A of the attached Engineering Report.

### **The Proposed Water System**

For Golden Valley South, PMWC is proposing to construct 15 wells (each producing at 1,200 gallons per minute ("GPM")), 10 million gallons of storage (three sites minimum), booster systems, and approximately 133,000 lineal feet of transmission/distribution main to serve 150 customers in the first year and 2,040 customers by the fifth year.

For The Villages at White Hills, PMWC is proposing to construct 25 wells (each producing at 500 GPM), five tank/pumping sites (tanks ranging from 0.3 MG to 3.0 MG) and approximately 56,000 lineal feet of transmission/distribution main to serve zero customers in the first year and 1,025 customers by the fifth year.

### **Cost Analysis**

PMWC submitted an estimated total plant-in-service spreadsheet by the NARUC plant account which combined the two development projects (see PMWC's Schedule A-11 in the attached Engineering Report):

Year 1:	\$4,812,375
Year 2:	\$9,932,275
Year 3:	\$11,980,317
Year 4:	\$15,058,359
Year 5:	\$19,424,751

Staff has reviewed the proposed total plant-in-service along with PMWC's engineering reports and found the plant facilities and cost to be reasonable and appropriate. However, approval of this CC&N application does not imply any particular future treatment for determining the rate base. No "used and useful" determination of the proposed plant-in-service was made, and no conclusions should be inferred for rate making or rate base purposes in the future.

### **Finance of Utility Facilities**

According to the applications, the Utilities intend to finance the required utility facilities through a combination of shareholder equity, Retained Earning, Contributions In Aid of Construction ("CIAC") provided through Hookup fees (see the Rate Design section of this Report for further discussion on CIAC), and advances in aid of construction. Advances in aid of construction are often in the form of Main Extension Agreements ("MXAs"). MXAs are standard industry practice. The minimal acceptable criteria for line extension agreements between water and wastewater utilities and private parties are established by A.A.C. R14-2-406 and 606. 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 PMWC file with Docket Control, as a compliance item, for Staff review and approval, a copy of the fully executed main extension agreements for water facilities for Phase I of the extension area within 365 days of a decision in this case.

### **ADEQ Compliance**

PMWC does not have any plant facilities at this time; therefore, an ADEQ compliance status is not applicable at this time.

The Water Company has not received its ADEQ Certificate of Approval to Construct ("ATC") for construction of the facilities. Staff recommends that the Water Company file with Docket Control, as a compliance item, copies of the ATC for phase 1 of each project when received by the Company, but no later than 24 months after the effective date of the order granting this application.

### **Arizona Department of Water Resources ("ADWR") Compliance**

PMWC will not be located in an Active Management Area ("AMA") and will not be subject to any AMA reporting and conservation requirements.

Staff recommends that the Water Company file with Docket Control, as a compliance item, copies of the developer's Letter of Adequate Water Supply for the requested areas within 24 months after the effective date of the order granting this application.

### **Arsenic**

The U.S. Environmental Protection Agency has reduced the arsenic maximum contaminant level ("MCL") in drinking water from 50 parts per billion ("ppb") to 10 ppb. The date for compliance with the new MCL is January 23, 2006.

The arsenic levels for Golden Valley South and The Villages at White Hills developments' well sources are unknown at this time. If the arsenic levels need to be lowered to meet the new MCL, the ATC should be able to resolve this issue.

### **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.

Staff recommends that the Company file with Docket Control, as a compliance item, for review and approval by the Director of the Utilities Division, a curtailment tariff within 90 days after the effective date of any decision and order pursuant to this application. Staff also recommends that the tariff shall generally conform to the sample tariff found posted on the Commission's web site ([www.cc.state.az.us/utility](http://www.cc.state.az.us/utility)) or available upon request from Commission Staff.

### **Water Depreciation Rates**

PMWC has adopted Staff's typical and customary Water Depreciation Rates. These rates are presented in Table A of the attached Engineering Report and it is recommended that the Water Company use these depreciation rates by individual NARUC category as delineated in Table A of the attached Engineering Report.

### **Fair Value Rate Base**

Consistent with Commission rules, the Utilities' applications included the required five-year projections for plant values, operating revenues, operating expenses, and number of customers. Projections and assumptions are necessary to establish a fair value rate base and initial rates due to the lack of historical information. Since this is a new CC&N, original cost rate base is the same as fair value rate base. Staff adjusted rate base to reflect its removal of the Utilities' proposed hook-up fees, as explained in the Rate Design section of this Report.

Staff's elimination of the hook-up fees reduced the Utilities' cash projections and Contributions in Aid of Construction ("CIAC") while increasing the need for additional paid-in-capital as shown on Water and Wastewater Schedules REL-1-Balance Sheet in the attached Rate Analyst Report. Since the elimination of the hook-up fees also eliminates the amortization of the CIAC, the depreciation expense has been increased which has affected the Utilities' Income Statement (see Schedules REL-2 in the attached Rate Analyst Report). Further, the hook-up fee elimination has increased Water and Wastewater Schedules REL-4-Rate Base and Return and eliminated the original balances submitted by the Utilities.

Staff determined the projected rate base for the water plant to be \$2,307,375 at the end of the first year (see Water Schedule REL-4-Rate Base and Return in the attached Rate Analyst Report). Staff determined the rate base for the wastewater plant to be \$2,581,198 at the end of the first year (see Wastewater Schedule REL-4-Rate Base and Return in the attached Rate Analyst Report).

### **Revenue and Expenses**

As justification for the initial rates, the Utilities have estimated their revenue and expenses. Staff has reviewed these estimates and found them to be reasonable. The projected income statements for water and wastewater are depicted in Water Schedule REL-2-Income Statement and Wastewater Schedule REL-2-Income Statement of the attached Rate Analyst Report.

Property taxes for the Utilities were adjusted to reflect the annual reduction in the Assessment Ratios used in determining the Utilities' property tax liabilities (see Schedule REL-6-Property Taxes in the attached Rate Analyst Report). The results of these adjustments are also reflected on Water and Wastewater Schedules REL-2-Income Statement and Schedules REL-12-

Cash Flow. Water and Wastewater Schedules REL-10 reflect changes to depreciation expenses and resulting Federal and State income taxes.

### **Rate Design**

The Utilities' projected revenue is derived primarily from the residential class customers.

To promote conservation in the use of water, Staff has been recommending an inverted three-tiered rate structure for the commodity charges. PMWC has complied with the Commission's rate structure recommendations and has submitted a three-tier design. Staff has reviewed this design and finds it acceptable (see Water Schedule REL-5-Rate Design in the attached Rate Analyst Report).

The wastewater rates requested by PMUC are a fixed flat monthly fee of \$52.00 (see Wastewater Schedule REL-5-Rate Design of the attached Rate Analyst Report).

The Utilities' hook-up fees were removed by Staff. It is this Commission's normal procedure to allow hook-up fees only to companies already holding and operating under a CC&N. The elimination of the hook-up fees reduces the Utilities' source of capital for the water side of the business by \$132,224 in the first year of operations and \$2,581,702 in the fifth year for a total shortfall of \$6,005,428. In the wastewater side of the business, the elimination of the hook-up fee reduced capital by \$219,370 in the first year and \$4,267,909 in the fifth year for a total capital shortfall of \$9,955,619. The combined water/wastewater shortfall totals nearly \$16,000,000 in a five-year period. Staff recommends the Utilities seek other means of financing that do not include contributions.

Staff recommends that the Utilities' charge for minimum deposit be as per A.A.C. R14-2-403(B)(7) for water and A.A.C. R14-2-603(B)(7) and (8) for wastewater. Other service charges proposed by the Utilities were adjusted by Staff to more closely reflect those being proposed in other CC&N cases and approved by the Commission.

Staff recommends the approval of its rates, and charges as per Water and Wastewater Schedules REL-5 of the attached Rate Analyst Report and as supported by the Arizona Administrative Code, Article 4, Water Utilities and Article 6, Sewer Utilities and should be adopted by the Commission.

Staff further recommends that the Utilities be required to file with Docket Control, as a compliance item, a tariff consistent with the rates and charges authorized by the Commission within 30 days of the decision in this matter.

### **Franchise**

Every applicant for a CC&N and/or CC&N extension is required to submit to the Commission evidence showing that the applicant has received the required consent, franchise or

permit from the proper authority. If the applicant operates in an unincorporated area, the company has to obtain the franchise from the County. If the applicant operates in an incorporated area of the County, the applicant has to obtain the franchise from the City/Town.

Staff recommends that the Utilities be required to file with Docket Control, as a compliance item in this docket a copy of all related franchise agreements for the requested area within 365 days of the decision in this matter.

### **Recommendations**

#### **Water Service CC&N**

Staff recommends the Commission approve PMWC application for CC&N within portions of Mohave County, Arizona, as amended, to provide water service, subject to the following conditions:

1. That the Commission find that the fair value rate base of PMWC's property devoted to water service is \$2,307,375.
2. That the Commission approve Staff's rates as shown on Water Schedule REL-5-Rate Design in the attached Rate Analyst Report. In addition to collection of its regular rates, PMWC may collect from its customers a proportionate share of any privilege, sales or use tax.
3. That the Commission require PMWC to file with Docket Control, as a compliance item, a tariff consistent with the rates and charges authorized by the Commission within 30 days of the decision in this matter.
4. That the Commission require PMWC to notify the Director of the Utilities Division, through the compliance section, within 15 days of providing service to its first customer.
5. That the Commission require PMWC to file a rate application no later than six-months following the fifth anniversary of the date it begins providing service to its first customer.
6. That the Commission require PMWC to maintain its books and records in accordance with the NARUC Uniform System of Accounts for Water Utilities.
7. That the Commission require PMWC to use the depreciation rates recommended by Staff.
8. That the Commission require PMWC to seek other means of financing that do not include contributions.

9. That the Commission require PMWC's charge for minimum deposit be as per A.A.C. R14-2-403(B)(7).
10. That the Commission require PMWC to provide utility services to all of the 440 acres of land that is owned by Sports Entertainment.
11. That the Commission require PMWC to file with Docket Control, as a compliance item, an amended legal description for The Village at White Hills CC&N area including the entire 440 acres of land that is owned by Sports Entertainment no later than 15 days after the effective date of the order granting this application.
12. That the Commission require PMWC to file with Docket Control, as a compliance item, copies of the ATC for phase 1 of each project when received by the Company, but no later than 24 months after the effective date of the order granting this application.
13. That the Commission require PMWC to file with Docket Control, as a compliance item, copies of the developer's Letter of Adequate Water Supply demonstrating the availability adequate water for the requested areas within 24 months after the effective date of the order granting this application.
14. That the Commission require PMWC to file with Docket Control, as a compliance item, for review and approval by the Director of the Utilities Division, a curtailment tariff within 90 days after the effective date of any decision and order pursuant to this application. The tariff shall generally conform to the sample tariff found posted on the Commission's web site ([www.cc.state.az.us/utility](http://www.cc.state.az.us/utility)) or available upon request from Commission Staff.
15. That the Commission require PMWC to file with Docket Control, as a compliance item in this docket, a copy of all related franchise agreements for the requested area within 365 days of the decision in this matter.
16. That the Commission require PMWC to file with Docket Control, as a compliance item, for Staff review and approval, a copy of the fully executed main extension agreements for water facilities for Phase I of the extension area within 365 days of a decision in this case.

Staff further recommends that the Commission's Decision granting the requested CC&N to PMWC be considered null and void should PMWC fail to meet Conditions Nos. 3, 11, 12, 13, 14, 15 and 16 listed above within the time specified.

#### **Wastewater Service CC&N**

Staff recommends the Commission approve PMUC application for CC&N within portions of Mohave County, Arizona, as amended, to provide wastewater service, subject to the following conditions:

1. That the Commission find that the fair value rate base of PMUC's property devoted to wastewater service is \$2,581,198.
2. That the Commission approve Staff's rates as shown on Wastewater Schedule REL-5-Rate Design in the attached Rate Analyst Report. In addition to collection of its regular rates, PMUC may collect from its customers a proportionate share of any privilege, sales or use tax.
3. That the Commission require PMUC to file with Docket Control, as a compliance item, a tariff consistent with the rates and charges authorized by the Commission within 30 days of the decision in this matter.
4. That the Commission require PMUC to notify the Director of the Utilities Division, through the compliance section, within 15 days of providing service to its first customer.
5. That the Commission require PMUC to file a rate application no later than six-months following the fifth anniversary of the date it begins providing service to its first customer.
6. That the Commission require PMUC to maintain its books and records in accordance with the NARUC Uniform System of Accounts for Wastewater Utilities.
7. That the Commission require PMUC to use the depreciation rates recommended by Staff.
8. That the Commission require PMUC to seek other means of financing that do not include contributions.
9. That the Commission require PMUC's charge for minimum deposit be as per A.A.C. R14-2-603(B)(7) and (8).
10. That the Commission require PMUC to provide utility services to all of the 440 acres of land that is owned by Sports Entertainment.
11. That the Commission require PMUC to file with Docket Control, as a compliance item, an amended legal description for The Village at White Hills CC&N area including the entire 440 acres of land that is owned by Sports Entertainment no later than 15 days after the effective date of the order granting this application.
12. That the Commission require PMUC to file with Docket Control, as a compliance item, copies of the ATC for phase 1 of each project when received by PMUC, but no later than 24 months after the effective date of the order granting this application

13. That the Commission require PMUC to file with Docket Control, as a compliance item, copies of each project's APP within 24 months after a decision is issued in this proceeding
14. That the Commission require PMUC to obtain Section 208 approval from ADEQ within 24 months from the effective date of the decision in this matter and file with Docket Control, as a compliance item in this docket, a copy of the Section 208 approval for the requested area within 24 months from the effective date of the decision in this matter.
15. That the Commission require PMUC to file with Docket Control, as a compliance item in this docket, a copy of all related franchise agreements for the requested area within 365 days of the decision in this matter.

Staff further recommends that the Commission's Decision granting the requested CC&N to PMUC be considered null and void should PMUC fail to meet the Conditions Nos. 3, 11, 12, 13, 14 and 15 listed above within the time specified.

## MEMORANDUM

DATE: October 19, 2005

TO: Blessing Chukwu  
Executive Consultant III

FROM: Marlin Scott, Jr. *MSJ*  
Utilities Engineer

RE: Perkins Mountain Water Company  
Docket No. SW-20380A-05-0490 (CC&N – Water)

---

### **Introduction**

Perkins Mountain Water Company (“Perkins Mtn. Water” or “Company”) has submitted a Certificate of Convenience and Necessity (“CC&N”) application to provide water service to two proposed master-planned communities in Mohave County. One requested area which would provide service to the Golden Valley South development (nine square-miles) is approximately five miles southwest of Kingman and the other requested area which would provide serve to The Villages at White Hills development (4-1/2 square-miles) is approximately 40 miles northwest of Kingman.

### **Company’s Proposed Water Systems**

#### Golden Valley South

The Company is proposing to construct 15 wells (each at 1,200 gallons per minute (“GPM”)), 10 million gallons of storage (three sites minimum), booster systems and approximately 133,000 lineal feet of transmission/distribution main to serve 150 customers in the first year and 2,040 customers by the fifth year.

#### The Villages at White Hills

The Company is proposing to construct 25 wells (each at 500 GPM), five tank/pumping sites (tanks ranging from 0.3 MG to 3.0 MG) and approximately 56,000 lineal feet of transmission/distribution main to serve zero customers in the first year and 1,025 customers by the fifth year.

### Cost Analysis

The Company submitted an estimated total plant-in-service spreadsheet by the National Association of Regulatory Utility Commissioners ("NARUC") plant account which combined the two development projects (see attached Company's Schedule A-11):

Year 1:	\$4,812,375
Year 2:	\$9,932,275
Year 3:	\$11,980,317
Year 4:	\$15,058,359
Year 5:	\$19,424,751

Staff has reviewed the proposed total plant-in-service along with the Company's engineering reports and found the plant facilities and cost to be reasonable and appropriate. However, approval of this CC&N application does not imply any particular future treatment for determining the rate base. No "used and useful" determination of the proposed plant-in-service was made, and no conclusions should be inferred for rate making or rate base purposes in the future.

### **Arizona Department of Environmental Quality ("ADEQ") Compliance**

#### Compliance Status

The Company does not have any plant facilities at this time; therefore, an ADEQ compliance status is not applicable at this time.

#### Approval to Construct

The Company has not received its ADEQ Certificate of Approval to Construct ("ATC") for construction of the facilities. Staff recommends that the Company file with Docket Control same copies of the ATC for phase 1 of each project when received by the Company, but no later than 24 months after the effective date of the order granting this application.

#### Arsenic

The U.S. Environmental Protection Agency has reduced the arsenic maximum contaminant level ("MCL") in drinking water from 50 parts per billion ("ppb") to 10 ppb. The date for compliance with the new MCL is January 23, 2006.

The arsenic levels for the Golden Valley South and The Villages at White Hills developments' well sources are unknown at this time. If the arsenic levels need to be lowered to meet the new MCL, the ATC should be able to resolve this issue.

## **Arizona Department of Water Resources ("ADWR") Compliance**

### Compliance Status

The Company will not be located in an Active Management Area ("AMA") and will not be subject to any AMA reporting and conservation requirements.

### Letter of Adequate Water Supply

Staff recommends that the Company file with Docket Control same copies of the developer's Letter of Adequate Water Supply demonstrating the availability of adequate water for the requested areas, where applicable or when required by statute, within 24 months after the effective date of the order granting this application.

### **Water Depreciation Rates**

The Company has adopted Staff's typical and customary Water Depreciation Rates. These rates are presented in Table A and it is recommended that the Company use these depreciation rates by individual NARUC category as delineated in the attached Table A.

### **Summary**

#### Conclusions

- A. Staff concludes that the Company's proposed water systems will have adequate infrastructure to serve the requested areas.
- B. Staff concludes that the proposed plant facilities and cost are reasonable and appropriate. However, no "used and useful" determination of this plant-in-service was made, and no particular future treatment should be inferred for rate making or rate base purposes in the future.
- C. The Company does not have any plant facilities at this time; therefore, an ADEQ compliance status is not applicable at this time.
- D. The arsenic levels for the Golden Valley South and The Villages at White Hills developments' well sources are unknown at this time. If the arsenic levels need to be lowered to meet the new MCL, the ATC should be able to resolve this issue.
- E. The Company will not be located in an AMA and will not be subject to any AMA reporting and conservation requirements.

Recommendations

1. Staff recommends that the Company file with Docket Control same copies of the ATC for phase 1 of each project when received by the Company, but no later than 24 months after the effective date of the order granting this application.
2. Staff recommends that the Company file with Docket Control same copies of the developer's Letter of Adequate Water Supply demonstrating the availability of adequate water for the requested area, where applicable or when required by statute, within 24 months after the effective date of the order granting this application.
3. Staff recommends that the Company use the water depreciation rates by individual NARUC category as delineated in the attached Table A.

Table A. Water Depreciation Rates

NARUC Account No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment	8	12.5
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	5	20.00
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00
344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00

## MEMORANDUM

DATE: October 19, 2005

TO: Blessing Chukwu  
Executive Consultant III

FROM: Marlin Scott, Jr. *MSJ*  
Utilities Engineer

RE: Perkins Mountain Utility Company  
Docket No. SW-20379A-05-0489 (CC&N – Wastewater)

---

### **Introduction**

Perkins Mountain Utility Company (“Perkins Mtn. Utility” or “Company”) has submitted a Certificate of Convenience and Necessity (“CC&N”) application to provide wastewater service to two proposed master-planned communities in Mohave County. One requested area which would provide service to the Golden Valley South development (nine square-miles) is approximately five miles southwest of Kingman and the other requested area which would provide service to The Villages at White Hills development (4-1/2 square-miles) is approximately 40 miles northwest of Kingman.

### **Company’s Proposed Wastewater Systems**

#### Golden Valley South

The Company is proposing to construct an 8.0 million gallon per day (“MGD”) activated sludge wastewater treatment plant (“WWTP”) and approximately 100,000 lineal feet of collection system to serve 152 customers in the first year and 2,042 customers by the fifth year.

#### The Villages at White Hills

The Company is proposing to construct a 6.0 MGD activated sludge WWTP and approximately 41,000 lineal feet of collection system to serve zero customers in the first year and 1,025 customers by the fifth year. A reclaimed water system is also being proposed that will consist of pump station/storage sites and 25,000 lineal feet of force mains for beneficial use for irrigation of large landscaped areas or golf course if ultimately included in the land plan.

### Cost Analysis

The Company submitted an estimated total plant-in-service spreadsheet by the National Association of Regulatory Utility Commissioners ("NARUC") plant account which combined the two development projects (see attached Company's Schedule A-11):

Year 1:	\$4,548,325
Year 2:	\$7,937,725
Year 3:	\$9,541,950
Year 4:	\$16,915,025
Year 5:	\$19,024,350

Staff has reviewed the proposed total plant-in-service along with the Company's engineering reports and found the plant facilities and cost to be reasonable and appropriate. However, approval of this CC&N application does not imply any particular future treatment for determining the rate base. No "used and useful" determination of the proposed plant-in-service was made, and no conclusions should be inferred for rate making or rate base purposes in the future.

### **Arizona Department of Environmental Quality ("ADEQ") Compliance**

#### Compliance Status

The Company does not have any plant facilities at this time; therefore, an ADEQ compliance status is not applicable at this time.

#### Approval to Construct

The Company has not received its ADEQ Certificate of Approval to Construct ("ATC") for construction of the facilities. Staff recommends that the Company file with Docket Control copies of the ATC for phase 1 of each project when received by the Company, but no later than 24 months after the effective date of the order granting this application.

#### Aquifer Protection Permit and Section 208 Plan Amendment

Since an Aquifer Protection Permit ("APP") and the Section 208 Plan Amendment ("Amendment") represent fundamental authority for the designation of a wastewater service area and a wastewater provider, Staff recommends that the Company file with Docket Control copies of each project's APP and Section 208 Plan Amendment within 24 months after a decision is issued in this proceeding

### **Wastewater Depreciation Rates**

The Company has adopted Staff's typical and customary Wastewater Depreciation Rates. These rates are presented in Table A and it is recommended that the Company use these depreciation rates by individual NARUC category as delineated in the attached Table A.

### **Summary**

#### Conclusions

- A. Staff concludes that the Company's proposed wastewater systems will have adequate infrastructure to serve the requested areas.
- B. Staff concludes that the proposed plant facilities and cost are reasonable and appropriate. However, no "used and useful" determination of this plant-in-service was made, and no particular future treatment should be inferred for rate making or rate base purposes in the future.
- C. The Company does not have any plant facilities at this time; therefore, an ADEQ compliance status is not applicable at this time.

#### Recommendations

- 1. Staff recommends that the Company file with Docket Control as a compliance item in this docket, copies of the ATC for phase 1 of each project when received by the Company, but no later than 24 months after the effective date of the order granting this application.
- 2. Staff recommends that the Company file with Docket Control same copies of each project's APP and Section 208 Plan Amendment within 24 months after a decision is issued in this proceeding.
- 3. Staff recommends that the Company use the wastewater depreciation rates by individual NARUC category as delineated in the attached Table A.

Table A. Wastewater Depreciation Rates

NARUC Acct. No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
354	Structures & Improvements	30	3.33
355	Power Generation Equipment	20	5.00
360	Collection Sewers – Force	50	2.0
361	Collection Sewers- Gravity	50	2.0
362	Special Collecting Structures	50	2.0
363	Services to Customers	50	2.0
364	Flow Measuring Devices	10	10.0
365	Flow Measuring Installations	10	10.00
366	Reuse Services	50	2.00
367	Reuse Meters & Meter Installations	12	8.33
370	Receiving Wells	30	3.33
371	Pumping Equipment	8	12.50
374	Reuse Distribution Reservoirs	40	2.50
375	Reuse Transmission & Distribution System	40	2.50
380	Treatment & Disposal Equipment	20	5.0
381	Plant Sewers	20	5.0
382	Outfall Sewer Lines	30	3.33
389	Other Plant & Miscellaneous Equipment	15	6.67
390	Office Furniture & Equipment	15	6.67
390.1	Computers & Software	5	20.0
391	Transportation Equipment	5	20.0
392	Stores Equipment	25	4.0
393	Tools, Shop & Garage Equipment	20	5.0
394	Laboratory Equipment	10	10.0
395	Power Operated Equipment	20	5.0
396	Communication Equipment	10	10.0
397	Miscellaneous Equipment	10	10.0

## MEMORANDUM

TO: Blessing Chukwu  
Executive Consultant – Utilities Division

FROM: Ronald E. Ludders *REL*  
Public Utilities Analyst V – Utilities Division

Date: October 26, 2005

RE: PERKINS MOUNTAIN WATER COMPANY, W-20380A-05-0490 AND  
PERKINS MOUNTAIN UTILITY COMPANY, WS-20379A-05-0489  
APPLICATION FOR A NEW CERTIFICATE OF CONVENIENCE AND  
NECESSITY

### Introduction

On July 7, 2005, Perkins Mountain Water Company (“Water” or “Water Company”) and Perkins Mountain Utility Company (“Wastewater” or “Wastewater Company”) - submitted an application to the Arizona Corporation Commission (“Commission”) for a Certificate of Convenience and Necessity (“CC&N”) to provide public utility water service and wastewater service to a master-planned community in Mohave County, Arizona. The application indicates that there are presently no customers receiving service in the area of the requested CC&N. At the end of five years the Water and Wastewater Company is projecting to be serving 3,067 customers and ultimately will serve over 53,000 customers at build-out.

### Fair Value Rate Base

Consistent with Commission rules, the Water and Wastewater Company’s filing included the required five-year projections for plant values, operating revenues, operating expenses, and number of customers. Projections and assumptions are necessary to establish a fair value rate base and initial rates due to the lack of historical information. Since this is a new CC&N, original cost rate base is the same as fair value rate base. Staff adjusted rate base to reflect its removal of the Water and Wastewater Company’s proposed hook-up fees, as explained in the rate design section of this Report.

Staff’s elimination of the hook-up fees reduced the Water and Wastewater Company’s cash projections and Contributions in Aid of Construction (“CIAC”) while increasing the need for additional paid-in-capital as shown on Water and Wastewater Schedules REL-1-Balance Sheet. Since the elimination of the hook-up fees also eliminates the amortization of the CIAC, the depreciation expense has been increased which has affected the Water and Wastewater Company’s Income Statement, Schedules REL-2. Further, the hook-up fee elimination has increased Water and Wastewater Schedules REL-4-Rate Base and Return and eliminated the original balances submitted by the Water and Wastewater Companies.

Staff determined the projected rate base for the water plant to be \$2,307,375 at the end of the first year (Water Schedule REL-4-Rate Base and Return). Staff determined the rate base for the wastewater plant to be \$2,581,198 at the end of the first year (Wastewater Schedule REL-4-Rate Base and Return).

### **Revenue and Expenses**

As justification for the initial rates, the Water and Wastewater Company has estimated its revenue and expenses. Staff has reviewed these estimates and found them to be reasonable. The projected income statements for water and wastewater are depicted in Water Schedule REL-2-Income Statement and Wastewater Schedule REL-2-Income Statement.

Property taxes for the Water and Wastewater Companies (Schedule REL-6-Property Taxes) were adjusted to reflect the annual reduction in the Assessment Ratios used in determining the Water and Wastewater Company's property tax liabilities. The results of these adjustments are also reflected on Water and Wastewater Schedules REL-2-Income Statement and Schedules REL-12-Cash Flow. Water and Wastewater Schedules REL-10 reflect changes to depreciation expenses and resulting Federal and State income taxes.

### **Rate Design**

The Water and Wastewater Company's projected revenue is derived primarily from the residential class customers.

To promote conservation in the use of water, Staff has been recommending an inverted three-tiered rate structure for the commodity charges. The Water Company has complied with the Commission's rate structure recommendations and has submitted a three-tier design. Staff has reviewed this design and finds it acceptable (see Water Schedule REL-5-Rate Design).

The wastewater rates requested by the Wastewater Company are a fixed flat monthly fee of \$75.00 (see Wastewater Schedule REL-5-Rate Design).

The Water and Wastewater Company's hook-up fees were removed by Staff. It is this Commission's normal procedure to allow hook-up fees only to companies already holding and operating under a CC&N. The elimination of the hook-up fees reduces the Water and Wastewater Company's source of capital for the water side of the business by \$132,224 in the first year of operations and \$2,581,702 in the fifth year for a total shortfall of \$6,005,428. In the wastewater side of the business, the elimination of the hook-up fee reduced capital by \$219,370 in the first year and \$4,267,909 in the fifth year for a total capital shortfall of \$9,955,619. The combined water/wastewater shortfall totals nearly \$16,000,000 in a five-year period. Staff recommends the Water and Wastewater Company seek other means of financing that do not include contributions.

Staff recommends that the Water and Wastewater Company's charge for minimum deposit be as per Rule R14-2-403.B.7. Other service charges proposed by the Water and Wastewater Company were adjusted by Staff to more closely reflect those being proposed in other CC&N cases and approved by the Commission.

Staff recommends the approval of its rates, and charges as per Water and Wastewater Schedules REL-5 and as supported by the Arizona Administrative Code, Article 4, Water Utilities and Article 6, Sewer Utilities and should be adopted by the Commission.

### **Recommendations**

Staff recommends:

- approval of Staff's rates as shown on Water Schedule REL-5-Rate Design and Wastewater Schedule REL-5-Rate Design. In addition to collection of its regular rates, the Water and Wastewater Company may collect from its customers a proportionate share of any privilege, sales or use tax.
- the Water and Wastewater Company be ordered to notify the Director of the Utilities Division, through the compliance section, within 15 days of providing service to its first customer.
- the Water and Wastewater Company be ordered to file a rate application no later than six-months following the fifth anniversary of the date the Company begins providing service to its first customer.
- the Water and Wastewater Company be ordered to maintain its books and records in accordance with the National Association of Regulatory Utility Commissioners ("NARUC") Uniform System of Accounts for Water and Wastewater Utilities.
- the Water and Wastewater Company be ordered to use the depreciation rates recommended by Staff for water and wastewater utilities.

**Perkins Mountain Water Company W-20380A-05-0490**  
**Index to Schedules**

The attached schedules are those adjusted by Staff. All other schedules submitted by the Company remain unchanged, except for Staff's elimination of Contributions in Aid of Construction.

<u>Schedule</u>	<u>Description</u>
REL-1	Projected Balance Sheet
REL-2	Projected Income Statement
REL-4	Projected Rate Base and Return
REL-5	Recommended Rate Design
REL-6	Projected Property Taxes
REL-10	Projected Expenses
REL-12	Projected Cash Flow Statement

Perkins Mountain Water Company W-20380A-05-0490  
 Projected Balance Sheet

Schedule REL-1

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Assets</b>					
Current Assets					
Cash	\$ (56,431)	\$ (364,124)	\$ (224,347)	\$ (719,472)	\$ (1,341,396)
Staff Adjusted Cash (Paid in Capital)	\$ 75,000	\$ 415,000	\$ 375,000	\$ 980,000	\$ 1,775,000
Total Cash	\$ 18,569	\$ 50,876	\$ 150,653	\$ 260,528	\$ 433,604
Accounts Receivable	-	-	-	-	-
Other	-	-	-	-	-
Total Current Assets	\$ 18,569	\$ 50,876	\$ 150,653	\$ 260,528	\$ 433,604
Fixed Assets					
Utility Plant in Service	\$ 4,812,375	\$ 9,932,275	\$ 11,980,317	\$ 15,058,358	\$ 19,424,750
(less) Accumulated Depreciation	98,961	389,847	799,697	1,273,740	1,861,640
Net Plant in Service	\$ 4,713,414	\$ 9,542,428	\$ 11,180,620	\$ 13,784,618	\$ 17,563,110
CWIP	1,023,980	409,608	615,608	873,278	360,000
Total Assets	\$ 5,755,963	\$ 10,002,912	\$ 11,946,881	\$ 14,918,424	\$ 18,356,714
Advances in aid of Construction	\$ 2,307,375	\$ 4,833,002	\$ 6,813,400	\$ 8,927,436	\$ 11,075,650
Meter Advances	-	880	3,112	8,832	14,968
Contributions in aid of Const. (net)	-	-	-	-	-
Total Capital	\$ 3,448,588	\$ 5,169,031	\$ 5,130,369	\$ 5,982,157	\$ 7,266,096
Total Liabilities and Capital	\$ 5,755,963	\$ 10,002,912	\$ 11,946,881	\$ 14,918,424	\$ 18,356,714

Perkins Mountain Water Company W-20380A-05-0490  
 Projected Income Statement

Schedule REL-2

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Revenue</b>					
Water Sales	\$ 25,904	\$ 238,504	\$ 630,079	\$ 1,189,995	\$ 1,859,036
Establishment Charge	4,500	11,610	21,150	24,900	29,790
Other Operating Revenue					
<b>Total Operating Revenue</b>	<b>\$ 30,404</b>	<b>\$ 250,114</b>	<b>\$ 651,229</b>	<b>\$ 1,214,895</b>	<b>\$ 1,888,826</b>
<b>Operating Expenses</b>					
Salaries and Wages	\$ 25,000	\$ 52,000	\$ 54,080	\$ 56,243	\$ 87,739
Employee Pensions and Benefits	6,000	12,480	12,979	13,498	21,057
Purchased Water	-	-	-	-	-
Purchased Power	1,385	12,794	34,223	65,259	102,292
Fuel for Power Production	250	258	265	273	281
Chemicals	206	1,902	5,087	9,700	15,204
Materials and Supplies	1,000	4,000	4,500	5,000	5,500
Contract Services					
Engineering	500	2,060	2,122	2,185	2,251
Accounting	1,250	5,150	5,305	5,464	5,628
Legal	1,250	5,150	5,305	5,464	5,628
Management	2,500	10,300	10,609	10,927	11,255
Testing	113	1,611	3,726	6,216	9,195
Other	7,950	35,689	51,331	77,625	108,883
Rental of Building/Property	750	3,090	3,183	3,278	3,377
Rental of Equipment	250	1,030	1,061	1,093	1,126
Transportation Expense	1,250	5,150	5,305	5,464	5,628
Insurance					
Vehicles	250	1,030	1,061	1,093	1,126
General Liability	375	1,545	1,591	1,639	1,688
Workman's Comp	375	1,545	1,591	1,639	1,688
Other	-	-	-	-	-
Advertising Expense	-	-	-	-	-
Rate Case Amortization	-	-	-	-	-
Regulatory Commission	-	-	-	-	-
Water Conservation	-	500	515	530	546
Bad Debt	152	1,251	3,256	6,074	9,444
Miscellaneous	750	3,090	3,183	3,278	3,377
Depreciation (net of CIAC amort)	98,961	290,886	409,850	474,043	587,900
Taxes other than Income					
Property Taxes	3,686	7,706	16,559	35,987	59,372
Payroll Taxes	2,500	5,200	5,408	5,624	8,774
Other Taxes and Licenses	-	-	-	-	-
Income Taxes	50	50	1,911	161,072	320,320
<b>Total Operating Expenses</b>	<b>\$ 156,752</b>	<b>\$ 465,465</b>	<b>\$ 644,006</b>	<b>\$ 958,669</b>	<b>\$ 1,379,278</b>
<b>Operating Income or (Loss)</b>	<b>\$ (126,348)</b>	<b>\$ (215,351)</b>	<b>\$ 7,223</b>	<b>\$ 256,225</b>	<b>\$ 509,548</b>
<b>Other Income/Expenses</b>					
Interest Income	(64)	(4,206)	(5,885)	(9,438)	(20,609)
Other Income					
Other Expense					
Interest Expense					
<b>Total Other Income/Expense</b>	<b>\$ (64)</b>	<b>\$ (4,206)</b>	<b>\$ (5,885)</b>	<b>\$ (9,438)</b>	<b>\$ (20,609)</b>
<b>Net Income (Loss)</b>	<b>\$ (126,412)</b>	<b>\$ (219,557)</b>	<b>\$ 1,339</b>	<b>\$ 246,787</b>	<b>\$ 488,939</b>

Perkins Mountain Water Company W-20380A-05-0490  
 Projected Rate Base and Return

Schedule REL-4

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Plant</b>					
Plant In Service	\$ 4,812,375	\$ 9,932,275	\$ 11,980,317	\$ 15,058,358	\$ 19,424,750
(less) Accumulated Depreciation	98,961	389,847	799,697	1,273,740	1,861,640
Net Plant In Service	\$ 4,713,414	\$ 9,542,428	\$ 11,180,620	\$ 13,784,618	\$ 17,563,110
<b>Deductions</b>					
Advances In Aid of Construction	\$ 2,307,375	\$ 4,833,002	\$ 6,813,400	\$ 8,927,436	\$ 11,075,650
Meter Advances	-	880	3,112	8,832	14,968
Total Advances	\$ 2,307,375	\$ 4,833,882	\$ 6,816,512	\$ 8,936,268	\$ 11,090,618
Contributions in Aid of Construction (less) Amortization of CIAC	\$ -	\$ -	\$ -	\$ -	\$ -
Net AIAC	\$ -	\$ -	\$ -	\$ -	\$ -
Total Deductions	\$ 2,307,375	\$ 4,833,882	\$ 6,816,512	\$ 8,936,268	\$ 11,090,618
Rate Base	\$ 2,406,039	\$ 4,708,547	\$ 4,364,108	\$ 4,848,350	\$ 6,472,492
Operating Income	\$ (126,348)	\$ (215,351)	\$ 7,223	\$ 256,225	\$ 509,548
Rate of Return	-5.3%	-4.6%	0.2%	5.3%	7.9%

**Monthly Customer Charges**

3/4" Meter	\$ 30.00
1" Meter	\$ 40.00
1-1/2" Meter	\$ 100.00
2" Meter	\$ 160.00
3" Meter	\$ 300.00
4" Meter	\$ 500.00
6" Meter	\$ 1,000.00
8" Meter	\$ 1,600.00

Gallons included in Monthly Customer Charge 0

**Commodity Charges - Per 1,000 Gallons of Usage**

<b>3/4" Meters</b>	
0 to 4,000	\$ 2.00
4,001 to 20,000	\$ 3.80
20,001 gallons and above	\$ 5.50
<b>1" Meters</b>	
0 to 4,000	\$ 2.00
4,001 to 20,000	\$ 3.80
20,001 gallons and above	\$ 5.50
<b>1-1/2" Meters</b>	
0 to 42,000	\$ 3.80
42,001 gallons and above	\$ 5.50
<b>2" Meters</b>	
0 to 63,000	\$ 3.80
63,001 gallons and above	\$ 5.50
<b>3" Meters</b>	
0 to 120,000	\$ 3.80
120,001 gallons and above	\$ 5.50
<b>4" Meters</b>	
0 to 180,000	\$ 3.80
180,001 gallons and above	\$ 5.50
<b>6" Meters</b>	
0 to 207,000	\$ 3.80
207,001 gallons and above	\$ 5.50
<b>8" Meters</b>	
0 to 235,000	\$ 3.80
235,001 gallons and above	\$ 5.50

**Monthly Service Charge for Fire Sprinkler**

4" or Smaller Connection	\$ 25.00
6" Connection	\$ 50.00
8" Connection	\$ 80.00

**Service Line and Meter Installation Charges**

3/4" Meter	\$ 440.00
1" Meter	\$ 500.00
1-1/2" Meter	\$ 715.00
2" Meter (Turbo)	\$ 1,170.00
2" Meter (Compound)	\$ 1,700.00
3" Meter (Turbo)	\$ 1,585.00
3" Meter (Compound)	\$ 2,190.00
4" Meter (Turbo)	\$ 2,540.00
4" Meter (Compound)	\$ 3,215.00
6" Meter (Turbo)	\$ 4,815.00
6" Meter (Compound)	\$ 6,270.00
8" Meter (Turbo)	Cost (a)
8" Meter (Compound)	Cost (a)

(a) cost to include parts, labor, overhead, and all applicable taxes, including income taxes

**Service Charges**

Establishment	\$ 30.00
Establishment (After Hours)	\$ 40.00
Re-Establishment (Within 12 Months)	*
Reconnection (Delinquent)	\$ 30.00
NSF Check	\$ 25.00
Meter Re-Read (If Correct)	\$ 20.00
Meter Test (If Correct)	\$ 20.00
Deferred Payment	1.5%
Late Payment Penalty (Per Month)	1.5%
Deposit Interest	**
Deposit	**
Moving meter/service at customer request	***

\* Number of months off system times the monthly customer charge for meter size

\*\* Per Commission Rule R14-2-403.B

\*\*\* Cost to include parts, labor, overhead and all applicable taxes

**Hookup Fees (CIAC)**

3/4" Meter	\$ -
1" Meter	\$ -
1-1/2" Meter	\$ -
2" Meter	\$ -
3" Meter	\$ -
4" Meter	\$ -
6" Meter	\$ -
8" Meter	\$ -

Perkins Mountain Water Company W-20380A-05-0490  
 Projected Property Taxes

Schedule REL-6

	Year 1	Year 2	Year 3	Year 4	Year 5
Total Annual Revenue	\$ 30,404	\$ 250,114	\$ 651,229	\$ 1,214,895	\$ 1,888,826
3-Yr Average Revenue	30,404	140,259	310,582	705,412	1,251,650
CWIP @ 12/31	1,023,980	409,608	615,608	873,278	360,000
Book Value of Transportation Equip	19,800	15,400	11,000	6,600	23,800
Calculate Full Cash Value					
2 x 3-Yr Average Revenue	\$ 60,808	\$ 280,518	\$ 621,165	\$ 1,410,825	\$ 2,503,300
+ 10% of CWIP	102,398	40,961	61,561	87,328	36,000
- Transportation Equip	(19,800)	(15,400)	(11,000)	(6,600)	(23,800)
Full Cash Value	\$ 143,406	\$ 306,078	\$ 671,725	\$ 1,491,553	\$ 2,515,500
Assessment Ratio	24.5%	24.0%	23.5%	23.0%	22.5%
Assessed Value	\$ 35,134	\$ 73,459	\$ 157,855	\$ 343,057	\$ 565,987
Property Tax Rate (Avg. Mohave Cty)	10.49%	10.49%	10.49%	10.49%	10.49%
Projected Property Tax	\$ 3,686	\$ 7,706	\$ 16,559	\$ 35,987	\$ 59,372

Perkins Mountain Water Company W-20380A-05-0490  
 Projected Expenses

Schedule REL-10

Expense Category		Year 1	Year 2	Year 3	Year 4	Year 5
<b>Operation and Maintenance</b>						
Salaries and Wages		\$ 25,000	\$ 52,000	\$ 54,080	\$ 56,243	\$ 87,739
Employee Pensions and Benefits	24% of payroll	6,000	12,480	12,979	13,498	21,057
Purchased Water		-	-	-	-	-
Purchased Power	\$ 0.34 per 1,000 gal	1,385	12,794	34,223	65,259	102,292
Fuel for Power Production	(a)	250	258	265	273	281
Chemicals	\$ 0.05 per 1,000 gal	206	1,902	5,087	9,700	15,204
Materials and Supplies		1,000	4,000	4,500	5,000	5,500
<b>Contract Services</b>						
Engineering	(a)	500	2,060	2,122	2,185	2,251
Accounting	(a)	1,250	5,150	5,305	5,464	5,628
Legal	(a)	1,250	5,150	5,305	5,464	5,628
Management	(a)	2,500	10,300	10,609	10,927	11,255
Testing	\$ 3.00 per customer	113	1,611	3,726	6,216	9,195
Arsenic Treatment	\$ 0.40 per 1,000 gal]	-	667	8,830	24,959	44,296
Administrative	(a)	7,500	30,900	31,827	32,782	33,765
Billing	\$ 1.00 per customer	450	4,122	10,674	19,884	30,822
Rental of Building/Property	(a)	750	3,090	3,183	3,278	3,377
Rental of Equipment	(a)	250	1,030	1,061	1,093	1,126
Transportation Expense	(a)	1,250	5,150	5,305	5,464	5,628
<b>Insurance</b>						
Vehicles	(a)	250	1,030	1,061	1,093	1,126
General Liability	(a)	375	1,545	1,591	1,639	1,688
Workman's Comp	(a)	375	1,545	1,591	1,639	1,688
Other		-	-	-	-	-
Advertising Expense		-	-	-	-	-
Rate Case Amortization		-	-	-	-	-
Regulatory Commission		-	-	-	-	-
Water Conservation	(a)	-	500	515	530	546
Bad Debt	0.5% of revenue	152	1,251	3,256	6,074	9,444
Miscellaneous	(a)	750	3,090	3,183	3,278	3,377
<b>Subtotal Operation and Maintenance</b>		<b>\$ 51,555</b>	<b>\$ 161,624</b>	<b>\$ 210,277</b>	<b>\$ 281,943</b>	<b>\$ 402,912</b>
Depreciation (net of amortization of CIAC)		\$ 98,961	\$ 290,886	\$ 409,850	\$ 474,043	\$ 587,900
<b>Taxes other than Income</b>						
Property Taxes		3,686	7,706	16,559	35,987	59,372
Payroll Taxes	10% of payroll	2,500	5,200	5,408	5,624	8,774
<b>Other Taxes and Licenses</b>						
Income Taxes		50	50	1,911	161,072	320,320
<b>Total Operating Expenses</b>		<b>\$ 156,752</b>	<b>\$ 465,465</b>	<b>\$ 644,006</b>	<b>\$ 958,669</b>	<b>\$ 1,379,278</b>
(a) Inflation at	3.0%					
<b>Cost of Power Assumptions</b>						
Total Pumping Head	600 feet					
Pump/Motor efficiency	56%					
Cost per KWh	\$ 0.10					
<b>Income Tax Calculation</b>						
Revenue		\$ 30,404	\$ 250,114	\$ 651,229	\$ 1,214,895	\$ 1,888,826
Operating Expenses		156,702	465,415	642,095	797,597	1,058,958
Interest Expense		-	-	-	-	-
<b>Taxable Income</b>		<b>\$ (126,298)</b>	<b>\$ (215,301)</b>	<b>\$ 9,134</b>	<b>\$ 417,297</b>	<b>\$ 829,868</b>
State Tax	6.968%	50	50	636	29,077	57,825
<b>Federal Taxable Income</b>		<b>\$ (126,348)</b>	<b>\$ (215,351)</b>	<b>\$ 8,498</b>	<b>\$ 388,220</b>	<b>\$ 772,042</b>
Federal Tax		-	-	1,275	131,995	262,494
<b>Total Income Tax</b>		<b>\$ 50</b>	<b>\$ 50</b>	<b>\$ 1,911</b>	<b>\$ 161,072</b>	<b>\$ 320,320</b>
<b>Combined Tax Rate</b>		<b>-0.04%</b>	<b>-0.02%</b>	<b>20.92%</b>	<b>38.60%</b>	<b>38.60%</b>

Perkins Mountain Water Company W-20380A-05-0490  
 Projected Cash Flow

Schedule REL-12

	Year 1	Year 2	Year 3	Year 4	Year 5	
<b>Cash From Operations</b>						
Beginning Cash Balance	\$ 50,000	\$ (56,431)	\$ (364,124)	\$ (224,347)	\$ (719,472)	
Net Income (Loss)	(126,412)	(219,557)	1,339	246,787	488,939	
Non-Cash Expense						
Depreciation Expense	98,961	290,886	409,850	474,043	587,900	
<b>Total Cash From Operations</b>	<b>\$ (27,451)</b>	<b>\$ 71,329</b>	<b>\$ 411,189</b>	<b>\$ 720,830</b>	<b>\$ 1,076,839</b>	
<b>Cash from Financing Activities</b>						
Long-Term Debt Issuance	\$ -	\$ -	\$ -	\$ -	\$ -	
Short-Term Debt Issuance	-	-	-	-	-	
Paid In Capital	3,450,000	1,600,000	-	-	-	
Advances In Aid Of Construction	2,307,375	2,547,400	2,045,542	2,250,542	2,376,892	
Meter Advances	-	880	2,320	6,040	7,060	
Contributions In Aid Of Construction	-	-	-	-	-	
Security Deposits	-	-	-	-	-	
<b>Total Cash From Financing Activities</b>	<b>\$ 5,757,375</b>	<b>\$ 4,148,280</b>	<b>\$ 2,047,862</b>	<b>\$ 2,256,582</b>	<b>\$ 2,383,952</b>	
<b>Cash Disbursements</b>						
Long-Term Debt Repayment	\$ -	\$ -	\$ -	\$ -	\$ -	
Short-Term Debt Repayment	-	-	-	-	-	
Dividends	-	-	-	-	-	
Refund of Advances In Aid of Const.	-	21,773	65,144	136,506	228,677	
Refund of Meter Advances	-	-	88	320	924	
Capital Expenditures	5,836,355	4,505,528	2,254,042	3,335,712	3,853,113	
<b>Total Cash Disbursed</b>	<b>\$ 5,836,355</b>	<b>\$ 4,527,302</b>	<b>\$ 2,319,273</b>	<b>\$ 3,472,537</b>	<b>\$ 4,082,715</b>	
<b>Ending Cash Balance</b>	<b>\$ (56,431)</b>	<b>\$ (364,124)</b>	<b>\$ (224,347)</b>	<b>\$ (719,472)</b>	<b>\$ (1,341,396)</b>	
<b>Interest Calculations</b>						
Interest Earned (a)	2.0%	\$ (64)	\$ (4,206)	\$ (5,885)	\$ (9,438)	\$ (20,609)
Interest Expense						

(a) Calculated on Average Cash Balance

**Perkins Mountain Utility Company - SW-20379A-05-0489**  
**Index to Schedules**

The attached schedules are those adjusted by Staff. All other schedules submitted by the Company remain unchanged, except for Staff's elimination of Contributions in Aid of Construction.

<u>Schedule</u>	<u>Description</u>
REL-1	Projected Balance Sheet
REL-2	Projected Income Statement
REL-4	Projected Rate Base and Return
REL-5	Recommended Rate Design
REL-6	Projected Property Taxes
REL-10	Projected Expenses
REL-12	Projected Cash Flow Statement

Perkins Mountain Utility Company - SW-20379A-05-0489  
 Projected Balance Sheet

Schedule REL-1

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Assets</b>					
Current Assets					
Cash	\$ (136,399)	\$ (664,531)	\$ (1,406,848)	\$ (2,605,106)	\$ (1,598,780)
Staff Adjusted Cash (Paid in Capital)	\$ 150,000	\$ 775,000	\$ 1,650,000	\$ 3,080,000	\$ 2,460,000
Total Cash	\$ 13,601	\$ 110,469	\$ 243,152	\$ 474,894	\$ 861,220
Accounts Receivable	-	-	-	-	-
Other	-	-	-	-	-
Total Current Assets	\$ 13,601	\$ 110,469	\$ 243,152	\$ 474,894	\$ 861,220
Fixed Assets					
Utility Plant in Service	\$ 4,548,325	\$ 7,937,725	\$ 9,541,950	\$ 16,915,025	\$ 19,024,350
(less) Accumulated Depreciation	113,802	388,726	727,052	1,242,847	1,943,357
Net Plant in Service	\$ 4,434,523	\$ 7,548,999	\$ 8,814,898	\$ 15,672,178	\$ 17,080,993
CWIP	677,880	320,845	1,474,615	421,865	400,000
Total Assets	\$ 5,126,004	\$ 7,980,312	\$ 10,532,664	\$ 16,568,938	\$ 18,342,213
<b>Liabilities and Capital</b>					
Current and Accrued Liabilities					
Accounts Payable	\$ -	\$ -	\$ -	\$ -	\$ -
Notes Payable	-	-	-	-	-
Accrued Taxes	-	-	-	-	-
Accrued Interest	-	-	-	-	-
Other	-	-	-	-	-
Total Current and Accrued Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -
Long-Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -
Other	-	-	-	-	-
Deferred Credits					
Advances in aid of Construction	\$ 1,853,325	\$ 3,996,393	\$ 5,542,625	\$ 7,323,377	\$ 9,114,178
Contributions in aid of Const. (net)	-	-	-	-	-
Accumulated Deferred Income Tax	-	-	-	-	-
Total Deferred Credits	\$ 1,853,325	\$ 3,996,393	\$ 5,542,625	\$ 7,323,377	\$ 9,114,178
Total Liabilities	\$ 1,853,325	\$ 3,996,393	\$ 5,542,625	\$ 7,323,377	\$ 9,114,178
Capital Account					
Common Stock	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
Preferred	-	-	-	-	-
Paid in Capital	3,200,000	3,400,000	3,400,000	5,900,000	5,900,000
Additional Paid in Capital (Staff)	150,000	775,000	1,650,000	3,080,000	2,460,000
Total Paid in Capital	3,350,000	4,175,000	5,050,000	8,980,000	8,360,000
Retained Earnings	(127,321)	(241,080)	(109,960)	215,560	818,036
Total Capital	\$ 3,222,679	\$ 3,933,920	\$ 4,940,040	\$ 9,195,560	\$ 9,178,036
Total Liabilities and Capital	\$ 5,126,004	\$ 7,980,312	\$ 10,532,664	\$ 16,568,938	\$ 18,342,213

Perkins Mountain Utility Company - SW-20379A-05-0489  
 Projected Income Statement

Schedule REL-2

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Revenue</b>					
Water Sales	\$ 57,347	\$ 403,537	\$ 895,093	\$ 1,590,133	\$ 2,419,129
Establishment Charge	-	-	-	-	-
Other Operating Revenue	-	-	-	-	-
<b>Total Operating Revenue</b>	<b>\$ 57,347</b>	<b>\$ 403,537</b>	<b>\$ 895,093</b>	<b>\$ 1,590,133</b>	<b>\$ 2,419,129</b>
<b>Operating Expenses</b>					
Salaries and Wages	\$ 25,000	\$ 52,000	\$ 54,080	\$ 84,365	\$ 116,986
Employee Pensions and Benefits	6,000	12,480	12,979	20,248	28,077
Purchased Wastewater Treatment	-	-	-	-	-
Sludge Removal Expense	104	959	2,578	4,931	7,738
Purchased Power	11,656	62,274	108,824	176,463	257,168
Fuel for Power Production	250	258	265	273	281
Chemicals	518	4,795	12,891	24,654	38,690
Materials and Supplies	1,000	4,000	4,500	5,000	5,500
Contract Services					
Engineering	500	2,060	2,122	2,185	2,251
Accounting	1,250	5,150	5,305	5,464	5,628
Legal	1,250	5,150	5,305	5,464	5,628
Management	2,500	10,300	10,609	10,927	11,255
Testing	1,000	4,120	4,244	4,371	4,502
Administrative	7,500	30,900	31,827	32,782	33,765
Billing	456	4,146	10,698	19,908	30,846
Rental of Building/Property	750	3,090	3,183	3,278	3,377
Rental of Equipment	250	1,030	1,061	1,093	1,126
Transportation Expense	1,250	5,150	5,305	5,464	5,628
Insurance					
Vehicles	250	1,030	1,061	2,185	2,251
General Liability	375	1,545	1,591	1,639	1,688
Workman's Comp	375	1,545	1,591	1,639	1,688
Other	-	-	-	-	-
Advertising Expense	-	-	-	-	-
Rate Case Amortization	-	-	-	-	-
Regulatory Commission	-	-	-	-	-
Bad Debt	287	2,018	4,475	7,951	12,096
Miscellaneous	750	3,090	3,183	3,278	3,377
Depreciation (net of CIAC amort)	113,802	274,925	338,326	515,795	700,510
Taxes other than Income					
Property Taxes	4,181	12,023	25,649	46,846	77,699
Payroll Taxes	2,500	5,200	5,408	8,436	11,699
Other Taxes and Licenses	-	-	-	-	-
Income Taxes	50	50	86,201	229,854	405,164
<b>Total Operating Expenses</b>	<b>\$ 183,804</b>	<b>\$ 509,287</b>	<b>\$ 743,259</b>	<b>\$ 1,224,492</b>	<b>\$ 1,774,615</b>
<b>Operating Income or (Loss)</b>	<b>\$ (126,457)</b>	<b>\$ (105,750)</b>	<b>\$ 151,834</b>	<b>\$ 365,640</b>	<b>\$ 644,514</b>
<b>Other Income/Expenses</b>					
Interest Income	\$ (864)	\$ (8,009)	\$ (20,714)	\$ (40,120)	\$ (42,039)
Other Income	-	-	-	-	-
Other Expense	-	-	-	-	-
Interest Expense	-	-	-	-	-
<b>Total Other Income/Expense</b>	<b>\$ (864)</b>	<b>\$ (8,009)</b>	<b>\$ (20,714)</b>	<b>\$ (40,120)</b>	<b>\$ (42,039)</b>
<b>Net Income (Loss)</b>	<b>\$ (127,321)</b>	<b>\$ (113,759)</b>	<b>\$ 131,120</b>	<b>\$ 325,521</b>	<b>\$ 602,475</b>

Perkins Mountain Utility Company - SW-20379A-05-0489  
 Projected Rate Base and Return

Schedule REL-4

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Plant</b>					
Plant In Service	\$ 4,548,325	\$ 7,937,725	\$ 9,541,950	\$ 16,915,025	\$ 19,024,350
(less) Accumulated Depreciation	113,802	388,726	727,052	1,242,847	1,943,357
Net Plant In Service	\$ 4,434,523	\$ 7,548,999	\$ 8,814,898	\$ 15,672,178	\$ 17,080,993
<b>Deductions</b>					
Advances In Aid of Construction	\$ 1,853,325	\$ 3,996,393	\$ 5,542,625	\$ 7,323,377	\$ 9,114,178
Total Advances	\$ 1,853,325	\$ 3,996,393	\$ 5,542,625	\$ 7,323,377	\$ 9,114,178
Contributions in Aid of Construction (less) Amortization of CIAC	\$ -	\$ -	\$ -	\$ -	\$ -
Net AIAC	\$ -	\$ -	\$ -	\$ -	\$ -
Total Deductions	\$ 1,853,325	\$ 3,996,393	\$ 5,542,625	\$ 7,323,377	\$ 9,114,178
Rate Base	\$ 2,581,198	\$ 3,552,606	\$ 3,272,273	\$ 8,348,801	\$ 7,966,816
Operating Income	\$ (126,457)	\$ (105,750)	\$ 151,834	\$ 365,640	\$ 644,514
Rate of Return	-4.9%	-3.0%	4.6%	4.4%	8.1%

**Monthly Customer Charges - Treatment**

3/4"	Meter	\$	75.00
1"	Meter	\$	88.00
1-1/2"	Meter	\$	250.00
2"	Meter	\$	400.00
3"	Meter	\$	750.00
4"	Meter	\$	1,250.00
6"	Meter	\$	2,500.00
8"	Meter	\$	4,000.00

Gallons included in Monthly Customer Charge All

**Effluent Sales**

All meter Sizes	per acre-foot	\$	200.00
	per 1,000 gallons	\$	0.61

**Hookup Fees (CIAC)**

3/4"	Meter	\$	-
1"	Meter	\$	-
1-1/2"	Meter	\$	-
2"	Meter	\$	-
3"	Meter	\$	-
4"	Meter	\$	-
6"	Meter	\$	-
8"	Meter	\$	-

**Service Charges**

Establishment (a)	\$	30.00
Establishment (After Hours) (a)	\$	40.00
Re-Establishment (Within 12 Months)	*	
Reconnection (Delinquent) (a)	\$	30.00
NSF Check (a)	\$	25.00
Deferred Payment		1.5%
Late Payment Penalty (Per Month)		1.5%
Deposit Interest		**
Deposit		**
Moving service at customer request		***

(a) Collected only if customer is not also a water customer

\* Number of months off system times the monthly customer charge for meter size

\*\* Per Commission Rule R14-2-603.B

\*\*\* Cost to include parts, labor, overhead and all applicable taxes

Perkins Mountain Utility Company - SW-20379A-05-0489  
 Projected Property Taxes

Schedule REL-6

	Year 1	Year 2	Year 3	Year 4	Year 5
Total Annual Revenue	\$ 57,347	\$ 403,537	\$ 895,093	\$ 1,590,133	\$ 2,419,129
3-Yr Average Revenue	57,347	230,442	451,992	962,921	1,634,785
CWIP @ 12/31	677,880	320,845	1,474,615	421,865	400,000
Book Value of Transportation Equip	19,800	15,400	11,000	26,400	17,600
<b>Calculate Full Cash Value</b>					
2 x 3-Yr Average Revenue	\$ 114,693	\$ 460,884	\$ 903,984	\$ 1,925,842	\$ 3,269,570
+ 10% of CWIP	67,788	32,085	147,462	42,187	40,000
- Transportation Equip	(19,800)	(15,400)	(11,000)	(26,400)	(17,600)
<b>Full Cash Value</b>	<b>\$ 162,681</b>	<b>\$ 477,568</b>	<b>\$ 1,040,446</b>	<b>\$ 1,941,628</b>	<b>\$ 3,291,970</b>
Assessment Ratio	24.5%	24.0%	23.5%	23.0%	22.5%
Assessed Value	\$ 39,857	\$ 114,616	\$ 244,505	\$ 446,574	\$ 740,693
Property Tax Rate (Avg. Mohave Cty)	10.49%	10.49%	10.49%	10.49%	10.49%
Projected Property Tax	\$ 4,181	\$ 12,023	\$ 25,649	\$ 46,846	\$ 77,699

Perkins Mountain Utility Company - SW-20379A-05-0489  
 Projected Expenses

Schedule REL-10

Expense Category	Year 1	Year 2	Year 3	Year 4	Year 5
Operation and Maintenance					
Salaries and Wages	\$ 25,000	\$ 52,000	\$ 54,080	\$ 84,365	\$ 116,986
Employee Pensions and Benefits 24% of payroll	6,000	12,480	12,979	20,248	28,077
Purchased Wastewater Treatment	-	-	-	-	-
Sludge Removal Expense \$ 0.04 per 1,000 gal	104	959	2,578	4,931	7,738
Purchased Power Treatment \$ 1.15 per 1,000 gal	2,981	27,572	74,123	141,762	222,467
Purchased Power Effluent \$ 0.22 per 1,000 gal	8,675	34,701	34,701	34,701	34,701
Fuel for Power Production (a)	250	258	265	273	281
Chemicals \$ 0.20 per 1,000 gal	518	4,795	12,891	24,654	38,690
Materials and Supplies	1,000	4,000	4,500	5,000	5,500
Contract Services					
Engineering (a)	500	2,060	2,122	2,185	2,251
Accounting (a)	1,250	5,150	5,305	5,464	5,628
Legal (a)	1,250	5,150	5,305	5,464	5,628
Management (a)	2,500	10,300	10,609	10,927	11,255
Testing (a)	1,000	4,120	4,244	4,371	4,502
Administrative (a)	7,500	30,900	31,827	32,782	33,765
Billing \$ 1.00 per customer	456	4,146	10,698	19,908	30,846
Rental of Building/Property (a)	750	3,090	3,183	3,278	3,377
Rental of Equipment (a)	250	1,030	1,061	1,093	1,126
Transportation Expense (a)	1,250	5,150	5,305	5,464	5,628
Insurance					
Vehicles (a)	250	1,030	1,061	2,185	2,251
General Liability (a)	375	1,545	1,591	1,639	1,688
Workman's Comp (a)	375	1,545	1,591	1,639	1,688
Other	-	-	-	-	-
Advertising Expense	-	-	-	-	-
Rate Case Amortization	-	-	-	-	-
Regulatory Commission	-	-	-	-	-
Bad Debt 0.5% of revenue	287	2,018	4,475	7,951	12,096
Miscellaneous (a)	750	3,090	3,183	3,278	3,377
Subtotal Operation and Maintenance	\$ 63,271	\$ 217,089	\$ 287,675	\$ 423,561	\$ 579,544
Depreciation (net of amortization of CIAC)	\$ 113,802	\$ 274,925	\$ 338,326	\$ 515,795	\$ 700,510
Taxes other than Income					
Property Taxes	4,181	12,023	25,649	46,846	77,699
Payroll Taxes 10% of payroll	2,500	5,200	5,408	8,436	11,699
Other Taxes and Licenses					
Income Taxes	50	50	86,201	229,854	405,164
Total Operating Expenses	\$ 183,804	\$ 509,287	\$ 743,259	\$ 1,224,492	\$ 1,774,615
(a) Inflation at 3.0%					
Cost of Power Assumptions (Effluent)					
Average Pumping Head 400 feet					
Pump/Motor efficiency 56%					
Cost per KWh \$ 0.10					
Income Tax Calculation					
Revenue	\$ 57,347	\$ 403,537	\$ 895,093	\$ 1,590,133	\$ 2,419,129
Operating Expenses	183,754	509,237	657,058	994,638	1,369,451
Interest Expense	-	-	-	-	-
Taxable Income	\$ (126,407)	\$ (105,700)	\$ 238,035	\$ 595,495	\$ 1,049,678
State Tax 6.968%	50	50	16,586	41,494	73,142
Federal Taxable Income	\$ (126,457)	\$ (105,750)	\$ 221,449	\$ 554,001	\$ 976,536
Federal Tax	-	-	69,615	188,360	332,022
Total Income Tax	\$ 50	\$ 50	\$ 86,201	\$ 229,854	\$ 405,164
Combined Tax Rate	-0.04%	-0.05%	36.21%	38.60%	38.60%

Perkins Mountain Utility Company - SW-20379A-05-0489  
 Projected Cash Flow

Schedule REL-12

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Cash From Operations</b>					
Beginning Cash Balance	\$ 50,000	\$ (136,399)	\$ (664,531)	\$ (1,406,848)	\$ (2,605,106)
Net Income (Loss)	(127,321)	(113,759)	131,120	325,521	602,475
Non-Cash Expense					
Depreciation Expense	113,802	274,925	338,326	515,795	700,510
<b>Total Cash From Operations</b>	<b>\$ (13,519)</b>	<b>\$ 161,165</b>	<b>\$ 469,446</b>	<b>\$ 841,315</b>	<b>\$ 1,302,985</b>
<b>Cash from Financing Activities</b>					
Long-Term Debt Issuance	\$ -	\$ -	\$ -	\$ -	\$ -
Short-Term Debt Issuance	-	-	-	-	-
Paid In Capital	3,200,000	200,000	-	2,500,000	-
Advances In Aid Of Construction	1,853,325	2,161,900	1,601,725	1,895,575	1,981,825
Contributions In Aid Of Construction	-	-	-	-	-
Security Deposits	-	-	-	-	-
<b>Total Cash From Financing Activities</b>	<b>\$ 5,053,325</b>	<b>\$ 2,361,900</b>	<b>\$ 1,601,725</b>	<b>\$ 4,395,575</b>	<b>\$ 1,981,825</b>
<b>Cash Disbursements</b>					
Long-Term Debt Repayment	\$ -	\$ -	\$ -	\$ -	\$ -
Short-Term Debt Repayment	-	-	-	-	-
Dividends	-	-	-	-	-
Refund of Advances In Aid of Const.	-	18,833	55,493	114,823	191,024
Capital Expenditures	5,226,205	3,032,365	2,757,995	6,320,325	2,087,460
<b>Total Cash Disbursed</b>	<b>\$ 5,226,205</b>	<b>\$ 3,051,198</b>	<b>\$ 2,813,488</b>	<b>\$ 6,435,148</b>	<b>\$ 2,278,484</b>
<b>Ending Cash Balance</b>	<b>\$ (136,399)</b>	<b>\$ (664,531)</b>	<b>\$ (1,406,848)</b>	<b>\$ (2,605,106)</b>	<b>\$ (1,598,780)</b>
<b>Interest Calculations</b>					
Interest Earned (a)	2.0%	(864)	(8,009)	(20,714)	(40,120)
Interest Expense					(42,039)

(a) Calculated on Average Cash Balance

## MEMORANDUM

TO: Blessing Chukwu  
Executive Consultant III  
Utilities Division

FROM: Barb Wells *BW*  
Information Technology Specialist  
Utilities Division

THRU: Del Smith *DS*  
Engineering Supervisor  
Utilities Division

DATE: September 19, 2005

RE: **PERKINS MOUNTAIN WATER COMPANY (DOCKET NO. W-20380A-05-0490)**  
**PERKINS MOUNTAIN UTILITY COMPANY (DOCKET NO. SW-20379A-05-0489)**  
**AMENDED LEGAL DESCRIPTION**

The area requested by Perkins Mountain for a CC&N for water and wastewater has been plotted using an amended legal description for Page 2, which has been docketed (the original Page 1 did not need to be amended). The entire correct legal description is attached and should be used in place of the original description submitted with the application.

Also attached are copies of the maps for your files.

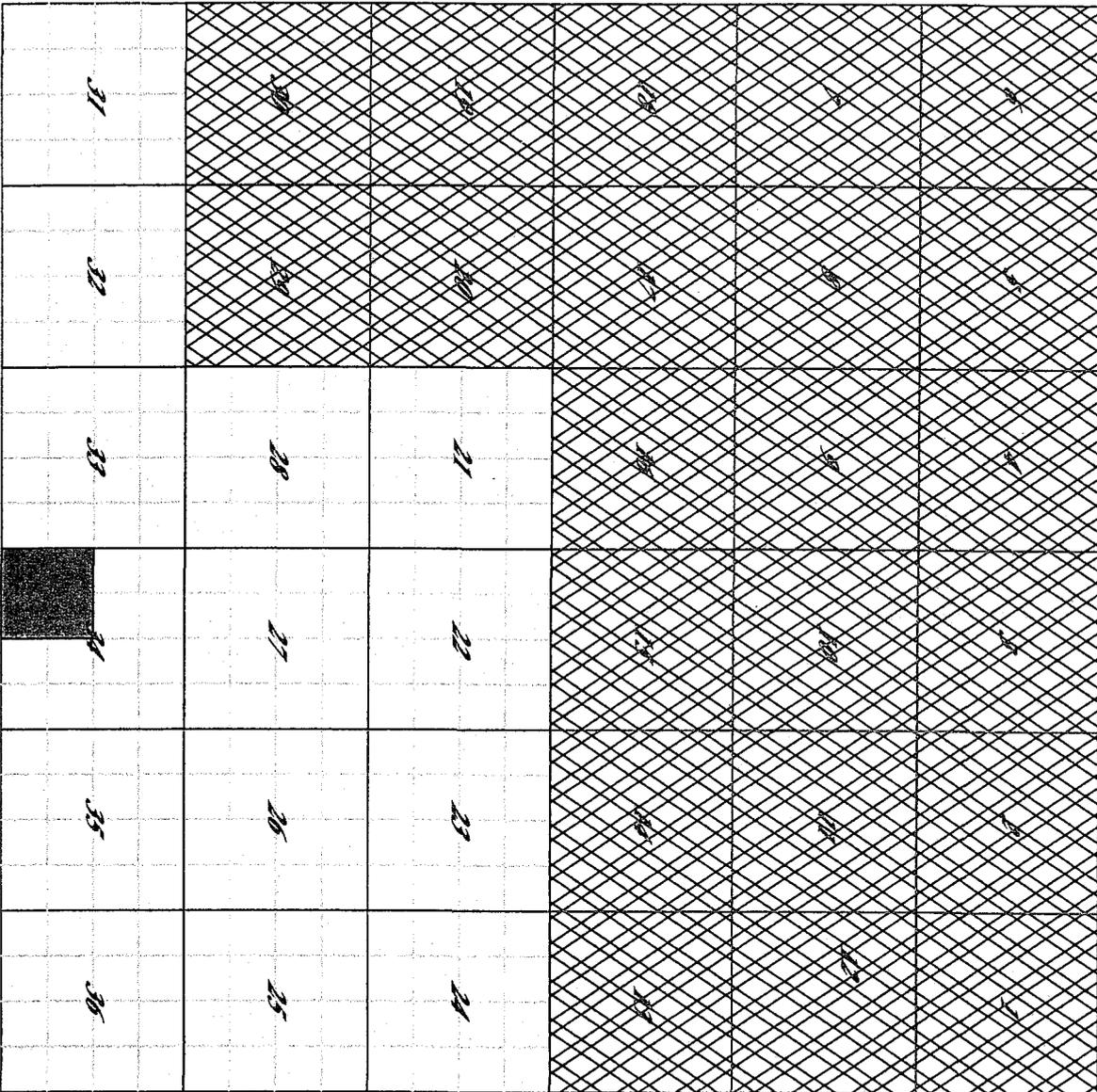
:bsw

Attachments

cc: Docket Control  
Ms. Kimberly Grouse  
Ms. Deb Person (Hand Carried)  
File

# COUNTY Mohave

## RANGE 18 West



## TOWNSHIP 21 North



W-2033 (2)

Valley Pioneer's Water Company, Inc.



W-20380 (4)

Perkins Mountain Water Company  
Docket No. W-20380-A-05-0490  
Application for CC&N

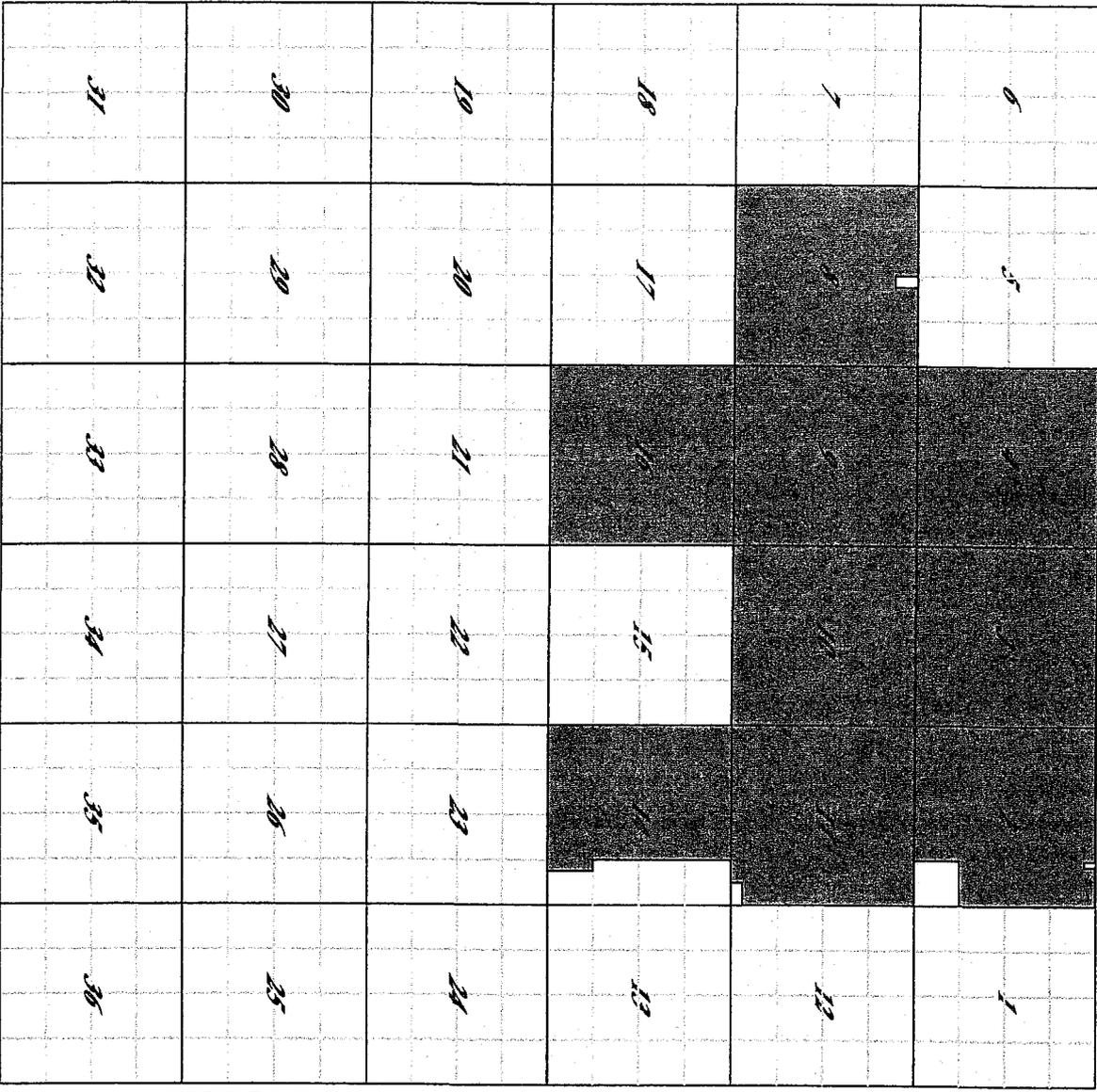


SW-20379 (4)

Perkins Mountain Utility Company  
Docket No. SW-20379-A-05-0489  
Application for CC&N for Sewer

**COUNTY** Mohave

**RANGE 18 West**



**TOWNSHIP 20 North**

 W-20380 (4)

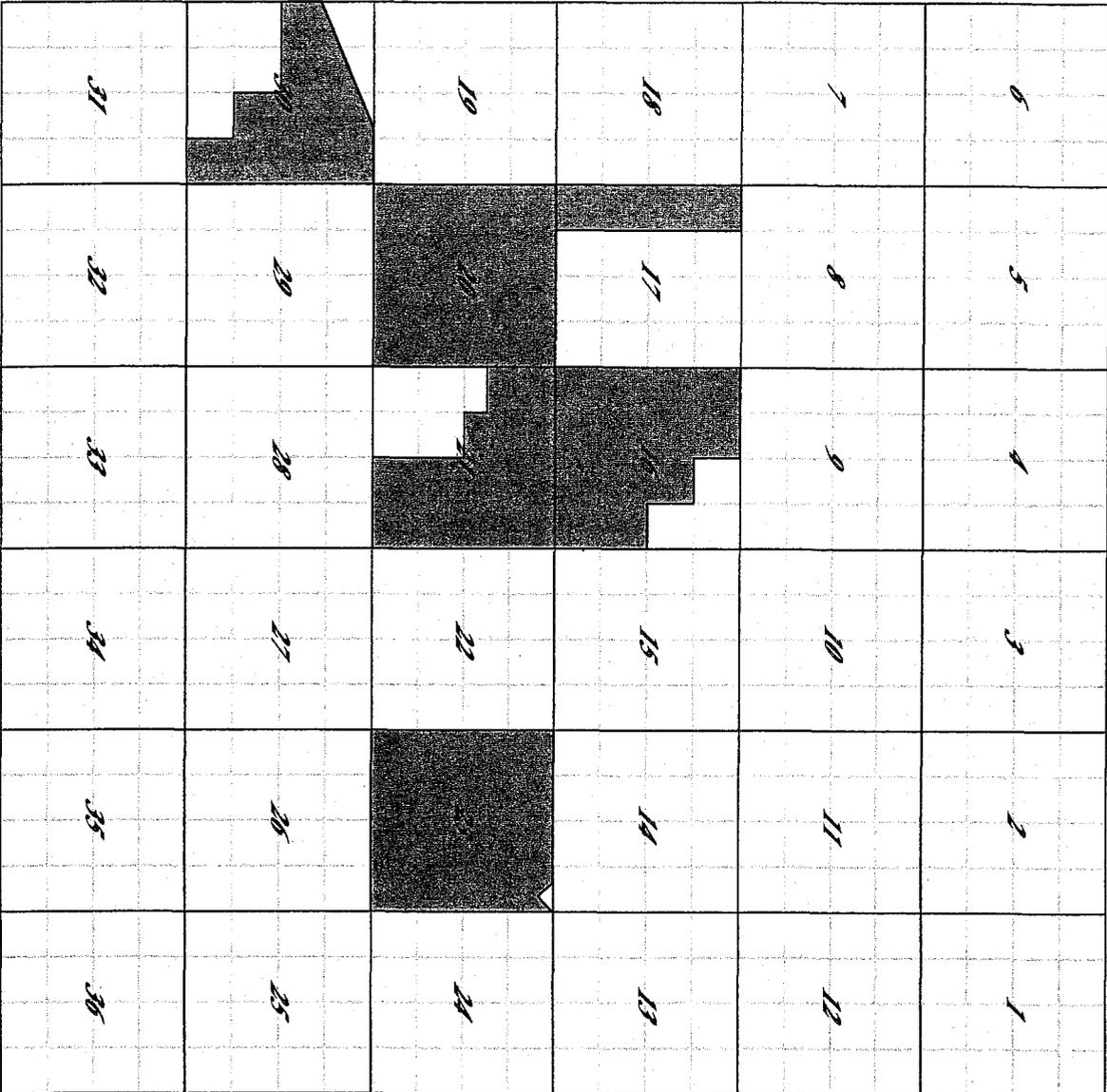
Perkins Mountain Water Company  
Docket No. W-20380-A-05-0490  
Application for CC&N for Water

 SW-20379 (4)

Perkins Mountain Utility Company  
Docket No. SW-20379A-05-0489  
Application for CC&N for Sewer

# COUNTY: Mohave

## RANGE 20 West



## TOWNSHIP 27 North

 W-20380 (4)

Perkins Mountain Water Company  
Docket No. W-20380-A-05-0490  
Application for CC&N for Water

 SW-20379 (4)

Perkins Mountain Utility Company  
Docket No. SW-20379-A-05-0489  
Application for CC&N for Sewer

# COUNTY: Mohave

## RANGE 21 West

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

## TOWNSHIP 27 North



W-20380 (4)

Perkins Mountain Water Company  
 Docket No. W-20380-A-05-0490  
 Application for CC&N for Water



SW-20379 (4)

Perkins Mountain Utility Company  
 Docket No. SW-20379A-05-0489  
 Application for CC&N for Sewer

GOLDEN VALLEY SOUTH  
CC & N BOUNDARY

LEGAL DESCRIPTION

TOWNSHIP 20 NORTH, RANGE 18 WEST, G. & S.R.M., MOHAVE COUNTY, AZ;

SECTION 2, EXCEPT THE W2 NW4 NW4 NE4 NE4, & THE SE4 SE4;  
SECTION 3;  
SECTION 4;  
SECTION 8, EXCEPT THE W2 NW4 NW4 NE4;  
SECTION 9;  
SECTION 10;  
SECTION 11, EXCEPT THE S2 SE4 SE4 SE4;  
SECTION 14, EXCEPT THE E2 NE4, THE NE4 SE4, THE E2 W2 SE4 SE4, & THE E2 SE4  
SE4;  
SECTION 16;

TOWNSHIP 21 NORTH, RANGE 18 WEST, G. & S.R.M., MOHAVE COUNTY, AZ;

SW4 SECTION 34.

THE VILLAGES AT WHITE HILLS  
CC & N SEWER/WATER BOUNDARY

LEGAL DESCRIPTION

[Revised 8-3-05]

TOWNSHIP 27 NORTH, RANGE 20 WEST, G. & S.R.M., MOHAVE COUNTY, AZ;

SECTION 16, EXCEPT THE NW4 NE4, & THE E2 NE4;

W2 W2 SECTION 17;

SECTION 20;

SECTION 21, EXCEPT THE SW4, & THE S2 SW4 NW4;

SECTION 23, EXCEPT THE FOLLOWING DESCRIBED PARCEL OF LAND:

COMMENCING AT THE NORTHEAST CORNER OF SECTION 23; THENCE NORTH 89°37'39" WEST, 26.97 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 41°25'03" EAST, 35.78 FEET; THENCE SOUTH 48°34'57" WEST, 599.97 FEET; THENCE NORTH 41°25'03" WEST, 572.03 FEET; THENCE SOUTH 89°37'39" EAST, 804.69 FEET TO THE POINT OF BEGINNING;

ALL OF SECTION 30 LYING SOUTHERLY OF THE CENTERLINE OF WHITE HILLS ROAD (O.R. 274/50-97) OF WHICH THE CENTERLINE IS DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF THE NORTHWEST QUARTER (NW ¼) OF SECTION 30; THENCE SOUTH 00°28'34" WEST, ALONG THE WESTERLY LINE THEREOF, 1,493.03 FEET TO THE POINT OF BEGINNING; THENCE NORTH 68°20'45" EAST, DEPARTING SAID WESTERLY LINE, 223.94 FEET; THENCE NORTH 67°59'58" EAST, 3,686.73 FEET TO THE POINT OF TERMINATION, SAID POINT BEING ON THE NORTHERLY LINE OF THE NORTHEAST QUARTER (NE ¼) OF SECTION 30, EXCEPT THE SW4, & THE SW4 SE4;

TOWNSHIP 27 NORTH, RANGE 21 WEST, G. & S.R.M., MOHAVE COUNTY, AZ;

A PORTION OF THE E2 SECTION 25 DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER (SE ¼) OF SAID SECTION 25; THENCE SOUTH 00°28'58" WEST, ALONG THE EASTERLY LINE THEREOF, 2,643.95 FEET TO THE SOUTHEAST CORNER OF SAID SOUTHEAST QUARTER (SE ¼); THENCE NORTH 89°33'42" WEST, ALONG THE SOUTHERLY LINE THEREOF, 164.23 FEET TO THE POINT OF CURVE OF A NON TANGENT CURVE TO THE LEFT, OF WHICH THE RADIUS POINT LIES SOUTH 74°14'59" WEST, A RADIAL DISTANCE OF 5,821.58 FEET, SAID POINT BEING ON THE EASTERLY RIGHT-OF-WAY LINE OF U.S. HIGHWAY 95; THENCE NORTHERLY ALONG THE ARC, ALONG SAID EASTERLY RIGHT-OF-WAY LINE, THROUGH A CENTRAL ANGLE OF 07°34'58", 770.46 FEET; THENCE NORTH 23°19'59" WEST, CONTINUING ALONG SAID EASTERLY RIGHT-OF-WAY LINE, 2,685.36 FEET TO THE CENTERLINE OF WHITE HILLS ROAD (O.R. 274/50-97); THENCE NORTH 68°20'45" EAST, ALONG SAID CENTERLINE, 1,632.40 FEET TO THE EASTERLY LINE OF THE NORTHEAST QUARTER (NE ¼) OF SAID SECTION 25; THENCE SOUTH 00°28'34" WEST, ALONG SAID EASTERLY LINE, 1,151.09 FEET TO THE POINT OF BEGINNING.

21 West

20 West

19 West

**MOHAVE COUNTY**



27 North

18 West

26 North

 WS-1303  
Arizona-American Water Company

 W-1812  
Bermuda Water Company, Inc.

 W-1751  
Katherine Resort Water Company

 W-2105  
Mt. Tipton Water Company, Inc.

 W-2259  
North Mohave Valley Corporation

 W-4069  
Oatman Water Company, LLC

 WS-3586  
Sunrise Vistas Utilities Company

 Sewer WS-3586  
Sunrise Vistas Utilities Company

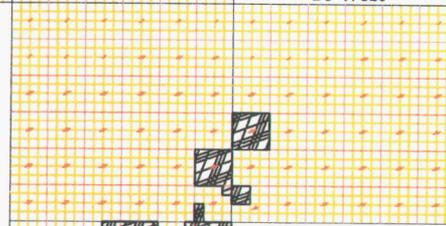
 W-1798  
Sunset Water Company

 W-2033  
Valley Pioneer's Water Company, Inc.

 W-1982  
White Hills Water Company, Inc.

 W-20380  
Perkins Mountain Water Company  
Docket No. W-20380-A-05-0490  
Application for CC&N for Water

 SW-20379  
Perkins Mountain Utility Company  
Docket No. SW-20379A-05-0489  
Application for CC&N for Sewer



25 North

24 North

18 West

23 North

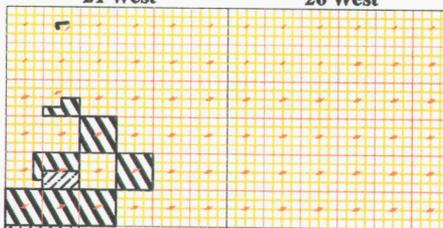
 Chloride Water District  
(Nonjurisdictional)

22 North

21 West

20 West

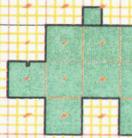
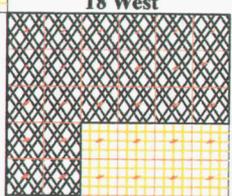
18 West



21 North

20 North

19 North



 W-1798  
 W-2033



**Revised Staff's Recommendations for Docket Nos. SW-20379A-05-0489  
and W-20380A-05-0490**

**Water Service CC&N**

Staff recommends the Commission approve PMWC application for CC&N within portions of Mohave County, Arizona, as amended, to provide water service, subject to the following conditions:

1. That the Commission find that the fair value rate base of PMWC's property devoted to water service is \$2,307,375.
2. That the Commission approve Staff's rates as shown on Water Schedule REL-5-Rate Design in the attached Rate Analyst Report. In addition to collection of its regular rates, PMWC may collect from its customers a proportionate share of any privilege, sales or use tax.
3. That the Commission require PMWC to file with Docket Control, as a compliance item, a tariff consistent with the rates and charges authorized by the Commission within 30 days of the decision in this matter.
4. That the Commission require PMWC to notify the Director of the Utilities Division, through the compliance section, within 15 days of providing service to its first customer.
5. That the Commission require PMWC to file a rate application no later than six-months following the fifth anniversary of the date it begins providing service to its first customer.
6. That the Commission require PMWC to maintain its books and records in accordance with the NARUC Uniform System of Accounts for Water Utilities.
7. That the Commission require PMWC to use the depreciation rates recommended by Staff.
8. That the Commission require PMWC to seek other means of financing that do not include contributions.
9. That the Commission require PMWC's charge for minimum deposit be as per A.A.C. R14-2-403(B)(7).
10. That the Commission require PMWC to provide utility services to all of the 440 acres of land that is owned by Sports Entertainment.

11. That the Commission require PMWC to file with Docket Control, as a compliance item, an amended legal description for The Village at White Hills CC&N area including the entire 440 acres of land that is owned by Sports Entertainment no later than 15 days after the effective date of the order granting this application.
12. That the Commission require PMWC to file with Docket Control, as a compliance item, copies of the ATC for phase 1 of each project when received by the Company, but no later than 24 months after the effective date of the order granting this application.
13. That the Commission require PMWC to file with Docket Control, as a compliance item, copies of the developer's Letter of Adequate Water Supply demonstrating the availability of adequate water for the requested areas within 24 months after the effective date of the order granting this application.
14. That the Commission require PMWC to file with Docket Control, as a compliance item, for review and approval by the Director of the Utilities Division, a curtailment tariff within 30 days of providing service to its first customer. The tariff shall generally conform to the sample tariff found posted on the Commission's web site ([www.cc.state.az.us/utility](http://www.cc.state.az.us/utility)) or available upon request from Commission Staff.
15. That the Commission require PMWC to file with Docket Control, as a compliance item in this docket, a copy of all related franchise agreements for the requested area within 365 days of the decision in this matter.
16. That the Commission require PMWC to file with Docket Control, as a compliance item, a Notice of Filing indicating PMWC has submitted for Staff's review and approval, copies of the fully executed main extension agreements for water facilities for Phase I of each project within 365 days of a decision in this case.
17. That the Commission require PMWC to file with Docket Control, as a compliance item, for review and approval by the Director of the Utilities Division, a backflow prevention tariff within 30 days of the decision in this matter. The tariff shall generally conform to the sample tariff found posted on the Commission's web site ([www.cc.state.az.us/utility](http://www.cc.state.az.us/utility)) or available upon request from Commission Staff.

Staff further recommends that the Commission's Decision granting the requested CC&N to PMWC be considered null and void should PMWC fail to meet Conditions Nos. 3, 11, 12, 13, 14, 15, 16 and 17 listed above within the time specified.

### **Wastewater Service CC&N**

Staff recommends the Commission approve PMUC application for CC&N within portions of Mohave County, Arizona, as amended, to provide wastewater service, subject to the following conditions:

1. That the Commission find that the fair value rate base of PMUC's property devoted to wastewater service is \$2,581,198.
2. That the Commission approve Staff's rates as shown on Wastewater Schedule REL-5-Rate Design in the attached Rate Analyst Report. In addition to collection of its regular rates, PMUC may collect from its customers a proportionate share of any privilege, sales or use tax.
3. That the Commission require PMUC to file with Docket Control, as a compliance item, a tariff consistent with the rates and charges authorized by the Commission within 30 days of the decision in this matter.
4. That the Commission require PMUC to notify the Director of the Utilities Division, through the compliance section, within 15 days of providing service to its first customer.
5. That the Commission require PMUC to file a rate application no later than six-months following the fifth anniversary of the date it begins providing service to its first customer.
6. That the Commission require PMUC to maintain its books and records in accordance with the NARUC Uniform System of Accounts for Wastewater Utilities.
7. That the Commission require PMUC to use the depreciation rates recommended by Staff.
8. That the Commission require PMUC to seek other means of financing that do not include contributions.
9. That the Commission require PMUC's charge for minimum deposit be as per A.A.C. R14-2-603(B)(7) and (8).
10. That the Commission require PMUC to provide utility services to all of the 440 acres of land that is owned by Sports Entertainment.
11. That the Commission require PMUC to file with Docket Control, as a compliance item, an amended legal description for The Village at White Hills CC&N area

- including the entire 440 acres of land that is owned by Sports Entertainment no later than 15 days after the effective date of the order granting this application.
12. That the Commission require PMUC to file with Docket Control, as a compliance item, copies of the ATC for phase 1 of each project when received by PMUC, but no later than 24 months after the effective date of the order granting this application
  13. That the Commission require PMUC to file with Docket Control, as a compliance item, copies of each project's APP within 24 months after a decision is issued in this proceeding
  14. That the Commission require PMUC to obtain Section 208 approval from ADEQ within 24 months from the effective date of the decision in this matter and file with Docket Control as a compliance item in this docket, a copy of the Section 208 approval for the requested area within 24 months from the effective date of the decision in this matter.
  15. That the Commission require PMUC to file with Docket Control, as a compliance item in this docket, a copy of all related franchise agreements for the requested area within 365 days of the decision in this matter.

Staff further recommends that the Commission's Decision granting the requested CC&N to PMUC be considered null and void should PMUC fail to meet the Conditions Nos. 3, 11, 12, 13, 14 and 15 listed above within the time specified.

1 **BEFORE THE ARIZONA CORPORATION COMMISSION**

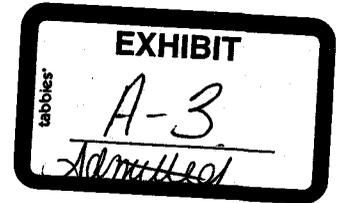
2 COMMISSIONERS

3 JEFF HATCH-MILLER, Chairman  
4 MARC SPITZER  
5 WILLIAM A. MUNDELL  
6 MIKE GLEASON  
7 KRISTIN K. MAYES

RECEIVED

2005 NOV 23 P 3:19

AZ CORP COMMISSION  
DOCUMENT CONTROL



8 IN THE MATTER OF THE  
9 APPLICATION OF PERKINS  
10 MOUNTAIN WATER COMPANY  
11 FOR A CERTIFICATE OF  
12 CONVENIENCE AND NECESSITY  
13 IN MOHAVE COUNTY

**DOCKET NO. W-20380A-05-0490**

14 IN THE MATTER OF THE  
15 APPLICATION OF PERKINS  
16 MOUNTAIN UTILITY COMPANY  
17 FOR A CERTIFICATE OF  
18 CONVENIENCE AND NECESSITY  
19 IN MOHAVE COUNTY

**DOCKET NO. SW-20379A-05-0489**

**RESPONSE TO STAFF'S REPORT**

20 Perkins Mountain Water Company ("the Water Company") and Perkins Mountain  
21 Utility Company ("the Utility Company") (collectively "the Companies"), pursuant to  
22 the Procedural Order dated September 21, 2005, hereby submit their Response to the  
23 Staff Report for Perkins Mountain Utility Company and Perkins Mountain Water  
24 Company Applications for Certificates of Convenience and Necessity for Wastewater  
25 and Water Services dated November 10, 2005 ("Staff Report"). On July 7, 2005, the  
26 Companies filed with the Arizona Corporation Commission ("Commission")  
27 applications for Certificates of Convenience and Necessity ("CC&N) to provide water  
28 and wastewater services to two proposed developments located in Mohave County, one  
in Golden Valley and the other in White Hills ("Applications").

Based upon Staff's review of the Applications, Staff is recommending conditional approval. Although the Companies do not object to a majority of the 31 conditions imposed on the Water Company and the Utility Company collectively, the Companies believe three (3) conditions for the Water Company and three (3) conditions for the Utility Company, specifically, Conditions 8, 10 and 11, are not in the public interest and

1 should not be adopted.

2 **Pursuant to Condition 8, Staff Removed the Companies'**  
3 **Allowance for Hookup Fees.**

4 Under Condition 8, Staff recommends that the Commission require the  
5 Companies to seek and procure other means of financing for future plant, other than  
6 contributions in aid of construction. Staff's recommendation eliminates the Companies'  
7 proposed hookup fees and thereby reduces the Water Company's source of contributed  
8 capital over 5 years by \$2,581,702 and the Utility Company's source of contributed  
9 capital over 5 years by \$4,633,500 for a total reduction of \$7,217,202. Staff's  
10 recommended reduction of contributed capital has two primary effects on the Companies  
11 and their ratepayers.

12 First, the Companies revenues are substantially increased by a combined  
13 \$2,270,562 or 31.8%.<sup>1</sup> The increase is the result of a dollar for dollar increase in rate  
14 base as contributed capital is reduced, and an increase in depreciation expense resulting  
15 from the elimination of the amortization of contributed capital. Staff's recommendation  
16 results in an increase of approximately 34% for the typical residential water and  
17 wastewater bill. The following table details the increase by service and shows the  
18 impact on average residential customers.

19

	5-Year Total Revenue			
	Company	Staff	Staff Proposed Increase	
20 Water Revenue	\$ 3,287,422.62	\$ 4,035,466.92	\$ 748,044.30	22.8%
21 Wastewater Revenue	\$ 3,842,720.01	\$ 5,365,238.01	\$ 1,522,518.00	39.6%
22 Total Revenue	\$ 7,130,142.63	\$ 9,400,704.93	\$ 2,270,562.30	31.8%

23

	Typical Monthly Bill			
Conventional Customer	Company	Staff	Staff Proposed Increase	
24 Water	\$ 52.81	\$ 65.04	\$ 12.23	23.1%
25 Wastewater	\$ 52.00	\$ 75.00	\$ 23.00	44.2%
26 Total	\$ 104.81	\$ 140.04	\$ 35.23	33.6%

27  
28 <sup>1</sup> Even with the substantial revenue increase, Staff's proposal reduces the projected Year-5 rate of return by 1.3% for the Water Company and 1.0% for the Utility Company.

Age Restricted Customer	Typical Monthly Bill			
	Company	Staff	Staff Proposed Increase	
Water	\$ 40.42	\$ 50.09	\$ 9.67	23.9%
Wastewater	\$ 52.00	\$ 75.00	\$ 23.00	44.2%
Total	\$ 92.42	\$ 125.09	\$ 32.67	35.3%

Second, additional paid-in capital from shareholders is increased by \$1,775,000 for the Water Company and \$2,460,000 for the Utility Company for a total increase of \$4,235,000.

The effect of Staff's recommendation is to shift the burden of providing \$7,217,202 in capital for plant from developers to the ratepayers and shareholders of the Companies. Over the first five years of operation, the ratepayer's obligation is increased by \$2,270,563 with the shareholders providing \$4,235,000 of additional paid in capital. It is the ratepayers, however, who will return the entire \$4,235,000 plus a rate of return to the shareholders over the life of the plant.

The end result of Staff's recommendation is to significantly increase the overall burden to ratepayers over many years by denying them the benefit of having the developers contribute to the cost of building plant during the first five years of operation. In contrast, according to Staff's policy, ratepayers residing in existing CC&Ns that are being expanded get the benefit of lower rates due to contributions from developers requesting service.

Staff based its decision to remove the hookup fees on "the Commission's normal procedure to allow hook-up fees only to companies already holding and operating under a CC&N." (See Staff Report, Page 8, Rate Design Section). Staff does not identify the procedure or where it is promulgated, nor does Staff cite any decision, statute, rule or policy directive of the Commission to support such procedure.

In the Interim Report of the Commission's Water Task Force ("the Water Task Force Report"), Docket No. W-00000C-98-0153, Staff recommended developing a generic hook-up fee policy/rule. There was no discussion in the Water Task Force Report limiting the hook-up fees to existing companies already holding a CC&N. Staff

1 did opine that “the reason for having the hook-up fee pay for only part of the new plant  
2 is to insure that the company retains a balance between contributed plant and its own  
3 investment.” Interim Report of the Arizona Corporation Commission’s Water Task  
4 Force, October 28, 1999, at 16.

5 While the Commission has not adopted a generic hook-up fee policy as  
6 recommended by Staff, the Water Task Force Report provides valid guidance for the  
7 review of the hookup fees proposed by the Companies. In this case, the Companies have  
8 presented a balanced capital structure that appropriately allocates capital between  
9 contributions, advances and shareholder capital in conformance with the guidance  
10 provided in the Water Task Force Report. This will ensure the Companies’ long term  
11 viability, without overburdening the ratepayer.

12 Staff provided additional guidance in its June 28, 2005, Staff Report for Circle  
13 City Water Company L.L.C. (“Circle City”) (Docket Nos. W-03510A-05-0145 and  
14 W-03510A-05-0146). In its report, Staff stated that it “generally recommends the  
15 contributed capital not exceed 25 percent of the assets required to establish service.”  
16 Although Circle City is an existing company holding a CC&N, it has only 169 customers  
17 and total assets of \$128,000 according to the Staff Report. Circle City requested service  
18 to a non-contiguous CC&N extension to serve 10,000 new customers at an estimated  
19 cost for plant facilities of \$55.4 million.

20 Considering that Circle City’s current customer count represents only 1.7% of the  
21 expected total customers and Circle City’s existing assets amount to only 0.2% of the  
22 proposed new plant facilities required to serve the non-contiguous CC&N, the Circle  
23 City case is analogous to the Companies’ requests in this matter. In Decision No. 68246,  
24 the Commission adopted Staff’s recommendation for hookup fees representing  
25 contributed capital of approximately 27% of total estimated required capital and 50% of  
26 the backbone plant construction estimate.

27 In this case, the Water Company has requested hookup fees that represent 14% of  
28 the total estimated plant construction cost and 36% of the backbone plant construction

1 estimate. The Utility Company has requested hookup fees that represent 24% of the  
2 total estimated plant construction cost and 49% of the backbone plant construction  
3 estimate. The requested hookup fees are consistent with Staff's recommendation and the  
4 Commission's decision in Circle City Water Company's application.

5 The capital structure submitted by the Companies results in rates that compare  
6 appropriately with existing water and wastewater providers in Mohave County. (See  
7 Exhibit 1). As would be expected and desired for a new provider, the Companies'  
8 proposed water and wastewater rates are substantially above those for existing providers,  
9 with the combined water and wastewater rate for the typical residential customer of  
10 \$104.81, which is approximately 175% of the average of existing providers in Mohave  
11 County. Yet, Staff's recommendations are significantly higher than the ones proposed  
12 by the Companies and drastically higher than those of existing providers; the combined  
13 water and wastewater rate for the typical residential customer of \$140.04 would be  
14 approximately 230% of the average of existing providers in Mohave County.

15 The capital structures proposed by the Companies include hookup fees that  
16 would be treated as contributions in aid of construction and represent balanced capital  
17 structures. The Companies' proposed hookup fees are consistent with the guidance  
18 provided in the Water Task Force Report and with Commission Decision No. 68246. It  
19 is the Companies' proposed capital structure that results in rates that compare  
20 appropriately with existing Mohave County water and wastewater providers and are fair  
21 for consumers<sup>2</sup>.

22 **Pursuant to Condition 10, Staff is Recommending That the**  
23 **Companies Expand the Service Area to Include Land That Has**  
24 **Not Planned for Development.**

25 Under Condition 10, Staff is recommending that the Companies include in its  
26 service area, property for which there has not been a request for service nor has any

27 <sup>2</sup> Based upon the arguments set forth above, the Companies also seek modification to Condition 2. This condition  
28 recommends approval of Staff's rates as well as allowing both the Water Company and the Utility Company to  
collect from its customers a proportionate share of any privilege, sales or use tax. The Companies propose changing  
the condition such that the Companies' rates are approved as submitted in the Application.

1 planned development been commenced. Specifically, Staff's recommendation would  
2 require the Companies to provide water and wastewater services to 120 acres owned by  
3 Sports Entertainment, LLC ("SE"). Sagebrush Enterprises ("Sagebrush") has exercised  
4 its option for the purchase of 320 acres ("Option Property") of the 440 acres owned by  
5 SE. The transaction is due to close in March 2006. SE has intervened in this case and  
6 has alleged that the Companies "failed" to include the remaining 120 acres ("SE  
7 Property") in their service territories. Staff claims it is in the public interest to include  
8 this land simply because it is near or contiguous to the requested CC&N area.

9 It is the Companies' position that the inclusion of the 120 acres at this time is  
10 premature in that there is no request for service and there is no indication that SE intends  
11 to develop the property in the near future. The Companies suspect that SE's motive to  
12 include its property in the Companies service area is for the purpose of increasing the  
13 value of the land, not to request needed service.

14 On the other hand, service for the Option Property is necessary because  
15 development is imminent. Specifically, the entitlement process for the Option Property  
16 has been ongoing for some time and has been included in the Master Plan for the  
17 Villages at White Hills ("Master Plan") throughout the planning process. In addition, the  
18 Option Property was included in the submission to the Arizona Department of Water  
19 Resources as part of the Assured and Adequate Water Supply application process.  
20 Finally, the Option Property is a part of the Master Plan that was reviewed and  
21 unanimously approved by the Mohave County Planning Commission and it is expected  
22 to be approved by the Mohave County Board of Supervisors on December 5, 2005, as  
23 part of the Mohave County General Plan.

24 In contrast, SE did not submit a letter of request for service to provide water and  
25 wastewater services to the SE Property. Furthermore, SE has not brought forth any plans  
26 for development of the property, nor has SE provided to the Companies a legal  
27 description for the property that it claims was excluded. In addition SE has not  
28 approached the Companies to request a Main Extension Agreement. Furthermore, SE

1 has not expended any time, money or effort to prove out water adequacy for potential  
2 development. SE is simply a speculative landowner attempting to capitalize on the  
3 efforts of others who are going through the lengthy, complex and expensive process of  
4 providing water and wastewater services for an approved master development plan.  
5 SE's sole motive in this case is to increase its own property value in the market place.  
6 There is no legitimate public interest for inclusion of the SE Property in the Companies'  
7 service territories at this time because SE has failed to demonstrate any need for  
8 services.

9 The premature inclusion of the SE Property in the Companies' service territories  
10 is contradictory to Staff's stated position in other CC&N proceedings. For example, Staff  
11 had recommended denial of a CC&N expansion request by Arizona Water Company for  
12 "properties for which there was no request for service, since there was no demonstrated  
13 need for those properties." Staff's Closing Brief, In the Matter of the Application of  
14 Arizona Water Company to Extend Its Existing Certificates of Convenience and  
15 Necessity at Casa Grande and Coolidge, Pinal County, Arizona, Docket No. W-01455A-  
16 04-0755 at 8. As in the Arizona Water case, SE will not be able to demonstrate a  
17 foreseeable need for service, let alone a current one.

18 Furthermore, White Hills Road separates SE's land from the Companies proposed  
19 service area. As planned development to this area progresses, it is expected that  
20 significant improvements and upgrades to U.S. Highway 93 and White Hills Road will  
21 be made that will greatly impact the cost to serve the SE Property. The Companies do  
22 not believe that it is in the public interest to decide today whether the ratepayers and the  
23 utility companies should be obligated to assume such speculative costs at a time such  
24 costs are indeterminable and the need is non-existent. As set forth above, SE is not even  
25 in the planning stage of development and to anticipate the purported need for that area  
26 would be speculative at best. It is also possible that when SE is finally ready to develop,  
27 or sells to an entity that is, other alternative providers may be available to serve at a  
28 lesser cost. If not, the Companies at that point can file for an extension to their

1 certificated area. To require the incorporation of the SE Property in the Companies  
2 CC&N at this time would be premature.

3 **Pursuant to Condition 11, Staff is Recommending that the**  
4 **Companies amend the Legal Description at White Hills to**  
5 **Include the SE Property.**

6 As set forth above, the Companies believe that including the SE Property in the  
7 current CC&N is not in the public interest at this time. Because Staff has made such a  
8 recommendation, it follows that Condition 11 would require the Companies to amend  
9 the legal description for The Village at White Hills CC&N area to include the SE  
10 Property. Yet, the Companies believe this condition is not appropriate for this  
11 application at this time. Additionally, the Companies have no legal right to access the SE  
12 Property to conduct a survey in order to comply with this condition. To date, SE has not  
13 provided a legal description to the Companies, nor have they given the Companies any  
14 indication that they are willing or able to do so.

15 **Conclusion**

16 For all the foregoing reasons, Perkins Mountain Water Company and Perkins  
17 Mountain Utility Company request that Conditions 8, 10 and 11 of Staff's Report not be  
18 adopted in the Decision and Order in this matter, and that Condition 2 be modified such  
19 that the Commission approve the Companies' rates as submitted in the Applications and  
20 not Staff's rates as shown in the Staff Report.

21 RESPECTFULLY SUBMITTED this 23<sup>rd</sup> day of November, 2005.

22 SNELL & WILMER L.L.P.

23 By:

24   
25 \_\_\_\_\_  
26 Kimberly A. Grouse  
27 Robert J. Metli  
28 One Arizona Center  
400 East Van Buren  
Phoenix AZ 85004-2202  
Attorneys for Perkins Mountain Water  
Company and Perkins Mountain Utility  
Company

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

ORIGINAL and 13 copies filed this  
23<sup>rd</sup> day of November, 2005, with:

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

COPY mailed this 23<sup>rd</sup> day of November,  
2005, to:

Booker T. Evans, Jr.  
Kimberly A. Warshawski  
Greenberg Traurig, L.L.P.  
2375 East Camelback Road  
Suite 700  
Phoenix, AZ 85016

Scott Fisher  
Sports Entertainment  
808 Buchanan Blvd., Ste. 115-303  
Boulder City, NV 89005



---

Exhibit 1

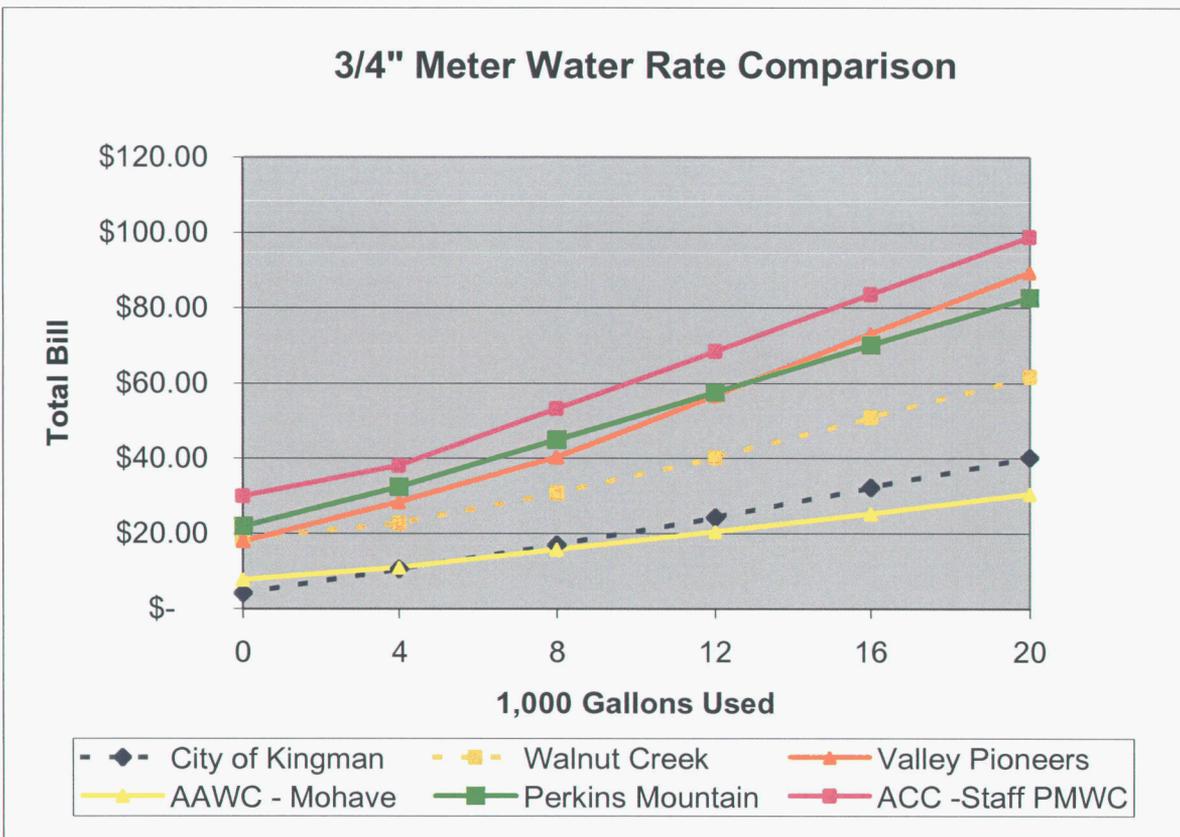
Exhibit 1

**Water Rate Comparison  
Perkins Mountain Water Company (PMWC)  
To Existing Mohave County Providers and Staff Recommendation**

11/22/2005

**3/4" Meter**

	1,000 gallons Used					
	0	4	8	12	16	20
City of Kingman	\$ 4.21	\$ 10.61	\$ 17.01	\$ 24.21	\$ 32.21	\$ 40.21
Walnut Creek	18.75	22.75	30.75	40.15	50.95	61.75
Valley Pioneers	18.00	28.40	40.30	56.70	73.10	89.50
AAWC - Mohave	7.80	11.00	15.76	20.52	25.28	30.53
Perkins Mountain	22.00	32.40	45.00	57.60	70.20	82.80
ACC -Staff PMWC	30.00	38.00	53.20	68.40	83.60	98.80
Average Existing Companies	\$ 12.19	\$ 18.19	\$ 25.96	\$ 35.40	\$ 45.39	\$ 55.50
Percent Increase over Average of Existing Companies						
PMWC	180%	178%	173%	163%	155%	149%
ACC -Staff PMWC	246%	209%	205%	193%	184%	178%
Staff % Increase over PMWC						
	36%	17%	18%	19%	19%	19%



**Exhibit 1**

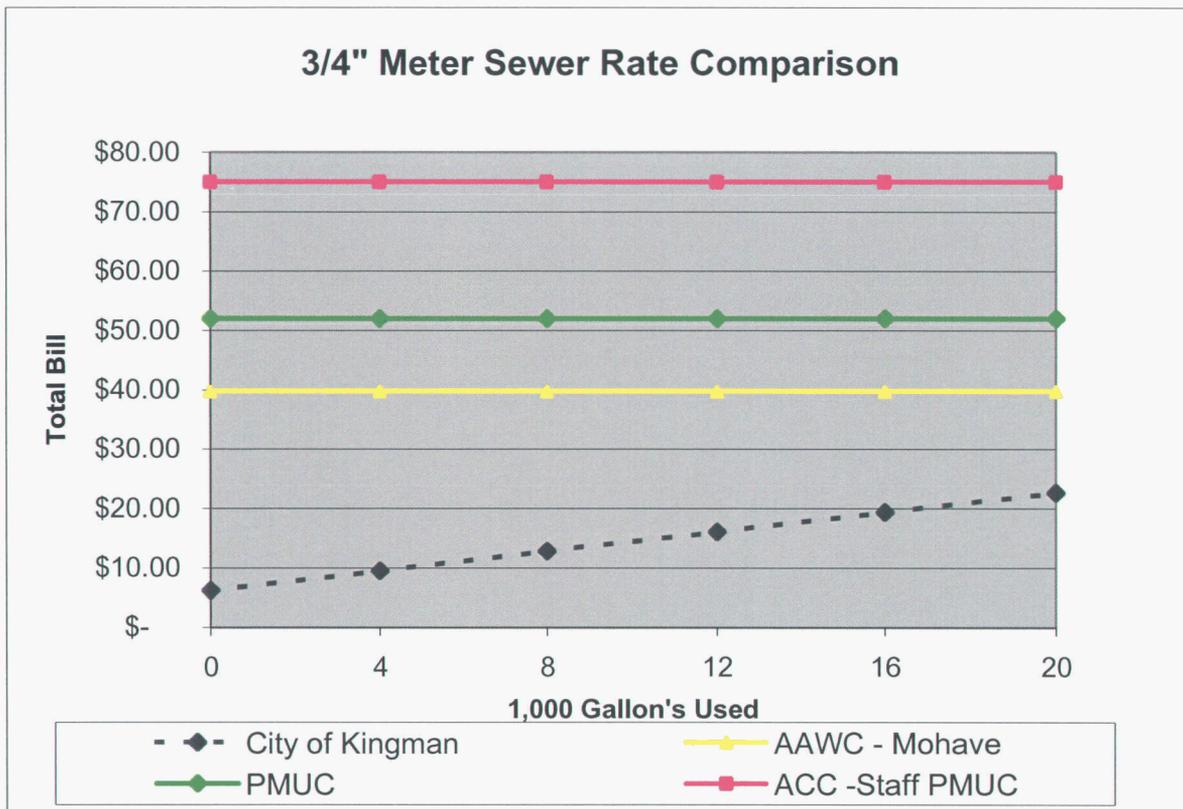
**Sewer Rates Comparison  
Perkins Mountain Utility Company (PMUC)  
To Existing Mohave County Providers and Staff Recommendation**

**11/22/2005**

**3/4" Meter**

	1,000 gallons Used					
	0	4	8	12	16	20
City of Kingman	\$ 6.22	\$ 9.52	\$ 12.81	\$ 16.11	\$ 19.41	\$ 22.70
Walnut Creek	-	-	-	-	-	-
Valley Pioneers	-	-	-	-	-	-
AAWC - Mohave	39.75	39.75	39.75	39.75	39.75	39.75
PMUC	52.00	52.00	52.00	52.00	52.00	52.00
ACC -Staff PMUC	75.00	75.00	75.00	75.00	75.00	75.00
 Average Existing Companies	 \$ 22.99	 \$ 24.63	 \$ 26.28	 \$ 27.93	 \$ 29.58	 \$ 31.23
 Percent Increase over Average of Existing Companies						
PMUC	226%	211%	198%	186%	176%	167%
ACC -Staff PMUC	326%	304%	285%	269%	254%	240%
 Staff % Increase over PMUC	44%	44%	44%	44%	44%	44%

Kingman - Winter Usage assumed 65% of annual average



**Exhibit 1**

**Combined Rate Comparison  
Perkins Mountain Water Company (PMWC)  
Perkins Mountain Utility Company (PMUC)  
To Existing Mohave County Providers and Staff Recommendation**

**11/22/2005**

**3/4" Meter**

	1,000 gallons Used					
	0	4	8	12	16	20
City of Kingman	\$ 10.43	\$ 20.13	\$ 29.82	\$ 40.32	\$ 51.62	\$ 62.91
AAWC - Mohave	47.55	50.75	55.51	60.27	65.03	70.28
PMWC & PMUC	74.00	84.40	97.00	109.60	122.20	134.80
ACC Staff - PMWC & PMUC	105.00	113.00	128.20	143.40	158.60	173.80
Average Existing Companies	\$ 35.18	\$ 42.82	\$ 52.24	\$ 63.33	\$ 74.96	\$ 86.72
Percent Increase over Average of Existing Companies						
PWWC&PMUC	210%	197%	186%	173%	163%	155%
ACC Staff- PMWC&PMUC	299%	264%	245%	226%	212%	200%
Staff % Increase over PMWC&PMUC	42%	34%	32%	31%	30%	29%

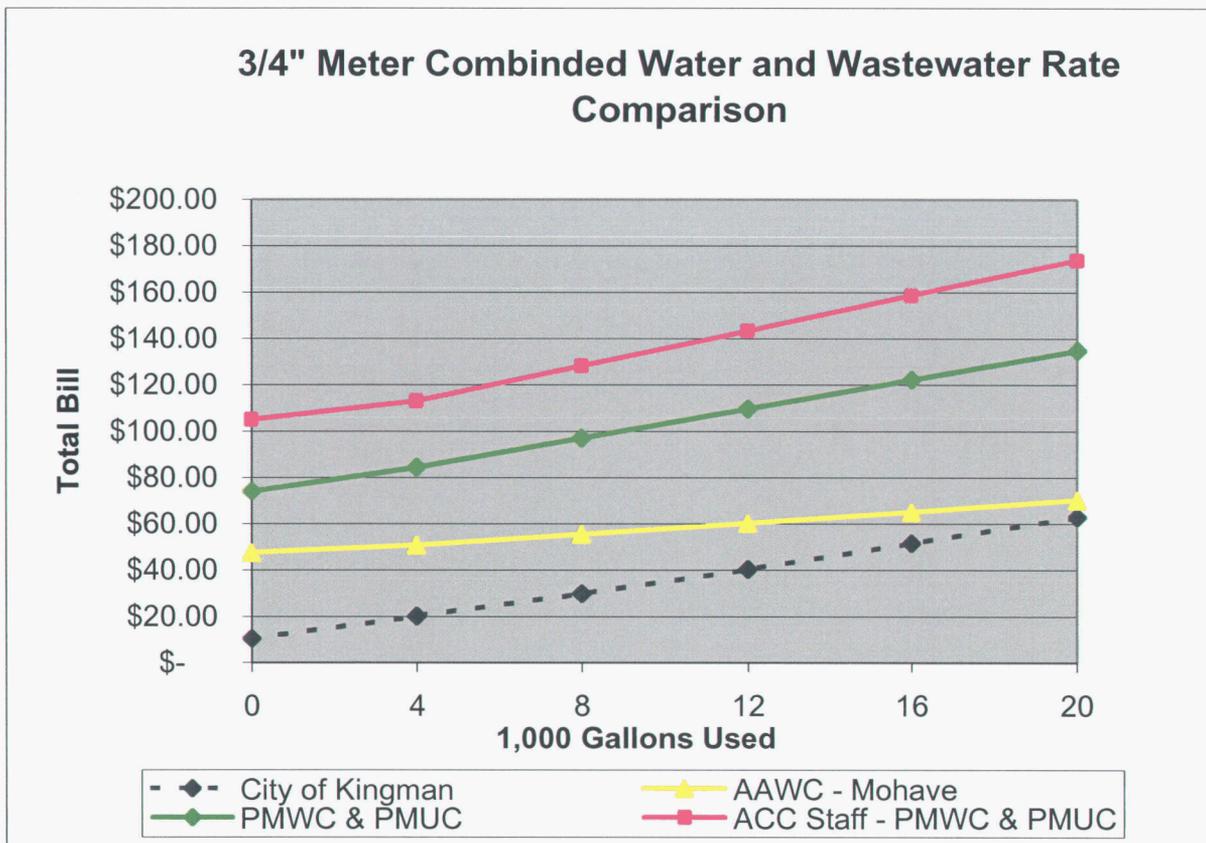
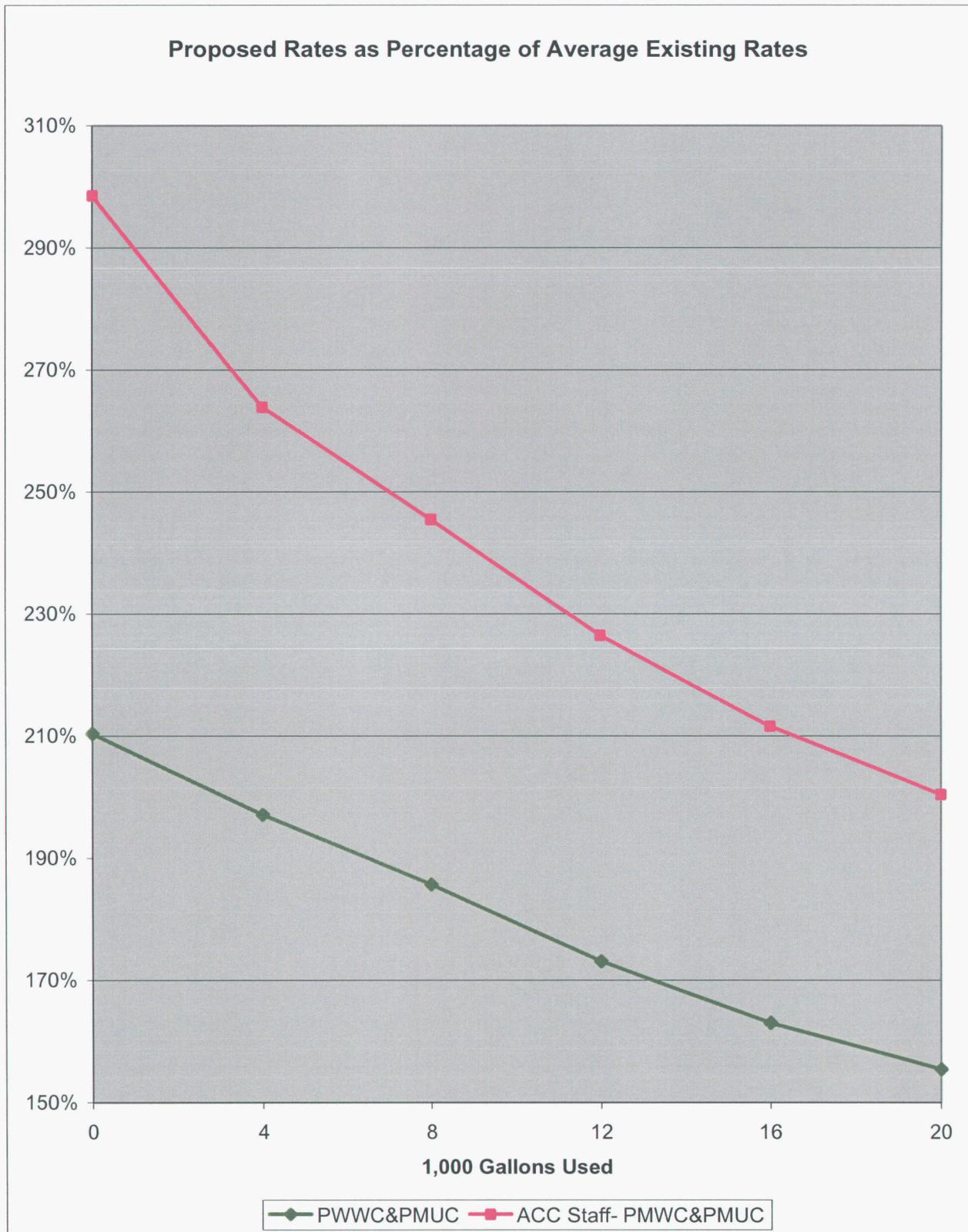


Exhibit 1



One Arizona Center  
Phoenix, Arizona 85004-2202  
(602) 382-6000  
Fax: (602) 382-6070  
www.swlaw.com

Kimberly A. Grouse (602) 382-6304  
kgrouse@swlaw.com

August 29, 2005

Mr. Steve Olea  
Utilities Division  
ARIZONA CORPORATION COMMISSION  
1200 West Washington Street  
Phoenix, Arizona 85007-2927

**Re: Perkins Mountain Water Company – Application for Certificate  
of Convenience and Necessity Docket No. W-20380A-05-0490  
Insufficiency Letter**

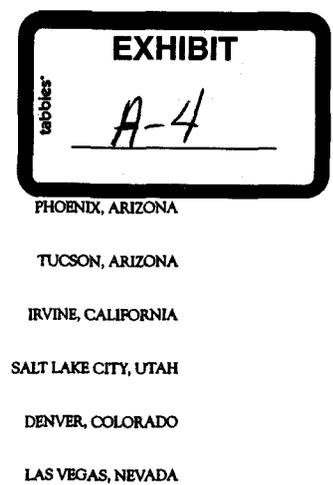
Dear Mr. Olea:

This letter provides you with supplemental information to address questions raised by Staff at the July 25, 2005 meeting between the Applicant and yourself regarding the above referenced CC&N Application.

Method of Financing

As its application states, Perkins Mountain Water Company (“PMWC” or “the Company”) proposes to finance water facilities with a combination of equity provided by Rhodes Homes Arizona (“Rhodes”), advances in aid of construction from Line Extension Agreements (“LXA”), and Contributions In Aid of Construction (“CIAC”) provided through hook-up fees. As indicated on Schedule A-1 to the application, in year five the projected Balance Sheet is summarized as follows:

LXA Advances	\$11,176,381	58.9% of capital
CIAC Hookup Fees	2,581,702	13.6% of capital
Owner Equity	5,100,000	26.9% of capital
Retained Earnings	120,390	0.6% of capital
Total Assets	\$18,978,473	



Mr. Steve Olea  
August 29, 2005  
Page 2

PMWC considers this ratio of owner equity to contributions in aid of construction an appropriate sharing of the cost of backbone plant construction between the water company and the homebuilder. The Company believes it is important to establish an obligation of the homebuilder to fund backbone plant at the time of initial development rather than at an initial rate case. If all backbone plant funding is provided by the water utility for the first five years, costs for water plant infrastructure that are usually a part of homebuilder expenses are shifted to the homeowner to be recovered in utility rates. Placing these costs on the homeowner results in higher water rates and could cause unnecessary financial strain on the water utility, particularly if home sales by homebuilders do not meet expectations. For these reasons, PMWC recommends sharing the backbone financing costs between PMWC and the homebuilders through a hook-up fee.

Staff recommended a hook-up fee in its June 28th, 2005 Staff Report for Circle City Water Company L.L.C. (Circle City) (Docket Nos. W-03510A-05-0146 and W-03510A-05-0145). PMWC believes its request for a hook-up fee is consistent with that recommendation. Staff recommended a hook-up fee of \$1,500 for a 5/8 x 3/4-inch meter, representing 27% of the total plant construction estimate and 50% of the backbone plant facilities estimate. PMWC is requesting a hook-up fee of \$900 for a 3/4-inch meter that is projected to generate \$2.78 million over the first five years, approximately 14% of the total plant construction estimate (\$2.78 million divided by \$19.42 million) and 36% of the backbone plant facilities estimate (\$2.78 million divided by \$7.83 million).

Circle City, an existing water company with 169 customers and total assets of \$128,387 as of year-end 2003, is requesting a non-contiguous CC&N extension to serve 10,000 new customers at an estimated cost for plant facilities of \$55.4 million. Given the large expansion area and cost relative to its existing base, PMWC believes the request is equivalent to PMWC's application for a new certificated area.

In the Circle City Staff report, Staff states "Staff generally recommends the contributed capital not exceed 25 percent of the assets required to establish service." Consistent with Staff's recommendation, PMWC believes its proposed hook-up fee represents a fair balance between utility and homebuilder funding of backbone water plant.

Mr. Steve Olea  
August 29, 2005  
Page 3

Consideration of Existing Providers

Prior to making its decision to form PMWC to provide water service to The Villages at White Hills and Golden Valley South, Rhodes and its consultants evaluated requesting water service from several other entities including Arizona-American Water Company, Global Water Resources, Valley Pioneers Water Company and Walnut Creek Water Co., Inc. Rhodes concluded that Valley Pioneers Water Company and Walnut Creek Water Co., Inc. were not suitable providers due to a lack of capitalization. Rhodes met with both Arizona-American Water Company and Global Water Resources to discuss water service options. Neither company expressed a willingness to provide the equity required to fund the utility's share of the needed backbone plant and were removed from consideration.

Very truly yours,

Snell & Wilmer



Kimberly A. Grouse

KAG:ch  
Enclosures

cc: Kirk Brynjulson  
David Frohnen  
Ray Jones  
Blessing Chukwu

**Client:** 48422 RHODES HOMES  
**Matter:** 0001 WATER RIGHTS

**Folder No:** KAG 04 **Expand No:** #02  
**File Type:**  
**Description:** PERKINS MOUNTAIN WATER COMPANY  
BINDER: APPLICATION FOR CC&N  
**Barcode:** 090643880

**Case No:**  
**Case Title:**

**Court:**

<b>Tab No.</b>	<b>Date</b>	<b>Description</b>	<b>Party</b>
	<b>Date Type</b>		
1	7/7/2005	WATER COMPANY APPLICATION FOR CC&N	
2	9/14/2005	WATER COMPANY NOTICE OF FILING AMENDED LEGAL DESCRIPTION	
3	9/19/2005	AMENDED LEGAL DESCRIPTION AND MAPS (FROM ACC)	



**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: September 19, 2005

**RECEIVED**  
SEP 21 2005  
SNELL & WILMER

RE: **PERKINS MOUNTAIN WATER COMPANY (DOCKET NO. W-20380A-05-0490)**  
**PERKINS MOUNTAIN UTILITY COMPANY (DOCKET NO. SW-20379A-05-0489)**  
**AMENDED LEGAL DESCRIPTION**

The area requested by Perkins Mountain for a CC#N for water and wastewater has been plotted using an amended legal description for Page 2, which has been docketed (the original Page 1 did not need to be amended). The entire correct legal description is attached and should be used in place of the original description submitted with the application.

Also attached are copies of the maps for your files.

:bsw

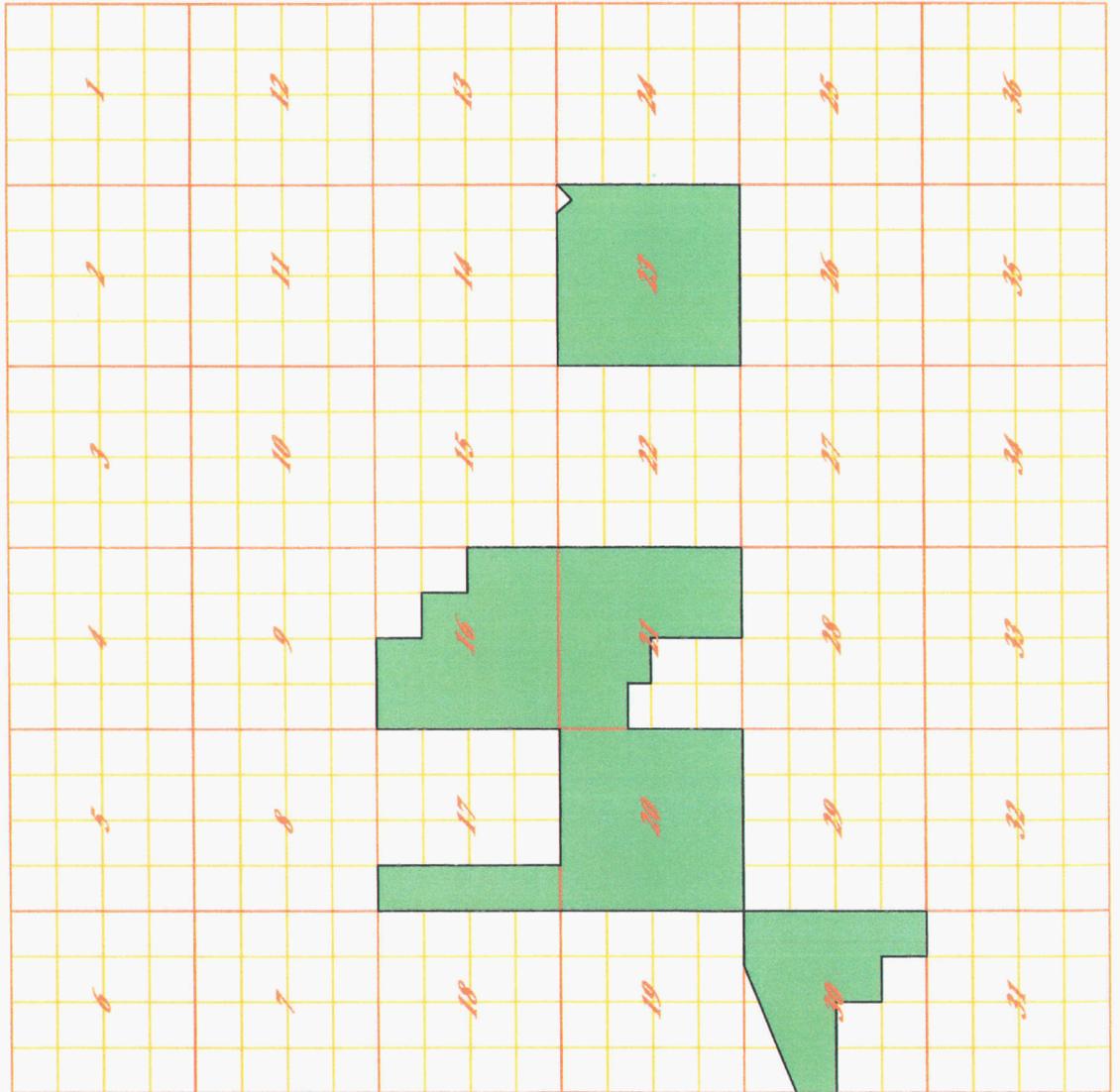
Attachments

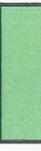
cc: Docket Control  
Ms. Kimberly Grouse  
Ms. Deb Person (Hand Carried)  
File

# COUNTY: Mohave

## RANGE 20 West

## TOWNSHIP 27 North



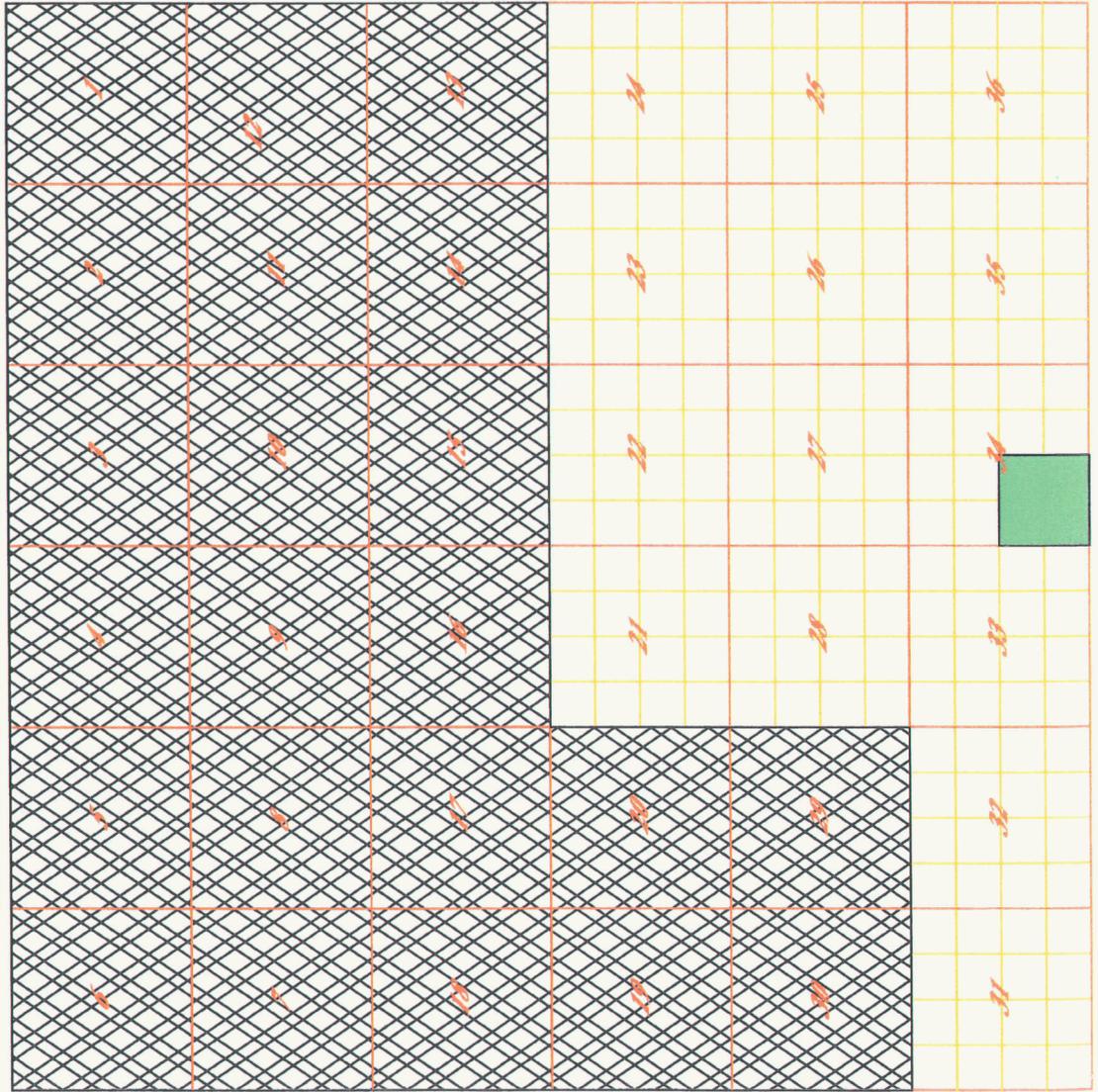
-  W-20380 (4)  
Perkins Mountain Water Company  
Docket No. W-20380-A-05-0490  
Application for CC&N for Water
-  SW-20379 (4)  
Perkins Mountain Utility Company  
Docket No. SW-20379A-05-0489  
Application for CC&N for Sewer



# COUINTRY Mohave

RANGE 18 West

TOWNSHIP 21 North

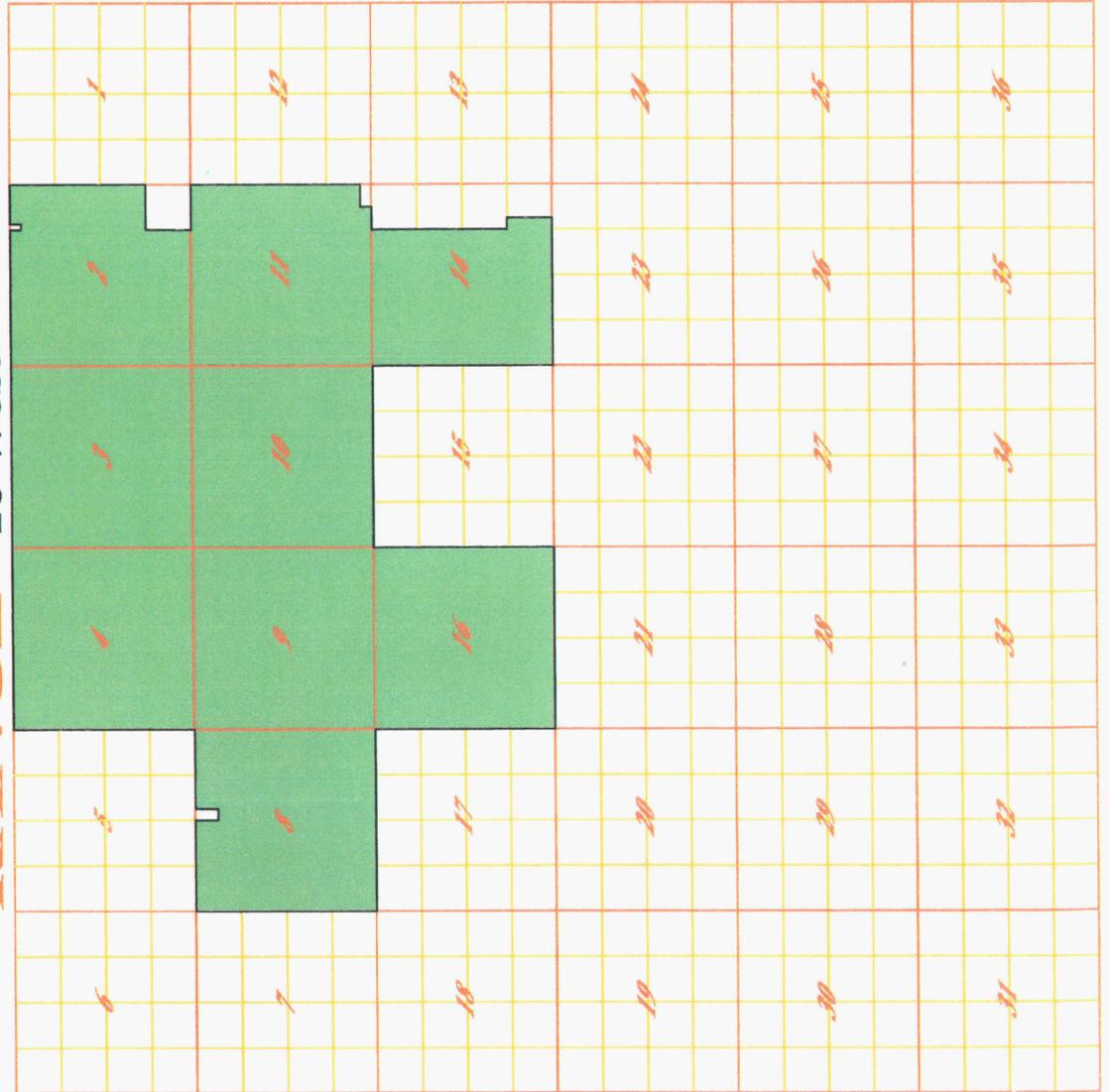


- 
 W-2033 (2)  
 Valley Pioneer's Water Company, Inc.
- 
 W-20380 (4)  
 Perkins Mountain Water Company  
 Docket No. W-20380-A-05-0490  
 Application for CC&N
- 
 SW-20379 (4)  
 Perkins Mountain Utility Company  
 Docket No. SW-20379A-05-0489  
 Application for CC&N for Sewer

# COUNTY: Mohave

## RANGE 18 West

## TOWNSHIP 20 North



GOLDEN VALLEY SOUTH  
CC & N BOUNDARY

LEGAL DESCRIPTION

TOWNSHIP 20 NORTH, RANGE 18 WEST, G. & S.R.M., MOHAVE COUNTY, AZ:

SECTION 2, EXCEPT THE W2 NW4 NW4 NE4 NE4, & THE SE4 SE4;  
SECTION 3;  
SECTION 4;  
SECTION 8, EXCEPT THE W2 NW4 NW4 NE4;  
SECTION 9;  
SECTION 10;  
SECTION 11, EXCEPT THE S2 SE4 SE4 SE4;  
SECTION 14, EXCEPT THE E2 NE4, THE NE4 SE4, THE E2 W2 SE4 SE4, & THE E2 SE4  
SE4;  
SECTION 16;

TOWNSHIP 21 NORTH, RANGE 18 WEST, G. & S.R.M., MOHAVE COUNTY, AZ:

SW4 SECTION 34.

THE VILLAGES AT WHITE HILLS  
CC & N SEWER/WATER BOUNDARY

LEGAL DESCRIPTION

[Revised 8-3-05]

**TOWNSHIP 27 NORTH, RANGE 20 WEST, G. & S.R.M., MOHAVE COUNTY, AZ;**

SECTION 16, EXCEPT THE NW4 NE4, & THE E2 NE4;

W2 W2 SECTION 17;

SECTION 20;

SECTION 21, EXCEPT THE SW4, & THE S2 SW4 NW4;

SECTION 23, EXCEPT THE FOLLOWING DESCRIBED PARCEL OF LAND:

COMMENCING AT THE NORTHEAST CORNER OF SECTION 23; THENCE NORTH 89°37'39" WEST, 26.97 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 41°25'03" EAST, 35.78 FEET; THENCE SOUTH 48°34'57" WEST, 599.97 FEET; THENCE NORTH 41°25'03" WEST, 572.03 FEET; THENCE SOUTH 89°37'39" EAST, 804.69 FEET TO THE POINT OF BEGINNING;

ALL OF SECTION 30 LYING SOUTHERLY OF THE CENTERLINE OF WHITE HILLS ROAD (O.R. 274/50-97) OF WHICH THE CENTERLINE IS DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF THE NORTHWEST QUARTER (NW ¼) OF SECTION 30; THENCE SOUTH 00°28'34" WEST, ALONG THE WESTERLY LINE THEREOF, 1,493.03 FEET TO THE POINT OF BEGINNING; THENCE NORTH 68°20'45" EAST, DEPARTING SAID WESTERLY LINE, 223.94 FEET; THENCE NORTH 67°59'58" EAST, 3,686.73 FEET TO THE POINT OF TERMINATION, SAID POINT BEING ON THE NORTHERLY LINE OF THE NORTHEAST QUARTER (NE ¼) OF SECTION 30, EXCEPT THE SW4, & THE SW4 SE4;

**TOWNSHIP 27 NORTH, RANGE 21 WEST, G. & S.R.M., MOHAVE COUNTY, AZ;**

A PORTION OF THE E2 SECTION 25 DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER (SE ¼) OF SAID SECTION 25; THENCE SOUTH 00°28'58" WEST, ALONG THE EASTERLY LINE THEREOF, 2,643.95 FEET TO THE SOUTHEAST CORNER OF SAID SOUTHEAST QUARTER (SE ¼); THENCE NORTH 89°33'42" WEST, ALONG THE SOUTHERLY LINE THEREOF, 164.23 FEET TO THE POINT OF CURVE OF A NON TANGENT CURVE TO THE LEFT, OF WHICH THE RADIUS POINT LIES SOUTH 74°14'59" WEST, A RADIAL DISTANCE OF 5,821.58 FEET, SAID POINT BEING ON THE EASTERLY RIGHT-OF-WAY LINE OF U.S. HIGHWAY 95; THENCE NORTHERLY ALONG THE ARC, ALONG SAID EASTERLY RIGHT-OF-WAY LINE, THROUGH A CENTRAL ANGLE OF 07°34'58", 770.46 FEET; THENCE NORTH 23°19'59" WEST, CONTINUING ALONG SAID EASTERLY RIGHT-OF-WAY LINE, 2,685.36 FEET TO THE CENTERLINE OF WHITE HILLS ROAD (O.R. 274/50-97); THENCE NORTH 68°20'45" EAST, ALONG SAID CENTERLINE, 1,632.40 FEET TO THE EASTERLY LINE OF THE NORTHEAST QUARTER (NE ¼) OF SAID SECTION 25; THENCE SOUTH 00°28'34" WEST, ALONG SAID EASTERLY LINE, 1,151.09 FEET TO THE POINT OF BEGINNING.



**Snell & Wilmer**

LA OFFICES  
One Arizona Center, 400 E. Van Buren  
Phoenix, Arizona 85004-2202  
(602) 382-6000

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

**BEFORE THE ARIZONA CORPORATION COMMISSION**

COMMISSIONERS

**RECEIVED**

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

2005 SEP 14 P 3:27  
AZ CORP COMMISSION  
DOCUMENT CONTROL

IN THE MATTER OF THE APPLICATION  
OF PERKINS MOUNTAIN WATER  
COMPANY FOR A CERTIFICATE OF  
CONVENIENCE AND NECESSITY IN  
MOHAVE COUNTY

**DOCKET NO. W-20380A-05-0490**

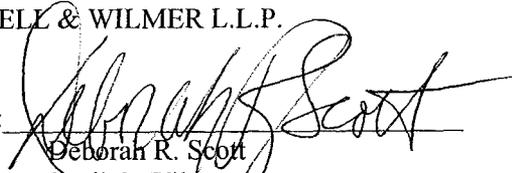
**NOTICE OF FILING AMENDED  
LEGAL DESCRIPTION**

Upon request from Arizona Corporation Commission Staff, Perkins Mountain Water Company is filing the attached Amended Legal Description clarifying the boundaries for the White Hills portion of the CC&N for Perkins Mountain Water Company.

RESPECTFULLY submitted this 14<sup>th</sup> day of September, 2005.

SNELL & WILMER L.L.P.

By:



Deborah R. Scott  
Snell & Wilmer  
One Arizona Center  
Phoenix, AZ 85004  
602-382-6571 (phone)  
602-382-6070 (fax)  
Attorneys for Perkins Mountain Water  
Company

Original and 13 copies filed this  
14<sup>th</sup> day of September, 2005, with:

Docket Control  
ARIZONA CORPORATION COMMISSION  
1200 West Washington Street  
Phoenix, Arizona 85004



THE VILLAGES AT WHITE HILLS  
CC & N SEWER/WATER BOUNDARY

LEGAL DESCRIPTION

[Revised 8-3-05]

TOWNSHIP 27 NORTH, RANGE 20 WEST, G. & S.R.M., MOHAVE COUNTY, AZ;

SECTION 16, EXCEPT THE NW4 NE4, & THE E2 NE4;

W2 W2 SECTION 17;

SECTION 20;

SECTION 21, EXCEPT THE SW4, & THE S2 SW4 NW4;

SECTION 23, EXCEPT THE FOLLOWING DESCRIBED PARCEL OF LAND:

COMMENCING AT THE NORTHEAST CORNER OF SECTION 23; THENCE NORTH 89°37'39" WEST, 26.97 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 41°25'03" EAST, 35.78 FEET; THENCE SOUTH 48°34'57" WEST, 599.97 FEET; THENCE NORTH 41°25'03" WEST, 572.03 FEET; THENCE SOUTH 89°37'39" EAST, 804.69 FEET TO THE POINT OF BEGINNING;

ALL OF SECTION 30 LYING SOUTHERLY OF THE CENTERLINE OF WHITE HILLS ROAD (O.R. 274/50-97) OF WHICH THE CENTERLINE IS DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF THE NORTHWEST QUARTER (NW ¼) OF SECTION 30; THENCE SOUTH 00°28'34" WEST, ALONG THE WESTERLY LINE THEREOF, 1,493.03 FEET TO THE POINT OF BEGINNING; THENCE NORTH 68°20'45" EAST, DEPARTING SAID WESTERLY LINE, 223.94 FEET; THENCE NORTH 67°59'58" EAST, 3,686.73 FEET TO THE POINT OF TERMINATION, SAID POINT BEING ON THE NORTHERLY LINE OF THE NORTHEAST QUARTER (NE ¼) OF SECTION 30, EXCEPT THE SW4, & THE SW4 SE4;

TOWNSHIP 27 NORTH, RANGE 21 WEST, G. & S.R.M., MOHAVE COUNTY, AZ;

A PORTION OF THE E2 SECTION 25 DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER (SE ¼) OF SAID SECTION 25; THENCE SOUTH 00°28'58" WEST, ALONG THE EASTERLY LINE THEREOF, 2,643.95 FEET TO THE SOUTHEAST CORNER OF SAID SOUTHEAST QUARTER (SE ¼); THENCE NORTH 89°33'42" WEST, ALONG THE SOUTHERLY LINE THEREOF, 164.23 FEET TO THE POINT OF CURVE OF A NON TANGENT CURVE TO THE LEFT, OF WHICH THE RADIUS POINT LIES SOUTH 74°14'59" WEST, A RADIAL DISTANCE OF 5,821.58 FEET, SAID POINT BEING ON THE EASTERLY RIGHT-OF-WAY LINE OF U.S. HIGHWAY 95; THENCE NORTHERLY ALONG THE ARC, ALONG SAID EASTERLY RIGHT-OF-WAY LINE, THROUGH A CENTRAL ANGLE OF 07°34'58", 770.46 FEET; THENCE NORTH 23°19'59" WEST, CONTINUING ALONG SAID EASTERLY RIGHT-OF-WAY LINE, 2,685.36 FEET TO THE CENTERLINE OF WHITE HILLS ROAD (O.R. 274/50-97); THENCE NORTH 68°20'45" EAST, ALONG SAID CENTERLINE, 1,632.40 FEET TO THE EASTERLY LINE OF THE NORTHEAST QUARTER (NE ¼) OF SAID SECTION 25; THENCE SOUTH 00°28'34" WEST, ALONG SAID EASTERLY LINE, 1,151.09 FEET TO THE POINT OF BEGINNING.



RECEIVED

BEFORE THE ARIZONA CORPORATION COMMISSION

2005 JUL -7 P 12:44

COMMISSIONERS

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

AZ CORP COMMISSION  
DOCUMENT CONTROL

DOCKET NO.

IN THE MATTER OF THE APPLICATION  
OF PERKINS MOUNTAIN WATER  
COMPANY FOR A CERTIFICATE OF  
CONVENIENCE AND NECESSITY IN  
MOHAVE COUNTY

APPLICATION FOR A CERTIFICATE  
OF CONVENIENCE AND NECESSITY --  
WATER

Pursuant to Arizona Revised Statutes, § 40-281 and Arizona Administrative Code R-14-2-402, Perkins Mountain Water Company ("Perkins Mt. Water" or "Company") hereby files this Application seeking a Certificate of Convenience and Necessity ("CC&N") to provide water to master-planned communities that are currently in the planning stages in Mohave County, Arizona. Perkins Mountain Utility Company has concurrently filed an Application for a CC&N to provide sewer service and reclaimed wastewater service in the same area.

In support of this Application, Perkins Mt. Water provides the following information.

The Communities

Rhodes Homes Arizona, LLC ("Rhodes"), a reputable and experienced land developer and homebuilder, has built more than a dozen developments in southern Nevada, including Rhodes Ranch, a 1,347-acre master-planned community that ultimately will contain up to 9,000 homes. Similar to Rhodes Ranch, Rhodes intends to develop two high-quality communities in Mohave County, Arizona: Golden Valley South and The Villages at White Hills.

Snell & Wilmer

LAW OFFICE  
One Arizona Center, 400 E. Van Buren  
Phoenix, Arizona 85004-2101  
(602) 382-8000

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26

1 Golden Valley South consists of 5,750 acres and is located approximately five miles  
2 southeast of Kingman, Arizona. Golden Valley South is planned to include an active retiree  
3 community with an 18-hole golf course,<sup>1</sup> and an interconnected community for all age groups.  
4 Included in the plans for the master-planned community are an industrial/business park area and  
5 community commercial areas. At build-out, Golden Valley South is expected to be comprised of  
6 more than 33,000 dwelling units. The Golden Valley South Proposed Area Plan is attached as  
7 Exhibit A.  
8

9 The Villages at White Hills is planned as a 2,727-acre self-contained community to  
10 provide affordable homes for commuters to the Las Vegas metropolitan area. The Villages at  
11 White Hills is located along U.S. Highway 93, approximately 29 miles south of Hoover Dam,  
12 with a commercial area along U.S. Highway 93 that is expected to serve both residents and  
13 travelers. At build-out, The Villages at White Hills is expected to be comprised of more than  
14 20,000 dwelling units. The Villages at White Hills Proposed Area Plan is attached as Exhibit B.  
15

16 Perkins Mt. Water was formed to provide water service to all of the residents and  
17 businesses in the master-planned communities of Golden Valley South and The Villages at White  
18 Hills and is seeking a CC&N for these areas. The legal descriptions of the property are attached  
19 as Exhibit C; detailed maps, as well as property ownership legends, are attached as Exhibit D.  
20

### 21 Projected Growth

22 It is estimated that Perkins Mt. Water will have one hundred and fifty (150) residential  
23 customers in the first year and three thousand thirty-five (3,035) in year five. Although it is  
24 estimated that there will be no commercial customers in the first year, thirty (30) commercial  
25

---

26 <sup>1</sup> At build-out the golf course will be watered with reclaimed wastewater rather than groundwater.

1 customers are anticipated in year five. No industrial or irrigation customers are anticipated in the  
2 first five years. See Exhibit E, Schedule A-7 for a yearly analysis of projected customer growth  
3 and water consumption for years one through five.

4 **Management and Operations Information**

5  
6 Kirk Brynjulson is President of Perkins Mt. Water and the on-site manager for the utility.  
7 Mr. Brynjulson has been involved in the development business for over twenty-five years. He  
8 has developed several master planned communities in the Las Vegas, Nevada area, including  
9 Green Valley, Green Valley Ranch, Seven Hills and LynBrook, totaling over 30,000 units. Mr.  
10 Brynjulson is the Vice President of Operations for Rhodes Homes Arizona. His business address  
11 is 2215 Hualapai Mountain Road, Suite H, Kingman, AZ 86401. Mr. Brynjulson can be reached  
12 by telephone at (928) 718-2210.

13  
14 Aricor Water Solutions has been retained as a consultant and the contract operator for  
15 Perkins Mt. Water. Ray Jones, the principal of Aricor Water Solutions, has been certified by the  
16 Department of Environmental Quality as a Grade 3 Water Treatment Plant Operator and a Grade  
17 3 Water Distribution System Operator and is the certified operator for the Perkins Mt. Water. Mr.  
18 Jones has over 20 years experience in the operations, engineering and management of water  
19 utilities in the State of Arizona. His experience includes nineteen years with Citizens Water  
20 Resources and Arizona American Water, the largest water and wastewater provider in Arizona.  
21 Mr. Jones' address is 25213 N. 49<sup>th</sup> Drive, Glendale AZ 85310. His telephone number is (623)  
22 341-4771.

23  
24 The attorneys for Perkins Mt. Water are Deborah Scott and Kimberly Grouse. Their  
25 business address is Snell & Wilmer, L.L.P., One Arizona Center, 400 East Van Buren, Phoenix  
26

1 AZ 85004. Ms. Scott can be reached at (602) 382-6571; Ms. Grouse can be reached at (602) 382-  
2 6304.

3 **Corporate Information**

4 Perkins Mountain Water Company is a Nevada corporation. The Company's corporate  
5 headquarters are located at 4730 S. Fort Apache Road, Suite 300, Las Vegas, Nevada. The  
6 Nevada phone number is (702) 873-5338. Perkins Mt. Water also has a local Kingman office,  
7 located at 2215 Hualapai Mountain Road, Suite H, Kingman AZ 86401. The telephone number is  
8 (928) 718-2210.  
9

10 The Company has applied for authority to transact business in Arizona as a foreign  
11 corporation with the Arizona Corporation Commission ("Commission"), Corporations Division,  
12 and will provide copies of that authority when received.

13 The Officers and Directors of Mt. Perkins Water are:

14	Kirk Brynjulson	Director, President	4730 S Fort Apache Rd, #300 Las Vegas, NV 89147
15	Frederick Chin	Director	4730 S Fort Apache Rd, #300 Las Vegas, NV 89147
16	Keith Mosley	Director	4730 S Fort Apache Rd, #300 Las Vegas, NV 89147
17	Paul Huygens	Secretary, Treasurer	4730 S Fort Apache Rd, #300 Las Vegas, NV 89147

18  
19  
20 A certified copy of Perkins Mt. Water's Articles of Incorporation and related documents  
21 are attached as Exhibit F; a copy of the Company's By-Laws are attached as Exhibit G. The  
22 Company is authorized to issue 100,000 shares; it has issued 100 shares of common stock, \$0.01  
23 par value per share.  
24  
25  
26

1 **Financial Information**

2 Perkins Mt. Water will initially finance the required water facilities using a combination  
3 of equity provided by Rhodes Homes Arizona, advances in aid of construction provided through  
4 line extension agreements, and contributions in aid of construction provided through hook-up  
5 fees. The Company will be initially capitalized with an equity infusion of fifty thousand dollars  
6 (\$50,000).

7  
8 Schedules of the estimated operating revenue, operating expenses, plant in service,  
9 balance sheet, income statement, and related supporting schedules for Perkins Mt. Water for years  
10 one through five are included in Exhibit E. The estimated property taxes are contained in Exhibit  
11 E, Schedule A-6.

12 **Construction of Facilities**

13 Stanley Consultants has completed an Engineering Report for each master-planned  
14 community: the Golden Valley South report is attached as Exhibit H and The Village at White  
15 Hills report is attached as Exhibit I. In accordance with the Water Infrastructure section of the  
16 reports, Perkins Mt. Water will construct a new water system to serve each of the developments.  
17 The water systems will consist of groundwater wells, storage facilities, booster pumping stations,  
18 pipelines and related appurtenances, as detailed in the reports. Each report (see Chapter 5)  
19 contains a detailed schedule and cost estimate for the required backbone facilities. The total  
20 estimated cost to construct the backbone water system is \$41.3 million for Golden Valley South  
21 and \$28.5 million for The Villages at White Hills. Distribution facilities for the subdivisions are  
22 estimated to cost an additional \$47.8 million for Golden Valley South and \$29 million for The  
23 Villages at White Hills.  
24  
25  
26

1 In Golden Valley South, construction of the water system is estimated to commence in the  
2 first quarter of 2006. Construction is expected to commence in The Villages at White Hills in the  
3 second quarter of 2006. It is expected to take twenty years to complete construction of the entire  
4 system for both master planned communities.

5  
6 **Schedule of Proposed Rates**

7 A schedule of proposed rates for Perkins Mt. Water is attached. See, Exhibit E, Schedule  
8 A-5.

9 **Franchise**

10 Perkins Mt. Water plans to file an application with Mohave County for a franchise  
11 concurrent with the review of this Application. Perkins Mt. Water will supplement the record  
12 when the Mohave County franchise is received.

13  
14 **The Landowners**

15 Major landowners have requested that Perkins Mt. Water provide water service in this  
16 area.<sup>2</sup> Copies of letters from those landowners are attached as Exhibit J.

17 Within fifteen days of this filing, Perkins Mt. Water will provide written notice of its  
18 application for a CC&N to all owners of record listed in Exhibit D, in the format prescribed by  
19 the Commission, which is attached as Exhibit K.

20  
21 **Regulatory Approvals**

22 Perkins Mt. Water anticipates filing for numerous regulatory approvals over the life of the  
23 project. These include necessary ADEQ Approvals to Construct and an elementary business plan

24  
25 <sup>2</sup> Eight very small parcels contained within the exterior boundaries of the planned Golden Valley South development  
26 are not part of the planned development. Since these parcels are fully encompassed by the Golden Valley South  
development, they have been included in the CC&N request.

1 under ADEQ rule R-18-4-606. Perkins Mt. Water will supplement the record when the initial  
2 ADEQ approvals are received.

3 **Adequate Water Supply**

4 An application for The Villages at White Hills was filed with the Arizona Department of  
5 Water Resources (ADWR) for an adequate water supply on March 17, 2005. A similar  
6 application is planned for Golden Valley South and will be filed concurrent with review of this  
7 Application. Perkins Mt. Water will supplement the record when the initial ADWR approvals are  
8 received.  
9

10 **Conclusion**

11 Perkins Mt. Water is a fit and proper entity to provide water service to customers in the  
12 master-planned communities of Golden Valley South and The Villages at White Hills and will do  
13 so in conjunction with Perkins Mountain Utility Company. The Company is ready, willing and  
14 able to construct the necessary facilities. It has the financial resources, an experienced certified  
15 operator, and is in the process of obtaining a franchise and all necessary permits. For these  
16 reasons, Perkins Mt. Water respectfully requests that the Commission find that Perkins Mt. Water  
17 is a fit and proper entity and that it is in the public interest to grant approval for a CC&N.  
18

19  
20 RESPECTFULLY SUBMITTED this 7th day of July, 2005.

21 SNELL & WILMER L.L.P.

22  
23 By:   
24 Deborah R. Scott  
25 Kimberly A. Grouse  
26 One Arizona Center  
400 East Van Buren  
Phoenix AZ 85004-2202  
Attorneys for Perkins Mountain Water Company

Snell & Wilmer

LAW OFFICE  
One Arizona Center, 400 E. Van Buren  
Phoenix, Arizona 85004-2202  
(602) 392-6000

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26

ORIGINAL and 13 copies filed this  
7th day of July, 2005, with:

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

*Rosa Duryie*

1684287

A

Exhibit A

See spiral bound book titled "Golden Valley South Area Plan"



# Golden Valley South

## Area Plan



© Rhodes Homes Arizona

**Prepared by Rhodes Homes Arizona  
for Mohave County, Arizona**

**February 2005**

**Prepared by:**

**RNM, Architecture and Land Planning**

**Stanley Consultants, Inc., Engineering**

**Cooper Research, Market and Economics**

**SWCA, Environmental Issues**

## Table of Contents

I. The Community Vision .....	Pages 5-6
II. Summary: Golden Valley South Master Planned Community	
A. Site Characteristics .....	Pages 7-8
B. Proposed Master Plan .....	Pages 8-9
C. Goals of the Community .....	Pages 9-11
III. Community Development	
A. Existing General Plan and Zoning .....	Page 12
B. Proposed General Plan and Area Plan .....	Pages 12-14
C. Proposed Land Use Plan .....	Pages 14-15
D. Economic Development .....	Pages 16-18
IV. Natural Resources	
A. Water Resources .....	Pages 19-20
B. Air Quality .....	Page 20
C. Habitat Protection .....	Pages 20-21
D. Energy Conservation .....	Pages 21-22
V. Public Infrastructure and Facilities	
A. Infrastructure	
1. Roads .....	Pages 22-23
2. Water Delivery System .....	Pages 23-24
3. Sewage Treatment .....	Pages 24-25
4. Flood Control .....	Pages 25-26
B. Public Facilities	
1. Parks .....	Pages 26-28
2. Fire Protection .....	Pages 28-29
3. Police Protection .....	Page 29
4. Library Services .....	Page 29
5. Schools .....	Pages 29-30

**Exhibits:**

Because Rhodes Homes Arizona is in the planning process for Golden Valley South, many of its documents in support of this application are business proprietary and confidential. However, Rhodes Homes Arizona will make those documents available for review by Mohave County as they are requested.

**EXHIBITS**

- 1. Project Land Use Diagram**
- 2. Vicinity Map**
- 3. Area Map**
- 4. Mohave County Existing Land Tenure**
- 5. Full-size, fold-out Project Land Use Diagram**

## I. THE COMMUNITY VISION OF GOLDEN VALLEY SOUTH

The vision of Rhodes Homes Arizona for Golden Valley South is to build a community that is self-sustaining, adds to the quality of life in Mohave County and minimizes the impact on natural resources. Golden Valley South has been designed to meld with the natural environment, provide a well-connected network of services to meet the needs of new and existing residents of Golden Valley, and stimulate job growth in Mohave County. Ultimately, when Golden Valley South reaches sufficient size, it will investigate incorporation as a city, under applicable state law.

The 5,750 acres of Golden Valley South have been planned to create two types of high-quality communities – an active retiree community with an 18-hole golf course as its centerpiece, and an interconnected community for all age groups grounded in the concept that people want to live in a small town atmosphere, close to shopping, cultural and social activities, and recreation. These master-planned community designs will add a new dimension to Mohave County. Coupled with economic development, they will provide new housing and job opportunities for current and future residents of the county.

Demographically, it is anticipated that the active retiree segment of the Golden Valley South community will grow most rapidly at first, based on migration trends pointing to a large influx of retirees moving to the Southwest over the next decade and longer, as “baby boomers” retire and leave metropolitan areas. Nearly 100,000 people 65 years or older moved into Arizona from 1995-2000, with more net migration among this demographic group than any other state except Florida. This number is expected to grow significantly as “baby boomers” come of retirement age. Golden Valley South has been planned to provide active retirees with both the amenities and services they desire, close to where they live.

Development of the other segment of Golden Valley South serving all age and population groups addresses the need of Mohave County for quality, affordable housing that is linked to the region’s economic development and natural population growth. The U.S. Census Bureau projects that the U.S. population will grow by 42 million people over the next two decades, and the Southwest is expected to remain the fastest-growing region of the country. Mohave County is in the path of this growth, because of its climate, logistics and proximity to major metropolitan areas.

Because many people are looking for an alternative to crowded, congested metropolitan and suburban areas, Golden Valley South has been designed around the concept of a town center and satellite villages that create a sense of place and distinct neighborhoods. Like the active retiree segment of Golden Valley South, the eastern portion of the development would provide housing for a

variety of income levels, and would be self-sufficient in terms of shopping, services, entertainment and recreation. An office/business park is planned on the southern edge of Golden Valley South that can be linked to economic development efforts along the I-40 Industrial Corridor in Mohave County, augmenting job growth and creating an opportunity for Golden Valley South residents to work close to home.

Basic tenets for the development of Golden Valley South are:

- ◆ Respect for the natural resources of Golden Valley, in particular scenic resources and water resources; Golden Valley South would implement a well-thought-out plan for utilizing local groundwater resources and maintaining a healthy aquifer through the use of grey water and recharge; development also would respect the natural features of the land.
- ◆ Provide the commercial infrastructure necessary to support not only Golden Valley South but the Golden Valley community in general.
- ◆ Dedicate land necessary to provide a full range of public facilities and services, including elementary and middle schools, parks, police and fire stations.
- ◆ Create a community that sustains itself through its tax base and brings new revenues to Mohave County through economic development and job growth.
- ◆ Provide affordable housing for both active retirees and working families.
- ◆ Create a cohesive community tied together by a town center, villages with cores, and neighborhoods connected by parkways and trails.
- ◆ Strive to develop an energy-conscious community through pilot projects taking advantage of abundant solar energy to help meet home energy needs.

The subsequent information in this Area Plan/General Plan Amendment provides a land use plan for Golden Valley South and supporting elements, as well as more detail on how Golden Valley South will comport with General Plan goals and objectives. This document was prepared to address Mohave County's specific requirements for an Area Plan/General Plan Amendment.

## **II. SUMMARY: GOLDEN VALLEY SOUTH MASTER PLANNED COMMUNITY**

In keeping with an overall comprehensive planning approach, Golden Valley South -- located between Shinarump Road (County Highway 223) on the north and Ash Drive on the south, Yuma Road on the east and Tombstone Trail on the west -- will serve as a logical extension of the previously adopted Golden Valley Area Plan that adjoins the site just to the north. The master plan area, which encompasses Sections 04, 03, 02, 08, 09, 10, 11, 16, and parts of 14 of Township 020 N Range 018 West, will become a carefully planned community consisting of 5,750 acres. Based upon a balanced community concept, Golden Valley South will provide residents with a place where they can live close to work, shopping, and recreational and educational facilities.

### **A. Site Characteristics**

The Site Analysis has shaped the vision for Golden Valley South. The existing and planned circulation system has directed the configuration of the various villages, while circulation design criteria, along with plans for community focal points, open space and recreation, have shaped the configuration of the various neighborhoods. The location of the highways has also led to the placement of less noise sensitive land uses along the community's edges.

The Golden Valley South site offers few constraints to development; the site is primarily undeveloped with terrain that varies from flat to gently rolling. The Planning Area is within the North Sacramento Valley. The valley is at an elevation of 2,600 feet above sea level at the northeast property corner to approximately 2,400 feet above sea level at the southwest property corner.



The topography on the site ranges from flat to gently rolling. High points on the site will be utilized to the extent possible to orient homes or other buildings to take advantage of the views west toward the Cerbat Mountains and east toward the Black and Hualapai Mountains.

The existing vegetation consists of Mohave Desert scrub - creosote bush, mesquite, acacia and yucca – which along with different types of grasses are the most commonly found vegetation in the arid soils of the area.

The climate of this area reflects that of a desert environment, with relatively mild winters with daytime high temperatures usually over 40 degrees F, so that the area can have up to 280 frost-free days. Summer high temperatures typically are 100 degrees or more with low humidity. Annual rainfall varies from 3" to 10" with most rain occurring during the winter months. Summer storms tend to produce sudden and violent bursts of rainfall that can lead to flash flooding. Wind can cause dust storms, usually in the afternoons as wind speeds increase to 20 mph or more from the south in the summer and from the north in winter.

There is a power easement running diagonally across the northern edge of the site. Land uses will be planned consistent with the restrictions associated with the terms of the easement, including appropriate setbacks and landscaping.

Primarily commercial, office, and multi-family land uses are planned abutting highway corridors. Generous setbacks and landscaping will be utilized along these edges. In residential areas, if there is a need for noise mitigation, a fence, wall or berm or combination thereof will be installed consistent with Mohave County requirements.

## **B. Proposed Master Plan**

Golden Valley South's sense of place will spring from an interconnected series of villages, each with its own unique identity and character, served by nearby neighborhood shopping areas and parks and open space areas. Villages will be pedestrian and bicycle friendly with internal trail systems connecting to parks, open space, shopping areas and school facilities. Single-family and multi-family homes will be offered, as well as active adult neighborhoods, appealing to a variety of family types and incomes.

An industrial/business park area is planned in the southwestern portion of the site and a community commercial area is planned at the northern edge adjacent to CR-223, allowing residents easy access to nearby employment and shopping opportunities.

A pedestrian-oriented Main Street with a lake feature will serve as the central focal point of the master plan, along with the considerable scenic and

recreational open space provided by the 18-hole golf course, also located in the center of the community.

The proposed Master Plan emphasizes enhancement of existing natural features, such as drainages, and buildings will be sited to optimize special views south and northeast to the Cerbat and Hualapai mountains. Ponds at the main community entries from CR 223 will serve as important community amenities. Shopping areas are envisioned as community-gathering places with plazas, outdoor furniture and shade trees. This master-planned approach to design will ensure that Golden Valley South becomes a quality, self-sustaining community of lasting value.

### **C. Goals of the Golden Valley South Master Planned Community**

Mohave County General Plan Goal 10 – To retain the beauty, the natural setting and resources, and the rural character of the County, while providing opportunities for coordinated growth and development.

The Golden Valley South Master Planned Community will meet this goal through maintaining as many natural features on the site as possible while providing new housing options for the general community and active adults along with additional shopping and employment opportunities.

The Golden Valley South community design's primary goal is to create a balanced, self-contained community with areas to live, work, shop, play, and learn, all in the same location.

Additional project goals include:

1. Goal: To implement the goals and policies of the Mohave County General Plan to the fullest extent possible.  
  
Policy: Work closely with the Mohave County staff, elected officials and community residents to formulate a plan that represents the best implementation of the General Plan.
2. Goal: To encourage compatibility with surrounding land uses.  
  
Policy: Ensure that adjacent land uses are similar in nature or include a buffer transition zone where uses are dissimilar.
3. Goal: To establish a village and neighborhood structure that provides residential areas supported by parks, open space and recreational uses.

Policy: Break the Master Plan land use areas into smaller village and neighborhood areas that include the full complement of community uses at the time of subdivision.

4. Goal: To provide a planned community that complements existing development within the Golden Valley area.

Policy: Work closely with the Mohave County staff, elected officials, and community residents to formulate a plan that represents the best implementation of the *General Plan* as it relates to the existing Golden Valley Area Plan.

5. Goal: To provide a range of housing types to meet the varied housing needs within the Kingman area and the greater northwestern Arizona region.

Policy: Provide a broad range of housing types that includes housing options for retirement or second homes, housing for family units and singles, as well as affordable housing within the Master Plan.

6. Goal: To ensure that the Golden Valley South project contributes to Mohave County's economic goals and objectives.

Policy: Provide areas for employment growth as well as housing to ensure that a self-sustaining new town is established over time.

7. Goal: To create a strong sense of community through use of the village and neighborhood concept.

Policy: Create a core for each village as well as a focal point for each neighborhood that encourages community interaction.

8. Goal: To organize land uses within the community to provide safe and convenient vehicular and pedestrian circulation through the project area.

Policy: Provide an interconnected transportation system that offers pedestrian, bicycle, and vehicular transportation options that include bike and pedestrian paths connecting public facilities and commercial establishments to residential areas.

9. Goal: To provide a safe and efficient system for movement of people and goods to and from the project site and within the community itself.

Policy: Design the road system to meet Mohave County design standards.

10. Goal: To ensure that the impacts of the proposed development on the county's existing roadway system will be mitigated.

Policy: Propose solutions to mitigate traffic impacts at the time of subdivision.

11. Goal: To provide land for parks, open space, recreation, and library facilities to meet the needs of Golden Valley South's new residents.

Policy: Provide adequate park, open space, recreation and library sites concurrent with development, with dedication of sites at the time of subdivision after consultation with Mohave County.

12. Goal: To provide land for an adequate level of police and fire protection service to meet the needs of the proposed master planned community.

Policy: Provide sites for police substations and fire stations, as mutually determined by the Mohave County Sheriff's Department and the applicant with dedication of sites at the time of subdivision.

13. Goal: To provide sites for adequate school facilities to meet the needs of the community's new residents.

Policy: Place new high school(s) on Recreation and Public Purpose (R & PP) sites set aside by the Bureau of Land Management where available.

Policy: Provide elementary and middle school sites at the time of subdivision in consultation with the local school districts.

### III. COMMUNITY DEVELOPMENT

#### A. Existing General Plan & Zoning Designations

- 1) Urban Development Area – The Mohave General Plan designates Sections 03, 04, 08, 09, 10, and 16 for urban level development.
- 2) Rural Development Area – The Mohave General Plan designates Sections 02, 11, and 14 for rural development.
- 3) All of the pieces of property are zoned for 1 to 36 acres.

#### B. Proposed General Plan and Area Plan

- 1) The proposed plan for Golden Valley South envisions that the entire site is reclassified as Urban Development Area. This designation is intended to provide for more intense residential and non-residential development near cities and in outlying communities. While residential densities typically will range up to 12 units per acre, high-density development of up to 25 units per acre may be permitted. Urban services and facilities will be required for both residential and non-residential development in this area.

- 2) Residential Land Uses include:

Low Density Residential (LR): This is the lowest density residential development planned within urban areas. It is designed to reflect development between one and five units per acre. This category is used only in UDAs. Since the lot sizes are less than one acre, community sewer or ADEQ approved on-site sewage disposal and water systems are needed, as are other urban services. Low-density residential areas will be developed exclusively with single-family homes, except where planned developments permitting neighborhood commercial uses are approved.

Medium Density Residential (MR): This urban land use category is used to show areas with five (5) or more dwellings per acre, up to twelve (12) dwellings per acre. Typical residential uses in these areas are patio and zero-lot-line homes, mobile home parks, mobile home subdivisions, duplexes, some multi-family projects, and,

where specifically approved as part of a planned development, neighborhood commercial development. Full urban services are required for medium density residential development.

High Density Residential (HR): This urban residential category is used to show the highest density planned in Mohave County. Development could range from twelve (12) to a maximum of twenty-five (25) dwelling units per acre. Higher density areas provide opportunities to develop uses such as townhomes, apartments or condominiums. Mixed-use developments incorporating office and retail space may be approved in HR areas through the planned development process. High Density Residential uses can serve as an effective buffer between non-residential development and lower density residential neighborhoods. Full urban services are required for HR development.

3) Non-Residential Uses Include:

Neighborhood Commercial (NC): Neighborhood Commercial uses are those that meet the needs of residents in the adjacent neighborhood. Small-scale retail and service establishments, as well as small office buildings, will be permitted in this land use category.

General Commercial (GC): This land use category is used to indicate locations for retail, service and office uses that serve an entire community or region. Major retail centers, fast food restaurants, service stations, multi-story office buildings, and other intensive commercial uses should be located in areas designated for general commercial uses.

Commercial Recreation (CR): This land use category encompasses a broad range of privately owned leased facilities for active recreation, where the primary activity occurs outside of buildings. Uses include golf courses, equestrian centers, small and large-scale amusement parks, as well as recreational vehicle parks and campgrounds providing sites for temporary habitation.

Light Industrial (LI): This land use category is intended for a variety of lighter industrial uses. These uses typically involve fewer impacts on the surrounding areas, in terms of noise, fumes, nuisances, and hazards, than do the uses described

under Heavy Industrial. This category includes uses such as warehousing, wholesale sales and distribution, and light manufacturing. Some related office uses also occur in this category. Most activities associated with uses in this category take place within buildings.

Heavy Industrial (HI): This land use category allows for a relatively wide range of industrial uses, including heavy manufacturing, construction yards and support retail commercial. These uses may have safety, nuisance or environmental effects, which make them undesirable neighbors to residential areas. They should be located near or adjacent to major transportation facilities (such as rail lines, airports or freeways.) Design standards focus on minimizing the effect of these uses on surrounding development. This land use is confined to the I-40 Industrial Corridor.

The Golden Valley South Master Plan includes single and multi-family dwelling units, active adult dwelling units, recreational, commercial, and office uses; these uses are compatible with the Urban Development Area classification. This General Plan designation would allow for the entire land use holding to be developed with a consistent land use designation similar to that of the previously adopted Golden Valley Area Plan to the north of this site.

#### **C. Proposed Land Use Plan**

The proposed Land Use Plan for Golden Valley South consists of a mixture of an active adult community that emphasizes recreation and includes a "Ted Robinson" designed golf course, and a family-oriented community with a pedestrian-oriented town center surrounded by single and multi-family homes. Under tentative plans, subject to change based on market conditions and development constraints, residential uses account for 63% of the land area, with 16% in single-family use, 36% in multi-family use and 48% in active adult. The other 37%, or 2,139 acres, is tentatively planned for non-residential uses that include office, commercial, school, park, and open space uses. The table on the following page shows the land use breakdown.

The proposed location, size and number of school and park sites are conceptual in this plan; the actual number, size and locations for these will be re-evaluated at the time of subdivision based upon

final community design plans and final number of proposed dwelling units.

## GOLDEN VALLEY SOUTH LAND USE SUMMARY

FEB. 17, 2005

<b>RESIDENTIAL</b>				
LAND USE	ACRES	DENSITY	DU	% MIX
LOW DENSITY	1043	5	5215	16%
MEDIUM DENSITY	681	12	8172	25%
HIGH DENSITY	145	25	3625	11%
ACTIVE ADULT LOW DENSITY	1129	5	5645	17%
ACTIVE ADULT MEDIUM DENSITY	402	12	4824	15%
ACTIVE ADULT HIGH DENSITY	211	25	5275	16%
SUB TOTAL	3611		32,756	100%
<b>NON-RESIDENTIAL</b>				
COMMERCIAL	201			
OFFICE	404			
SCHOOL	36			
PARKS*	288			
FIRE	5			
CLUBHOUSE/RECREATION	28			
GOLF COURSE	247			
LAKE*	21			
O.S./DRAINAGE/EASEMENTS*	663			
ROADWAYS*	246			
SUB TOTAL	2139			
<b>TOTAL</b>	<b>5750</b>	<b>5.7</b>	<b>32,756</b>	

\* Acreage may change based on refinement of development plans.

## **D. Economic Development**

Rhodes Homes Arizona, in developing its Golden Valley South community, recognizes that economic development is an integral part of community development, providing both services and jobs for residents of a new community. For that reason, substantial acreage of the Golden Valley South community will be set aside for commercial/retail/office development. Rhodes Homes Arizona also is committing to a collaborative effort with local economic development officials to draw new businesses to the Golden Valley area, in particular aligning its Golden Valley South development with the I-40 Industrial Corridor. Further, it will engage in outreach activities to market Mohave County as a desirable location for businesses to serve metropolitan markets in Las Vegas, Phoenix and Southern California. A variety of economic opportunities for Mohave County have been identified by state and local economic studies, including industrial machinery manufacturing and development of the region's transportation/logistics assets. Rhodes Homes Arizona intends to be an active partner with the public and private sectors in Mohave County in building the county's economic base, improving job opportunities for current residents and providing quality jobs for the residents of the Golden Valley South community.

### **1. Service-Oriented Economic Development**

Because Golden Valley currently is lacking in retail and other services for the existing population, the first phase of economic development in Golden Valley South will encourage development of services for both current residents of Golden Valley and new residents of Golden Valley South. Besides basic grocery and other retail activities, these services initially would be tailored to the demographics of an active-adult and retiree-oriented community, including medical offices and personal services. The goal of initial economic development will be to provide sufficient levels of services so that current and new residents of Golden Valley do not have to drive long distances for shopping, personal services and entertainment.

The logical location for retail and service businesses serving both current and future residents of Golden Valley is along the northern border of Golden Valley South. There is a natural commercial zone along Shinarump Road, created by a utility corridor to the south and Shinarump Road to the north. In addition, a town center and village centers in Golden Valley South will provide shopping and entertainment opportunities for residents of Golden Valley.

To encourage commercial development in Golden Valley South, Rhodes Homes Arizona intends not only to set aside adequate land for these

activities, but also to provide off-site improvements necessary to make these developments possible. In addition, it will assist in soliciting the interest of major retailers in Golden Valley through a commercial marketing outreach program.

## **2. Job-Oriented Economic Development**

Arizona's Statewide Economic Study 2002 stated that the economic base of Mohave County was comprised of "limited manufacturing, government, tourism, second home and retirement." Future opportunities as defined by Economy.com, the consulting firm hired by the state to produce the 2002 economic study, included industrial machinery and transportation and logistics. The study noted that average annual earnings in Mohave County were \$22,884, compared with the state average of \$29,916, and the average manufacturing job paid \$28,831, compared with the state average of \$44,988.

Economy.com described Mohave County's economic potential, noting favorable logistics in terms of Interstate 40 and its intersection with Highway 93, the Burlington Northern Santa Fe Railroad line, and the possibility of Mohave County playing a key role in transportation logistics along the proposed CANAMEX corridor between Mexico and Canada. Noting the emergence of a manufacturing and distribution base at the Kingman Airport Industrial Park, Economy.com stated: "The region's ability to serve markets in Southern California, Arizona and the rest of the Mountain State region, and its favorable business and living costs, make the region very favorable for higher value-added industrial machinery and equipment and industrial products." The chief drawback to economic growth was identified as an undereducated workforce and the lack of skills necessary to attract companies offering higher-paying jobs. Community colleges such as Mohave County Community College were described as untapped resources that could provide "targeted training programs for expanding and relocating industries."

The Golden Valley South community would address job-oriented economic development on a number of fronts to help fulfill Mohave County's economic potential and meet its General Plan goals of economic diversification and higher-paying jobs for the current population and new residents. Rhodes Homes Arizona intends to establish a strong relationship between its Golden Valley South community and the I-40 Industrial Corridor, with affordable housing available to workers hired by companies locating in that industrial park. Rhodes Homes Arizona plans to link that park with a business park proposed along the southern border of Golden Valley South. To build interest in the I-40 Industrial Corridor Park and its own business park, Rhodes Homes Arizona will work with local economic development officials in marketing Mohave County to

#### IV. NATURAL RESOURCES

##### A. Water Resources

Golden Valley South will be a community known for utilizing water resources in best practices for the desert region. The Golden Valley South community will make use of "grey" or re-use waters for all public spaces and golf courses within the community.

Rhodes Homes Arizona will provide treated effluents usable for all purposes, including public spaces where children are present. The system will be utilized in a similar fashion to potable waters. Ponds within the open space will provide a gravity source to feed the system.

The potable water supply for Golden Valley South will be designed to service the community on a growth basis. An application has been filed with the Arizona Department of Water Resources (ADWR) for a 100-year Adequate Supply based upon the population density of the entire development. This application is based upon historical pumping data for adjacent wells, and a large well drilled by Rhodes Homes Arizona for the Aztec Park.

Rhodes Homes Arizona has two possible plans for the potable water supply. It is working with Valley Pioneers Water Company for a possible expansion of their service area to include the Golden Valley South property. Should the board of Valley Pioneers choose not to expand their service boundary for the Golden Valley South property, Rhodes Homes Arizona will establish a "Golden Valley South Water Company" through Mohave County and the Arizona Corporation Commission. The current application for adequate water supply through ADWR is applicable for either scenario.

The potable water system will be designed to provide fire service pressures and hydrants. Rhodes Homes Arizona will work with the Golden Valley Fire District in the design of the community, placement of hydrants, pressures and the location of at least one new fire house within the community.

1. Goal: Construct a safe drinking water system.

Policy: Build wells, pipelines and tanks that are to the latest codes, and provide chlorination or other treatments if needed.

2. Goal: Build a community water system that services the entire area.

Policy: Seek to work with the existing provider (Valley Pioneers Water Company) to allow for the connection of more of the existing developments in Golden Valley, and provide better fire protection and a plan for the future.

3. Goal: Reduce the need for potable water usage outside the home.

Policy: Construct a waste water treatment plant that provides high-quality water that can be utilized for all open public spaces; encourage homeowners to apply xeriscaping to their properties where that is feasible.

### **B. Air Quality**

The network of the Golden Valley South community is designed to allow free travel to the commercial portions of the development. Businesses will be encouraged to locate within the community to reduce the travel time for commuters.

During construction, the greatest air quality threat is dust. A "Best Management Practices" (BMP) plan is being established to reduce the dust during all phases of construction, and workers will be educated in dust control.

1. Goal: Control smog from commuter traffic.

Policy: Provide for the business community in the planning and design of the master plan so that the commutes are short and internal.

2. Goal: Control dust pollution during construction.

Policy: Create a BMP which addresses dust control.

### **C. Habitat Protection**

As part of the due diligence process, a full biological evaluation was conducted on for the community area. This study has allowed Rhodes Homes Arizona to create a listing of the species of plants and animals currently indigenous the area.

There are a number of large washes crossing the property, some of which will be left open for animal habitat. However, road crossings and drainage conveyance structures will have to be built which will cause impacts. Best

efforts will be made to preserve native vegetation and animal habitat in wash areas.

Rhodes Homes Arizona has hired SWCA Consultants to do the biological evaluation and also to file a 404 Permit with the Army Corps of Engineers (Note: filed in February 2005). As part of the 404 Permit process, the Golden Valley South community has committed to disturbing as little of the washes as possible, and to practices which ensure flood waters entering the washes are not contaminated.

1. Goal: Protect existing flora/fauna.

Policy: Leave washes undisturbed as far as possible.

2. Goal: Protect native animals.

Policy: Provide a pathway through the project for the movement of animals in and around the property

#### **D. Energy Conservation**

Golden Valley South will be an energy-conscious community. Golden Valley South will encourage its homebuyers to participate in UniSource Energy Services' "SunShare" program for solar-powered homes, reducing reliance on fossil fuel-produced energy and relying on the abundant sunshine of the region to meet home energy needs.

UniSource Energy Services' "SunShare" program provides subsidies to homeowners for installation of photovoltaic systems and allows homeowners to sell excess solar energy into the power grid. Golden Valley South will introduce the "SunShare" program to its homebuyers and promote its benefits.

Road circulation patterns in Golden Valley South will be designed to move vehicular traffic efficiently through the development. More importantly, with its town center and village-oriented concepts, Golden Valley South will be a community where residents can walk or bicycle to shopping and recreation opportunities, reducing vehicle trips.

1. Goal: Expedite and reduce vehicular traffic throughout Golden Valley South.

Policy: Incorporate street design in Golden Valley South that moves traffic efficiently through the community; reduce vehicle trips through

community design focused on homes within walking distance of shopping and entertainment.

2. Goal: Reduce reliance on fossil fuel-produced energy in favor of solar-produced energy.

Policy: Introduce homebuyers to "SunShare" program to meet home energy needs through solar power.

## **V. PUBLIC INFRASTRUCTURE AND FACILITIES**

### **A. Infrastructure**

#### **1. Roads**

##### **a. Access Roads**

A traffic model was created based upon the "planning bubble" diagrams, and the proposed density of the area. The model uses algorithms for the determination of car trips within, from and to the area. The average number of trips that a community of this size will take for work, play and other purposes, based on national trends, is used.

Traffic access to the Golden Valley South community will be provided along existing corridors. Aztec Road, Shinarump and Aquarius are existing major arterials which will be upgraded as part of the development of the project.

Modeling determined that the three major roads should be supplemented by several other arterials, and the configuration of these roads is under investigation. Improvements also will be made to the Aquarius/Oatman and Shinarump/I-40/Oatman intersections. The US68/Aztec intersection will be upgraded to accommodate multiple turning movements.

##### **b. Interior Road Network**

The design of the interior road network is based upon the "community" theme. This theme is based upon several arterial streets which pass through the community allowing access to the outside, but with their curvilinear design, are not typically utilized by non-residents for "pass through" travel.

Each subdivision will have at least one access point to the minor arteries. Minor arteries will connect the communities to the major arteries which convey traffic through, in and out of the community.

1. Goal: Provide easy functional access to the community.

Policy: Develop multiple points of ingress/egress. Design the road system so that cars are not all funneled to a single point.

2. Goal: Reduce the number of cars "passing through" the property.

Policy: Design a road network which is curvilinear, which reduces speeds and deters pass through traffic.

3. Goal: Provide an open and scenic driving experience.

Policy: Construct roadways with landscape along the boundaries with the developments set back, decreasing noise and adding aesthetic appeal. Also, construct arterials which have parks, golf courses and other amenities adjacent to enhance the beauty of the existing landscape.

## **2. Water Delivery System**

The Golden Valley South community will be serviced by a traditional gravity water supply system. Several sites outside of the community boundary have been selected for tanks, as well as several within the community proper.

At a minimum, the site will be separated into three service pressure zones to ensure that fire hydrant capacity and home pressures are adequate. The system also will be looped to ensure water quality.

An application has been filed with the Arizona Department of Water Resources for an adequate water supply. As a part of this process, several wells are being drilled on and adjacent to the property.

Open spaces, including the golf course, will be irrigated with reclaimed water from the sewage treatment plant. The reclaimed water system will be instrumental in reducing the amount of water needing to be pumped from the ground. Reclaimed waters in excess of what can be utilized will be placed back into the ground using rapid infiltration basins, or recharge wells if applicable.

1. Goal: Provide safe, clean and constant water supply.

Policy: Construct tanks and piping systems with looping and the ability to add chlorination or other treatment systems at a later date.

2. Goal: Provide for full fire service.

Policy: Construct the water system to have adequate pressures and flow capacity to handle fire suppression at any hydrant.

3. Goal: Provide a 100-year adequate water supply.

Policy: Apply for an adequate water supply certificate from the ADWR prior to the filing of the General Plan Amendment. The application will be for a water demand equal to or greater than the proposed development.

### **3. Sewage Treatment**

A site for a sewage treatment plant has been selected south of the Golden Valley South Area Plan, with the site's size to be determined by final design. This plant is projected to grow with the community, eventually processing 8 million gallons of sewage into high-grade effluent. The waters will be de-nitrified and can be applied to any open space.

The system will be gravity fed, and located adjacent to, but not within, the Sacramento Wash. A series of rapid infiltration basins will provide disposal of any waters above the needs of the community.

The design of the Golden Valley South sewage treatment plant is modular. This allows for the growth of the system to provide the optimum treatment. As more homes and businesses are constructed, additional capacity will be added to the plant.

An application has been filed with the Arizona Department of Environmental Quality for the plant site. Also, an application for rezoning the site to "MP" has been filed with Mohave County Planning and Zoning.

1. Goal: Provide sewage treatment for the entire development area.

Policy: Design a sewage treatment plant that is expandable.

2. Goal: Re-use as much water as possible.

Policy: Construct a sewage treatment plant which provides high-quality effluent, which may be used on all public open spaces. Construct a piping system to convey the re-use water to the open spaces.

3. Goal: Replace groundwater whenever possible.

Policy: Construct rapid infiltration basins and/or recharge wells for the disposal of excess effluent into the upper aquifer.

#### 4. Flood control

The Golden Valley South community is located at the intersection of several major washes, and Federal Emergency Management Agency (FEMA) Special Flood Hazard Areas (SFHA). The development of a community within a SFHA takes careful planning to provide safety for the community.

In that effort, a detention basin is proposed at the northern boundary of the site to contain the peak flows from the Cerbat and Thirteen Mile Washes. A second detention basin for the Holy Moses Wash is currently being investigated for the east property boundary.

Within the community, each major subdivision will provide a local detention basin. These basins will provide two functions. The first is to remove contaminants from the storm runoff prior to entering the wash. Secondly, the basins will remove the peak of the storm and decrease erosion potential.

As part of the engineering of the Golden Valley South community, an application will be made to re-contour the SFHA boundaries to the development and improvements. A master drainage study has been prepared for the community, and planning/sizing of the infrastructure is under way.

In conjunction with the master drainage study and flood control improvements, an application under the rules of 404 Permitting has been filed with the United States Army Corps of Engineers (ACOE). This application determines the extents of "waters of the United States" and the extent of disturbance allowed. The community is working with the ACOE and FEMA to limit the disruption of the washes for flood control, aesthetic and the maintenance of native flora and fauna.

1. Goal: Provide a safe environment for the community.

Policy: Construct detention basins upstream of the development.

2. Goal: Accommodate the ACOE and FEMA.

Policy: Provide applications to the federal agencies early in the process; get them involved in the design of the community.

3. Goal: Protect plant and animal life long term.

Policy: Construct localized detention/retention basins throughout the community to capture contaminated runoff and keep it from entering the wash system.

**B. Public Facilities**

**1. Parks**

Substantial acreage is allocated for park facilities at Golden Valley South. These will include several community parks, neighborhood parks, linear parks, and mini-parks located throughout the project. The active adult portion of the community includes a 247-acre, 18-hole golf course and clubhouse, and the family-oriented portion of the community will also include a community recreation center planned for the mixed-use town center area in the heart of the community. Walking paths will follow the open space drainages with links provided from residential areas to the commercial, park, and community facilities on site. The project also includes considerable acreage for open space located throughout the community.

**a. PARK AND RECREATION STANDARDS**

Parks, recreation and open space facilities will be provided for Golden Valley South in concert with the following national standards:

<b>Feature Category</b>	<b>Park System Feature</b>	<b>Units Needed per 1,000 residents</b>	<b>Acres Per 1,000 Residents</b>
Parks	Pocket Parks –Min. 1/3 acre	Service Area- ¼ mile radius	.25 to .50
Parks	Neighborhood Parks – Min. 4 acres	Service area - ½ mile radius	1-2 acres per 1,000 Serves 2,500 min.
Parks	Community – Min. 20 acres	Service area - 2 mile radius	5-8 acres per 1,000 Serves min. 10,000
Community Center	3 acres and 10,000 sq. ft.		1 per 20,000
Outdoor Recreation	Small Skate park	.16	.03
	Full Sized Skate park	.06	.03
	BMX Track	.16	.50

Paved Multi-Use Trail (per mile)	1.04	2.53
Dirt/Gravel Multi-Use Trail (per mile)	2.33	4.25
Family Picnic Area	6.25	.08
Group Picnic Area with Shelter	.36	.74
Park Bench	7.69	.00
Outdoor Events Venue (per acre)	.42	1.34

Source: Small Community Parks & Recreation Planning Standards – 2003.

Facility/Activity	Recommended Space Requirements	No. of Units per Population	Service Radius
Basketball	2,400 to 7,280 sq. ft.	1 per 5,000	¼ to ½ mile
Handball	800 to 1,000 sq. ft.	1 per 20,000	15 to 30 minute travel time
Ice Hockey	22,000 sq. ft.	1 per 100,000	½ to 1 hr travel time
Tennis	2 acres per complex	1 court per 2,000	¼ to ½ mile
Volleyball	Minimum 4,000 sq. ft.	1 per 5,000	¼ to ½ mile
Baseball	1.2 acre	1 per 5,000 Lighted 1 per 30,000	¼ to ½ mile
Field Hockey	1.5 acre	1 per 20,000	15 to 30 min. travel time
Football	1.5 acre	1 per 20,000	15 to 30 min. travel time
Soccer	1.7 to 2.1 acres	1 per 10,000	1-2 miles
Golf driving range	13.5 acres	1 per 50,000	30 min. travel time
1.4 mile running track	4.3 acres	.1 per 20,000	15 to 30 min. travel time
Multiple Recreation court	9, 840 sq. ft.	1 per 10,000	1-2 miles
Trails		1 system per region	
Archery Range	.65 acres	1 per 50,000	30 min. travel time
Golf 18 holes	110 acres min.	1 per 50,000	½ to 1 hr. travel time
Swimming Pools	½ to 2 acres	1 per 20,000	15 to 30 min. travel time

Source: Lancaster, R.A. (Ed.).(1990). Recreation, Park, and Open Space Standards and Guidelines. Ashburn, VA: National Recreation and Park Association

### b. Parks and Open Space Goals and Policies

Mohave County General Plan Goal 55: To meet the recreational and open space needs of residents countywide, with sites that

provide for active recreation, specialized recreational opportunities and enjoyment of natural areas.

Policy: The applicant will work with Mohave County school districts in the development, maintenance and joint operation of local school/park sites where it is economically and functionally desirable to do so.

Policy: Provide a full range of parks and recreational facilities for the broad range of housing and lifestyle types available at Golden Valley South.

Goal: Provide all manner of park sites from the pocket park to the neighborhood park and the community park within the Golden Valley development.

Policy: Provide a community park in each village and neighborhood and pocket parks within each neighborhood consistent with the standards referenced above.

Policy: Dedicate park sites at the time of subdivision after consultation with Mohave County on final park size and location to serve final projected population.

Goal: Provide community-gathering places through both indoor and outdoor spaces to help develop a sense of place.

Policy: Provide a recreation/community center for both the active adult area and the family-oriented area of the master planned community.

Policy: Provide outdoor gathering spaces in the form of a town green or plaza, linear parks, community gardens, gazebos, and passive open space areas.

## **2. Fire Protection**

Mohave County General Plan Goal 57: To plan and provide for adequate fire protection services at levels appropriate to the County's Urban, Suburban, and Rural areas.

Policy: Work closely with the Golden Valley Fire Department to determine an adequate urban level of fire protection services.

Policy: Provide fire protection site within Golden Valley South if determined necessary in conjunction with the Golden Valley Fire Department at the time of subdivision.

### **3. Police Protection**

Mohave County General Plan Goal 58: To plan and provide for Sheriff's Department services at levels adequate to meet the needs of all County residents.

Policy: Work closely with the Mohave County Sheriff's Department to determine adequate urban level police protection services at Golden Valley South.

Policy: Provide a police protection substation site if determined necessary in conjunction with the Mohave County Sheriff's Department at the time of subdivision

### **4. Library Services**

Mohave County General Plan Goal 60: To provide a full service library system that is easily accessible and supplies residents with a variety of educational and recreational materials.

Policy: Mohave County should expand library services by planning space for station libraries as part of public buildings in outlying communities.

Policy: The applicant will work with Mohave County to provide a suitable library site within the town center planned at Golden Valley South at the time of subdivision.

### **5. Schools**

Goal: Establish new school sites in the Golden Valley South development to serve the needs of the community's new families.

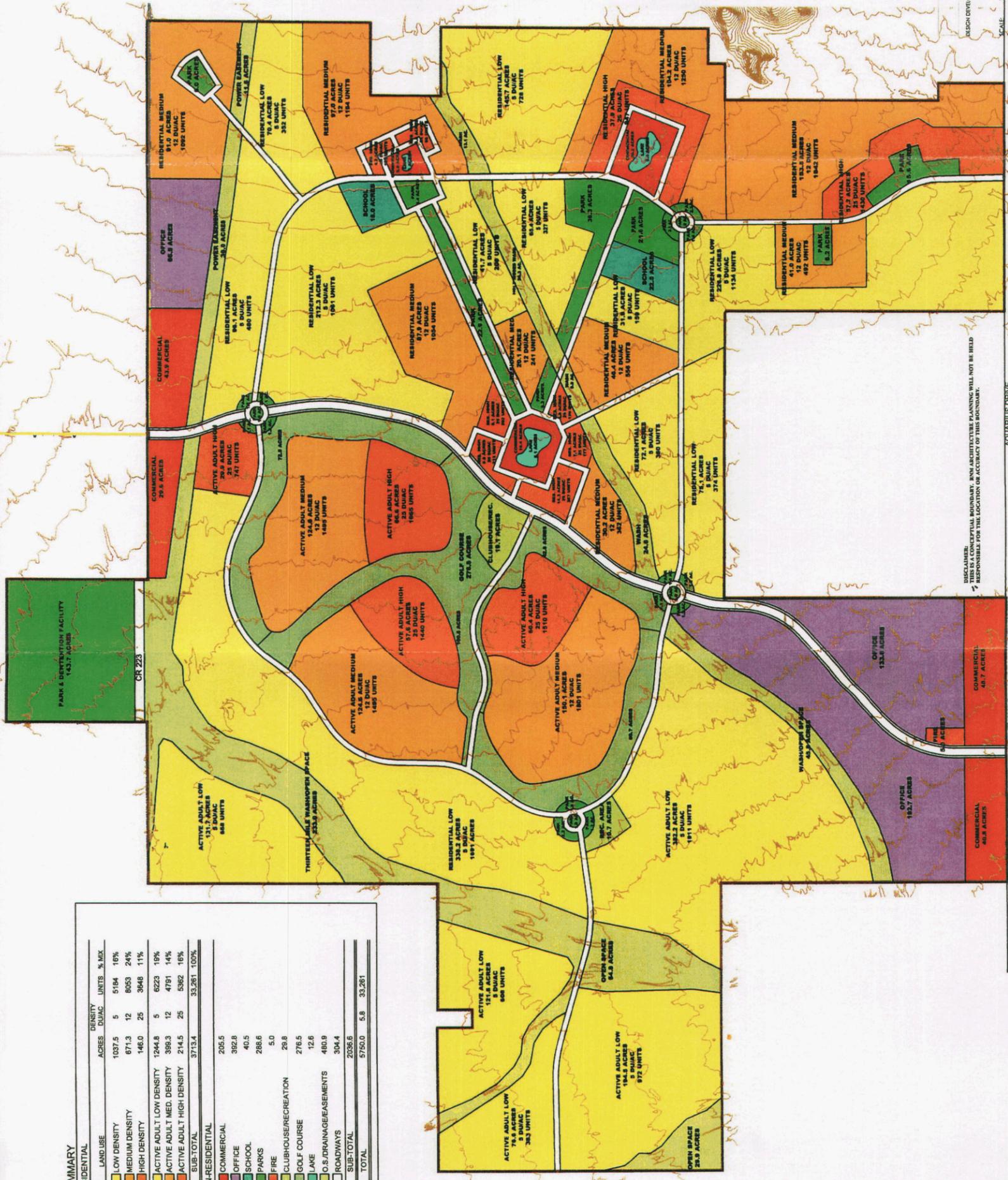
Policy: Place new high school(s) on Recreation and Public Purpose (R & PP) sites set aside by the Bureau of Land Management where available to serve the Golden Valley South project.

Policy: Set aside parcels for elementary and middle school sites during the subdivision review process as agreed upon with the Mohave Valley Elementary District and the Mohave Union High School Districts and the Superintendent of Schools.

# **EXHIBIT**

**SUMMARY**

LAND USE	ACRES	DENSITY DU/AC	UNITS	% MIX
LOW DENSITY	1037.5	5	5184	16%
MEDIUM DENSITY	871.3	12	8053	24%
HIGH DENSITY	146.0	25	3648	11%
ACTIVE ADULT LOW DENSITY	1244.8	5	6223	19%
ACTIVE ADULT MED. DENSITY	389.3	12	4791	14%
ACTIVE ADULT HIGH DENSITY	214.5	25	5362	16%
<b>SUB-TOTAL</b>	<b>3713.4</b>		<b>33,261</b>	<b>100%</b>
<b>NON-RESIDENTIAL</b>				
COMMERCIAL	205.5			
OFFICE	362.8			
SCHOOL	40.5			
PARKS	288.6			
FIRE	5.0			
CLUBHOUSE/RECREATION	28.8			
GOLF COURSE	276.5			
LAKE	12.6			
O.S./DRAINAGE/EASEMENTS	480.9			
ROADWAYS	304.4			
<b>SUB-TOTAL</b>	<b>2056.6</b>			
<b>TOTAL</b>	<b>5769.9</b>	<b>5.8</b>	<b>33,261</b>	



DISCLAIMER:  
 \* ARCHITECTURAL BOUNDARY, RRM ARCHITECTURE PLANNING WILL NOT BE HELD RESPONSIBLE FOR THE LOCATION OR ACCURACY OF THIS BOUNDARY.

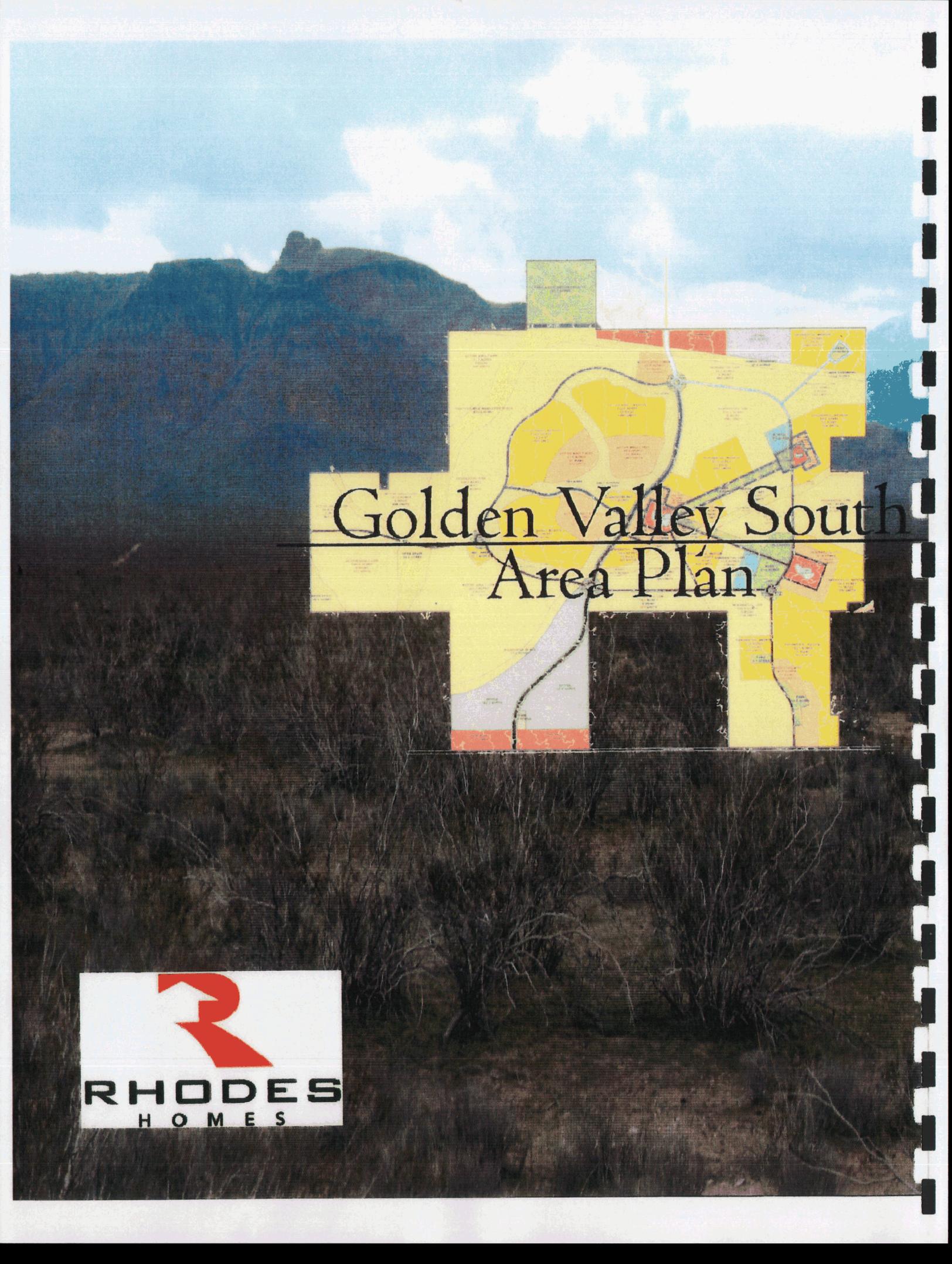
DESIGN DEVELOPMENT  
 PROJECT: 05008  
 DATE: 2/18/05

SCALE: 1" = 400'



RRM ARCHITECTURE PLANNING  
 4411 GOLF AVENUE  
 HAVASUPAI, AZ 86429  
 PH: 928-333-1144  
 FAX: 928-333-1144  
 WWW.RRMARCHITECT.COM

**Golden Valley South / Rhodes Homes**  
 Maricopa County, Arizona



# Golden Valley South Area Plan



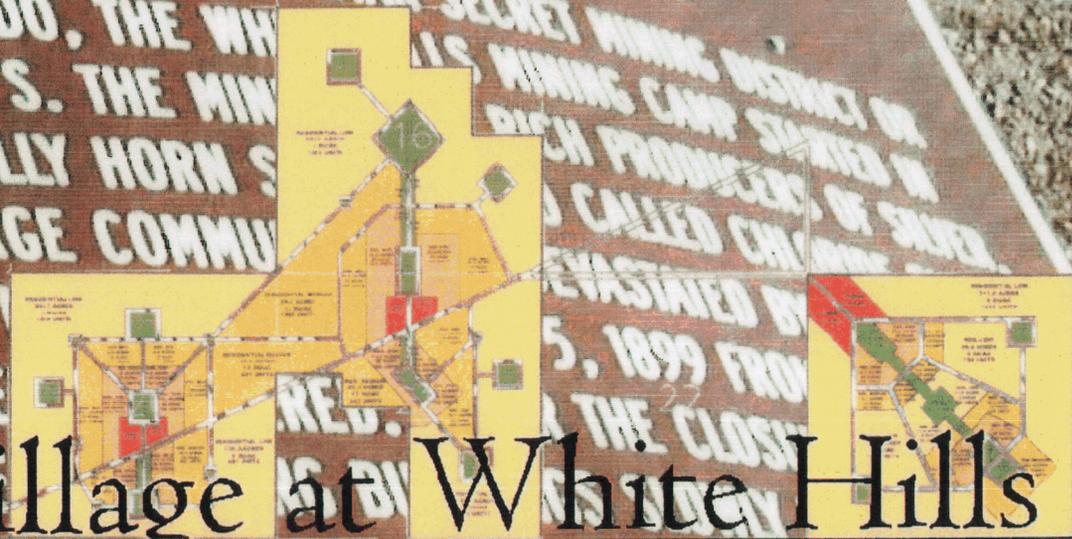
B

# COUNTY OF MOHAVE *arizona*



## WHITE HILLS

FORMERLY KNOWN AS INDIAN SECRET MINING DISTRICT OR SILVERADO, THE WHITE HILLS MINING CAMP STARTED IN THE 1890'S. THE MINING DISTRICT WAS RICH PRODUCERS OF SILVER ESPECIALLY HORN SILVER. THIS LARGE COMMUNITY CALLED CHANDLER ON THE MOUNTAIN NEVER WAS ABANDONED. THE CLOSURE OF THE DISTRICT IN 1899 FROM THE CLOSURE OF THE DISTRICT.



# The Village at White Hills Area Plan



MINING IS LEFT OF THE ONCE PROSPEROUS MINING GHOST TOWN OF WHITE HILLS CONTINUES TO APPEAR ON TRAVEL MAPS.

**RHODES HOMES**

FIRE-POLICE AMBULANCE EMERGENCY DIAL 911

**Cooper Research**  
Market and Economics

**SWCA**  
ENVIRONMENTAL CONSULTANTS

**Stanley Consultants** INC.  
A TAYLOR GROUP COMPANY  
Engineering, Environmental, and Construction Services

# **The Villages at White Hills**

## **Area Plan**



© Rhodes Homes Arizona

**Prepared by Rhodes Homes Arizona  
for Mohave County, Arizona**

**February 2005**

**Prepared by:**

**RNM, Architecture and Land Planning**

**Stanley Consultants, Inc., Engineering**

**Cooper Research, Market and Economics**

**SWCA, Environmental Issues**

## Table of Contents

I. The Community Vision .....	Pages 5-6
II. Summary: The Villages at White Hills Master Planned Community	
A. Site Characteristics .....	Pages 7-9
B. Proposed Master Plan .....	Page 9
C. Goals of the Community .....	Pages 9-11
III. Community Development	
A. Existing General Plan and Zoning .....	Page 12
B. Proposed General Plan and Area Plan .....	Pages 12-14
C. Proposed Land Use Plan .....	Page 14
D. Economic Development .....	Pages 15-16
IV. Natural Resources	
A. Water Resources .....	Pages 16-17
B. Air Quality .....	Page 17
C. Habitat Protection .....	Page 18
D. Hillside Development .....	Pages 18-19
E. Energy Conservation .....	Page 19
V. Public Infrastructure and Facilities	
A. Infrastructure	
1. Roads .....	Page 20
2. Water Delivery System .....	Page 21
3. Sewage Treatment .....	Page 22
4. Flood Control .....	Pages 22-23
B. Public Facilities	
1. Parks .....	Pages 23-26
2. Fire Protection .....	Pages 26-27
3. Police Protection .....	Page 27
4. Library Services .....	Page 27
5. Schools .....	Pages 27-28

**Exhibits:**

Because Rhodes Homes Arizona is in the planning process for The Villages at White Hills, many of its documents in support of this application are business proprietary and confidential. However, Rhodes Homes Arizona will make those documents available for review by Mohave County as they are requested.

**EXHIBITS**

- 1. Project Land Use Diagram**
- 2. Vicinity Map**
- 3. Area Map**
- 4. Mohave County Existing Land Tenure**
- 5. Full-size, fold-out Project Land Use Diagram**

## **I. THE COMMUNITY VISION OF THE VILLAGES AT WHITE HILLS**

The Villages at White Hills is envisioned as Arizona's residential and commercial gateway to the Las Vegas metropolitan area of nearly 2 million people.

From a residential perspective, The Villages at White Hills is planned as a 2,727-acre self-contained community providing affordable homes for commuters to the Las Vegas metropolitan area, where the median new home price exceeds \$285,000, approximately a 37 percent increase within a year. Escalating housing prices in the Las Vegas Valley are motivating homebuyers to look to outlying communities, where lower land prices make affordable housing possible. Mohave County is a logical choice for these working families.

The Villages at White Hills answers the need for lower-priced homes with a master-planned community that mixes a rural lifestyle with the concept of town villages providing a core of shopping opportunities, services and entertainment. A sense of community will be created by town villages that serve as gathering places for all residents of The Villages at White Hills, providing community cohesiveness not normally found in commuter communities.

The Villages at White Hills also has been designed to expand the tax base of Mohave County by building on the county's commercial base. A commercial area is planned at the entrance of The Villages at White Hills along U.S. Highway 93. This commercial area, which could include retail establishments such as outlet malls, will draw not only residents of The Villages of White Hills but also travelers between Phoenix and Las Vegas, and has the potential to add significant new sales tax revenues to Mohave County. In addition, U.S. Highway 93 is designated by the federal government as a main leg of the CANAMEX Corridor for international trade between Mexico, the U.S. and Canada, and commercial areas along the corridor are expected to benefit from its development, as logistics and trade centers arise.

Both residential and commercial developments along U.S. Highway 93 will benefit from the scheduled completion of the Hoover Dam Bypass in 2008, which is expected to reduce commuting times from the Las Vegas Valley to White Hills from an hour to about 30-45 minutes. The vision of The Villages of White Hills is grounded in the reality that large numbers of families, working single people and retirees will choose a location that places them within close proximity to the Las Vegas metropolitan area – the fastest-growing and one of the most economically vibrant areas of the country – but allows them to live a more rural lifestyle in homes they can afford. Eventually, The Villages at White Hills will investigate incorporating as a city under applicable state law, as population growth justifies incorporation.

Basic principles for the development of The Villages at White Hills include:

- ◆ Respect for the natural resources of the White Hills area, in particular scenic resources and water resources; The Villages at White Hills would implement a well-thought-out plan for utilizing local groundwater resources and maintaining a healthy aquifer through the use of grey water and recharge; development also would respect the natural features of the land.
- ◆ Provide the infrastructure necessary to support commercial development that will serve the community.
- ◆ Dedicate land necessary to provide a full range of public facilities and services, including schools, parks, police and fire stations.
- ◆ Create a community that sustains itself through its tax base and provides commercial development that brings new revenues to Mohave County.
- ◆ Provide affordable housing for working families, individuals and retirees.
- ◆ Create a cohesive community tied together by a town center, villages with cores, and neighborhoods connected by parkways and trails.
- ◆ Strive to develop an energy-conscious community through pilot projects taking advantage of abundant solar energy to help meet home energy needs.

The Area Plan for The Villages at White Hills addresses the requirements of the Mohave County General Plan for self-sustaining communities in outlying areas of the county. It is intended to serve as the basis for a major amendment to the Mohave County General Plan, answering the relevant natural resource, infrastructure and fiscal issues implicit in such an amendment.

## **II. SUMMARY: THE VILLAGES AT WHITE HILLS MASTER PLANNED COMMUNITY**

The Villages at White Hills is being master planned consistent with the goals and policies of the Mohave County General Plan. This site encompasses the area east of U.S. Highway 93 on either side of White Hills Road, including Sections 10, and 23, and portions of Sections 16, 21, and 30 for a total of 2,727 acres. This community is envisioned as an area that will serve the workforce needs of residents who work in Las Vegas and will include some commercial uses on the western side and a variety of residential uses in the eastern portions of the site.

### **A. Site Characteristics**

This property is currently vacant. Bureau of Land Management lands are located primarily to the north, south and west of the site; lands within The Villages at White Hills Area Plan owned by Arizona Acreage, LLC are located to the east. There are some subdivided lots to the northeast of the site and a smattering of mobile homes in the area.



The area climate includes relatively mild winters with daytime highs between 40 and 50 degrees F, with over 280 frost-free days per year. Summertime has daytime highs that range between 95 to 100 degrees F with low humidity. About one-half of the annual rainfall comes during the winter months and the balance comes from sporadic summer thundershowers.

Elevations for this property range from a low of 2,300 to 2,600 feet. The lower part of the site has less rainfall and is dominated by Creosote Bush- Bursage Association. The higher rainfall area has Joshua trees, Golden Head, Creosote Bush-Mixed Scrub Association and Joshua Tree-Black Brush Association.

The Villages at White Hills is found within the Mojave Desert Floristic region. The vegetation in this area is primarily shrubby in nature with an occasional Joshua tree.

Wildlife in the area may include the cactus mouse, desert cottontail, jack rabbit, red-tail hawk, cactus wren, gopher snake, rattlesnake, coyotes, and kit fox. Desert mule deer may also be found in the area. No listed threatened or endangered plants or animals are known to exist within the area plan boundary.

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

The geology of the area includes the following rock units:

Geologic Period	Formation	Description
Quaternary	Qs	Sand & gravel along active streambeds
	Qtg	Locally derived fanglomerate deposits that do not contain Rapakivi granite clasts.
Tertiary	Muddy Creek Fm Tmb	Basalt flows of upper part of Muddy Creek Fm.
	Tmf	Alluvial fanglomerate deposits with local lenses of rhyolitic tuff.
	Tbx	Gravity slide breccia composed of clasts from all Precambrian rock types interbedded with basalt flows.

	Mtn Davis Volcanic Tv	Includes massive vesicular hornblende andesite, basalt, reddish brown sandstone and sedimentary breccia.
Cretaceous	Km	Medium grained white two-mica monzogranite.
Precambrian	Xpm	Coarse grained hematite stained porphyritic monzogranite.
	Xgn	Includes gneiss of various compositions, amphibolite, quartz-feldspar and garnet.

The soils in the area are predominately sandy loams that are well drained with moderate to rapid permeability. A low percentage of the soil has a hardpan that restricts water penetration into the subsurface.

### **B. Proposed Master Plan**

This new master planned community will be a family-oriented community with plentiful parks, recreation and open space uses. There will be a commercial area surrounded by higher density housing products located in the western portion of the community next to U.S. Highway 93. White Hills Road will provide the primary access through the community from east to west. The community will include four villages, each with its own village center.

### **C. Goals of The Villages at White Hills Master Planned Community**

General Plan Goal 10 – To retain the beauty, the natural setting and resources, and the rural character of the County, while providing opportunities for coordinated growth and development.

The Villages at White Hills Master Planned Community will meet this goal by maintaining as many natural features on the site as possible while providing new housing options for working families, individuals and retirees, along with additional shopping and employment opportunities.

The primary goal of The Villages at White Hills community design is to create a balanced, self-contained community with areas to live, work, shop, play, and learn all in the same location.

Additional project goals include:

1. Goal: To implement the goals and policies of the Mohave County General Plan to the fullest extent possible.

Policy: Work closely with the Mohave County staff, elected officials, and community residents to formulate a plan that represents the best implementation of the General Plan.

2. Goal: To encourage compatibility with surrounding land uses.

Policy: Ensure that adjacent land uses are similar in nature or include a buffer transition zone where uses are dissimilar.

3. Goal: To establish a village and neighborhood structure that provides residential areas supported by parks, open space, recreational and school uses.

Policy: Break the Master Plan land use areas into smaller village and neighborhood areas that include the full complement of community uses at the time of subdivision.

4. Goal: To provide a planned community that complements other development within the White Hills area.

Policy: Work closely with the Mohave County staff, elected officials, and community residents to formulate a plan that represents the best implementation of the General Plan as it relates to the existing Area Plan for the Ranch at White Hills.

5. Goal: To provide a range of housing types to meet the varied housing needs within the greater northern Arizona and Las Vegas regions.

Policy: Provide a broad range of housing types that include housing options for singles, family units, affordable housing, and active adult within the Master Planned Community.

6. Goal: To ensure that The Villages at White Hills project contributes to Mohave County's economic goals and objectives.

Policy: Provide areas for economic and employment growth as well as housing to ensure that a self-sustaining new town is established over time.

7. Goal: To create a strong sense of community through use of the village and neighborhood concept.

Policy: Create a village core for each village as well as a focal point for each neighborhood that encourages community interaction.

8. Goal: To organize land uses within the community to provide safe and convenient vehicular and pedestrian circulation through the project area.

Policy: Provide an interconnected transportation system that offers pedestrian, bicycle, and vehicular transportation options that include bike and pedestrian paths connecting public facilities and commercial establishments to residential areas.

9. Goal: To provide a safe and efficient system for movement of people and goods to and from the project site and within the community itself.

Policy: Design the road system to meet Mohave County design standards.

10. Goal: To ensure that the impacts of the proposed development on the County's existing roadway system will be mitigated.

Policy: Propose solutions to mitigate traffic impacts at the time of subdivision.

11. Goal: To provide land for parks, open space, recreation, and library facilities to meet the needs of The Villages at White Hill's new residents.

Policy: Provide adequate park, open space, recreation and library sites concurrent with development, with dedication of sites at the time of subdivision after consultation with Mohave County.

12. Goal: To provide land for an adequate level of police and fire protection service to meet the needs of the proposed master planned community.

Policy: Provide sites for police and fire substations, as mutually determined by Mohave County sheriff and police departments and the applicant with dedication of sites at the time of subdivision.

13. Goal: To provide sites for adequate school facilities to meet the needs of the community's new residents.

Policy: Place new high school(s) on Recreation and Public Purpose (R & PP) sites set aside by the Bureau of Land Management where available.

Policy: Provide elementary and middle school sites at the time of subdivision in consultation with the local school districts.

### III. COMMUNITY DEVELOPMENT

#### A. Existing General Plan and Zoning Designations

- 1) General Plan - The small existing community of White Hills located east of The Villages at White Hills planning area is designated as an "Outlying Community" in the Mohave County General Plan. The Mohave County General Plan designates The Villages at White Hills area as both Urban Development Area (UDA) and Suburban Development Area (SDA.)
- 2) Zoning - AR/36 (agricultural/residential, 36 acre minimum.)

#### B. Proposed General and Area Plan Designations

- 1) Land uses proposed for The Villages at White Hills Area Plan include 108.4 acres of commercial/business areas, medium to high density residential uses, single family residential, village centers with commercial, parks, and open space. A total of 565 acres is utilized for non-residential uses, with a total of 2,162 acres planned for residential uses and 20,049 dwelling units. 150.4 acres are planned for park use. These acreage numbers may change based on market conditions and development constraints.

- 2) Residential Land Uses include:

Low Density Residential (LR): This is the lowest density residential development planned within urban areas. It is designed to reflect development between one and five units per acre. This category is used only in UDAs. Since the lot sizes are less than one acre, community sewer or ADEQ approved on-site sewage disposal and water systems are needed, as are other urban services. Low-density residential areas will be developed exclusively with single-family homes, except where planned developments permitting neighborhood commercial uses are approved.

Medium Density Residential (MR): This urban land use category is used to show areas with five (5) or more dwellings per acre, up to twelve (12) dwellings per acre. Typical residential uses in these areas are patio and zero-lot-line homes, mobile home parks, mobile home

subdivisions, duplexes, some multi-family projects, and, where specifically approved as part of a planned development, neighborhood commercial development. Full urban services are required for medium density residential development.

High Density Residential (HR): This urban residential category is used to show the highest density planned in Mohave County. Development could range from twelve (12) to a maximum of twenty-five (25) dwelling units per acre. Higher density areas provide opportunities to develop uses such as town homes, apartments or condominiums. Mixed-use developments incorporating office and retail space may be approved in HR areas through the planned development process. High Density Residential uses can serve as an effective buffer between non-residential development and lower density residential neighborhoods. Full urban services are required for HR development.

3) Non-Residential Uses Include:

Neighborhood Commercial (NC): Neighborhood Commercial uses are those that meet the needs of residents in the adjacent neighborhood. Small-scale retail and service establishments, as well as small office buildings, will be permitted in this land use category.

General Commercial (GC): This land use category is used to indicate locations for retail, service and office uses that serve an entire community or region. Major retail centers, fast food restaurants, service stations, multi-story office buildings, and other intensive commercial uses should be located in areas designated for general commercial uses.

Commercial Recreation (CR): This land use category encompasses a broad range of privately owned leased facilities for active recreation, where the primary activity occurs outside of buildings. Uses include golf courses, equestrian centers, small and large-scale amusement parks, as well as recreational vehicle parks and campgrounds providing sites for temporary habitation.

Light Industrial (LI): This land use category is intended for a variety of lighter industrial uses. These uses typically involve fewer impacts on the surrounding areas, in terms of noise, fumes, nuisances, and hazards, than do the uses described

under Heavy Industrial. This category includes uses such as warehousing, wholesale sales and distribution, and light manufacturing. Some related office uses also occur in this category. Most activities associated with uses in this category take place within buildings.

Heavy Industrial (HI): This land use category allows for a relatively wide range of industrial uses, including heavy manufacturing, construction yards and support retail commercial. These uses may have safety, nuisance or environmental effects, which make them undesirable neighbors to residential areas. They should be located near or adjacent to major transportation facilities (such as rail lines, airports or freeways.) Design standards focus on minimizing the effect of these uses on surrounding development. This land use is confined to the I-40 Industrial Corridor.

**C. Proposed Land Use Plan**

**THE VILLAGES AT WHITE HILLS  
LAND USE SUMMARY**

FEB. 22, 2005

<b>RESIDENTIAL</b>				
<b>LAND USE</b>	<b>ACRES</b>	<b>DENSITY</b>	<b>DU</b>	<b>% MIX</b>
LOW DENSITY	1280.5	5	6400	16%
MEDIUM DENSITY	644.0	12	7715	24%
HIGH DENSITY	237.5	25	5934	11%
<b>SUB TOTAL</b>	<b>2162.0</b>		<b>20,049</b>	<b>51%</b>
<b>NON-RESIDENTIAL</b>				
COMMERCIAL*	108.4			
PARKS*	150.4			
ROADWAYS*	306.2			
<b>SUB TOTAL</b>	<b>565.0</b>			
<b>TOTAL</b>	<b>2727.0</b>	<b>7.4</b>	<b>20,049</b>	

\* Acreage may change based on refinement of development plans.

#### **D. Economic Development**

The Villages at White Hills can be an engine for economic development in northern Mohave County, providing jobs that service both population growth and trade connected with U.S. Highway 93, which serves as a major commercial corridor between the metropolitan areas of Phoenix and Las Vegas. In addition, U.S. Highway 93 is a key link in the developing CANAMEX Corridor that will facilitate international trade between Mexico, the U.S. and Canada, under the North American Free Trade Agreement (NAFTA). Completion of the Hoover Dam Bypass in 2008 will solidify this international trade corridor, and place White Hills in a strategic position to take advantage of higher traffic volumes that will follow completion of the bypass.

Completion of the Hoover Dam Bypass also will facilitate commutes from the Las Vegas metropolitan area to White Hills, accelerating the sales of homes in The Villages at White Hills. Residents of this community can be expected to spend a substantial amount of their disposable income in their community for shopping and entertainment as those opportunities become available. The indigenous population and the traveling public along a more heavily traveled U.S. Highway 93 will provide strong incentives for retailers to establish major outlets at the intersection of White Hills Road and U.S. Highway 93, where Rhodes Homes Arizona has dedicated acreage for commercial development.

Rhodes Homes Arizona is committed to a collaborative effort with state and local economic development officials to attract major retailers to the White Hills area, as a means of building the county's tax base by capturing potential new sales tax revenues available from the anticipated increased traffic resulting from completion of the Hoover Dam Bypass. With the projected population increases and higher volumes of tourist traffic on U.S. Highway 93, the White Hills area holds the potential for outlet malls and other kinds of regional shopping facilities that would improve revenue streams for Mohave County, as well as create job opportunities for the local population.

#### **Economic Development Goals and Policies**

1. **Goal:** To meet the needs of residents of The Villages at White Hills and other residents of White Hills for retail, personal services and entertainment opportunities within their community.

**Policy:** Designate sufficient land and provide infrastructure to support commercial development in White Hills along U.S. Highway 93 and within the community.

2. Goal: Establish White Hills as a key point along the CANAMEX Corridor.

Policy: Create zoning patterns conducive to development of travel and goods distribution-oriented businesses.

3. Goal: Generate increased revenues for Mohave County and job opportunities for local residents through commercial development at White Hills.

Policy: Participate with state and local economic development officials in marketing outreach that promotes White Hills as a promising opportunity for major retailers and other businesses to serve the local population and traveling public.

#### **IV. NATURAL RESOURCES**

##### **A. Water Resources**

The Villages at White Hills will be a community recognized for utilizing water resources in a manner appropriate for a desert region. The Villages at White Hills community will make use of "grey" or re-use waters for irrigation of all public open space and golf courses within the community.

Rhodes Homes Arizona will provide effluent that meets or exceeds industry best practices for high-quality water that can be used for all purposes, including public space irrigation where children are present. The system will be designed and operated similar to the culinary water system. Decorative ponds within the open space areas will provide storage to supply the system.

The potable water supply for The Villages at White Hills will be designed to service the community as it grows. An application has been filed with the Arizona Department of Water Resources (ADWR) for a 100-year Adequate Supply based upon population density for the development. This application is based upon historical pumping data from adjacent wells. Drilling within the project site is currently under way.

Rhodes Homes Arizona will establish a "White Hills Water Company" (name and actual ownership not yet determined) through Mohave County and the Arizona Corporation Commission. This water company will maintain and operate the water and wastewater systems.

The potable water system will be designed to provide adequate fire service pressures at all hydrants. Rhodes Homes Arizona is working with Mohave County in the design of the community, placement of hydrants

and system pressures. At least one new fire station site will be located within the community.

1. Goal: Construct a safe and reliable drinking water system.

Policy: Construct wells, pipelines and reservoirs to the latest codes, and provide disinfection or other treatment as required.

2. Goal: Build a community water system to service the entire area.

Policy: Work with, and build a relationship with Mohave County that allows for the connection of future developments, enhances fire protection and plans for the future.

3. Goal: Reduce irrigation demand for potable water.

Policy: Construct a waste water treatment plant that provides high-quality waters that can be applied to all public open space and encourage homeowners to implement xeriscaping landscape practices where practical.

#### **B. Air Quality**

The road system within The Villages at White Hills community will be designed to provide free travel to the commercial portions of the development. Businesses will be encouraged to locate within the community to reduce the travel time for commuters.

During construction, the greatest air quality threat is dust. A "Best Management Practices" (BMP) plan is being established to reduce the dust during all phases of construction, and workers will be educated in dust control.

1. Goal: Control vehicle emissions from commuter traffic.

Policy: Provide for the business community in the planning and design of the master plan so that the commutes are short and internal.

2. Goal: Control dust pollution during construction.

Policy: Create a BMP that addresses dust control.

### **C. Habitat Protection**

As part of the due diligence process, a full biological evaluation will be conducted for the community area. This study will allow Rhodes Homes Arizona to create a listing of the species of plants and animals currently utilizing the area.

There are a number of large washes crossing the property, some of which will be left open for animal habitat. However, road crossings and drainage conveyance structures will have to be built which will cause impacts. Best efforts will be made to preserve native vegetation and animal habitat in wash areas.

Rhodes Homes Arizona has hired SWCA Consultants to do the biological evaluation and file a 404 Permit with the Army Corps of Engineers in March 2005. As part of the 404 Permit process, The Villages at White Hills community is committed to minimizing the disturbance of the washes, and to implement practices which ensure flood waters entering the washes are not contaminated.

1. Goal: Protect existing flora/fauna.

Policy: Leave washes undisturbed as far as possible.

2. Goal: Protect native wildlife.

Policy: Provide a pathway through the project for the movement of wildlife in and around the property

3. Goal: Protect plant and wildlife long term.

Policy: Construct localized detention/retention basins throughout the community to capture contaminated runoff and keep it from entering the wash system.

### **D. Hillside Development**

The White Hills community will be designed in accordance with Mohave County hillside development standards. Every effort will be made to provide subdivision layouts that minimize erosion potential, maintain slope stability and preserve the natural scenic beauty of the desert area.

1. Goal: Minimize erosion potential

Policy: Provide erosion protection during construction; avoid construction activities in areas of highly steep slope.

2. Goal: Maintain slope stability

Policy: Prevent construction activity and construction vehicles in highly steep slope areas.

### **E. Energy Conservation**

The Villages at White Hills will be an energy-conscious community. It will encourage its homebuyers to participate in UniSource Energy Services' "SunShare" program for solar-powered homes, reducing reliance on fossil fuel-produced energy and relying on the abundant sunshine of the region to meet home energy needs.

UniSource Energy Services' "SunShare" program provides subsidies to homeowners for installation of photovoltaic systems and allows homeowners to sell excess solar energy into the power grid. The Villages at White Hills will introduce the "SunShare" program to its homebuyers and promote its benefits.

Road circulation patterns in The Villages at White Hills will be designed to move vehicular traffic efficiently through the development. More importantly, with its town center and village-oriented concepts, The Villages at White Hills will be a community where residents can walk or bicycle to shopping and recreation opportunities, reducing vehicle trips.

1. Goal: Expedite and reduce vehicular traffic throughout The Villages at White Hills.

Policy: Incorporate street design in The Villages at White Hills that moves traffic efficiently through the community; reduce vehicle trips through community design focused on homes within walking distance of shopping and entertainment.

4. Goal: Reduce reliance on fossil fuel-produced energy in favor of solar-produced energy.

Policy: Introduce homebuyers to "SunShare" program to meet home energy needs through solar power.

## **V. PUBLIC INFRASTRUCTURE AND FACILITIES**

### **A. Infrastructure**

#### **1. Roads**

##### **a. Access Roads**

A traffic model was created based upon the "planning bubble" diagrams, and the proposed density of the area. The model uses algorithms for the determination of car trips within, from and to the area. The average number of trips that a community of this size will take for work, play and other purposes, based on national trends, is used. Traffic access to the White Hills community will be provided along existing corridors.

##### **b. Interior Road Network**

The design of the interior road network is based upon the "community" theme. This theme is based upon several arterial streets which pass through the community allowing access to the outside, but with their curvilinear design, are not typically utilized by non-residents for "pass through" travel.

Each subdivision will have at least one access point to the minor arteries. Minor arteries will connect the communities to the major arteries which convey traffic through, in and out of the community.

1. Goal: Provide easy functional access to the community.

Policy: Develop multiple points of ingress/egress. Design the road system so that cars are not all funneled to a single point.

2. Goal: Reduce the number of cars "passing through" the property.

Policy: Design a road network which is curvilinear, which reduces speeds and deters pass through traffic.

3. Goal: Provide an open and scenic driving experience.

Policy: Construct roadways with landscape along the boundaries with the developments set back, decreasing noise and adding aesthetic appeal. Also, construct arterials which have parks and other amenities adjacent to enhance the beauty of the existing landscape.

## 2. Water Delivery System

The White Hills community will be serviced by a traditional gravity water supply system. Several sites along the northern community boundary as well as several within the community have been identified as possible potable water reservoir locations.

At a minimum, the site will be separated into six, 200-foot service pressure zones to ensure that fire hydrant capacity and home pressures are adequate. The system will be looped to ensure water quality and balanced pressures.

An application has been filed with the Arizona Department of Water Resources for an adequate water supply. As a part of this process, several wells are being drilled on site in addition to existing wells adjacent to the property.

Open spaces will be irrigated with reclaimed water from the wastewater treatment plant. The reclaimed water system will be instrumental in reducing the amount of water pumped from the aquifer. Reclaimed water in excess of what can be utilized for landscape irrigation will be returned to the aquifer using rapid infiltration basins, or recharge wells if applicable.

1. Goal: Provide safe, clean and dependable water supply.

Policy: Construct reservoirs and looped piping systems with the ability to add disinfection or other treatment systems at a later date if required.

2. Goal: Provide for full fire service.

Policy: Construct the water system with adequate pressure and flow capacity to handle fire suppression at any location.

3. Goal: Provide a 100-year adequate water supply.

Policy: Apply for an adequate water supply certificate from the ADWR prior to the filing of the General Plan Amendment. The application will be for a water demand equal to or greater than required for the development.

### **3. Sewage Treatment**

A site has been selected adjacent to Highway 93 for a wastewater treatment plant, with the site's size to be determined by final design. This plant is projected to grow with the community, eventually processing approximately 6 million gallons of wastewater to high-quality water. The effluent will be de-nitrified and will be suitable for application to any open space.

The system will be gravity fed and located adjacent to, but not within, existing washes. A series of rapid infiltration basins will provide disposal of effluent above the irrigation needs of the community.

The design of the White Hills wastewater treatment plant will be modular. This will allow for growth of the system and provide optimum treatment. As more homes and businesses are constructed, additional capacity will be added to the facility.

An application has been filed with the Arizona Department of Environmental Quality for the plant site. Also, an application for rezoning the site to "MP" will be filed with Mohave County Planning and Zoning prior to the filing of any preliminary plats for development.

1. Goal: Provide wastewater treatment for the entire development area.

Policy: Design a wastewater treatment plant that is expandable.

2. Goal: Re-use as much water as possible.

Policy: Construct a wastewater treatment plant which provides high-quality effluent, which may be applied to all public open space. Construct a distribution piping system to convey the re-use water to the open spaces.

3. Goal: Replace groundwater whenever possible.

Policy: Construct rapid infiltration basins and/or recharge wells for the disposal of excess effluent into the upper aquifer.

### **4. Flood control**

Several major washes are located within the White Hills Development area which includes Federal Emergency Management Agency (FEMA) Special Flood Hazard Areas (SFHA).

Detention basins will be provided throughout the project to contain the peak flows from development. Erosion control will be provided for the washes within the project.

Within the community, each major subdivision will provide a local detention basin. These basins will provide two functions. The first is to remove contaminants from storm runoff prior to entering the wash. Secondly, the basins will attenuate the peak runoff from storms, which will decrease erosion potential.

As part of the engineering of The Villages at White Hills, an application will be made to re-contour the SFHA boundaries to the development and improvements. A master drainage study will be prepared for the community, and planning/sizing of the infrastructure is under way.

In conjunction with the master drainage study and flood control improvements, an application under the rules of 404 Permitting has been filed with the United States Army Corps of Engineers (ACOE). This application determines the extent of "waters of the United States" and the extent of disturbance allowed. Rhodes Homes Arizona will work with the ACOE and FEMA to limit the disruption of the washes.

1. Goal: Provide a safe environment for the community.

Policy: Construct detention basins upstream of the development.

2. Goal: Accommodate the ACOE and FEMA.

Policy: Provide applications to federal agencies early in the process. Involve these agencies as well as Mohave County in the design of the community.

3. Goal: Protect plant and wildlife long term.

Policy: Construct localized detention/retention basins throughout the community to capture contaminated runoff and keep it from entering the wash system.

#### **B. Public Facilities**

Substantial acreage is allocated for park facilities at The Villages at White Hills. These include several community parks, neighborhood parks, and a number of linear and mini-parks located throughout the project. It is anticipated that community recreation centers will be provided central to the community. Walking paths will link

residential areas to the commercial, park, and community facilities on site.

### 1. Parks

Parks, recreation and open space facilities will be provided for The Villages at White Hills in concert with the national standards shown in the following tables:

Feature Category	Park System Feature	Units Needed per 1,000 residents	Acres Per 1,000 Residents
Parks	Pocket Parks –Min. 1/3 acre	Service Area- ¼ mile radius	.25
Parks	Neighborhood Parks – Min. 4 acres	Service area - ½ mile radius	.5 acres per 1,000 Serves 2,500 min.
Parks	Community – Min. 20 acres	Service area - 2 mile radius	1-2 acres per 1,000 Serves min. 10,000
Community Center	3 acres and 10,000 sq. ft.		1 per 20,000
Outdoor Recreation	Small Skate park	.16	.03
	Full Sized Skate park	.06	.03
	BMX Track	.16	.50
	Paved Multi-Use Trail (per mile)	1.04	2.53
	Dirt/Gravel Multi-Use Trail (per mile)	2.33	4.25
	Family Picnic Area	6.25	.08
	Group Picnic Area with Shelter	.36	.74
	Park Bench	7.69	.00
	Outdoor Events Venue (per acre)	.42	1.34

Source: Small Community Parks & Recreation Planning Standards – 2003.

Facility/Activity	Recommended Space Requirements	No. of Units per Population	Service Radius
Basketball	2,400 to 7,280 sq. ft.	1 per 5,000	¼ to ½ mile
Handball	800 to 1,000 sq. ft.	1 per 20,000	15 to 30 minute travel time
Ice Hockey	22,000 sq. ft.	1 per 100,000	½ to 1 hr travel time
Tennis	2 acres per complex	1 court per 2,000	¼ to ½ mile
Volleyball	Minimum 4,000 sq. ft.	1 per 5,000	¼ to ½ mile
Baseball	1.2 acre	1 per 5,000 Lighted 1 per 30,000	¼ to ½ mile
Field Hockey	1.5 acre	1 per 20,000	15 to 30 min. travel time
Football	1.5 acre	1 per 20,000	15 to 30 min. travel time
Soccer	1.7 to 2.1 acres	1 per 10,000	1-2 miles
Golf driving range	13.5 acres	1 per 50,000	30 min. travel time
1.4 mile running track	4.3 acres	.1 per 20,000	15 to 30 min. travel time
Multiple Recreation court	9, 840 sq. ft.	1 per 10,000	1-2 miles
Trails		1 system per region	
Archery Range	.65 acres	1 per 50,000	30 min. travel time
Golf 18 holes	110 acres min.	1 per 50,000	½ to 1 hr. travel time
Swimming Pools	½ to 2 acres	1 per 20,000	15 to 30 min. travel time

Source: Lancaster, R.A. (Ed.) (1990). Recreation, Park, and Open Space Standards and Guidelines. Ashburn, VA: National Recreation and Park Association

## **Parks and Open Space Goals and Policies**

Mohave County General Plan Goal 55: To meet the recreational and open space needs of residents countywide, with sites that provide for active recreation, specialized recreational opportunities and enjoyment of natural areas.

Policy: The applicant will work with Mohave County school districts in the development, maintenance and joint operation of local school/park sites where it is economically and functionally desirable to do so.

Policy: Provide a full range of parks and recreational facilities for the broad range of housing and lifestyle types available at The Villages at White Hills.

Goal: Provide all manner of park sites from the pocket park to the neighborhood park and the community park within The Villages at White Hills development.

Policy: Provide a community park in each village and neighborhood and pocket parks within each neighborhood consistent with the standards referenced above.

Policy: Dedicate park sites at the time of subdivision after consultation with Mohave County on final park size and location to serve final projected population.

Goal: Provide community-gathering places through both indoor and outdoor spaces to help develop a sense of place.

Policy: Provide a recreation/community center for both the Active Adult area and the family-oriented area of the master planned community.

Policy: Provide outdoor gathering spaces in the form of a town green or plaza, linear parks, community gardens, gazebos, and passive open space areas.

## **Fire Protection**

Mohave County General Plan Goal 57: To plan and provide for adequate fire protection services at levels that are appropriate to the County's urban, suburban, and rural areas.

Policy: Work closely with the area Fire Department to determine an adequate urban level of fire protection services.

Policy: Provide fire protection site within The Villages at White Hills planned community, if determined necessary in conjunction with the appropriate Fire Department.

### **Police Protection**

Mohave County General Plan Goal 58: To plan and provide for Sheriff's department services at levels adequate to meet the needs of all County residents.

Policy: Work closely with the Mohave County Sheriff's Department to determine adequate urban level police protection services at The Villages at White Hills

Policy: Provide a police protection substation site if determined necessary in conjunction with the Mohave County Sheriff's Department.

### **Library Services**

Mohave County General Plan Goal: To provide a full service library system that is easily accessible and supplies residents with a variety of educational and recreational materials.

Policy: Mohave County should expand library services by planning space for station libraries as part of public buildings in outlying communities.

Policy: The applicant will work with Mohave County to provide a site for library facilities within The Villages at White Hills.

### **Schools**

Goal: Establish new school sites in The Villages at White Hills development to serve the needs of the community's new families.

Policy: Place new high school(s) on Recreation and Public Purpose (R & PP) sites set aside by the Bureau of Land Management where available to serve the The Villages at White Hills project.

Policy: Set aside parcels for elementary and middle school sites during the subdivision review process as agreed upon with the Mohave Valley Elementary District and the Mohave Union High School Districts and the Superintendent of Schools.

# **EXHIBIT**



# WHITE HILLS

FORMERLY KNOWN AS INDIAN SILVER AND  
SILVERADO, THE WHITE HILLS MINING DISTRICT  
THE 1890'S. THE MINES WERE HIGH PRODUCERS  
ESPECIALLY HORN SILVER, ALSO CUPRUM  
THIS LARGE COMMUNITY WAS DESTROYED  
ON THE MORNING OF AUGUST 5, 1907  
NEVER RECOVERED. AFTER THE EXPLOSION  
THE REMAINING BUILDINGS STOOD AS  
NOTHING IS LEFT OF THE ONCE THRIVING  
THE GHOST TOWN OF WHITE HILLS  
ON TRUCKEE TRAIL



**RHODES**  
H O M E S

FIRE - POLICE

EMERGENCY

AMBULANCE

DIAL 911

C

GOLDEN VALLEY SOUTH  
CC & N BOUNDARY

LEGAL DESCRIPTION

TOWNSHIP 20 NORTH, RANGE 18 WEST, G. & S.R.M., MOHAVE COUNTY, AZ;

SECTION 2, EXCEPT THE W2 NW4 NW4 NE4 NE4, & THE SE4 SE4;  
SECTION 3;  
SECTION 4;  
SECTION 8, EXCEPT THE W2 NW4 NW4 NE4;  
SECTION 9;  
SECTION 10;  
SECTION 11, EXCEPT THE S2 SE4 SE4 SE4;  
SECTION 14, EXCEPT THE E2 NE4, THE NE4 SE4, THE E2 W2 SE4 SE4, & THE E2 SE4  
SE4;  
SECTION 16;

TOWNSHIP 21 NORTH, RANGE 18 WEST, G. & S.R.M., MOHAVE COUNTY, AZ;

SW4 SECTION 34.

THE VILLAGES AT WHITE HILLS  
CC & N SEWER/WATER BOUNDARY

LEGAL DESCRIPTION

TOWNSHIP 27 NORTH, RANGE 20 WEST, G. & S.R.M., MOHAVE COUNTY, AZ;

SECTION 16, EXCEPT THE NW4 NE4, & THE E2 NE4;

W2 W2 SECTION 17;

SECTION 20;

SECTION 21, EXCEPT THE SW4, & THE S2 SW4 NW4;

SECTION 23, EXCEPT THAT PORTION WITHIN THE BOUNDARIES OF BONITA M.S. 1253A, AS SET FORTH IN SAID PATENT.

ALL OF SECTION 30 LYING SOUTHERLY OF THE CENTERLINE OF WHITE HILLS ROAD (O.R. 274/50-97), EXCEPT THE SW4, & THE SW4 SE4;

*Further described as*

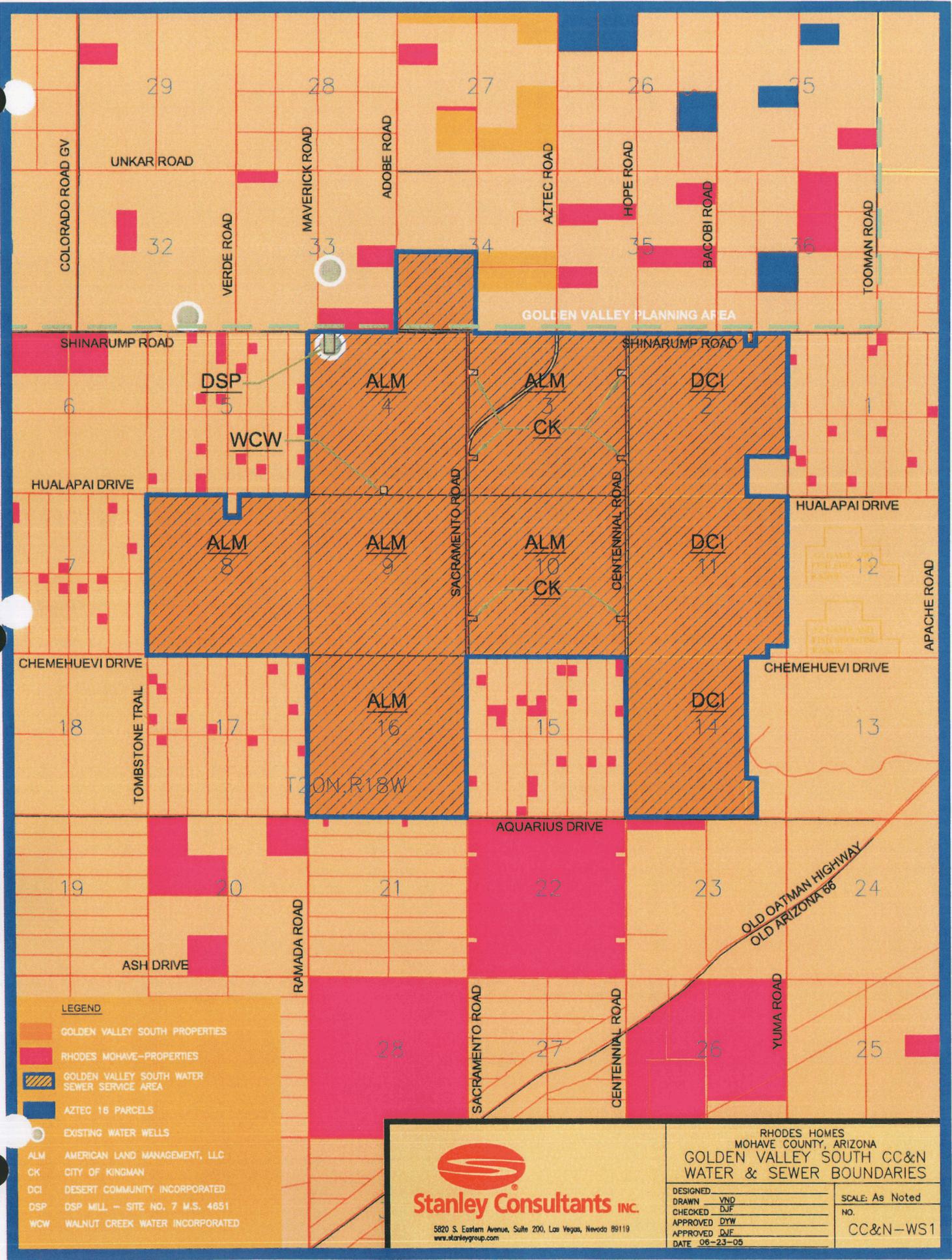
*actual description M.B.*

TOWNSHIP 27 NORTH, RANGE 21 WEST, G. & S.R.M., MOHAVE COUNTY, AZ;

A PORTION OF THE E2 SECTION 25 DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER (SE ¼) OF SAID SECTION 25; THENCE SOUTH 00°28'58" WEST, ALONG THE EASTERLY LINE THEREOF, 2,643.95 FEET TO THE SOUTHEAST CORNER OF SAID SOUTHEAST QUARTER (SE ¼); THENCE NORTH 89°33'42" WEST, ALONG THE SOUTHERLY LINE THEREOF, 164.23 FEET TO THE POINT OF CURVE OF A NON TANGENT CURVE TO THE LEFT, OF WHICH THE RADIUS POINT LIES SOUTH 74°14'59" WEST, A RADIAL DISTANCE OF 5,821.58 FEET, SAID POINT BEING ON THE EASTERLY RIGHT-OF-WAY LINE OF U.S. HIGHWAY 95; THENCE NORTHERLY ALONG THE ARC, ALONG SAID EASTERLY RIGHT-OF-WAY LINE, THROUGH A CENTRAL ANGLE OF 07°34'58", 770.46 FEET; THENCE NORTH 23°19'59" WEST, CONTINUING ALONG SAID EASTERLY RIGHT-OF-WAY LINE, 2,685.36 FEET TO THE CENTERLINE WHITE HILLS ROAD (O.R. 274/50-97); THENCE NORTH 68°20'45" EAST, ALONG SAID CENTERLINE, 1,632.40 FEET TO THE EASTERLY LINE OF THE NORTHEAST QUARTER (NE ¼) OF SAID SECTION 25; THENCE SOUTH 00°28'34" WEST, ALONG SAID EASTERLY LINE, 1,151.09 FEET TO THE POINT OF BEGINNING.

D



**LEGEND**

- GOLDEN VALLEY SOUTH PROPERTIES
- RHODES MOHAVE-PROPERTIES
- GOLDEN VALLEY SOUTH WATER SEWER SERVICE AREA
- AZTEC 18 PARCELS
- EXISTING WATER WELLS
- ALM AMERICAN LAND MANAGEMENT, LLC
- CK CITY OF KINGMAN
- DCI DESERT COMMUNITY INCORPORATED
- DSP DSP MILL - SITE NO. 7 M.S. 4651
- WCW WALNUT CREEK WATER INCORPORATED



**Stanley Consultants INC.**

5820 S. Eastern Avenue, Suite 200, Las Vegas, Nevada 89119  
www.stanleygroup.com

RHODES HOMES  
MOHAVE COUNTY, ARIZONA  
**GOLDEN VALLEY SOUTH CC&N  
WATER & SEWER BOUNDARIES**

<table border="0" style="width: 100%; border-collapse: collapse;"> <tr><td style="font-size: 8px;">DESIGNED</td><td style="font-size: 8px;">VND</td></tr> <tr><td style="font-size: 8px;">DRAWN</td><td style="font-size: 8px;">DJF</td></tr> <tr><td style="font-size: 8px;">CHECKED</td><td style="font-size: 8px;">DYW</td></tr> <tr><td style="font-size: 8px;">APPROVED</td><td style="font-size: 8px;">DJF</td></tr> <tr><td style="font-size: 8px;">DATE</td><td style="font-size: 8px;">06-23-05</td></tr> </table>	DESIGNED	VND	DRAWN	DJF	CHECKED	DYW	APPROVED	DJF	DATE	06-23-05	<p style="font-size: 8px;">SCALE: As Noted</p> <p style="font-size: 8px;">NO.</p> <p style="font-size: 12px; font-weight: bold;">CC&amp;N-WS1</p>
DESIGNED	VND										
DRAWN	DJF										
CHECKED	DYW										
APPROVED	DJF										
DATE	06-23-05										



**Stanley Consultants** INC.

A Stanley Group Company  
Engineering, Environmental and Construction Services - Worldwide

**DATE:** June 2005

**SUBJECT:** Rhodes Homes Arizona, LLC  
Golden Valley, South – Ownership Legend

---

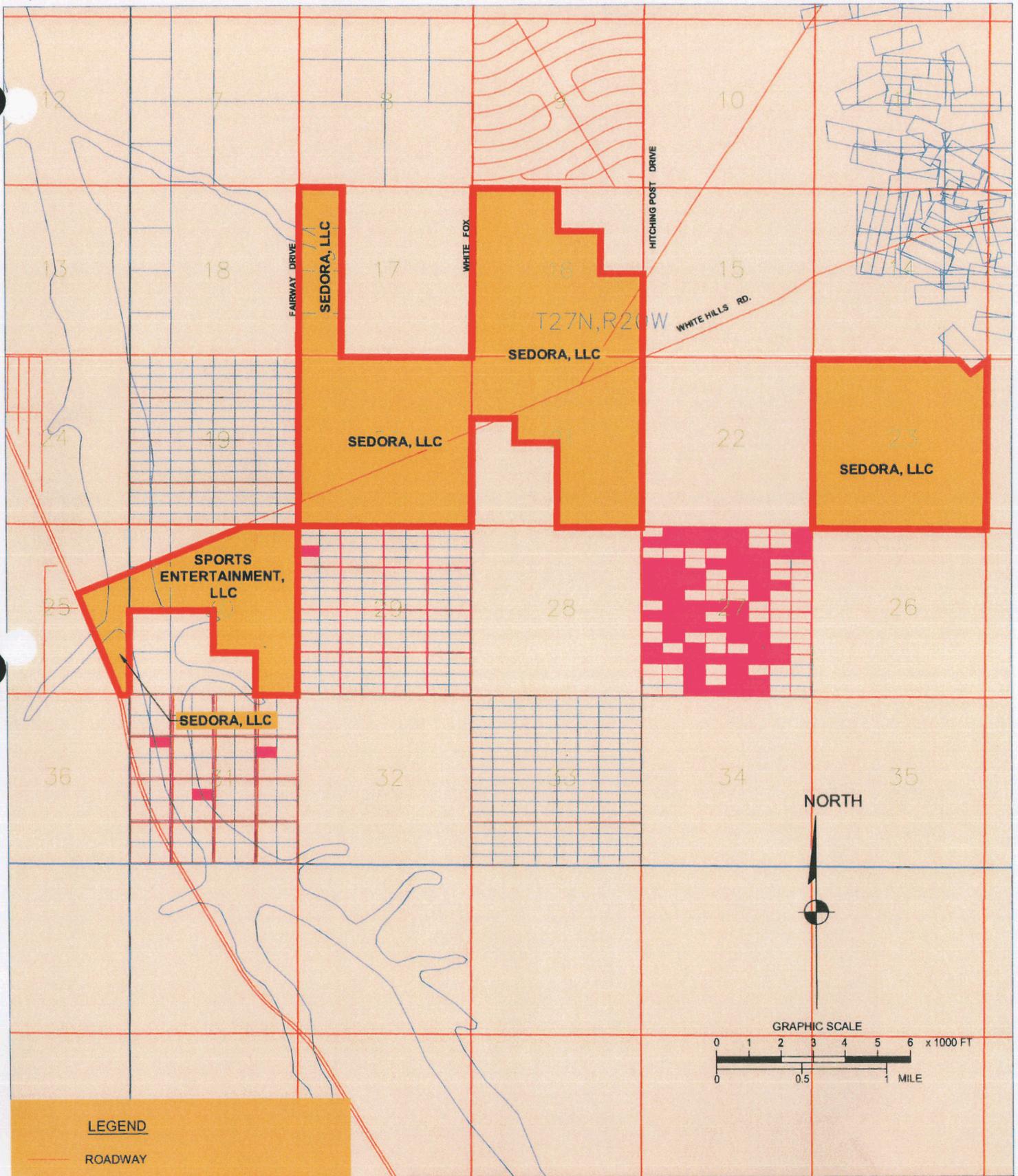
American Land Management, LLC  
6101 S. Mustang Circle  
Sioux Falls, SD 57108

Desert Communities, Inc.  
4730 S. Ft. Apache Rd. #300  
Las Vegas, NV 89147

City of Kingman  
310 N. 4<sup>th</sup> Street  
Kingman, AZ 86401

Walnut Creek Water Co., Inc.  
c/o Dennis Sim  
119 E. Andy Devine Avenue  
Kingman, AZ 86401

DSP Mill Site #7 – M.S. #4651



**LEGEND**

-  ROADWAY
-  RHODES - THE VILLAGES OF WHITEHILLS WATER & SEWER BOUNDARY
-  RHODES - THE VILLAGES OF WHITEHILLS MISCELLANEOUS RHODES PARCELS
-  TOWNSHIP/RANGE LINE

  
**Stanley Consultants** INC.  
 5820 S. Eastern Avenue, Suite 200, Las Vegas, Nevada 89119  
 www.stanleygroup.com

RHODES HOMES  
 MOHAVE COUNTY, ARIZONA  
**THE VILLAGES AT WHITE HILLS CC&N  
 WATER & SEWER BOUNDARIES**

DESIGNED _____	SCALE As Noted
DRAWN VND _____	NO _____
CHECKED DJF _____	
APPROVED DYW _____	
APPROVED DJF _____	<b>CC&amp;N-WS1</b>
DATE 08.23.05 _____	



**Stanley Consultants** INC.

A Stanley Group Company  
Engineering, Environmental and Construction Services - Worldwide

**DATE:** June 2005

**SUBJECT:** Rhodes Homes Arizona, LLC  
The Villages at White Hills – Ownership Legend

---

Sedora, LLC  
4730 S. Ft. Apache Rd. #300  
Las Vegas, NV 89147

Sports Entertainment, LLC  
2564 Wigwam Pkwy #233  
Henderson, NV 89074

E

**Perkins Mountain Water Company**  
**Index to Schedules**

<u>Schedule</u>	<u>Pages</u>	<u>Description</u>
A-1	1	Balance Sheet
A-2	1	Income Statement
A-3	5	Plant In Service and Depreciation
A-4	1	Rate Base and Return
A-4a	1	Advances In Aid of Construction and Refunds
A-4b	1	Meter Advances and Refunds
A-4c	1	Contributions In Aid of Construction
A-5	1	Rate Design
A-6	1	Property Taxes
A-7	1	Year-End Customers - Summary
A-7a	3	Year-End Customers - Detail
A-7b	3	Average Number of Customers
A-7c	3	Customer Growth
A-8	1	Water Sales - Summary
A-8a	3	Water Sales - Detail
A-8b	1	Demand Factors
A-8c	2	Facilities Planning Worksheet
A-9	2	Revenues
A-9a	2	Usage by Rate Tier
A-10	1	Expenses
A-11	1	Plant Additions - Summary
A-11a	1	Plant Additions - Detail
A-12	1	Cash Flow Statement

Perkins Mountain Water Company  
Projected Balance Sheet

Schedule A-1  
Page 1

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Assets</b>					
Current Assets					
Cash	\$ 75,167	\$ 81,714	\$ 769,374	\$ 930,755	\$ 1,055,362
Accounts Receivable	-	-	-	-	-
Other	-	-	-	-	-
Total Current Assets	\$ 75,167	\$ 81,714	\$ 769,374	\$ 930,755	\$ 1,055,362
Fixed Assets					
Utility Plant in Service	\$ 4,812,375	\$ 9,932,275	\$ 11,980,317	\$ 15,058,358	\$ 19,424,750
(less) Accumulated Depreciation	98,961	389,847	799,697	1,273,740	1,861,640
Net Plant in Service	\$ 4,713,414	\$ 9,542,428	\$ 11,180,620	\$ 13,784,618	\$ 17,563,110
CWIP	1,023,980	409,608	615,608	873,278	360,000
Total Assets	\$ 5,812,560	\$ 10,033,750	\$ 12,565,602	\$ 15,588,651	\$ 18,978,473
<b>Liabilities and Capital</b>					
Current and Accrued Liabilities					
Accounts Payable	\$ -	\$ -	\$ -	\$ -	\$ -
Notes Payable	-	-	-	-	-
Accrued Taxes	-	-	-	-	-
Accrued Interest	-	-	-	-	-
Other	-	-	-	-	-
Total Current and Accrued Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -
Long-Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -
Other	-	-	-	-	-
Deferred Credits					
Advances in aid of Construction	\$ 2,307,375	\$ 4,837,140	\$ 6,829,903	\$ 8,969,829	\$ 11,161,413
Meter Advances	-	880	3,112	8,832	14,968
Contributions in aid of Const. (net)	132,224	466,370	1,063,788	1,761,344	2,581,702
Accumulated Deferred Income Tax	-	-	-	-	-
Total Deferred Credits	\$ 2,439,599	\$ 5,304,390	\$ 7,896,803	\$ 10,740,005	\$ 13,758,083
Total Liabilities	\$ 2,439,599	\$ 5,304,390	\$ 7,896,803	\$ 10,740,005	\$ 13,758,083
Capital Account					
Common Stock	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
Preferred	-	-	-	-	-
Paid in Capital	3,450,000	5,050,000	5,050,000	5,050,000	5,050,000
Retained Earnings	(127,038)	(370,640)	(431,201)	(251,353)	120,390
Total Capital	\$ 3,372,962	\$ 4,729,360	\$ 4,668,799	\$ 4,848,647	\$ 5,220,390
Total Liabilities and Capital	\$ 5,812,560	\$ 10,033,750	\$ 12,565,602	\$ 15,588,651	\$ 18,978,473

Perkins Mountain Water Company  
Projected Income Statement

Schedule A-2  
Page 1

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Revenue</b>					
Water Sales	\$ 20,978	\$ 193,173	\$ 510,546	\$ 964,330	\$ 1,506,446
Establishment Charge	4,500	11,610	21,150	24,900	29,790
Other Operating Revenue					
<b>Total Operating Revenue</b>	<b>\$ 25,478</b>	<b>\$ 204,783</b>	<b>\$ 531,696</b>	<b>\$ 989,230</b>	<b>\$ 1,536,236</b>
<b>Operating Expenses</b>					
Salaries and Wages	\$ 25,000	\$ 52,000	\$ 54,080	\$ 56,243	\$ 87,739
Employee Pensions and Benefits	6,000	12,480	12,979	13,498	21,057
Purchased Water	-	-	-	-	-
Purchased Power	1,385	12,794	34,223	65,259	102,292
Fuel for Power Production	250	258	265	273	281
Chemicals	206	1,902	5,087	9,700	15,204
Materials and Supplies	1,000	4,000	4,500	5,000	5,500
Contract Services					
Engineering	500	2,060	2,122	2,185	2,251
Accounting	1,250	5,150	5,305	5,464	5,628
Legal	1,250	5,150	5,305	5,464	5,628
Management	2,500	10,300	10,609	10,927	11,255
Testing	113	1,611	3,726	6,216	9,195
Other	7,950	35,689	51,331	77,625	108,883
Rental of Building/Property	750	3,090	3,183	3,278	3,377
Rental of Equipment	250	1,030	1,061	1,093	1,126
Transportation Expense	1,250	5,150	5,305	5,464	5,628
Insurance					
Vehicles	250	1,030	1,061	1,093	1,126
General Liability	375	1,545	1,591	1,639	1,688
Workman's Comp	375	1,545	1,591	1,639	1,688
Other	-	-	-	-	-
Advertising Expense	-	-	-	-	-
Rate Case Amortization	-	-	-	-	-
Regulatory Commission	-	-	-	-	-
Water Conservation	-	500	515	530	546
Bad Debt	127	1,024	2,658	4,946	7,681
Miscellaneous	750	3,090	3,183	3,278	3,377
Depreciation (net of CIAC amort)	96,185	276,731	371,569	414,999	503,758
Taxes other than Income					
Property Taxes	3,502	6,575	14,062	30,351	49,468
Payroll Taxes	2,500	5,200	5,408	5,624	8,774
Other Taxes and Licenses	-	-	-	-	-
Income Taxes	50	50	50	94,595	221,205
<b>Total Operating Expenses</b>	<b>\$ 153,768</b>	<b>\$ 449,953</b>	<b>\$ 600,768</b>	<b>\$ 826,383</b>	<b>\$ 1,184,355</b>
<b>Operating Income or (Loss)</b>	<b>\$ (128,290)</b>	<b>\$ (245,170)</b>	<b>\$ (69,073)</b>	<b>\$ 162,847</b>	<b>\$ 351,882</b>
<b>Other Income/Expenses</b>					
Interest Income	1,252	1,569	8,511	17,001	19,861
Other Income					
Other Expense					
Interest Expense					
<b>Total Other Income/Expense</b>	<b>\$ 1,252</b>	<b>\$ 1,569</b>	<b>\$ 8,511</b>	<b>\$ 17,001</b>	<b>\$ 19,861</b>
<b>Net Income (Loss)</b>	<b>\$ (127,038)</b>	<b>\$ (243,601)</b>	<b>\$ (60,562)</b>	<b>\$ 179,848</b>	<b>\$ 371,743</b>

Perkins Mountain Water Company  
 Projected Plant in Service and Depreciation  
 By NARUC Plant Account

Schedule A-3  
 Page 1

	Depreciation Rate	Year	Year	Year	Year	Year
		1	1	1	1	1
		Additions	Depreciation*	Original Cost	Accumulated Depreciation	OCLD
301 Organization	0.00%	\$ -	\$ -	\$ -	\$ -	\$ -
302 Franchises	0.00%	-	-	-	-	-
303 Land and Land Rights	0.00%	130,000	-	130,000	-	130,000
304 Structures and Improvements	3.33%	-	-	-	-	-
305 Collecting and Impounding Reservoirs	2.50%	-	-	-	-	-
306 Lake, River and Other Intakes	2.50%	-	-	-	-	-
307 Wells and Springs	3.33%	800,000	13,320	800,000	13,320	786,680
308 Infiltration Galleries and Tunnels	6.67%	-	-	-	-	-
309 Supply Mains	2.00%	-	-	-	-	-
310 Power Generation Equipment	5.00%	-	-	-	-	-
311 Pumping Equipment	12.50%	800,000	50,000	800,000	50,000	750,000
320 Water Treatment Equipment	3.33%	40,000	666	40,000	666	39,334
330 Distribution Reservoirs and Standpipes	2.22%	700,000	7,770	700,000	7,770	692,230
331 Transmission and Distribution Mains	2.00%	2,139,975	21,400	2,139,975	21,400	2,118,575
333 Services	3.33%	68,700	1,144	68,700	1,144	67,556
334 Meters and Meter Installations	8.33%	30,000	1,250	30,000	1,250	28,751
335 Hydrants	2.00%	68,700	687	68,700	687	68,013
336 Backflow Prevention Devices	6.67%	-	-	-	-	-
339 Other Plant and Miscellaneous Equipment	6.67%	-	-	-	-	-
340 Office Furniture and Equipment	6.67%	-	-	-	-	-
340.1 Computers and Software	20.00%	2,500	250	2,500	250	2,250
341 Transportation Equipment	20.00%	22,000	2,200	22,000	2,200	19,800
342 Stores Equipment	4.00%	-	-	-	-	-
343 Tools, Shop and Garage Equipment	5.00%	10,000	250	10,000	250	9,750
344 Laboratory Equipment	10.00%	-	-	-	-	-
345 Power Operated Equipment	5.00%	-	-	-	-	-
346 Communications Equipment	10.00%	500	25	500	25	475
347 Miscellaneous Equipment	10.00%	-	-	-	-	-
348 Other Tangible Plant	-	-	-	-	-	-
Totals		\$ 4,812,375	\$ 98,961	\$ 4,812,375	\$ 98,961	\$ 4,713,414

Composite Rate (by year)

2.06%

\* 1/2 year convention used for plant additions

Perkins Mountain Water Company  
 Projected Plant in Service and Depreciation  
 By NARUC Plant Account

Schedule A-3  
 Page 2

	Depreciation Rate	Year	Year	Year	Year	Year
		2	2	2	2	2
		Additions	Depreciation*	Original Cost	Accumulated Depreciation	OCLD
301 Organization	0.00%	\$ -	\$ -	\$ -	\$ -	\$ -
302 Franchises	0.00%	-	-	-	-	-
303 Land and Land Rights	0.00%	130,000	-	260,000	-	260,000
304 Structures and Improvements	3.33%	-	-	-	-	-
305 Collecting and Impounding Reservoirs	2.50%	-	-	-	-	-
306 Lake, River and Other Intakes	2.50%	-	-	-	-	-
307 Wells and Springs	3.33%	600,000	36,630	1,400,000	49,950	1,350,050
308 Infiltration Galleries and Tunnels	6.67%	-	-	-	-	-
309 Supply Mains	2.00%	-	-	-	-	-
310 Power Generation Equipment	5.00%	-	-	-	-	-
311 Pumping Equipment	12.50%	600,000	137,500	1,400,000	187,500	1,212,500
320 Water Treatment Equipment	3.33%	540,000	10,323	580,000	10,989	569,011
330 Distribution Reservoirs and Standpipes	2.22%	700,000	23,310	1,400,000	31,080	1,368,920
331 Transmission and Distribution Mains	2.00%	2,251,600	65,316	4,391,575	86,715	4,304,860
333 Services	3.33%	109,200	4,106	177,900	5,250	172,650
334 Meters and Meter Installations	8.33%	77,400	5,723	107,400	6,972	100,428
335 Hydrants	2.00%	109,200	2,466	177,900	3,153	174,747
336 Backflow Prevention Devices	6.67%	-	-	-	-	-
339 Other Plant and Miscellaneous Equipment	6.67%	-	-	-	-	-
340 Office Furniture and Equipment	6.67%	-	-	-	-	-
340.1 Computers and Software	20.00%	-	500	2,500	750	1,750
341 Transportation Equipment	20.00%	-	4,400	22,000	6,600	15,400
342 Stores Equipment	4.00%	-	-	-	-	-
343 Tools, Shop and Garage Equipment	5.00%	2,500	563	12,500	813	11,688
344 Laboratory Equipment	10.00%	-	-	-	-	-
345 Power Operated Equipment	5.00%	-	-	-	-	-
346 Communications Equipment	10.00%	-	50	500	75	425
347 Miscellaneous Equipment	10.00%	-	-	-	-	-
348 Other Tangible Plant	-	-	-	-	-	-
<b>Totals</b>		<b>\$ 5,119,900</b>	<b>\$ 290,886</b>	<b>\$ 9,932,275</b>	<b>\$ 389,847</b>	<b>\$ 9,542,428</b>

Composite Rate (by year)

2.93%

\* 1/2 year convention used for plant additions

Perkins Mountain Water Company  
 Projected Plant in Service and Depreciation  
 By NARUC Plant Account

Schedule A-3  
 Page 3

	Depreciation Rate	Year	Year	Year	Year	Year
		3	3	3	3	3
		Additions	Depreciation*	Original Cost	Accumulated Depreciation	OCLD
301 Organization	0.00%	\$ -	\$ -	\$ -	\$ -	\$ -
302 Franchises	0.00%	-	-	-	-	-
303 Land and Land Rights	0.00%	-	-	260,000	-	260,000
304 Structures and Improvements	3.33%	-	-	-	-	-
305 Collecting and Impounding Reservoirs	2.50%	-	-	-	-	-
306 Lake, River and Other Intakes	2.50%	-	-	-	-	-
307 Wells and Springs	3.33%	-	46,620	1,400,000	96,570	1,303,430
308 Infiltration Galleries and Tunnels	6.67%	-	-	-	-	-
309 Supply Mains	2.00%	-	-	-	-	-
310 Power Generation Equipment	5.00%	-	-	-	-	-
311 Pumping Equipment	12.50%	-	175,000	1,400,000	362,500	1,037,500
320 Water Treatment Equipment	3.33%	-	19,314	580,000	30,303	549,697
330 Distribution Reservoirs and Standpipes	2.22%	-	31,080	1,400,000	62,160	1,337,840
331 Transmission and Distribution Mains	2.00%	1,597,542	103,807	5,989,117	190,522	5,798,595
333 Services	3.33%	153,500	8,480	331,400	13,730	317,670
334 Meters and Meter Installations	8.33%	141,000	14,819	248,400	21,791	226,609
335 Hydrants	2.00%	153,500	5,093	331,400	8,246	323,154
336 Backflow Prevention Devices	6.67%	-	-	-	-	-
339 Other Plant and Miscellaneous Equipment	6.67%	-	-	-	-	-
340 Office Furniture and Equipment	6.67%	-	-	-	-	-
340.1 Computers and Software	20.00%	-	500	2,500	1,250	1,250
341 Transportation Equipment	20.00%	-	4,400	22,000	11,000	11,000
342 Stores Equipment	4.00%	-	-	-	-	-
343 Tools, Shop and Garage Equipment	5.00%	2,500	688	15,000	1,500	13,500
344 Laboratory Equipment	10.00%	-	-	-	-	-
345 Power Operated Equipment	5.00%	-	-	-	-	-
346 Communications Equipment	10.00%	-	50	500	125	375
347 Miscellaneous Equipment	10.00%	-	-	-	-	-
348 Other Tangible Plant	-	-	-	-	-	-
<b>Totals</b>		<b>\$ 2,048,042</b>	<b>\$ 409,850</b>	<b>\$ 11,980,317</b>	<b>\$ 799,697</b>	<b>\$ 11,180,620</b>

Composite Rate (by year)

3.42%

\* 1/2 year convention used for plant additions

Perkins Mountain Water Company  
 Projected Plant in Service and Depreciation  
 By NARUC Plant Account

Schedule A-3  
 Page 4

	Depreciation Rate	Year	Year	Year	Year	Year
		4	4	4	4	4
		Additions	Depreciation*	Original Cost	Accumulated Depreciation	OCCLD
301 Organization	0.00%	\$ -	\$ -	\$ -	\$ -	\$ -
302 Franchises	0.00%	-	-	-	-	-
303 Land and Land Rights	0.00%	-	-	260,000	-	260,000
304 Structures and Improvements	3.33%	-	-	-	-	-
305 Collecting and Impounding Reservoirs	2.50%	-	-	-	-	-
306 Lake, River and Other Intakes	2.50%	-	-	-	-	-
307 Wells and Springs	3.33%	-	46,620	1,400,000	143,190	1,256,810
308 Infiltration Galleries and Tunnels	6.67%	-	-	-	-	-
309 Supply Mains	2.00%	-	-	-	-	-
310 Power Generation Equipment	5.00%	-	-	-	-	-
311 Pumping Equipment	12.50%	-	175,000	1,400,000	537,500	862,500
320 Water Treatment Equipment	3.33%	-	19,314	580,000	49,617	530,383
330 Distribution Reservoirs and Standpipes	2.22%	825,000	40,238	2,225,000	102,398	2,122,603
331 Transmission and Distribution Mains	2.00%	1,719,942	136,982	7,709,058	327,504	7,381,554
333 Services	3.33%	182,300	14,071	513,700	27,801	485,899
334 Meters and Meter Installations	8.33%	166,000	27,606	414,400	49,397	365,003
335 Hydrants	2.00%	182,300	8,451	513,700	16,697	497,003
336 Backflow Prevention Devices	6.67%	-	-	-	-	-
339 Other Plant and Miscellaneous Equipment	6.67%	-	-	-	-	-
340 Office Furniture and Equipment	6.67%	-	-	-	-	-
340.1 Computers and Software	20.00%	-	500	2,500	1,750	750
341 Transportation Equipment	20.00%	-	4,400	22,000	15,400	6,600
342 Stores Equipment	4.00%	-	-	-	-	-
343 Tools, Shop and Garage Equipment	5.00%	2,500	813	17,500	2,313	15,188
344 Laboratory Equipment	10.00%	-	-	-	-	-
345 Power Operated Equipment	5.00%	-	-	-	-	-
346 Communications Equipment	10.00%	-	50	500	175	325
347 Miscellaneous Equipment	10.00%	-	-	-	-	-
348 Other Tangible Plant	-	-	-	-	-	-
Totals		\$ 3,078,042	\$ 474,043	\$ 15,058,358	\$ 1,273,740	\$ 13,784,618

Composite Rate (by year)

3.15%

\* 1/2 year convention used for plant additions

Perkins Mountain Water Company  
 Projected Plant in Service and Depreciation  
 By NARUC Plant Account

	Depreciation Rate	Year	Year	Year	Year	Year
		5	5	5	5	5
		Additions	Depreciation*	Original Cost	Accumulated Depreciation	OCLOD
301 Organization	0.00%	\$ -	\$ -	\$ -	\$ -	\$ -
302 Franchises	0.00%	-	-	-	-	-
303 Land and Land Rights	0.00%	15,000	-	275,000	-	275,000
304 Structures and Improvements	3.33%	-	-	-	-	-
305 Collecting and Impounding Reservoirs	2.50%	-	-	-	-	-
306 Lake, River and Other Intakes	2.50%	-	-	-	-	-
307 Wells and Springs	3.33%	300,000	51,615	1,700,000	194,805	1,505,195
308 Infiltration Galleries and Tunnels	6.67%	-	-	-	-	-
309 Supply Mains	2.00%	-	-	-	-	-
310 Power Generation Equipment	5.00%	-	-	-	-	-
311 Pumping Equipment	12.50%	300,000	193,750	1,700,000	731,250	968,750
320 Water Treatment Equipment	3.33%	520,000	27,972	1,100,000	77,589	1,022,411
330 Distribution Reservoirs and Standpipes	2.22%	825,000	58,553	3,050,000	160,950	2,889,050
331 Transmission and Distribution Mains	2.00%	1,783,692	172,018	9,492,750	499,522	8,993,228
333 Services	3.33%	197,300	20,391	711,000	48,192	662,808
334 Meters and Meter Installations	8.33%	198,600	42,791	613,000	92,188	520,812
335 Hydrants	2.00%	197,300	12,247	711,000	28,944	682,056
336 Backflow Prevention Devices	6.67%	-	-	-	-	-
339 Other Plant and Miscellaneous Equipment	6.67%	-	-	-	-	-
340 Office Furniture and Equipment	6.67%	-	-	-	-	-
340.1 Computers and Software	20.00%	2,500	750	5,000	2,500	2,500
341 Transportation Equipment	20.00%	24,000	6,800	46,000	22,200	23,800
342 Stores Equipment	4.00%	-	-	-	-	-
343 Tools, Shop and Garage Equipment	5.00%	2,500	938	20,000	3,250	16,750
344 Laboratory Equipment	10.00%	-	-	-	-	-
345 Power Operated Equipment	5.00%	-	-	-	-	-
346 Communications Equipment	10.00%	500	75	1,000	250	750
347 Miscellaneous Equipment	10.00%	-	-	-	-	-
348 Other Tangible Plant	-	-	-	-	-	-
<b>Totals</b>		<b>\$ 4,366,392</b>	<b>\$ 587,900</b>	<b>\$ 19,424,750</b>	<b>\$ 1,861,640</b>	<b>\$ 17,563,110</b>

Composite Rate (by year)

3.03%

\* 1/2 year convention used for plant additions

Perkins Mountain Water Company  
 Projected Rate Base and Return

Schedule A-4  
 Page 1

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Plant</b>					
Plant In Service	\$ 4,812,375	\$ 9,932,275	\$ 11,980,317	\$ 15,058,358	\$ 19,424,750
(less) Accumulated Depreciation	98,961	389,847	799,697	1,273,740	1,861,640
<b>Net Plant In Service</b>	<b>\$ 4,713,414</b>	<b>\$ 9,542,428</b>	<b>\$ 11,180,620</b>	<b>\$ 13,784,618</b>	<b>\$ 17,563,110</b>
<b>Deductions</b>					
Advances In Aid of Construction	\$ 2,307,375	\$ 4,837,140	\$ 6,829,903	\$ 8,969,829	\$ 11,161,413
Meter Advances	-	880	3,112	8,832	14,968
<b>Total Advances</b>	<b>\$ 2,307,375</b>	<b>\$ 4,838,020</b>	<b>\$ 6,833,015</b>	<b>\$ 8,978,661</b>	<b>\$ 11,176,381</b>
Contributions in Aid of Construction	\$ 135,000	\$ 483,300	\$ 1,119,000	\$ 1,875,600	\$ 2,780,100
(less) Amortization of CIAC	2,776	16,930	55,212	114,256	198,398
<b>Net AIAC</b>	<b>\$ 132,224</b>	<b>\$ 466,370</b>	<b>\$ 1,063,788</b>	<b>\$ 1,761,344</b>	<b>\$ 2,581,702</b>
<b>Total Deductions</b>	<b>\$ 2,439,599</b>	<b>\$ 5,304,390</b>	<b>\$ 7,896,803</b>	<b>\$ 10,740,005</b>	<b>\$ 13,758,083</b>
<b>Rate Base</b>	<b>\$ 2,273,815</b>	<b>\$ 4,238,038</b>	<b>\$ 3,283,816</b>	<b>\$ 3,044,613</b>	<b>\$ 3,805,027</b>
<b>Operating Income</b>	<b>\$ (128,290)</b>	<b>\$ (245,170)</b>	<b>\$ (69,073)</b>	<b>\$ 162,847</b>	<b>\$ 351,882</b>
<b>Rate of Return</b>	<b>-5.6%</b>	<b>-5.8%</b>	<b>-2.1%</b>	<b>5.3%</b>	<b>9.2%</b>

Perkins Mountain Water Company  
 Advances In Aid of Construction and Refunds  
 By NARUC Plant Account

Schedule A-4a  
 Page 1

Advances	Percent Advanced	Year 1	Year 2	Year 3	Year 4	Year 5
301 Organization	0.0%	\$ -	\$ -	\$ -	\$ -	\$ -
302 Franchises	0.0%	-	-	-	-	-
303 Land and Land Rights						
Golden Valley	0.0%	-	-	-	-	-
White Hills	0.0%	-	-	-	-	-
304 Structures and Improvements	0.0%	-	-	-	-	-
305 Collecting and Impounding Reservoirs	0.0%	-	-	-	-	-
306 Lake, River and Other Intakes	0.0%	-	-	-	-	-
307 Wells and Springs						
Golden Valley	0.0%	-	-	-	-	-
White Hills	0.0%	-	-	-	-	-
308 Infiltration Galleries and Tunnels	0.0%	-	-	-	-	-
309 Supply Mains	0.0%	-	-	-	-	-
310 Power Generation Equipment						
Golden Valley	0.0%	-	-	-	-	-
White Hills	0.0%	-	-	-	-	-
311 Pumping Equipment						
Golden Valley	0.0%	-	-	-	-	-
White Hills	0.0%	-	-	-	-	-
320 Water Treatment Equipment						
Golden Valley	0.0%	-	-	-	-	-
White Hills	0.0%	-	-	-	-	-
330 Distribution Reservoirs and Standpipes						
Golden Valley	0.0%	-	-	-	-	-
White Hills	0.0%	-	-	-	-	-
331 Transmission and Distribution Mains						
Backbone - Golden Valley	100.0%	1,848,000	952,000	666,667	666,667	666,667
Backbone - White Hills	100.0%	-	835,500	278,500	278,500	278,500
Subdivisions	100.0%	291,975	464,100	652,375	774,775	838,525
333 Services	100.0%	68,700	109,200	153,500	182,300	197,300
334 Meters and Meter Installations	100.0%	30,000	77,400	141,000	166,000	198,600
335 Hydrants	100.0%	68,700	109,200	153,500	182,300	197,300
336 Backflow Prevention Devices	0.0%	-	-	-	-	-
339 Other Plant and Miscellaneous Equipment	0.0%	-	-	-	-	-
340 Office Furniture and Equipment	0.0%	-	-	-	-	-
341 Transportation Equipment	0.0%	-	-	-	-	-
342 Stores Equipment	0.0%	-	-	-	-	-
343 Tools, Shop and Garage Equipment	0.0%	-	-	-	-	-
344 Laboratory Equipment	0.0%	-	-	-	-	-
345 Power Operated Equipment	0.0%	-	-	-	-	-
346 Communications Equipment	0.0%	-	-	-	-	-
347 Miscellaneous Equipment	0.0%	-	-	-	-	-
348 Other Tangible Plant	0.0%	-	-	-	-	-
Annual Advances		\$ 2,307,375	\$ 2,547,400	\$ 2,045,542	\$ 2,250,542	\$ 2,376,892
Cumulative Advances		\$ 2,307,375	\$ 4,854,775	\$ 6,900,317	\$ 9,150,858	\$ 11,527,750
<b>Refunds</b>						
Refundable Revenue		\$ -	\$ 117,564	\$ 351,859	\$ 737,438	\$ 1,235,388
Annual Refund	15.0%	-	17,635	52,779	110,616	185,308
Cumulative Refunds		\$ -	\$ 17,635	\$ 70,414	\$ 181,029	\$ 366,337
Advance Balance		\$ 2,307,375	\$ 4,837,140	\$ 6,829,903	\$ 8,969,829	\$ 11,161,413

Perkins Mountain Water Company  
 Projected Meter Advances and Refunds  
 By Customer Class

Schedule A-4b  
 Page 1

	Percent Advanced	Fee Level	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Meter Installations</b>							
Residential (Age Restricted)							
3/4"	0%	\$ 440.00	\$ -	\$ -	\$ -	\$ -	\$ -
Residential (Conventional Family)							
3/4"	0%	\$ 440.00	-	-	-	-	-
1"	0%	\$ 500.00	-	-	-	-	-
Commercial							
3/4"	100%	\$ 440.00	-	880	1,320	2,200	2,200
1"	100%	\$ 500.00	-	-	1,000	1,500	2,000
1-1/2"	100%	\$ 715.00	-	-	-	-	2,860
2"	100%	\$ 1,170.00	-	-	-	2,340	-
Industrial							
1-1/2"	0%	\$ 715.00	-	-	-	-	-
2"	0%	\$ 1,170.00	-	-	-	-	-
3"	0%	\$ 2,190.00	-	-	-	-	-
4"	0%	\$ 3,215.00	-	-	-	-	-
Irrigation							
1-1/2"	0%	\$ 715.00	-	-	-	-	-
2"	0%	\$ 1,170.00	-	-	-	-	-
3"	0%	\$ 2,190.00	-	-	-	-	-
4"	0%	\$ 3,215.00	-	-	-	-	-
6"	0%	\$ 6,270.00	-	-	-	-	-
8"			-	-	-	-	-
<b>Total Meter Advances Collected</b>			<b>\$ -</b>	<b>\$ 880</b>	<b>\$ 2,320</b>	<b>\$ 6,040</b>	<b>\$ 7,060</b>
<b>Cumulative Meter Advances Collected</b>			<b>\$ -</b>	<b>\$ 880</b>	<b>\$ 3,200</b>	<b>\$ 9,240</b>	<b>\$ 16,300</b>
<b>Meter Advance Refunds</b>							
Year 1 Advances	10%		\$ -	\$ -	\$ -	\$ -	\$ -
Year 2 Advances	10%			\$ 88	\$ 88	\$ 88	\$ 88
Year 3 Advances	10%				\$ 232	\$ 232	\$ 232
Year 4 Advances	10%					\$ 604	\$ 604
Year 5 Advances	10%						\$ -
<b>Total Refunds</b>			<b>\$ -</b>	<b>\$ -</b>	<b>\$ 88</b>	<b>\$ 320</b>	<b>\$ 924</b>
<b>Cumulative Refunds</b>			<b>\$ -</b>	<b>\$ -</b>	<b>\$ 88</b>	<b>\$ 408</b>	<b>\$ 1,332</b>
<b>Meter Advance Balance</b>			<b>\$ -</b>	<b>\$ 880</b>	<b>\$ 3,112</b>	<b>\$ 8,832</b>	<b>\$ 14,968</b>

Perkins Mountain Water Company  
 Projected Contributions in Aid of Construction (Hook-Up Fees)  
 By Customer Class

Schedule A-4c  
 Page 1

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Contributions - Summary</b>					
Residential	\$ 135,000	\$ 346,500	\$ 630,000	\$ 738,000	\$ 882,000
Commercial	-	1,800	5,700	18,600	22,500
Industrial	-	-	-	-	-
Irrigation	-	-	-	-	-
<b>Total Hook-Up Fees</b>	<b>\$ 135,000</b>	<b>\$ 348,300</b>	<b>\$ 635,700</b>	<b>\$ 756,600</b>	<b>\$ 904,500</b>
<b>Cumulative Hook-Up Fees</b>	<b>\$ 135,000</b>	<b>\$ 483,300</b>	<b>\$ 1,119,000</b>	<b>\$ 1,875,600</b>	<b>\$ 2,780,100</b>
<b>Amortization</b>					
Composite Rate	2.06%	2.93%	3.42%	3.15%	3.03%
Amortization	\$ 2,776	\$ 14,154	\$ 38,281	\$ 59,045	\$ 84,141
<b>Cumulative Amortization</b>	<b>\$ 2,776</b>	<b>\$ 16,930</b>	<b>\$ 55,212</b>	<b>\$ 114,256</b>	<b>\$ 198,398</b>
<b>Contribution Balance</b>	<b>\$ 132,224</b>	<b>\$ 466,370</b>	<b>\$ 1,063,788</b>	<b>\$ 1,761,344</b>	<b>\$ 2,581,702</b>

<b>Contributions - Detail</b>		<b>Fee</b>				
<b>Residential (Age Restricted)</b>						
3/4"	\$ 900	\$ 67,500	\$ 162,000	\$ 189,000	\$ 225,000	\$ 265,500
<b>Residential (Conventional Family)</b>						
3/4"	\$ 900	\$ 67,500	\$ 184,500	\$ 441,000	\$ 513,000	\$ 616,500
1"	\$ 1,500	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Commercial</b>						
3/4"	\$ 900	\$ -	\$ 1,800	\$ 2,700	\$ 4,500	\$ 4,500
1"	\$ 1,500	\$ -	\$ -	\$ 3,000	\$ 4,500	\$ 6,000
1-1/2"	\$ 3,000	\$ -	\$ -	\$ -	\$ -	\$ 12,000
2"	\$ 4,800	\$ -	\$ -	\$ -	\$ 9,600	\$ -
<b>Industrial</b>						
1-1/2"	\$ 3,000	\$ -	\$ -	\$ -	\$ -	\$ -
2"	\$ 4,800	\$ -	\$ -	\$ -	\$ -	\$ -
3"	\$ 9,000	\$ -	\$ -	\$ -	\$ -	\$ -
4"	\$ 15,000	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Irrigation</b>						
1-1/2"	\$ 3,000	\$ -	\$ -	\$ -	\$ -	\$ -
2"	\$ 4,800	\$ -	\$ -	\$ -	\$ -	\$ -
3"	\$ 9,000	\$ -	\$ -	\$ -	\$ -	\$ -
4"	\$ 15,000	\$ -	\$ -	\$ -	\$ -	\$ -
6"	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -
8"	\$ 48,000	\$ -	\$ -	\$ -	\$ -	\$ -

**Monthly Customer Charges**

3/4" Meter	\$ 22.00
1" Meter	\$ 29.00
1-1/2" Meter	\$ 73.00
2" Meter	\$ 116.00
3" Meter	\$ 218.00
4" Meter	\$ 363.00
6" Meter	\$ 725.00
8" Meter	\$ 1,160.00

Gallons included in Monthly Customer Charge 0

**Commodity Charges - Per 1,000 Gallons of Usage**

<b>3/4" Meters</b>	
0 to 4,000	\$ 2.10
4,001 to 20,000	\$ 3.15
20,001 gallons and above	\$ 3.78
<b>1" Meters</b>	
0 to 4,000	\$ 2.10
4,001 to 20,000	\$ 3.15
20,001 gallons and above	\$ 3.78
<b>1-1/2" Meters</b>	
0 to 42,000	\$ 3.15
42,001 gallons and above	\$ 3.78
<b>2" Meters</b>	
0 to 63,000	\$ 3.15
63,001 gallons and above	\$ 3.78
<b>3" Meters</b>	
0 to 120,000	\$ 3.15
120,001 gallons and above	\$ 3.78
<b>4" Meters</b>	
0 to 180,000	\$ 3.15
180,001 gallons and above	\$ 3.78
<b>6" Meters</b>	
0 to 207,000	\$ 3.15
207,001 gallons and above	\$ 3.78
<b>8" Meters</b>	
0 to 235,000	\$ 3.15
235,001 gallons and above	\$ 3.78
<b>Monthly Service Charge for Fire Sprinkler</b>	
4" or Smaller Connection	\$ 18.15
6" Connection	\$ 36.25
8" Connection	\$ 58.00

**Service Line and Meter Installation Charges**

3/4" Meter	\$ 440.00
1" Meter	\$ 500.00
1-1/2" Meter	\$ 715.00
2" Meter (Turbo)	\$ 1,170.00
2" Meter (Compound)	\$ 1,700.00
3" Meter (Turbo)	\$ 1,585.00
3" Meter (Compound)	\$ 2,190.00
4" Meter (Turbo)	\$ 2,540.00
4" Meter (Compound)	\$ 3,215.00
6" Meter (Turbo)	\$ 4,815.00
6" Meter (Compound)	\$ 6,270.00
8" Meter (Turbo)	Cost (a)
8" Meter (Compound)	Cost (a)

(a) cost to include parts, labor, overhead, and all applicable taxes, including income taxes

**Service Charges**

Establishment	\$ 30.00
Establishment (After Hours)	\$ 50.00
Re-Establishment (Within 12 Months)	*
Reconnection (Delinquent)	\$ 40.00
NSF Check	\$ 25.00
Meter Re-Read (If Correct)	\$ 30.00
Meter Test (If Correct)	\$ 30.00
Deferred Payment	1.5%
Late Payment Penalty (Per Month)	1.5%
Deposit Interest	**
Deposit	**
Moving meter/service at customer request	***

\* Number of months off system times the monthly customer charge for meter size

\*\* Per Commission Rule R14-2-403.B

\*\*\* Cost to include parts, labor, overhead and all applicable taxes

**Hookup Fees (CIAC)**

3/4" Meter	\$ 900.00
1" Meter	\$ 1,500.00
1-1/2" Meter	\$ 3,000.00
2" Meter	\$ 4,800.00
3" Meter	\$ 9,000.00
4" Meter	\$ 15,000.00
6" Meter	\$ 30,000.00
8" Meter	\$ 48,000.00

**Perkins Mountain Water Company  
Projected Property Taxes**

**Schedule A-6  
Page 1**

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Total Annual Revenue	\$ 25,478	\$ 204,783	\$ 531,696	\$ 989,230	\$ 1,536,236
3-Yr Average Revenue	25,478	115,130	253,985	575,236	1,019,054
CWIP @ 12/31	1,023,980	409,608	615,608	873,278	360,000
Book Value of Transportation Equip	19,800	15,400	11,000	6,600	23,800
<b>Calculate Full Cash Value</b>					
2 x 3-Yr Average Revenue	\$ 50,956	\$ 230,261	\$ 507,971	\$ 1,150,472	\$ 2,038,108
+ 10% of CWIP	102,398	40,961	61,561	87,328	36,000
- Transportation Equip	(19,800)	(15,400)	(11,000)	(6,600)	(23,800)
<b>Full Cash Value</b>	<b>\$ 133,554</b>	<b>\$ 255,822</b>	<b>\$ 558,532</b>	<b>\$ 1,231,200</b>	<b>\$ 2,050,308</b>
Assessment Ratio	25.0%	24.5%	24.0%	23.5%	23.0%
Assessed Value	\$ 33,388	\$ 62,676	\$ 134,048	\$ 289,332	\$ 471,571
Property Tax Rate (Avg. Mohave Cty)	10.49%	10.49%	10.49%	10.49%	10.49%
Projected Property Tax	\$ 3,502	\$ 6,575	\$ 14,062	\$ 30,351	\$ 49,468

Perkins Mountain Water Company  
 Projected Year-End Customers - Summary  
 By Customer Class

Schedule A-7  
 Page 1

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>All Customers</b>					
Residential	150	535	1,235	2,055	3,035
Commercial	-	2	7	17	30
Industrial	-	-	-	-	-
Irrigation	-	-	-	-	-
<b>TOTAL</b>	<b>150</b>	<b>537</b>	<b>1,242</b>	<b>2,072</b>	<b>3,065</b>
<b>Golden Valley South</b>					
Residential	150	510	930	1,430	2,020
Commercial	-	2	6	13	20
Industrial	-	-	-	-	-
Irrigation	-	-	-	-	-
<b>Total</b>	<b>150</b>	<b>512</b>	<b>936</b>	<b>1,443</b>	<b>2,040</b>
<b>The Village at White Hills</b>					
Residential	-	25	305	625	1,015
Commercial	-	-	1	4	10
Industrial	-	-	-	-	-
Irrigation	-	-	-	-	-
<b>Total</b>	<b>-</b>	<b>25</b>	<b>306</b>	<b>629</b>	<b>1,025</b>

Perkins Mountain Water Company  
 Projected Year-End Customers - Detail  
 By Customer Class and Meter Size

Schedule A-7a  
 Page 1

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>All Customers</b>					
Residential (Age Restricted)					
3/4"	75	255	465	715	1,010
Residential (Conventional Family)					
3/4"	75	280	770	1,340	2,025
1"	-	-	-	-	-
Commercial					
3/4"	-	2	5	10	15
1"	-	-	2	5	9
1-1/2"	-	-	-	-	4
2"	-	-	-	2	2
Industrial					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
Irrigation					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
6"	-	-	-	-	-
8"	-	-	-	-	-
<b>TOTAL</b>	<b>150</b>	<b>537</b>	<b>1,242</b>	<b>2,072</b>	<b>3,065</b>

Perkins Mountain Water Company  
 Projected Year-End Customers - Detail  
 By Customer Class and Meter Size

Schedule A-7a  
 Page 2

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Golden Valley South</b>					
Residential (Age Restricted)					
3/4"	75	255	465	715	1,010
Residential (Conventional Family)					
3/4"	75	255	465	715	1,010
1"	-	-	-	-	-
Commercial					
3/4"	-	2	4	7	10
1"	-	-	2	4	6
1-1/2"	-	-	-	-	2
2"	-	-	-	2	2
Industrial					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
Irrigation					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
6"	-	-	-	-	-
8"	-	-	-	-	-
<b>Total</b>	<b>150</b>	<b>512</b>	<b>936</b>	<b>1,443</b>	<b>2,040</b>

Perkins Mountain Water Company  
 Projected Year-End Customers - Detail  
 By Customer Class and Meter Size

Schedule A-7a  
 Page 3

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>The Village at White Hills</b>					
Residential (Age Restricted)					
3/4"	-	-	-	-	-
Residential (Conventional Family)					
3/4"	-	25	305	625	1,015
1"	-	-	-	-	-
Commercial					
3/4"	-	-	1	3	5
1"	-	-	-	1	3
1-1/2"	-	-	-	-	2
2"	-	-	-	-	-
Industrial					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
Irrigation					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
6"	-	-	-	-	-
8"	-	-	-	-	-
<b>Total</b>	-	25	306	629	1,025

Perkins Mountain Water Company  
 Projected Average Number of Customers (used for revenue projection)  
 By Customer Class and Meter Size

Schedule A-7b  
 Page 1

	Year 1	Year 2	Year 3	Year 4	Year 5
Average Factor for new Growth	0.25	0.50	0.50	0.50	0.50
<b>All Customers</b>					
Residential (Age Restricted)					
3/4"	19	165	360	590	863
Residential (Conventional Family)					
3/4"	19	178	525	1,055	1,683
1"	-	-	-	-	-
Commercial					
3/4"	-	1	4	8	13
1"	-	-	1	4	7
1-1/2"	-	-	-	-	2
2"	-	-	-	1	2
Industrial					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
Irrigation					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
6"	-	-	-	-	-
8"	-	-	-	-	-
<b>TOTAL</b>	<b>38</b>	<b>344</b>	<b>890</b>	<b>1,657</b>	<b>2,569</b>

Perkins Mountain Water Company  
 Projected Average Number of Customers (used for revenue projection)  
 By Customer Class and Meter Size

Schedule A-7b  
 Page 2

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Golden Valley South</b>					
Residential (Age Restricted)					
3/4"	19	165	360	590	863
Residential (Conventional Family)					
3/4"	19	165	360	590	863
1"	-	-	-	-	-
Commercial					
3/4"	-	1	3	6	9
1"	-	-	1	3	5
1-1/2"	-	-	-	-	1
2"	-	-	-	1	2
Industrial					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
Irrigation					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
6"	-	-	-	-	-
8"	-	-	-	-	-
<b>Total</b>	<b>38</b>	<b>331</b>	<b>724</b>	<b>1,190</b>	<b>1,742</b>

Perkins Mountain Water Company  
 Projected Average Number of Customers (used for revenue projection)  
 By Customer Class and Meter Size

Schedule A-7b  
 Page 3

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>The Village at White Hills</b>					
Residential (Age Restricted)					
3/4"	-	-	-	-	-
Residential (Conventional Family)					
3/4"	-	13	165	465	820
1"	-	-	-	-	-
Commercial					
3/4"	-	-	1	2	4
1"	-	-	-	1	2
1-1/2"	-	-	-	-	1
2"	-	-	-	-	-
Industrial					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
Irrigation					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
6"	-	-	-	-	-
8"	-	-	-	-	-
<b>Total</b>	-	13	166	468	827

Perkins Mountain Water Company  
 Projected Customer Growth  
 By Customer Class and Meter Size

Schedule A-7c  
 Page 1

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>All Customers</b>					
Residential (Age Restricted)					
3/4"	75	180	210	250	295
Residential (Conventional Family)					
3/4"	75	205	490	570	685
1"	-	-	-	-	-
Commercial					
3/4"	-	2	3	5	5
1"	-	-	2	3	4
1-1/2"	-	-	-	-	4
2"	-	-	-	2	-
Industrial					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
Irrigation					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
6"	-	-	-	-	-
8"	-	-	-	-	-
<b>TOTAL</b>	<b>150</b>	<b>387</b>	<b>705</b>	<b>830</b>	<b>993</b>

Perkins Mountain Water Company  
 Projected Customer Growth  
 By Customer Class and Meter Size

Schedule A-7c  
 Page 2

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Golden Valley South</b>					
Residential (Age Restricted)					
3/4"	75	180	210	250	295
Residential (Conventional Family)					
3/4"	75	180	210	250	295
1"					
Commercial					
3/4"		2	2	3	3
1"			2	2	2
1-1/2"					2
2"				2	
Industrial					
1-1/2"					
2"					
3"					
4"					
Irrigation					
1-1/2"					
2"					
3"					
4"					
6"					
8"					
<b>Total</b>	<b>150</b>	<b>362</b>	<b>424</b>	<b>507</b>	<b>597</b>

Perkins Mountain Water Company  
 Projected Customer Growth  
 By Customer Class and Meter Size

Schedule A-7c  
 Page 3

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>The Village at White Hills</b>					
Residential (Age Restricted)					
3/4"					
Residential (Conventional Family)					
3/4"	0	25	280	320	390
1"					
Commercial					
3/4"			1	2	2
1"				1	2
1-1/2"					2
2"					
Industrial					
1-1/2"					
2"					
3"					
4"					
Irrigation					
1-1/2"					
2"					
3"					
4"					
6"					
8"					
<b>Total</b>	<b>0</b>	<b>25</b>	<b>281</b>	<b>323</b>	<b>396</b>

Perkins Mountain Water Company  
 Projected Water Sales - Summary (in 1,000 gallons)  
 By Customer Class

Schedule A-8  
 Page 1

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>All Customers</b>					
Residential	4,117	37,895	101,051	191,564	298,746
Commercial	-	137	684	2,428	5,335
Industrial	-	-	-	-	-
Irrigation	-	-	-	-	-
<b>TOTAL</b>	<b>4,117</b>	<b>38,032</b>	<b>101,735</b>	<b>193,993</b>	<b>304,081</b>
<b>Golden Valley South</b>					
Residential	4,117	36,228	79,043	129,543	189,374
Commercial	-	137	616	2,052	3,967
Industrial	-	-	-	-	-
Irrigation	-	-	-	-	-
<b>Total</b>	<b>4,117</b>	<b>36,365</b>	<b>79,659</b>	<b>131,595</b>	<b>193,341</b>
<b>The Village at White Hills</b>					
Residential	-	1,667	22,008	62,022	109,372
Commercial	-	-	68	376	1,368
Industrial	-	-	-	-	-
Irrigation	-	-	-	-	-
<b>Total</b>	<b>-</b>	<b>1,667</b>	<b>22,076</b>	<b>62,398</b>	<b>110,740</b>

Perkins Mountain Water Company  
 Projected Water Sales - Detail (in 1,000 gallons)  
 By Customer Class and Meter Size

Schedule A-8a  
 Page 1

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>All Customers</b>					
Residential (Age Restricted)					
3/4"	1,616	14,220	31,026	50,849	74,334
Residential (Conventional Family)					
3/4"	2,501	23,675	70,025	140,716	224,412
1"	-	-	-	-	-
Commercial					
3/4"	-	137	479	1,026	1,710
1"	-	-	205	718	1,436
1-1/2"	-	-	-	-	821
2"	-	-	-	684	1,368
Industrial					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
Irrigation					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
6"	-	-	-	-	-
8"	-	-	-	-	-
<b>TOTAL</b>	<b>4,117</b>	<b>38,032</b>	<b>101,735</b>	<b>193,993</b>	<b>304,081</b>

Perkins Mountain Water Company  
 Projected Water Sales - Detail (in 1,000 gallons)  
 By Customer Class and Meter Size

Schedule A-8a  
 Page 2

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Golden Valley South</b>					
Residential (Age Restricted)					
3/4"	1,616	14,220	31,026	50,849	74,334
Residential (Conventional Family)					
3/4"	2,501	22,008	48,017	78,694	115,040
1"	-	-	-	-	-
Commercial					
3/4"	-	137	410	752	1,163
1"	-	-	205	616	1,026
1-1/2"	-	-	-	-	410
2"	-	-	-	684	1,368
Industrial					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
Irrigation					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
6"	-	-	-	-	-
8"	-	-	-	-	-
<b>Total</b>	<b>4,117</b>	<b>36,365</b>	<b>79,659</b>	<b>131,595</b>	<b>193,341</b>

Perkins Mountain Water Company  
 Projected Water Sales - Detail (in 1,000 gallons)  
 By Customer Class and Meter Size

Schedule A-8a  
 Page 3

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>The Village at White Hills</b>					
Residential (Age Restricted)					
3/4"	-	-	-	-	-
Residential (Conventional Family)					
3/4"	-	1,667	22,008	62,022	109,372
1"	-	-	-	-	-
Commercial					
3/4"	-	-	68	274	547
1"	-	-	-	103	410
1-1/2"	-	-	-	-	410
2"	-	-	-	-	-
Industrial					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
Irrigation					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
6"	-	-	-	-	-
8"	-	-	-	-	-
<b>Total</b>	-	1,667	22,076	62,398	110,740

Perkins Mountain Water Company  
 Demand Factors (used for sales projection)  
 By Customer Class and Meter Size

Schedule A-8b  
 Page 1

	Persons per Household	GPCPD	Gallons per meter or DU per day	Monthly Production (gallons)	Lost and Unaccounted	Average Monthly Sales (gallons)	Average Annual Sales (gallons)
<b>Residential (Age Restricted)</b>							
5/8" x 3/4"	1.8	140	252	7,560	5.0%	7,182	86,184
3/4"	1.8	140	252	7,560	5.0%	7,182	86,184
<b>Residential (Conventional Family)</b>							
5/8" x 3/4"	3.0	130	390	11,700	5.0%	11,115	133,380
3/4"	3.0	130	390	11,700	5.0%	11,115	133,380
1"	3.0	130	390	11,700	5.0%	11,115	133,380
<b>Commercial</b>							
3/4"	n/a	n/a	400	12,000	5.0%	11,400	136,800
1"	n/a	n/a	600	18,000	5.0%	17,100	205,200
1-1/2"	n/a	n/a	1,200	36,000	5.0%	34,200	410,400
2"	n/a	n/a	2,000	60,000	5.0%	57,000	684,000
<b>Industrial</b>							
1-1/2"	n/a	n/a	2,400	72,000	5.0%	68,400	820,800
2"	n/a	n/a	4,000	120,000	5.0%	114,000	1,368,000
3"	n/a	n/a	10,800	324,000	5.0%	307,800	3,693,600
4"	n/a	n/a	24,000	720,000	5.0%	684,000	8,208,000
<b>Irrigation</b>							
1-1/2"	n/a	n/a	4,800	144,000	5.0%	136,800	1,641,600
2"	n/a	n/a	8,000	240,000	5.0%	228,000	2,736,000
3"	n/a	n/a	21,600	648,000	5.0%	615,600	7,387,200
4"	n/a	n/a	48,000	1,440,000	5.0%	1,368,000	16,416,000
6"	n/a	n/a	96,000	2,880,000	5.0%	2,736,000	32,832,000
8"	n/a	n/a	288,000	8,640,000	5.0%	8,208,000	98,496,000

Perkins Mountain Water Company  
Facilities Planning Worksheet

Schedule A-8c  
Page 1

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Golden Valley</b>					
Average Number of Customers					
Age Restricted	19	165	360	590	863
Conventional	19	165	360	590	863
Avg Day (gpd)					
Age Restricted	4,725	41,580	90,720	148,680	217,350
Conventional	7,313	64,350	140,400	230,100	336,375
Total	12,038	105,930	231,120	378,780	553,725
Peak Day (gpd)	24,075	211,860	462,240	757,560	1,107,450
Peak Hour (gpd)	42,131	370,755	808,920	1,325,730	1,938,038
Avg Day (gpm)					
Age Restricted	3	29	63	103	151
Conventional	5	45	98	160	234
Total	8	74	161	263	385
Peak Day (gpm)	17	147	321	526	769
Peak Hour (gpm)	29	257	562	921	1,346
Fire Flow (gpm)	1500	1500	1500	1500	1500
Well Capacity Required (gpm)	17	147	321	526	769
Wells Required (Nominal)	0.01	0.12	0.27	0.44	0.64
Wells Planned	2	2	2	2	2
Storage Required (gallons)					
Operational (Stanley)	4,514	39,724	86,670	142,043	207,647
Fire	270,000	270,000	270,000	270,000	270,000
Total	274,514	309,724	356,670	412,043	477,647
Storage Planned (gallons)	400,000			1,600,000	

Perkins Mountain Water Company  
Facilities Planning Worksheet

Schedule A-8c  
Page 2

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>White Hills</b>					
Average Number of Customers					
Age Restricted	-	-	-	-	-
Conventional	-	13	165	465	820
Avg Day (gpd)					
Age Restricted	-	-	-	-	-
Conventional	-	4,875	64,350	181,350	319,800
Total	-	4,875	64,350	181,350	319,800
Peak Day (gpd)	-	9,750	128,700	362,700	639,600
Peak Hour (gpd)	-	17,063	225,225	634,725	1,119,300
Avg Day (gpm)					
Age Restricted	-	-	-	-	-
Conventional	-	3	45	126	222
Total	-	3	45	126	222
Peak Day (gpm)	-	7	89	252	444
Peak Hour (gpm)	-	12	156	441	777
Fire Flow (gpm)	-	1500	1500	1500	1500
Well Capacity Required (gpm)	-	7	89	252	444
Wells Required (Nominal)	-	0.02	0.22	0.63	1.11
Wells Planned	0	2	2	2	3
Storage Required (gallons)					
Operational (Stanley)	-	1,828	24,131	68,006	119,925
Fire	-	270,000	270,000	270,000	270,000
Total	-	271,828	294,131	338,006	389,925
Storage Planned (gallons)		400,000			1,600,000

Perkins Mountain Water Company  
 Projected Revenue  
 By Customer Class and Meter Size

Schedule A-9  
 Page 1

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Water Sales</b>					
Residential (Age Restricted)					
3/4"	\$ 9,095	\$ 80,038	\$ 174,629	\$ 286,197	\$ 418,381
Residential (Conventional Family)					
3/4"	11,883	112,490	332,717	668,603	1,066,279
1"	-	-	-	-	-
Commercial					
3/4"	-	645	2,256	4,834	8,057
1"	-	-	944	3,304	6,608
1-1/2"	-	-	-	-	4,338
2"	-	-	-	1,392	2,784
Industrial					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
Irrigation					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
6"	-	-	-	-	-
8"	-	-	-	-	-
<b>Total Water Sales</b>	<b>\$ 20,978</b>	<b>\$ 193,173</b>	<b>\$ 510,546</b>	<b>\$ 964,330</b>	<b>\$ 1,506,446</b>
<b>Establishment Fees</b>	<b>\$ 4,500</b>	<b>\$ 11,610</b>	<b>\$ 21,150</b>	<b>\$ 24,900</b>	<b>\$ 29,790</b>
<b>TOTAL Annual Revenue</b>	<b>\$ 25,478</b>	<b>\$ 204,783</b>	<b>\$ 531,696</b>	<b>\$ 989,230</b>	<b>\$ 1,536,236</b>

Perkins Mountain Water Company  
 Projected Revenue  
 By Customer Class and Meter Size

Schedule A-9  
 Page 2

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Water Sales - Base Charge Only</b>					
Residential (Age Restricted)					
3/4"	\$ 4,950	\$ 43,560	\$ 95,040	\$ 155,760	\$ 227,700
Residential (Conventional Family)					
3/4"	4,950	46,860	138,600	278,520	444,180
1"	-	-	-	-	-
Commercial					
3/4"	-	264	924	1,980	3,300
1"	-	-	348	1,218	2,436
1-1/2"	-	-	-	-	1,752
2"	-	-	-	1,392	2,784
Industrial					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
Irrigation					
1-1/2"	-	-	-	-	-
2"	-	-	-	-	-
3"	-	-	-	-	-
4"	-	-	-	-	-
6"	-	-	-	-	-
8"	-	-	-	-	-
<b>Total Water Sales</b>	<b>\$ 9,900</b>	<b>\$ 90,684</b>	<b>\$ 234,912</b>	<b>\$ 438,870</b>	<b>\$ 682,152</b>
<b>Base Charge % of Water Sales</b>	<b>47%</b>	<b>47%</b>	<b>46%</b>	<b>46%</b>	<b>45%</b>
<b>Average Monthly Bills</b>					
Residential (Age Restricted)					
3/4"	\$ 40.42	\$ 40.42	\$ 40.42	\$ 40.42	\$ 40.42
Residential (Conventional Family)					
3/4"	\$ 52.81	\$ 52.81	\$ 52.81	\$ 52.81	\$ 52.81
1"	\$ -	\$ -	\$ -	\$ -	\$ -
All Residential	\$ 46.62	\$ 46.84	\$ 47.77	\$ 48.37	\$ 48.61

Perkins Mountain Water Company  
 Projection of Usage by Rate Tier  
 (used for revenue projections)

Schedule A-9a  
 Page 1

	Monthly Per Customer Sales (gallons)			
	Total	Tier 1 Sales	Tier 2 Sales	Tier 3 Sales
Residential (Age Restricted)				
3/4"	7,182	4,000	3,182	-
Residential (Conventional Family)				
3/4"	11,115	4,000	7,115	-
1"	11,115	4,000	7,115	-
Commercial				
3/4"	11,400	4,000	7,400	-
1"	17,100	4,000	13,100	-
1-1/2"	34,200	n/a	34,200	-
2"	57,000	n/a		
Industrial				
1-1/2"	68,400	n/a	42,000	26,400
2"	114,000	n/a	63,000	51,000
3"	307,800	n/a	120,000	187,800
4"	684,000	n/a	180,000	504,000
Irrigation				
1-1/2"	136,800	n/a	42,000	94,800
2"	228,000	n/a	63,000	165,000
3"	615,600	n/a	120,000	495,600
4"	1,368,000	n/a	180,000	1,188,000
6"	2,736,000	n/a	207,000	2,529,000
8"	8,208,000	n/a	235,000	7,973,000

Perkins Mountain Water Company  
 Projection of Usage by Rate Tier  
 (used for revenue projections)

Schedule A-9a  
 Page 2

	Annual Per Customer Sales (in 1,000 gallons)			
	Total	Tier 1 Sales	Tier 2 Sales	Tier 3 Sales
Residential (Age Restricted)				
3/4"	86	48	38	-
Residential (Conventional Family)				
3/4"	133	48	85	-
1"	133	48	85	-
Commercial				
3/4"	137	48	89	-
1"	205	48	157	-
1-1/2"	410	n/a	410	-
2"	684	n/a	-	-
Industrial				
1-1/2"	821	n/a	504	317
2"	1,368	n/a	756	612
3"	3,694	n/a	1,440	2,254
4"	8,208	n/a	2,160	6,048
Irrigation				
1-1/2"	1,642	n/a	504	1,138
2"	2,736	n/a	756	1,980
3"	7,387	n/a	1,440	5,947
4"	16,416	n/a	2,160	14,256
6"	32,832	n/a	2,484	30,348
8"	98,496	n/a	2,820	95,676

Perkins Mountain Water Company  
Projected Expenses

Schedule A-10  
Page 1

Expense Category	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Operation and Maintenance</b>					
Salaries and Wages	\$ 25,000	\$ 52,000	\$ 54,080	\$ 56,243	\$ 87,739
Employee Pensions and Benefits 24% of payroll	6,000	12,480	12,979	13,498	21,057
Purchased Water	-	-	-	-	-
Purchased Power \$ 0.34 per 1,000 gal	1,385	12,794	34,223	65,259	102,292
Fuel for Power Production (a)	250	258	265	273	281
Chemicals \$ 0.05 per 1,000 gal	206	1,902	5,087	9,700	15,204
Materials and Supplies	1,000	4,000	4,500	5,000	5,500
<b>Contract Services</b>					
Engineering (a)	500	2,060	2,122	2,185	2,251
Accounting (a)	1,250	5,150	5,305	5,464	5,628
Legal (a)	1,250	5,150	5,305	5,464	5,628
Management (a)	2,500	10,300	10,609	10,927	11,255
Testing \$ 3.00 per customer	113	1,611	3,726	6,216	9,195
Arsenic Treatment \$ 0.40 per 1,000 gal]	-	667	8,830	24,959	44,296
Administrative (a)	7,500	30,900	31,827	32,782	33,765
Billing \$ 1.00 per customer	450	4,122	10,674	19,884	30,822
Rental of Building/Property (a)	750	3,090	3,183	3,278	3,377
Rental of Equipment (a)	250	1,030	1,061	1,093	1,126
Transportation Expense (a)	1,250	5,150	5,305	5,464	5,628
<b>Insurance</b>					
Vehicles (a)	250	1,030	1,061	1,093	1,126
General Liability (a)	375	1,545	1,591	1,639	1,688
Workman's Comp (a)	375	1,545	1,591	1,639	1,688
Other	-	-	-	-	-
Advertising Expense	-	-	-	-	-
Rate Case Amortization	-	-	-	-	-
Regulatory Commission	-	-	-	-	-
Water Conservation (a)	-	500	515	530	546
Bad Debt 0.5% of revenue	127	1,024	2,658	4,946	7,681
Miscellaneous (a)	750	3,090	3,183	3,278	3,377
<b>Subtotal Operation and Maintenance</b>	<b>\$ 51,531</b>	<b>\$ 161,397</b>	<b>\$ 209,680</b>	<b>\$ 280,814</b>	<b>\$ 401,150</b>
Depreciation (net of amortization of CIAC)	\$ 96,185	\$ 276,731	\$ 371,569	\$ 414,999	\$ 503,758
<b>Taxes other than Income</b>					
Property Taxes	3,502	6,575	14,062	30,351	49,468
Payroll Taxes 10% of payroll	2,500	5,200	5,408	5,624	8,774
Other Taxes and Licenses	-	-	-	-	-
Income Taxes	50	50	50	94,595	221,205
<b>Total Operating Expenses</b>	<b>\$ 153,768</b>	<b>\$ 449,953</b>	<b>\$ 600,768</b>	<b>\$ 826,383</b>	<b>\$ 1,184,355</b>
(a) Inflation at 3.0%					
<b>Cost of Power Assumptions</b>					
Total Pumping Head 600 feet					
Pump/Motor efficiency 56%					
Cost per KWh \$ 0.10					
<b>Income Tax Calculation</b>					
Revenue	\$ 25,478	\$ 204,783	\$ 531,696	\$ 989,230	\$ 1,536,236
Operating Expenses	153,718	449,903	600,718	731,788	963,150
Interest Expense	-	-	-	-	-
<b>Taxable Income</b>	<b>\$ (128,240)</b>	<b>\$ (245,120)</b>	<b>\$ (69,023)</b>	<b>\$ 257,442</b>	<b>\$ 573,087</b>
State Tax 6.968%	50	50	50	17,939	39,933
<b>Federal Taxable Income</b>	<b>\$ (128,290)</b>	<b>\$ (245,170)</b>	<b>\$ (69,073)</b>	<b>\$ 239,503</b>	<b>\$ 533,154</b>
Federal Tax	-	-	-	76,656	181,272
<b>Total Income Tax</b>	<b>\$ 50</b>	<b>\$ 50</b>	<b>\$ 50</b>	<b>\$ 94,595</b>	<b>\$ 221,205</b>
<b>Combined Tax Rate</b>	<b>-0.04%</b>	<b>-0.02%</b>	<b>-0.07%</b>	<b>36.74%</b>	<b>38.60%</b>

Perkins Mountain Water Company  
 Plant Additions - Summary  
 By NARUC Plant Account

Schedule A-11  
 Page 1

	Year 1	Year 2	Year 3	Year 4	Year 5
301 Organization	\$ -	\$ -	\$ -	\$ -	\$ -
302 Franchises	-	-	-	-	-
303 Land and Land Rights	130,000	130,000	-	-	15,000
304 Structures and Improvements	-	-	-	-	-
305 Collecting and Impounding Reservoirs	-	-	-	-	-
306 Lake, River and Other Intakes	-	-	-	-	-
307 Wells and Springs	800,000	600,000	-	-	300,000
308 Infiltration Galleries and Tunnels	-	-	-	-	-
309 Supply Mains	-	-	-	-	-
310 Power Generation Equipment	-	-	-	-	-
311 Pumping Equipment	800,000	600,000	-	-	300,000
320 Water Treatment Equipment	40,000	540,000	-	-	520,000
330 Distribution Reservoirs and Standpipes	700,000	700,000	-	825,000	825,000
331 Transmission and Distribution Mains	2,139,975	2,251,600	1,597,542	1,719,942	1,783,692
333 Services	68,700	109,200	153,500	182,300	197,300
334 Meters and Meter Installations	30,000	77,400	141,000	166,000	198,600
335 Hydrants	68,700	109,200	153,500	182,300	197,300
336 Backflow Prevention Devices	-	-	-	-	-
339 Other Plant and Miscellaneous Equipment	-	-	-	-	-
340 Office Furniture and Equipment	-	-	-	-	-
340.1 Computers and Software	2,500	-	-	-	2,500
341 Transportation Equipment	22,000	-	-	-	24,000
342 Stores Equipment	-	-	-	-	-
343 Tools, Shop and Garage Equipment	10,000	2,500	2,500	2,500	2,500
344 Laboratory Equipment	-	-	-	-	-
345 Power Operated Equipment	-	-	-	-	-
346 Communications Equipment	500	-	-	-	500
347 Miscellaneous Equipment	-	-	-	-	-
348 Other Tangible Plant	-	-	-	-	-
<b>Totals</b>	<b>\$ 4,812,375</b>	<b>\$ 5,119,900</b>	<b>\$ 2,048,042</b>	<b>\$ 3,078,042</b>	<b>\$ 4,366,392</b>
<b>Projected CWIP</b>					
CWIP Balance	\$ 1,023,980	\$ 409,608	\$ 615,608	\$ 873,278	\$ 360,000
Change in CWIP Balance	\$ 1,023,980	\$ (614,372)	\$ 206,000	\$ 257,670	\$ (513,278)

Perkins Mountain Water Company  
 Plant Additions - Detail  
 By NARUC Plant Account

Schedule A-11a  
 Page 1

	Year 1	Year 2	Year 3	Year 4	Year 5
301 Organization	\$ -	\$ -	\$ -	\$ -	\$ -
302 Franchises					
303 Land and Land Rights					
Golden Valley	130,000				
White Hills		130,000			15,000
304 Structures and Improvements					
305 Collecting and Impounding Reservoirs					
306 Lake, River and Other Intakes					
307 Wells and Springs					
Golden Valley	800,000				
White Hills		600,000			300,000
308 Infiltration Galleries and Tunnels					
309 Supply Mains					
310 Power Generation Equipment					
Golden Valley					
White Hills					
311 Pumping Equipment					
Golden Valley	800,000				
White Hills		600,000			300,000
320 Water Treatment Equipment					
Golden Valley	40,000				
White Hills		540,000			520,000
330 Distribution Reservoirs and Standpipes					
Golden Valley	700,000			825,000	
White Hills		700,000			825,000
331 Transmission and Distribution Mains					
Backbone - Golden Valley	1,848,000	952,000	666,667	666,667	666,667
Backbone - White Hills		835,500	278,500	278,500	278,500
Subdivisions	291,975	464,100	652,375	774,775	838,525
333 Services	68,700	109,200	153,500	182,300	197,300
334 Meters and Meter Installations	30,000	77,400	141,000	166,000	198,600
335 Hydrants	68,700	109,200	153,500	182,300	197,300
336 Backflow Prevention Devices					
339 Other Plant and Miscellaneous Equipment					
340 Office Furniture and Equipment					
340.1 Computers and Software	2,500				2,500
341 Transportation Equipment	22,000				24,000
342 Stores Equipment					
343 Tools, Shop and Garage Equipment	10,000	2,500	2,500	2,500	2,500
344 Laboratory Equipment					
345 Power Operated Equipment					
346 Communications Equipment	500				500
347 Miscellaneous Equipment					
348 Other Tangible Plant					
<b>Total</b>	<b>\$ 4,812,375</b>	<b>\$ 5,119,900</b>	<b>\$ 2,048,042</b>	<b>\$ 3,078,042</b>	<b>\$ 4,366,392</b>

Perkins Mountain Water Company  
 Projected Cash Flow

Schedule A-12  
 Page 1

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Cash From Operations</b>					
Beginning Cash Balance	\$ 50,000	\$ 75,167	\$ 81,714	\$ 769,374	\$ 930,755
Net Income (Loss)	(127,038)	(243,601)	(60,562)	179,848	371,743
Non-Cash Expense					
Depreciation Expense	96,185	276,731	371,569	414,999	503,758
<b>Total Cash From Operations</b>	<b>\$ (30,853)</b>	<b>\$ 33,130</b>	<b>\$ 311,007</b>	<b>\$ 594,847</b>	<b>\$ 875,501</b>
<b>Cash from Financing Activities</b>					
Long-Term Debt Issuance	\$ -	\$ -	\$ -	\$ -	\$ -
Short-Term Debt Issuance	-	-	-	-	-
Paid In Capital	3,450,000	1,600,000	-	-	-
Advances In Aid Of Construction	2,307,375	2,547,400	2,045,542	2,250,542	2,376,892
Meter Advances	-	880	2,320	6,040	7,060
Contributions In Aid Of Construction	135,000	348,300	635,700	756,600	904,500
Security Deposits	-	-	-	-	-
<b>Total Cash From Financing Activities</b>	<b>\$ 5,892,375</b>	<b>\$ 4,496,580</b>	<b>\$ 2,683,562</b>	<b>\$ 3,013,182</b>	<b>\$ 3,288,452</b>
<b>Cash Disbursements</b>					
Long-Term Debt Repayment	\$ -	\$ -	\$ -	\$ -	\$ -
Short-Term Debt Repayment	-	-	-	-	-
Dividends	-	-	-	-	-
Refund of Advances In Aid of Const.	-	17,635	52,779	110,616	185,308
Refund of Meter Advances	-	-	88	320	924
Capital Expenditures	5,836,355	4,505,528	2,254,042	3,335,712	3,853,113
<b>Total Cash Disbursed</b>	<b>\$ 5,836,355</b>	<b>\$ 4,523,163</b>	<b>\$ 2,306,909</b>	<b>\$ 3,446,647</b>	<b>\$ 4,039,346</b>
<b>Ending Cash Balance</b>	<b>\$ 75,167</b>	<b>\$ 81,714</b>	<b>\$ 769,374</b>	<b>\$ 930,755</b>	<b>\$ 1,055,362</b>
<b>Interest Calculations</b>					
Interest Earned (a)	2.0% \$ 1,252	\$ 1,569	\$ 8,511	\$ 17,001	\$ 19,861
Interest Expense					

(a) Calculated on Average Cash Balance

F

DEAN HELLER  
 Secretary of State  
 208 North Carson Street  
 Carson City, Nevada 89701-4288  
 (775) 884 5708  
 Website: secretaryofstate.biz

Entity #  
**E0319662005-1**  
 Document Number  
**00000203434-46**

Date Filed:  
 5/24/2005 8:04:34 AM  
 In the office of

*Dean Heller*

Dean Heller  
 Secretary of State

**Articles of Incorporation**  
 (PURSUANT TO NRS 78)

Important: Read attached instructions before completing form.

ABOVE SPACE IS FOR OFFICE USE ONLY

1. Name of Corporation:	PERCINS MOUNTAIN WATER COMPANY		
2. President Agent Name and Street Address: <small>From Mailing Address, Not necessarily the actual address.</small>	Kerh Mosley Name 4730 S Fort Apache Road, Suite 300 Street Address Optional Mailing Address	Las Vegas City	NEVADA 89147 State Zip Code
3. Shares: <small>Number of shares authorized</small> <small>Number of shares without par value (\$)</small>	Number of shares with par value: 100,000	Par value: \$5.00	Number of shares without par value: 0
4. Names & Addresses of Directories: <small>Director/Officer Name Address City State Zip Code</small>	1. Fredrick Chia Name 4730 S Fort Apache Road, Suite 300 Street Address Las Vegas NV 89147 City State Zip Code  2. Kerh Mosley Name 4730 S Fort Apache Road, Suite 300 Street Address Las Vegas NV 89147 City State Zip Code  3. Kirk Brynson Name 4730 S Fort Apache Road, Suite 300 Street Address Las Vegas NV 89147 City State Zip Code		
5. Purpose: <small>Indicate specific purposes.</small>	The purpose of this Corporation shall be:		
6. Name, Address and Signature of Incorporator: <small>Signature of the person who filed this document.</small>	Kerh Mosley Name 4730 S Fort Apache Road, Suite 300 Address	Las Vegas City	NV 89147 State Zip Code
7. Certificate of Incorporation: <small>Required Article.</small>	I hereby accept appointment as President/Agent for the above named corporation. Authorized Signature of R. K. or Dr. Behar p/b. A. Company Date: 5/23/05		

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

www.nv.gov

ADDITIONAL INFORMATION TO  
ARTICLES OF INCORPORATION OF  
PERKINS MOUNTAIN WATER COMPANY

8. Limitation of Director and Officer Liability

No Director or Officer of the Corporation shall be personally liable to the Corporation or its stockholders for damages for breach of their fiduciary duty as a Director or Officer; provided, however, that this Article shall not eliminate or limit the liability of a Director or Officer for (i) acts or omissions which involve intentional misconduct, fraud or a knowing violation of law; and/or (ii) authorizing the unlawful payment of distributions in violation of Nevada Revised Statutes 78.300.

9. Indemnification

Any person made a party to any action, suit or proceeding by reason of the fact that he, his testator or intestate, is or was a Director, Officer or employee of the Corporation or of any corporation for which he served as such at the request of the Corporation, shall be indemnified by the Corporation against all expenses and other amounts for which indemnification may be made pursuant to law. The indemnification provided for herein shall be made at the times, in the manner, and to the fullest extent provided by law.

DEAN HELLER  
Secretary of State

RENEE L. PARKER  
Chief Deputy  
Secretary of State

PAMELA RUCKEL  
Deputy Secretary  
for Southern Nevada

STATE OF NEVADA



OFFICE OF THE  
SECRETARY OF STATE

CHARLES E. MOORE  
Securities Administrator

SCOTT W. ANDERSON  
Deputy Secretary  
for Commercial Recordings

ELLICKHSU  
Deputy Secretary  
for Elections

Certified Copy

May 24, 2005

Job Number: C20050524-0187  
Reference Number:  
Expedite:  
Through Date:

The undersigned filing officer hereby certifies that the attached copies are true and exact copies of all requested statements and related subsequent documentation filed with the Secretary of State's Office, Commercial Recordings Division listed on the attached report.

Document Number(s)	Description	Number of Pages
00000203434-46	Articles of Incorporation	2 Pages/1 Copies

Respectfully,

Handwritten signature of Dean Heller in cursive.

DEAN HELLER  
Secretary of State

By

Handwritten signature of Kamlesh Bhardwaj in cursive.

Certification Clerk



Commercial Recording Division  
202 N. Carson Street  
Carson City, Nevada 89701-4069  
Telephone (775) 684-5708  
Fax (775) 684-7138

SECRETARY OF STATE



**CERTIFICATE OF EXISTENCE  
WITH STATUS IN GOOD STANDING**

I, DEAN HELLER, the duly elected and qualified Nevada Secretary of State, do hereby certify that I am, by the laws of said State, the custodian of the records relating to filings by corporations, non-profit corporations, corporation soles, limited-liability companies, limited partnerships, limited-liability partnerships and business trusts pursuant to Title 7 of the Nevada Revised Statutes which are either presently in a status of good standing or were in good standing for a time period subsequent of 1976 and am the proper officer to execute this certificate.

I further certify that the records of the Nevada Secretary of State, at the date of this certificate, evidence, **PERKINS MOUNTAIN WATER COMPANY**, as a corporation duly organized under the laws of Nevada and existing under and by virtue of the laws of the State of Nevada since May 24, 2005, and is in good standing in this state.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Great Seal of State, at my office on May 24, 2005.



*Dean Heller*

DEAN HELLER  
Secretary of State

By

*Stacey Rots*  
Certification Clerk

SECRETARY OF STATE



**CORPORATE CHARTER**

I, DEAN HELLER, the duly elected and qualified Nevada Secretary of State, do hereby certify that PERKINS MOUNTAIN WATER COMPANY, did on May 24, 2005, file in this office the original Articles of Incorporation; that said Articles of Incorporation are now on file and of record in the office of the Secretary of State of the State of Nevada, and further, that said Articles contain all the provisions required by the law of said State of Nevada.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Great Seal of State, at my office on May 24, 2005.



*Dean Heller*

DEAN HELLER  
Secretary of State

By

*Kambosh Bhedwaj*

Certification Clerk

G

BYLAWS

OF

PERKINS MOUNTAIN WATER COMPANY  
a Nevada Corporation

ARTICLE I  
OFFICES

Section 1. Registered Office. The registered office shall be maintained at such place as the Board of Directors shall determine from time to time.

Section 2. Other Offices. The corporation may also have offices at such other places both within and without the State of Nevada as the Board of Directors may from time to time determine or the business of the corporation may require.

ARTICLE II  
STOCKHOLDERS

Section 1. Meetings. All meetings of stockholders, for any purpose, may be held at such time and place, within or without the State of Nevada, as shall be stated in the notice of meeting or in a duly executed waiver of notice thereof.

Section 2. Annual Meeting. The annual meeting of stockholders shall be held on the day and at the time set by the Board of Directors, if not a legal holiday, and if a legal holiday, then on the next regular business day following, at the hour set forth in the notice thereof. At such annual meeting, the stockholders shall elect, by a plurality vote, a Board of Directors and transact such other business as may properly be brought before the meeting. Notwithstanding the foregoing, in the event that the Directors are elected by written consent of the stockholders in accordance with Article II, Section 11 of these Bylaws and Nevada Revised Statutes ("NRS") Section 78.320, an annual meeting of stockholders shall not be required to be called or held for such year, but the directors may call and notice an annual meeting for any other purpose or purposes.

Section 3. Notice of Annual Meeting. Written notice of the annual meeting shall be given to each stockholder entitled to vote thereat at least ten (10) days but not more than sixty (60) days before the date of the meeting. The notice must state the purpose or purposes for which the meeting is called and the time when, and the place where, the meeting is to be held.

Section 4. List of Stockholders. The officer who has charge of the stock ledger of the corporation shall prepare and make a complete list of the stockholders entitled to vote for the election of directors, arranged in alphabetical order, showing the address of and the number of shares registered in the name of each stockholder, and the list shall be produced and kept at the time and place of election during the whole time thereof and be subject to the inspection of any stockholder who may be present.

Section 5. Special Meetings. Special meetings of the stockholders, for any purpose or purposes, unless otherwise prescribed by statute or by the Articles of Incorporation, may be called by the President and shall be called by the President or Secretary at the request, in writing, of a majority of the Board of Directors, or at the request, in writing, of stockholders entitled to exercise a majority of the voting power of the

corporation. Such request shall state the purpose or purposes of the proposed meeting.

Section 6. Notice of Special Meetings. Written notice of a special meeting of stockholders stating the purpose or purposes for which the meeting is called, time when, and place where, the meeting will be held, shall be given to each stockholder entitled to vote thereat, at least ten (10) days but not more than sixty (60) days before the date fixed for the meeting.

Section 7. Limitation on Business. Business transacted at any special meeting of stockholders shall be limited to the purposes stated in the notice.

Section 8. Quorum. Stockholders of the corporation holding at least a majority of the voting power of the corporation, present in person or represented by proxy, regardless of whether the proxy has authority to vote on all matters, shall constitute a quorum at all meetings of the stockholders for the transaction of business except as otherwise provided by statute or by the Articles of Incorporation. If, however, a quorum shall not be present or represented at any meeting of the stockholders, the stockholders entitled to vote thereat, present in person or represented by proxy, shall have the power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present or represented. At any adjourned meeting at which a quorum shall be present or represented, any business may be transacted which might have been transacted at the meeting as originally noticed.

Section 9. Voting Required for Action. When a quorum is present at any meeting, the stockholders holding a majority of the voting power of the corporation present in person or represented by proxy at such meeting shall decide any question brought before such meeting, unless the question is one upon which by express provision of the statutes or of the Articles of Incorporation, the Bylaws of the corporation, or an express agreement in writing, a different vote is required, in which case such express provision shall govern and control the decision of such question.. Voting for directors shall be in accordance with Article II, Section 2, of these Bylaws.

Section 10. Proxies. Except as otherwise provided in the Articles of Incorporation or in a Certificate of Designation or similar document filed with the Secretary of State of Nevada in accordance with NRS Section 78.1955, each stockholder shall, at every meeting of the stockholders be entitled to one (1) vote in person or by proxy for each share of stock having voting power held by such stockholder, but no proxy shall be valid after the expiration of six (6) months from the date of its execution unless (a) coupled with an interest, or (b) the person executing it specifies therein the length of time for which it is to be continued in force, which in no case shall exceed seven (7) years from the date of its execution.

Section 11. Action by Consent. Any action required or permitted to be taken at a meeting of the stockholders may be taken without a meeting if, before or after the action, a written consent thereto is signed by stockholders holding at least a majority of the voting power, except that if any greater proportion of voting power is required for such action at a meeting, then such greater proportion of written consents shall be required. In no instance where action is authorized by written consent, need a meeting of stockholders be called or noticed.

Section 12. Telephonic Meetings. Stockholders may participate in a meeting of stockholders by means of a telephone conference or similar method of communication by which all persons participating in the meeting can hear one another. Participation in such meeting shall constitute presence in person at the meeting.

Section 13. Closing of Transfer Books/Record Date. The Board of Directors may close the stock transfer books of the corporation for a period not exceeding sixty (60) days preceding the date of any meeting

of stockholders or the date for payment of any dividend or the date when any change or conversion or exchange of capital stock shall go into effect or for a period not exceeding sixty (60) days in connection with obtaining the consent of stockholders for any purpose. In lieu of closing the stock transfer books, the Board of Directors may fix in advance a record date, not more than sixty (60) days or less than ten (10) days before the date of any meeting of stockholders, or the date for the payment of any dividend, or the date for the allotment of rights, or the date when any change or conversion or exchange of capital stock shall go into effect, or a date in connection with obtaining such consent, as a record date for the determination of the stockholders entitled to notice of, and to vote at, any such meeting, and any adjournment thereof, or entitled to receive payment of any such dividend, or to any such allotment of rights, or to exercise the rights in respect of any such change, conversion or exchange of capital stock, or to give such consent, and in such case such stockholders and only such stockholders as shall be stockholders of record on the date so fixed shall be entitled to such notice of, and to vote at, such meeting and any adjournment thereof, or to receive payment of such dividend, or to receive such allotment of rights or to exercise such rights, or to give such consent, as the case may be, notwithstanding any transfer of any stock on the books of the corporation after any such record date fixed as aforesaid.

Section 14. Registered Stockholders. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner, and the corporation shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Nevada.

### ARTICLE III DIRECTORS

Section 1. Number. The number of Directors which shall constitute the whole Board shall be fixed by the stockholders of the corporation at any regular or special meeting of the stockholders in accordance with the Articles of Incorporation, provided, however that the number of Directors shall be at least one (1) and no more than five (5). The Directors shall either be elected by written consent in accordance with Article II, Section 11 of these Bylaws and NRS Section 78.320 or at the annual meeting of the stockholders, except as provided in Sections 2 and 3 of this Article, and each Director elected shall hold office until his successor is elected and qualified. Directors need not be stockholders. If, for any reason, Directors are not elected pursuant to NRS Section 78.320 or at the annual meeting of the stockholders, they may be elected at a special meeting of the stockholders called and held for that purpose.

Section 2. Vacancies. Vacancies and newly created directorships resulting from any increase in the authorized number of Directors may be filled by a majority of the Directors then in office, though less than a quorum, and the Directors so chosen shall hold office until their successors are duly elected and shall qualify, unless sooner displaced.

Section 3. Removal by Stockholders. Any Director or one or more of the incumbent Directors of the corporation may be removed from office by a vote of stockholders representing not less than two-thirds of the voting power of the issued and outstanding stock entitled to voting power, in which event the vacancy or vacancies so created shall be filled by a majority of the remaining Directors, though less than a quorum, as provided in Section 2 of this Article.

Section 4. Management of Business. The business of the corporation shall be managed by its Board of Directors which may exercise all such powers of the corporation and do all such lawful acts and things as are not by statute or by the Articles of Incorporation or by these Bylaws directed or required to be exercised or done by the stockholders.

Section 5. Meetings. The Board of Directors of the corporation may hold meetings, both regular and special, either within or without the State of Nevada.

Section 6. Annual Meeting. The first meeting of each newly elected Board of Directors shall be held immediately following, and at the time and place as, the annual meeting of stockholders or, if not so held, at such time and place as shall be fixed by the vote of the stockholders at the annual meeting. In the event that the first meeting of directors is not held following the annual meeting of stockholders and the stockholders fail to fix the time or place of such first meeting of the newly elected Board of Directors, or in the event such meeting is not held at the time and place so fixed by the stockholders, the meeting may be held at such time and place as shall be specified in a notice given as hereinafter provided for special meetings of the Board of Directors or as shall be specified in a written waiver signed by all of the Directors.

Section 7. Regular Meetings. Regular meetings of the Board of Directors may be held without notice at such time and at such place as from time to time shall be determined by the Board.

Section 8. Special Meetings. Special meetings of the Board may be called by the President on two (2) days' written notice to each Director. Special meetings shall be called by the President or Secretary in like manner and on like notice on the written request of a majority of the Directors.

Section 9. Quorum and Voting. A majority of the Directors then in office, at a meeting duly assembled, shall constitute a quorum for the transaction of business, and the act of the Directors holding a majority of the voting power of the Directors, present at any meeting at which there is a quorum, shall be the act of the Board of Directors except as may be otherwise specifically provided by statute or by the Articles of Incorporation. If a quorum shall not be present at any meeting of the Board of Directors, the Directors present may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present.

Section 10. Meetings by Consent. Unless otherwise restricted by the Articles of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting if, before or after the action, a written consent thereto is signed by all members of the Board or of such committee, as the case may be.

Section 11. Telephonic Meetings. Members of the Board of Directors or any committee designated by the Board of Directors may participate in a meeting of the Board of Directors or committee by means of a telephone conference system or similar method of communication by which all persons participating in the meeting can hear one another. Participation in such meeting constitutes presence in person at such meeting.

Section 12. Committees. The Board of Directors, by resolution or as set forth in these Bylaws, may designate one (1) or more committees, which, to the extent provided in such resolution or in these Bylaws, shall have and may exercise the powers of the Board of Directors in the management of the business and affairs of the corporation. Each committee must include at least one Director. The Board of Directors may appoint natural persons who are not Directors to serve on any committee. Each committee must have the name or names as may be designated in these Bylaws or as may be determined from time to time by resolution adopted by the Board of Directors. Each committee shall keep regular minutes of its meetings and report the same to the Board of Directors as and when required.

Section 13. Compensation. The Directors may be paid their expenses, if any, of attendance at

each meeting of the Board of Directors and may be paid a fixed sum for attendance at each meeting of the Board of Directors, as the Board of Directors may determine from time to time by resolution. No such payment shall preclude any Director from serving the corporation in any other capacity and receiving compensation therefor. Members of special or standing committees may be allowed like compensation for attending committee meetings.

#### ARTICLE IV NOTICES

Section 1. General. Notices to Directors and stockholders shall be in writing and delivered personally or mailed to the Directors or stockholders at their addresses appearing on the books of the corporation. Notice by mail shall be deemed to be given at the time when the same shall be mailed. Notice to Directors may also be given by telegram or by other media, including electronic mail, if the sending of notice by such other media may be verified or confirmed.

Section 2. Waiver of Notice. Whenever any notice is required to be given under the provisions of the statutes or of the Articles of Incorporation or of these Bylaws, a waiver thereof in writing, signed by the person or persons entitled to said notice, whether before or after the time stated therein, shall be deemed equivalent thereto.

#### ARTICLE V OFFICERS

Section 1. General. The officers of the corporation shall be chosen by the Board of Directors and shall be a President, a Secretary and a Treasurer. The Board of Directors may also choose a Chairman of the Board, Chief Executive Officer, Chief Operating Officer, Chief Financial Officer, Vice Presidents (including Executive or Assistant Vice Presidents) and one (1) or more Assistant Secretaries and Assistant Treasurers. Two (2) or more offices may be held by the same person.

Section 2. Appointment. The Board of Directors shall appoint the officers of the corporation who shall hold office at the pleasure of the Board of Directors. No officer need be a member of the Board of Directors.

Section 3. Other Officers. The Board of Directors may appoint other officers and agents as it shall deem necessary who shall hold their positions for such terms and exercise such powers and perform such duties as shall be determined from time to time by the Board. Any such officer or agent may be removed at any time, with or without cause, by the Board of Directors unless otherwise agreed in writing.

Section 4. Compensation. The salaries and other compensation of all officers of the corporation shall be fixed by the Board of Directors unless otherwise agreed in writing.

Section 5. Duties of President. The President shall be the chief executive officer of the corporation and shall have general and active management of the business of the corporation and shall see that all orders and resolutions of the Board of Directors are carried into effect. He shall vote or execute, in the name of the corporation, proxies for any securities pursuant to which the corporation has voting rights, unless some other person is designated by the Board of Directors to execute such proxies.

Section 6. Duties of Vice President. The Vice President, if any, or if there shall be more than one (1), the Vice Presidents, in the order or seniority determined by the Board of Directors, shall, in the

absence or disability of the President, perform the duties and exercise the powers of the President and shall perform such other duties and have such other powers as the Board of Directors may prescribe from time to time.

Section 7. Duties of Secretary. The Secretary shall attend all meetings of the Board of Directors and all meetings of the stockholders and record all the proceedings of the meetings of the corporation and of the Board of Directors in a book to be kept for that purpose and shall perform like duties for the standing committees when required. He shall give or cause to be given notice of all meetings of the stockholders and special meetings of the Board of Directors and shall perform such other duties as may be prescribed by the Board of Directors or the President, under whose supervision he shall be.

Section 8. Duties of Assistant Secretaries. The Assistant Secretary, or if there be more than one (1), the Assistant Secretaries, in the order of seniority determined by the Board of Directors, shall, in the absence or disability of the Secretary, perform the duties and exercise the powers of the Secretary and shall perform such other duties and have such other powers as the Board of Directors may from time to time prescribe.

Section 9. Duties of Treasurer. The Treasurer shall be the chief financial officer of the corporation and shall have the custody of the corporate funds and securities and shall keep full and accurate accounts of receipts and disbursements in books belonging to the corporation and shall deposit all moneys and other valuable effects in the name and to the credit of the corporation in such depositories as may be designated by the Board of Directors. He shall disburse the funds of the corporation as may be ordered by the Board of Directors, taking proper vouchers for such disbursements, and shall render to the President and the Board of Directors, at its regular meetings, or when the Board of Directors so requires, an account of all his transactions as Treasurer and of the financial condition of the corporation. The Treasurer is authorized to execute and file on behalf of the corporation all federal tax returns and all elections under federal tax laws. If required by the Board of Directors, he shall give the corporation a bond in such sum and with such surety or sureties as shall be satisfactory to the Board of Directors for the faithful performance of the duties of his office and for the restoration to the corporation, in case of his death, resignation, retirement or removal from office, of all books, papers, vouchers, money and other property of whatever kind in his possession or under his control, belonging to the corporation.

Section 10. Duties of Assistant Treasurers. The Assistant Treasurer, or if there shall be more than one (1), the Assistant Treasurers, in the order of seniority determined by the Board of Directors, shall, in the absence or disability of the Treasurer, perform the duties and exercise the powers of the Treasurer and shall perform such other duties and have such other powers as the Board of Directors may from time to time prescribe. The Assistant Treasurer is also authorized to execute and file on behalf of the corporation all federal tax returns and all elections under federal tax laws.

#### ARTICLE VI CERTIFICATES OF STOCK

Section 1. Certificates. Every holder of stock in the corporation shall be entitled to have a certificate signed in the name of the corporation by the President and the Treasurer or the Secretary of the corporation, certifying the number of shares owned by him in the corporation. When such certificate is signed (a) by a transfer agent or an assistant transfer agent or (b) by a transfer clerk acting on behalf of the corporation and registrar, the signature of any such President, Treasurer or Secretary may be facsimile. If the corporation shall be authorized to issue more than one class of stock or more than one series of any class of stock, the voting powers, qualifications, limitations, restrictions, designations, preferences and relative rights shall be set

forth in full or summarized on the face or back of the certificate which the corporation shall issue to represent such class or series of stock: provided, however, that except as otherwise provided by applicable law, in lieu of the foregoing requirements, there may be set forth on the face or back of a certificate a statement directing the stockholder to a specified officer or agent of the corporation who will furnish such a summary or description without charge upon written request by any stockholder. In case any officer or officers who shall have signed, or whose facsimile signature or signatures shall have been used on, any such certificate or certificates shall cease to be such officer or officers of the corporation, whether because of death, resignation or otherwise, before such certificate or certificates have been delivered by the corporation, such certificate or certificates may nevertheless be adopted by the corporation and be issued and delivered as though the person or persons who signed such certificate or certificates, or whose facsimile signature or signatures have been used thereon, had not ceased to be such officer or officers of the corporation.

Section 2. Lost Certificates. The Board of Directors may direct a new certificate or certificates to be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost or destroyed. When authorizing such issuance of a new certificate or certificates, the Board of Directors may, in its discretion and as a condition precedent to the issuance thereof, require the owner of such lost or destroyed certificate or certificates, or his legal representative, to advertise the same in such manner as it shall require and to give the corporation a bond in such sum as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost or destroyed.

#### ARTICLE VII GENERAL PROVISIONS

Section 1. Dividends. Dividends upon the capital stock of the corporation may be declared by the Board of Directors out of funds legally available therefor at any regular or special meeting. Dividends may be paid in cash, in property, or in shares of the capital stock of the corporation.

Section 2. Reserves. Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends, such sum or sums as the Board of Directors from time to time, in its absolute discretion, thinks proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purpose as the Directors shall think conducive to the interest of the corporation, and the Directors may modify or abolish any such reserve in the manner in which it was created.

Section 3. Checks. All checks or demands for money and notes of the corporation shall be signed by such officer or officers or such other person or persons as the Board of Directors may from time to time designate.

Section 4. Fiscal Year. The fiscal year of the corporation shall be fixed by resolution of the Board of Directors.

Section 5. Seal. The corporate seal, if there be one, shall have inscribed thereon the words, "State of Nevada".

Section 6. Captions. Captions used in these Bylaws are for convenience only and are not a part of these Bylaws and shall not be deemed to limit or alter any provisions hereof and shall not be deemed relevant in construing these Bylaws.

Section 7. Interpretations. To the extent permitted by the context in which used, words in the singular number shall include the plural, words in the masculine gender shall include the feminine and neuter, and vice versa.

ARTICLE VIII  
AMENDMENTS

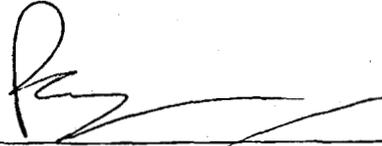
Section 1. Amendments. These Bylaws may be amended or repealed at any regular meeting of the stockholders or of the Board of Directors, or at any special meeting of the stockholders or of the Board of Directors, if notice of such alteration or repeal be contained in the notice of such special meeting.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

**CERTIFICATION OF ADOPTION**

I certify that the foregoing Bylaws have been adopted as the Bylaws of Perkins Mountain Water Company by its Board of Directors by written consent, in lieu of first meeting, and that these Bylaws, as of the date of this Certificate, have not been repealed, altered, amended, restated, or superseded, and remain in full force and effect.

Dated: May 24, 2005.

  
\_\_\_\_\_  
Paul Huygens, Secretary

H

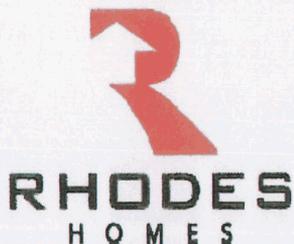
Exhibit H

See three-ring notebook titled "Rhodes Homes Arizona Golden Valley South  
Engineering Report"

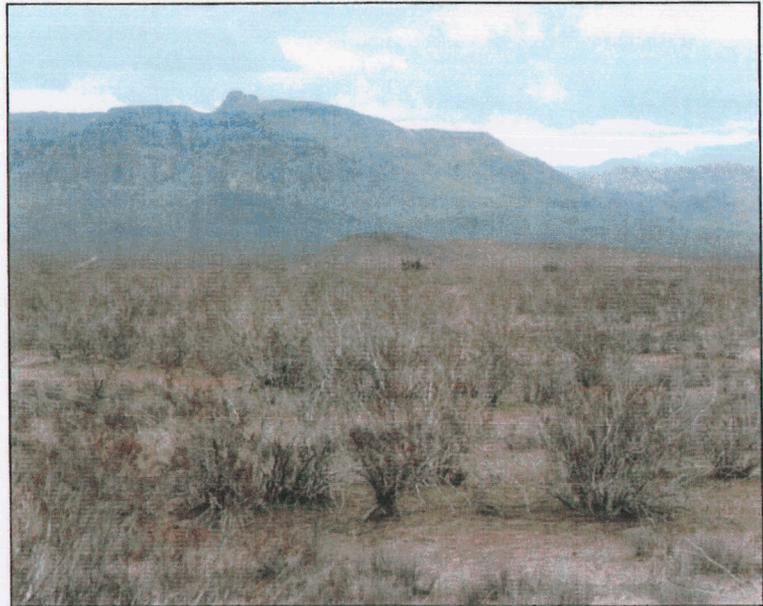


# RHODES HOMES ARIZONA GOLDEN VALLEY SOUTH Engineering Report

*Prepared for:*



2215 Hualapai Mountain Road,  
Suite H  
Kingman, Arizona 86401



*Prepared by:*



A Stanley Group Company  
Engineering, Environmental and Construction Services - Worldwide

**MAY, 2005**

5820 S. Eastern Avenue, Suite 200, Las Vegas, NV 89119

# Engineering Report

---

Golden Valley South

**Rhodes Homes, Arizona**  
Kingman, Arizona

Respectfully submitted,

Stanley Consultants, Inc.

Prepared by: David Brown / JRB

Reviewed by: David Hoo

Approved by: David J. Frewen

May, 2005



**Stanley Consultants** INC.

A Stanley Group Company  
Engineering, Environmental and Construction Services - Worldwide

## Table of Contents

Executive Summary .....	i
Section 1 - Introduction.....	1-1
Section 2 - Overview.....	2-1
Section 3 - Existing Constraints.....	3-1
Section 4 - Hydrology .....	4-1
Section 5 - Water Infrastructure.....	5-1
Section 6 - Traffic Infrastructure .....	6-1
Section 7 - Wastewater Infrastructure.....	7-1

# EXECUTIVE SUMMARY

## Executive Summary

### **Executive Summary**

A *Preliminary Engineering Study* of approximately 5,760 acres of open rangeland property located west-southwest of the City of Kingman, Arizona, was performed by Stanley Consultants, Inc. The site occupies portions of 9 sections south of Shinarump Road, and a quarter section north of Shinarump Road. The site is also located south of US Highway 68 and west of Interstate Highway 40.

Survey ground control points were established and aerial mapping was performed to establish the horizontal and vertical control with 2-foot contours on the subject property.

An over-all area wide constraints map with off-site improvements was developed and is included with this report as a foldout map. (Refer to Rhodes 5800 Constraints Exhibit, located in Section 1.) This exhibit identifies the land ownerships, existing utilities, transportation elements and where the drainage features within or near the property as identified in the Constraints Exhibit.

Stanley Consultants Inc., is preparing an American Land Title Association (ALTA) survey for the property. The ALTA survey takes into account the known constraints and encumbrances on the property. The ALTA survey is also the first step toward development and subdividing the property. The certified ALTA survey is being transmitted to Rhodes Homes, separate from this Engineering Report.

It is the understanding that Rhodes Homes wishes to develop a project with smaller than the 5-acre lots the current RDA zoning designation allows. The only way to do this is to do a major General Plan Amendment through Mohave County unless the Client has the ability to obtain additional land contiguous to Kingman City limits. Once the Plan Amendment is approved, it is possible to submit concurrent Zoning Applications; Master

Site Plan; Planned Unit Development and Preliminary Plat Applications together through the process. However, each application will require a great deal of information such as traffic studies; infrastructure studies; and environmental studies.

### **Water/Waste Water**

This investigation includes research, analysis and development of conceptual approaches to water, wastewater and drainage infrastructure to consist of the layout of water and sewer alignments and layout of general drainage patterns and major facilities.

Preliminary investigation indicates that there is no existing water infrastructure, and the closest adjacent infrastructure is inadequate to support a municipal type water supply system. This is due to the fact that there has been limited development of water resources in the area to support the small scattered homes and small cattle operations. The "Golden Valley Improvement District #2" was created a number of years ago, but was never incorporated. Other than this, no water company has claimed the area for service. The Valley Pioneers Water Company lies to the north 3 miles, and currently has approximately 800 connections. The Walnut Creek Water Company lies two miles to the east, on the other side of a small mountain; it has approximately 200 connections.

There is currently one water well registered with the Arizona Department of Water Resources (ADWR) within the Golden Valley 5800 Property. This well belongs to the Valley Pioneers Water Company (VPWC), and is not currently set up for potable use. The well was drilled for mining water operations, and then purchased in 2004 by the VPWC to augment their services. There are an additional 4 wells as part of the purchase agreement between VPWC and Cypress Minerals lying to the north of the property. Although these wells have the potential for good flows (in excess of 1,000gpm), no existing well provides sufficient water quantity for a master planned development within or immediately adjacent to the property. As there has been no historic need to drill and equip a well for the quantities required of a master planned community within the boundaries of the Golden Valley 5800 project, a definitive conclusion as to groundwater quantity and quality adequate to support the planned project can not be made. However, Stanley Consultants believes that regional data and data from the nearby water companies' well fields indicate that it is feasible to develop the groundwater resources in the area in order to service the project with a municipal type water supply.

Errol L. Montgomery and Associates (EMA) has been hired directly by Rhodes Homes to develop ground water resources. The first deep aquifer well has been drilled and is in the final stages of testing at the date of this report.

Water quality investigations of the existing system with treatment and/or disinfection requirements yielded findings that the water quality of the area is relatively good. Dissolved solids (salt) were the most consistent concern, but this is typical of Arizona water. Fluoride, arsenic and radon levels are such that treatment may be necessary, but violations occur in less than one third of the wells in Golden Valley which indicated treatments via blending are possible. At this time, future water quality regulations for groundwater appear to be met by the local water company's well water, so it is expected that the only impact of these new regulations is increased sampling.

There are three primary ownership alternatives for the water system. First, the Valley Pioneers Water Company applies for, and expands their service to include the Golden Valley 5800 property. Second, the developer contracts with a private company or district to own and operate the water system; or third, the developer forms a company to own and operate the system.

There is currently no sewer collection system within the project limits. Due to the densities being considered for the area, and the lack of any nearby system to connect to, a waste water treatment plant (WWTP) will be necessary. Mohave County does not allow a septic system for lots of less than 1 acre in size, nor more than 5 connections to any individual system. The State of Arizona has stated emphatically that they will not approve a "store and haul" operation to one of the Kingman City plants. Other long term options were reviewed and discarded as impractical.

Once sewage is treated in a (WWTP), the effluent has to be disposed of. The effluent can be discharged to a receiving stream or it can be reclaimed for beneficial use. It is understood that the Golden Valley 5800 Project will be developed with golf courses, open space and parks that will make the development a "destination development" in Mohave County. As such, the use of reclaimed water to maintain these amenities is an attractive alternative. Using reclaimed water to maintain these facilities reduces the amount of ground water withdrawn from the local aquifer and provides a beneficial use for the effluent generated from the development. It will require pumping from the wastewater treatment plant (WWTP) to the points of use.

Using Bermuda grass for summer growth and over seeded with Rye grass for winter growth, we can estimate that green space in the Golden Valley 5800 parcels will consume reclaimed water at an annual average rate of 1.6 to 2.2 million gallons per year per acre of green space. Based on a typical 18-hole golf course using approximately 90 acres of turf, approximately 500 acre-feet per year of reclaimed water would be consumed. Data from a metro Phoenix golf course indicates an average daily reclaimed water use between 800,000 and 1,000,000 gallons per day. In general terms, irrigation use in this area of Golden Valley is projected to be similar to Phoenix metro use rates. Based upon early density numbers, the current effluent flow from the Golden Valley 5800 project would support the irrigation needs of 5 to 7 golf courses.

There are four primary ownership alternatives for the sewage system. They are first, the Valley Pioneers Water Company extends their service area to encompass the project, and includes waste water treatment as part of their service agreements; second, the developer contracts with a private company or special district to own and operate the sewage system; third, the developer forms their own company to own the system; or last, the developer can enter into separate ownership scenarios for the treatment plant and the collection system.

## **Drainage**

Drainage basins were delineated from the US Geological Survey Quad Maps. Areas outside the Quad map limits were extended to the drainage basin limits for the Lower Colorado – Lake Mead Hydrologic basin GIS coverage. Parcel areas with the upstream watershed areas were used to determine approximate runoff affecting the parcels. Sub basins were delineated to represent flood zones as determined by FEMA. The 100-year 24 hour storm was used. Runoff for the areas outside the project site was not calculated.

The investigations showed that there is a significantly large wash, Sacramento Wash, running through the project's western boundary with about 35,300 cfs of peak storm water flow. Three other washes, the Holy Moses, Cerbat and Thirteen Mile pass through the project. The Holy Moses splits into four distinct heads near Interstate 40, with approximately 89% of the flow continuing toward the site. Two of the Holy Moses diversions enter the east side of the project with 15,182 cfs. The development of this area should be reserved for golf courses or parkland green spaces, which are best suited for flood zones. The proposed project will require extensive drainage improvements with bridge crossings in order to accommodate the planned development.

## **Traffic**

With the exception of unpaved dirt roads, there is currently no surface transportation system within the limits of the property. Nearby AZTEC Road is paved to Shinarump Road and Shinarump Road is paved from Aztec Road to Interstate 40. Access into or out of the property is limited to three areas. Aztec Road is slated to be the primary entrance corridor from the north, with Colorado, Verde, and/or Bosque Roads being used to supplement peak travels. Shinarump Road has an existing interchange at Interstate 40, and will provide a primary corridor for travel into Kingman. Aquarius Drive will provide traffic flows out of the property to the south, and supplement access for Kingman traffic.

Per the area plans for the Western Area Council of Governments (WACOG) and the Arizona Department of Transportation (ADOT), there are no plans for the improvement of roadways or railways in the immediate area of the development.

Potential key to the success of this project may depend on either providing access to US Highway 68 and Interstate Highway 40, or the internal capture of the project generated traffic. In order to define internal capture, one should draw a line around the land area comprising this development. Trips which do not cross that line are referred to as *internal capture trips*. In order to accomplish this, trip attractors must be developed along with the trip generators. That is to say, along with the housing; work, retail and recreation destinations must be developed within the project boundary. This strategy will allow residents (homeowners) to stay within the project limits, and not make frequent regular trips into the greater Kingman area.

It is recommended that this project develop a grid style transportation network following the section line grid system. The recommendation is that major arterials with 120-foot cross sections should be developed on all township and range lines, arterials with 100-

foot cross sections should be developed on all section lines, and major collector roadways with 80-foot cross sections should be developed on all midsection lines. The network of collector and local roadways can then be developed as necessary to provide access to all trip generators and trip attractors. The intersection of all roadways with 100-foot or wider cross sections should be tapered (widened) to accommodate dual left turn lanes and dedicated right turn lanes as dictated by traffic study analysis. The need for turn lanes will be determined by placement of land use types. Alternative roadway alignments, dictated by a land plan, could be feasible provided equivalent volume and right of way issues are addressed.

Detailed information regarding the aforementioned are provided in the pertinent sections of the report.

# INTRODUCTION

## Section 1

### Introduction

#### INTRODUCTION

The purpose of this *Engineering Report* is to investigate the feasibility of developing the project's approximately 5800 acres of previously undeveloped cattle grazing rangeland by way of understanding the opportunities and the constraints of the property.

This report contains the results of an investigation of engineering issues and site analysis for existing conditions and future infrastructure alternatives of developing approximately 5800 acres south of U.S. Highway 68 and west of Interstate 40 in Golden Valley South Area, Mohave County, Arizona, hereafter called the "Project". The primary land use is of residential and/or commercial subdivisions.

The report is divided into the Overview, Existing Constraints, Hydrology, Water, Traffic/Transportation Infrastructure, and Wastewater Sections. The Overview section covers the site description, environmental setting and the site history. The Existing Constraints section identifies the land ownership information, existing utilities, transportation elements, the drainage features and the physical constraints of the Project. The Hydrology section discusses the existing drainage conditions and the future mitigations in conjunction with development. The Water section identifies the supply and demand issues and the alternatives for development. The Traffic Impact Analysis/Transportation Infrastructure section contains the transportation elements including the multimodal considerations. And, the Wastewater section identifies the supply and demand issues and the alternatives for development.

# OVERVIEW

## Section 2

### Overview

#### Site Description

The site consists of approximately 5760 acres of almost entirely undeveloped range land with access via a limited network of roads.

The location of the site is shown on Figure 2-1.

The site occupies portions of 10 sections covering a total of approximately 5760 acres.

#### Legal Description

The site consists of the following properties, all located in Mohave County, Arizona, located some 5 miles away from the southwest corner of the City of Kingman boundaries.

**Table 2-1 - Legal Description**

<b>Township/Range</b>	<b>Sections</b>
T21N R18W	SW¼ Sec. 34
T20N R18W	Section 2; except SE¼ of SE¼
T20N R18W	Section 3 with out parcels
T20N R18W	Section 4 with out parcels
T20N R18W	Section 8 with out parcels
T20N R18W	Section 9
T20N R18W	Section 10 with out parcels
T20N R18W	Section 11 with out parcels
T20N R18W	W¼ of Section 14
T20N R18W	Section 16



**Figure 2-1 – Golden Valley South**

The site includes all or portions of 10 sections located in two townships in the southern part of the area known as “Golden Valley, South”, in Mohave County, Arizona. The site is contiguous, with several “out parcels” lying within the site, ranging from 5 to 15 acres in size (refer to Figure 2-2). Total area of the site is approximately 5,760 acres.

Most of the Rhodes Golden Valley 5800 acres site is vacant open space. Some cattle grazing, mobile homes and “storage yard” uses are apparent. The site slopes gradually upwards toward the east and northeast toward the Cerbat Mountain. The land includes a few corrals and water tanks, foundations of old home sites and the detritus from dumping of building materials and similar refuse. The area is served by a limited network of roads. An Arizona Game & Fish shooting range is located in the eastern portion of Section 14. Other locations throughout the site, mostly in wash areas, sport-related debris (shell casings, etc.) were noted. A minor amount of scrap metal, including several old vehicles are scattered around the site.

Section 4 includes an old corral and the deteriorating hulk of an old mobile home. Several other areas include remnants of previous habitation or storage. All are in scrap condition now.

Overhead power runs through the site as a 230KV line, which is not available for development. Fiber optic cables exist on Shinarump, Aquarius, Sacramento and Centennial.

The site and surrounding area are shown on Figure 2-2. The “out parcels” are primarily owned by the City of Kingman; and were once proposed as sites for water wells, prior to the law change excluding the movement of water between basins.

**Adjacent Properties**

The properties immediately around the site are sparsely populated, primarily with mobile homes, or are totally undeveloped. As noted previously, an Arizona Game & Fish shooting range lies to the east. Adjacent to the shooting range are several wood and plaster, slab on grade homes with improved landscaping. The “Old Oatman Highway”, or US Highway 66 lies to the southeast, with Interstate Highway 40 being slightly farther. US Highway 68 lies some 5 miles to the north, with a connection to US Highway 93. Near to US Highway 68 lies an area of denser development, with a number of one acre parcels with homes and other improvements.

Although several communities have been mapped in the area, none have fully developed. The nearest, Sunrise Acres, lies 4 miles to the northwest, and consists of 1+ acre lots. The Bureau of Land Management BLM controls the majority of lands between the project and the City of Kingman.

**Table 2-2 - Climate**

Month	Average Daily Temperature °F		Average Total Precipitation (Inches)
	Daily Maximum°	Daily Minimum	
January	54.3°	31.4°	1.23"
February	58.8	34.7	1.10
March	63.2	38.4	1.31
April	70.9	44.5	.47
May	80.3	53.0	.31
June	91.1	62.6	.19
July	95.6	69.3	.98
August	94.0	67.8	1.41
September	87.8	61.3	.66
October	76.8	49.6	.81
November	63.1	38.3	.71
December	55.2	31.9	.82
Year	74.3°	48.6°	10.0"

Based on a 30 year average (1971-2000)

Record High: 111° F (Tied on July 3, 1967 & July 10, 2003)

Record Low: 4° F (January 29, 1979)

Average Total Snow, Sleet and Hail Annually: 1.5"

Mean Relative Humidity: 39% at 6 A.M., 27% at 6 P.M.

Mean Number of Days with maximums 90° & above: 93  
Mean Number of Days with minimums 32° & below: 58  
Mean Heating Degree Days: 3224  
Mean Cooling Degree Days: 1778  
(Source NOAA)

### **Topography**

Local topography varies from lows of approximately 2,500 ft. in elevation along the west and southwest portions of the site to approximately 2,800 ft. in elevation on the easterly edge of the site.

Drainage from the site is generally to the west and southwest towards the Sacramento Wash via the Holy Moses, Cerbat and Thirteen Mile washes as well as a network of unnamed washes and surface drainage channels.

### **Geology and Soils**

Based on USDA Soil Conservation Service mapping for the area, the dominant soil type in the site area is most likely the Bucklebar sandy loam. This is a deep to moderately deep well to moderately well drained coarse grained soil with moderate hydraulic conductivity and a typical depth to the water table of greater than six feet. These soils reportedly do not meet the requirements for hydric soil.

The site and surrounding area are underlain by Precambrian age metamorphic rocks, reportedly orthogneiss and paragneiss. Due to the considerable expanse of the site and variation in the topography of the site from east to west, depth to bedrock would be expected to vary greatly beneath the site.

### **Hydrogeology**

According to the Arizona Department of Water Resources (ADWR), basin and range aquifers are generally the principal sources of ground water in the site area. These aquifers are present in alluvium-filled basins interspersed between ranges of northwest to southeast trending mountains in the northwest portion of Arizona. The site is located within the Sacramento Basin.

Chromium has reportedly been detected in several of the water production wells operated by the City of Kingman in the airport area. In 1982, eight of ten known wells drilled in the airport area contained chromium in excess of the maximum contaminant level of .05 milligrams per liter. In 1992, the maximum contaminant level for chromium was raised to .10 milligrams per liter; all of the water sample results for the City of Kingman's airport area production wells were then under the new maximum contaminant level for chromium. Prior water quality studies have reported an increase in chromium below a depth of about 1,000 feet.

The Sacramento Basin is characterized by fill sediments ranging from 2,000 to 6,000 ft., in thickness. The fill can be separated into three distinct units: young, alluvium, intermediate, alluvium and older alluvium.

The majority of wells used by individuals for domestic and agricultural applications are planed in the young alluvium, or high intermediate alluvium. Production wells will need to be placed into the older alluvium for the project.

## Site History

Review of historical information indicates that past site uses were most likely similar or identical to current site uses.

The Kingman area was originally settled in the 1880's. The railroad was apparently constructed in the area at approximately that same time (Kingman was reportedly a railroad siding). U.S. Highway 66 was apparently constructed in the area during the 1920's. An airport was apparently present at the current airport site during the 1920's as well.

The City of Kingman has been the county seat of Mohave County since 1887. Throughout much of its history the mining of gold, silver, copper, and later molybdenum was a mainstay of the Kingman economy. During the early days, one of Kingman's most notable residents, the western actor Andy Devine, was raised in Kingman. His parents owned, ran, and lived in the Beale Hotel on Front Street, later renamed Andy Devine Avenue.

The construction of Boulder Dam (later renamed Hoover Dam) and the highway to the dam in the 1930's, included the establishment of a major Air Corps gunnery school at the airport during World War II, and construction of Davis Dam following the war, all provided new residents and employment. Incorporation in 1952 brought road paving, sidewalks, street lights, a municipal water system and City parks. The boom in rural subdivisions in the 1960's, mostly purchased and settled by retirees, and the start of manufacturing and distribution in the late 1960's, brought on a period of tremendous growth.

Following the closing of the copper mines in the late 1970's, Kingman's economy began to diversify. Recently, Kingman has become a regional trade, service and distribution center for northwestern Arizona. Its strategic location relative to Los Angeles, Las Vegas, Phoenix, Laughlin, and the Grand Canyon has made tourism, manufacturing and distribution leading industries.

Favorable Arizona tax rates, Interstate 40, the Burlington Northern & Santa Fe Railroad mainline, and the proximity to the California market makes Kingman a prime site for industries and distributors. The Kingman Airport Industrial Park, with reasonable land costs, is attracting the attention of manufacturers and distributors who wish to establish facilities to serve the western states. Kingman's high-quality affordable housing, the comparatively low-cost of living, and the pleasant year round weather are just a few of the positive factors that have attracted new residents. – *City of Kingman 2004-2005 Community Prospectus*.

**EXISTING  
CONSTRAINTS**

## Existing Constraints

### Existing Constraints

An over-all area wide constraints map with off-site improvements was developed and included as a foldout map at the end of this chapter. (Refer to Rhodes Golden Valley 5800 Constraints Exhibit.) This exhibit identifies relevant land ownerships, existing utilities, transportation elements and the drainage features within or near the project. Existing zoning for the project is generally 1 to 36 acres per lot, with the exception of APN 306-63-008 in the southwest quarter of T.21N, R.18W, Section 34, which is inside the Golden Valley Planning Area and is zoned AR 36A (Agricultural-Residential – Minimum lot size is 36 Acres). The General Land Plan has this area planned as an Urban Development Area.

#### Land Ownership

The land in the project vicinity is privately owned, with many of the sections having been subdivided, but not constructed. All adjacent land owners have not been identified as this area does not have a significant mix of public and private land owners.

#### Existing Utilities

**Existing Water Facilities**—The project lies outside of the Kingman City Service Boundary and south of the Golden Valley Improvement District #1. Existing development in the area relies upon individual wells. The Walnut Creek Water Company services a community east of Section 12. The Valley Pioneers Water Company (800 connections; assured water supply) lies to the north of Redwall Drive.

**Existing Water Wells**– A single well lies at the northwest corner of Section 4 (Well #5), and was used to service a mine lying 5+ miles to the west. This well is non-potable, but has been purchased by the Valley Pioneers Water Company (VPWC) which has plans to retrofit to potable use. There are several private use, small diameter wells within the project boundary. Several municipal wells (Golden Valley Improvement District #1 and (VPWC) lie to the north and west of the project.

**Existing Power Substations**- Per phone conversation with Mike Gibelyou of Unisource Energy, there is currently one substation on the west side of the Jaguar alignment, on the Zora/Bali Hi intersection. A new substation has been proposed northwest of the project site to alleviate capacity issues, but was not intended for the density of this development. Unisource Energy is willing to work with developers to serve the development needs.

**Existing Sewer Facilities**–The existing development in and around the project area are served by septic systems. In addition, a sewage treatment plant has been constructed for the State Prison, approximately six miles south of the project. . Because the prison is under construction, definitive information regarding the capacity of the system is not readily available. Preliminary information shows the facility as a lagoon to handle the low flow characteristics of the prison.

**Existing Gas Line**– Gas service in the Kingman/Golden Valley area is provided by Unisource Energy Services using El Paso Natural Gas and Transwestern Pipeline as suppliers. Both suppliers have transmission pipelines on the west side of Interstate 40 which cross under Interstate 40 about 2 miles east of the southern project limits. There appear to be two gas valve yards existing in T.20N, R.18W, Section 34. It appears that Unisource has the same 5 year recapture agreement policy in place for Golden Valley as is in place for other master planned developments in the County, however this is unconfirmed at this time.

**Existing Power Transmission Lines**– An existing 230kv transmission line transects the northern portion of the project. It serves Prescott Arizona from the Davis Dam. A usable 69kv transmission line exists about ½ mile south of the southeast project corner. Another 230kv transmission line exists about 1 ½ miles farther south connecting to the Griffith Power Plant.

**Fire protection services**- This entire project lies within the service area of the Golden Valley Fire Department, which has two stations. Station 1 is located at 3327 North Mayer Road, and Station 2 is located at 749 Egar Road, both in Golden Valley, Arizona 86413. The site is serviced by Station 1; but lies outside of the UFC5 code area for insurance purposes (more than 5 miles from nearest station).

Police services for the project area are provided by the Mohave County Sheriff Office located at 600 West Beale Street, Kingman, Arizona 86401 (928) 753-0753.

***Waste services are provided by contract with either:***

Waste Management	Westside Disposal
3250 Gatlin	PO Box 10129
Golden Valley, AZ 86413	Golden Valley, AZ 86413
(928) 718-4900	(928) 565-9369

**Existing Black Mesa Coal-Slurry Pipeline (underground)** . - Per the Assessors Maps, an easement runs on the north side of T.21N, R.18W, Section 30, turns north 45 degrees to the northeast corner of Section 16 and along the north side of Sections 15, 14, and 13, then continues on the same alignment to US Highway 93, parallels US Highway 93 for about 1 ½ miles where it crosses US Highway 93 and enters Kingman.

**Transportation Elements**

**Existing Highways** – Interstate Highway 40 is a fully controlled four lane divided highway. Access is granted only through ADOT and FHWA approval at grade separated locations (traffic interchanges). Old State Route 66 is a two lane facility near the project which does not have access control, driveways are permitted through ADOT. State Route 68 is an undivided five lane facility near the project limits and becomes a divided facility several miles west of the project. The facility is not access controlled, with driveways and intersections permitted through ADOT. Shinarump Road is Mohave County Route 223.

**Railroad Tracks** – The Burlington "Northern & Santa Fe Railroad parallels the east side of Interstate Highway 40.

**Existing Unpaved Roads** – While not a constraint, the unpaved roads are not maintained and provide the only means of access through the project site.

**Flood Zones**

Special Flood Hazard Areas exists within the project location and they are shown with blue shading in the Constraints Map. (Reference FEMA Flood Insurance Maps)

- This poses a major constraint to development
- As does 404 permitting in washes

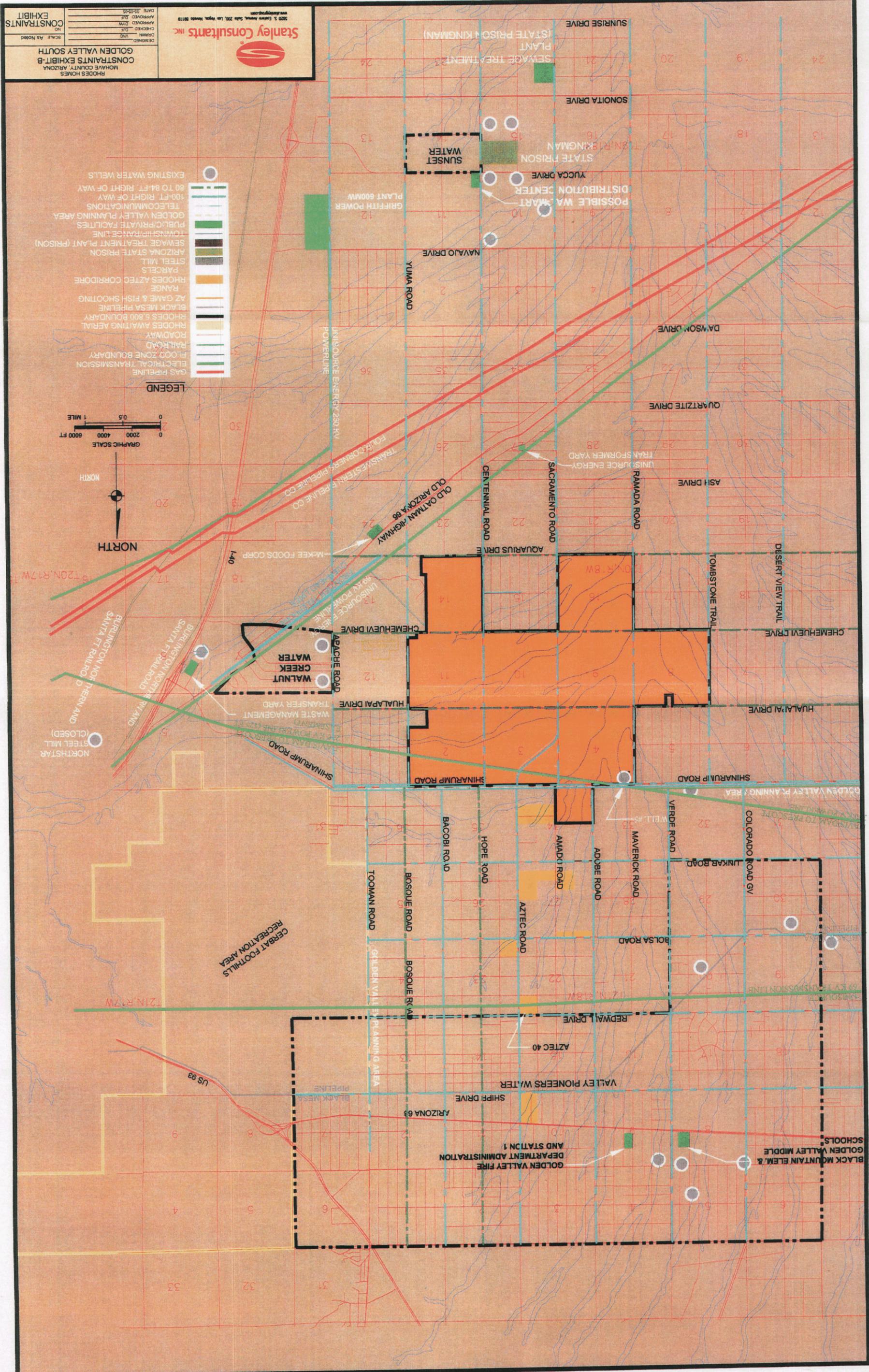
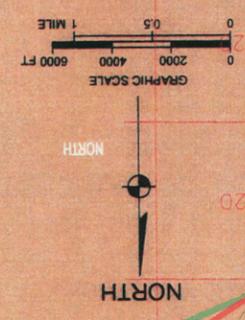


**Stanley Consultants Inc.**  
 5205 S. Central Avenue, Suite 200, Las Vegas, Nevada 89115  
 www.stanleyconsultants.com

**CONTRACT NO.** \_\_\_\_\_  
**DATE:** 12/22/05  
**APPROVED BY:** \_\_\_\_\_  
**DESIGNED BY:** \_\_\_\_\_  
**CHECKED BY:** \_\_\_\_\_  
**SCALE:** As Noted

**CONTRACTS EXHIBIT-B**  
**GOLDEN VALLEY SOUTH**  
**MOHAVE COUNTY, ARIZONA**  
**RHODES HOMES**

- LEGEND**
- EXISTING WATER WELLS
  - 80 TO 94-FT. RIGHT OF WAY
  - 100-FT. RIGHT OF WAY
  - TELECOMMUNICATIONS
  - GOLDEN VALLEY PLANNING AREA
  - PUBLIC/PRIVATE FACILITIES
  - TOWNSHIP/RANGE LINE
  - SEWAGE TREATMENT PLANT (PRISON)
  - ARIZONA STATE PRISON
  - STEEL MILL
  - PARCELS
  - RHODES AZTEC CORRIDORE
  - RANGE
  - AZ GAME & FISH SHOOTING
  - BLACK MESA PIPELINE
  - RHODES 5,800 BOUNDARY
  - RHODES AWAITING AERIAL ROADWAY
  - RAILROAD
  - FL. OOD. ZONE BOUNDARY
  - ELECTRICAL TRANSMISSION
  - GAS PIPELINE



SUNRISE DRIVE  
 SONORA DRIVE  
 STATE PRISON (STATE PRISON KINGMAN)  
 SUNSET WATER  
 GRIFITH POWER PLANT 600MW  
 POSSIBLE WALMART DISTRIBUTION CENTER  
 STATE PRISON  
 YUCA DRIVE  
 NAVAJA DRIVE  
 SACRAMENTO ROAD  
 OLD OATMAN HIGHWAY  
 HUALAPAI DRIVE  
 SHINARUMP ROAD  
 AZTEC ROAD  
 BOLSAR ROAD  
 VALLEY PIONEERS WATER  
 SHIFF DRIVE  
 ARIZONA 63  
 GOLDEN VALLEY FIRE DEPARTMENT ADMINISTRATION AND STATION 1  
 BLACK MOUNTAIN ELEM. & GOLDEN VALLEY MIDDLE SCHOOLS

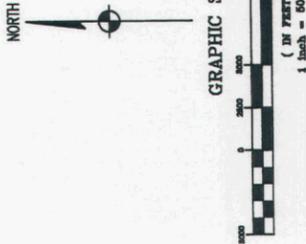
CERBAT FOOTHILLS RECREATION AREA

GOLDEN VALLEY PLANNING AREA

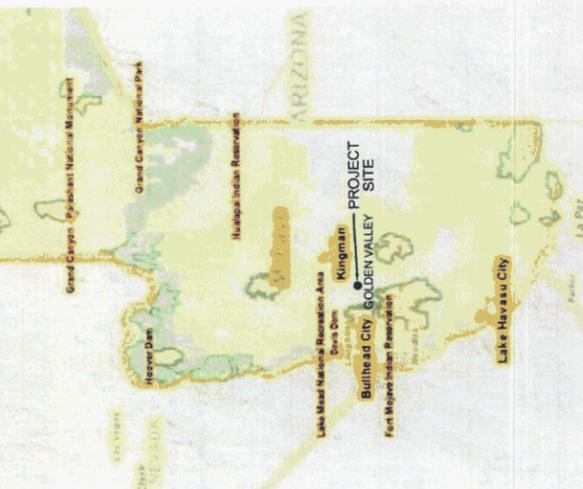
**DETECTION BASIN TABLE**  
 2-12 X 6 OUTLET  
 Q out 9,400 cfs  
 Q in 17,100 cfs  
 STORAGE 876 AC. FT.  
 DEPTH 12 FT.

**LEGEND:**  
 PROJECT BOUNDARY  
 FEMA FLOOD PLAIN  
 DRAINAGE SHED BOUNDARY  
 DRAINAGE SUB-SHED BOUNDARY

**DRAINAGE SHEDS**  
 HM-A = HOLY MOSES WASH - DRAINAGE SHED A  
 13M-2B = THIRTEEN MILE WASH - TRIBUTARY 2, DRAINAGE SHED B  
 C-1C = CERBAT WASH - TRIBUTARY 1, DRAINAGE SHED C  
 J132B1 = JUNCTION THIRTEEN MILE WASH, TRIBUTARY 2, DRAINAGE SHED B, NODE 1



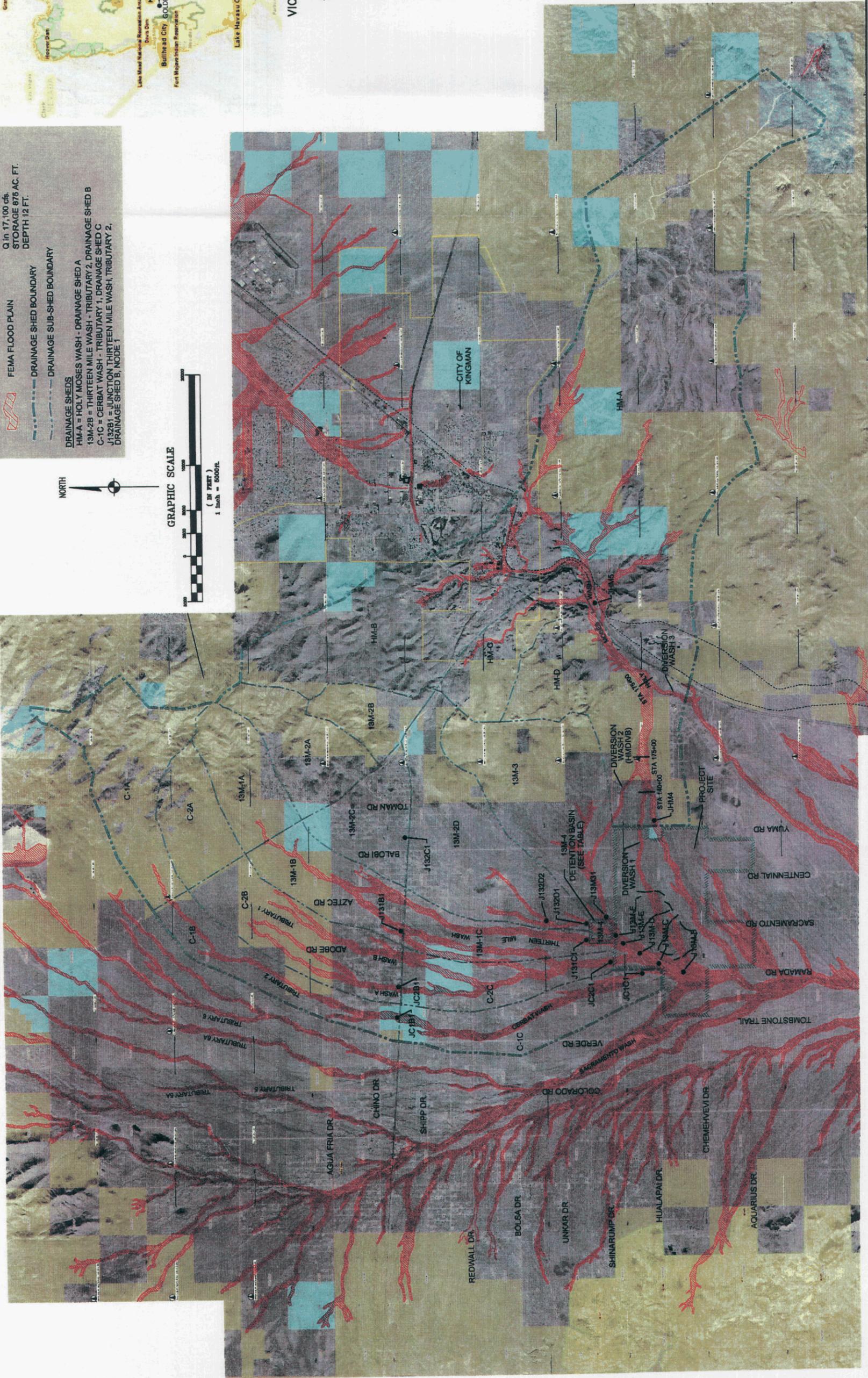
**VICINITY MAP**  
 SCALE: NTS



**GOLDEN VALLEY SOUTH WASH. FLOW SUMMARY**  
 (100Yr., 24 hr PRECIPITATION)

BASIN/NODE	UPSTREAM SITED AREA (Sq. Mi.)	FLOW (CFS)
HM-A	40.6	12960
HM-B	11.5	5235
HM-C	9.5	5175
HM-D	3.9	2610
HM-0	0.25	396
13M-4	9.3	5966
13M-3	4.3	4037
13M-2A	2.34	2641
13M-2B	4.4	3837
13M-2C	9.7	4980
13M-2D	3.9	3586
13M-1A	3.6	2631
13M-1B	2.5	1489
13M-1C	3.3	3520
C2-A	6	3428
C2-B	3.8	1953
C2-C	7.1	4554
C1-A	4.2	1807
C1-B	4.9	1889
C1-C	85.5	22333
JHM5	68.4	20597
JHM4	9.3	5966
J13M31	8.7	7551
J132C1	11	9285
J132D2	20.7	14199
J132D1	30.3	17898
J13M-F	7.5	5678
J131B1	10	6685
J131C1	40.3	20520
J13M-E	9.3	6769
JC2B1	13.1	7496
JC2C1	53.7	25511
J13M-D	6.40	6340
JC1B1	11.3	7401
JC1C1	16.2	7401
J13M-C	69.9	26847
J13M-B	43.4	27876
J13M-A	74.1	27961

\* HMDVB- 5484 cfs DIVERTED FROM HOLY MOSES (DIVERSION WASH 2) WASH TO THIRTEEN MILE WASH BASIN 3 (13M-3)



**GOLDEN VALLEY SOUTH  
 VICINITY MAP AND  
 DRAINAGE BASIN BOUNDARY**

MOHAVE COUNTY

### **Zone VE**

Zone VE is the flood insurance rate zone that corresponds to the 100-year coastal floodplains that have additional hazards associated with storm waves. BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone. Mandatory flood insurance purchase requirements apply.

### **Zones B, C, and X**

Zones B, C, and X are the flood insurance rate zones that correspond to areas outside the 100-year floodplains, areas of 100-year sheet flow flooding where average depths are less than 1 foot, areas of 100-year stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 100-year flood by levees. No BFEs or depths are shown within this zone.

### **Existing Conditions**

The property is located on approximately 5800 acres within Sections 2, 3, 4, 8, 9, 10, 11, 14, 16 and 22 in Township 20 North and Range 18 West and Section 34 in Township 21 North and Range 18 West. The site generally slopes southwest at 1 percent and is covered with desert shrub. The west side of the site is a sandy loam. The ground becomes rockier to the east. Shinarump Road or County Highway 223 on the north is a graded road with drainage swales on both sides of the road. The road is generally dipped to accommodate the existing washes flowing to the southwest. Most roads crossing the site are graded but not paved. The site is bounded on the south by Aquarius Drive.



**Figure 4-2 Twin 36" CMP's crossing Aztec south of Redwall**

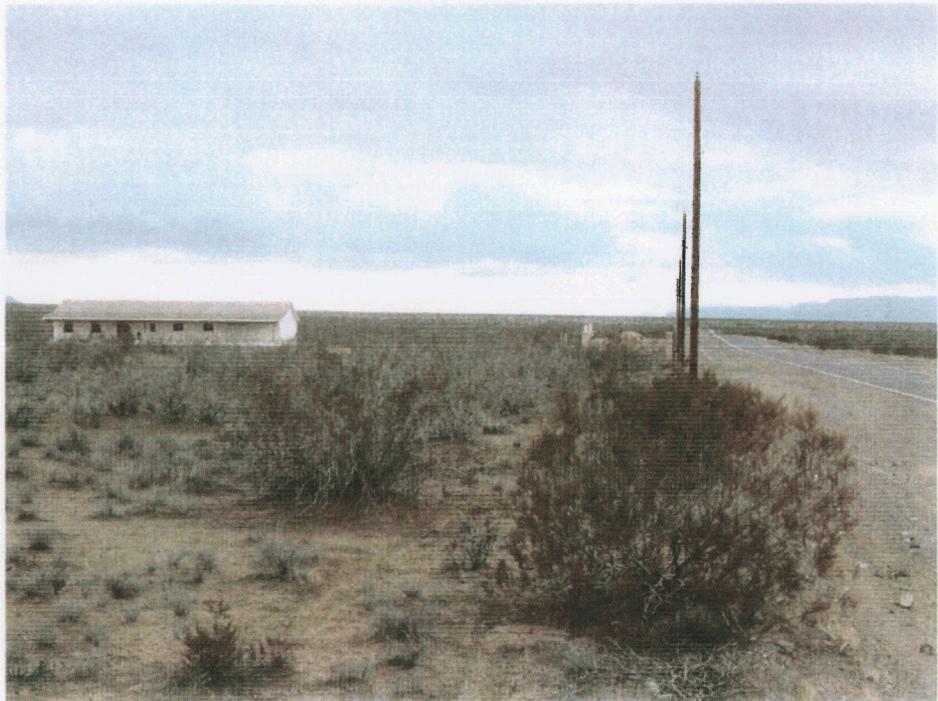
The following pictures were taken December 07, 2004



**Figure 4-3 - Hill east of Aztec in Section 23**



**Figure 4-4 - From Aztec: looking SE across Section 26**



**Figure 4-5- "Ocean Front Ranch" - looking south along Aztec**



**Figure 4-6- NE - near Sacramento & Hualapai**



**Figure 4-7- SW - near Sacramento & Hualapai**



**Figure 4-8- SE - near Sacramento & Hualapai**



**Figure 4-9 - Sacramento Wash - south - near Aquarius Drive**



**Figure 4-10 - Sacramento Wash - north - near Aquarius Drive**



**Figure 4-11- Sacramento Wash - 2nd braid north- near Aquarius Drive**



**Figure 4-12 - Sacramento Wash - 2nd braid south - near Aquarius Drive**



**Figure 4-13 - Sacramento Wash - 3rd braid south - near Aquarius Drive**



**Figure 4-14 - E - Centennial at Holy Moses center braid**



**Figure 4-15 - Centennial at Holy Moses Wash – crossing**



**Figure 4-16 - W - Centennial at Holy Moses Wash center braid**



**Figure 4-17- S - Yucca north of Hualapai alignment**



**Figure 4-18- E - Yucca at Holy Moses Wash**



**Figure 4-19 - Aquarius at Tampico - unnamed wash**



**Figure 4-20 - Aztec - north: near Bolsa**



**Figure 4-21 - Aztec - NE near Bolsa**



**Figure 4-22 - Aztec - S - near Bolsa: note "Ocean Front Ranch"**



**Figure 4-23 - Aztec at north braid of Holy Moses Wash – West**



**Figure 4-24 - Shinarump at Sacramento Wash (east braid)**



**Figure 4-25 - Shinarump at Sacramento Wash (east braid - north)**



**Figure 4-26 - N - Shinarump at Maverick**



**Figure 4-27 - S - Shinarump at Maverick**



**Figure 4-28 - N - Shinarump at Adobe**



**Figure 4-29 - S - Shinarump at Adobe**



**Figure 4-30 - S - Shinarump at Sacramento**



**Figure 4-31 - Sacramento at Holy Moses center braid**

---

### **Hydrology –Criteria**

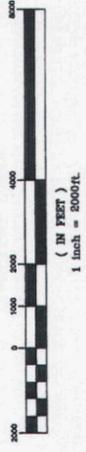
Drainage reports for the project area are subject to the Mohave County Criteria. Officials in the Flood Control Department defined the criteria as the same listed in the Arizona Department of Transportation Highway Report Number: FHWA-AZ93-281, Drainage Design Manual, Hydrology, Final Report, March 1983, rev. 8-11-94 (ADOT) and the Maricopa County Criteria Manual. All drainage reports will need to be stamped by a registered Arizona Professional Engineer.

The Rational Method may be used up to 20 acres. HEC-1 models are evaluated as 100-year 6-hour storms for areas up to 20 square miles. The precipitation distributions are interpolated from six curves according to the total watershed area. All calculations must be verified with one of three approximation methods.

Initial basin hydrographs are developed using local rainfall, land use, and soil parameters within the Drainage Design Management System for Windows (DDMS) developed for the Flood Control District for Maricopa County. Total watershed areas up to 20 square miles are evaluated as local storms using the 100-year 6-hour precipitation amounts corrected according to the area-depth curves. The rainfall distribution curve is interpolated from six distribution curves according to the relationship with the total watershed area. Watershed areas from 20 square miles to 100 square miles are evaluated both as local storms as described above and as general storms which use a set distribution and 100-year 24-hour precipitation.



GRAPHIC SCALE



**HOLY MOSES WASH HEC-RAS LOCAL STORM ANALYSIS**  
(100yr., 6 hr PRECIPITATION)

LOCATION (STATION)	DESCRIPTION	MAIN CHANNEL (CFS)	DIVERSION (CFS)
277+50	APEX (JHM5)	9,255	0
260+00	UPSTREAM	9,178	0
210+00	DIVERSION 3	8,308	947
175+00	TRIBUTARY FLOW	8,077	0
140+00	DIVERSION 2 (JHM4)	6,958	1,119
	DIVERSION 1 (JHM4)	4,078	2,880

\* HM0VB-  
1,119 cfs DIVERTED FROM HOLY MOSES WASH  
(DIVERSION WASH 2) WASH TO THIRTEEN  
MILE WASH BASIN 3 (13M-3)

**HOLY MOSES WASH HEC-RAS GENERAL STORM ANALYSIS**  
(100yr., 24 hr PRECIPITATION)

LOCATION (STATION)	DESCRIPTION	MAIN CHANNEL (CFS)	DIVERSION (CFS)
277+50	APEX (JHM5)	22,333	0
260+00	UPSTREAM	22,261	0
210+00	DIVERSION 3	19,779	2,482
175+00	TRIBUTARY FLOW	20,228	0
140+00	DIVERSION 2 (JHM4)	15,162	5,046
	DIVERSION 1 (JHM4)	14,298	864

\* HM0VB-  
5,046 cfs DIVERTED FROM HOLY MOSES WASH  
(DIVERSION WASH 2) WASH TO THIRTEEN  
MILE WASH BASIN 3 (13M-3)

**LEGEND:**

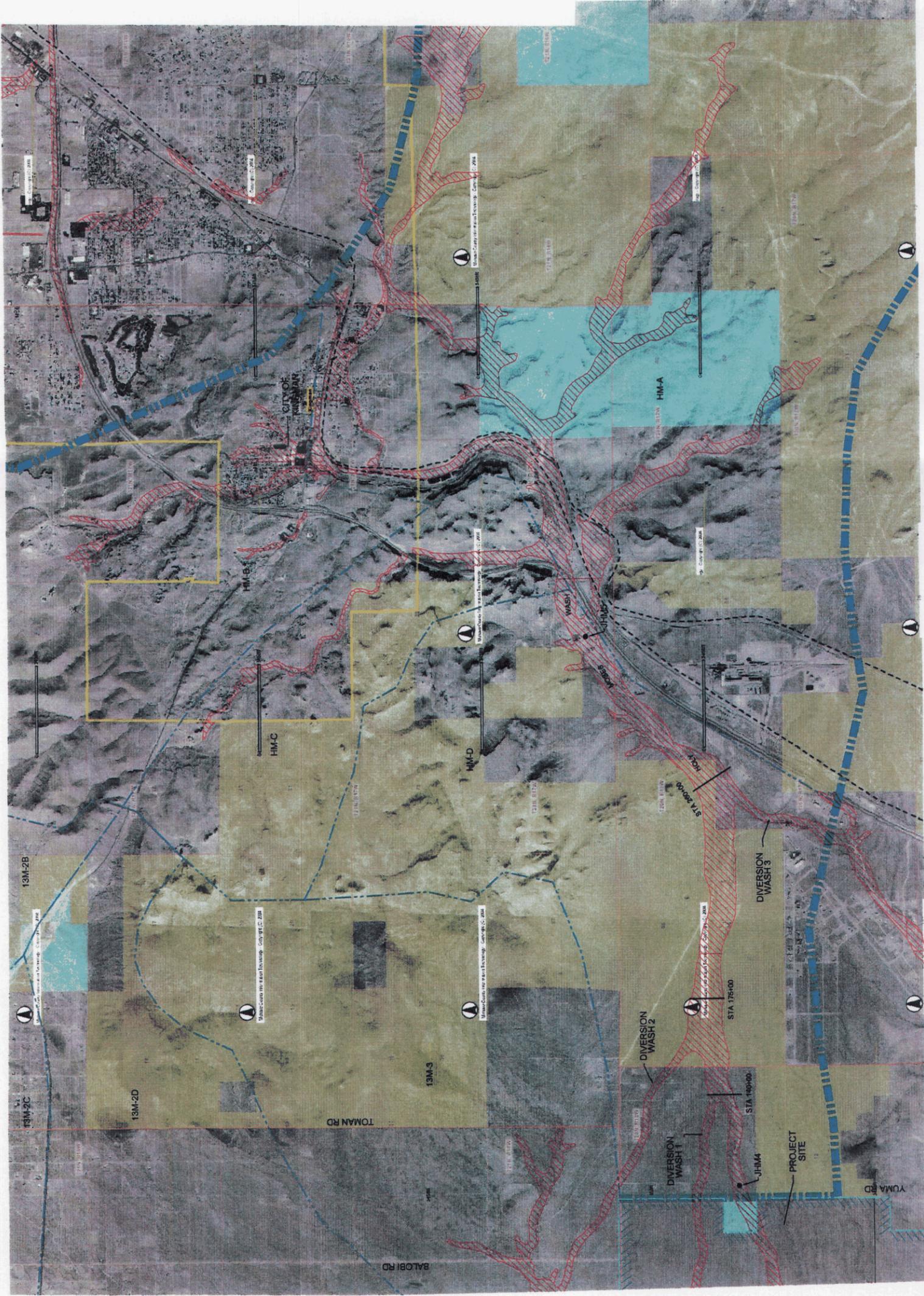
- PROJECT BOUNDARY
- FEMA FLOOD PLAIN
- DRAINAGE SHED BOUNDARY
- DRAINAGE SHEDS

**DETECTION BASIN TABLE**

PROJECT BOUNDARY	DETECTION BASIN TABLE
2-12 X 6 OUTLET	Q out 9,400 cfs.
FEMA FLOOD PLAIN	Q in 17,100 cfs.
DRAINAGE SHED BOUNDARY	STORAGE 875 AC. FT.
	DEPTH 12 FT.

**DRAINAGE SHEDS**

- HM-A = HOLY MOSES WASH - DRAINAGE SHED A
- 13M-2B = THIRTEEN MILE WASH - TRIBUTARY 2, DRAINAGE SHED B
- C-C = CERBAT WASH - TRIBUTARY 1, DRAINAGE SHED C
- JHM5 = JUNCTION HOLY MOSES WASH, NODE 5



GOLDEN VALLEY SOUTH  
HOLY MOSES BASIN BOUNDARY

MOHAVE COUNTY

ARIZONA

FIGURE 4-32



**Stanley Consultants INC.**  
5820 S. EASTERN AVENUE, SUITE 200  
LAS VEGAS, NEVADA 89119 (702) 369-9386

**LEGEND:**

-  PROJECT BOUNDARY
-  FEMA FLOOD PLAIN
-  DRAINAGE SHED BOUNDARY
-  DRAINAGE SUB-SHED BOUNDARY

**DETENTION BASIN TABLE**

2-12 X 6 OUTLET  
 Q out 9,400 cfs.  
 Q in 17,100 cfs.  
 STORAGE 875 AC. FT.  
 DEPTH 12 FT.

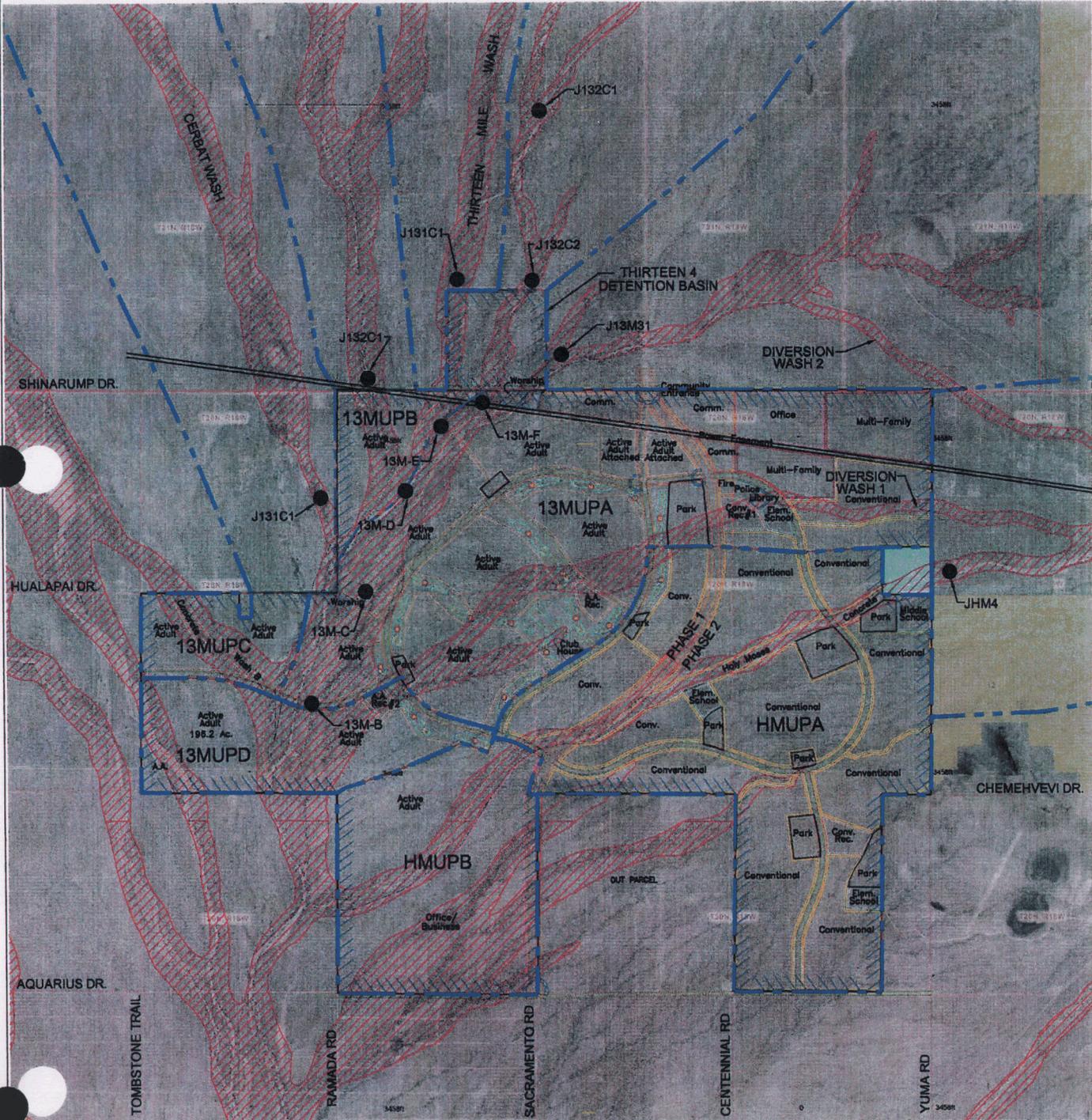
**DRAINAGE SHEDS**

HM-A = HOLY MOSES WASH - DRAINAGE SHED A  
 13M-2B = THIRTEEN MILE WASH - TRIBUTARY 2, DRAINAGE SHED B  
 C-1C = CERBAT WASH - TRIBUTARY 1, DRAINAGE SHED C  
 J132B1 = JUNCTION THIRTEEN MILE WASH, TRIBUTARY 2,  
 DRAINAGE SHED B, NODE 1

NORTH



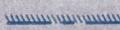
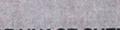
SCALE: 1"=4000'



**Stanley Consultants INC.**  
 5820 S. EASTERN AVENUE, SUITE 200  
 LAS VEGAS, NEVADA 89119 (702) 369-9396

**FIGURE 4-33**  
**GOLDEN VALLEY SOUTH**  
**CONCEPT K SHEDS**

**LEGEND:**

-  PROJECT BOUNDARY
-  FEMA FLOOD PLAIN
-  DRAINAGE SHED BOUNDARY
-  DRAINAGE SUB-SHED BOUNDARY
-  GOLF COURSE SUB-SHED BOUNDARY
-  SITE BOUNDARY

**DETENTION BASIN TABLE**

2-12 X 6 OUTLET  
 Q out 9,400 cfs.  
 Q in 17,100 cfs.  
 STORAGE 875 AC. FT.  
 DEPTH 12 FT.

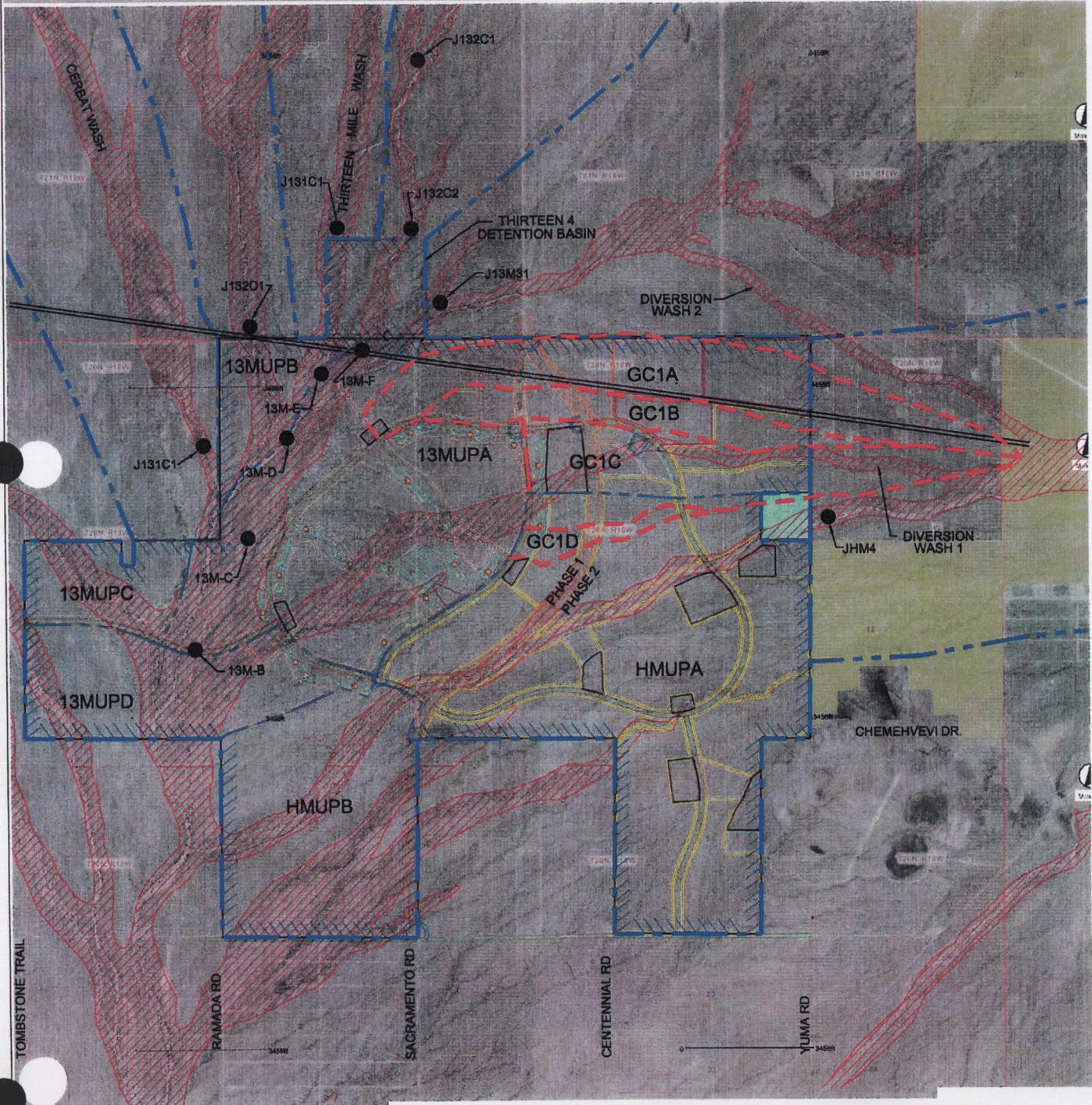
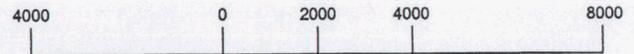
**DRAINAGE SHEDS**

HM-A = HOLY MOSES WASH - DRAINAGE SHED A  
 13M-2B = THIRTEEN MILE WASH - TRIBUTARY 2, DRAINAGE SHED B  
 C-C = CERBAT WASH - TRIBUTARY 1, DRAINAGE SHED C  
 J132B1 = JUNCTION THIRTEEN MILE WASH, TRIBUTARY 2, DRAINAGE SHED B, NODE 1

NORTH



SCALE: 1"=4000'



**Stanley Consultants INC.**  
 5820 S. EASTERN AVENUE, SUITE 200  
 LAS VEGAS, NEVADA 89119 (702) 369-9396

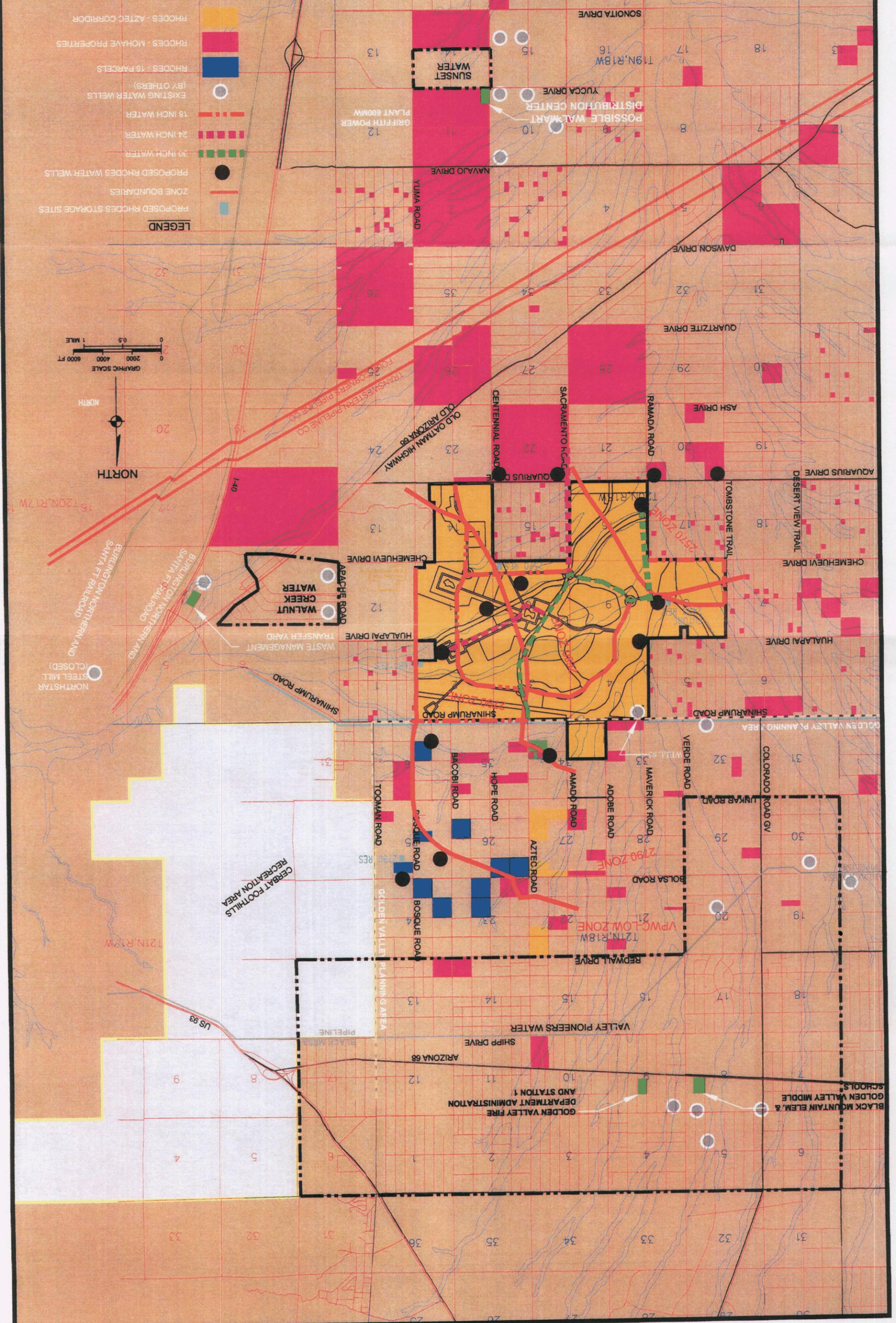
FIGURE 4-34  
 GOLDEN VALLEY SOUTH  
 CONCEPT K GOLF COURSE SHEDS



**Stanley Consultants Inc.**  
 500 S. Eastern Avenue, Suite 200, Las Vegas, Nevada 89119  
 www.stanley.com

DESIGNED: RHODES HOMES  
 MOHAVE COUNTY, ARIZONA  
 CONCEPTUAL WATER SUPPLY  
 GOLDEN VALLEY SOUTH  
 SCALE: AS NOTED

NO. \_\_\_\_\_  
 DRAWN: JWP  
 CHECKED: JWP  
 APPROVED: JWP  
 DATE: 05/05/05



**LEGEND**

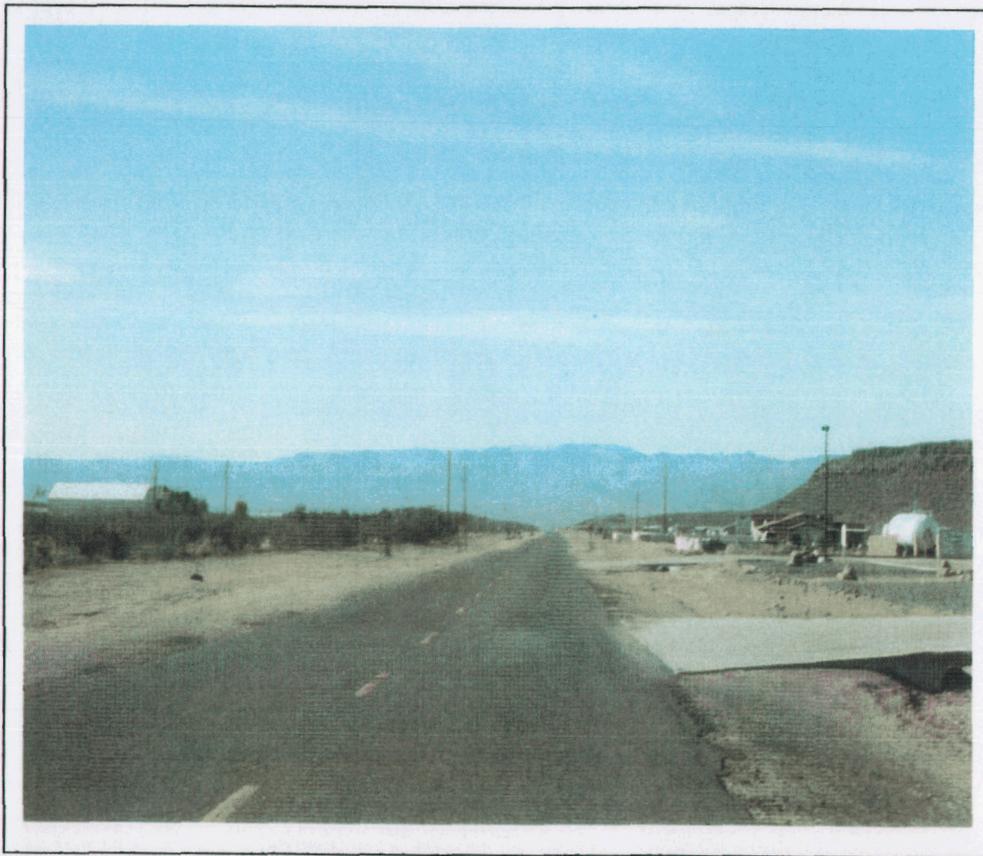
- PROPOSED RHODES STORAGE SITES
- ZONE BOUNDARIES
- PROPOSED RHODES WATER WELLS
- 18 INCH WATER
- 24 INCH WATER
- 30 INCH WATER
- EXISTING WATER WELLS (BY OTHERS)
- RHODES - 16 PARCELS
- RHODES - MOHAVE PROPERTIES
- RHODES - AZTEC CORRIDOR

**GRAPHIC SCALE**  
 0 2000 4000 6000 FT  
 0 0.5 1 MILE

**NORTH**

FIGURE 5-2

Verde Road, Adobe Road, Aztec Road, Hope Road, Bacobi Road (County Route 277), and Bosque Road presently connect the project property to US Highway 68. All of these roadways are section line arterials except Hope Road and Amado Road, which are mid-section line major collector roadways. Per the available Assessors Maps, all of the north-south access roadways presently have either 80 to 100 foot rights of way dedicated, or 40 to 50 foot half street rights of way dedicated. All of the preceding roadways have at grade drainage crossings which render the roadways impassable during storm (flood) events. All weather (paved road) access to the project site is also provided via Shinarump Road between Interstate Highway 40 and Aztec Road. Shinarump Road is a two lane facility which is unpaved west of Aztec Road. Shinarump Road is also designated Mohave County Route 223. See Figure 6-3 for typical access roadway.



**Figure 6-2 Old Oatman Highway (US 66) Northeast of the Project**



**Figure 6-3 Paved Project Access Road**

### **Planned Improvements – Government**

Review of the Mohave County, Arizona Department of Transportation, (ADOT), and the WACOG websites revealed no planned projects for roadway improvements which would impact this project.

ADOT has a budget for Fiscal Year 2005 to repair scour on the Interstate Highway 40 bridge over the Holy Moses Wash.

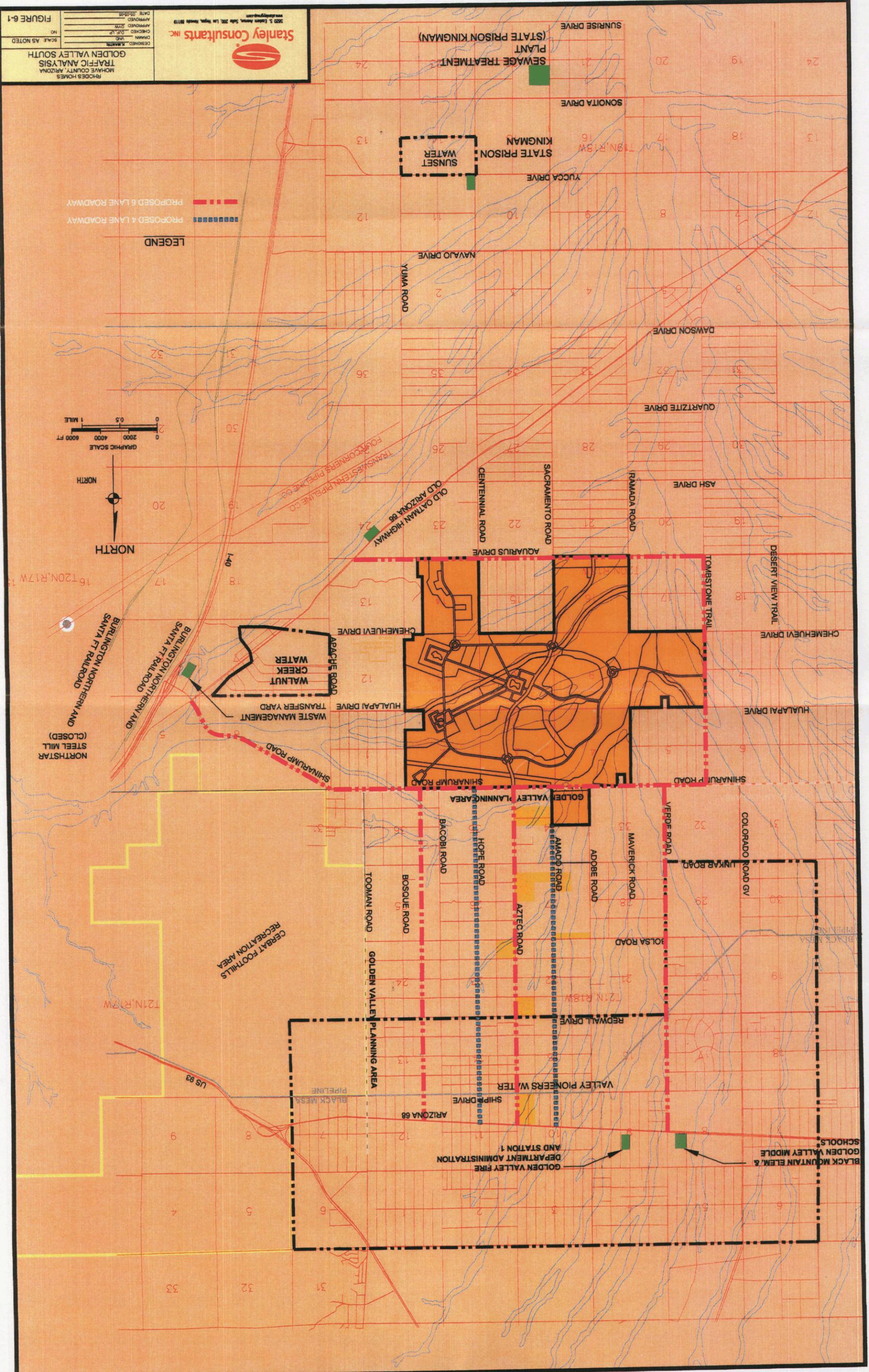
### **Trip Generation and Project Impacts**

The keys to the success of this project are either providing access to nearby US Highway 68 and Interstate Highway 40, or internal capture of the project generated traffic. This project will develop just under nine sections of land, of which approximately six sections will be developed as residential uses. For single family detached dwelling units, peak hour trips occur between 7:00 and 9:00 am and 4:00 and 6:00 pm, corresponding to commercial and industrial peak hour trips. A single section of land developed at a density of four units per acre, will generate about 20,536 trips per day, with 1,351 outbound and 450 inbound am peak hour trips and 1,250 inbound and 734 outbound pm peak hour trips. At this rate, it is clear that development of a

RHODES HOMES  
 MOHAVE COUNTY, ARIZONA  
 TRAFFIC ANALYSIS  
 GOLDEN VALLEY SOUTH  
 DESIGNED: K. MATTHEW  
 DRAWN: V.M.  
 CHECKED: D.L.P.  
 APPROVED: DATE:  
 DATE: 05/25/09  
 SCALE: AS NOTED  
 FIGURE 6-1



**LEGEND**  
 PROPOSED 4 LANE ROADWAY  
 PROPOSED 6 LANE ROADWAY

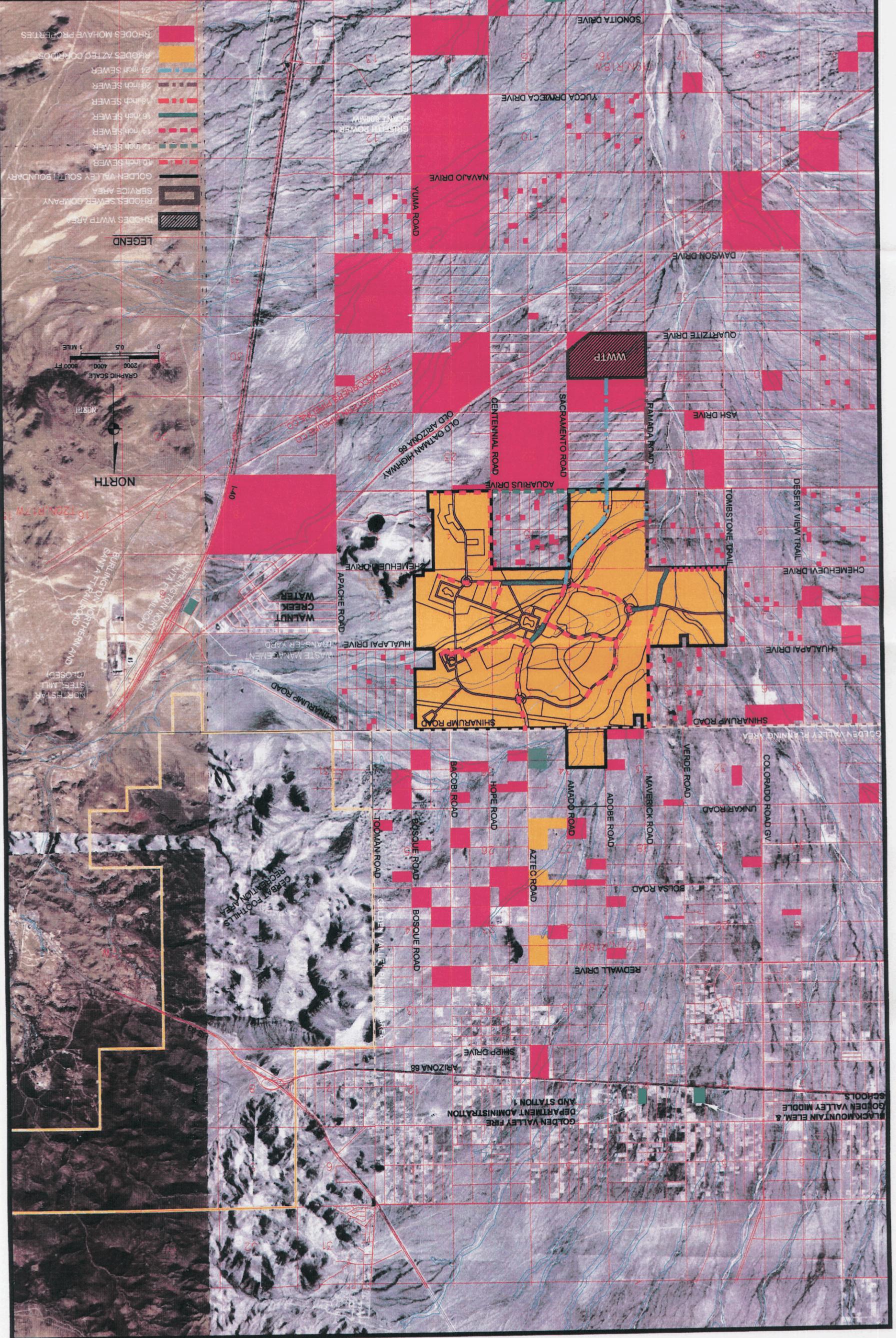


**Stanley Consultants Inc.**  
 3220 S. Eastern Avenue, Suite 200, Las Vegas, Nevada 89119  
 www.stanley.com

DESIGNER: RHODES HOMES  
 PROJECT: CONCEPTUAL SEWER SYSTEM  
 LOCATION: GOLDEN VALLEY SOUTH  
 MOHAVE COUNTY, ARIZONA

DATE: 05/20/03  
 APPROVED: DTM  
 CHECKED: DFLP  
 DRAWN: VAD  
 SCALE: AS NOTED

**FIGURE 7-1**



- LEGEND**
- RHODES MOHAVE PROPERTIES
  - RHODES AZTEC CORRIDOR
  - 24 inch SEWER
  - 20 inch SEWER
  - 18 inch SEWER
  - 16 inch SEWER
  - 14 inch SEWER
  - 12 inch SEWER
  - 10 inch SEWER
  - GOLDEN VALLEY SOUTH BOUNDARY
  - SERVICE AREA
  - RHODES SEWER COMPANY
  - RHODES WWTAP AREA



SHINARUMP ROAD  
 WASTE MANAGEMENT TRANSFER YARD  
 HUALAPAI DRIVE  
 APACHE ROAD  
 HEMHUEY DRIVE  
 OLD COTTONWOOD HIGHWAY  
 GENTENIAL ROAD  
 AQUARIUS DRIVE  
 SACRAMENTO ROAD  
 RAMADA ROAD  
 ASH DRIVE  
 QUARTZITE DRIVE  
 DAWSON DRIVE  
 SONOITA DRIVE  
 SUNRISE DRIVE

SHINARUMP ROAD  
 HUALAPAI DRIVE  
 CHEMEHUEY DRIVE  
 DESERT VIEW TRAIL  
 TOMBSTONE TRAIL  
 RAMADA ROAD  
 ASH DRIVE  
 QUARTZITE DRIVE  
 DAWSON DRIVE  
 SONOITA DRIVE  
 SUNRISE DRIVE

SHINARUMP ROAD  
 HUALAPAI DRIVE  
 CHEMEHUEY DRIVE  
 DESERT VIEW TRAIL  
 TOMBSTONE TRAIL  
 RAMADA ROAD  
 ASH DRIVE  
 QUARTZITE DRIVE  
 DAWSON DRIVE  
 SONOITA DRIVE  
 SUNRISE DRIVE

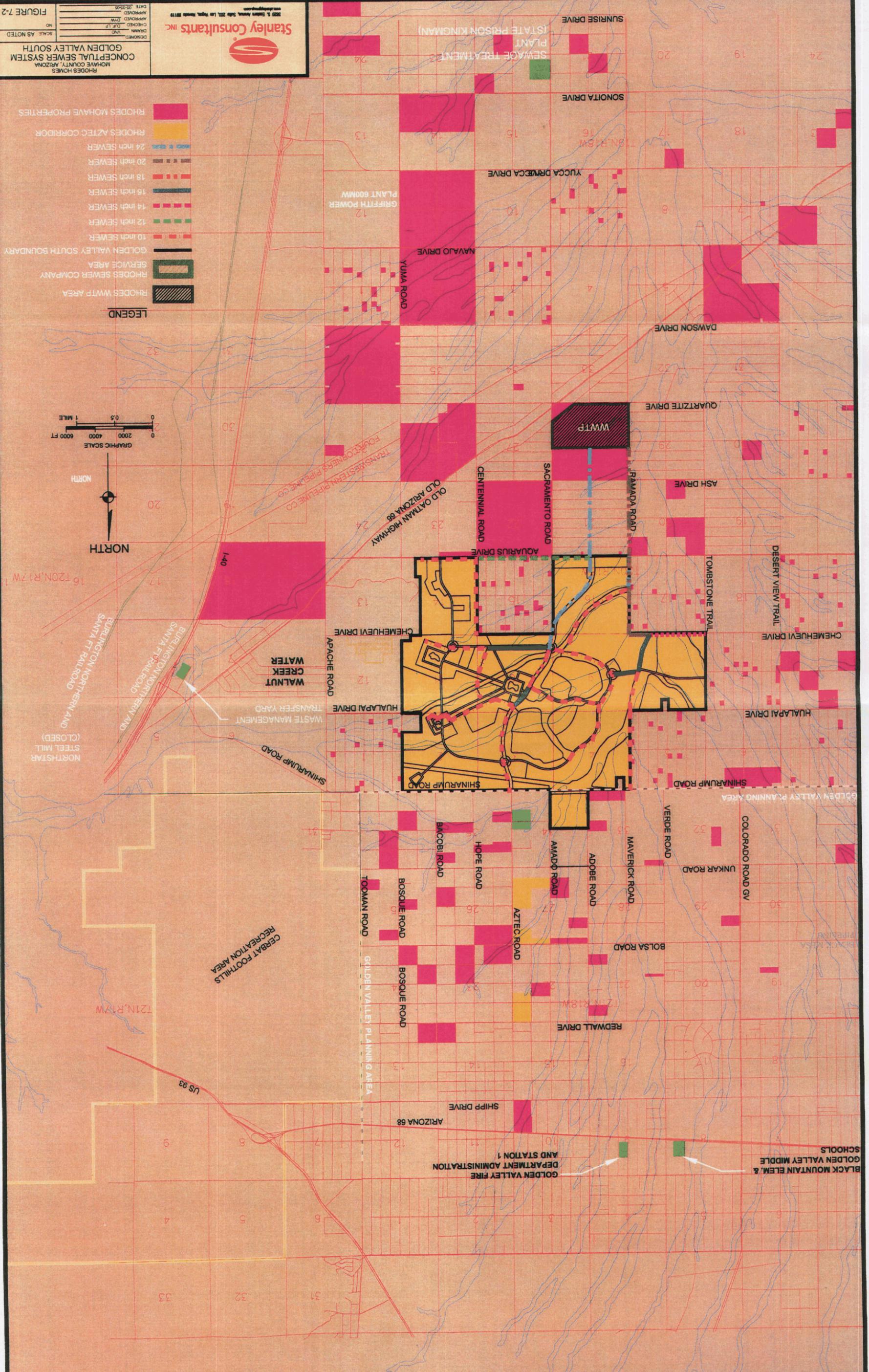
GOLDEN VALLEY SOUTH  
 RECREATION AREA  
 GEORGE TOOTHILLS

GOLDEN VALLEY FIRE DEPARTMENT ADMINISTRATION AND STATION 1  
 ARIZONA 88  
 SHEPP DRIVE  
 REDWALL DRIVE  
 BOLSA ROAD  
 AZTEC ROAD  
 AMADO ROAD  
 HOPE ROAD  
 BACOBBI ROAD  
 BOSQUE ROAD  
 BOSQUE ROAD  
 BOSQUE ROAD  
 TOOMAN ROAD  
 VERDE ROAD  
 MAVERICK ROAD  
 UNKAR ROAD  
 COLORADO ROAD GV  
 GOLDEN VALLEY PLANNING AREA  
 SHINARUMP ROAD  
 HUALAPAI DRIVE  
 CHEMEHUEY DRIVE  
 DESERT VIEW TRAIL  
 TOMBSTONE TRAIL  
 RAMADA ROAD  
 ASH DRIVE  
 QUARTZITE DRIVE  
 DAWSON DRIVE  
 SONOITA DRIVE  
 SUNRISE DRIVE

RHODES HOMES  
 MOHAVE COUNTY, ARIZONA  
 CONCEPTUAL SEWER SYSTEM  
 GOLDEN VALLEY SOUTH  
 SCALE: AS NOTED  
 DRAWN: [blank]  
 CHECKED: [blank]  
 APPROVED: [blank]  
 DATE: 05/05/05

**Stanley Consultants Inc.**  
 300 S. Eastern Avenue, Suite 201, Las Vegas, Nevada 89119  
 www.stanleyconsultants.com

- LEGEND**
- RHODES WWT# AREA
  - RHODES SEWER COMPANY SERVICE AREA
  - GOLDEN VALLEY SOUTH BOUNDARY
  - 10 inch SEWER
  - 12 inch SEWER
  - 14 inch SEWER
  - 16 inch SEWER
  - 18 inch SEWER
  - 20 inch SEWER
  - 24 inch SEWER
  - RHODES AZTEC CORRIDOR
  - RHODES MOHAVE PROPERTIES





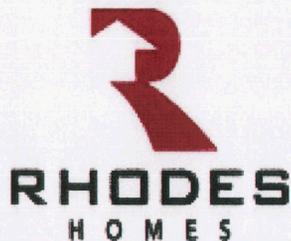
# RHODES HOMES ARIZONA

## The Villages at White Hills

### Engineering Report



*Prepared for:*



2215 Hualapai Mountain Road,  
Suite H  
Kingman, Arizona 86401

*Prepared by:*



A Stanley Group Company  
Engineering, Environmental and Construction Services - Worldwide

*JUNE, 2005*

5820 S. Eastern Avenue, Suite 200, Las Vegas, NV 89119

**SUMMARY**

RESIDENTIAL	LAND USE	DENSITY	ACRES	DU/AC	UNITS	% MIX
LOW DENSITY	1280.5	5	6400	32%		
MEDIUM DENSITY	643.4	12	7708	39%		
HIGH DENSITY	237.5	25	5934	29%		
<b>SUB-TOTAL</b>	<b>2161.4</b>		<b>20,042</b>	<b>100%</b>		

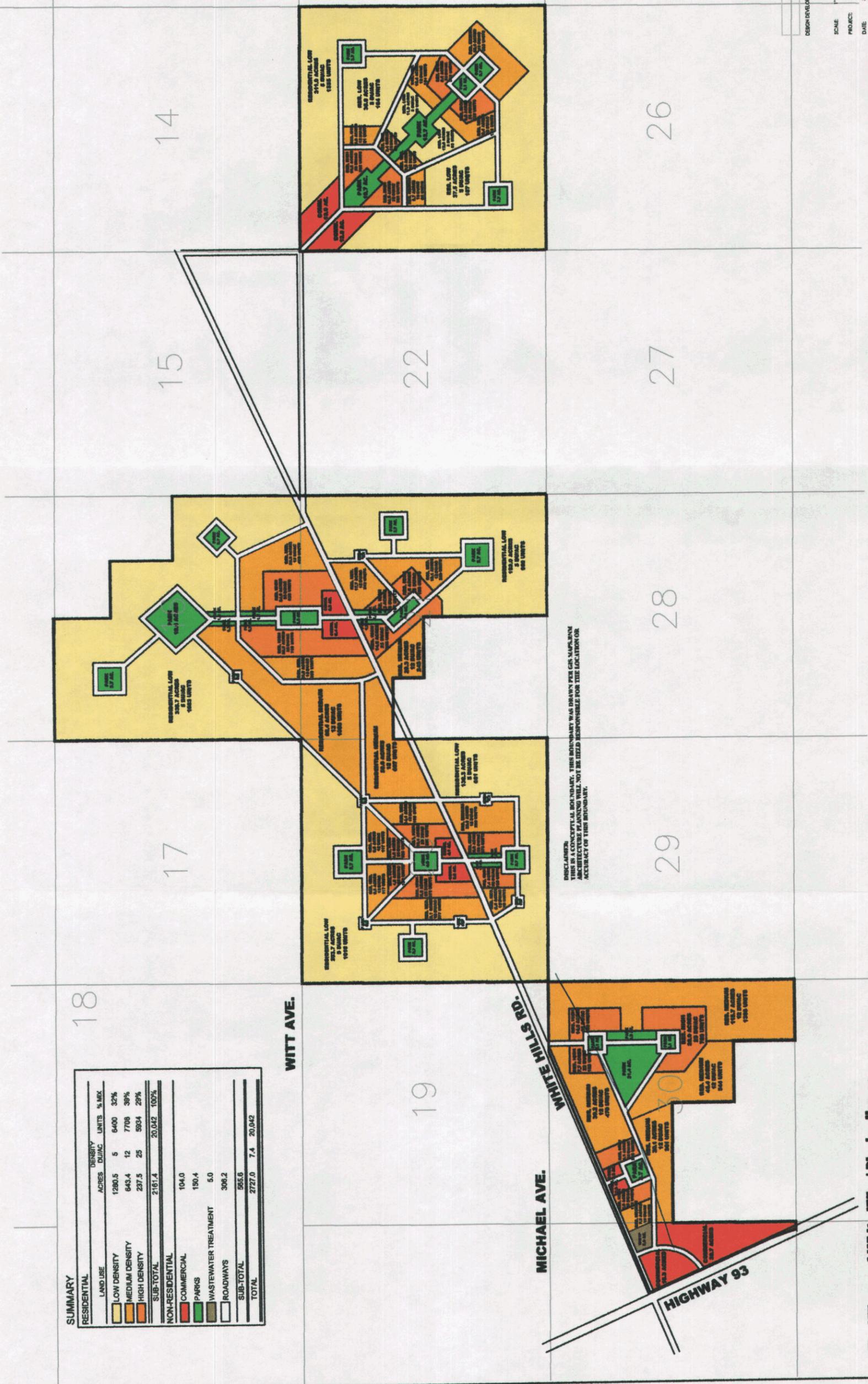
NON-RESIDENTIAL	ACRES	UNITS
COMMERCIAL	104.0	
PARKS	150.4	
WASTEWATER TREATMENT	5.0	
ROADWAYS	306.2	
<b>SUB-TOTAL</b>	<b>565.6</b>	
<b>TOTAL</b>	<b>2727.0</b>	<b>7.4</b>
		<b>20,042</b>

WITT AVE.

MICHAEL AVE.

WITE HILLS RD.

HIGHWAY 93

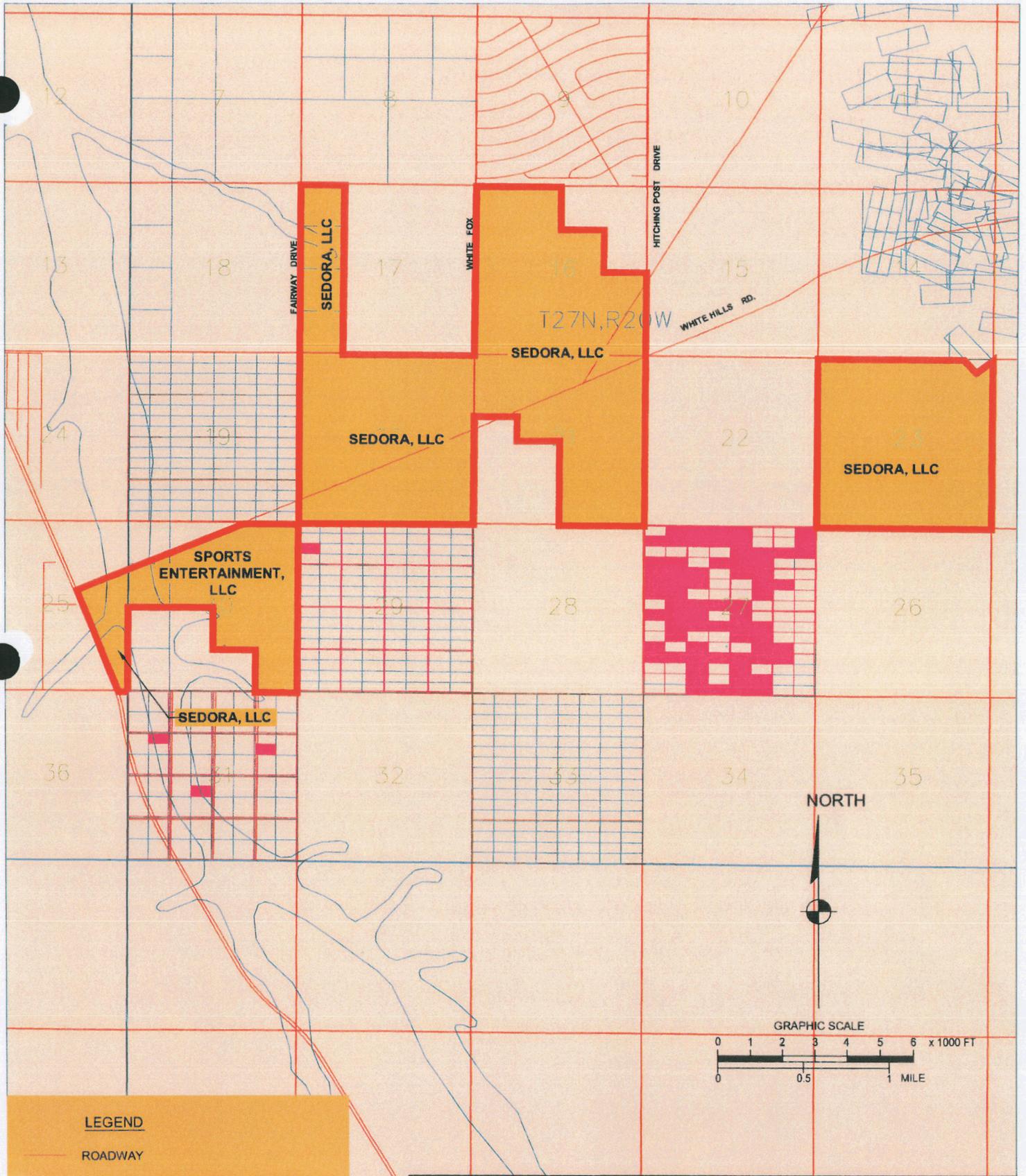


**The Villages of White Hills / Rhodes Homes**  
Mohave County, Arizona



PROJECT: 03008  
DATE: 5/1/05  
SCALE: 1" = 200'  
DESIGN DEVELOPMENT

MANUFACTURED BY  
1811 LEE ROAD  
MARIETTA, GA 30067  
TEL: 770-429-1111  
FAX: 770-429-1111  
WWW.RMA.COM



**LEGEND**

- ROADWAY
- RHODES - THE VILLAGES OF WHITEHILLS WATER & SEWER BOUNDARY
- RHODES - THE VILLAGES OF WHITEHILLS
- MISCELLANEOUS RHODES PARCELS
- TOWNSHIP/RANGE LINE



**Stanley Consultants INC.**

5820 S. Eastern Avenue, Suite 200, Las Vegas, Nevada 89119  
www.stanleygroup.com

RHODES HOMES  
MOHAVE COUNTY, ARIZONA  
**THE VILLAGES AT WHITE HILLS CC&N  
WATER & SEWER BOUNDARIES**

DESIGNED _____	SCALE As Noted
DRAWN VND _____	NO _____
CHECKED DJF _____	
APPROVED DJW _____	
APPROVED DJF _____	
DATE 08.23.05 _____	<b>CC&amp;N-WS1</b>



**Stanley Consultants** INC.

A Stanley Group Company  
Engineering, Environmental and Construction Services - Worldwide

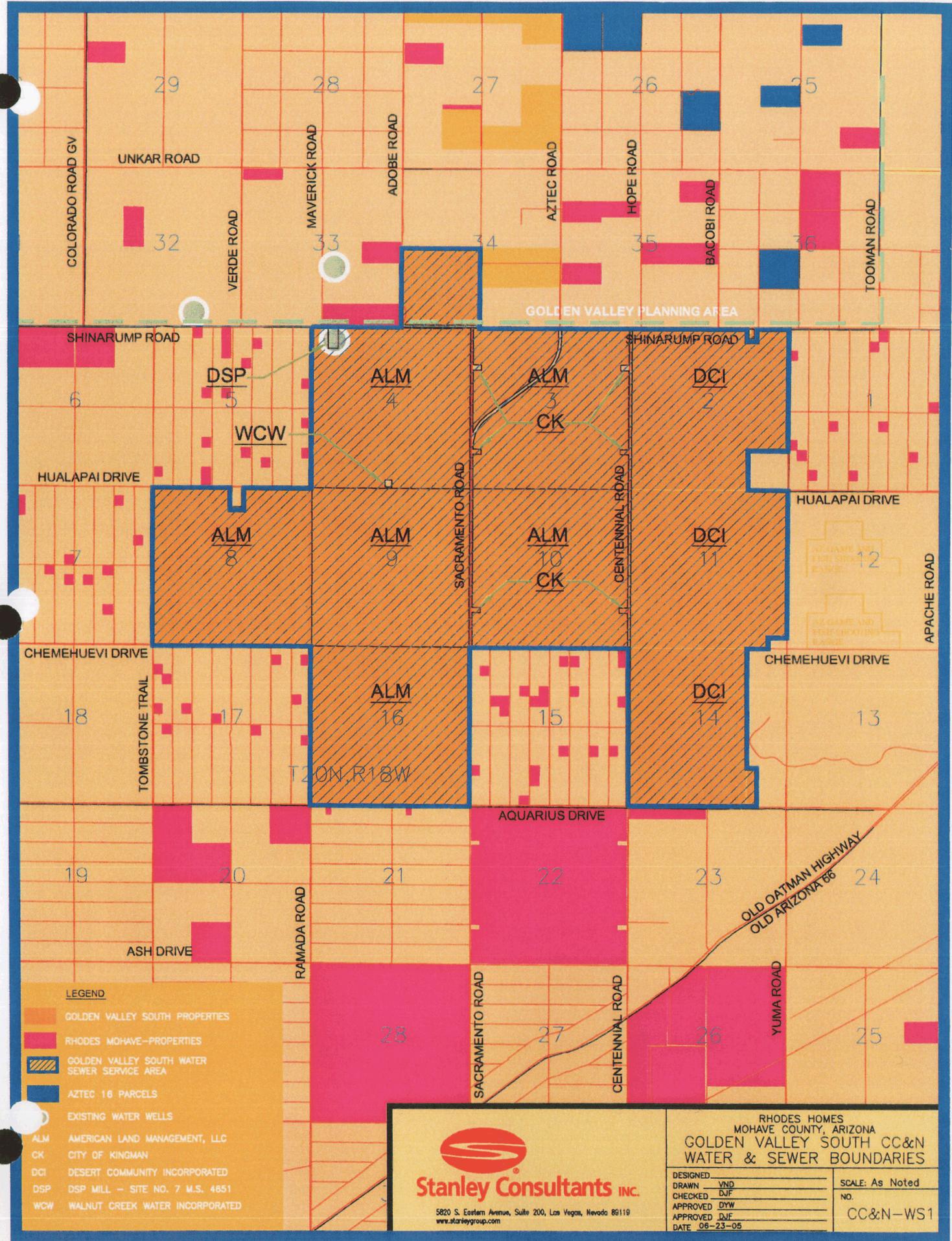
**DATE:** June 2005

**SUBJECT:** Rhodes Homes Arizona, LLC  
The Villages at White Hills – Ownership Legend

---

Sedora, LLC  
4730 S. Ft. Apache Rd. #300  
Las Vegas, NV 89147

Sports Entertainment, LLC  
2564 Wigwam Pkwy #233  
Henderson, NV 89074



- LEGEND**
- GOLDEN VALLEY SOUTH PROPERTIES
  - RHODES MOHAVE-PROPERTIES
  - GOLDEN VALLEY SOUTH WATER SEWER SERVICE AREA
  - AZTEC 16 PARCELS
  - EXISTING WATER WELLS
  - ALM AMERICAN LAND MANAGEMENT, LLC
  - CK CITY OF KINGMAN
  - DCI DESERT COMMUNITY INCORPORATED
  - DSP DSP MILL - SITE NO. 7 M.S. 4851
  - WCW WALNUT CREEK WATER INCORPORATED



**Stanley Consultants INC.**

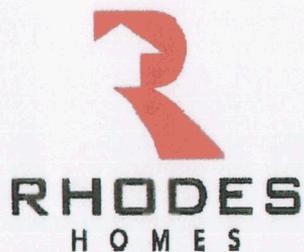
5820 S. Eastern Avenue, Suite 200, Las Vegas, Nevada 89119  
www.stanleygroup.com

RHODES HOMES MOHAVE COUNTY, ARIZONA <b>GOLDEN VALLEY SOUTH CC&amp;N          WATER &amp; SEWER BOUNDARIES</b>		SCALE: As Noted NO. <b>CC&amp;N-WS1</b>
DESIGNED		
DRAWN	VND	
CHECKED	DJF	
APPROVED	DYW	
APPROVED	DJF	
DATE	08-23-05	

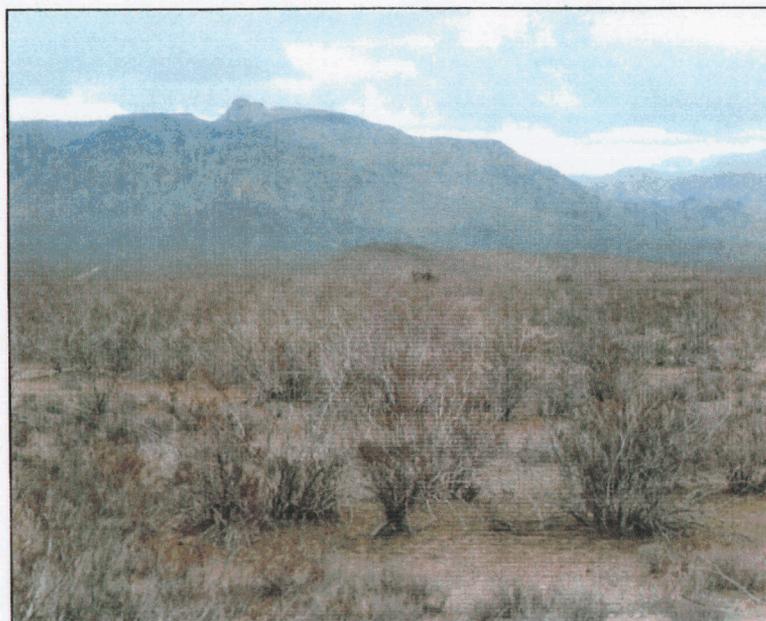


# RHODES HOMES ARIZONA GOLDEN VALLEY SOUTH Engineering Report

*Prepared for:*



2215 Hualapai Mountain Road,  
Suite H  
Kingman, Arizona 86401



*Prepared by:*



A Stanley Group Company  
Engineering, Environmental and Construction Services - Worldwide

**MAY, 2005**

5820 S. Eastern Avenue, Suite 200, Las Vegas, NV 89119







**Figure 2-1 – Golden Valley South**

The site includes all or portions of 10 sections located in two townships in the southern part of the area known as “Golden Valley, South”, in Mohave County, Arizona. The site is contiguous, with several “out parcels” lying within the site, ranging from 5 to 15 acres in size (refer to Figure 2-2). Total area of the site is approximately 5,760 acres.

Most of the Rhodes Golden Valley 5800 acres site is vacant open space. Some cattle grazing, mobile homes and “storage yard” uses are apparent. The site slopes gradually upwards toward the east and northeast toward the Cerbat Mountain. The land includes a few corrals and water tanks, foundations of old home sites and the detritus from dumping of building materials and similar refuse. The area is served by a limited network of roads. An Arizona Game & Fish shooting range is located in the eastern portion of Section 14. Other locations throughout the site, mostly in wash areas, sport-related debris (shell casings, etc.) were noted. A minor amount of scrap metal, including several old vehicles are scattered around the site.

Section 4 includes an old corral and the deteriorating hulk of an old mobile home. Several other areas include remnants of previous habitation or storage. All are in scrap condition now.

Overhead power runs through the site as a 230KV line, which is not available for development. Fiber optic cables exist on Shinarump, Aquarius, Sacramento and Centennial.

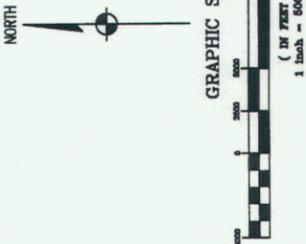




**DETECTION BASIN TABLE**  
 2-12 X 6 OUTLET  
 Q out 9,400 cfs  
 Q in 17,100 cfs  
 STORAGE 875 AC. FT.  
 DEPTH 12 FT.

**LEGEND:**  
 PROJECT BOUNDARY  
 FEMA FLOOD PLAIN  
 DRAINAGE SHED BOUNDARY  
 DRAINAGE SUB-SHED BOUNDARY

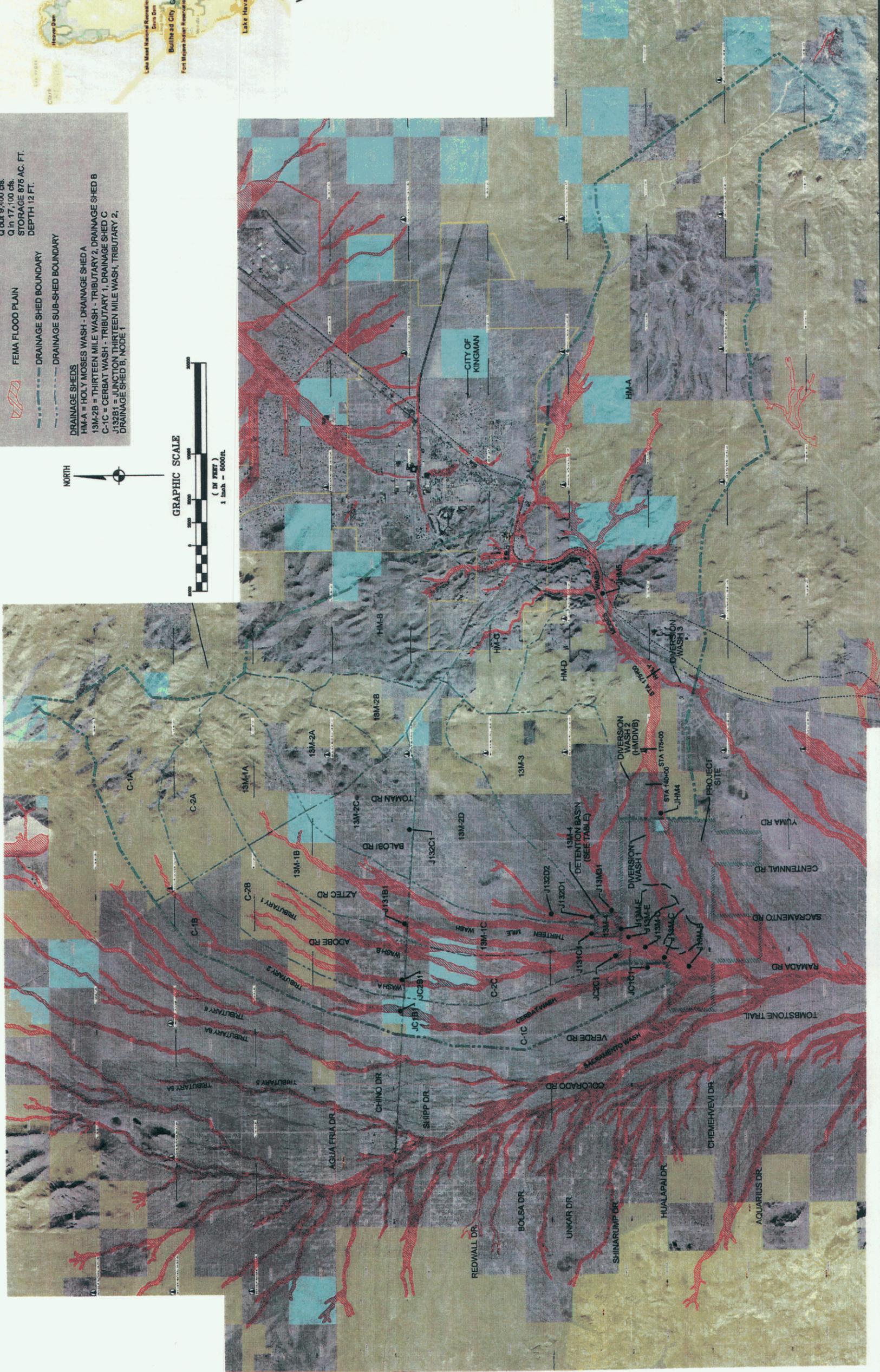
**DRAINAGE SHEDS**  
 HM-A = HOLY MOSES WASH - DRAINAGE SHED A  
 13M-2B = THIRTEEN MILE WASH - TRIBUTARY 2, DRAINAGE SHED B  
 C-1C = CERBAT WASH - TRIBUTARY 1, DRAINAGE SHED C  
 J132B1 = JUNCTION THIRTEEN MILE WASH, TRIBUTARY 2, DRAINAGE SHED B, NODE 1



**GOLDEN VALLEY SOUTH WASH FLOW SUMMARY**  
 (100yr, 24 hr PRECIPITATION)

BASIN/NODE	UPSTREAM SITED AREA (Sq. Mi.)	FLOW (CFS)
HM-A	40.6	12960
HM-B	11.5	5235
HM-C	9.5	5175
HM-D	3.9	2610
13M-4	0.25	396
13M-3	9.3	5966
13M-2A	4.3	4037
13M-2B	2.34	2641
13M-2C	4.4	3837
13M-2D	9.7	4980
13M-1A	3.9	3586
13M-1B	3.6	2651
13M-1C	2.5	1489
C2-A	3.3	3520
C2-B	6	3428
C2-C	3.8	1953
C1-A	7.1	4554
C1-B	4.2	1807
C1-C	4.9	1689
JHM5	65.5	23333
JHM4	89.4	20597
J13M31	9.3	5966
J132C1	8.7	7551
J132D1	11	9285
J132D2	20.7	14189
J132D3	30.3	17898
J131B1	7.5	5678
J131C1	10	6685
J13M-E	40.3	20520
JC2B1	9.3	6769
JC2C1	13.1	7406
J13M-D	53.7	25511
JC1B1	11.3	6340
JC1C1	16.2	7401
J13M-C	69.9	26847
J13M-B	43.4	27676
J13M-A	74.1	27961

\* HM-DNB-5484 cfs DIVERTED FROM HOLY MOSES (DIVERSION WASH 2) WASH TO THIRTEEN MILE WASH BASIN 3 (13M-3)



**GOLDEN VALLEY SOUTH VICINITY MAP AND DRAINAGE BASIN BOUNDARY**

MOHAVE COUNTY

ARIZONA

FIGURE 4-1

### **Zone VE**

Zone VE is the flood insurance rate zone that corresponds to the 100-year coastal floodplains that have additional hazards associated with storm waves. BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone. Mandatory flood insurance purchase requirements apply.

### **Zones B, C, and X**

Zones B, C, and X are the flood insurance rate zones that correspond to areas outside the 100-year floodplains, areas of 100-year sheet flow flooding where average depths are less than 1 foot, areas of 100-year stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 100-year flood by levees. No BFEs or depths are shown within this zone.

## **Existing Conditions**

The property is located on approximately 5800 acres within Sections 2, 3, 4, 8, 9, 10, 11, 14, 16 and 22 in Township 20 North and Range 18 West and Section 34 in Township 21 North and Range 18 West. The site generally slopes southwest at 1 percent and is covered with desert shrub. The west side of the site is a sandy loam. The ground becomes rockier to the east. Shinarump Road or County Highway 223 on the north is a graded road with drainage swales on both sides of the road. The road is generally dipped to accommodate the existing washes flowing to the southwest. Most roads crossing the site are graded but not paved. The site is bounded on the south by Aquarius Drive.



**Figure 4-2 Twin 36" CMP's crossing Aztec south of Redwall**

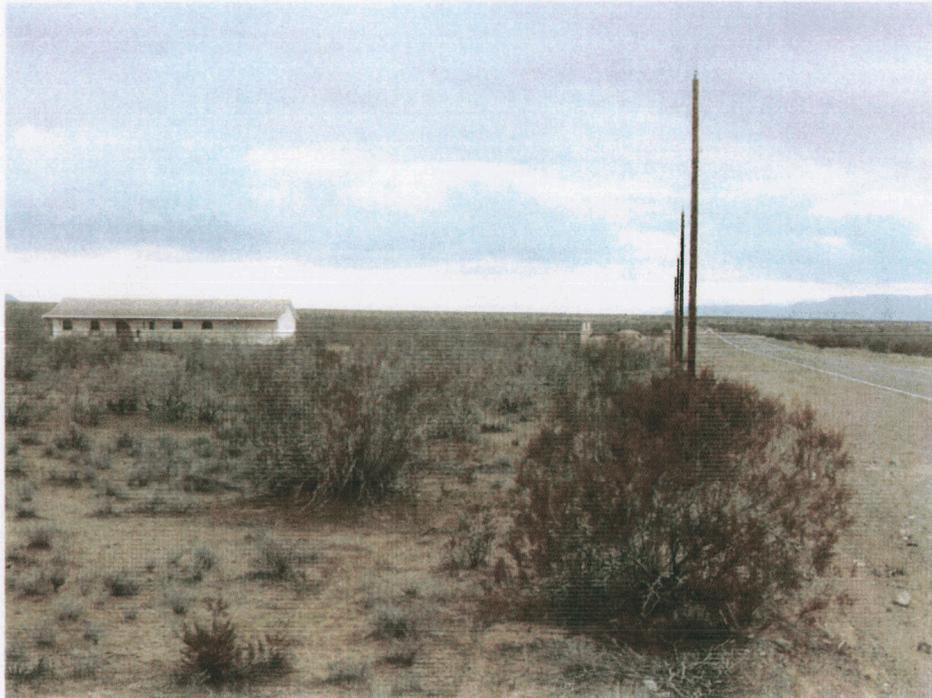
The following pictures were taken December 07, 2004



**Figure 4-3 - Hill east of Aztec in Section 23**



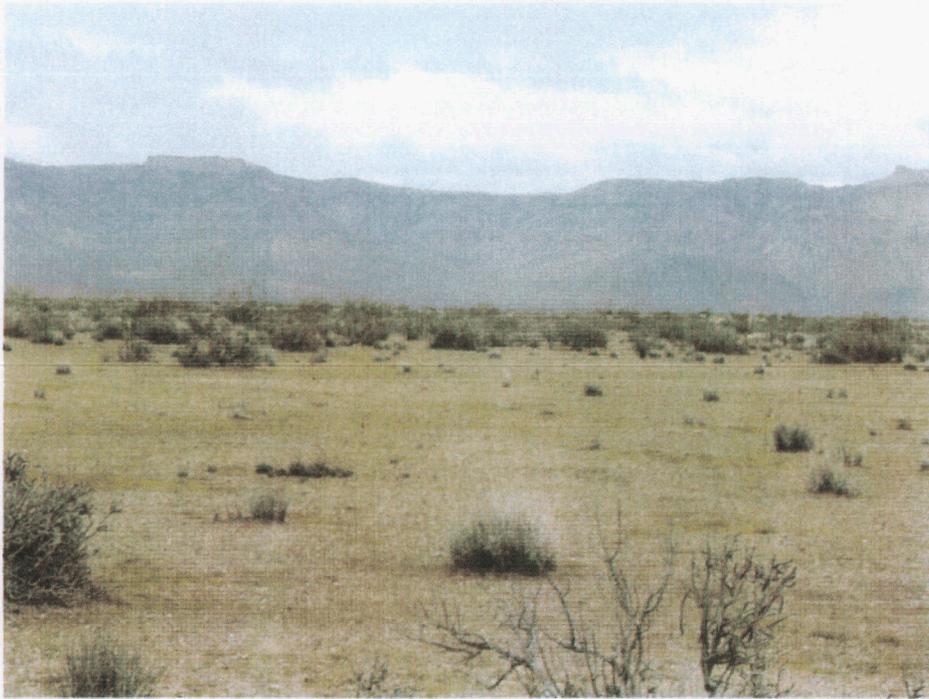
**Figure 4-4 - From Aztec: looking SE across Section 26**



**Figure 4-5- "Ocean Front Ranch" - looking south along Aztec**



**Figure 4-6- NE - near Sacramento & Hualapai**



**Figure 4-7- SW - near Sacramento & Hualapai**



**Figure 4-8- SE - near Sacramento & Hualapai**



**Figure 4-9 - Sacramento Wash - south - near Aquarius Drive**



**Figure 4-10 - Sacramento Wash - north - near Aquarius Drive**



**Figure 4-11- Sacramento Wash - 2nd braid north- near Aquarius Drive**



**Figure 4-12 - Sacramento Wash - 2nd braid south - near Aquarius Drive**



**Figure 4-13 - Sacramento Wash - 3rd braid south - near Aquarius Drive**



**Figure 4-14 - E - Centennial at Holy Moses center braid**



**Figure 4-15 - Centennial at Holy Moses Wash – crossing**



**Figure 4-16 - W - Centennial at Holy Moses Wash center braid**



**Figure 4-17- S - Yucca north of Hualapai alignment**



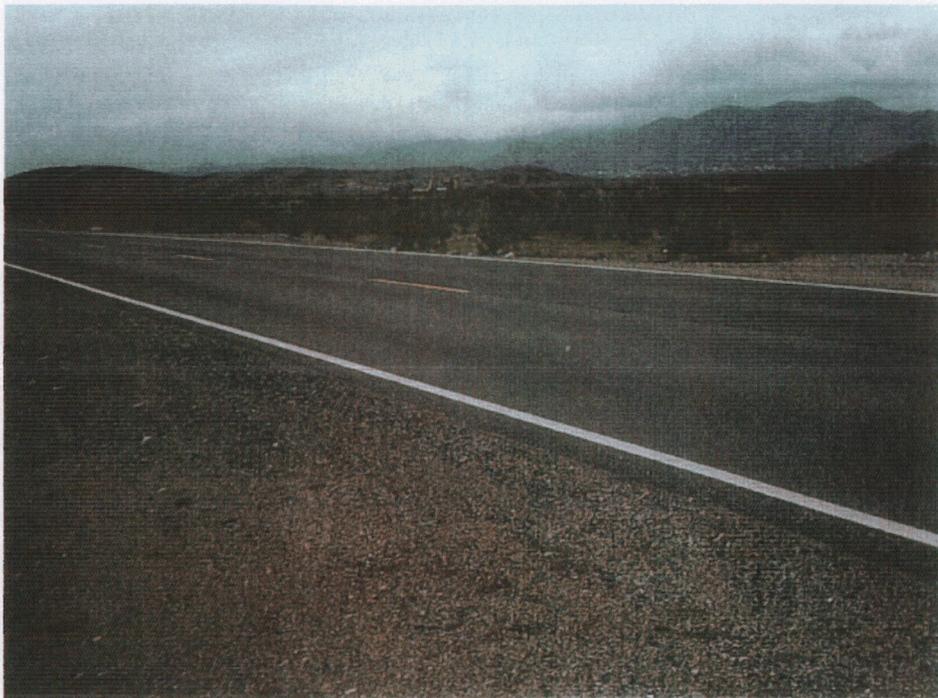
**Figure 4-18- E - Yucca at Holy Moses Wash**



**Figure 4-19 - Aquarius at Tampico - unnamed wash**



**Figure 4-20- Aztec - north: near Bolsa**



**Figure 4-21 - Aztec - NE near Bolsa**



**Figure 4-22 - Aztec - S - near Bolsa: note "Ocean Front Ranch"**



**Figure 4-23 - Aztec at north braid of Holy Moses Wash – West**



**Figure 4-24 - Shinarump at Sacramento Wash (east braid)**



**Figure 4-25 - Shinarump at Sacramento Wash (east braid - north)**



**Figure 4-26 - N - Shinarump at Maverick**



**Figure 4-27 - S - Shinarump at Maverick**



**Figure 4-28 - N - Shinarump at Adobe**



**Figure 4-29 - S - Shinarump at Adobe**



**Figure 4-30 - S - Shinarump at Sacramento**



**Figure 4-31 - Sacramento at Holy Moses center braid**

---

### **Hydrology –Criteria**

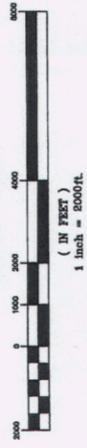
Drainage reports for the project area are subject to the Mohave County Criteria. Officials in the Flood Control Department defined the criteria as the same listed in the Arizona Department of Transportation Highway Report Number: FHWA-AZ93-281, Drainage Design Manual, Hydrology, Final Report, March 1983, rev. 8-11-94 (ADOT) and the Maricopa County Criteria Manual. All drainage reports will need to be stamped by a registered Arizona Professional Engineer.

The Rational Method may be used up to 20 acres. HEC-1 models are evaluated as 100-year 6-hour storms for areas up to 20 square miles. The precipitation distributions are interpolated from six curves according to the total watershed area. All calculations must be verified with one of three approximation methods.

Initial basin hydrographs are developed using local rainfall, land use, and soil parameters within the Drainage Design Management System for Windows (DDMS) developed for the Flood Control District for Maricopa County. Total watershed areas up to 20 square miles are evaluated as local storms using the 100-year 6-hour precipitation amounts corrected according to the area-depth curves. The rainfall distribution curve is interpolated from six distribution curves according to the relationship with the total watershed area. Watershed areas from 20 square miles to 100 square miles are evaluated both as local storms as described above and as general storms which use a set distribution and 100-year 24-hour precipitation.



GRAPHIC SCALE



**HOLY MOSES WASH HEC-BAS LOCAL STORM ANALYSIS**  
(100yr., 6 hr PRECIPITATION)

LOCATION (STATION)	DESCRIPTION	MAIN CHANNEL (CFS)	DIVERSION (CFS)
277+50	APEX (JHM5)	9,255	0
260+00	UPSTREAM	9,178	0
210+00	DIVERSION 3	8,308	947
175+00	TRIBUTARY FLOW	8,077	0
140+00	DIVERSION 2	6,958	1,119
	DIVERSION 1 (JHM4)	4,076	2,880

\* HMDWB-  
1,119 cfs DIVERTED FROM HOLY MOSES WASH  
(DIVERSION WASH 2) WASH TO THIRTEEN  
MILE WASH BASIN 3 (13M-3)

**HOLY MOSES WASH HEC-BAS GENERAL STORM ANALYSIS**  
(100yr., 24 hr PRECIPITATION)

LOCATION (STATION)	DESCRIPTION	MAIN CHANNEL (CFS)	DIVERSION (CFS)
277+50	APEX (JHM5)	22,333	0
260+00	UPSTREAM	22,261	0
210+00	DIVERSION 3	19,779	2,482
175+00	TRIBUTARY FLOW	20,228	0
140+00	DIVERSION 2	15,182	5,046
	DIVERSION 1 (JHM4)	14,298	884

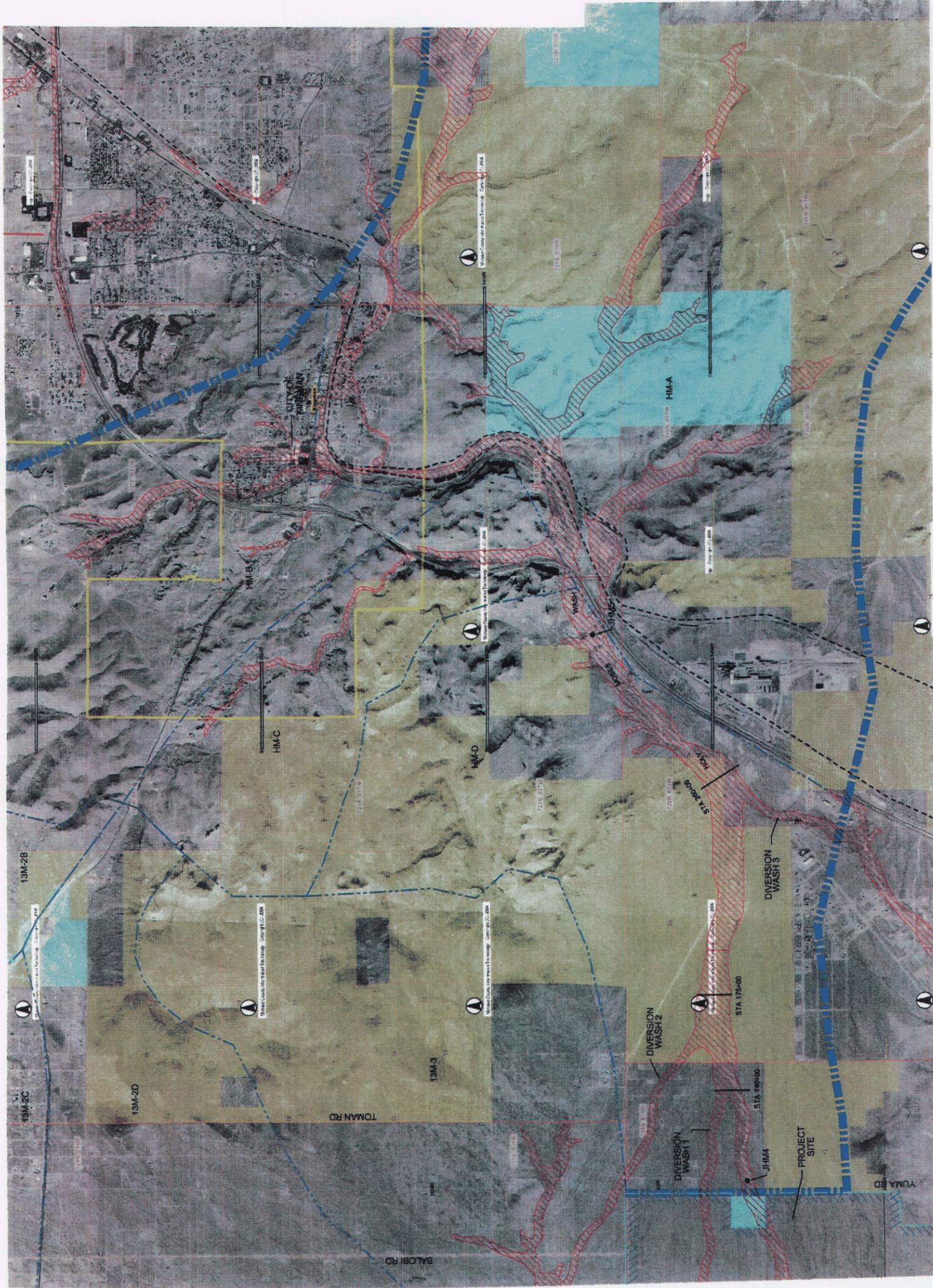
\* HMDWB-  
5,046 cfs DIVERTED FROM HOLY MOSES WASH  
(DIVERSION WASH 2) WASH TO THIRTEEN  
MILE WASH BASIN 3 (13M-3)

**DETECTION BASIN TABLE**

2-12 X 6 OUTLET  
Q out 9,400 cfs  
Q in 17,100 cfs  
STORAGE 876 AC. FT.  
DEPTH 12 FT.

**LEGEND:**

- PROJECT BOUNDARY
- FEMA FLOOD PLAIN
- DRAINAGE SHED BOUNDARY
- DRAINAGE SHEDS
- HMA = HOLY MOSES WASH - DRAINAGE SHED A
- 13M-2B = THIRTEEN MILE WASH - TRIBUTARY 2, DRAINAGE SHED B
- C-1C = CERBAT WASH - TRIBUTARY 1, DRAINAGE SHED C
- JHM5 = JUNCTION HOLY MOSES WASH, NODE 5

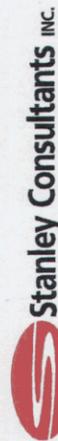


GOLDEN VALLEY SOUTH  
HOLY MOSES BASIN BOUNDARY

MOHAVE COUNTY

ARIZONA

FIGURE 4-32



5820 S. EASTERN AVENUE, SUITE 200  
LAS VEGAS, NEVADA 89119 (702) 369-9396

**LEGEND:**

PROJECT BOUNDARY

FEMA FLOOD PLAIN

DRAINAGE SHED BOUNDARY

DRAINAGE SUB-SHED BOUNDARY

**DRAINAGE SHEDS**

HM-A = HOLY MOSES WASH - DRAINAGE SHED A  
 13M-2B = THIRTEEN MILE WASH - TRIBUTARY 2, DRAINAGE SHED B  
 C-1C = CERBAT WASH - TRIBUTARY 1, DRAINAGE SHED C  
 J132B1 = JUNCTION THIRTEEN MILE WASH, TRIBUTARY 2, DRAINAGE SHED B, NODE 1

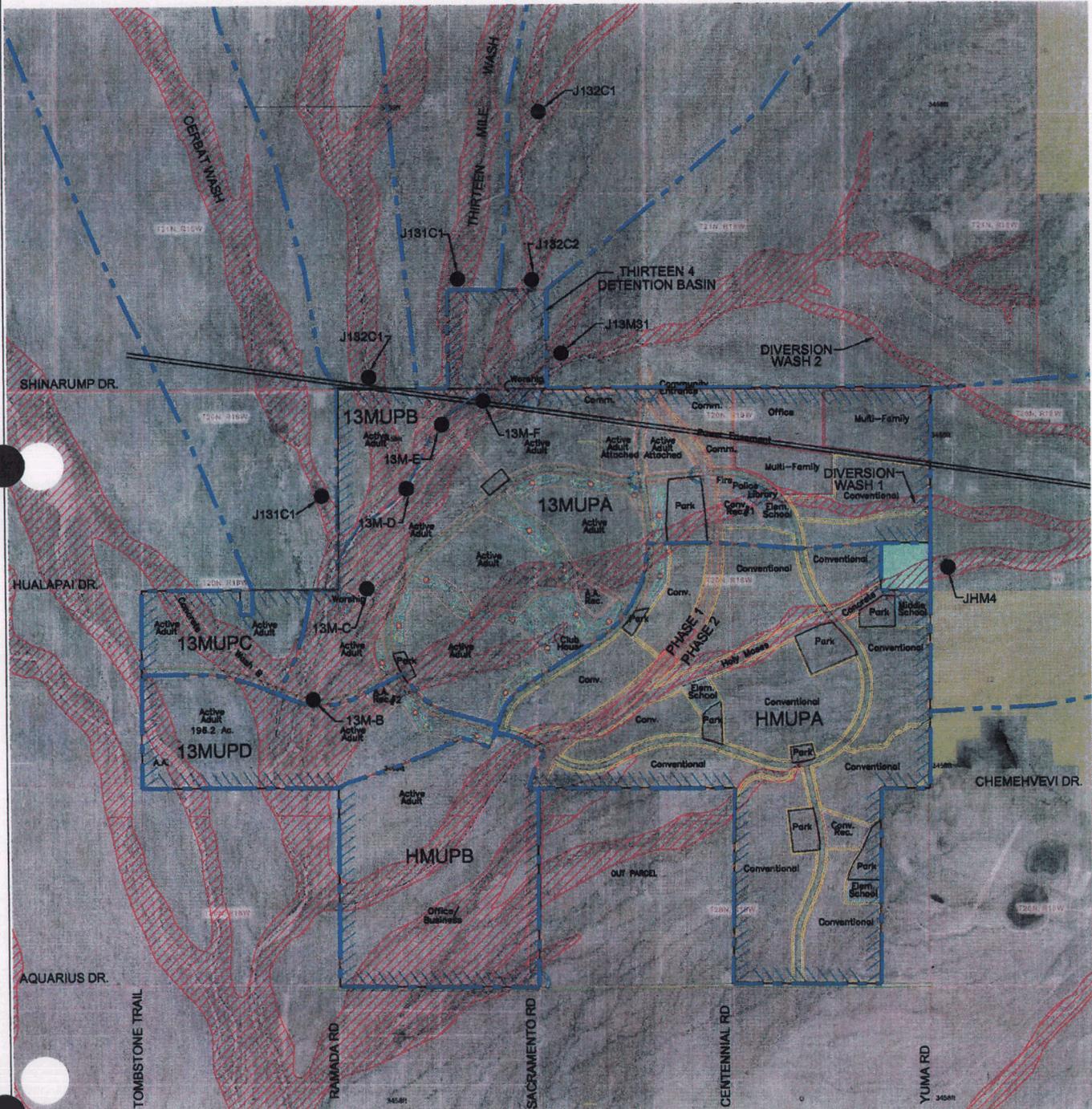
**DETENTION BASIN TABLE**

2-12 X 6 OUTLET  
 Q out 9,400 cfs.  
 Q in 17,100 cfs.  
 STORAGE 875 AC. FT.  
 DEPTH 12 FT.

NORTH



SCALE: 1"=4000'



**Stanley Consultants INC.**  
 5820 S. EASTERN AVENUE, SUITE 200  
 LAS VEGAS, NEVADA 89119 (702) 369-9396

**FIGURE 4-33**  
**GOLDEN VALLEY SOUTH**  
**CONCEPT K SHEDS**

**LEGEND:**

-  PROJECT BOUNDARY
-  FEMA FLOOD PLAIN
-  DRAINAGE SHED BOUNDARY
-  DRAINAGE SUB-SHED BOUNDARY
-  GOLF COURSE SUB-SHED BOUNDARY
-  SITE BOUNDARY

**DETENTION BASIN TABLE**

2-12 X 6 OUTLET  
 Q out 9,400 cfs.  
 Q in 17,100 cfs.  
 STORAGE 875 AC. FT.  
 DEPTH 12 FT.

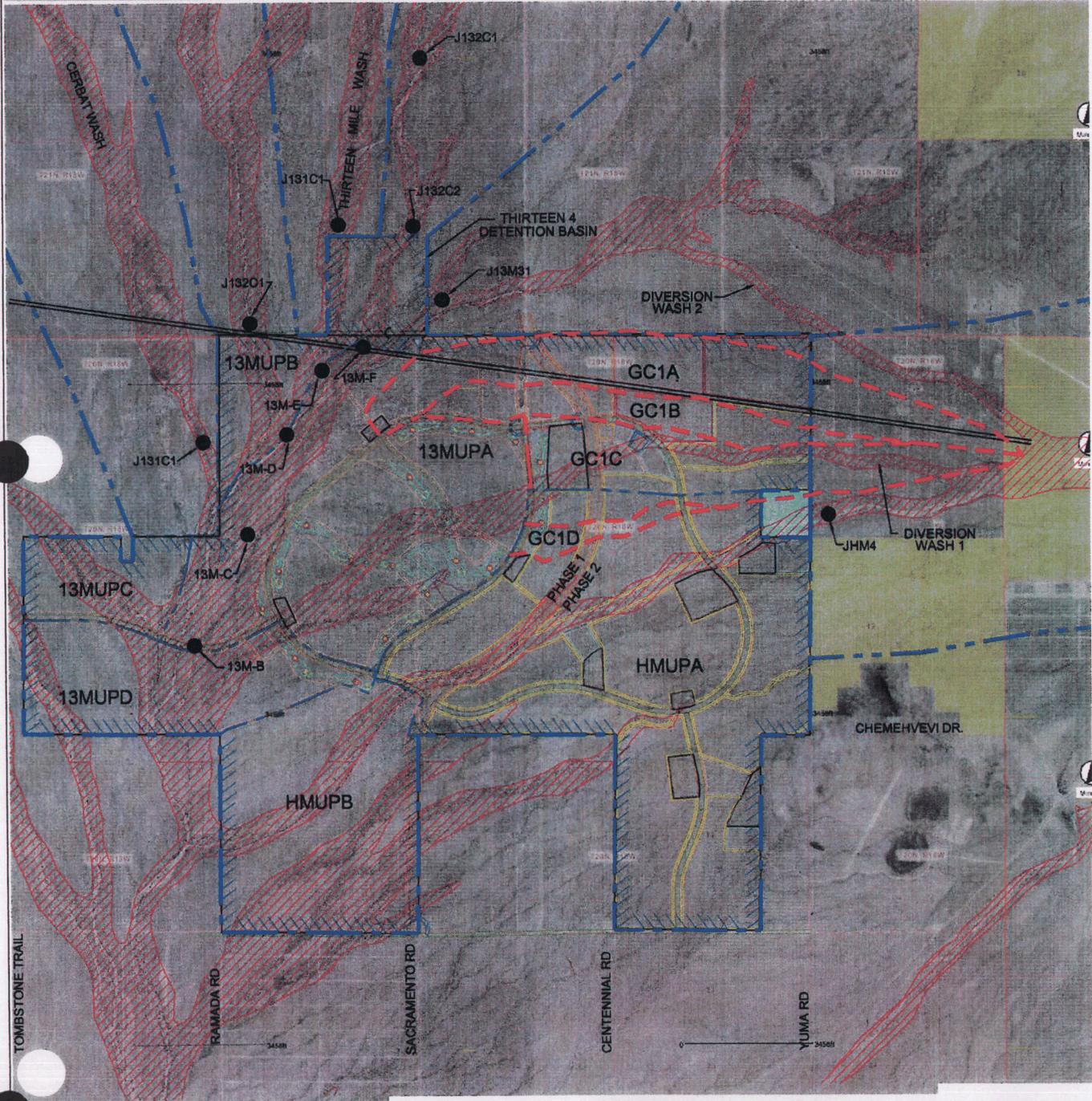
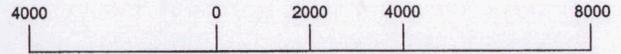
**DRAINAGE SHEDS**

HM-A = HOLY MOSES WASH - DRAINAGE SHED A  
 13M-2B = THIRTEEN MILE WASH - TRIBUTARY 2, DRAINAGE SHED B  
 C-1C = CERBAT WASH - TRIBUTARY 1, DRAINAGE SHED C  
 J132B1 = JUNCTION THIRTEEN MILE WASH, TRIBUTARY 2,  
 DRAINAGE SHED B, NODE 1

NORTH



SCALE: 1"=4000'



**Stanley Consultants INC.**  
 5820 S. EASTERN AVENUE, SUITE 200  
 LAS VEGAS, NEVADA 89119 (702) 369-9396

**FIGURE 4-34**  
**GOLDEN VALLEY SOUTH**  
**CONCEPT K GOLF COURSE SHEDS**



FIGURE 5-2

SCALE: AS NOTED

CONCEPTUAL WATER SUPPLY  
GOLDEN VALLEY SOUTH  
RHODES HOMES  
MOHAVE COUNTY, ARIZONA

DATE: 02/20/08
APPROVED: [Signature]
CHECKED: [Signature]
DRAWN: [Signature]
DESIGNED: [Signature]

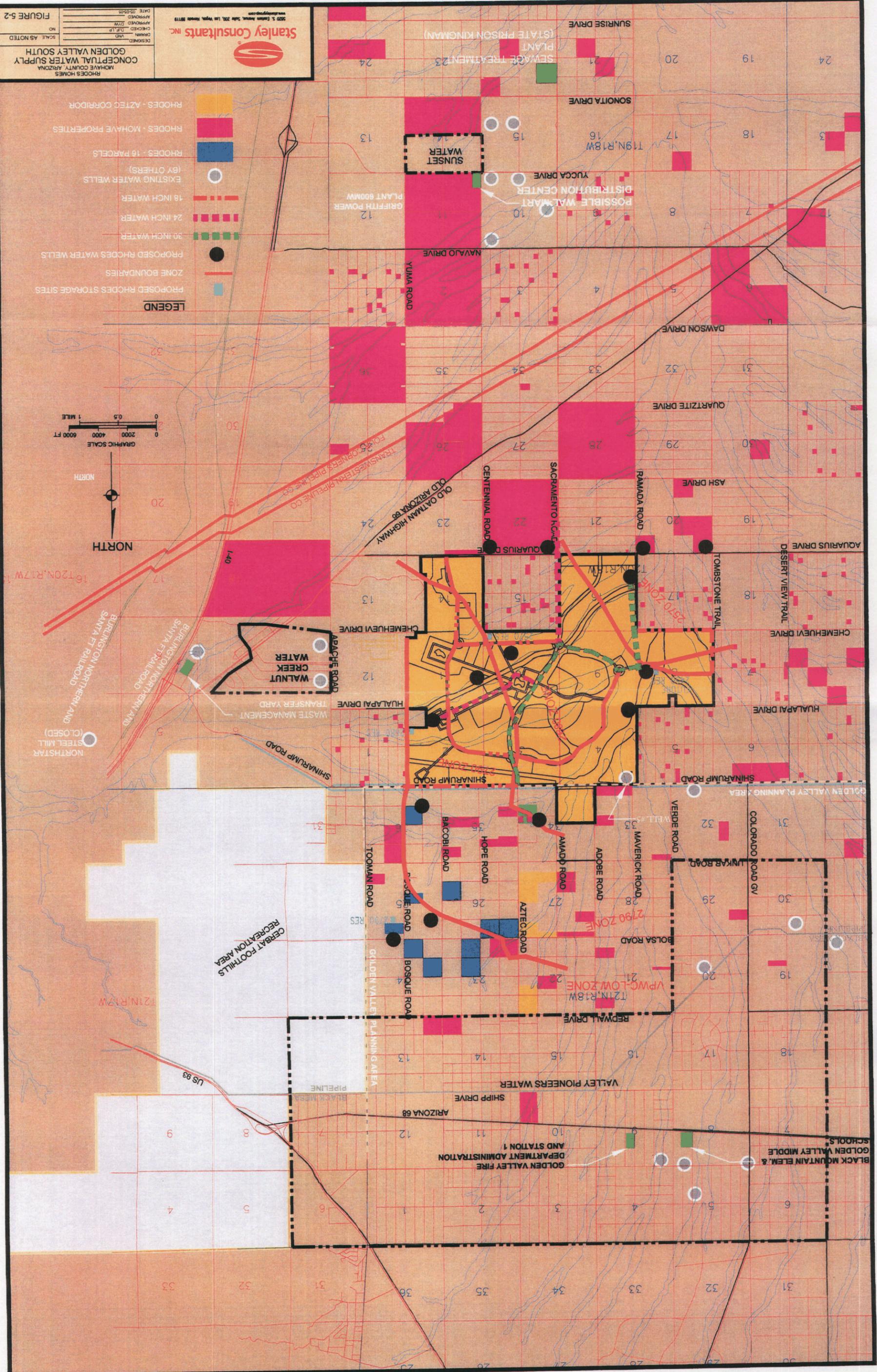
**Stanley Consultants INC.**  
 525 S. Green Avenue, Suite 202, Las Vegas, Nevada 89119  
 www.stanleyconsultants.com

**LEGEND**

- PROPOSED RHODES STORAGE SITES
- ZONE BOUNDARIES
- PROPOSED RHODES WATER WELLS
- 30 INCH WATER
- 24 INCH WATER
- 18 INCH WATER
- EXISTING WATER WELLS (BY OTHERS)
- RHODES - 16 PARCELS
- RHODES - MOHAVE PROPERTIES
- RHODES - AZTEC CORRIDOR

**GRAPHIC SCALE**  
 0 0.5 1 MILE  
 0 2000 4000 6000 FT

**NORTH**



Verde Road, Adobe Road, Aztec Road, Hope Road, Bacobi Road (County Route 277), and Bosque Road presently connect the project property to US Highway 68. All of these roadways are section line arterials except Hope Road and Amado Road, which are mid-section line major collector roadways. Per the available Assessors Maps, all of the north-south access roadways presently have either 80 to 100 foot rights of way dedicated, or 40 to 50 foot half street rights of way dedicated. All of the preceding roadways have at grade drainage crossings which render the roadways impassable during storm (flood) events. All weather (paved road) access to the project site is also provided via Shinarump Road between Interstate Highway 40 and Aztec Road. Shinarump Road is a two lane facility which is unpaved west of Aztec Road. Shinarump Road is also designated Mohave County Route 223. See Figure 6-3 for typical access roadway.



**Figure 6-2 Old Oatman Highway (US 66) Northeast of the Project**



**Figure 6-3 Paved Project Access Road**

### **Planned Improvements – Government**

Review of the Mohave County, Arizona Department of Transportation, (ADOT), and the WACOG websites revealed no planned projects for roadway improvements which would impact this project.

ADOT has a budget for Fiscal Year 2005 to repair scour on the Interstate Highway 40 bridge over the Holy Moses Wash.

### **Trip Generation and Project Impacts**

The keys to the success of this project are either providing access to nearby US Highway 68 and Interstate Highway 40, or internal capture of the project generated traffic. This project will develop just under nine sections of land, of which approximately six sections will be developed as residential uses. For single family detached dwelling units, peak hour trips occur between 7:00 and 9:00 am and 4:00 and 6:00 pm, corresponding to commercial and industrial peak hour trips. A single section of land developed at a density of four units per acre, will generate about 20,536 trips per day, with 1,351 outbound and 450 inbound am peak hour trips and 1,250 inbound and 734 outbound pm peak hour trips. At this rate, it is clear that development of a

RHODES HOMES  
 MOHAVE COUNTY, ARIZONA  
 TRAFFIC ANALYSIS  
 GOLDEN VALLEY SOUTH  
 DESIGNED: K. MARTIN  
 DRAWN: JND  
 CHECKED: DTM  
 APPROVED: DTM  
 DATE: 05-05-05

  
**Stanley Consultants Inc.**  
 500 S. Eastern Avenue, Suite 200, Las Vegas, Nevada 89119  
 www.stanleygroup.com

**LEGEND**  
 PROPOSED 6 LANE ROADWAY  
 PROPOSED 4 LANE ROADWAY

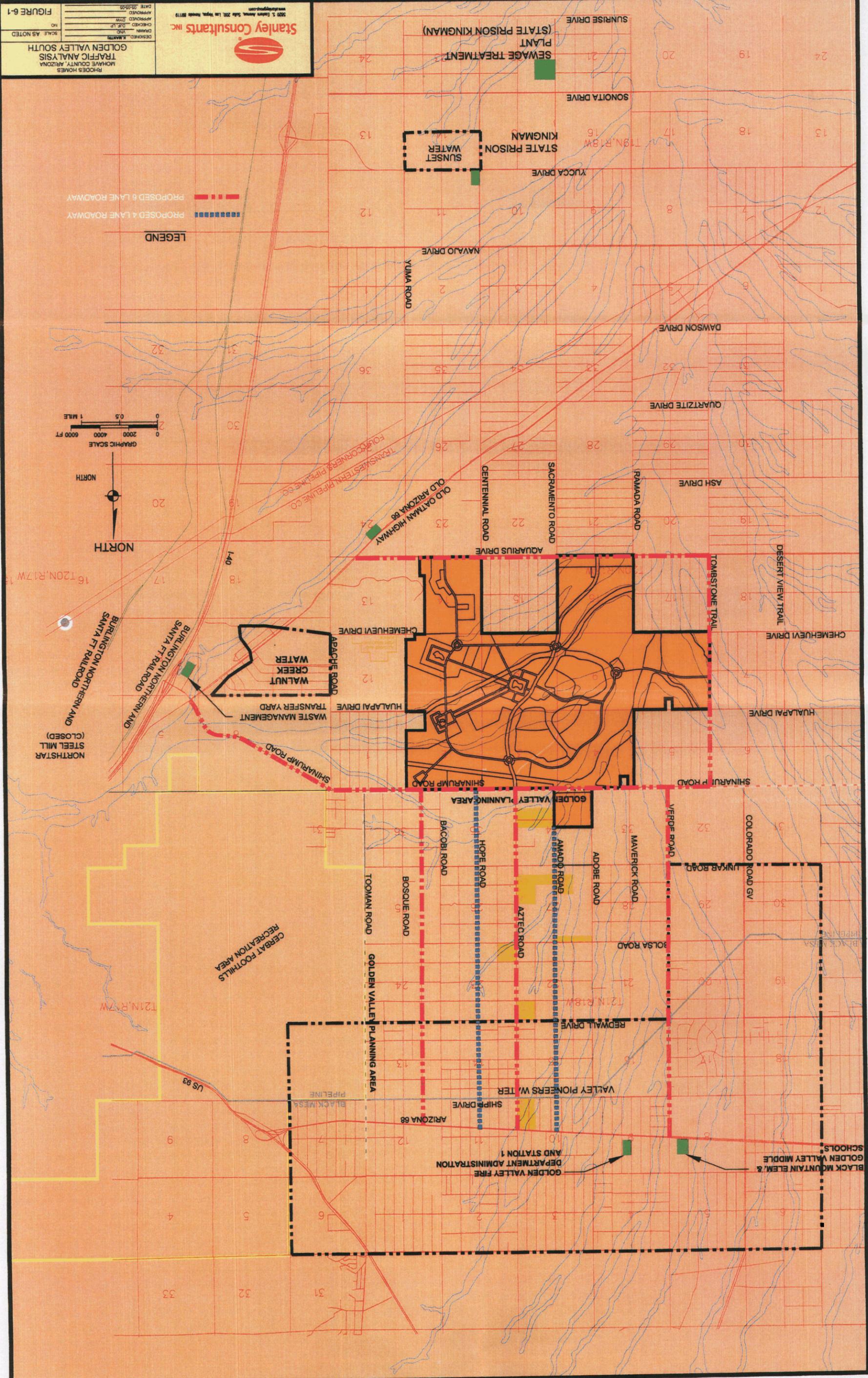
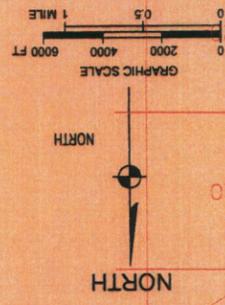


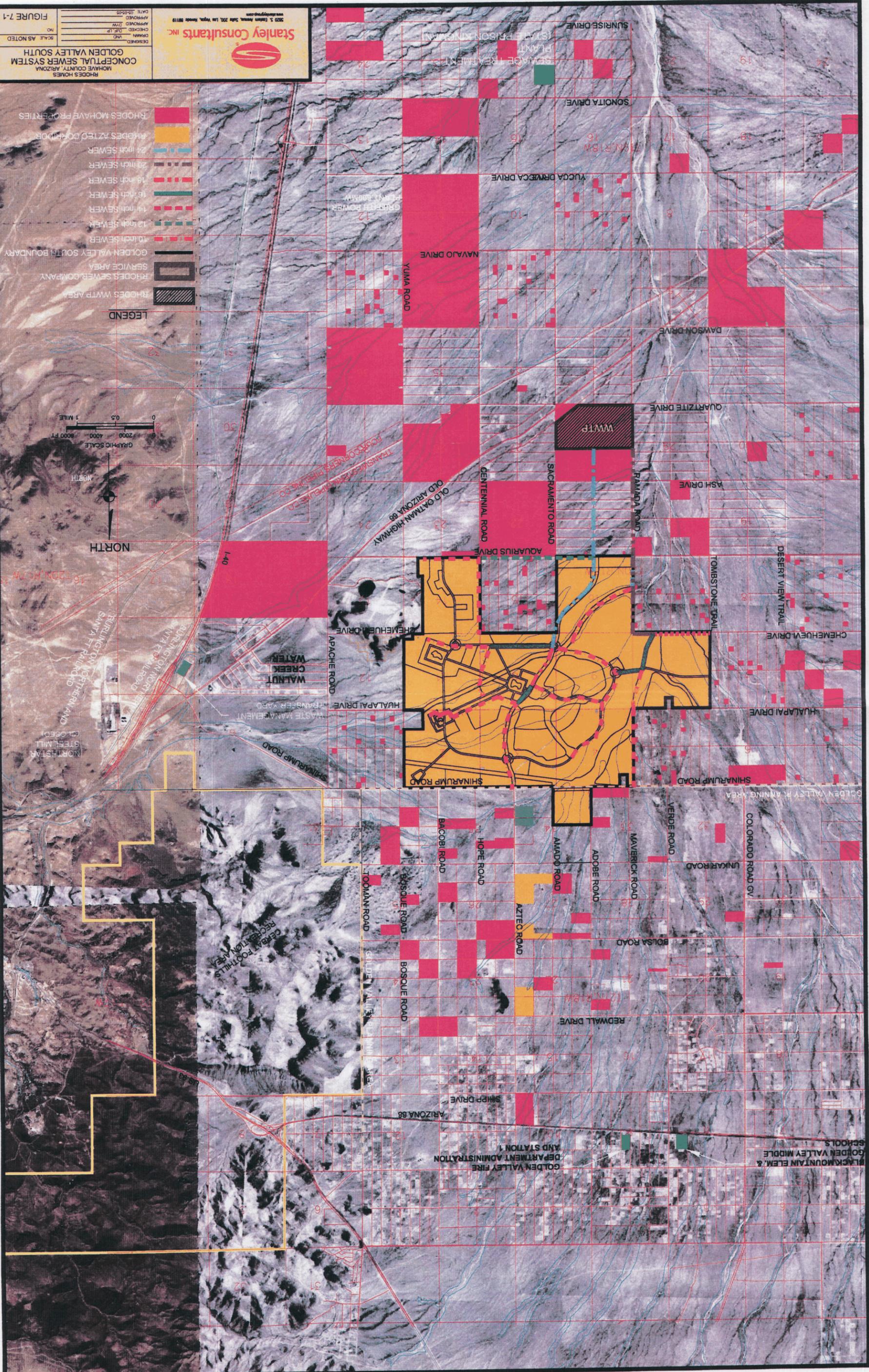
FIGURE 7-1

DATE: 10/20/05  
APPROVED: [Signature]  
CHECKED: DJP  
DRAWN: [Signature]  
SCALE: AS NOTED

Stanley Consultants, Inc.  
3500 S. Center Avenue, Suite 200, Las Vegas, Nevada 89119  
www.stanleyconsultants.com

RHODES HOMES  
CONCEPTUAL SEWER SYSTEM  
GOLDEN VALLEY SOUTH

- LEGEND**
- RHODES WWTPL AREA
  - RHODES SEWER COMPANY SERVICE AREA
  - GOLDEN VALLEY SOUTH BOUNDARY
  - 10 inch SEWER
  - 12 inch SEWER
  - 14 inch SEWER
  - 16 inch SEWER
  - 18 inch SEWER
  - 20 inch SEWER
  - 24 inch SEWER
  - RHODES AZTEC COFFICOR
  - RHODES MOHAVE PROPERTIES





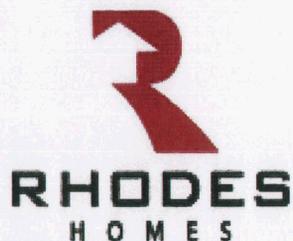


# RHODES HOMES ARIZONA

## The Villages at White Hills

### Engineering Report

*Prepared for:*



2215 Hualapai Mountain Road,  
Suite H  
Kingman, Arizona 86401



*Prepared by:*

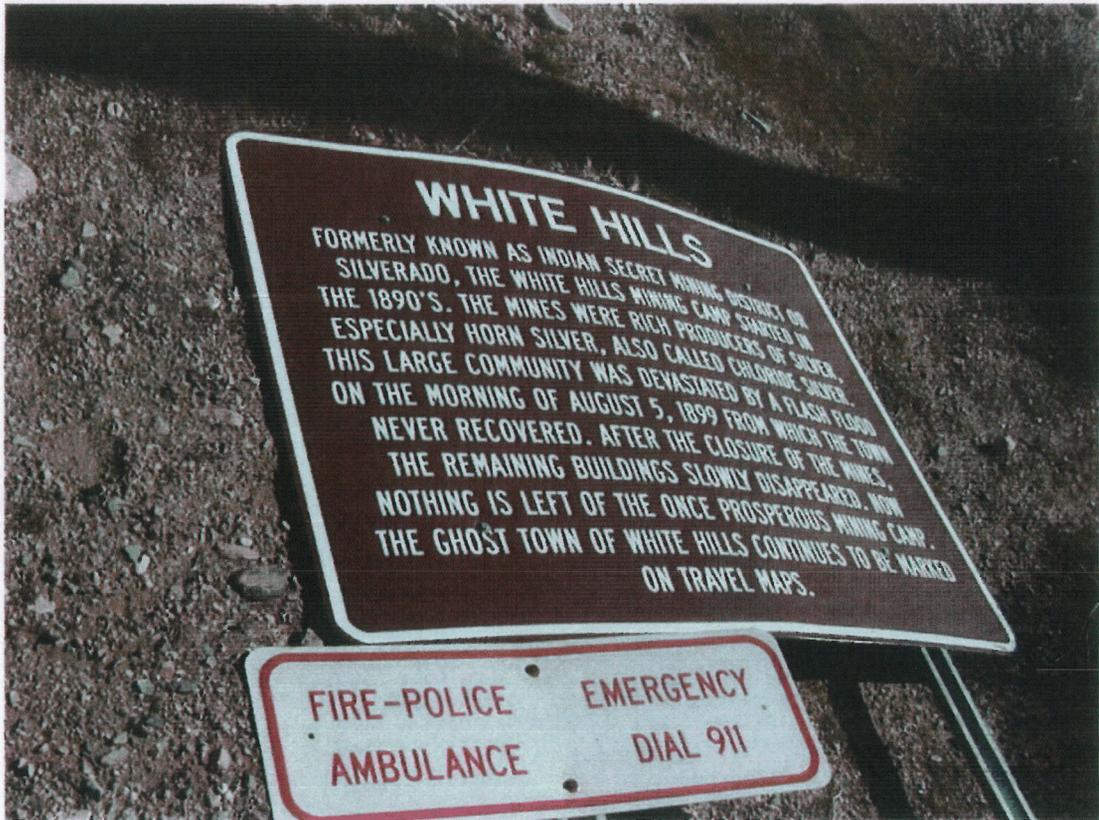


A Stanley Group Company  
Engineering, Environmental and Construction Services - Worldwide

*JUNE, 2005*

5820 S. Eastern Avenue, Suite 200, Las Vegas, NV 89119

History of the White Hills Town by the Mohave County Museum of History and Arts



The following is a summary of the history of White Hills Town by the Mohave County Museum of History and Arts.

In the winter of 1891, a snow storm was raging and Frank Robinson asked a Hualapai Indian Cowboy who went by the name of Hualapai Jeff to help in driving back some cattle, which had wandered from Gold Basin down the canyon toward the desert below. Hualapai Jeff, while camped for one night in the desert, accidentally found a rich silver float. He said nothing at the time, but in Gold Basin a short time afterward, Judge Henry Schaeffer asked Hualapai Jeff if he knew of any good mine prospects. Hualapai Jeff brought him a specimen and he offered Hualapai Jeff \$200 if he would show him the location.

In May of 1892, Hualapai Jeff accepted the offer. Schaeffer invited John Barnett and John Sullivan to join him for the trip to the location with Hualapai Jeff as the guide. In July of 1892, the Judge told everyone that he had found the original float years before and that he had spent that time since searching for it and that no Indian was involved.

“...the scarcity of potable water and lack of tools slowed its growth only momentarily. The Judge and other miners gathered (200 by the third week) to form the Indian Secret Mining District in order to have an authority available to keep track of claims. A few men gathered in Taggart’s tent store, debated and chose “WHITE

HILLS” as the name of the new camp, versus “INDIAN SECRET” or “SCHAEFFERVILLE.” A latecomer M.L. Vail, went to Prescott for a photographer, and mentioned to the local newspaper it should have been named “SILVERADO”. As more prospectors arrived upon hearing of the “STRIKE”.

The boom was on. Countless buildings were erected in the shape of an “L” about one mile in length, – homes, a school, stores, laundries and 12 saloons (7 in a row on Main Street). Town lots went for \$300. A post office was opened on October 20, 1892 and discontinued in August of 1914.

The rich shipments caught the attention of David Moffat, noted mining man of Denver, Colorado. He sent D.T. Root to investigate and in August 1893, Moffat and Root had consolidated most of the claims into one property under “Moffat-Root Mining Company.” They immediately shipped a ten stamp mill from Denver and had it running early in 1894. At this time 500 men were working on leases, while still more men worked for the company. The mill was successful for two years, when the Moffat-Root Mining Company sold in April 1896 to an English company, called the “White Hills Mining & Milling Company,” for \$1,750,000. The new company gave the more than 500 lessees on the small claims notice to quit, in effect banishing them from the camp. Disposing of the old mill as junk, they built a 40 stamp mill for \$150,000.

A 7-mile, 8” pipe line was constructed to the springs, guaranteed by a “water witch” ignoring the ample water in the mines for the old mill and promise of more in depth. A concrete 1,000,000 gallons capacity reservoir was built, to hold the springs’ water and White Hills was provided with an up-to-date water supply system, including fire hydrants that did not work due to the gravity being insufficient for operation.

A \$150,000 electric plant was constructed. Twenty employee houses were erected and a complete telephone system was installed. All these items cost \$350,000 and even though it was considered wasteful management, the company was enabled to continue substantial production for 4 years because of the large quantity of good ore left by the first company and the lessees.

Despite \$12,000,000 in total ore production for the past six years, by 1898 new strikes had stopped and the rich vein had paid out. Building ceased and the cost of living soared, so miners and families drifted away.

In 1899, those few hardy stragglers that were left were ultimately hit by something more devastating... a flood that inundated the town and its mineshafts. Its destiny was sealed. The telephone line was given over to Chloride. Owners closed everything by 1902. In 1903, a 40 stamp mill was installed for a short revival, and again in 1920. In 1972, a mining company commenced exploration, but found not enough silver to warrant expense of full development.

Today, 100 years after the fold, White Hills is considered a ‘true’ Ghost Town of Mohave County.



Grand Canyon - Parashant National Monument

Las Vegas

Clark  
NEVADA

Hoover Dam

Grand Canyon National Park

WHITE  
HILLS ●

Hualapai Indian Reservation

Mohave

ARIZONA

Lake Mead National Recreation Area

Davis Dam

Kingman

Laughlin

Bullhead City

Fort Mojave Indian Reservation

Needles

Lake Havasu City



**Stanley Consultants** INC.

5820 S. Eastern Avenue, Suite 200, Las Vegas, Nevada 89119  
www.stanleygroup.com

RHODES HOMES  
MOHAVE COUNTY, ARIZONA  
VILLAGE AT WHITE HILLS  
VICINITY MAP

DESIGNED	_____
DRAWN	VND
CHECKED	RHN
APPROVED	DYW
DATE	06-08-05

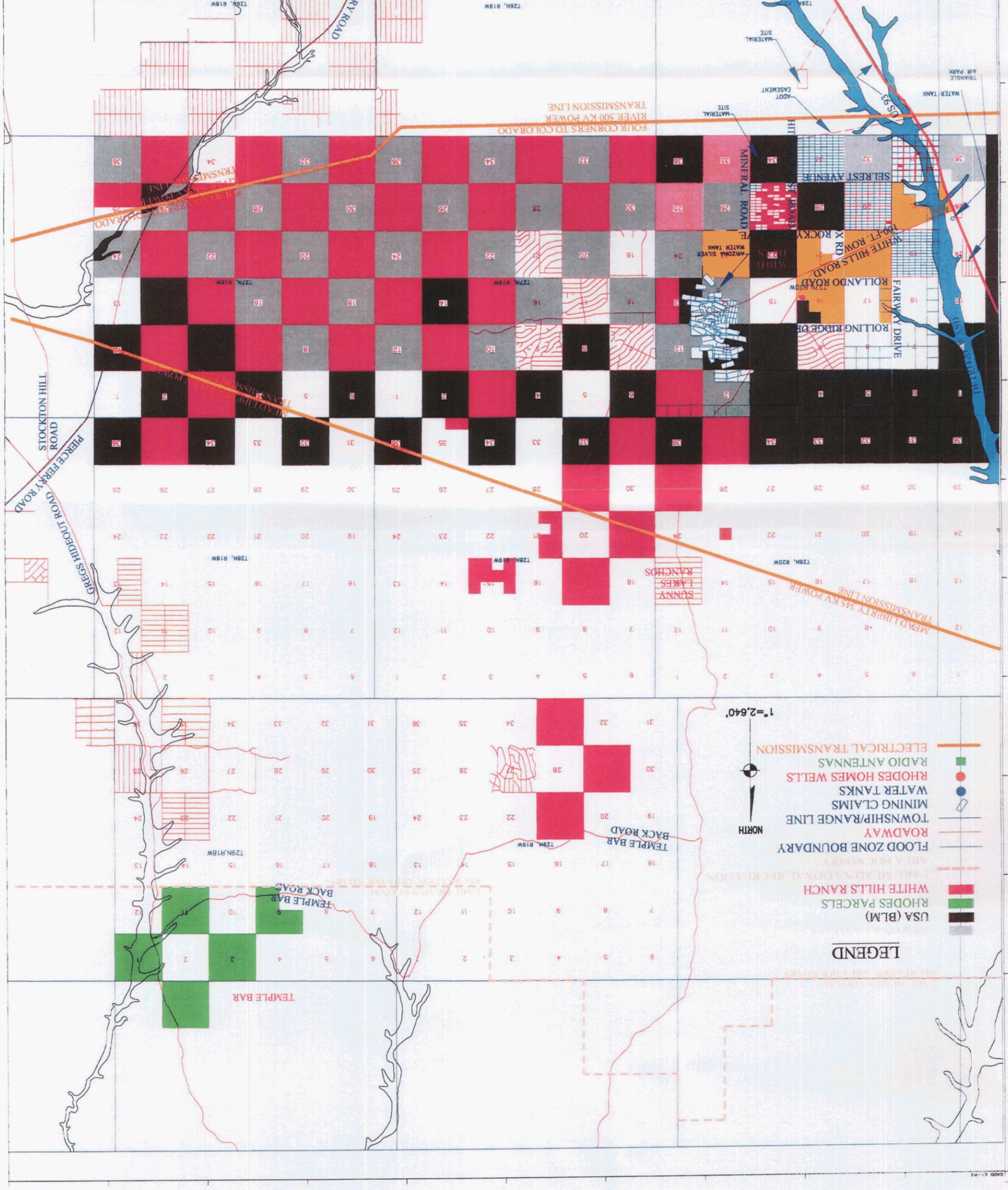
SCALE: AS NOTED  
NO

EXHIBIT 2-1

**Stanley Consultants Inc.**  
 5005 S. Durango Avenue, Suite 200, Las Vegas, Nevada 89119  
 www.stanleyconsultants.com

WHITE HILLS, TEMPLE BAR  
 CONSTRAINTS EXHIBIT  
 MOHAVE COUNTY, ARIZONA  
 RHODES HOMES  
 WHITE HILLS

NO.	NO.	NO.	NO.
DESIGNED: JRB	NO. 1	NO. 2	NO. 3
DRAWN: JRB	NO. 4	NO. 5	NO. 6
CHECKED: JRB	NO. 7	NO. 8	NO. 9
APPROVED: JRB	NO. 10	NO. 11	NO. 12
DATE: 08-10-09	NO. 13	NO. 14	NO. 15



**LEGEND**

- USA (BLM) [Black square]
- RHODES PARCELS [Red square]
- WHITE HILLS RANCH [Green square]
- LAKE MEAD NATIONAL RECREATION AREA [Yellow square]
- FLOOD ZONE BOUNDARY [Blue dashed line]
- ROADWAY [Red line]
- TOWNSHIP/RANGE LINE [Black dashed line]
- MINING CLAIMS [Blue hatched area]
- WATER TANKS [Blue circle]
- RHODES HOMES WELLS [Red circle]
- RADIO ANTENNAS [Green square]
- ELECTRICAL TRANSMISSION [Orange line]

Scale: 1" = 2,640'

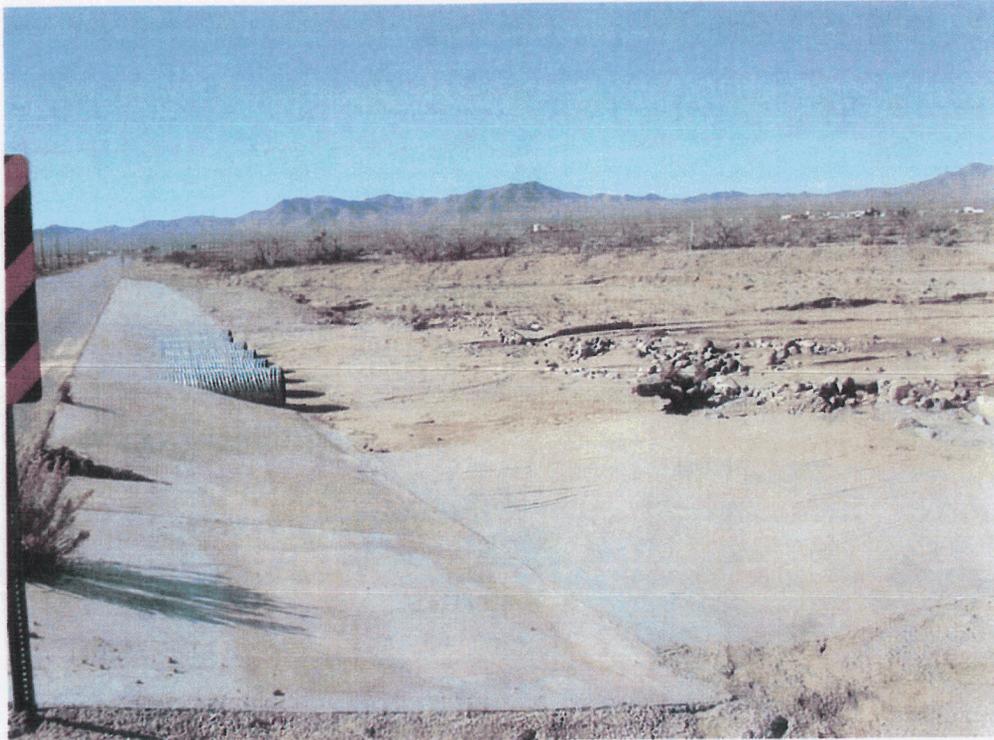
North arrow pointing up.



**Figure 4-1 Detrital Wash upstream of White Hills Road**



**Figure 4-2 Detrital Wash downstream of White Hills Road**



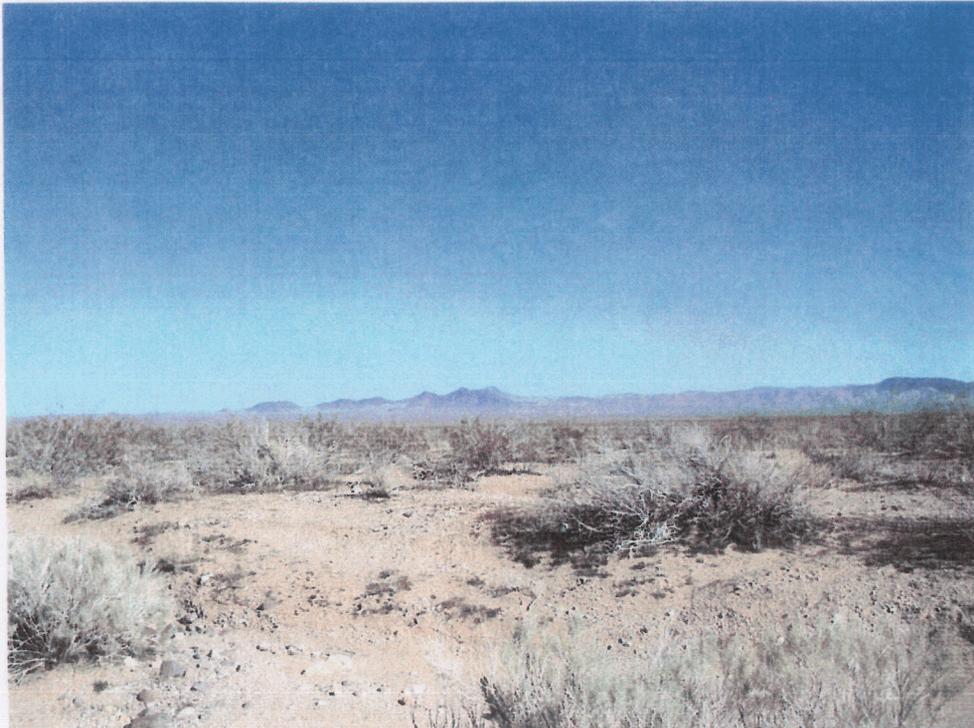
**Figure 4-3 Detrital Wash downstream of White Hills Road**



**Figure 4-4 Detrital Wash Grouted Riprap Protection North side of White Hills Road**



**Figure 4-5 White Hills Road Looking East**



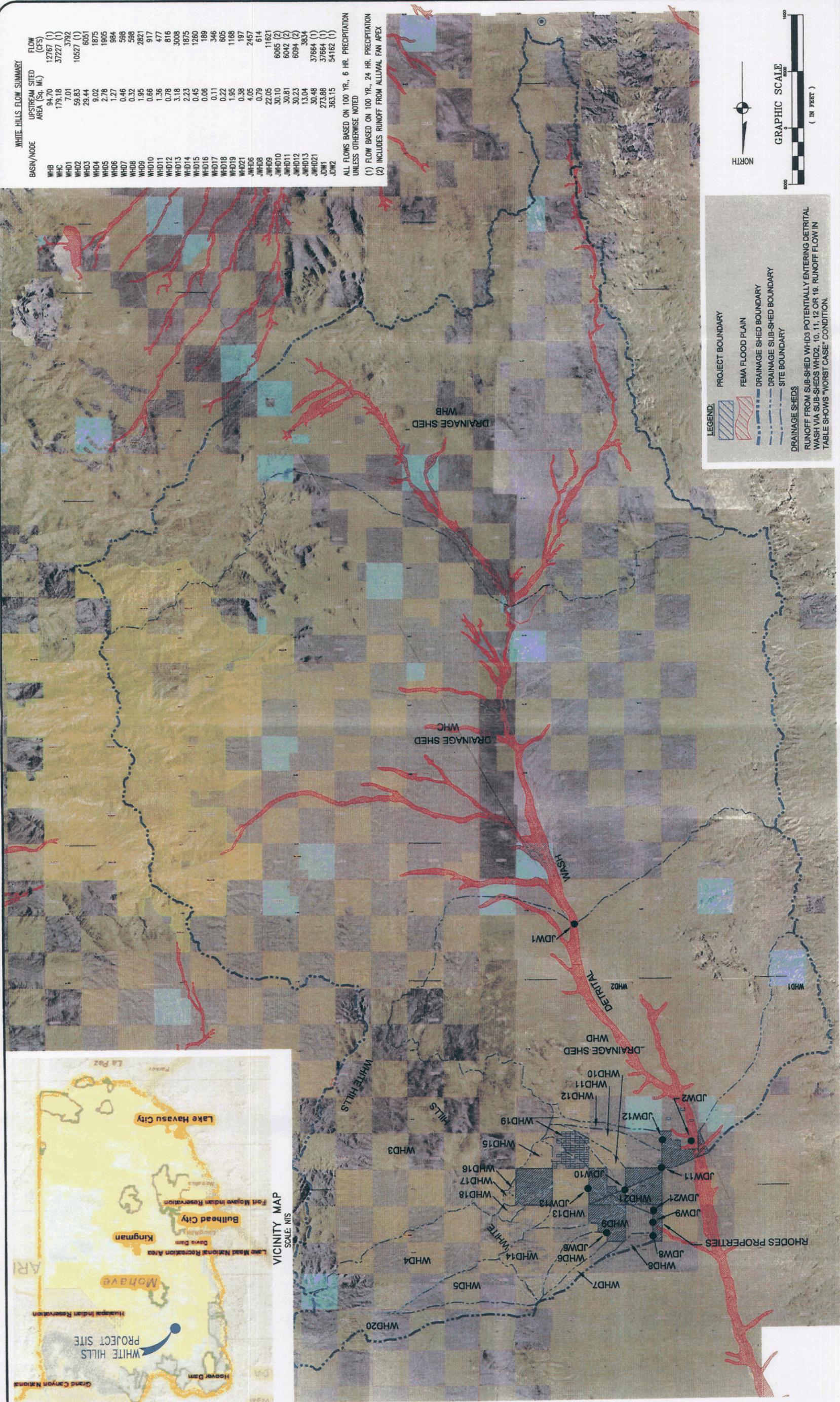
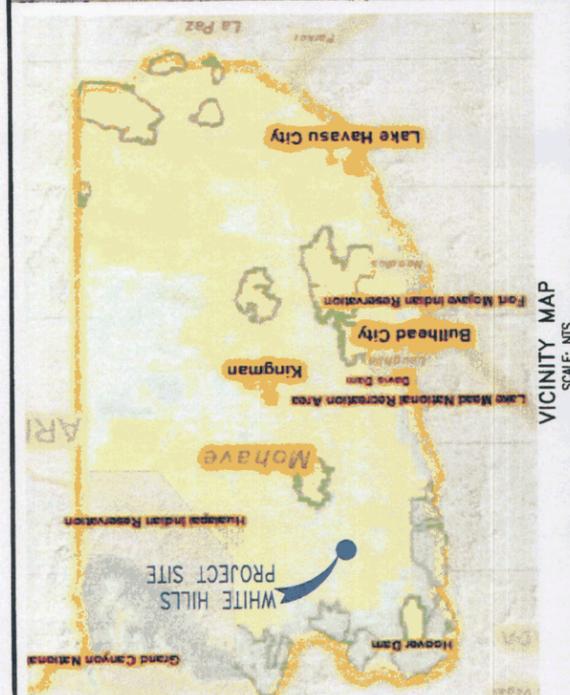
**Figure 4-6 White Hills Panorama No. 1**



**Figure 4-7 White Hills Panorama No. 2**



**Figure 4-8 White Hills Panorama No. 3**



**WHITE HILLS FLOW SUMMARY**

BASIN/NODE	UPSTREAM SITED AREA (Sq. Mi.)	FLOW (CFS)
WHB	94.70	12767 (1)
WHC	179.18	37227 (1)
WHD1	7.01	3792
WHD2	59.83	10527 (1)
WHD3	29.44	1875
WHD4	9.02	6051
WHD5	2.78	1875
WHD6	1.27	1905
WHD7	0.46	984
WHD8	0.32	598
WHD9	1.95	2821
WHD10	0.66	917
WHD11	1.36	477
WHD12	0.78	816
WHD13	3.18	3008
WHD14	2.23	1875
WHD15	0.45	1260
WHD16	0.06	189
WHD17	0.11	346
WHD18	0.22	605
WHD19	1.95	1168
WHD21	0.38	187
JHW06	4.05	2457
JHW08	0.79	614
JHW09	22.05	11621
JHW10	30.10	6065 (2)
JHW11	30.81	6042 (2)
JHW12	30.23	6094 (2)
JHW13	13.04	3834
JHW21	30.48	37664 (1)
JDW1	273.88	57664 (1)
JDW2	363.15	54162 (1)

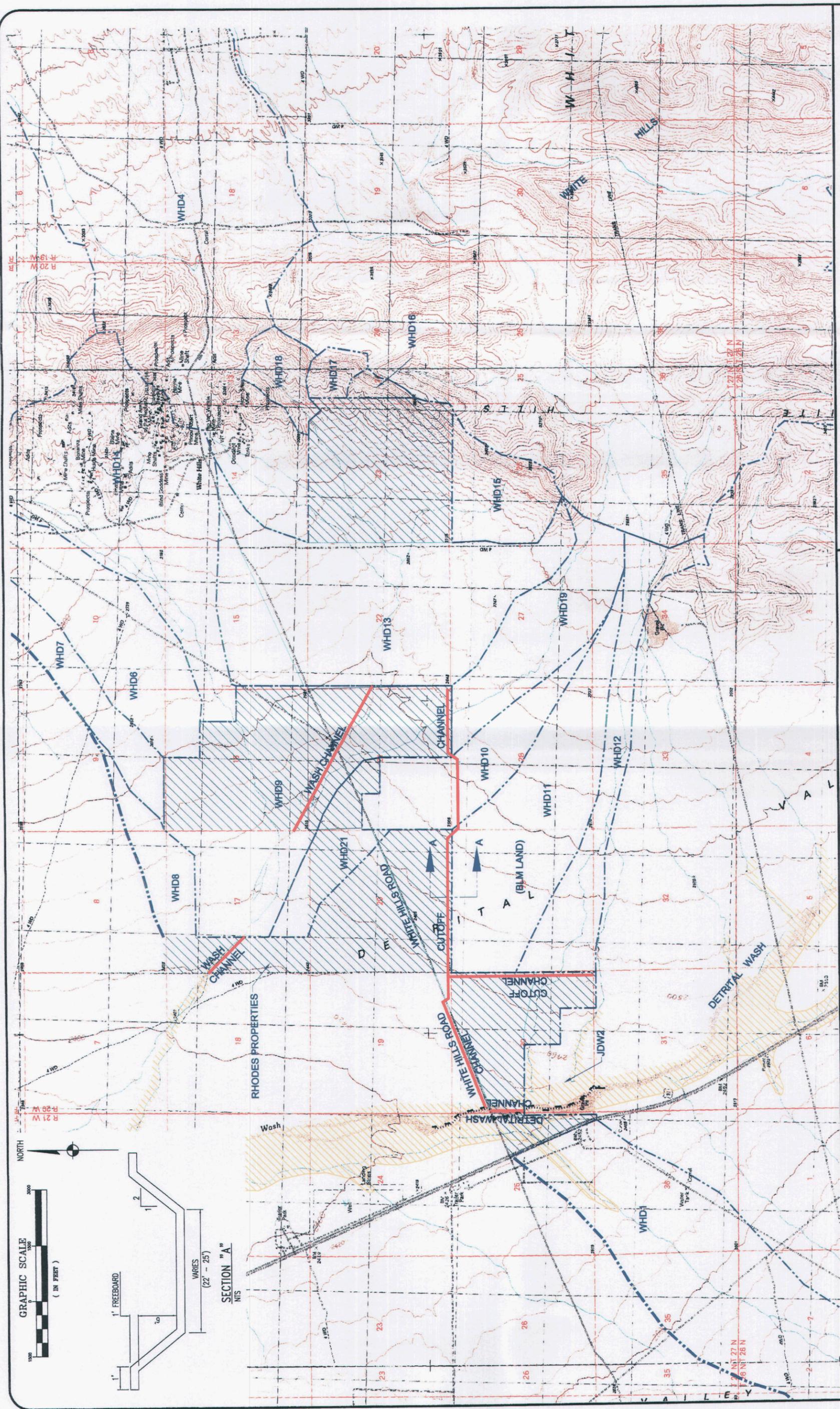
ALL FLOWS BASED ON 100 YR., 6 HR. PRECIPITATION UNLESS OTHERWISE NOTED  
 (1) FLOW BASED ON 100 YR., 24 HR. PRECIPITATION  
 (2) INCLUDES RUNOFF FROM ALLUVIAL FAN APEX

WHITE HILLS SITE  
VICINITY MAP AND  
DRAINAGE BASIN BOUNDARY

MOHAVE COUNTY

ARIZONA FIGURE 4-1

**Stanley Consultants Inc.**  
 5820 S. EASTERN AVENUE, SUITE 200  
 LAS VEGAS, NEVADA 89119 (702) 369-9386



WHITE HILLS SITE  
MAJOR CHANNEL IMPROVEMENTS

MOHAVE COUNTY

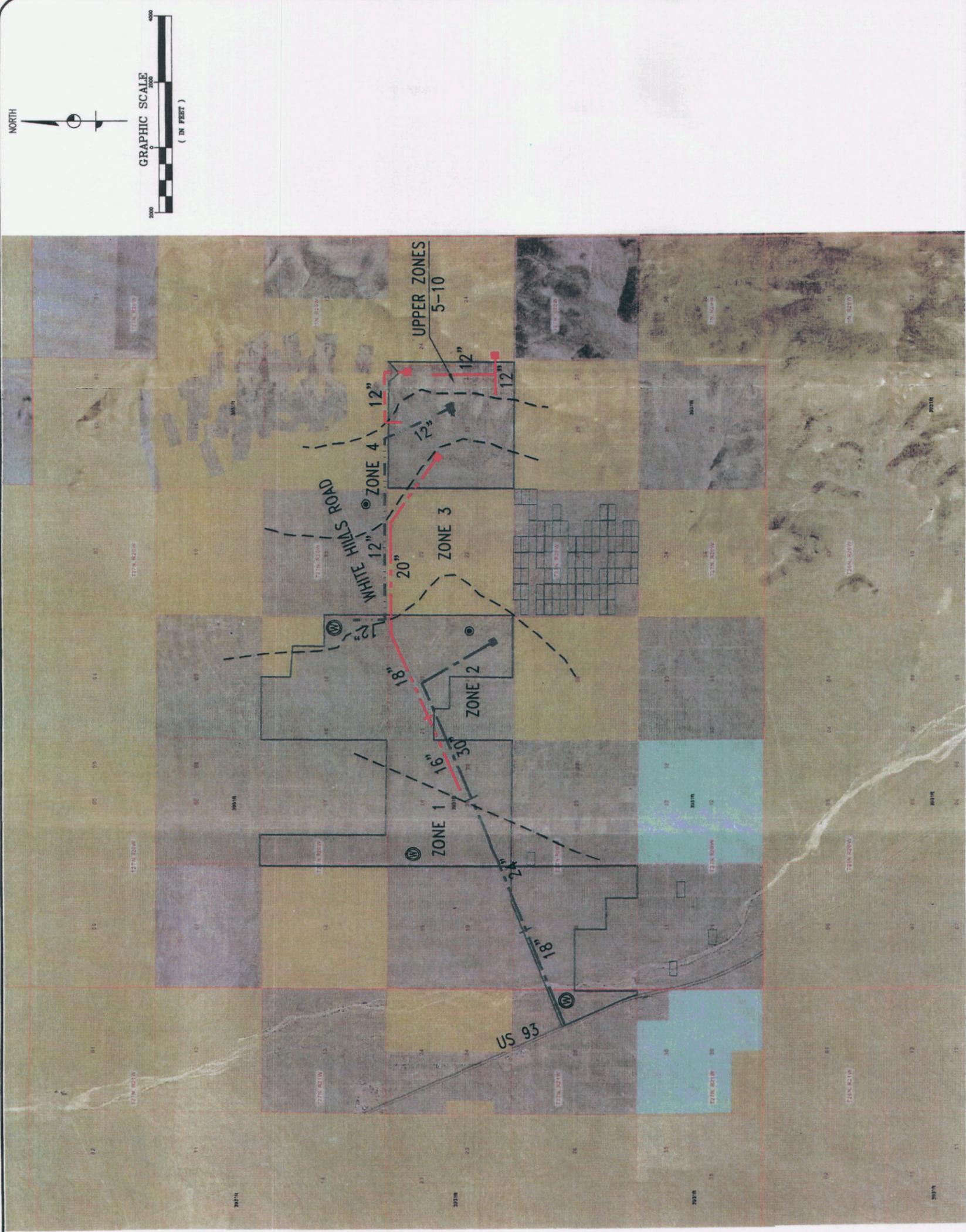
ARIZONA  
FIGURE 4-10



**Stanley Consultants INC.**  
5820 S. EASTERN AVENUE, SUITE 200  
LAS VEGAS, NEVADA 89119 (702) 369-9396

**LEGEND:**

- 30" --- ZONE 1 SYSTEM RESERVOIR, WELL AND PIPELINE
- 20" --- ZONE 2 SYSTEM RESERVOIR, WELL AND PIPELINE
- 12" --- ZONE 3 SYSTEM RESERVOIR, WELL AND PIPELINE
- 12" --- ZONE 4 SYSTEM RESERVOIR, WELL AND PIPELINE, UPPER ZONE BOOSTER
- 12" --- UPPERZONE SYSTEM ZONES 5-10 RESERVOIR AND PIPELINE
- WHITE HILLS BOUNDARY
- PRESSURE ZONE BOUNDARY
- EXISTING WELLS
- ⊙ 2005 TEST WELLS



SCALE (H)	1"=2000'
SCALE (V)	1"=2000'
DRAWN BY	LJH
CHECKED BY	KS
DATE	05-05-05

**Stanley Consultants INC.**  
 5820 S. EASTERN AVENUE, SUITE 200  
 LAS VEGAS, NEVADA 89119 (702) 369-9396

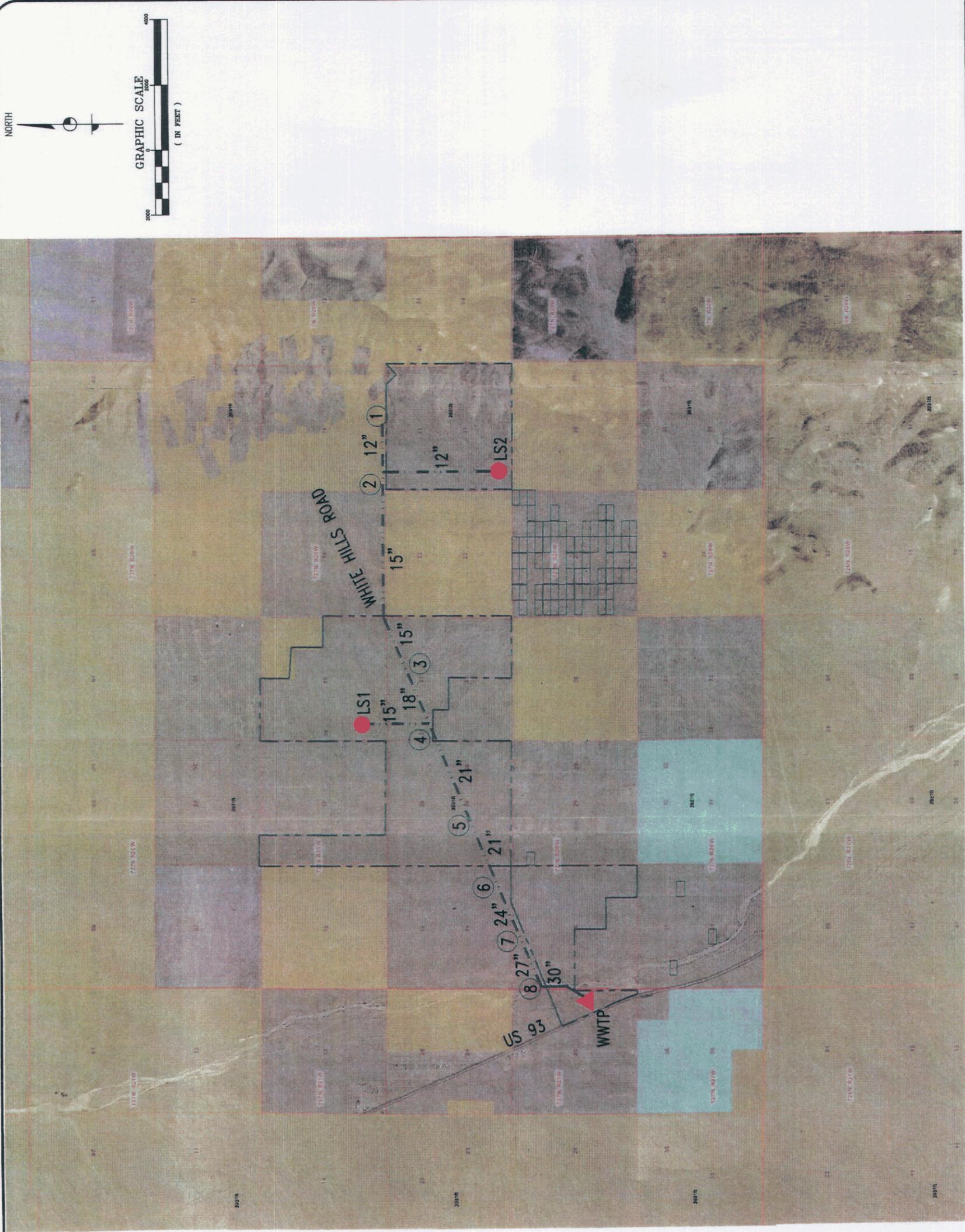
**RHODES HOMES ARIZONA, LLC  
 THE VILLAGES OF WHITE HILLS**

**FIGURE 1  
 WHITE HILLS CONCEPTUAL  
 WATER SUPPLY**

MOHAVE COUNTY

ARIZONA

FIGURE 5-1



**LEGEND:**

- ① MAIN COLLECTION POINT
- LS1 POSSIBLE LIFT STATION LOCATION
- 18" SEWER MAIN AND SIZE
- ▲ WWTP TREATMENT PLANT LOCATION
- WHITE HILLS BOUNDARY

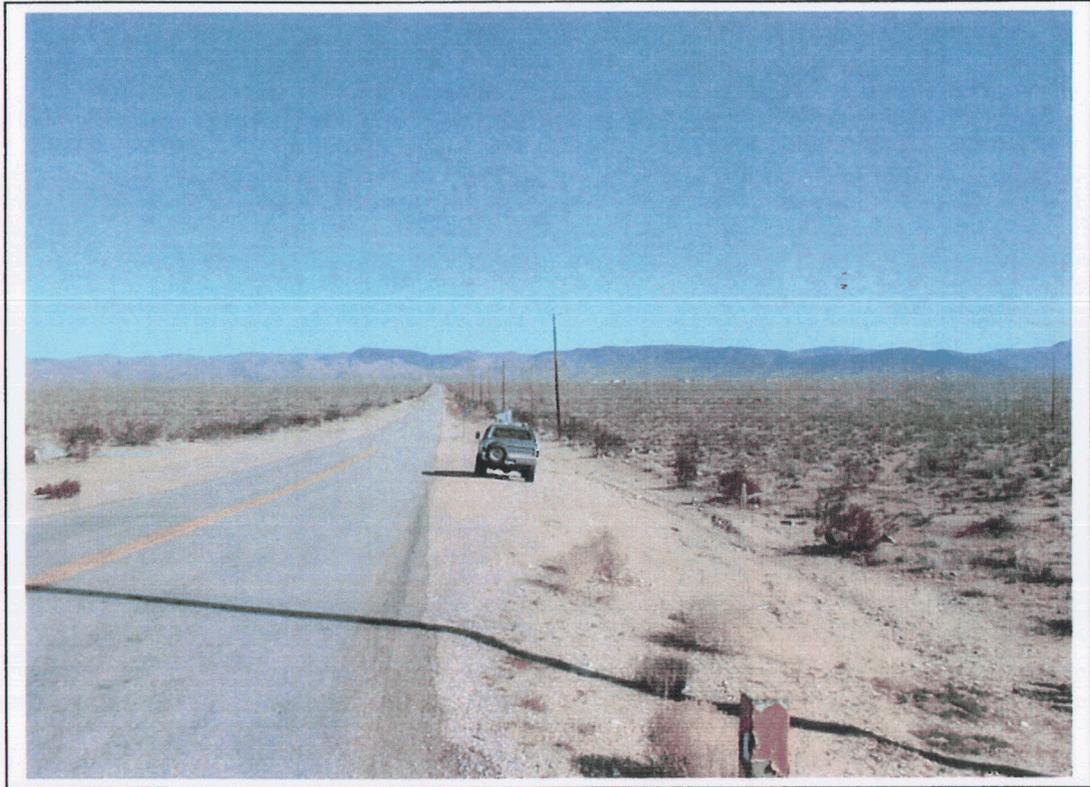
SCALE (H)	1"=2000'
SCALE (V)	1"=2000'
DRAWN BY	LJH
CHECKED BY	KS
DATE	05-05-05

**RHODES HOMES ARIZONA, LLC  
THE VILLAGES OF WHITE HILLS**

**FIGURE 2  
WHITE HILLS CONCEPTUAL  
SEWER SYSTEM**

**Stanley Consultants INC.**  
5820 S. EASTERN AVENUE, SUITE 200  
LAS VEGAS, NEVADA 89119 (702) 369-9396

**Figure 6-1 - White Hills Road looking towards Detrital Wash (northeast) from US Highway 93.**



White Hills Road is utilized by residents of the White Hills area and a commercial gravel operation, northeast of the project parcels.

The intersection of US Highway 93 at White Hills Road presently operates at level of service "C" during 30<sup>th</sup> hour demand and can accommodate the development of about another 200 homes before intersection improvements must be considered. Under the existing intersection geometry, the addition of a traffic signal on US Highway 93 at White Hills Road will accommodate the existing traffic plus future traffic generated by another 2,600 homes, without any additional intersection improvements. Please note that advance warning flashers will, in all likelihood, also be required because of the change in traffic control devices, and because traffic signal at this location will violate drivers expectations.