



MAG 208

WATER QUALITY MANAGEMENT PLAN  
SMALL PLANT REVIEW AND APPROVAL

FOR

***THE PRESERVE AT GOLDFIELD RANCH  
WATER RECLAMATION FACILITY***

Prepared For:  
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March 2008  
CMX Project No. 7147

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February 2008  
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## ACRONYMS AND ABBREVIATIONS

AAC	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
ARS	Arizona Revised Statutes
BOD	biological oxygen demand
CID	County Improvement District
CWA	Clean Water Act
DMP	Development Master Plan
DU	dwelling unit
<u>fps</u>	<u>feet per second</u>
<u>ft/ft</u>	<u>feet per feet</u>
gpcd	gallons per capita per day
gpd	gallons per day
<u>gprd</u>	<u>gallons per room per day</u>
MAG	Maricopa Association of Governments
MCESD	Maricopa County Environmental Services Department
mg/L	milligram per liter
MGD	million gallons per day
MPA	Municipal Planning Area
RAZ	Regional Analysis Zone
SBR	sequencing batch reactor
TSS	total suspended solids
UV	ultraviolet
WIFA	Water Infrastructure Finance Authority of Arizona
WRF	water reclamation facility



the Goldfield development. With an expected wastewater influent flow of 0.40 MGD, a small treatment plant is planned to treat sewage generated by Parcels A and B of the community and limited offsite areas. The WRF will produce Class A+ effluent for groundwater recharge and reuse.

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Additionally, some of the lot sizes proposed for the development are smaller than the minimum size required for septic service, and it is not feasible to treat a combined flow of 0.40 MGD using a septic system. Other alternatives for wastewater treatment are precluded based on engineering feasibility, significant cost and limited options for groundwater recharge and reuse, and water conservation.

## 2.2 What is the anticipated quality of the wastewater?

It is anticipated that the influent wastewater quality will be consistent with wastewater generated from typical domestic uses. Additionally, a resort/spa amenity may be provided within the development. Biological oxygen demand (BOD) concentrations are expected to be approximately 380 milligrams per liter (mg/L) with a total suspended solids (TSS) concentration of approximately 430 mg/L.

Industrial users are not planned or anticipated within the service area for the Goldfield WRF. Correspondingly, no pretreatment program is necessary at this time, in accordance with 40 CFR 403.8. In the event that an industrial user should apply to discharge to the system, the Goldfield Preserve Improvement District (a County Improvement District, or CID) would review the processes involved and establish guidelines to govern the waste discharges from the site in concert with the Arizona Department of Environmental Quality (ADEQ).

## 2.3 How and why was small plant design and capacity selected?

In order to establish the design criteria for the wastewater system infrastructure, the design criteria currently used by various private and municipal agencies in the region were evaluated. The design criteria utilized for the Goldfield WRF include a population density of 3.2 persons per dwelling unit and a wastewater generation rate of 100 gallons per capita per day (gpcd) for residential units. Unit wastewater generation rates for the other planned uses are listed in Table 3 (Section 3.1.2). These criteria are within the range typically used for wastewater treatment facilities design, and are consistent with the requirements of the Maricopa County Environmental Services Department (MCESD).

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**TABLE 1  
GOLDFIELD WRF PROJECTED WASTEWATER GENERATION RATE**

<b>Land Use</b>	<b>Gross Acreage by Land Use</b>	<b>Assumed Dwelling Units</b>	<b>Population</b>	<b>Average Daily Flow (MGD)</b>
<b>PARCEL A</b>				
CC/ROS	14.0	0.0	0.0	0.021
EQU A	13.4	0.0	0.0	0.010
N-dOS	419.9	0.0	0.0	0.000
RESORT/SPA	65.5	126.0	403.2	0.048
SFR	1080.7	783.0	2505.6	0.251
SFR/PF	86.0	67.0	214.4	0.021
<b>PARCEL A SUBTOTAL</b>	<b>1,679.5</b>	<b>976.0</b>	<b>3,123.2</b>	<b>0.351</b>
<b>PARCEL B</b>				
SFR	31.8	11	35	0.004
N-dOS	17.0	-	-	-
<b>PARCEL B SUBTOTAL</b>	<b>48.8</b>	<b>11</b>	<b>35</b>	<b>0.004</b>
<b>ONSITE SUBTOTAL</b>	<b>1,728.3</b>	<b>987</b>	<b>3,158</b>	<b>0.354</b>
<b>OFFSITE</b>				
Offsite 1 (RURAL 190)	5.2	1	3	0.000
Offsite 2 (RURAL 190)	36.1	8	26	0.003
Offsite 3 (RURAL 190)	40.2	9	29	0.003
Offsite 4 (RURAL 190)	41.1	9	29	0.003
Offsite 5 (RURAL 190)	51.2	12	38	0.004
<b>OFFSITE SUBTOTAL</b>	<b>173.8</b>	<b>39</b>	<b>125</b>	<b>0.012</b>
<b>TOTAL</b>	<b>1,902.1</b>	<b>1,026</b>	<b>3,283</b>	<b>0.367</b>

**Notes:**

- The wastewater generation rates estimated herein project the ultimate WRF capacity. Infrastructure design will be based on the design criteria outlined in the *Master Wastewater Report Amendment* (see Section 3.1.2).
- The acreage, dwelling unit count and land use is based on Land Use G (CMX December 2007). However, the alternate land use is used as it has a higher domestic water demand for the project.
- The resort/spa which encompasses A-1.1 and A-1.2 and portions of A-1.0 will have 120 rooms/casitas.
- The Assumed Dwelling Units are based on the dwelling unit count from Land Use G and increased by 5% to represent the maximum dwelling units that are possible to be developed.
- An average per capita flow rate of 80 gpcd is utilized for the design of sewer mains in the *Master Wastewater Report Amendment* (CMX 2008). However, the capacity of the WRF in this report is based on a residential wastewater generation rate of 100 gpcd.
- Rounding may cause slight discrepancies in total values.

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Based on these design criteria, the design capacity for the Goldfield WRF is 0.40 MGD. Table 1 shows the projected population and average day flow for the proposed WRF service area. The flow rates projected herein are employed to determine the ultimate WRF capacity. The flow rates used for the infrastructure design will be based on the design criteria outlined in *The Preserve at Goldfield Ranch Master Wastewater Report Amendment (CMX 2008)*.

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The Goldfield WRF is anticipated to be a complete mix system, although as further planning and design proceeds, the alternative treatment methodologies considered in Section 2.3.2 may be reevaluated and employed at this facility. The complete mix system is a common, proven process that is adaptable to many types of wastewater, uses a relatively uncomplicated design process and is suitable for many types of aeration equipment. The system has been known to be susceptible to sludge bulking when lightly loaded but can be controlled through relatively uncomplicated changes in process operation.

Preliminary treatment will include screening to remove the coarse solids and processes to macerate, wash, compact and dewater the captured solids. Dewatered screenings will be properly disposed at an approved landfill. A conceptual facility layout is presented in Figure 5.

The filtered effluent will be treated with ultraviolet (UV) radiation to disinfect the water for reuse and recharge. The UV system will disinfect the water to the standards required by the Arizona Administrative Code (AAC) Title 18, Chapter 11, Article 3 for Class A+ effluent.

### 2.3.1 What criteria were used?

The design influent flow rate for the proposed WRF is based upon the land plan presented in *The Preserve at Goldfield Ranch Master Wastewater Report Amendment (CMX 2008)*. Process design is based upon domestic sanitary waste with an influent BOD of 380 mg/L and TSS of 430 mg/L.

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The treatment process utilized at the Goldfield WRF will need to be able to produce Class A+ effluent. While the treatment process is currently planned as a complete mix facility, the process ultimately used for the Goldfield WRF will be finalized during the facility design.

### 2.3.2 What alternatives were considered?

Numerous systems were considered for the small package plant treatment process. The treatment options considered biological, suspended growth and activated sludge treatments. The following treatment alternatives were considered:

- Extended Aeration
- Sequencing Batch Reactor
- Oxidation Ditch
- Complete Mix

### 2.3.3 What are benefits, problems of alternatives?

- Extended Aeration
  - Can produce a high quality effluent with a relatively uncomplicated design and produce a well stabilized sludge.
  - Aeration energy use is high and requires relatively large aeration tanks when compared to other processes.
- Sequencing Batch Reactor (SBR)
  - Compact facility with flexible operations and is applicable to a variety of plant sizes.
  - The operation of the system will require a higher level of maintenance skills for instruments, monitoring devices and automatic valves due to the more complicated process controls required for this system.
- Oxidation Ditch
  - Reliable process with simple operation that can produce a high quality effluent and a well stabilized sludge.
  - Requires more space, complicates odor control issues, requires more aeration energy and is more difficult to modify to increase capacity.
- Complete Mix
  - Biological process in which microorganisms are maintained at a very high population level.
  - Promotes the formation of biological masses that clump together by adhesion and settle to the bottom forming sludge.

### 2.3.4 Will there be problems meeting State or County regulations?

When operated properly, the complete mix activated sludge system anticipated for this project will produce a Class A+ effluent suitable for recharge or reuse and meet State and County regulations. Both recharge and reuse may be considered as methods of effluent disposal. If other treatment processes are considered, the effluent produced would meet the requirement of Class A+. The planned effluent disposal by recharge and/or reuse would not change if an alternative treatment process is used.

Goldfield Preserve Development, LLC will be responsible for obtaining the necessary permits from the MCESD, Maricopa County Air Quality Department (MCAQD), ADEQ and ADWR. A partial listing of the required permits and approvals is included in Table 2.

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TABLE 2 ANTICIPATED PERMIT REQUIREMENTS	
Requirement	Regulatory Agency
Approval to Construct	MCESD
Approval of Construction	MCESD
Aquifer Protection Permit	ADEQ
Reuse Permit	ADEQ
Underground Storage Facility and Water Storage Permits	ADWR/ADEQ
Air Quality Permit	MCAQD

### 2.3.5 What sludge management options were considered?

Options considered for dewatering sludge onsite include:

- Belt Filter Press
- Sludge Drying Beds
- Sludge Lagoons

Due to the potential for odor generation, site space requirements and population sensitivity issues, dewatering on site is not planned at this time. Sludge is planned to be pumped and hauled to an accepting WRF in the area using a licensed sludge hauling contractor. Preliminarily, the potential to contract with the Fountain Hills Sanitary District to accept sludge generated by the WRF is being explored. Alternatively, the Goldfield WRF sludge may be hauled to an accepting facility in the Cities of Mesa, Scottsdale, or Phoenix. Specific planning and coordination for sludge disposal will be considered during the engineering design of the WRF.

## 3.0 PLANNING CRITERIA

### 3.1 Is proposed plant compatible with County adopted master plans, guidelines, etc., for the area?

The Goldfield development lies within unincorporated Maricopa County. The proposed development resides within an island of private land along State Route 87, east of Fountain Hills. The island of private land is surrounded on three sides by the Tonto National Forest and on the west by the Fort McDowell Yavapai Nation. The entire island of private land is the original Goldfield Ranch community, of which the Preserve at Goldfield Ranch includes Parcels A, B, C and D, as indicated in Figure 4.

As outlined in the county planning document, *Maricopa County 2020 Eye to the Future Goldfield Area Plan* (Maricopa County 2007), there are currently no community sewer systems within the project vicinity. WRFs operating in the region and their distance to the planned Goldfield WRF are depicted in Figure 6. As shown in Figures 3 and 6, the closest private utility company regulated by the Arizona Corporation Commission (ACC) is the Rio Verde Utilities, Inc. whose service area is more than 7 miles north of the Goldfield development. The Fountain Hills Sanitary District provides wastewater service to the Fountain Hills community. Fort McDowell Yavapai Nation operates the closest, existing WRF, which is nearly 4 miles away on

the opposite side of both the Verde River and State Route 87. The distance, topography, land ownership and existing rights-of way preclude connection to this facility. The existing residential development east of Parcel A, as illustrated in Figure 4, currently operates individual septic systems.

The Goldfield Area Plan proposes a wastewater treatment facility within the Preserve at Goldfield Ranch. Therefore, the proposed Goldfield WRF is consistent with the plan for the area.

The Goldfield WRF will be located within the western half of Section 15 of Township 3 North, Range 7 East of the Gila and Salt River Baseline and Meridian. More specifically, the proposed location of the Goldfield WRF is depicted conceptually within the parcel labeled A-17 in the land use plan included as Figure 2.

### 3.1.1 What plans apply?

In addition to the *Maricopa County 2020 Eye to the Future Goldfield Area Plan* (Maricopa County 2007), the Development Master Plan (DMP) for the Preserve at Goldfield Ranch outlines the planning criteria for Goldfield. While approved by Maricopa County in December 1995, the DMP is currently being amended.

### 3.1.2 What guidelines or policies apply?

The Goldfield WRF is planned in the DMP and the Goldfield Area Plan. In addition, the *Master Wastewater Report Amendment for The Preserve at Goldfield Ranch* (CMX 2008) provides further details on flow generation and wastewater collection system design. Key requirements for the design of the wastewater system are discussed herein and included in Table 3.

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TABLE 3 PROPOSED WASTEWATER SYSTEM DESIGN CRITERIA		
Category	Value	Units
Persons/DU		
Density ≥ 6	2.0	
Density < 6	3.2	
Wastewater Flow Rates		
Residential	80/100	gpcd
<del>Commercial (Clubhouse)</del>	<del>1,500</del>	<del>gpad</del>
<del>Resort/Spa</del>	<del>380</del>	<del>gprd</del>
<del>Equestrian Center</del>	<del>750</del>	<del>gpad</del>
Peaking Factor		
Diameters < 12"	4.0	
Diameters ≥ 12"	2.5	
Full Pipe Velocity		
Minimum	2.0	fps
Maximum	9.0	fps
Percent Full (d/D)	75	%
Manning's Roughness Coefficient (n)	0.013	
Pipe Slope (ft/ft)	8-inch	12-inch
Minimum	0.0034	0.002
Maximum	0.0670	0.039
Notes:		
1. The design criteria presented above may be revised as detailed lotting and site grading information becomes available.		
2. An average per capita flow rate of 80 gpcd is utilized for the design of sewer mains in the <i>Master Wastewater Report Amendment</i> . However, the capacity of the WRF in this report is based on a flow generation rate of 100 gpcd.		
Abbreviations:		
fps- feet per second		
ft/ft - feet/feet		
gpcd - gallons per capita per day		
gpad - gallons per acres per day		
gprd - gallons per room per day		

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### 3.2 Can the proposed plant be expanded to serve the growing population?

As proposed, the Goldfield WRF will be constructed in one or two phases as a complete mix package system with no further plans for expansion beyond 0.40 MGD. If the project is phased, the initial capacity would be approximately 0.20 MGD, with a second phase designed when the flow to the WRF reaches 70 percent of the design capacity and constructed when flows reach 80 percent of the design capacity. Alternatively, the WRF would be constructed as one phase of 0.40 MGD.

Limited expansions of the Goldfield service area, as outlined in Section 3.2.2, may be allowed based on individual property owners, topographic feasibility and infrastructure costs. Because any expansion in the service area is likely to be considered on a case-by-case basis for limited individual dwelling units, the conservative nature of the plant capacity calculations would not likely be exceeded.

**3.2.1 What population is projected for the service area?**

The Goldfield development Parcels A and B and limited offsite areas lie within Regional Analysis Zone (RAZ) 336; Parcels C and D lie within RAZ 337. The anticipated service area for the proposed Goldfield WRF includes only Parcels A and B and limited offsite areas, as depicted in Figure 2. According to the *Socioeconomic Projections of Population, Housing and Employment by Municipal Planning Area and Regional Analysis Zone* prepared by MAG (2007), the projected population for RAZs 336 and 337 is anticipated to reach 5,951 people in 2030, as presented in Table 4.

The ultimate population projected for the Goldfield WRF service area is 3,283, including the limited offsite parcels. Build-out of the service area and the development may be anticipated between 2015 and 2020. The ultimate population and growth rate may vary from that anticipated under the MAG analysis and the projections stated herein.

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TABLE 4 POPULATION PROJECTIONS BY YEAR				
	2005	2010	2020	2030
RAZ 336	595	758	1,557	5,224
RAZ 337	104	107	404	727
Total	699	865	1,961	5,951

**3.2.2 Would certain areas lend themselves, topographically or hydrologically, by planned use or density to being included in the service area?**

Very limited adjacent properties are situated in a topographic or hydrologic position to be efficiently served by the Goldfield WRF. As further explained in Section 3.3.1, the Goldfield development is bordered on the east by the relatively small parcels of private land (1 to 5 acre lots) in the original Goldfield Ranch community. Figure 4 highlights the adjacent parcels which are already developed and operating individual septic systems. While not planned, if adjoining properties desire to connect to the proposed Goldfield WRF, the feasibility and logistics of providing service will be evaluated on a case-by-case basis. At the expense of the private landowner, the wastewater collection system may be able to be expanded to provide service outside the planned service area. The feasibility and potential for such expansions are limited to very few individual properties by topographic constraints.

**3.3 Will proposed plant adversely impact existing or approved nearby land uses?**

**3.3.1 What are surrounding land uses?**

The Goldfield development resides within an island of private land surrounded on three sides by the Tonto National Forest. The Fort McDowell Indian Community reservation lies to the west. The entire island of private land is the original Goldfield Ranch community, of which the Preserve at

Goldfield Ranch includes Parcels A, B, C and D, as indicated in Figure 4. As illustrated by Figure 1, the Goldfield development and the original Goldfield Ranch community are the only lands with the potential for development in the vicinity.

The proposed WRF site is toward the western border of Parcel A, as depicted in Figure 2.

**3.3.2 What is zoning for the surrounding area?**

The Goldfield Ranch community to the east is a large lot residential community zoned as Rural 190. No other private lands are in the vicinity of the project.

**3.3.3 What are reactions of nearby landowners to proposed facility?**

Landowners in the project vicinity (in the Goldfield Ranch community) have expressed concerns over noise and odor control. Appropriate controls and/or property setbacks, as defined in the AAC R18-9-B201 for facilities with a design flow of 100,000 to less than 500,000 gallons per day, will be used in the facility design. Specific instrumentation and design details will be reviewed by MCESD during the approval of the proposed WRF design.

**3.4 Will there be a net water saving from effluent reuse?**

To the maximum extent feasible, treated effluent will be reused and will result in a water savings by meeting a portion of the development water demand through a renewable source. Groundwater recharge via direct injection wells or other acceptable method also will replenish the waters withdrawn from the aquifer.

**3.4.1 How will effluent be disposed of?**

To the maximum extent feasible, irrigation water supplied for common and open space areas will be supplied by treated effluent by build out of the development. Reuse of treated effluent will be coordinated through ADEQ and be in accordance with the terms and conditions of a Reuse Permit. Effluent generated by the WRF also will be recharged into the aquifer. No discharge to waters of the U.S. will be sought or permitted.

Groundwater recharge of the WRF effluent would consist of recharge injection wells (preliminarily, one operational well and one redundant well). The *Hydrogeologic Study* prepared in support of the application for the Analysis of Assured Water Supply (included as Appendix G) discusses three hydrogeologic units which underlie the Goldfield project, as follows, in descending order:

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- Deleted:** ing
- Deleted:** through groundwater recharge

TABLE 5 SITE HYDROGEOLOGY	
Depth (feet below land surface)	Description
0 - 350	Unconsolidated silt, sand and gravel. Younger basin-fill deposits.
350 - 750	Siltstone, claystone and sandstone with some limestone and gypsum. Playa deposits. Pemberton Ranch Formation.
750 - > 1125	Fanconglomerate. Semi-consolidated and fractured. Needle Rock Formation.

The lower (fanconglomerate) unit is the target aquifer for both the Preserve at Goldfield Ranch water production and groundwater recharge. Groundwater in the lower unit appears to be under artesian conditions, with the playa deposits forming a confining layer where they are present. Groundwater recharge would be accomplished through the proposed injection wells to deliver effluent directly to the lower unit, which is anticipated to have a transmissivity of 45,000 gallons per day per foot. Given this and the proposed withdrawal of groundwater to meet water production needs, the aquifer should have ample ability to accept recharged water.

Groundwater injection wells are preliminarily planned within the setbacks of the WRF site. The exact operation, design, construction and location of the recharge wells will be detailed in an application for an Underground Storage Facility (USF) permit to the Arizona Department of Water Resources (ADWR) which will include additional hydrogeologic analysis.

### 3.4.2 What is the estimated water saving?

The effluent produced at the WRF will be recharged back into the lower (fanconglomerate) target aquifer or reused, to the maximum extent feasible, to meet a portion of the non-potable water demands. Presently, non-potable water demands in common and open space areas are estimated to be approximately 110 acre-feet per year (SGC 2006). To the maximum extent feasible, these demands will be met with treated effluent.

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### 3.5 Do nearby existing or proposed land uses indicate a need for a larger capacity sewage plant than that proposed?

The majority of the adjacent subdivided properties utilize individual septic systems to treat generated wastewater. Limited adjoining parcels have potential to be incorporated into the Goldfield WRF service area, as cost, topography and feasibility may allow.

#### 3.5.1 Should nearby areas be sewerred or otherwise join the proposed plant for water quality or economic reasons?

Limited adjoining parcels have potential to be included into the Goldfield WRF service area, as cost, topography and feasibility may allow.

### 3.5.2 Do these areas wish to join the proposed plant?

At the present time, requests for service have not been received from neighboring adjacent parcels to join the Goldfield WRF service area.

## 4.0 DEVELOPMENT CRITERIA

### 4.1 Who will fund construction?

Goldfield Preserve Development, LLC will be responsible for financing the wastewater infrastructure and the proposed WRF. A letter demonstrating the financial capability of the developer is included in Appendix D.

### 4.2 Who will fund operation and maintenance costs?

The Goldfield Preserve Improvement District will fund the operation and maintenance costs associated with the WRF as a CID. The CID was approved by the County Board of Supervisors on August 8, 2007.

### 4.3 Is there adequate financial security to assure continual and proper operation and maintenance?

The Goldfield Preserve Improvement District will have the financial security for the continual and proper operation and maintenance of the wastewater collection system and WRF and will be supplemented if needed by the developer.

### 4.4 Who will operate and maintain the plant and system?

The facility and wastewater collection system will be operated and maintained by A Quality Water Company (Appendix E).

### 4.5 What are anticipated capital and operation and maintenance costs?

The capital cost of the WRF may range from \$5 million to \$10 million. The operation and maintenance costs are site specific, but may range from \$250,000 to \$300,000 annually for a facility treating 400,000 gpd.

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The WRF will be a Grade 3 facility per the Maricopa County Environmental Health Code Chapter 2, Regulation 4.a.(5). The responsible operator will be Grade 3. If the Grade 3 operator works remotely, a daily, on-site Grade 2 operator will be provided. This has been considered in the operations and maintenance cost estimate.

## 5.0 REFERENCES

Arizona Administrative Code, Title 18, Chapter 11

Arizona Revised Statutes, Title 48, Chapter 6

CMX, LLC. *Master Wastewater Report Amendment for The Preserve at Goldfield Ranch. 2008*, Phoenix, Arizona.

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**TABLE 1  
GOLDFIELD PARCEL A WASTEWATER GENERATION RATE**

Land Use	Area (acres)	Dwelling Units (DU)	Persons/ DU	Population	Average Day Flow (gpd)
Residential	1,597.7	848	3.2	2,714	271,360
Equestrian Center A	7.2				10,800
Casitas	30.0	135	3.2	432	43,200
Resort/Spa	26.2				39,300
Clubhouse	18.5				27,750
Total - Parcel A	1,679.6	983		3,146	392,410

**Notes:**

The wastewater generation rates estimated herein project the ultimate WRF capacity.

Infrastructure design will be based on the design criteria outlined in the *Master Wastewater Report* (see Section 3.1.2).

The flow for the Clubhouse in Parcel A is based on a building area of 60,000 ft<sup>2</sup> (1.377 acres).

The flow for the Resort/Spa is based on a building area of 100,000 ft<sup>2</sup> (2.296 acres).

In addition to the flow from Equestrian Center A, flow from a 15,000 ft<sup>2</sup> (0.344 acres) clubhouse is added to the total flow.

Assuming 8-inch sewer network will be able to convey the flows of the Goldfield development, a peaking factor of 4 is utilized to calculate the peak flows.

An average per capita flow rate of 80 gpcd is utilized for the design of sewer mains in the *Master Water Report*. However, the capacity of the WRF is based on a wastewater generation rate of 100 gpcd.

Rounding causes slight discrepancies in total values.

**MAG 208**

**WATER QUALITY MANAGEMENT PLAN  
SMALL PLANT REVIEW AND APPROVAL**

**FOR**

***THE PRESERVE AT GOLDFIELD RANCH  
WATER RECLAMATION FACILITY***

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March 2008  
CMX Project No. 7147

MAG 208  
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**FOR**  
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## ACRONYMS AND ABBREVIATIONS

AAC	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
ARS	Arizona Revised Statutes
BOD	biological oxygen demand
CID	County Improvement District
CWA	Clean Water Act
DMP	Development Master Plan
DU	dwelling unit
fps	feet per second
ft/ft	feet per feet
gpcd	gallons per capita per day
gpd	gallons per day
gprd	gallons per room per day
MAG	Maricopa Association of Governments
MCESD	Maricopa County Environmental Services Department
mg/L	milligram per liter
MGD	million gallons per day
MPA	Municipal Planning Area
RAZ	Regional Analysis Zone
SBR	sequencing batch reactor
TSS	total suspended solids
UV	ultraviolet
WIFA	Water Infrastructure Finance Authority of Arizona
WRF	water reclamation facility

## **1.0 EXECUTIVE SUMMARY**

In accordance with Section 208 of the Clean Water Act (CWA), the Maricopa Association of Governments (MAG) is the designated Regional Water Quality Management Planning Agency for Maricopa County, Arizona. As part of the MAG 208 Water Quality Management Plan (2002), a Small Plant Review and Approval process was created for facilities that will have an ultimate capacity of 2.0 MG or less and that will not discharge into waters of the United States. This CWA 208 Small Plant Review and Approval will incorporate the proposed water reclamation facility (WRF) for the Preserve at Goldfield Ranch (Goldfield) development into the MAG 208 Water Quality Management Plan.

The Goldfield development is located within unincorporated Maricopa County, outside of an established Municipal Planning Area (MPA). The proposed development resides within an island of private land along State Route 87, east of Fountain Hills. The island of private land is surrounded on three sides by the Tonto National Forest and on the west by the Fort McDowell Yavapai Nation. The Fort McDowell Yavapai Nation and Salt-River Pima-Maricopa Indian Community are within three miles of the proposed development and have been provided a copy of this document for their review and comment. Correspondence with the tribes is provided in Appendix F.

The proposed development includes four parcels of land, labeled Parcels A through D, totaling approximately 2,079 gross acres (Figure 1). The proposed Goldfield WRF will serve 1,902 acres of the development, including Parcels A and B. An additional 174 acres of offsite areas located between Parcels A and B also are planned to be served by the Goldfield WRF. Development parcels C and D are planned to be serviced by septic systems.

The population within the proposed service area for the Goldfield WRF is expected to be approximately 3,283 persons (including onsite and offsite parcels), and the corresponding wastewater generation rate is anticipated to be approximately 0.40 million gallons per day (MGD). Three lift stations will be used to transport flow to the WRF. The Goldfield WRF will be located within the western half of Section 15 of Township 3 North, Range 7 East of the Gila and Salt River Baseline and Meridian. More specifically, the proposed location of the Goldfield WRF is depicted conceptually within the parcel labeled A-17 in the land use plan included as Figure 2.

This 208 Plan Small Plant Review and Approval request is submitted by Maricopa County on behalf of Goldfield Preserve Development, LLC (Appendix C). The average wastewater generation rate is 2.0 MGD or less, and the WRF will not discharge to waters of the United States. The requirements for the small plant review and approval process for lands outside municipal planning areas are provided in Appendix B.

## **2.0 TECHNICAL CRITERIA**

### **2.1 Why is small plant desired?**

The project area is surrounded by National Forest lands, tribal lands and a small area of subdivided private land which has a very low population density. Connecting the proposed development to an existing wastewater treatment plant would require an extensive system to convey flow through drastic topographic constraints. Additionally, since the other private lands in the vicinity are subdivided and partially developed on septic systems, a more regional wastewater service is not feasible for

the Goldfield development. With an expected wastewater influent flow of 0.40 MGD, a small treatment plant is planned to treat sewage generated by Parcels A and B of the community and limited offsite areas. The WRF will produce Class A+ effluent for groundwater recharge and reuse.

Additionally, some of the lot sizes proposed for the development are smaller than the minimum size required for septic service, and it is not feasible to treat a combined flow of 0.40 MGD using a septic system. Other alternatives for wastewater treatment are precluded based on engineering feasibility, significant cost and limited options for groundwater recharge and reuse, and water conservation.

## **2.2 What is the anticipated quality of the wastewater?**

It is anticipated that the influent wastewater quality will be consistent with wastewater generated from typical domestic uses. Additionally, a resort/spa amenity may be provided within the development. Biological oxygen demand (BOD) concentrations are expected to be approximately 380 milligrams per liter (mg/L) with a total suspended solids (TSS) concentration of approximately 430 mg/L.

Industrial users are not planned or anticipated within the service area for the Goldfield WRF. Correspondingly, no pretreatment program is necessary at this time, in accordance with 40 CFR 403.8. In the event that an industrial user should apply to discharge to the system, the Goldfield Preserve Improvement District (a County Improvement District, or CID) would review the processes involved and establish guidelines to govern the waste discharges from the site in concert with the Arizona Department of Environmental Quality (ADEQ).

## **2.3 How and why was small plant design and capacity selected?**

In order to establish the design criteria for the wastewater system infrastructure, the design criteria currently used by various private and municipal agencies in the region were evaluated. The design criteria utilized for the Goldfield WRF include a population density of 3.2 persons per dwelling unit and a wastewater generation rate of 100 gallons per capita per day (gpcd) for residential units. Unit wastewater generation rates for the other planned uses are listed in Table 3 (Section 3.1.2). These criteria are within the range typically used for wastewater treatment facilities design, and are consistent with the requirements of the Maricopa County Environmental Services Department (MCESD).

**TABLE 1  
GOLDFIELD WRF PROJECTED WASTEWATER GENERATION RATE**

Land Use	Gross Acreage by Land Use	Assumed Dwelling Units	Population	Average Daily Flow (MGD)
<b>PARCEL A</b>				
CC/ROS	14.0	0.0	0.0	0.021
EQU A	13.4	0.0	0.0	0.010
N-dOS	419.9	0.0	0.0	0.000
RESORT/SPA	65.5	126.0	403.2	0.048
SFR	1080.7	783.0	2505.6	0.251
SFR/PF	86.0	67.0	214.4	0.021
<b>PARCEL A SUBTOTAL</b>	<b>1,679.5</b>	<b>976.0</b>	<b>3,123.2</b>	<b>0.351</b>
<b>PARCEL B</b>				
SFR	31.8	11	35	0.004
N-dOS	17.0			
<b>PARCEL B SUBTOTAL</b>	<b>48.8</b>	<b>11</b>	<b>35</b>	<b>0.004</b>
<b>ONSITE SUBTOTAL</b>	<b>1,728.3</b>	<b>987</b>	<b>3,158</b>	<b>0.354</b>
<b>OFFSITE</b>				
Offsite 1 (RURAL 190)	5.2	1	3	0.000
Offsite 2 (RURAL 190)	36.1	8	26	0.003
Offsite 3 (RURAL 190)	40.2	9	29	0.003
Offsite 4 (RURAL 190)	41.1	9	29	0.003
Offsite 5 (RURAL 190)	51.2	12	38	0.004
<b>OFFSITE SUBTOTAL</b>	<b>173.8</b>	<b>39</b>	<b>125</b>	<b>0.012</b>
<b>TOTAL</b>	<b>1,902.1</b>	<b>1,026</b>	<b>3,283</b>	<b>0.367</b>

Notes:

1. The wastewater generation rates estimated herein project the ultimate WRF capacity. Infrastructure design will be based on the design criteria outlined in the *Master Wastewater Report Amendment* (see Section 3.1.2).
2. The acreage, dwelling unit count and land use is based on Land Use G (CMX December 2007). However, the alternate land use is used as it has a higher domestic water demand for the project.
3. The resort/spa which encompasses A-11 and A-12 and portions of A-10 will have 120 rooms/casitas.
4. The Assumed Dwelling Units are based on the dwelling unit count from Land Use G and increased by 5% to represent the maximum dwelling units that are possible to be developed.
5. An average per capita flow rate of 80 gpcd is utilized for the design of sewer mains in the *Master Wastewater Report Amendment* (CMX 2008). However, the capacity of the WRF in this report is based on a residential wastewater generation rate of 100 gpcd.
6. Rounding may cause slight discrepancies in total values.

Based on these design criteria, the design capacity for the Goldfield WRF is 0.40 MGD. Table 1 shows the projected population and average day flow for the proposed WRF service area. The flow rates projected herein are employed to determine the ultimate WRF capacity. The flow rates used for the infrastructure design will be based on the design criteria outlined in *The Preserve at Goldfield Ranch Master Wastewater Report Amendment* (CMX 2008).

The Goldfield WRF is anticipated to be a complete mix system, although as further planning and design proceeds, the alternative treatment methodologies considered in Section 2.3.2 may be reevaluated and employed at this facility. The complete mix system is a common, proven process that is adaptable to many types of wastewater, uses a relatively uncomplicated design process and is suitable for many types of aeration equipment. The system has been known to be susceptible to sludge bulking when lightly loaded but can be controlled through relatively uncomplicated changes in process operation.

Preliminary treatment will include screening to remove the coarse solids and processes to macerate, wash, compact and dewater the captured solids. Dewatered screenings will be properly disposed at an approved landfill. A conceptual facility layout is presented in Figure 5.

The filtered effluent will be treated with ultraviolet (UV) radiation to disinfect the water for reuse and recharge. The UV system will disinfect the water to the standards required by the Arizona Administrative Code (AAC) Title 18, Chapter 11, Article 3 for Class A+ effluent.

### **2.3.1 What criteria were used?**

The design influent flow rate for the proposed WRF is based upon the land plan presented in *The Preserve at Goldfield Ranch Master Wastewater Report Amendment* (CMX 2008). Process design is based upon domestic sanitary waste with an influent BOD of 380 mg/L and TSS of 430 mg/L.

The treatment process utilized at the Goldfield WRF will need to be able to produce Class A+ effluent. While the treatment process is currently planned as a complete mix facility, the process ultimately used for the Goldfield WRF will be finalized during the facility design.

### **2.3.2 What alternatives were considered?**

Numerous systems were considered for the small package plant treatment process. The treatment options considered biological, suspended growth and activated sludge treatments. The following treatment alternatives were considered:

- Extended Aeration
- Sequencing Batch Reactor
- Oxidation Ditch
- Complete Mix

### **2.3.3 What are benefits, problems of alternatives?**

- Extended Aeration
  - Can produce a high quality effluent with a relatively uncomplicated design and produce a well stabilized sludge.
  - Aeration energy use is high and requires relatively large aeration tanks when compared to other processes.
- Sequencing Batch Reactor (SBR)
  - Compact facility with flexible operations and is applicable to a variety of plant sizes.
  - The operation of the system will require a higher level of maintenance skills for instruments, monitoring devices and automatic valves due to the more complicated process controls required for this system.
- Oxidation Ditch
  - Reliable process with simple operation that can produce a high quality effluent and a well stabilized sludge.
  - Requires more space, complicates odor control issues, requires more aeration energy and is more difficult to modify to increase capacity.
- Complete Mix
  - Biological process in which microorganisms are maintained at a very high population level.
  - Promotes the formation of biological masses that clump together by adhesion and settle to the bottom forming sludge.

### **2.3.4 Will there be problems meeting State or County regulations?**

When operated properly, the complete mix activated sludge system anticipated for this project will produce a Class A+ effluent suitable for recharge or reuse and meet State and County regulations. Both recharge and reuse may be considered as methods of effluent disposal. If other treatment processes are considered, the effluent produced would meet the requirement of Class A+. The planned effluent disposal by recharge and/or reuse would not change if an alternative treatment process is used.

Goldfield Preserve Development, LLC will be responsible for obtaining the necessary permits from the MCESD, Maricopa County Air Quality Department (MCAQD), ADEQ and ADWR. A partial listing of the required permits and approvals is included in Table 2.

<b>TABLE 2 ANTICIPATED PERMIT REQUIREMENTS</b>	
Requirement	Regulatory Agency
Approval to Construct	MCESD
Approval of Construction	MCESD
Aquifer Protection Permit	ADEQ
Reuse Permit	ADEQ
Underground Storage Facility and Water Storage Permits	ADWR/ADEQ
Air Quality Permit	MCAQD

### **2.3.5 What sludge management options were considered?**

Options considered for dewatering sludge onsite include:

- Belt Filter Press
- Sludge Drying Beds
- Sludge Lagoons

Due to the potential for odor generation, site space requirements and population sensitivity issues, dewatering on site is not planned at this time. Sludge is planned to be pumped and hauled to an accepting WRF in the area using a licensed sludge hauling contractor. Preliminarily, the potential to contract with the Fountain Hills Sanitary District to accept sludge generated by the WRF is being explored. Alternatively, the Goldfield WRF sludge may be hauled to an accepting facility in the Cities of Mesa, Scottsdale, or Phoenix. Specific planning and coordination for sludge disposal will be considered during the engineering design of the WRF.

## **3.0 PLANNING CRITERIA**

### **3.1 Is proposed plant compatible with County adopted master plans, guidelines, etc., for the area?**

The Goldfield development lies within unincorporated Maricopa County. The proposed development resides within an island of private land along State Route 87, east of Fountain Hills. The island of private land is surrounded on three sides by the Tonto National Forest and on the west by the Fort McDowell Yavapai Nation. The entire island of private land is the original Goldfield Ranch community, of which the Preserve at Goldfield Ranch includes Parcels A, B, C and D, as indicated in Figure 4.

As outlined in the county planning document, *Maricopa County 2020 Eye to the Future Goldfield Area Plan* (Maricopa County 2007), there are currently no community sewer systems within the project vicinity. WRFs operating in the region and their distance to the planned Goldfield WRF are depicted in Figure 6. As shown in Figures 3 and 6, the closest private utility company regulated by the Arizona Corporation Commission (ACC) is the Rio Verde Utilities, Inc. whose service area is more than 7 miles north of the Goldfield development. The Fountain Hills Sanitary District provides wastewater service to the Fountain Hills community. Fort McDowell Yavapai Nation operates the closest, existing WRF, which is nearly 4 miles away on

the opposite side of both the Verde River and State Route 87. The distance, topography, land ownership and existing rights-of way preclude connection to this facility. The existing residential development east of Parcel A, as illustrated in Figure 4, currently operates individual septic systems.

The Goldfield Area Plan proposes a wastewater treatment facility within the Preserve at Goldfield Ranch. Therefore, the proposed Goldfield WRF is consistent with the plan for the area.

The Goldfield WRF will be located within the western half of Section 15 of Township 3 North, Range 7 East of the Gila and Salt River Baseline and Meridian. More specifically, the proposed location of the Goldfield WRF is depicted conceptually within the parcel labeled A-17 in the land use plan included as Figure 2.

### **3.1.1 What plans apply?**

In addition to the *Maricopa County 2020 Eye to the Future Goldfield Area Plan* (Maricopa County 2007), the Development Master Plan (DMP) for the Preserve at Goldfield Ranch outlines the planning criteria for Goldfield. While approved by Maricopa County in December 1995, the DMP is currently being amended.

### **3.1.2 What guidelines or policies apply?**

The Goldfield WRF is planned in the DMP and the Goldfield Area Plan. In addition, the *Master Wastewater Report Amendment for The Preserve at Goldfield Ranch* (CMX 2008) provides further details on flow generation and wastewater collection system design. Key requirements for the design of the wastewater system are discussed herein and included in Table 3.

TABLE 3 PROPOSED WASTEWATER SYSTEM DESIGN CRITERIA		
Category	Value	Units
Persons/DU		
Density $\geq$ 6	2.0	
Density $<$ 6	3.2	
Wastewater Flow Rates		
Residential	80/100	gpcd
Commercial (Clubhouse)	1,500	gpad
Resort/Spa	380	gprd
Equestrian Center	750	gpad
Peaking Factor		
Diameters $<$ 12"	4.0	
Diameters $\geq$ 12"	2.5	
Full Pipe Velocity		
Minimum	2.0	fps
Maximum	9.0	fps
Percent Full (d/D)	75	%
Manning's Roughness Coefficient (n)	0.013	
Pipe Slope (ft/ft)	8-inch	12-inch
Minimum	0.0034	0.002
Maximum	0.0670	0.039
Notes:		
1. The design criteria presented above may be revised as detailed lotting and site grading information becomes available.		
2. An average per capita flow rate of 80 gpcd is utilized for the design of sewer mains in the <i>Master Wastewater Report Amendment</i> . However, the capacity of the WRF in this report is based on a flow generation rate of 100 gpcd.		
Abbreviations:		
fps- feet per second		
ft/ft - feet/feet		
gpcd - gallons per capita per day		
gpad - gallons per acres per day		
gprd - gallons per room per day		

### 3.2 Can the proposed plant be expanded to serve the growing population?

As proposed, the Goldfield WRF will be constructed in one or two phases as a complete mix package system with no further plans for expansion beyond 0.40 MGD. If the project is phased, the initial capacity would be approximately 0.20 MGD, with a second phase designed when the flow to the WRF reaches 70 percent of the design capacity and constructed when flows reach 80 percent of the design capacity. Alternatively, the WRF would be constructed as one phase of 0.40 MGD.

Limited expansions of the Goldfield service area, as outlined in Section 3.2.2, may be allowed based on individual property owners, topographic feasibility and infrastructure costs. Because any expansion in the service area is likely to be considered on a case-by-case basis for limited individual dwelling units, the conservative nature of the plant capacity calculations would not likely be exceeded.

### 3.2.1 What population is projected for the service area?

The Goldfield development Parcels A and B and limited offsite areas lie within Regional Analysis Zone (RAZ) 336; Parcels C and D lie within RAZ 337. The anticipated service area for the proposed Goldfield WRF includes only Parcels A and B and limited offsite areas, as depicted in Figure 2. According to the *Socioeconomic Projections of Population, Housing and Employment by Municipal Planning Area and Regional Analysis Zone* prepared by MAG (2007), the projected population for RAZs 336 and 337 is anticipated to reach 5,951 people in 2030, as presented in Table 4.

The ultimate population projected for the Goldfield WRF service area is 3,283, including the limited offsite parcels. Build-out of the service area and the development may be anticipated between 2015 and 2020. The ultimate population and growth rate may vary from that anticipated under the MAG analysis and the projections stated herein.

	<b>2005</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>
RAZ 336	595	758	1,557	5,224
RAZ 337	104	107	404	727
Total	699	865	1,961	5,951

### 3.2.2 Would certain areas lend themselves, topographically or hydrologically, by planned use or density to being included in the service area?

Very limited adjacent properties are situated in a topographic or hydrologic position to be efficiently served by the Goldfield WRF. As further explained in Section 3.3.1, the Goldfield development is bordered on the east by the relatively small parcels of private land (1 to 5 acre lots) in the original Goldfield Ranch community. Figure 4 highlights the adjacent parcels which are already developed and operating individual septic systems. While not planned, if adjoining properties desire to connect to the proposed Goldfield WRF, the feasibility and logistics of providing service will be evaluated on a case-by-case basis. At the expense of the private landowner, the wastewater collection system may be able to be expanded to provide service outside the planned service area. The feasibility and potential for such expansions are limited to very few individual properties by topographic constraints.

## 3.3 Will proposed plant adversely impact existing or approved nearby land uses?

### 3.3.1 What are surrounding land uses?

The Goldfield development resides within an island of private land surrounded on three sides by the Tonto National Forest. The Fort McDowell Indian Community reservation lies to the west. The entire island of private land is the original Goldfield Ranch community, of which the Preserve at

Goldfield Ranch includes Parcels A, B, C and D, as indicated in Figure 4. As illustrated by Figure 1, the Goldfield development and the original Goldfield Ranch community are the only lands with the potential for development in the vicinity.

The proposed WRF site is toward the western border of Parcel A, as depicted in Figure 2.

### **3.3.2 What is zoning for the surrounding area?**

The Goldfield Ranch community to the east is a large lot residential community zoned as Rural 190. No other private lands are in the vicinity of the project.

### **3.3.3 What are reactions of nearby landowners to proposed facility?**

Landowners in the project vicinity (in the Goldfield Ranch community) have expressed concerns over noise and odor control. Appropriate controls and/or property setbacks, as defined in the AAC R18-9-B201 for facilities with a design flow of 100,000 to less than 500,000 gallons per day, will be used in the facility design. Specific instrumentation and design details will be reviewed by MCESD during the approval of the proposed WRF design.

## **3.4 Will there be a net water saving from effluent reuse?**

To the maximum extent feasible, treated effluent will be reused and will result in a water savings by meeting a portion of the development water demand through a renewable source. Groundwater recharge via direct injection wells or other acceptable method also will replenish the waters withdrawn from the aquifer.

### **3.4.1 How will effluent be disposed of?**

To the maximum extent feasible, irrigation water supplied for common and open space areas will be supplied by treated effluent by build out of the development. Reuse of treated effluent will be coordinated through ADEQ and be in accordance with the terms and conditions of a Reuse Permit. Effluent generated by the WRF also will be recharged into the aquifer. No discharge to waters of the U.S. will be sought or permitted.

Groundwater recharge of the WRF effluent would consist of recharge injection wells (preliminarily, one operational well and one redundant well). The *Hydrogeologic Study* prepared in support of the application for the Analysis of Assured Water Supply (included as Appendix G) discusses three hydrogeologic units which underlie the Goldfield project, as follows, in descending order:

<b>TABLE 5 SITE HYDROGEOLOGY</b>	
Depth (feet below land surface)	Description
0 - 350	Unconsolidated silt, sand and gravel. Younger basin-fill deposits.
350 - 750	Siltstone, claystone and sandstone with some limestone and gypsum. Playa deposits. Pemberton Ranch Formation.
750 - > 1125	Fanconglomerate. Semi-consolidated and fractured. Needle Rock Formation.

The lower (fanconglomerate) unit is the target aquifer for both the Preserve at Goldfield Ranch water production and groundwater recharge. Groundwater in the lower unit appears to be under artesian conditions, with the playa deposits forming a confining layer where they are present. Groundwater recharge would be accomplished through the proposed injection wells to deliver effluent directly to the lower unit, which is anticipated to have a transmissivity of 45,000 gallons per day per foot. Given this and the proposed withdrawal of groundwater to meet water production needs, the aquifer should have ample ability to accept recharged water.

Groundwater injection wells are preliminarily planned within the setbacks of the WRF site. The exact operation, design, construction and location of the recharge wells will be detailed in an application for an Underground Storage Facility (USF) permit to the Arizona Department of Water Resources (ADWR) which will include additional hydrogeologic analysis.

#### **3.4.2 What is the estimated water saving?**

The effluent produced at the WRF will be recharged back into the lower (fanconglomerate) target aquifer or reused, to the maximum extent feasible, to meet a portion of the non-potable water demands. Presently, non-potable water demands in common and open space areas are estimated to be approximately 110 acre-feet per year (SGC 2006). To the maximum extent feasible, these demands will be met with treated effluent.

### **3.5 Do nearby existing or proposed land uses indicate a need for a larger capacity sewage plant than that proposed?**

The majority of the adjacent subdivided properties utilize individual septic systems to treat generated wastewater. Limited adjoining parcels have potential to be incorporated into the Goldfield WRF service area, as cost, topography and feasibility may allow.

#### **3.5.1 Should nearby areas be sewered or otherwise join the proposed plant for water quality or economic reasons?**

Limited adjoining parcels have potential to be included into the Goldfield WRF service area, as cost, topography and feasibility may allow.

### **3.5.2 Do these areas wish to join the proposed plant?**

At the present time, requests for service have not been received from neighboring adjacent parcels to join the Goldfield WRF service area.

## **4.0 DEVELOPMENT CRITERIA**

### **4.1 Who will fund construction?**

Goldfield Preserve Development, LLC will be responsible for financing the wastewater infrastructure and the proposed WRF. A letter demonstrating the financial capability of the developer is included in Appendix D.

### **4.2 Who will fund operation and maintenance costs?**

The Goldfield Preserve Improvement District will fund the operation and maintenance costs associated with the WRF as a CID. The CID was approved by the County Board of Supervisors on August 8, 2007.

### **4.3 Is there adequate financial security to assure continual and proper operation and maintenance?**

The Goldfield Preserve Improvement District will have the financial security for the continual and proper operation and maintenance of the wastewater collection system and WRF and will be supplemented if needed by the developer.

### **4.4 Who will operate and maintain the plant and system?**

The facility and wastewater collection system will be operated and maintained by A Quality Water Company (Appendix E).

### **4.5 What are anticipated capital and operation and maintenance costs?**

The capital cost of the WRF may range from \$5 million to \$10 million. The operation and maintenance costs are site specific, but may range from \$250,000 to \$300,000 annually for a facility treating 400,000 gpd.

The WRF will be a Grade 3 facility per the Maricopa County Environmental Health Code Chapter 2, Regulation 4.a.(5). The responsible operator will be Grade 3. If the Grade 3 operator works remotely, a daily, on-site Grade 2 operator will be provided. This has been considered in the operations and maintenance cost estimate.

## **5.0 REFERENCES**

Arizona Administrative Code, Title 18, Chapter 11

Arizona Revised Statutes, Title 48, Chapter 6

CMX, LLC. *Master Wastewater Report Amendment for The Preserve at Goldfield Ranch*. 2008, Phoenix, Arizona.

Maricopa Association of Governments. *208 Water Quality Management Plan*. 2002, Maricopa County, Arizona.

Maricopa County. *Maricopa County 2020 Eye to the Future Goldfield Area Plan*. 2007, Maricopa County, Arizona.

Maricopa Association of Governments. *Socioeconomic Projections of Population, Housing and Employment by MPA and Regional Analysis Zone*. May 2007, Phoenix, Arizona.

Southwest Ground-water Consultants. *Application Analysis of Assured Water Supply for The Preserve at Goldfield Ranch – Attachment IV Hydrologic Study*. 2006, Maricopa County, Arizona.

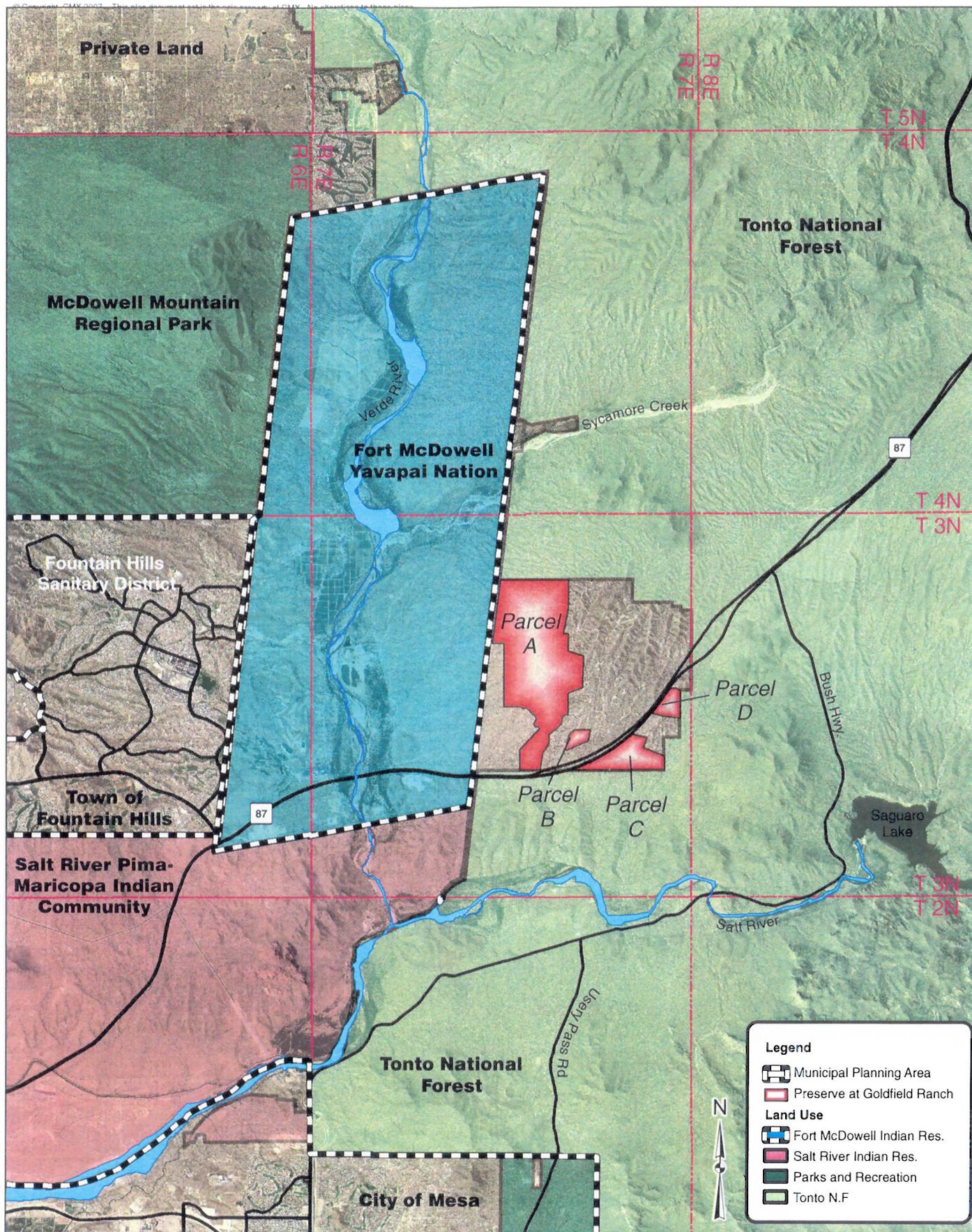
United States Environmental Protection Agency. *Decentralized Systems Technology Fact Sheet Aerobic Treatment*. 2000 Washington D.C.

United States Environmental Protection Agency. *Wastewater Technology Fact Sheet Package Plants*. 2000 Washington D.C.



## **APPENDIX A**

### **FIGURES**

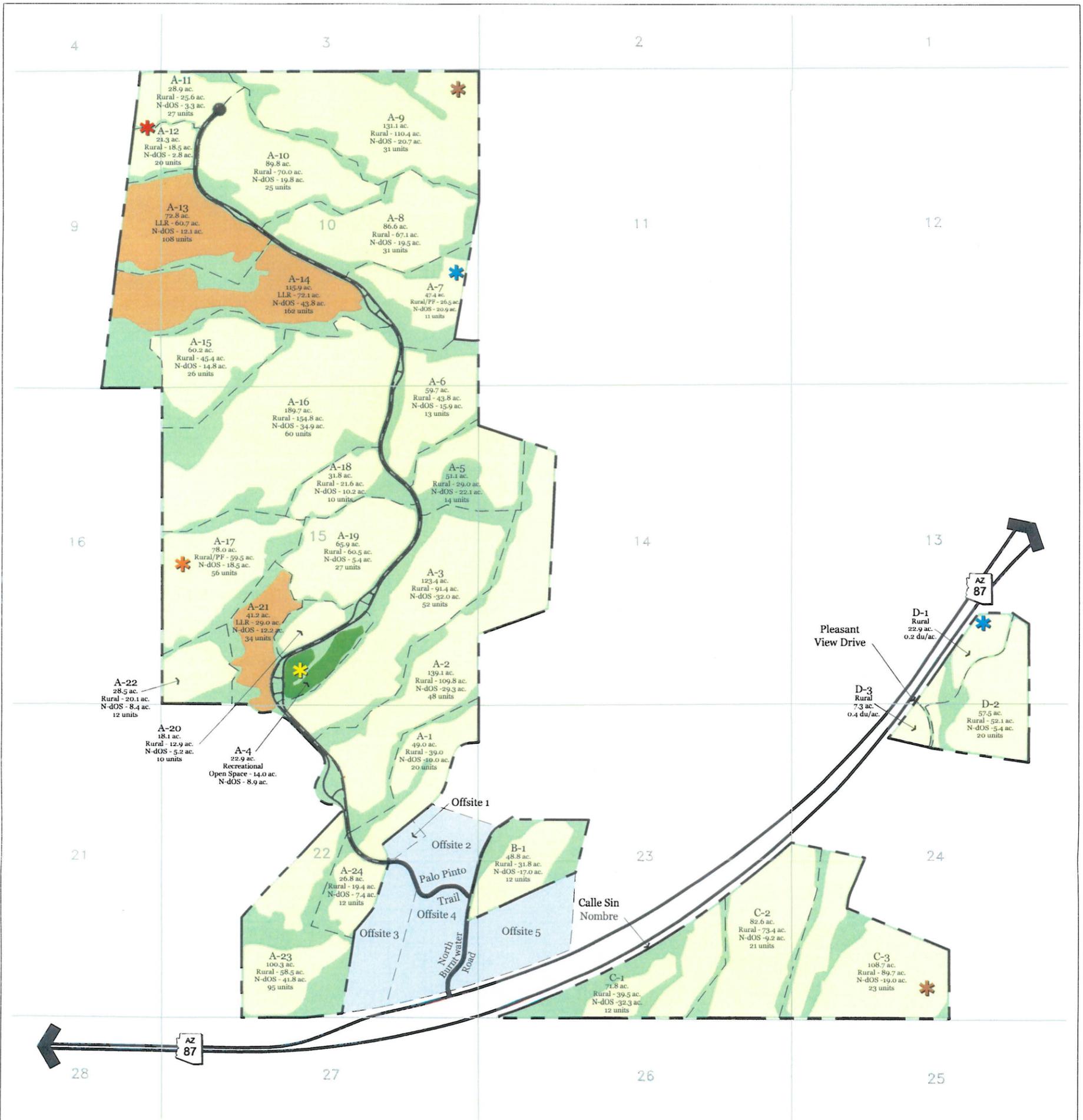


<b>FIGURE</b>  1	CMX PROJ: 7147
	DATE: 02/28/2008
	SCALE: NTS
	DRAWN: MEN
	APPROVED: SAL

**The Preserve at**  
**Goldfield Ranch**  
 Maricopa County, Arizona  
**Vicinity Map**

PHOENIX OFFICE  
 7740 N. 16TH ST. STE. 100  
 PHOENIX, AZ 85020  
 PHONE: (602) 567-1900  
 FAX: (602) 567-1901  
 www.cmxengineering.com





**LEGEND**

- DMP AMENDMENT BOUNDARY
- DEVELOPMENT PARCEL BOUNDARY
- OFFSITE PARCELS
- RURAL (0-1 DU/AC)
- LARGE LOT RESIDENTIAL (1-2 DU/AC)
- DEDICATED NON-DEVELOPABLE OPEN SPACE\*
- RECREATIONAL OPEN SPACE
- WATER CAMPUS
- WATER RECLAMATION FACILITY
- COMMUNITY CLUBHOUSE
- POTENTIAL RESORT/SPA/CASITAS
- POTENTIAL EQUESTRIAN FACILITY

**NOTES:**

\* THE DEDICATED NON-DEVELOPABLE OPEN SPACE WILL REMAIN AS NATURAL OPEN SPACE WITH THE EXCEPTION OF ROAD, TRAIL, OR UTILITY CROSSINGS. RECREATIONAL AMENITIES MAY INCLUDE RAMADAS, TRAILS, PLAY AREAS, AND MAY BE REVEGETATED, WHERE FEASIBLE, WITH PLANTS NATIVE TO THE REGION.

THIS EXHIBIT IS CONCEPTUAL AND SUBJECT TO CHANGE THROUGH THE DESIGN AND DEVELOPMENT PROCESS.

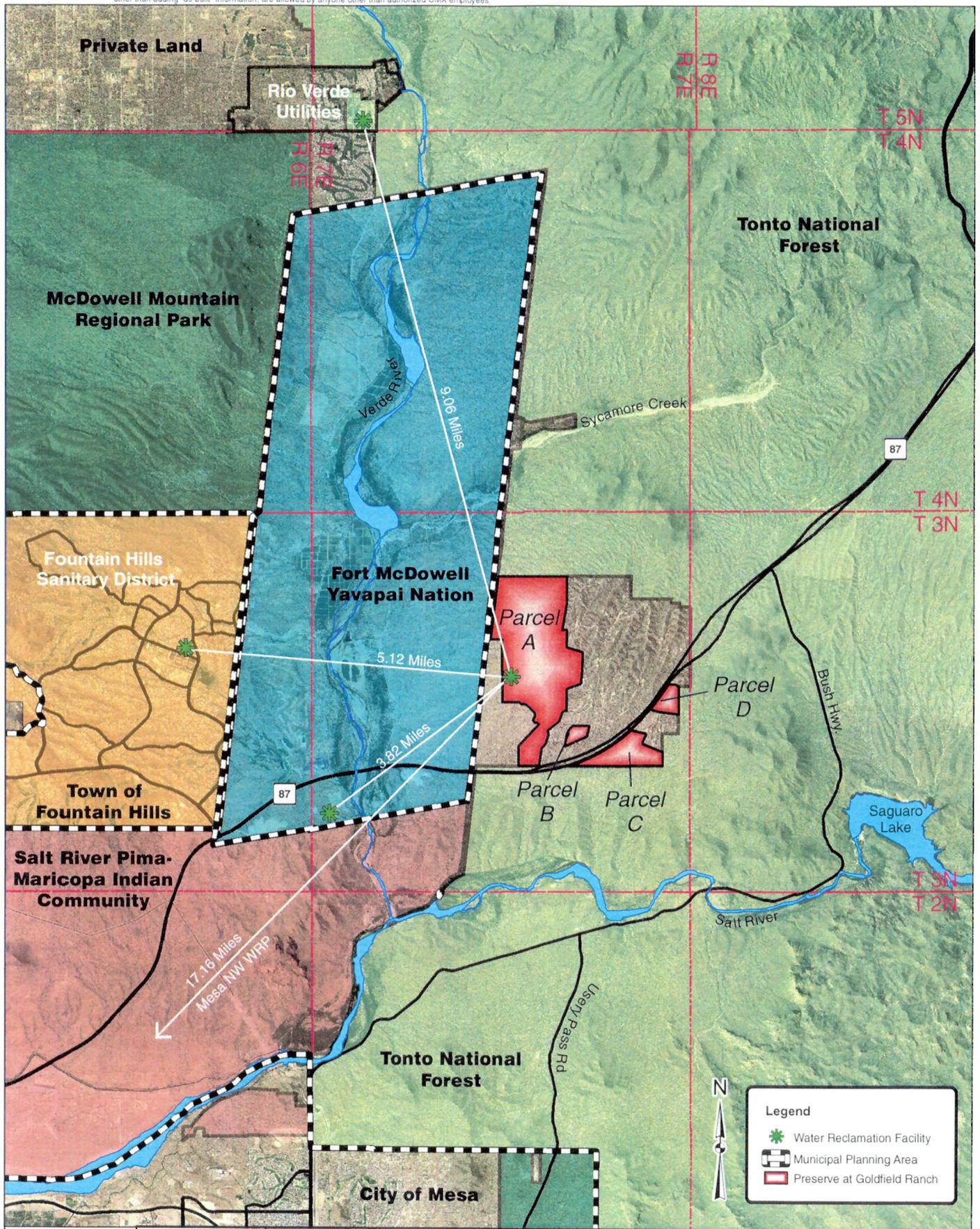
CMX PROJ.	7147
DATE:	FEB. 2008
SCALE:	1"=1800'
DRAWN BY:	AMS/BC
CHECKED BY:	MCM

THE PRESERVE AT GOLDFIELD RANCH  
MARICOPA COUNTY, ARIZONA

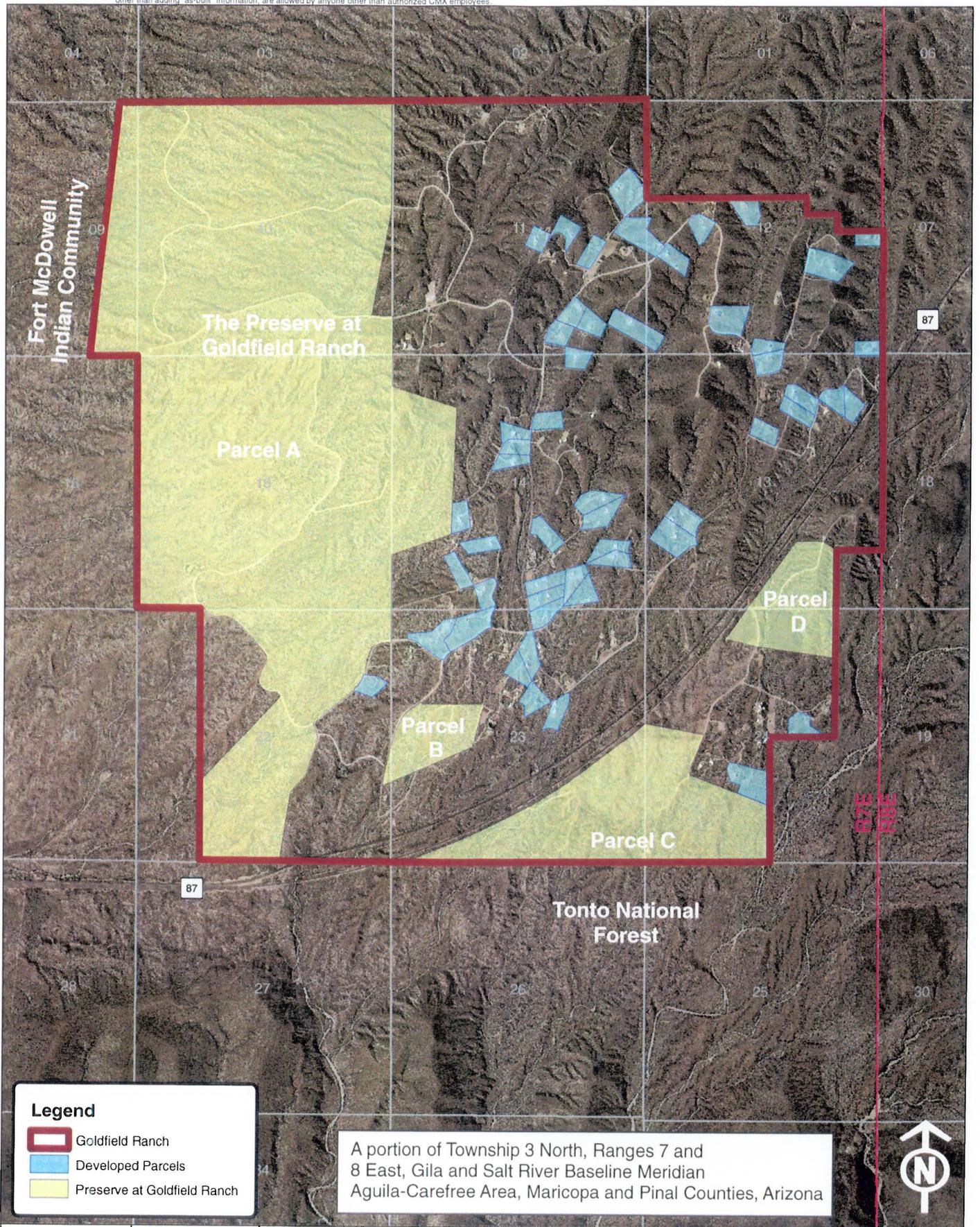
**FIG 2: LAND USE PLAN**



**CMX**  
PHOENIX OFFICE  
7740 N. 16TH ST. STE 100, PHOENIX, AZ  
PH (602) 567-1900 FAX (602) 567-1901



<b>FIGURE</b>  <b>3</b>	CMX PROJ: 7147	<b>The Preserve at Goldfield Ranch</b> Maricopa County, Arizona <b>Proximate WRFs</b>	PHOENIX OFFICE 7740 N. 16TH ST. STE. 100 PHOENIX, AZ 85020 PHONE: (602) 567-1900 FAX: (602) 567-1901 www.cmengineering.com	
	DATE: 02/28/2008			
	SCALE: NTS			
	DRAWN: MEN			
APPROVED: SAL				



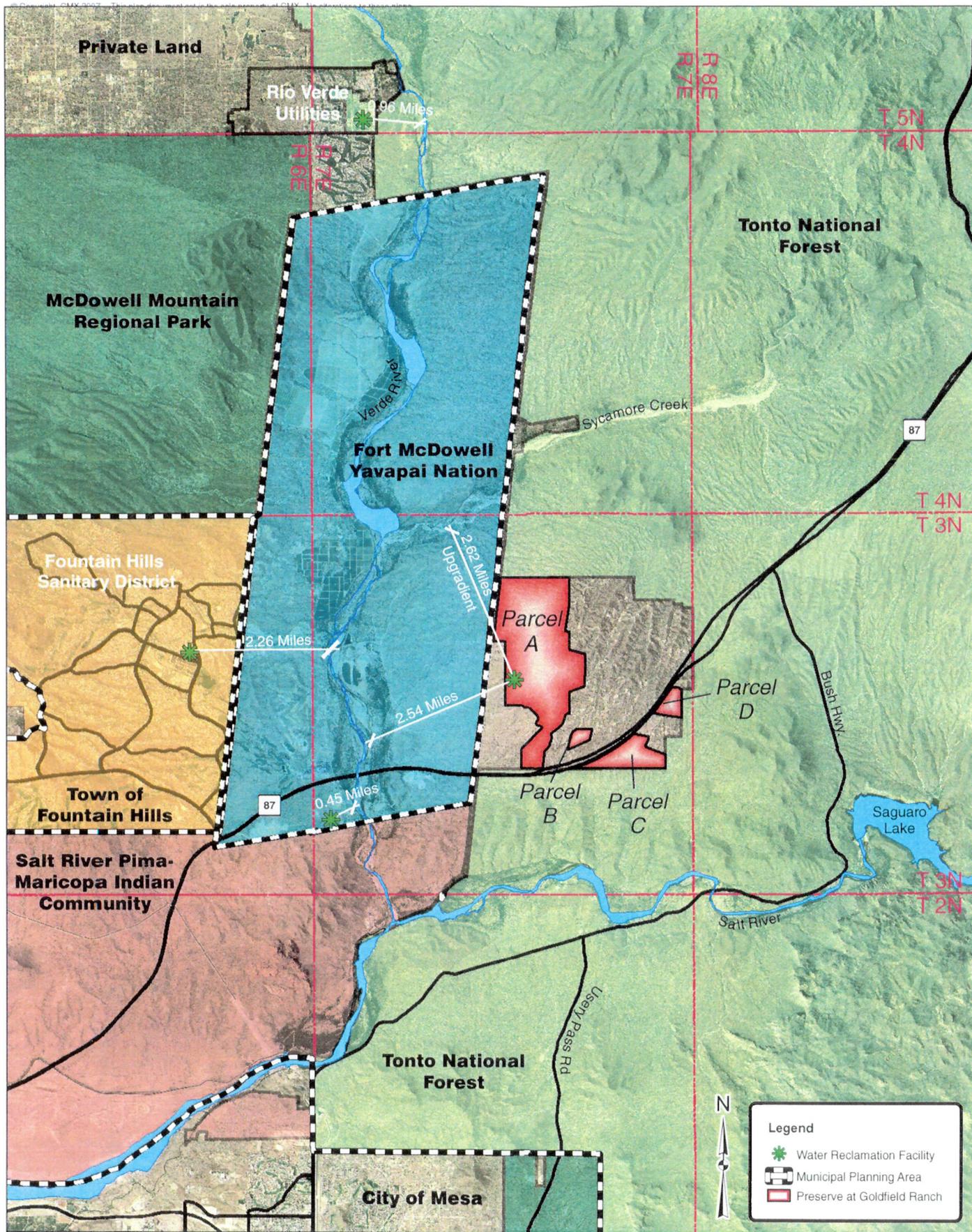
**Legend**

- Goldfield Ranch
- Developed Parcels
- Preserve at Goldfield Ranch

A portion of Township 3 North, Ranges 7 and 8 East, Gila and Salt River Baseline Meridian  
 Aguila-Carefree Area, Maricopa and Pinal Counties, Arizona

<b>FIGURE</b>  4	CMX PROJ: 7147	<i>The Preserve at Goldfield Ranch</i>  Maricopa County, Arizona  <b>Existing Development Exhibit</b>	PHOENIX OFFICE 7740 N. 16TH ST. STE. 100 PHOENIX, AZ 85020 PHONE: (602) 567-1900 FAX: (602) 567-1901 www.cmxengineering.com	
	DATE: 02-28-2008			
	SCALE: NTS			
	DRAWN: RTC			
APPROVED: SAL				





<b>FIGURE</b>  6	CMX PROJ: 7147	<b>The Preserve at Goldfield Ranch</b> Maricopa County, Arizona	<b>WRF Proximity to Waterways</b>	PHOENIX OFFICE 7740 N. 16TH ST. STE. 100 PHOENIX, AZ 85020 PHONE: (602) 567-1900 FAX: (602) 567-1901 www.cmxengineering.com	
	DATE: 02/28/2008				
	SCALE: NTS				
	DRAWN: MEN				
	APPROVED: SAL				



## **APPENDIX B**

### **MAG 208 WATER QUALITY MANAGEMENT PLAN UPDATE SECTION 4.5.2 – MAG SMALL PLANT PROCESS TABLE 4.53 CRITERIA FOR FEASIBILITY REPORT FOR SMALL PLANTS OUTSIDE OF MUNICIPAL SMALL PLANT PLANNING AREA (MAG 2002)**

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

The MAG Water Quality Advisory Committee reviews the response to comments and then makes a recommendation to the MAG Management Committee. The MAG Management Committee reviews the recommendation from the Water Quality Advisory Committee and then makes a recommendation to the MAG Regional Council. As the decision-making body of MAG, the Regional Council reviews the recommendation from the Management Committee and then takes official action to approve the 208 Plan amendment.

The State Water Quality Management Working Group reviews the 208 Plan amendment approved by the Regional Council and then makes a recommendation to the Arizona Department of Environmental Quality (ADEQ). ADEQ submits the 208 Plan amendment to the U.S. Environmental Protection Agency (EPA) for approval and EPA approves the 208 Plan amendment and notifies the State of the approval action.

The Arizona Department of Environmental Quality maintains a 208 amendment checklist for use in preparing 208 Plan Amendments. Copies of the current checklist can be provided by ADEQ upon request.

## **4.5 SMALL PLANT REVIEW AND APPROVAL PROCESS**

### **4.5.1 Introduction**

In the 1982 MAG Point Source Plan Update an alternative to continue expansion of the 91st Avenue WWTP and other major treatment plants was the construction of small reclamation plants. Rather than amend the MAG 208 Plan to include every acceptable new small plant, the communities developed a small plant review and approval process.

Using this process, a small plant not specifically identified in the Point Source Plan can be approved as part of the 208 Plan if the plant goes through the approved Small Plant Review and Approval Process. By requiring proposed plants in the area to obtain approval using this formal process, an uncontrolled proliferation of small plants that could cause problems in the future should be prevented. The communities adopted a small plant process goal of allowing the Cities and Towns the maximum level of control in the approval of small plants. A Small Plants Technical Steering Committee was formed in 1982, composed of representatives from the cities, state, county, and homebuilders. This committee, in conjunction with consultants and MAG staff, developed the Small Plant Review and Approval Process.

#### **4.5.1.1 *Small Plant Definition***

A small plant is a reclamation plant with an ultimate capacity of 2.0 mgd or less with no discharge requiring an National Pollutant Discharge Elimination System or Arizona Pollutant

Discharge Elimination System permit. Plants greater than 2.0 mgd and discharges requiring an National Pollutant Discharge Elimination System or Arizona Pollutant Discharge Elimination System permit which are not specifically identified in the MAG 208 Plan would be required to go through a formal 208 analysis and amendment.

Small plants that are specifically identified in the MAG 208 Plan are required to go through the Small Plant Review and Approval Process for an expansion of the facility, even when the expanded facility would still meet the small plant threshold of 2.0 mgd or less.

#### **4.5.1.2 *Municipal Small Plant Planning Area Boundaries***

For the purposes of the 208 Plan, the Municipal Small Plant Planning Areas are the same as the MAG Municipal Planning Areas (MPAs). The 27 MPAs generally correspond to the jurisdictions for which they are named. Minimally, the planning area for each city or town includes all of its incorporated area plus portions of the County surrounded by strip annexation to allow municipalities to plan for those unincorporated areas.

#### **4.5.1.3 *Areas of Responsibility***

Three areas of responsibility are defined. One is the Municipal Small Plant Planning Area. This is the area identified by the municipality within which the City or Town would have responsibility for the first review and approval of proposed wastewater facilities. The second area is the County Planning Area and within this area, the County would have the responsibility for deciding which wastewater facilities were constructed.

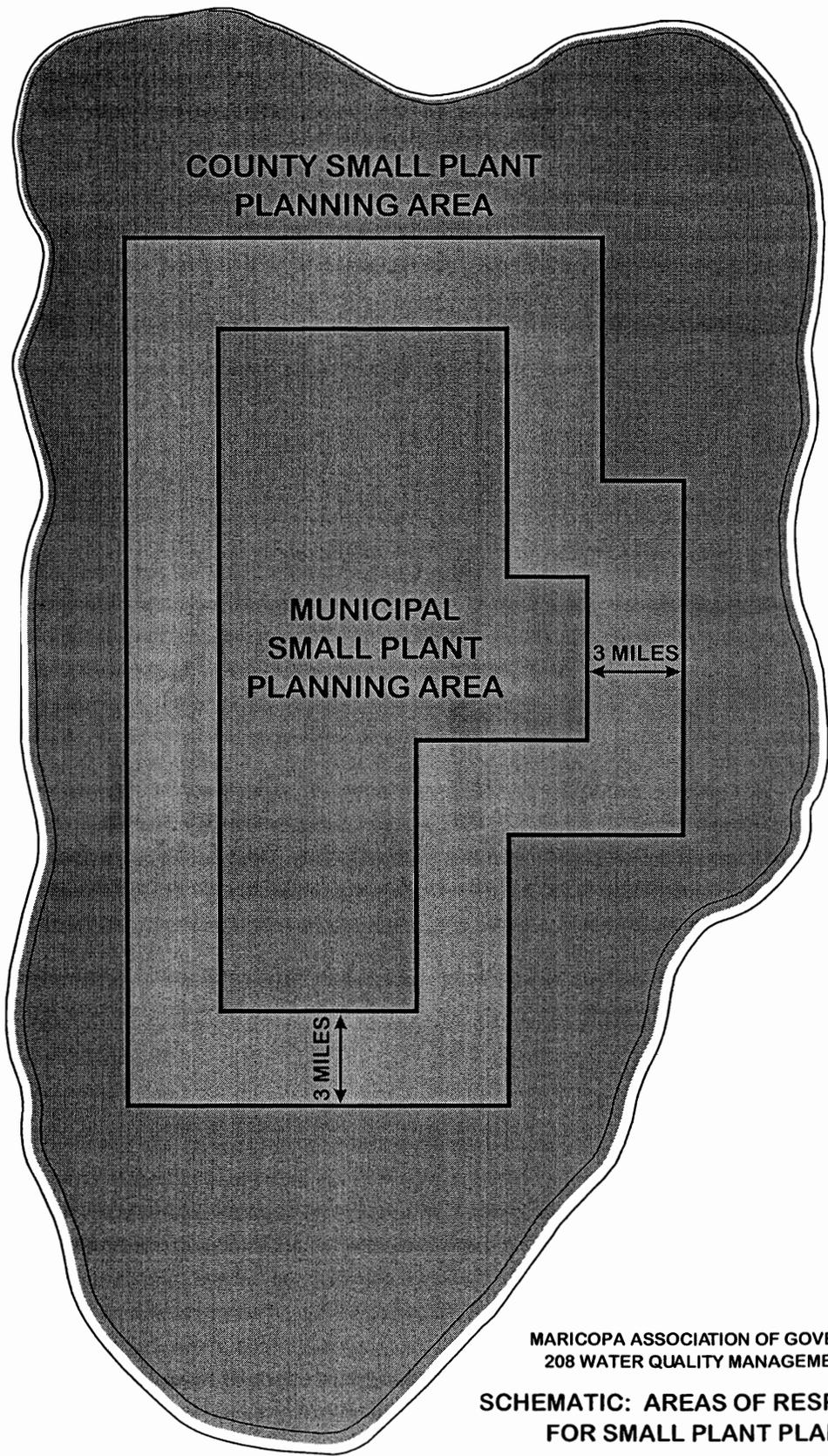
Between the two areas is a third area. This is the area in the County that is within three miles of a Municipal Small Plant Planning Area. Although this area is within the County's area of responsibility, the County must consider the comments of the nearby City or Town concerning proposed facilities in this three-mile area. Figure 4.31 schematically illustrates the relationship between the three areas of responsibility.

#### **4.5.1.4 *Review and Approval Process***

In the process developed for a proposed facility within a Municipal Small Plant Planning Area, the City or Town would work with a developer to come up with a suitable small plant concept. When an acceptable concept has been worked out, the City would send a letter to MAG stating that the proposed small plant is in keeping with the City's wastewater plans for the area.

MAG would then review the proposal and send a letter to the Arizona Department of Environmental Quality (ADEQ) stating whether the small plant is compatible with the overall 208 Plan. The ADEQ has the legal authority to identify compliance with the 208 Plan. Therefore, the final 208 letter of compliance must come from ADEQ. This letter would go to the developer and the Maricopa County Environmental Services Department (MCESD). Upon receiving an approval letter, MCESD would review the plans and specifications for the construction of the wastewater system in the proposed development.

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COUNTY SMALL PLANT  
PLANNING AREA

MUNICIPAL  
SMALL PLANT  
PLANNING AREA

3 MILES

3 MILES

MARICOPA ASSOCIATION OF GOVERNMENTS  
208 WATER QUALITY MANAGEMENT PLAN  
**SCHEMATIC: AREAS OF RESPONSIBILITY  
FOR SMALL PLANT PLANNING**

CAROLLO ENGINEERS  
2001

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Should a developer not be able to work out the details of its proposed small plant with the particular City or Town, it would not be able to proceed. The County would not approve the plans and specifications without the compliance letter from the ADEQ. The state will not give a letter of compliance unless they receive the approval letters from the City and MAG. In accordance with R18-9-B201(H), the Arizona Department of Environmental Quality shall not publish a Notice of Preliminary Decision to issue an individual permit or amendment for a sewage treatment facility that is not in conformance with the Certified Areawide Water Quality Management Plan and the Facility Plan (see the Appendices). For a proposed project in the County, the County would play the same role as the City in the early project review and development. Projects within three miles of a Municipal Small Plant Planning Area would be reviewed and commented on by the affected City or Town. Projects with major problems to the City or Town which could not be resolved, would not receive compliance from ADEQ. The specific process adopted in the MAG 208 Plan in 1982 is set forth below.

#### **4.5.2 MAG Small Plant Process**

No wastewater treatment plant greater than 2.0 mgd ultimate capacity is considered to be in compliance with this plan unless it is specifically named in the Plan or added through 208 Plan Amendments.

Wastewater treatment plants with an ultimate capacity of 2.0 mgd or less are considered to be in compliance with this plan if they are approved using the following processes:

1. Within Municipal Planning Area

To be approved for construction, a small wastewater treatment plant (2.0 mgd ultimate capacity or less) not otherwise mentioned in the MAG 208 Plan but located within a Municipal Small Plant Planning Area must:

1. Have the approval of the municipality in whose planning area it will be located;
2. Not adversely affect the operation or financial structure of existing or proposed wastewater treatment plants;
3. Be consistent with State and County regulations and other requirements; and,
4. Be otherwise consistent with the MAG 208 Plan.

The process for approval of a small plant is as follows:

1. Developer prepares an engineering report on the proposal and submits the report to the City.

2. City reviews the proposal based upon the guidelines in the attached list (Table 4.52) and any others depending upon the needs and desires of the specific City or Town. If the City or Town does not have the staff capability to perform this review, the review process used would be that for small plants outside a Municipal Planning Area. It is also recommended that the City or Town reviewing a proposed development contact any adjacent community if the proposed development is within three miles of boundary between the two communities.

<b>Table 4.52 Guidelines for Small Plants Within Municipal Small Plant Planning Area MAG 208 Water Quality Management Plan Update</b>	
1)	<p><b>Plant Justification</b></p> <ul style="list-style-type: none"> <li>• <b>Why Plant is Required</b> <ul style="list-style-type: none"> <li>- Limited capacity at existing plant or sewer</li> <li>- Too far from trunk sewer</li> <li>- Temporary plant</li> <li>- Soil limitations</li> <li>- Effluent reuse or water conservation</li> <li>- Sludge management options</li> <li>- Other</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Master Plan Compatibility</b> <ul style="list-style-type: none"> <li>- Is plant compatible with future plans for the area?</li> <li>- Will proposed plant impact existing or proposed plants?</li> <li>- Will proposed plant impact existing or proposed reuse plans in the region?</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Benefits of Plant</b> <ul style="list-style-type: none"> <li>- Net water saving</li> <li>- Delays major capital expenditures</li> <li>- Better scheduling and project control</li> <li>- Allows development</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Potential Problems</b> <ul style="list-style-type: none"> <li>- High capital and operational costs</li> <li>- Impacts on groundwater</li> <li>- Impacts on surface water</li> <li>- Inability to meet State regulations</li> <li>- Financial failure of operation</li> <li>- Poor operation and maintenance (O&amp;M)</li> </ul> </li> </ul>

<b>Table 4.52 Guidelines for Small Plants Within Municipal Small Plant Planning Area MAG 208 Water Quality Management Plan Update</b>	
<ul style="list-style-type: none"> <li>• Financial               <ul style="list-style-type: none"> <li>- Who will fund construction?</li> <li>- Who will fund O&amp;M costs - short term?</li> <li>- Who will fund O&amp;M costs - long term?</li> <li>- Financial security</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>• Operation               <ul style="list-style-type: none"> <li>- Who will operate plant - short term?</li> <li>- Who will operate plant - long term?</li> </ul> </li> </ul>	

3. If the proposal fits into the City's Master Plan, then the City sends a letter and a summary of the proposal to MAG (copy to the developer) stating the proposal is approved by the City and it is compatible with the 208 Plan covering the City's Planning Area.
4. MAG reviews the proposal for overall 208 Plan compliance to ensure that the Small Plant Process is followed, and to ensure that regional impacts are addressed. This evaluation will be coordinated by the MAG Water Quality Advisory Committee. Recommendations from the Water Quality Advisory Committee will be presented to the MAG Management Committee. Recommendations from the Management Committee will be presented to the Regional Council.
5. Based on Regional Council actions, MAG sends a letter to ADEQ and the proposal summary (copies to developer, City, and MCESD) stating whether the proposed project is compatible with the overall 208 Plan.
6. Upon receipt and review of the letter from MAG, ADEQ submits a letter and proposal summary to MCESD and developer stating whether the proposed project is in conformance with the MAG 208 Plan.
7. The developer, after receiving an approval letter from ADEQ, submits plans and specifications to MCESD for review together with a copy of the approved design concept.
8. MCESD reviews, based on ADEQ Bulletin #11 and County regulations, the plans and specifications and issues permit to construct.

For the purpose of this process, a Sanitary District is treated in the same fashion as a Municipality.

2. Outside of Municipal Planning Areas

To be approved for construction, a small wastewater treatment plant (2.0 mgd ultimate capacity or less) not otherwise mentioned in the MAG 208 Plan and located outside a Municipal Small Plant Planning Area must:

1. Have the review and comment of any municipality whose Small Plant Planning Area is within three miles of the proposed plant location or service area;
2. Not adversely affect the operation or financial structure of existing or proposed wastewater treatment plants;
3. Be consistent with State and County regulations and other requirements;
4. Be otherwise consistent with the MAG 208 Plan; and,
5. Be evaluated and approved, or modified by Maricopa County Environmental Services Department (MCESD).

The process for approval of a small plant is as follows:

1. Developer submits engineering report to Maricopa County and any cities whose Municipal Small Plant Planning Areas are within three miles of the proposed plant's service areas. This report would contain sufficient information for evaluation of the report based upon the attached guidelines as set forth in Table 4.53.

<b>Table 4.53 Criteria for Feasibility Report for Small Plants Outside of Municipal Small Plant Planning Area MAG 208 Water Quality Management Plan Update</b>	
1)	<b>Technical Criteria</b> <ul style="list-style-type: none"><li>• Why is small plant desired?<ul style="list-style-type: none"><li>- Depth to groundwater less than _____ ft.</li><li>- Soil limitations prevent use of septic tanks</li><li>- Potential for reuse or water conservation</li><li>- Lot size one acre or less</li><li>- Area not planned for regional service for _____ years</li><li>- Density of projected population</li><li>- Will serve industrial or commercial area</li></ul></li></ul>

<b>Table 4.53 Criteria for Feasibility Report for Small Plants Outside of Municipal Small Plant Planning Area MAG 208 Water Quality Management Plan Update</b>	
	<ul style="list-style-type: none"> <li>• What is the anticipated quality of the wastewater?               <ul style="list-style-type: none"> <li>- Domestic</li> <li>- Commercial and/or Industrial</li> <li>- If commercial and/or industrial wastes are anticipated, what provisions are being taken to ensure no toxic substances will be discharged?</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• How and why was small plant design and capacity selected?               <ul style="list-style-type: none"> <li>- What criteria were used?</li> <li>- What alternatives were considered?</li> <li>- What are benefits, problems of alternatives?</li> <li>- Will there be problems meeting State or County regulations?</li> <li>- What sludge management options were considered?</li> </ul> </li> </ul>
2)	<p><b>Planning Criteria</b></p> <ul style="list-style-type: none"> <li>• Is proposed plant compatible with County adopted master plans, guidelines, etc., for the area?               <ul style="list-style-type: none"> <li>- What plans apply?</li> <li>- What guidelines or policies apply?</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• Can the proposed plant be expanded to serve growing population?               <ul style="list-style-type: none"> <li>- What population is projected for the service area?</li> <li>- Would certain areas lend themselves, topographically or hydrologically, by planned use or density to being included in the service area?</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• Will proposed plant adversely impact existing or approved nearby land uses?               <ul style="list-style-type: none"> <li>- What are land uses within _____ miles?</li> <li>- What is zoning for the surrounding area?</li> <li>- What are reactions of nearby landowners to proposed facility?</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• Will there be a net water saving from effluent reuse?               <ul style="list-style-type: none"> <li>- How will effluent be disposed of?</li> <li>- What is the estimated water saving?</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• Do nearby existing or proposed land uses indicate a need for a larger capacity sewage plant than that proposed?               <ul style="list-style-type: none"> <li>- Should nearby areas be sewerred or otherwise join the proposed plant for water quality or economic reasons?</li> <li>- Do these areas wish to join the proposed plant?</li> </ul> </li> </ul>

**Table 4.53 Criteria for Feasibility Report for Small Plants Outside of Municipal Small Plant Planning Area  
MAG 208 Water Quality Management Plan Update**

3)	<p>Development Criteria</p> <ul style="list-style-type: none"> <li>• Who will fund construction?</li> <li>• Who will fund operation and maintenance costs?</li> <li>• Is there adequate financial security to assure continual and proper operation and maintenance?</li> <li>• Who will operate and maintain the plant and system?</li> <li>• What are anticipated capital and operation and maintenance costs?</li> </ul>
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2. The involved Cities evaluate the report and send a letter containing their recommendations to Maricopa County (copies to MAG and developer).
3. Maricopa County incorporates City's concerns and sends a letter and summary of the proposal to MAG (with copies to involved Cities and developers), stating whether the proposal for wastewater is acceptable to the County.
4. MAG evaluates the proposed plant for overall MAG 208 Plan conformance to ensure that the Small Plant Process is followed and to ensure that regional impacts are addressed. This evaluation will be conducted by the MAG Water Quality Advisory Committee. Recommendations from the Water Quality Advisory Committee will be presented to the MAG Management Committee. Recommendations from the MAG Management Committee will be presented to the Regional Council. Based upon Regional Council action, MAG submits letter on 208 compliance to ADEQ (with copies to Maricopa County, the developer and any involved cities).
5. After review of the MAG Submittal, ADEQ submits letter to MCESD (with copy to the developer) indicating 208 Plan compliance.
6. After receipt of an approval letter from ADEQ, MCESD reviews and approves plans and specifications based upon Bulletin # 11 and issues permit to construct.

It should be noted that before a development proceeds, approval has to be obtained for the entire master plan. Approval by the State and County Departments only constitutes one part of the approval process.



**APPENDIX C**

**SPONSORSHIP LETTER FROM MARICOPA COUNTY**



**Maricopa County**  
Environmental Services  
Water and Waste Management Division

1001 N. Central Ave., Suite 150  
Phoenix, AZ 85004  
Phone: (602) 506-6666  
Fax: (602) 506-6925  
TDD: 602 506 6704  
[www.maricopa.gov/envsvc](http://www.maricopa.gov/envsvc)

February 29, 2008

Maricopa Association of Governments  
302 North 1st Avenue, Suite 300  
Phoenix, AZ 85003

Attention: Ms. Lindy Bauer, Environmental Director

Re: **The Preserve at Goldfield Ranch Water Reclamation Facility  
Clean Water Act, MAG 208 Small Projects Review**

Dear Ms. Bauer:

CMX, LLC, has submitted a *MAG 208 Water Quality Management Plan Amendment Application for The Preserve at Goldfield Ranch Water Reclamation Facility, February 2008*, to Maricopa County Environmental Services Department (Department). The application is for a 0.40 MGD water reclamation facility (WRF) that will be located within the western half of Section 15, Township 3 North, Range 7 East. Effluent will be reused for irrigation to the maximum extent feasible and the balance will be recharged via injection wells to the fanconglomerate hydrogeologic unit that begins 750 feet below grade.

In accordance with the MAG Water Quality Management Plan, Section 4.5.2 (MAG Small Plant Process), this document was submitted to the Department for review and sponsorship, since the facility is located within an unincorporated area of Maricopa County, outside of any municipal planning area.

Based on a review of the proposed 208 MAG 208 Small Projects Review and Approval Report, the Department has determined that the proposed MAG 208 Amendment is acceptable and complies with the MAG 208 Arcawide Water Quality Management Plan. The proposed WRF does not conflict with Maricopa County plans for the area.

The facilities are located within three miles of the Fort McDowell Yavapai Nation. The Nation has provided a letter dated September 24, 2007 stating that the application has too many discrepancies for it to provide a letter of no objection. Among other things, the Nation is concerned about the location of the recharge point and how the recharge might impact water quality in the Verde River. CMX has revised the application to address this issue and to reconcile planning data with the Master Wastewater Report Amendment for The Preserve at Goldfield Ranch (CMX 2008).

Please note that the Department has not reviewed, nor approved, the design of the facilities as part of the 208 Small Projects Review. Any technical issues that remain will need to be resolved during the design phase of the project. Approval to Construct (ATC) and Approval of Construction (AOC) must be obtained from this Department prior to start of construction and startup, respectively, of all treatment, discharge, recharge, and reuse facilities, including all conveyance facilities and final end user facilities.

Page 2 of 2

February 29, 2008

Ms. Lindy Bauer

The Preserve at Goldfield Ranch Water Reclamation Facility

If you have any questions or comments, please contact Mr. Kenneth James, PE, or me at 506-6666.

Sincerely,

A handwritten signature in black ink that reads "Kevin Chadwick". The signature is written in a cursive style with a large initial "K".

Kevin Chadwick, P.E.

Division Manager

cc: Sheila Logan, CVL

Utilities Division - Engineering Section, Arizona Corporation Commission

File



**APPENDIX D**

**FINANCIAL ASSURANCE LETTER AND  
CONSOLIDATED FINANCIAL REPORT**



**THE ELLMAN COMPANIES**  
International Real Estate and Corporate Investments  
Established 1972



April 2, 2007

Ms. Julie Hoffman  
Maricopa Association of Governments  
302 North 1st Avenue  
Suite #300  
Phoenix, AZ 85003

Re: Financial Assurance of Capital Funding for The Preserve at Goldfield Ranch

Dear Ms. Hoffman:

This letter confirms Goldfield Preserve Development, LLC's financial capacity to build the proposed Water Reclamation Facilities and sewer and reclaimed water infrastructure required to serve the area planned in The Preserve at Goldfield Ranch development project. Through its relationship with Ellman Holdings, Inc. and its affiliates, Goldfield Preserve Development, LLC has access to the capital that will be necessary to fund all of the project's capital improvements, including the proposed 208 Plan.

Sincerely,

**The Ellman Companies**

Bob Kaufman  
Senior Vice President & General Counsel

cc: Don Kile



**McGladrey & Pullen**

Certified Public Accountants

**COPY**

**Goldfield Preserve Development, LLC  
and Subsidiary**

Consolidated Financial Report  
12.31.2006

## Contents

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Consolidated statement of income	3
Consolidated statement of members' equity	4
Consolidated statement of cash flows	5
Notes to consolidated financial statements	6 – 10

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# McGladrey & Pullen

Certified Public Accountants

## Independent Auditor's Report

To the Members  
Goldfield Preserve Development, LLC  
Phoenix, Arizona

We have audited the accompanying consolidated balance sheet of Goldfield Preserve Development, LLC and subsidiary as of December 31, 2006, and the related consolidated statements of income, members' equity, and cash flows for the period from inception (May 11, 2006) to December 31, 2006. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Goldfield Preserve Development, LLC and Subsidiary as of December 31, 2006, and the results of their operations and their cash flows for the period from inception (May 11, 2006) to December 31, 2006 in conformity with accounting principles generally accepted in the United States of America.

*McGladrey & Pullen, LLP*

Phoenix, Arizona  
May 23, 2007

**Goldfield Preserve Development, LLC  
and Subsidiary**

**Consolidated Balance Sheet  
December 31, 2006**

**ASSETS**

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Land and development costs <i>(Notes 2 and 4)</i>	\$ 146,072,029
Cash and cash equivalents	7,483,868
Deferred financing costs <i>(Note 2)</i>	4,451,426
Prepaid expenses	101,301
<b>Total assets</b>	<b>\$ 158,108,624</b>

**LIABILITIES AND MEMBERS' EQUITY**

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**LIABILITIES**

Secured debt payable to related party <i>(Notes 2 and 3)</i>	\$ 149,141,662
Accrued interest payable to related party	3,866,498
Accounts payable	238,209
<b>Total liabilities</b>	<b>153,246,369</b>

Commitments and Contingencies *(Note 3)*

MEMBERS' EQUITY	4,862,255
<b>Total liabilities and members' equity</b>	<b>\$ 158,108,624</b>

See Notes to Consolidated Financial Statements.

**Goldfield Preserve Development, LLC  
and Subsidiary**

**Consolidated Statement of Income  
For the Period From May 11, 2006 to December 31, 2006**

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Interest income	\$	187,870
Interest expense ( <i>Note 4</i> )		<u>(325,615)</u>
<b>Net loss</b>	<b>\$</b>	<b><u>(137,745)</u></b>

See Notes to Consolidated Financial Statements.

**Goldfield Preserve Development, LLC  
and Subsidiary**

**Consolidated Statement of Members' Equity  
For the Period From May 11, 2006 to December 31, 2006**

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	<u>Class A Units</u>	<u>Class B-1 Units</u>	<u>Class B-2 Units</u>	<u>Total</u>
Initial contribution	\$ 5,000,000	\$ -	\$ -	\$ 5,000,000
Net loss	(137,745)	-	-	(137,745)
<b>Balance, December 31, 2006</b>	<b>\$ 4,862,255</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 4,862,255</b>

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See Notes to Consolidated Financial Statements.

**Goldfield Preserve Development, LLC  
and Subsidiary**

**Consolidated Statement of Cash Flows  
For the Period From May 11, 2006 to December 31, 2006**

<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>	
Net loss	\$ (137,745)
Adjustments to reconcile net loss to net cash provided by operating activities:	
Amortization	32,223
Changes in operating assets and liabilities:	
Prepaid expenses	(101,301)
Accounts payable and accrued expenses	238,209
<b>Net cash provided by operating activities</b>	<u>31,386</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>	
Purchase of land and developments costs	<u>(141,347,468)</u>
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>	
Contribution from member	5,000,000
Proceeds from secured debt payable to related party	149,141,662
Deferred financing costs	(5,341,712)
	<u>148,799,950</u>
<b>CASH AND CASH EQUIVALENTS AT DECEMBER 31, 2006</b>	<u>\$ 7,483,868</u>
<b>SUPPLEMENTAL SCHEDULE OF NON-CASH INVESTING AND FINANCING ACTIVITIES</b>	
Accrued interest payable capitalized to land and development costs	<u>\$ 3,866,498</u>
Amortization of deferred financing costs capitalized to land and development costs	<u>\$ 858,063</u>

See Notes to Consolidated Financial Statements.

**Goldfield Preserve Development, LLC  
and Subsidiary**

**Notes to Consolidated Financial Statements**

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**Note 1. Nature of Business and Significant Accounting Policies**

**Nature of business:**

Goldfield Preserve Development, LLC (Goldfield Development ) a Delaware limited liability company, was formed on May 11, 2006 to acquire, entitle, develop, construct, own, hold, lease, maintain, finance, manage, improve, market, sell, exchange, mortgage or otherwise dispose of the property consisting of 2,212 acres located in Northeast Maricopa County, Arizona (the Land). Goldfield Development purchased the Land on June 28, 2006 and expects to develop high end residential master planned community custom lots for sale (the Project).

**Summary of significant accounting policies:**

**Principles of consolidation:**

The consolidated financial statements include the accounts of the Goldfield Development and its wholly owned subsidiary, Goldfield Heights Water Company, Inc (the Company).

**Basis of presentation and use of estimates:**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates. The Company is required to estimate future cash flows in determining whether it will recover the carrying amount of its land and development costs. The process of evaluating for impairment requires estimates as to future events and conditions, which are subject to varying market and economic factors. Therefore it is reasonably possible that a change in estimates resulting from judgments as to future events could occur which would affect the recorded amount of land and development costs. As of December 31, 2006, management believes that the future estimated undiscounted cash flows from the development and sale of the Project are in excess of the carrying amount recorded in the balance sheet and no impairment adjustment is required.

**Cash and cash equivalents:**

The Company considers all short-term investments purchased with a maturity of three months or less to be cash equivalents. At various times throughout the year, the Company maintained cash balances in excess of federally insured amounts at financial institutions. The Company has not experienced any losses in such accounts and management believes they are not exposed to any significant credit risk with respect to cash and cash equivalents.

**Deferred financing costs:**

Loan costs incurred in financing the purchase of the Land have been capitalized and are being amortized over the three year life of the loan using the effective interest rate method.

**Goldfield Preserve Development, LLC  
and Subsidiary**

**Notes to Consolidated Financial Statements**

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**Note 1. Nature of Business and Significant Accounting Policies (Continued)**

**Land and development costs:**

Land and development costs include all direct costs of land acquisition and land development including interest, real estate taxes, and other carrying costs incurred in the development period. During the development period, all related costs are capitalized. Such capitalized costs will be allocated to individual lots based on their relative market value. The capitalized costs of lots are charged to earnings when the related revenue is recognized. Land and development costs consist of the initial purchase price of the land of \$135,800,208 and capitalized interest, closing and entitlement costs of \$10,271,821.

**Income taxes:**

Goldfield Development is a limited liability company, for which the members separately account for their share of the entity's income, losses, deductions, and credits. Accordingly, no provision for income taxes related to this entity has been included in these consolidated financial statements. The remaining entity, Goldfield Heights, is a C Corporation which is a generally taxable entity and is required to file federal and state income tax returns. At December 31, 2006, Goldfield Heights is an inactive entity with no operations. Accordingly, no provision for income taxes related to this entity has been included in these consolidated financial statements.

Goldfield Heights will also be required to recognize deferred tax assets on deductible temporary differences and deferred tax liabilities on taxable temporary differences. Temporary differences are the differences between the reported amounts of assets and liabilities and their tax bases and relate primarily to property and equipment. Deferred tax assets and liabilities are adjusted for the effects of changes in tax laws and rates on the date of enactment.

**Fair value of financial instruments:**

The Company determines fair value of financial instruments as required by Statement of Financial Accounting Standards (SFAS) No. 107, "*Disclosures About Fair Values of Financial Instruments*".

The carrying amounts of financial instruments including cash and cash equivalents and accounts payable approximate their fair values because of their short maturities.

The carrying amount of secured debt approximates its fair value because the interest rate on the instrument is adjusted quarterly to the current market rate.

**New accounting pronouncements:**

In September 2006, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 157, "*Fair Value Measurements*" (SFAS 157). SFAS 157 does not require new fair value measurements but rather defines fair value, establishes a framework for measuring fair value and expands disclosure of fair value measurement. SFAS 157 is effective for fiscal years beginning after November 15, 2007 and interim periods within those fiscal years. The Company is currently assessing the impact SFAS 157 will have on its consolidated financial position and results of operations.

**Goldfield Preserve Development, LLC  
and Subsidiary**

**Notes to Consolidated Financial Statements**

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**Note 2. Secured Debt Payable to Related Party**

**Credit agreement:**

The Company entered into a Credit Agreement (Credit Agreement) representing a syndicate of loans (Loans) totaling \$145,000,000 with Credit Suisse, Cayman Islands Branch (Credit Suisse). Credit Suisse is the administrative agent, syndication agent, collateral agent, arranger, and bookrunner to the lenders (Lenders) of the Credit Agreement. As discussed in Note 5, Credit Suisse is the holder of B units of the Company.

The Loans are collateralized by a deed of trust, an assignment of water rights, a pledge agreement pledging Goldfield Preserve LLC's percentage interest in the Company, a security agreement, assignment of leases and rents, UCC filings, multi-party deposit account control agreement, and a guaranty by Goldfield Preserve LLC. Interest compounds and is added to principal quarterly. The Loans mature, and all principal and accrued interest is due, on June 28, 2009, with the option to extend an additional one year period given certain conditions. The Loans bear interest at Prime plus 4% (Prime Rate) or 3 month LIBOR plus 5% (LIBOR Rate) and the Company has the option to select either rate. As of December 31, 2006 the Loans were accruing interest at the LIBOR Rate, or 10.37%.

Pursuant to the Credit Agreement, proceeds from the Loans will be used to 1) purchase the land and pay all transaction costs associated with the purchase of the land, and 2) fund all necessary costs in order to obtain and maintain the necessary entitlements under applicable law in order to allow the development and sale of all or a portion of the Project.

The Credit Agreement contains quarterly financial and non financial covenants. At December 31, 2006 the Company was in default of one of the covenants related to information required to be reported quarterly. Subsequent to year-end the Company furnished the Lender the information and was notified by the Lender in a Waiver Agreement and Approval dated May 4, 2007 (Waiver Agreement) that the Company was then in compliance with the covenant. For the period ended December 31, 2006, another covenant violation occurred which was specifically waived under the Waiver Agreement.

Obligations outstanding under the Credit Agreement at December 31, 2006 totaled approximately \$153,000,000.

**Note 3. Commitments, Contingencies, and Other Transactions with Affiliates**

**Arrangement and administration fee and interest:**

With the funding of the Loans, Credit Suisse was paid a fee and reimbursed for certain costs. Credit Suisse is also paid an annual fee as administrative agent to the Lenders. Total fees paid to Credit Suisse, including interest paid or accrued under the Loans, totaled approximately \$12,300,000 for the period ended December 31, 2006.

**Pre-development fee:**

Ellman Management Group, Inc. (Manager), an affiliate of the Class A member, will manage the daily business affairs of the Company and make all day to day operating decisions. The Manager has the authority to act on behalf of and bind the Company in all matters respecting the company and its business subject to major decisions enumerated in the Agreement and within the Credit Agreement.

**Goldfield Preserve Development, LLC  
and Subsidiary**

**Notes to Consolidated Financial Statements**

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**Note 3. Commitments, Contingencies, and Other Transactions with Affiliates (Continued)**

**Pre-development fee (continued):**

Pursuant to the Agreement discussed in Note 5, the Manager shall be paid a fee of \$125,000 per quarter until the Loans have been repaid and all unpaid priority returns reduced to zero (entitlement process period). The Manager received \$250,000 in pre-development fees for the period ended December 31, 2006.

**Entitlement performance bonus:**

Pursuant to the Agreement discussed in Note 5, if the Manager obtains the final and non-appealable approval by the Maricopa County Board of Supervisors to change the zoning for the Land to permit development of the Project by December 31, 2008, the Manager shall be paid a \$5,000,000 entitlement performance bonus.

**Construction management fee:**

Pursuant to the Agreement discussed in Note 5, the Manager shall be paid a fee for providing construction management services for the Project during construction of any improvements on the Project. The construction management fee shall equal 4% of all construction costs that are part of the construction budget.

**Note 4. Capitalized Interest and Interest Expense**

The Company capitalizes land development related interest as a component of land and land development costs. Interest unrelated to land development is expensed as incurred. Interest capitalized and expensed during the year, including amortization of deferred financing fees, was as follows:

Interest capitalized	\$ 8,572,831
Interest expensed	325,615
Total interest incurred	<u>\$ 8,898,446</u>

**Note 5. Members' and Stockholders' Equity**

**Goldfield Development:**

Goldfield Development was formed under the terms of a Limited Liability Company Agreement (Agreement) with various members. Members of Goldfield Development and their respective percentage interests are as follows:

Class A Units - Goldfield Preserve, LLC (Goldfield Preserve)	50%
Class B-1 Units - Credit Suisse and affiliates	40%
Class B-2 Units - Credit Suisse and affiliates	10%

**Goldfield Preserve Development, LLC  
and Subsidiary**

**Notes to Consolidated Financial Statements**

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**Note 5. Members' and Stockholders' Equity (Continued)**

**Goldfield Development (continued):**

The Class A member, Goldfield Preserve, transferred its rights, title and interest in and to a certain Land Purchase Contract as well as \$5,000,000 in cash toward the purchase of the Land in exchange for a 50% interest in Goldfield Development represented by 145 Class A Units. The Class B members, Credit Suisse, facilitated, syndicated, and arranged certain loans (Note 2) that financed the purchase of the land in exchange for a 50% interest in Goldfield Development represented by 145 Class B Units. The Agreement does not require members to make additional capital contributions.

Class A and Class B units are entitled to certain priority returns as defined in the Agreement. The Class A member accrues a priority return of 10% per annum on its unreturned capital contribution; cumulative and compounded quarterly. The Class B members accrue a priority return of 10% per annum on \$40,000,000 (Deemed Contribution Amount), cumulative and compounded quarterly. The Deemed Contribution Amount is a notional amount used solely for the purpose of determining the Class B member priority return. Additionally, Class A units are entitled to voting privileges, while Class B units do not have voting privileges except as specifically stated in the Agreement.

The Agreement stipulates that net income and net loss shall be allocated amongst the members so as to reduce, to the greatest extent possible, the differences between each member's respective capital account and the balance of the member's target account, as defined. Distributions of distributable cash, as defined, to the members are made as follows:

1. First, to the members in proportion to their unpaid priority returns, until each member's unpaid priority return is reduced to zero.
2. Second, to the Class A member until its capital contribution is reduced to zero.
3. Thereafter, in accordance with the members' respective percentage interests.

**Goldfield Heights:**

Goldfield Heights is an Arizona Corporation with 5,000 shares of authorized no par common stock, 2,500 of which are issued, outstanding and owned by Goldfield Development at December 31, 2006.



**APPENDIX E**

**AGREEMENT WITH A QUALITY WATER COMPANY  
AND COMPANY INFORMATION**

*Shirley Logan*

a Quality Water co.

To: Mr. Don Kile  
Goldfield Preserve Development, LLC  
4040 E Camelback Road  
Suite 250  
Phoenix, AZ 85018

From: Pat Carpenter  
a Quality Water co.

RE: Proposal for Goldfield Ranch

Dear Mr. Kile:

Thank you for the opportunity to present a proposal on your project, Goldfield Ranch.

Our fees for the use of the a Quality Water co. as the licensed operator on applications, reports and forms including the Maricopa Association of Governments (MAG) 208 Plan Amendment, Water and Wastewater Master Plans for submittal to Maricopa County and papers to be filed to form the Goldfield Ranch Domestic Water and Wastewater Improvement District will be billed on a monthly basis at a rate of \$125.00 per month.

If the project requires further services from a Quality Water co., then these services will be billed at an hourly rate of \$65.00 per hour plus expenses including mileage at a rate of \$0.50 per mile.

Thanks again for this opportunity. If you have any questions regarding this proposal please feel free to call me at 928-606-0498.

Respectfully submitted,



Pat Carpenter

Accepted by:

*Don Kile, president*  
Don Kile, Goldfield Preserve Development, LLC

3/30/07  
Date

a Quality Water co.

A Quality Water co. has been operating water and wastewater utilities for fourteen years. We manage and operate more than a dozen systems in Northern and Central Arizona.

Pat Carpenter, partner, has been a licensed operator for fourteen years and successfully operates several water, wastewater and reclaim systems. He is familiar with all aspects of well drilling and service. He oversees all projects in the Verde Valley area. He served on the Williams City Council for 6 years and contributed much time and expertise to drilling and developing 3 deep wells for the City (3,000ft.). These wells now produce a total of 1.5 million gallons a day.

Chris Williamson, partner, has been a licensed operator for fourteen years. He is familiar with all types of treatment equipment and acts as our instrumentation and control specialist for all systems. He is currently serving as chief operator at the Grand Canyon Airport where he manages a 100,000 GPD water treatment plant operating under the EPA Long Term Surface Water Treatment Rule. He also oversees all our systems in the Prescott / Chino Valley area.

All operators that work for Quality Water are certified and licensed by the state of Arizona, and trained to understand all aspects of their work. We currently have grade 2, 3, and 4 operators on staff. Quality Water has been involved in several projects from concept stage to project completion and operation.

We are currently working on a 1.0 mgd upgrade to a wastewater plant for one of our projects.

Our normal services for water or wastewater systems include, but are not limited to:

- ADWR water use reports and plan submittals
- all ADEQ / EPA sampling and reporting
- new source sampling and approval
- microbiological, lead & copper and disinfection byproduct sampling
- consumer confidence reports (CCR)

- emergency operation plans (EOP)
- standard operation procedures (SOP)
- backflow program management and reporting
- emergency response plans (ERP)
- vulnerability assessment and security planning
- storm water pollution prevention planing and implementation (SWPPP)
- all aspects of deep well drilling, service and repair
- oversight of all projects relative to the water / wastewater system

The following is our current project list. It also serves as our list of references. We strongly encourage you to contact each of these people.

The Grand Canyon Inn water system has one deep well, storage and pressure distribution. The activated sludge wastewater system is permitted under a class A+ reclaim permit. Contact William Collins, Co-owner, 928-635-9203.

Anasazi Water Co., Tusayan

A deep well (2800ft.) filling an uphill storage tank into gravity feed distribution system. Please contact Pamela Fain, President, Red Feather Properties, 928-635-9760. E-mail: [pyfain@aol.com](mailto:pyfain@aol.com)

Grand Canyon National Park Airport, Tusayan

We operate this unique collection, filtration and distribution project as a surface water system under contract with Arizona Engineering for the Arizona Department of Transportation. Please contact David Prinzhorn, 1-602-882-8509. E-mail: [dprinzhorn@arizonaengineering.com](mailto:dprinzhorn@arizonaengineering.com)  
and

Craig Talatzko, Airport Manager, Grand Canyon National Park Airport, 928-638-2447. E-mail: [ctalatzko@azdot.gov](mailto:ctalatzko@azdot.gov)

Inscription Canyon Ranch Sanitary District, Prescott

This is a 0.060 GPD Santec wastewater reclaim plant producing class B+ effluent and discharging to the Talking Rock golf course. Please contact Dayne Taylor, 928-227-2934. E-mail: [daymartay@cableone.net](mailto:daymartay@cableone.net)

Inscription Canyon Ranch Water Users Association, Prescott  
This system services Inscription Canyon Ranch, Whispering Canyons, The Preserve at the Ranch and Talking Rock Ranch. Please contact Bob Busch, 928-713-0548. E-mail: [rmbusch@cableone.net](mailto:rmbusch@cableone.net)

A1 Mountain Ranch, Flagstaff.  
This system consists of a deep well, storage and a combined distribution and fire system to service 20 exclusive residential sites. The system became active in the summer of 2005. Please contact Don Bracken, Developer, 928-635-4898.

Quail Ridge Water Co. Chino Valley, AZ.  
This system has wells and a pressure distribution system servicing 100-150 customers.

American Ranch Prescott, Az.  
This system has wells and a pressure system. It also has a 0.065gpd wastewater plant producing A+ reclaim.  
These systems are operated for Improvement District Services  
Please contact Jennifer Bartos 928-443-9484.  
E-mail: [ids@cableone.net](mailto:ids@cableone.net)

In addition, we operate the Verde Santa Fe wastewater treatment plant. This system is a 0.125 mgd Santec plant producing B+ reclaim reused on the Verde Santa Fe golf course in Cottonwood Az.  
Bensch Ranch, Mayer, Az. is a 0.065 Santec plant that discharges under a N.P.D.E.S. permit. For Pivotal Utility Management  
Please contact Jason Williamson, 303-333-1250.  
E-mail: [jw@pivotalcompanies.com](mailto:jw@pivotalcompanies.com)

We are currently proposing to operate 3 more systems for Pivotal Utility Management in the Payson area.

Feel free to contact us with any questions.

Pat Carpenter  
928-606-0498  
[pat@aQualityWater.us](mailto:pat@aQualityWater.us)

Chris Williamson  
928-606-0563  
[chris@aQualityWater.us](mailto:chris@aQualityWater.us)



**APPENDIX F**

**FORT MCDOWELL YAVAPAI NATION AND  
SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY  
CORRESPONDENCE**



May 14, 2007

**VIA CERTIFIED MAIL**

President Raphael Bear  
Ft. McDowell Yavapai Nation  
P.O. Box 17779  
Fountain Hills, AZ 85269-7779

RE: Small Water Reclamation Facility for The Preserve at Goldfield Ranch

Dear President Bear:

As President of the Fort McDowell Indian Community and a member of Maricopa Association of Governments (MAG), it is our pleasure to provide you with a courtesy copy of the MAG 208 Water Quality Management Plan Amendment for The Preserve at Goldfield Ranch. In accordance with Section 208 of the Clean Water Act (CWA), the MAG is the designated Regional Water Quality Management Planning Agency for Maricopa County, Arizona. A Small Plant Review process is outlined in the MAG 208 Water Quality Management Plan (2002) for facilities that will have an ultimate capacity of less than 2.0 million gallons per day and that will not discharge into waters of the United States. The Small Plant Review process allows municipalities within three miles to review and comment on the proposed small water treatment facility. Although not required under the MAG 208 Water Quality Management Plan, we want to provide you with a courtesy copy of this 208 Plan Amendment for The Preserve at Goldfield Ranch for your review and comment.

Should you have any questions, please do not hesitate to call.

Respectfully,  
**CMX, LLC**

Asha Pai, P.E.  
Project Manager

AP:ajg

Enclosure

cc: Don Kile

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SERIALIZED  
INDEXED  
FILED  
MAY 14 2007  
FBI - PHOENIX



# Fort McDowell Yavapai Nation

PO Box 17779, Fountain Hills, AZ 85269 Phone (480) 837-5121

Administration  
(480) 816-7224

Post-it® Fax Note	7671	Date	10/2/07	# of pages	6
To	Mr Kevin Chadwick	From	KLOPATEL		
Co./Dept.		Co.			
Phone #	HARD COPY V/A	Phone #	POST MAIL		
Fax #		Fax #			

October 2, 2007

Kevin Chadwick, PE  
Division Manager  
Maricopa County Enviro. Services/Water and Wastewater Div.  
101 N. Central Ave., Suite 150  
Phoenix, AZ 85004

Dear Mr. Chadwick:

This letter is in reference to our September 26<sup>th</sup> meeting on the MAG 208 Water Quality Management Plan Amendment ("WQMPA" or the Plan) for the Goldfield Ranch Water Reclamation Facility ("GRWRF") on behalf of Goldfield Preserve Development LLC (herein the Applicant). In addition to that discussion, you had requested a list of written concerns the Nation had regarding this plan. Enclosed is a discussion of our concerns which is by no means inclusive, but highlights our major issues.

The overall focus of our discussion was a review of the wastewater treatment plant with a capacity of 2.0 mgd or less under the Clean Water Act. It is our opinion that the Applicant's proposal is not in compliance with the processes outlined by MAG. Several areas in the MAG 208 WQMPA for the GRWRF prove to be insufficient and do not follow the MAG 208 protocol, such as in the following examples.

There is a lack of information on the operational feasibility or the permitting capability of the Plan. There were no hydrological/geologic considerations or feasibility studies to determine if materials will enter into the Waters of the U.S. (i.e., the Verde River). There is also no discussion of the need for an Aquifer Protection Permit. If the effluent is going to be used to meet a water demand, a Reuse Permit will be required. If groundwater injection will be used as the method of recharge, what are the prospects for successfully receiving an Underground Injection Control Permit? In fact, there was no information provided as to how and where wastewater recharge will take place. The failure to state where recharge will occur within the property and specific details as to whether recharge is even feasible is inconsistent with the MAG 208 protocol. It appears that the Arizona Department of Water Resources (ADWR) (or other state agencies) was not consulted as to how this discharge may/will impact the Verde River or the aquifer. Without hydrologic/geologic study data, or consultation with ADWR or the Arizona Department of Environmental Quality, it is simply assumed that discharge will not enter waters of the U.S. This is an egregiously flawed assumption. We request the Applicant provide these needed studies to prove the feasibility of recharge to assure that the location of the

discharge will not harm the Verde River, enter other Waters of the U.S, or impact the aquifer that provides potable water to area residents. This is a critical concern of the Nation as the Verde River is it's only 'wet' water source.

In regard to a lack of information on impacts on surface water, there is also a lack of scientific data on groundwater and soils, required by the MAG 208 plan. We request the Applicant provide the required information as this is critical water supply and soil quality data that will be taken under consideration by the Nation.

The discussion of "water savings" provided by effluent is not a savings to the aquifer. If the initial water supply was a renewable water source, such as CAP water, then recharge would truly "save" water to the aquifer. But to state that recharge is a "savings" when the initial water supply is pumped groundwater is a mischaracterization. There are no "savings", just a reduction in the net depletion.

The Applicant has newly acquired two parcels of land one of which connects parcel A with parcel B. Therefore, the wastewater plan/MAG 208 should be amended to include parcel B as septic is no longer a preferred alternative. With the acquisition of this land, the geographic isolation of parcels has been remedied.

There are also a number of inconsistencies between this application and both the proposed DMP and the master wastewater report as well as the application for assured water supply. For example, the numbers of homes are inconsistent between the various reports. Which begs the question, exactly how many homes will be served?

We are not able to mass balance the potable water with the wastewater (inputs and output) based on all the aforementioned reports and uses. Again, water is a critical issue for the Nation.

In addition, commercial development plans are also not in concert with one another within the aforementioned reports. The question still remains- will or will there not be commercial development within the Preserve? The free standing nature of these reports suggests that there 'may' be commercial development. For example, within the DMP the Applicant refers to what would normally be called commercial ventures, such as the resort hotel, as a special use only requiring a SUP. However, the county has stated that this is not a special use operation but a commercial use. Furthermore, in reviewing the Applicant's reports not all water/wastewater uses/generators are consistently accounted for. Thus, commercialization should be part of all the applicant's reports and analysis. Having a resort will add to the complexity of the proposed wastewater treatment plan and the total amount of water used within the site. To be consistent and to be within the MAG 208 plan, we request the applicant state their commitment as to what types of facilities will be developed, how much water will be used by each, and report the amount of wastewater generated from each of these facilities. Given this information the Nation can then fairly evaluate the effect of the overall development on the community.

Within the MAG 208, a letter must be sent to the nearest wastewater facility to determine if the proposed facility will 'adversely affect operation or financial structure' of an existing facility or if any of our 'reuse plans will be adversely affected'. This has not been accomplished by the Applicant. We request the Applicant address this issue and pose these questions in a letter to President Bear.

There is inadequate financial information on wastewater operations, maintenance and operation post-construction, and financial feasibility (pre-and post construction). In regard to facility operations and maintenance (O&M), the applicant states that an annual estimated cost is \$150,000 to \$200,000. This amount is grossly underestimated. Our community's wastewater plant is operationally close to what is being proposed. Our wastewater operational costs are far and above the proposed O&M estimate. A careful re-examination, re-estimate and re-calculation must be provided.

The ability to prove financial capabilities for this (note: as well as other needed infrastructure for the DWID) is a requirement of the MAG 208 application process. In our copy of the MAG 208 document there are no documents substantiating financial capabilities only a company letter stating that the Applicant is capable of providing (securing) financial support for the project. If one evaluates the loan acquired by the Applicant it appears that it was for land acquisition and land development costs. However, if one removes land costs, taxes, interests, etc. from the overall assets it appears that there is insufficient capital available for development costs. These outlays will be substantial as all infrastructure requirements on the property are not realized. Building this facility (sic infrastructure) and the years of O&M costs for the facility will be borne by the Applicant. Demonstrating available financing for infrastructure capital and O&M over the short and long-term is required by MAG. A thorough financial evaluation as to how the facility will be financed and direct accounting of where monies have been secured to provide for maintenance of the facility must be provided by the Applicant. Since this Preserve is a 25 year undertaking (as stated within the DMP) the Nation is concerned as to how this facility will be maintained in the short and long term.

The MAG 208 process states that a qualified company to operate the wastewater facility must be selected and stated. In appendix D, the applicant submitted material outlining a company- not an agreement as so stated on appendix D cover sheet. Furthermore, a proposal outlining the projected services was not included. The company that was mentioned in the application is located in Williams, AZ and does not appear to be operating in central Arizona. Thus, how can the operation of this facility be accomplished remotely? Furthermore, if this is the company chosen to provide service why does the Arizona Corporation Commission list the dissolution date of 2010? If this is the case, then this is not consistent with having sustainable (long-term) service. We request the Applicant provide a qualified company that can operate on-site 24/7 and into the future.

Although stated by the Applicant that it is unnecessary to confer with the Nation, the MAG 208 states clearly in multiple places that review and comments of any municipality or adjacent community whose Small Plan Planning Area is within three miles of the

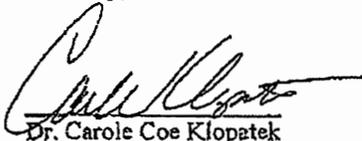
proposed plant location or service area must be accomplished. The Nation is an 'adjacent community' and I would hope that the Applicant realizes that Fort McDowell Yavapai Nation is a sovereign Nation and operates and provides community services akin to any municipality. Therefore, respect, consideration, and consultation with the Nation must be given at each phase of this development.

As mentioned in the opening paragraph, you had requested a list of concerns the Nation had regarding this plan. Above we have provided only highlights of the major concerns, not a thorough and complete list. Therefore, at this time there are too many discrepancies and or insufficiencies to provide a letter of 'no objection'. Without a more thorough investigation and study of this proposed plan (by the developer and the County) the Nation is not guaranteed that this project is without environmental risk.

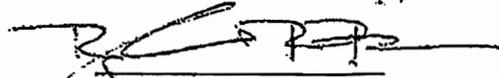
The Nation appreciates the opportunity to work with the County on the aforementioned issues.

Sincerely,

In concurrence:



Dr. Carole Coe Klopatek  
Director Of Government Relations



Raphael R. Bear  
President

cc: Drew Ryce, General Counsel, FMYN  
Julie Hoffman, Environmental Program. Coord., MAG



# THE GOLDFIELD REPORTER

No. 13 Sept. 2007

Goldfield Concerned Citizens' Association

Volume III

## Preserve developer acquires Beeline access, connects Parcel A and B; intended uses not disclosed

Goldfield Preserve Development, LLC ("GPD"), the owner of the Preserve, has recently acquired an additional 76 acres that connects the main

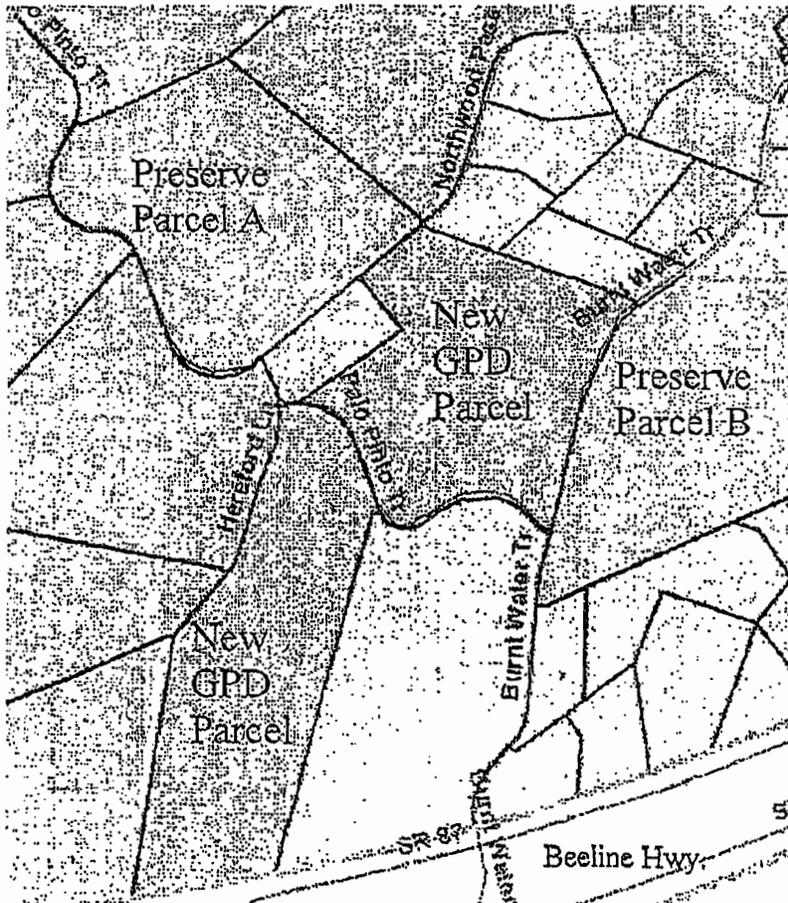
parcel of the Preserve to the Beeline, and connects Parcels A and B. On July 2, GPD acquired the 40-acre parcel that lies between Preserve

Parcel A and the Beeline. It had previously been purchased by Ellman Holdings for \$3.013 million, according to the recorded Affidavit of Value. Then on Sept. 2 GPD acquired the 36 acre parcel that lies between Preserve Parcels A and B, for \$3.5 million.

The most recent amendment of the Development Master Plan for the Preserve, filed on July 2, does not show what development is intended for these parcels. But the Ellman Companies did put them into the same LLC that owns the Preserve, suggesting they are intended to be part of its development.

The parcel touching the Beeline may have been purchased to provide the Preserve with its own access to the Beeline. GCCA has objected to the Development Master Plan for putting 6,000 cars per day on the Burnt Water Road access to Goldfield Ranch, which was the only way traffic could reach Preserve Parcel A from the Beeline. Now, GPD can make its own road to the Beeline on the newly acquired parcel. The main entrance to the Preserve could lead directly to Palo Pinto, without putting any traffic on Burnt Water. Perhaps there would have to be frontage road from the current Burnt Water entrance, because ADOT reportedly objects to Beeline exits being any closer together than

*(Continued on page 2)*



## GPD gets access to Beeline for Preserve

*(Continued from page 1)*

one mile; the new parcel touches the Beeline only about a quarter mile from Burnt Water.

The parcel connecting Preserve Parcels A and B may have been purchased so that the Preserve owner can run water and sewer lines to Parcel B from Parcel A. At the last two TAC meetings on the DMP, GCCA has pointed out that there are no utility easements along Goldfield's roads, so without ownership of that intervening parcel the Preserve owner had no legal way to connect the sewer and water lines from Parcel A to B. There is still a lack of utility easements between Parcels C and D on the south side.

But these additional 76 acres may also be planned for much more than just Beeline access and utility lines. GPD paid over \$96,000 per acre for the latest purchase. In today's market GPD could not recover that investment by selling the land under R-190 zoning. To recover its investment at \$96,000 per acre, GPD would have to sell five acre parcels for \$480,000, far higher than today's market. GPD may therefore be planning to recover this investment by increasing the density on these 76 acres to be the same as the average Preserve density, which is about one house per every two acres. This would add 30 homes to the DMP. Or, now that the Preserve owner has Beeline frontage, he may be planning to add some commercial uses to recoup his additional \$6.5 million investment. Or, perhaps this would be a good location for the fire station he needs to guarantee a four minute response time.

Perhaps we will see what is planned for these acres when the next DMP revision is filed.

## ADOT files condemnation action against GPOA and Preserve along Beeline

Last March the Arizona Department of Transportation filed a condemnation action against the Goldfield Property Owners Association and Goldfield Preserve Development LLC, among others. The condemnation is for ownership of about an acre of land lying along the south side of the Beeline highway in Phase Five, and for temporary construction easements on another two acres. An order for immediate possession was entered in May, but the case is still pending to determine the amount that must be paid for the land that is condemned. These legal actions have never been reported by either GPOA or the Preserve owner, but were discovered only by GCCA's careful search of recorded title documents, which include a lis pendens.

ADOT's website reported in June that an \$18 million contract had been awarded for a new overpass and on and off ramps for the Bush Highway - Beeline intersection, which provides access to Saguaro Lake. The ADOT press release says the project will also "result in improved shoulders, slopes and drainage facilities along eight miles" of the Beeline, and extension of box culverts, erosion control measures and replanting of salvaged cacti. Some residents have speculated that the project would also include acceleration and deceleration lanes for the various entrances to Goldfield Ranch, but the ADOT press release does not mention that.

As a defendant in the condemnation action, the property owners' association undoubtedly has much more information as to what the condemned land is to be used for. One of the incumbent candidates for the directorship of GPOA is campaigning on an "open dialogue" theme, but the membership has never been informed of this condemnation action pending against their association. And the

Preserve DMP, which was revised in July after the condemnation possession order had been entered, similarly fails to reflect what ADOT plans for the Beeline border of Goldfield Ranch.

## GCCA supports Reiner for director

GCCA supports Doug Reiner for the GPOA Board of Directors in the belief he will keep us better informed about GPOA actions and intentions. Except through independent research among government documents, GCCA cannot keep the concerned citizens informed if the GPOA directors keep everything to themselves. We have heard nothing directly from Don Kile or Art Reichsfeld since a meeting in June of 2006. We still have had no explanation of why the roads were not graded for eight months despite the reported availability of water. Was it so we would be grateful when they are graded just before the election?

We believe Doug Reiner will keep us all better informed. And his long commitment to Goldfield Ranch demonstrates he shares our goals for responsible development.

GCCA Officers/Directors	
President:	Kathy Haines
Vice President:	Jerry Sheridan
Secretary/	
Treasurer:	Theresa Franklin
Directors:	Joy Brewster
	Kathy Haines
	Kent Mathes
Corporate Address:	
Kathy Haines, President	
12140 N. Sin Vacas Trail	
Ft. McDowell, Az. 85264	
-(480) 980-4661	
haines@agilebroadband.com	

**Summary of Comments Contained in Fort McDowell Yavapai Nation's 10/2/07 Letter  
and Developer's Response**

No.	FMYN Comment	Response
1	The Application doesn't include hydrological/geologic considerations to determine if material will enter the waters of the U.S.	As discussed in Section 3.4.1, no discharge to waters of the US is anticipated. Preliminary hydrogeologic information is provided in this section and Appendix F.
2	The Application contains no discussion about the need for an Aquifer Protection Permit.	All WRFs require APP permits. The Underground Storage Facility permit also mandates that an APP be obtained. An APP will be pursued as the project and WRF design proceeds.
3	A Reuse Permit will be required.	Direct reuse of the effluent is not anticipated; hence, a reuse permit will not be required.
4	What are the prospects of receiving an Underground Injection Control Permit?	A UIC permit will not be needed for this project. The recharge will be accomplished under an Underground Storage Facility and Water Storage permits administered by the Arizona Department of Water Resources.
5	No information was provided as to how and where recharge will take place.	Section 3.4.1 discusses the preliminary plans for recharge.
6	There is a lack of scientific data on groundwater and soils, as required for a MAG 208 plan.	The small plant review and approval process under the MAG 208 does not require specific data on groundwater and soils. However, preliminary hydrogeologic information is provided in Section 3.4.1 and Appendix F.
7	The Application states that recharge is really a groundwater savings when it is really a reduction in the net depletion of groundwater.	Agreed; however, the text in Section 3.4 is also correct.
8	The Applicant has acquired two new parcels that connect its Parcel B to the Parcel A service area. The Application should be modified to reflect the larger service area.	Service areas are not regulated under Section 208 of the Clean Water Act. That stated, the service area anticipated at this time includes Parcel A only.
9	The number of homes proposed to be served by the treatment plant is inconsistent with the DMP, wastewater master plan, and Assured Water Supply application.	At this stage of site planning, the number of homes proposed continues to be refined. The numbers cited in these documents are not grossly different, and in all cases represent a conservative estimate of the final number.
10	There is no mass balance between potable water use, wastewater production and effluent recharge between the Application and the DMP and AWS application.	Estimated numbers account for safety factors in the engineering design of the systems. Safety factors may not be equally applied across these planning documents but are in accordance with applicable standards and regulations.
11	Commercial development plans do not agree between the Application, the DMP, and to AWS.	As noted in the DMP, the uses referenced as commercial are proposed to be developed pursuant to a Special Use Permit as permitted in Maricopa County's zoning ordinance.
12	MAG requires that a letter must be sent to the nearest wastewater facility to determine if the proposed facility will adversely affect operation, financial structure, or reuse plans.	The small plant review and approval process under the MAG 208 does not state this requirement.
13	The financial information provided for wastewater operations and maintenance is inadequate and under-estimated.	The estimated O&M costs will be refined as the engineering design of the WRF proceeds.
14	The provided financial information indicates insufficient capital available for development costs.	The estimated construction costs will be refined as the engineering design of the WRF proceeds.
15	The O&M agreement does not list the services that will be provided.	Service contracts are under the purview of the CID and must be approved by the County BOS who sit as the CID Board of Directors. A detailed agreement will be submitted to the CID for the Board's approval in advance of WRF operation.
16	The proposed O&M company is based in Williams, AZ, and is not operating in central Arizona.	Service contracts are under the purview of the CID and must be approved by the County BOS who sit as the CID Board of Directors. A detailed agreement will be submitted to the CID for the Board's approval in advance of WRF operation.
17	The ACC states that the proposed O&M company as a dissolution date of 2010. This is inconsistent with long-term service needs.	A Quality Water Company has no intention of dissolving in 2010 and will file the necessary paperwork with the Arizona Corporation Commission in advance of this date to extend their corporate status.



October 9, 2007

Honorable Diane Enos  
President  
Salt River Pima-Maricopa Indian Community  
10005 East Osborn Road  
Scottsdale, AZ 85256

Re: MAG 208 Water Quality Management Plan Amendment for the Preserve at Goldfield Ranch Water Reclamation Facility – Small Plant Review and Approval Process

Dear Ms. Enos:

It is our pleasure to provide you with a courtesy copy of the MAG 208 Water Quality Management Plan Amendment for the Preserve at Goldfield Ranch Water Reclamation Facility for your review and comment.

The small plant review and approval process is outlined in the MAG 208 Water Quality Management Plan (2002) for facilities that will have an ultimate capacity of less than 2.0 million gallons per day and that will not discharge into waters of the United States. The small plant review and approval process provides for municipalities within three miles to review and comment on the proposed small water reclamation facility. We have enclosed copies of the following with this transmittal to provide you with the current, relevant information:

- MAG 208 Water Quality Management Plan Amendment for the Preserve at Goldfield Ranch Water Reclamation Facility – Small Plant Review and Approval Process
- Letter to Ms. Lindy Bauer, MAG, from Kevin Chadwick, Maricopa County, dated October 2, 2007
- Letter to Kevin Chadwick, Maricopa County from Dr. Carole Coe Klopetek, Fort McDowell Yavapai Nation, dated October 2, 2007
- Summary of comments contained in Fort McDowell Yavapai Nation's 10/2/07 letter and developer's response

Should you have any questions, please do not hesitate to call.

Respectfully,  
CMX

A handwritten signature in black ink, appearing to read 'Sheila Logan', written over a horizontal line.

Sheila A. Logan, P.E.  
Environmental Planning Manager

SL:ajg

Enclosures

cc: Don Kile, Goldfield Preserve Development, LLC  
Ken James, Maricopa County  
Kevin Chadwick, Maricopa County  
Julie Hoffman, MAG

**WORKING TOGETHER FOR A BETTER TOMORROW**

SQUAW PEAK CORPORATE CENTER, 7740 NORTH 16TH STREET | SUITE 100 | PHOENIX, AZ 85020  
TEL 602.567.1900 | FAX 602.567.1901 | WWW.CMXENGINEERING.COM

ARIZONA FLORIDA MARYLAND NEVADA NEW JERSEY NEW YORK PENNSYLVANIA MEXICO

October 30, 2007

VIA EMAIL: [Vivian.saunders@SRPMIC-nsn.gov](mailto:Vivian.saunders@SRPMIC-nsn.gov)

Ms. Vivian Saunders  
Salt River Pima-Maricopa Indian Community  
10005 E. Osborn Road  
Scottsdale, Arizona 85256

Re: Goldfield Preserve 208 Amendment

Dear Ms. Saunders:

Last week, I spoke with Pat from your office regarding the Goldfield Preserve 208 amendment. She advised me that you discussed the matter with your council on October 24, 2007. She also told me that council wanted a technical committee set up to review the amendment. Pat was unsure of the committee makeup as well as the timeframe for the committee to meet. She did advise me that you would not be meeting with us until such time as the committee had a chance to review the amendment. Do you know if the committee has been formed and if so, when it might review our document?

As I have previously stated to you, members of the Goldfield Preserve team are available to meet with you, and/or the technical committee, at any time to answer any questions and go over, in detail, the 208 amendment. Please call me at your earliest convenience so that we can set up a meeting. You can call me at the number listed above or on my cell phone, which is (480)329-6143.

Very truly yours,

THE HENDERSON LAW FIRM, PLC



Garry D. Hays

GDH/dmg

cc: Mr. Larry Landry  
Mr. Don Kile  
Ms. Julie Hoffman

THE  
HENDERSON  
LAW FIRM

ESPLANADE CENTER III  
2415 EAST CAMELBACK ROAD, SUITE 1050 PHOENIX, ARIZONA 85016  
main 602.808.1000 facsimile 602.808.1010  
www.thehendersonlawfirm.com

November 20, 2007

RECEIVED

NOV 21 2007

CONGRESSIONAL &  
LEGISLATIVE AFFAIRS

Vivian Saunders  
Special Assistant on  
Congressional & Legislative Affairs  
Salt River Pima-Maricopa Indian Community  
10005 E. Osborn Road  
Scottsdale, AZ 85256

Re: Goldfield Ranch 208 Amendment

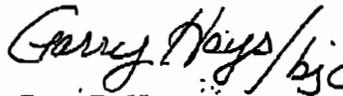
Dear Ms. Saunders:

I am writing to discuss a meeting that took place today with members of the Goldfield Preserve development team and members of the Salt River Pima-Maricopa Indian Community's water quality team. Specifically, we met with Wang Yu, Gina Leverette and Kari Morehouse to discuss the pending Development Master Plan amendment ("DMP") for Goldfield Preserve and the 208 Amendment. I wanted to let you know that they received copies of the DMP and the 208 amendment. If more copies are needed, please advise me and I will have them sent over.

I appreciate the time that you and the members of the Community Development Office are dedicating to reviewing our project. I also would like to reiterate my availability to you or members of your staff to discuss the project. Please do not hesitate to call if you have any questions. The easiest way to reach me is by cell phone (480)-329-6143.

Sincerely,

THE HENDERSON LAW FIRM, PLC



Garry D. Hays

cc: Don Kile

GARRY D. HAYS

direct 602.808.1000

ghays@thehendersonlawfirm.com



Salt River  
**PIMA-MARICOPA INDIAN COMMUNITY**

10005 E. OSBORN RD. / SCOTTSDALE, ARIZONA 85256-9722 / PHONE (480) 850-8000

December 4, 2007

Chairman Roger Klinger  
Water Quality Planning Committee  
Maricopa Association of Governments  
302 North 1<sup>st</sup> Avenue, Suite 300  
Phoenix, Arizona 85003

Dear Chairman Klinger

Attached is a copy of a letter regarding the Goldfield Preserve and the 208 Amendment, which is a copy of a letter regarding the Goldfield Preserve and the 208 Amendment, signed and we mailed to Julie Hoffman, Environmental Planner for your Committee. The letter outlines the areas of concern and request for additional information.

We respectfully request the MAG Water Quality Planning Committee not approve/support or disapprove the proposed Facility until all relevant and required information pursuant to MAG 208 Water Quality Management Plan is submitted by the applicant and reviewed by the MAG Water Quality Advisory Committee, the Salt River Pima Maricopa Indian Community, and other tribal governments making the same request.

For the record on October 22, 2007 your Committee formally made a motion to delay this item for 60 days.

Also, for your information, immediately following the October 22, 2007 MAG Water Quality Planning Committee meeting and before we had an opportunity to inform our tribal council, our technical staff, and to analyze the documents, Mr. Garry D, Hays representing the Goldfield Preserve Development made several calls to my office requesting a meeting. I verbally requested he respectfully give us the time necessary to carefully review the Development Master Plan amendment ("DMP") for Goldfield Preserve and the 208 Amendment.

Upon making contact with our elected leaders, technical staff, and processing documents, on November 19, 2007 our water quality staff contacted Mr. Garry Hays of the Henderson Law Firm to request copies of all relevant documents. Mr. Hays agreed to deliver the documents himself and showed up with an entire team of people including Attorneys.

The Salt River Pima Maricopa Indian Community water quality team agreed to meet with members of the Goldfield Preserve development team but made it clear this was not a consultation meeting. They discussed the pending Development Master Plan amendment ("DMP") for Goldfield Preserve and the 208 Amendment. In this same meeting, the Goldfield representatives repeatedly requested a timeline for our response. Since we did not request for this meeting our staff was not in a position to comment, question, or make decisions. Had we requested a formal meeting, decision makers would have been included in this discussion.

On November 28, 2007 I received a letter dated November 20, 2007 from Mr. Garry Hays (Attached) confirming the above mentioned meeting did occur with our staff and the Goldfield Preserve development team. In his letter he referenced the meeting took place on November 20, 2007, however, according to our records the meeting occurred on November 19, 2007.

Immediately following this meeting and upon further review of the documents and internal technical staff discussions, we've come to the conclusion that we require additional information. Should the Salt River Pima Maricopa Indian Community Council ~~agree to schedule a formal meeting with the Goldfield development team, we will~~ contact Mr. Garry Hays to make the request. If you have any questions, I can be reached at (480) 362-7528.

Sincerely,



Vivian Saunders  
Special Assistant  
Office of Congressional &  
Legislative Affairs

Cc: President Raphael Bear, Fort McDowell Yavapai Nation  
Dennis Smith, MAG Executive Director  
Julie Hoffman, Environmental Planner, MAG Water Quality Committee  
Garry D. Hays, Henderson Law Firm



SALT RIVER  
PIMA-MARICOPA INDIAN COMMUNITY

Office of the President and Vice President

10005 EAST USOPH ROAD / SCOTTSDALE, ARIZONA 85256-9722 / PHONE (480) 362-7400 / FAX (480) 362-1093

December 4, 2007

VIA CERTIFIED MAIL

Julie Hoffman, Environmental Planner  
Water Quality Advisory Committee  
Maricopa Association of Governments  
302 North 1st Avenue, Suite 300  
Phoenix, Arizona 85003

Dear Ms. Hoffman:

This letter is in reference to the MAG 208 Water Quality Management Plan for The Preserve at Goldfield Ranch dated October 12, 2007. The Small Plant Review process dictates that municipalities within a 3-mile radius of the proposed water treatment facility must be given an opportunity to review and comment on the proposal. Fort McDowell Yavapai Nation (FMYN), an immediate neighbor to this development, was notified on May 14, 2007 of this proposed facility. In contrast, the Salt River Pima-Maricopa Indian Community (Community) was not notified until October 9, 2007. The MAG Water Quality Advisory Committee scheduled this as an agenda item to be heard at its meeting on October 22, 2007, effectively allowing only eight (8) business days for the Community to formulate a response. This was duly noted in the October 22<sup>nd</sup> meeting, and a 60-day reprieve was therefore granted to allow for more time and information to be shared prior to the December meeting.

It is the understanding of the Community that the Goldfield Ranch Water Reclamation Facility (Facility) will serve the largest of four development areas, with other parcels being on individual septic systems, and that the wastewater generation rate from the development is expected to be confined aquifer considered by the applicant, is to be "the" source of drinking water for the development and also will be designated as the "target aquifer" where the treated effluent from the proposed Facility will be recharged to.

There are several areas where the Community feels it must have more information in order to have a complete and accurate assessment of the impacts on various relevant components within the Community as affected by the proposed development/Facility.

Julie Hoffman, Environmental Planner

Page 2

Firstly, the Community is concerned that, once fully built, the septic systems associated with the other parcels of the development may impact the underneath two (2) unconfined aquifers identified by the applicant in one of his reports especially, during the wet season when such impacts may affect the surface water quality at the Verde River. The Community would therefore need to know if there is any hydrological connection between the two unconfined aquifers above the "target aquifer" and the Verde River.

Secondly, with regard to the "target aquifer" from which drinking water for the proposed development is to be extracted and recharge with treated effluent from the proposed Facility is to take place, proof of the claim that this aquifer is confined and not connected to the Verde River and the aquifer underneath the Community is critical in determining whether the Facility will impact the water resources of the Community. The hydrological report contained in the MAG 208 report failed to confirm or prove this issue without a doubt.

Thirdly, the Community would like to be provided with relevant information on the hydraulic conductivity and storativity of the confined aquifer for assessing its recharge capability.

Fourthly, although the proposed recharged effluent quality is reported to meet A+ quality standards set forth by the Arizona Department of Environmental Quality (ADEQ), the Community still would like to have more information/clarification pertaining to the following parameters:

- Will the proposed effluent meet "all" of the Aquifer Water Quality Standards of ADEQ? ←
- What is the direction of the groundwater flow at the point of compliance (to be determined by ADEQ) and the general direction of the groundwater flow at the entire development and adjacent area?

Last but not least, the final concern for the Community is the operation/management of the Facility itself. Appendix E in the MAG 208 report outlines the agreement between "A Quality Water Company" and the development. Based upon the relevant information available to the Community, apparently the company of concern does not currently provide similar services to any area where the development/Facility is being proposed.

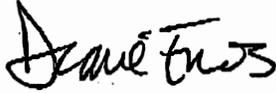
Based upon the various issues discussed above, it is quite apparent that in order to determine whether this proposed development/Facility may impact various components of the Community, including its water resources, more accurate, adequate, and complete information is needed. In the meantime, the Salt River Pima-Maricopa Indian Community respectfully requests that MAG not approve/support or disapprove the proposed Facility until all relevant and required information pursuant to MAG 208 Water Quality Management Plan is submitted by the applicant and reviewed by the MAG Water Quality Advisory Committee, the Community, and FMYN.

Julie Hoffman, Environmental Planner

Page 3

At the same time, the Community and FMYN shall also actively participate in the application process (including review and approval) administered by the permitting agency (ADEQ) pertaining to the Arizona's Aquifer Protection Permit (APP) for this development/development prior to the public hearing.

Sincerely,



Diane Enos  
President  
Salt River Pima-Maricopa Indian Community



# Fort McDowell Yavapai Nation

PO Box 17779, Fountain Hills, AZ 85269

Phone (480) 837-5121



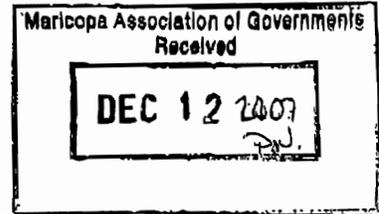
*Administration*  
(480) 816-7224

*Accounts Payable*  
(480) 816-7134

*Purchasing*  
(480) 816-7116

December 5, 2007

Chairman Roger Klinger  
Water Quality Advisory Committee  
Maricopa County Association of governments  
302 N. 1<sup>st</sup>. Ave., Suite 300  
Phoenix, Arizona 85003



Dear Chairman Klinger:

This letter is in reference to the MAG 208 Water Quality Management Plan Amendment ("WQMPA" or the Plan) for the Goldfield Ranch Water Reclamation Facility ("GRWRF") on behalf of Goldfield Preserve Development LLC (herein the Applicant).

By way of background, the MAG Water Advisory Committee (herein Committee) met on October 22, 2007 to discuss this application. At that meeting, in addition to providing brief testimony, the Nation provided copies of letters submitted to the County dated September 25 and October 2 listing numerous concerns within the proposed application. At the conclusion of the meeting, the committee adopted a motion to postpone their vote for 60 days. The overriding purpose of the delay was to provide the applicant an opportunity to collaboratively work and resolve outstanding issues with the two Indian Nations, Fort McDowell Yavapai Nation and Salt River Pima-Maricopa Indian Community.

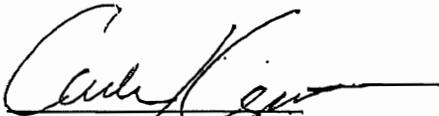
The Nation's Tribal Council, General Manager, and related staff met with Mr. Ellman and his staff on November 28, 2007, thus providing an opportunity for the applicant to make available and/or respond to the requested information mentioned within the aforementioned letters. The applicant's presentation was remarkably similar to what was previously offered at other county government and public meetings. There was one additional slide presented, demonstrating the distance the proposed GRWFR is from the current water flow of the Verde River (note: given the graphic, this distance would vary based on flow peaks). However, it is with great disappointment, that we were **not** provided with new information nor was the conversation directed towards the questions and concerns that we have raised. This was dually noted by members of the Tribal Council and later recapitulated by President Bear in his closing statement.

Thus, we respectfully request that the committee not re-hear this proposed amendment until the Nation's and the Salt River Pima-Maricopa Indian Community's concerns are

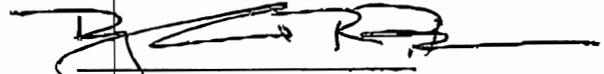
adequately addressed. This deferment would allow for the 208 process, including the directives of the committee, to be respected. We will provide an additional opportunity for the applicant to respond to the issues we and others have raised.

Sincerely,

In concurrence:



Dr. Carole Coe Klopatek  
Director Of Government Relations



Raphael R. Bear  
President

Cc:

**Salt River Pima-Maricopa Indian Community:**  
President Diane Enos

**MAG:**  
Dennis Smith, MAG Executive Director  
Ms. Julie Hoffman, MAG Environmental Planner

**Fort McDowell Yavapai Nation:**  
Fort McDowell Yavapai Nation Tribal Council  
Phil Dorchester, General Manager  
Drew Ryce, General Counsel, FMYN

Berry & Damore LLC

File:  
Ellman / The  
Preserve

Wendy R. Riddell, Esq.  
(602) 616-8771 Mobile  
wr@berrydamore.com

Our File No. 00017.0002

December 5, 2007

Via Hand-Delivery, to:

Dr. Carole C. Klopatek  
Fort McDowell Yavapai Nation  
Finance Department  
17661 East Yavapai Road  
Fort McDowell, Arizona 85264

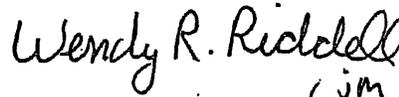
**Re: *The Preserve at Goldfield Ranch / MAG 208 Water Quality Management Plan Amendment***

Dear Dr. Klopatek:

Enclosed with this correspondence for your review, please find a copy of a letter from Sheila A. Logan, P.E. of CMX to Julie Hoffman of Maricopa Association of Governments dated December 4, 2007, along with three exhibits attached to the letter which are as follows: (i) Water Reclamation Facility Conceptual Site Plan, (ii) Water Reclamation Facility Proximity to Waterway illustration and (iii) Proximate Water Reclamation Facility illustration.

Please feel free to contact me should you any questions or have any concerns once you have had the opportunity to review the enclosed materials. You may reach me at (602) 616-8771. Thank you.

Very truly yours,

  
(jm)

Wendy R. Riddell

WRR  
Enclosures

cc: Drew Ryce (via U.S. Mail, w/enclosures)  
Don Kile (Via U.S. Mail, w/o enclosures)

# Southwest Delivery Solutions L.L.C.

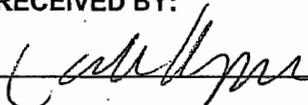
P.O. Box 83734  
Phoenix, AZ 85071

Phone: (602) 266-5577  
Fax: (602) 266-5578

TIME STAMP: \_\_\_\_\_

<b>FROM:</b> Wendy R. Riddell Esq. Berry & Damore 6750 E. Camelback Rd. #100 Scottsdale, AZ 85251	<b>TO:</b> DR. Carole C. Klopatek Ft. McDowell Yavapai Nation Finance Dept. 17661 E. Yavapai Rd. Fort McDowell, AZ 85264	<b>DATE:</b> 12-5-07 <b>JOB #:</b> 984 <b>YOUR REFERENCE NO:</b> 0017.0002
--	--	---

<b>INSTRUCTIONS:</b> Please hand-deliver attached to DR. Klopatek by noon today. Make sure to have the delivery slip signed by the recipient of the attached & return the signed delivery slip to our office today. Call w/ any questions.	<input type="checkbox"/> Deliver to: <input type="checkbox"/> Pickup from <input type="checkbox"/> Roundtrip <input type="checkbox"/> 1 Hour Rush (\$8 Add. Chg.) <input type="checkbox"/> 2 Hour <input type="checkbox"/> Same Day B Delivery Before 5 pm <input type="checkbox"/> Notary <input type="checkbox"/> Regular B Court Run @ 3:30 pm
--	--

<b>REQUESTED BY:</b> Jeannette Miller	Leave without signature	MAIL SLOT
Direct Telephone Contact: (480) 385-2729	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>DRIVER SIGNATURE:</b>	<b>RECEIVED BY:</b> 	<b>TIME:</b>

PO # 4481



December 4, 2007

Ms. Julie Hoffman  
Maricopa Association of Governments  
302 North 1st Avenue  
Suite 300  
Phoenix, Arizona 85003

Re: MAG 208 Water Quality Management Plan Amendment for  
Preserve at Goldfield Ranch Water Reclamation Facility

Dear Ms. Hoffman:

During the Water Quality Advisory Committee meeting on October 22, 2006, committee members requested additional information to supplement the Maricopa Association of Governments (MAG) 208 Water Quality Management Plan Amendment for the Preserve at Goldfield Ranch Water Reclamation Facility. Three figures are attached to this letter, which responds to this request, including the following:

- Figure 1 – Water Reclamation Facility Conceptual Site Plan
  - Identifies the preliminary configuration of the treatment unit processes
- Figure 2 – WRF Proximity to Waterways
  - Depicts distances:
    - From the proposed Goldfield WRF to the Verde River and the upgradient Sycamore Creek
    - From the Fountain Hills Sanitary District WRF to the Verde River
    - From the Fort McDowell Yavapai Nation WRF to the Verde River, and
    - From the Rio Verde WRF to the Verde River
- Figure 3 – Proximate WRFs
  - Identifies the distances from the proposed Goldfield WRF to the most proximate, existing WRFs. Given the distances and topographic constraints to existing WRFs, it is not feasible for existing facilities to provide service to the Preserve at Goldfield Ranch.

The Water Quality Advisory Committee also approved a motion to continue this matter for a period of 60 days. Please confirm the meeting on December 21, 2007, which represents the conclusion of the continuance period. Alternatively and at the discretion of the Committee Chair, we would be agreeable to reconvening on this topic at the meeting already scheduled for December 13, 2007.

We look forward to presenting this supplemental information to you and the members of the Committee and gaining a recommendation for approval of this project

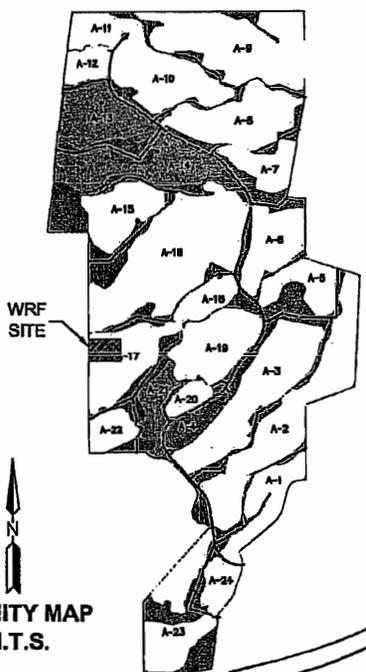
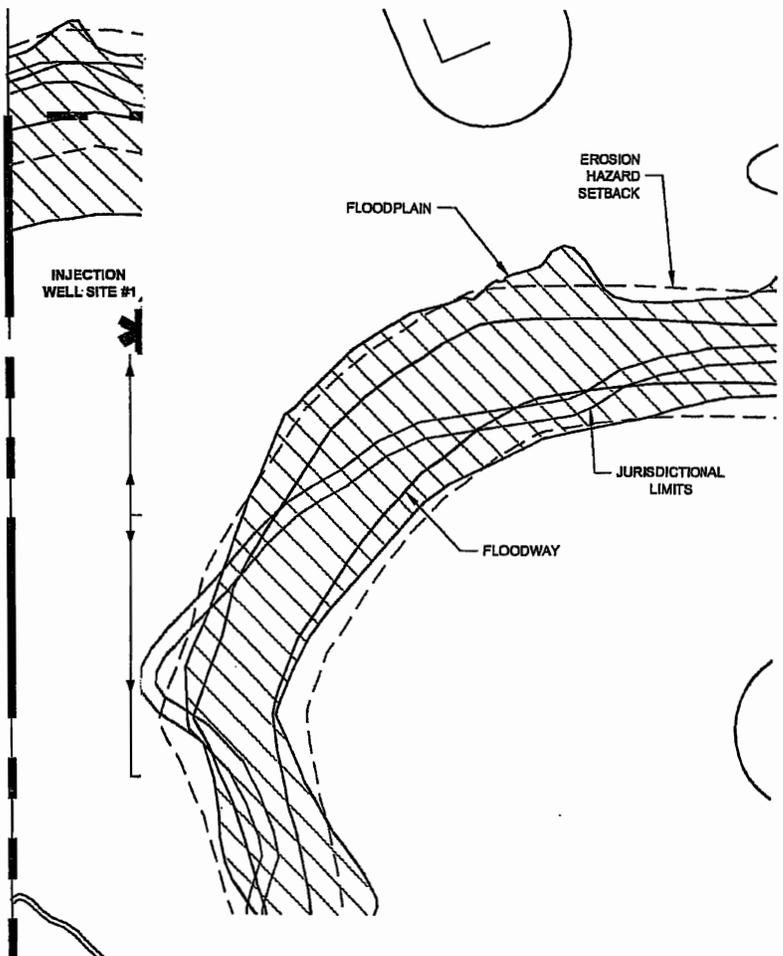
Respectfully,  
CMX

A handwritten signature in black ink, appearing to read 'Sheila A. Logan', with a long, sweeping flourish extending to the right.

Sheila A. Logan, P.E.  
Environmental Planning Manager

SL:ajg

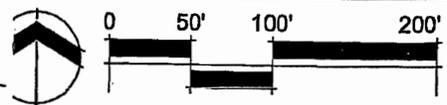
cc: Kevin Chadwick, MCESD  
Don Kile, Goldfield Preserve Development, LLC



# The Preserve at Goldfield Ranch

Maricopa County, Arizona

## Water Reclamation Facility Conceptual Site Plan



North Scale: 1" = 100'

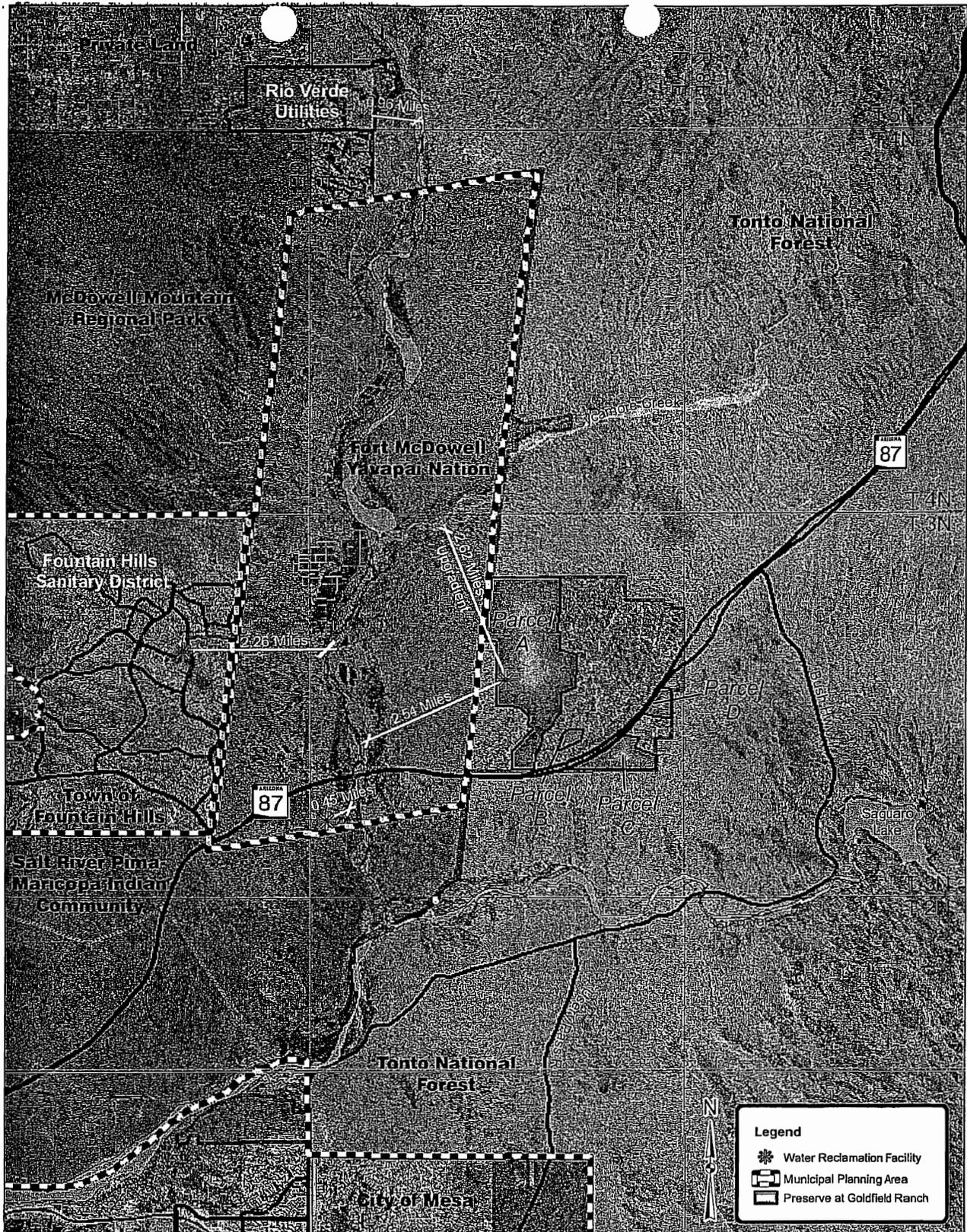
Notes

This exhibit is conceptual and subject to change through the design and development process.  
The Treatment Process attached is preliminary.

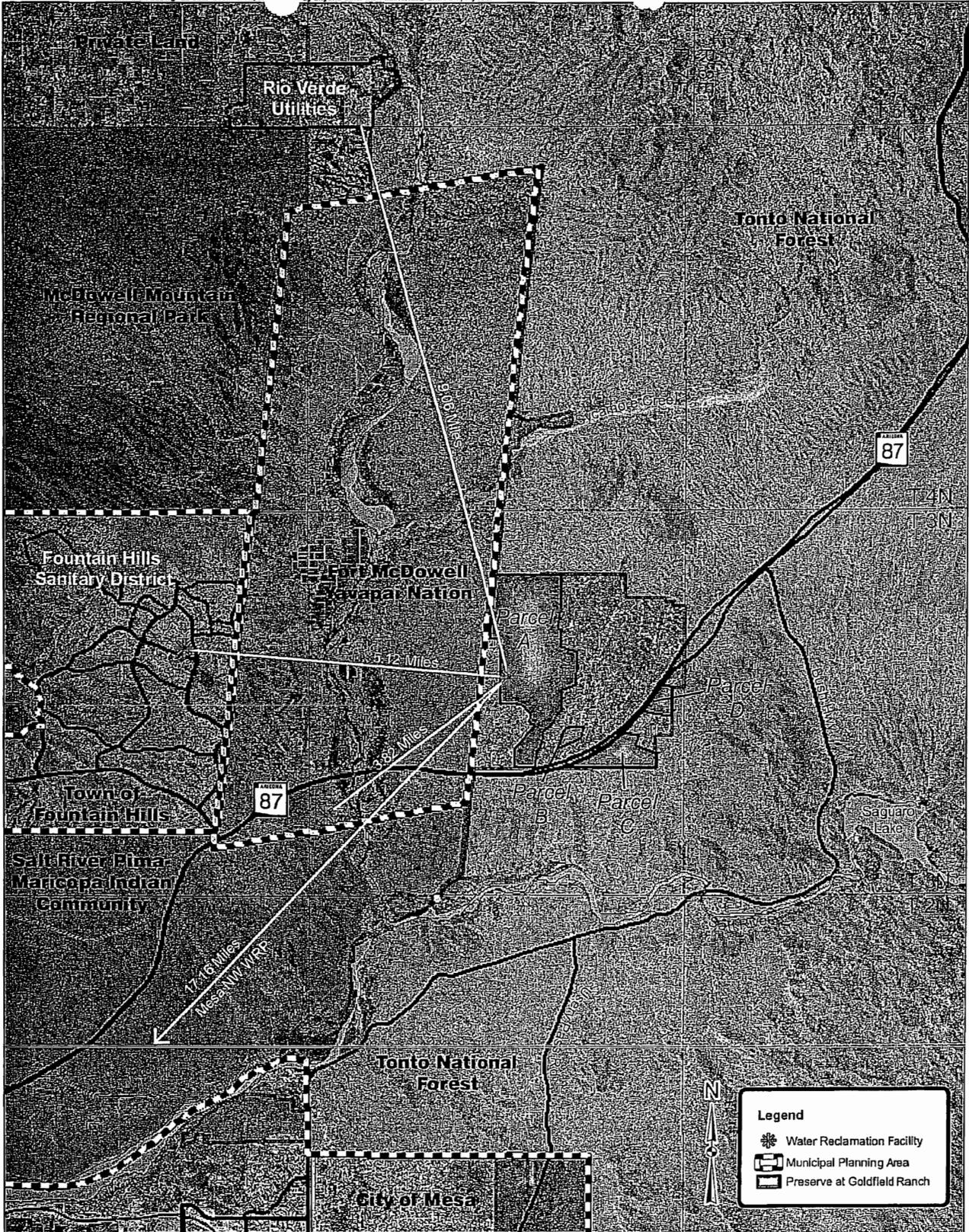
Project Number: 7147      October 9, 2007  
 Project Manager: T. Bonar  
 Designed By: A. Pangus  
 Checked By: N/A  
 Drawn By: C. Klock



07147\planning\A-Exhibit\Water Resources Exhibit\Conceptual Site Plans\7147-WRF-Conceptual-Site-Plan-01-WR.dwg  
 10/9/07 11:28am  
 Copyright, CMX 2007 - This plan document set is the sole property of CMX. No alterations to these plans, other than adding "as-built" information, are allowed by anyone other than authorized CMX employees.



<b>FIGURE</b>  2	CMX PROJ: 7147	<b>The Preserve at Goldfield Ranch</b> Maricopa County, Arizona	<b>PHOENIX OFFICE</b> 7740 N. 16TH ST. STE. 100 PHOENIX, AZ 85020 PHONE: (602) 567-1900 FAX: (602) 567-1901 www.cmxengineering.com	
	DATE: 03/28/07			
	SCALE: NTS			
	DRAWN: MEN			
	APPROVED: SAL			
<b>WRF Proximity to Waterways</b>				



<b>FIGURE</b>  3	CMX PROJ: 7147
	DATE: 11/02/07
	SCALE: NTS
	DRAWN: MEN
	APPROVED: SAL

**The Preserve at**  
**Goldfield Ranch**  
 Maricopa County, Arizona  
**Proximate WRFs**

PHOENIX OFFICE  
 7740 N. 16TH ST. STE. 100  
 PHOENIX, AZ 85020  
 PHONE: (602) 567-1900  
 FAX: (602) 567-1901  
[www.cmengineering.com](http://www.cmengineering.com)





December 13, 2007

Ms. Julie Hoffman  
Maricopa Association of Governments  
302 North 1st Avenue  
Suite 300  
Phoenix, Arizona 85003

Re: MAG 208 Water Quality Management Plan Amendment for the Preserve at Goldfield Ranch Water Reclamation Facility/ Response to Salt River Pima-Maricopa Indian Community Letter dated December 4, 2007

Dear Ms. Hoffman:

Regarding the letter you received from the Salt River Pima Maricopa Indian Community (SRPMIC) dated December 4, 2007, we offer the following responses:

1. **Septic systems associated with other parcels of the development:**  
Our Amendment requests approval of the location and size of the water reclamation facility (WRF) and is not related to septic systems in the vicinity of the project.
2. **Connectivity of the target aquifer:**  
Please see the hydrogeologic data provided in Appendix G and item 6 of the Developer's Response to the Fort McDowell Yavapai Nation's (FMYN) letter in Appendix F.
3. **Hydraulic conductivity and storativity in the aquifer:**  
The hydraulic conductivity, as calculated from the parameters listed in Appendix G, Hydrogeologic Study, is estimated to be 16 ft<sup>2</sup>/day. The storativity also is reported on page 9 of this study.
4. **Water quality and groundwater flow:**  
Effluent will meet aquifer water quality standards in accordance with an Aquifer Protection Permit. Please see item 2 in the Developer's Response to the FMYN's letter in Appendix F. The direction of groundwater flow is generally to the west or west-southwest within the project vicinity. The point of compliance will be determined by the Arizona Department of Environmental Quality during the APP.
5. **Operation and management of the WRF:**  
Operation and management of the WRF will be overseen by the Goldfield Preserve Improvement District. The Maricopa County Board of Supervisor's sits as the Board of Directors for the Improvement District.

Thank you for the opportunity to respond to these concerns.

Respectfully,  
CMX

A handwritten signature in black ink that reads "Sheila Logan" with a stylized flourish at the end.

Sheila A. Logan, P.E.  
Environmental Planning Manager

SL:ajg

cc: Honorable Diane Enos, Salt River Pima-Maricopa Indian Community  
Kevin Chadwick, MCESD  
Don Kille, Goldfield Preserve Development, LLC

MAG



# Fort McDowell Yavapai Nation

PO Box 17779, Fountain Hills, AZ 85269

Phone (480) 837-5121



Administration  
(480) 816-7224

Accounts Payable  
(480) 816-7134

Purchasing  
(480) 816-7116

12-18-07  
Review 3:15  
30 min  
J...

12-19-07  
Review 7-11

December 17, 2007

Mr. Dennis Smith  
MAG Executive Director  
Maricopa County Association of Governments  
302 N. 1<sup>st</sup>. Ave., Suite 300  
Phoenix, Arizona 85003

Dear Mr. Smith:

This letter is a follow-up to the December 21 Water Quality Committee agenda with specific reference to the 208 Water Quality Management Plan Amendment for the Preserve at Goldfield Ranch Water Reclamation Facility ("GRWRF"). As you are aware, the MAG Water Advisory Committee (herein Committee) met on October 22, 2007 to discuss this application wherein the Nation provided a brief testimony outlining their concerns that they have attested to with the County and to the applicant. At the conclusion of the meeting, the committee adopted a motion to postpone their vote for 60 days. The overriding purpose of the delay was to provide the applicant an opportunity to collaboratively work and resolve outstanding issues and provide additional information relating to the MAG 208 application with the two Indian Nations, Fort McDowell Yavapai Nation (herein the Nation) and Salt River Pima-Maricopa Indian Community. Those concerns are reiterated below. The Nation's Tribal Council, General Manager, and related staff met with Mr. Ellman and his staff on November 28, 2007. One additional slide was added to their general presentation demonstrating the distance of the proposed GRWFR from the current water flow of the Verde River (note: given the graphic, this distance would vary based on flow peaks and really did not address infiltration of treated wastewater into the subflow of the Verde River). Thus, it is with great disappointment, that the scientific feasibility of recharge, supplemental, or other new information regarding this applicant has not been provided. We request additional time be granted to the applicant before the committee considers approval so that additional information can be provided and will allow for all parties to resolve the issues.

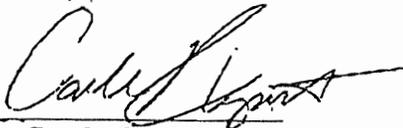
The very real and critical issues surrounding this application were discussed in person and submitted in written form to the County (dated September 25 and October 2). I wish to briefly recapitulate some and by no means all of the concerns:

1. There were no hydrological/geologic considerations or feasibility studies to determine and or substantiate that materials will not enter into the Waters of the U.S. (i.e., the Verde River). Without this data it is simply assumed that discharge will not enter waters of the U.S. This is a critical concern of the Nation as the Verde River is it's only 'wet' water source. The failure to provide specific details as to whether recharge is even feasible is inconsistent with the MAG 208 protocol.
2. Was Arizona Department of Environmental Quality consulted as to how this discharge may/will impact the Verde River or the aquifer? If so, what were their findings?
3. If groundwater injection will be used as the method of recharge, what are the prospects for successfully receiving an Underground Injection Control Permit?
4. If the effluent is going to be used to meet a water demand, a Reuse Permit will be required.
5. There is a lack of scientific data on groundwater and soils, required by the MAG 208 plan. What specific data or data sets were used to assert that there are confined layers in the aquifer? Again, this information is pertinent to contamination of the Nation's and others water supply (i.e., Verde River).
6. In part, the MAG 208 is a planning tool; as such it strives for the best approach to wastewater management. The Applicant has acquired land that remedies the geographic isolation between parcel A with parcel B. In our view, MAG should require parcel B to be included in the common wastewater system rather than on septic. Historically, septic has not proven to be a preferred alternative by ADEQ.
7. Inconsistencies still exist between this application and both the proposed DMP and the master wastewater report as well as the application for assured water supply. For example, the numbers of homes are inconsistent between the various reports.
8. In that same vein, we are not able to mass balance the potable water with the wastewater (inputs and output) based on all the aforementioned reports and uses.
9. The question of commercial development within the Preserve is still outstanding. This is a 208 matter as not all water/wastewater uses/generators are consistently accounted for in the aforementioned reports. Thus, commercial development should be fully and accurately disclosed in all the applicant's reports and analysis. To be consistent and to be within the MAG 208 plan, we re-request the applicant state their commitment as to what types of facilities will be developed, how much water will be used by each, and report the amount of wastewater generated from each of these facilities.

10. Within the MAG 208, a letter must be sent to the nearest wastewater facility to determine if the proposed facility will 'adversely affect operation or financial structure' of an existing facility or if any of our 'reuse plans will be adversely affected'. As of today, President Bear has yet to receive such a letter posing these questions.
11. There is inadequate financial information on wastewater operations, maintenance and operation post-construction, and financial feasibility (pre-and post construction). The applicant states that an annual estimated O&M cost is \$150,000 to \$200,000. This amount is grossly underestimated as our community's wastewater plant is operationally close to what is being proposed and expenses are far and above what is proposed.
12. The ability to prove financial capabilities for infrastructure capital and O&M (given the County Improvement District for this project, short and long-term capabilities are necessary) is a requirement of the MAG 208 application process. After all current expenses are removed from the loan obtained for land acquisition and land development costs, there appears to be insufficient capital available. These outlays will be substantial as all infrastructure requirements on the property are not realized. Thus, building this facility and the years of O&M costs for the facility will be borne by the applicant. A thorough financial evaluation as to how the facility will be financed and direct accounting of where monies have been secured to provide for maintenance of the facility must be provided. Since this Preserve is a 25 year undertaking (as stated within the DMP) the Nation is concerned as to how this facility will be maintained in the short- and long-term.
13. The MAG 208 process states that a qualified company to operate the wastewater facility must be selected and stated. No further information has been provided regarding appendix D whereby the applicant submitted material outlining a company- not an 'agreement' as so stated on appendix D cover sheet. The company mentioned in the application is located and operates out of Williams, AZ not in central Arizona and the Arizona Corporation Commission still has a dissolution date of the company in 2010. The applicant has stated that this was to be resolved. Thus, the lack of such fundamental information is not consistent with having sustainable (long-term) service. We request the Applicant provide a qualified company that can operate on-site 24/7 and into the future.
14. In relation to operational feasibility, Bald Eagles and endangered species who's ecological niche are along or within the river or species that depend on the river may be potentially impacted. Questions raised regarding feasibility/water quality impacts must also consider compliance issues with the Environmental Species Act or the Bald and Golden Eagle Protection Act. It does not appear that covered species who are afforded federal environmental protections have been considered by the Applicant.

Despite the acknowledgement (sic with the inclusion of the Nation's October 2 letter in their 208 application) of our concerns, comments made by the Water Advisory Committee, requested information from the committee, the committee's motion stating that the Nation's and the concerns of the Salt River Pima-Maricopa Indian Community's must be discussed/resolved, the applicant has chosen not to be forthcoming with the requested information. We wish to effectively work with the applicant to address the impact on the health and safety of the citizens living within the Nation, Goldfield area, and other surrounding communities. The Nation will also provide an additional opportunity(s) for the applicant to respond to the critical outstanding issues that we and others have raised.

Sincerely,



Dr. Carole Coe Klopatek  
Director of Government Relations

cc:

**Salt River Pima-Maricopa Indian Community:**  
President Diane Enos

**MAG:**  
Ms. Julie Hoffman, Environmental Planner

**Fort McDowell Yavapai Nation:**  
Fort McDowell Yavapai Nation Tribal Council  
Phil Dorchester, General Manager  
Drew Ryce, General Counsel, FMYN



**SALT RIVER  
PIMA-MARICOPA INDIAN COMMUNITY**

10005 East Osborn Road / Scottsdale, Arizona 85256-9722 / Phone (480) 362-7400

Thursday, December 20, 2007

Ms. Julie Hoffman  
Maricopa Association of Governments  
302 North 1<sup>st</sup> Avenue  
Suite 3000  
Phoenix, AZ 85003

Re: The Preserve at Goldfield Ranch / MAG 208 Water Quality Management Plan Amendment

Dear Ms. Hoffman:

At this time, the Salt River Pima-Maricopa Indian Community ("Community") cannot support the Preserve at Goldfield Ranch's ("Goldfield Ranch") MAG 208 Water Quality Management Plan Amendment which is currently on the agenda for the December 21, 2007 MAG Water Quality Advisory Committee.

Although other ancillary documentation was provided to the Community a few weeks ago, the Community did not receive the Goldfield Ranch Master Wastewater Report, Master Water Report, Application for Analysis of Assured Water Supply and Approval of Analysis of Assured Water Supply until the afternoon of December 18, 2007. The Community had originally scheduled a meeting on December 18, 2007 with Goldfield Ranch to conduct a technical review of the proposed wastewater reclamation facility. However, due to the delay in receiving these requested documents, the Community postponed the meeting.

Due to the limited review time the Community cannot at this time be satisfied that the proposed Goldfield Ranch development/facility will not adversely impact the Community's underground and surface water resources.

If you have any questions regarding this letter, please contact me at the following number (480) 362-7400

Sincerely,

A handwritten signature in black ink, appearing to read "Vivian Saunders".

Vivian Saunders  
Office of Congressional &  
Legislative Affairs

Cc: Garry D. Hayes



Salt River  
**PIMA-MARICOPA INDIAN COMMUNITY**

10005 E. OSBORN RD. / SCOTTSDALE, ARIZONA 85256-9722 / PHONE (480) 850-8000

Garry D. Hays, Esq.  
The Henderson Law Firm  
Esplanade Center  
2415 East Camelback Road  
Suite 1050  
Phoenix, Arizona 85016

Re: The Preserve at Goldfield Ranch / MAG 208 Water Quality Management Plan  
Amendment

Dear Mr. Hays:

The Salt River Pima-Maricopa Indian Community ("Community") is formally requesting additional information in relation to the MAG 208 Water Quality Management Plan Small Plant Review and Approval for the Preserve at Goldfield Ranch Water Reclamation Facility ("MAG 208 Water Quality Management Plan").

On November 19, 2007 our water quality staff verbally requested all "water documents." Instead, the only document you delivered was the Development Master Plan.

At this time, the Community is requesting a hard copy of the following documents, in addition to any other documents available, which contain information about water and the Goldfield Ranch development.

- The Master Waste Water Report
- The Master Potable Water Report
- Any and all related Arizona Department of Water Resources Information
- The Assured Water Supply Analysis
- Prior draft Development Master Plans

These are necessary to assess the impact of the proposed MAG 208 Water Quality Management Plan; and until the Community receives these documents and has been provided adequate time to review the information, a determination on the impact of this development on the Community land and resources is not possible.

In addition, the SRPMIC is requesting a meeting with you on the following date of December 17, 2007.

Sincerely,

A handwritten signature in black ink, appearing to read "Vivian Saunders", with a long horizontal flourish extending to the right.

Vivian Saunders  
Special Assistant  
Office of Congressional &  
Legislative Affairs

Cc: Chairman Roger Klinger, MAG Water Quality Committee  
Dennis Smith, MAG Executive Director  
President Raphael Bear, Fort McDowell Yavapai Nation  
Julie Hoffman, Environmental Planner, MAG Water Quality Committee



Salt River  
**PIMA-MARICOPA INDIAN COMMUNITY**  
10005 E. OSBORN RD. / SCOTTSDALE, ARIZONA 85256-9722 / PHONE (480) 850-8000

January 11, 2008

Mr. Garry D. Hays, Esq.  
The Henderson Law Firm  
Esplanade Center  
2415 East Camelback Road  
Suite 1050  
Phoenix, Arizona 85016

Re: Proposed Preserve at Goldfield Ranch Water Reclamation Facility

Dear Mr. Hayes:

On behalf of the Salt River Pima-Maricopa Indian Community (SRPMIC), I'm writing to thank you for submitting to us the requested water documents regarding the proposed Water Reclamation Facility at the Preserve at Goldfield Ranch. The SRPMIC has completed an initial review of the proposed Water Reclamation Facility at the Preserve at Goldfield Ranch including a review of the following documents, the Master Wastewater Report, Master Water Report, Application for Analysis of Assured Water Supply, Analysis of Assured Water Supply, and the Development Master Plan. At this time, the SRPMIC is requesting a meeting with your development team to discuss the following issues of concern.

The three preliminary concerns that the SRPMIC has regarding the proposed Water Reclamation Facility are as follows:

1. Possible detrimental impacts to the Verde and/or Salt rivers through connectivity to the aquifer receiving effluent recharge from the proposed Water Reclamation Facility (WRF),
2. Possible impacts to the SRPMIC groundwater resources through connectivity of The underground aquifers below the Preserve at Goldfield Ranch Development and the SRPMIC, and
3. Possible WRF failure resulting in groundwater contamination and lack of sufficient contingency plan to address such a failure.

While there is some evidence to suggest that a surface-to-groundwater connection is not likely, it is not conclusive. It is also not conclusive that the aquifer proposed for the WRC effluent recharge, is confined and will not likewise potentially impact SRPMIC groundwater resources.

We look forward to meeting with your development team to obtain additional information, to clarify information, and to better understand the development as it pertains to any possible risks to the SRPMIC. Should you have additional documents that the SRPMIC would benefit from regarding the concerns outlined above, please send them via post at least one week prior to the meeting times you propose in order to allow staff to review them and prepare for discussion.

If you have any questions and wish to schedule a meeting, I can be reached at (480) 362-7528. Thank you for your time and attention to this request to meet.



Vivian Saunders  
Special Assistant  
On Congressional & Legislative Affairs

Berry & Damore LLC

File:  
Ellman / The  
Preserve

Wendy R. Riddell, Esq.  
(602) 616-8771 Mobile  
wr@berrydamore.com

Our File No. 00017.0002

January 15, 2008

**Via Certified Mail, Return Receipt Requested, to:**

Dr. Carole C. Klopatek  
Fort McDowell Yavapai Nation  
Finance Department  
17661 East Yavapai Road  
Fort McDowell, Arizona 85264

***Re: The Preserve at Goldfield Ranch / Rezoning Application Z2007150***

Dear Dr. Klopatek:

Enclosed please find a copy of the zoning and preliminary plat applications, in CD format, submitted to Maricopa County on December 17, 2007 for The Preserve at Goldfield Ranch.

If you have any difficulty opening the file or should you have any questions or concerns once you have had the opportunity to review these materials, please feel free to contact me at (602) 616-8771. Thank you.

Very truly yours,

Wendy R. Riddell

Wendy R. Riddell

WRR/jm  
Enclosures

cc: Drew Ryce (w/o enclosures)  
Don Kile (w/o enclosures)

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

DR. Carole C. Klopatek  
 Ft. McDowell Yavapai  
 Nation / Finance Dept.  
 19661 E. Yavapai Rd.  
 Fort McDowell, AZ  
 85264

**COMPLETE THIS SECTION ON DELIVERY**

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B. Received by PO Date of Delivery 1-17-08

D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below:

D. WARRINGTON

3. Service Type

- Certified Mail
- Registered
- Insured Mail
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- C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes  No

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7006 2150 0002 5591 7413

Send To Dr. Carole C. Klopatek  
 Street, Apt. No., or PO Box No. 19661 E. Yavapai Rd.  
 City, State, ZIP+4 Ft. McDowell AZ 85264

PS Form 3801, August 2005 See Reverse for Instructions

January 17, 2008

Ms. Vivian Saunders  
Salt River Pima-Maricopa Indian Community  
10005 E. Osborn Road  
Scottsdale, AZ 85256

**Re: *The Preserve at Goldfield Ranch / MAG 208 Water Quality  
Management Plan Amendment***

Dear Ms. Saunders:

I recently received your letter dated January 11, 2008. I appreciate you articulating the Community's concerns regarding the Water Reclamation Facility at the Preserve at Goldfield Ranch. As you suggested in your letter, we would like to set up a meeting to discuss the concerns. It is my client's intent to bring to that meeting the project's zoning lawyer, water attorney, hydrologist and engineer so that your questions can be sufficiently addressed. To that end, we would propose meeting on the morning of January 23, 2008 or on the morning of January 29, 2008. I hope these times work for you and your staff.

Please do not hesitate to call if you have any questions and I look forward to our meeting.

Very truly yours,

THE HENDERSON LAW FIRM, PLC



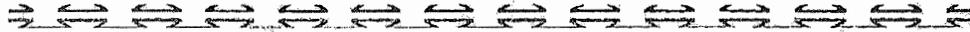
Garry D. Hays

GDH/djs



# Fort McDowell Yavapai Nation

PO Box 17779, Fountain Hills, AZ 85269 Phone (480) 837-5121



*Administration*  
(480) 816-7224

*Accounts Payable*  
(480) 816-7134

*Purchasing*  
(480) 816-7116

## FAX TRANSMITTAL

January 17, 2008

Ms. Wendy Riddell  
Berry and Damore, LLC  
6750 E. Camelback Rd, Suite 100  
Scottsdale, AZ 85251  
RE: Goldfield Preserve MAG 208 amendment proposal

Dear Ms. Riddell:

This letter is in connection with the Goldfield Preserve Maricopa Association of Governments (MAG) MAG 208 amendment proposal. On December 21<sup>st</sup>, the MAG Water Quality Committee granted a 90 day extension allowing for an additional opportunity for the Preserve Development to meet with the Fort McDowell Yavapai Nation and the Salt River Pima Maricopa Indian Community. The expressed purpose of this extension was to provide the Preserve time to address and answer the grave concerns that have been raised by the two governments on the proposed Preserve MAG 208 amendment. These issues were brought forth in person, in writing (e.g., September 24, October 2, December 5, December 17<sup>th</sup> 2007 letters), as well as at the October 22 and December 21<sup>st</sup> 2007 MAG Water Quality Committee meetings.

At the December meeting, there was sentiment by some members of the committee that the first meeting between the Preserve and the Nation could occur 30 days following the December meeting. However, the committee as a whole did express that they could not mandate such a deadline. The Nation is willing to meet with you to begin this important dialogue to resolve the numerous and serious concerns we have raised. As I am sure you are aware, the first 30 days is next Monday, January 21.

For your information, the Nation observes the Dr. Martin Luther King holiday, therefore our offices will be closed. However, we are open during regular business hours following this date.

Please feel free to contact me at any time. I can be reached at (480) 816-7161.

Sincerely,



Dr. Carole Coe Klopatek  
Director of Government Relations

cc:

**Salt River Pima-Maricopa Indian Community:**  
President Diane Enos

**MAG:**  
Mr. Rodger Klinger, Chair MAG Water Quality Committee  
Ms. Julie Hoffman, MAG Environmental Planner

**Fort McDowell Yavapai Nation:**  
Fort McDowell Yavapai Nation Tribal Council  
Phil Dorchester, FMYN General Manager  
Drew Ryce, General Counsel, FMYN

January 18, 2008

Via First Class Mail Return Receipt, to:

Dr. Carole C. Klopatek  
Director of Government Relations  
Fort McDowell Yavapai Nation  
17661 East Yavapai Road  
Fort McDowell, Arizona 85264

Re: The Preserve at Goldfield Ranch/ MAG 208 Amendment Proposal

Dear Dr. Klopatek:

Attached please find our response to the concerns you raised in your correspondence dated December 17<sup>th</sup>, 2007, to Dennis Smith at the Maricopa Association of Governments ("MAG"). On January 18<sup>th</sup>, 2008, Maricopa County Environmental Services Department asked us to respond to these concerns once again for the record. Please note that thirteen of the fourteen questions that you raised in your December 17<sup>th</sup> correspondence are identical to the concerns that you raised in your October 2, 2007 correspondence to MAG, and so are our responses.

Also attached please find a list of all of the communication that my office has had with the Fort McDowell Yavapai Nation. Please keep in mind that this list does not include all of the communication that the Ellman Companies has had directly with both President Raphael Bear and Orlando Moreno, dating back to March of 2005.

Our team is available to meet with you to further discuss the concerns that you have raised. We would propose a meeting on the morning of January 23<sup>rd</sup> or 29<sup>th</sup>, at a location convenient for you. Please confirm your availability.

Thank you for your consideration and we look forward to your response.

Very truly yours,

Wendy R. Riddell  
Wendy R. Riddell 

Enclosures

# Berry & Damore LLC

*January 18, 2008*

*Page 2*

cc: Don Kile (w/o enclosure)  
Don Stapley  
Roger Klingler  
Julie Hoffman  
Kevin Chadwick

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1. Article Addressed to:

Dr. Carole C. Klopatek  
 Director of Government Relations  
 Fort McDowell Yavapai Nation  
 17661 East Yavapai Road  
 Fort McDowell, AZ 85264

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 Addressee

B. Received by  Date of Delivery



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 City, State, Zip+4 17661 East Yavapai Road  
 Ft. McDowell, AZ 85264

The Preserve at Goldfield Ranch  
Development Master Plan Amendment  
Contact Data with Fort McDowell Yavapai Nation

<u>Date</u>	<u>Item</u>
08-19-05	Telephone call made to Planning & Development Manager of Fort McDowell Yavapai Nation
08-25-05	Meeting held with Planning & Development Manager of Fort McDowell Yavapai Nation to discuss access, water, wastewater facilities, utilities, historical sites and environmental issues
11-17-06	Early Notification correspondence to property owners and interested parties, including Fort McDowell Yavapai Nation illustrating the location of property and brief explanation of proposed DMP application
11-21-06	Wendy Riddell telephone conversation with Dr. Carole Klopatek, Fort McDowell Yavapai Nation
11-22-06	Correspondence from Berry & Damore to Dr. Carole Klopatek re Goldfield Land Use Plan
12-05-06	WRR telephone conversation with Dr. Carole Klopatek
12-06-06	Correspondence from Berry & Damore to Dr. Carole Klopatek re DMP Amendment
01-26-07	Correspondence from Berry & Damore to Dr. Carole Klopatek re CMX Master Water Report and County's written comments of 12-19-06 TAC meeting
01-29-07	Correspondence from Berry & Damore to Dr. Carole Klopatek re Master Water Report and Wastewater Master Plan
02-08-07	Neighborhood "Open House" Meeting correspondence mailed to property owners, interested parties including Fort McDowell Yavapai Nation notifying of 2-28-07 meeting
02-10-07	The Preserve at Goldfield Ranch monthly newsletter
02-21-07	Meeting with Dr. Carole Klopatek
02-21-07	Goldfield Ranch Homeowner's Association meeting held at the Dutton Residence from 7:00 to 10:00 p.m. - Dr. Carole Klopatek in attendance
02-26-07	Correspondence with Dr. Carole Klopatek re water plan at the Preserve
02-28-07	Neighborhood "Open House" Meeting held at Fountain Hills High School from 7:00 to 10:00 p.m. - Dr. Carole Klopatek in attendance
03-01-07	Follow up telephone conference with Dr. Carole Klopatek re water issues at the Preserve
03-08-07	Follow up telephone conference with Dr. Carole Klopatek re water plan at the Preserve
03-16-07	The Preserve at Goldfield Ranch monthly newsletter
04-04-07	Correspondence from Berry & Damore to Dr. Carole Klopatek re second submittal of DMP in CD format
04-09-07	Correspondence from Berry & Damore to Dr. Carole Klopatek re

<u>Date</u>	<u>Item</u>
	County's 2 <sup>nd</sup> TAC meeting and enclosing a hard copy of second submittal of DMP
04-12-07	The Preserve at Goldfield Ranch monthly newsletter
05-11-07	Submission of MAG 208 plan to Ft. McDowell Yavapai Nation
05-29-07	Neighborhood "Open House" Meeting correspondence mailed to property owners, interested parties including Fort McDowell Yavapai Nation notifying of June 11, 2007 meeting
06-11-07	Neighborhood "Open House" Meeting held at Fountain Hills Community Center from 7:00 to 10:00 p.m. – Dr. Carole Klopatek in attendance
06-27-07	Neighborhood "Open Meeting" at Fountain Hills Community Center on Water and Wastewater issues; Dr. Carole Klopatek in attendance
07-18-07	Correspondence from Berry & Damore to Dr. Carole Klopatek re third submittal of DMP
08-15-07	Correspondence from Berry & Damore to Dr. Carole Klopatek re copy of archeological report prepared by SWCA
09-25-07	Receipt of correspondence from President Rapheal Bear stating no comments at this time and reserving right to comment later
09-27-07	Fort McDowell Yavapai Nation orally objects to Maricopa County
10-02-07	Fort McDowell Yavapai Nation submits a letter with concerns to Maricopa County
10-08-07	Correspondence submitted to Maricopa County responding to the Tribe's concerns
10-10-07	Meeting with President Rapheal Bear, Orlando Moreno and Dr. Carole Klopatek re update on where we are in the process
11-28-07	Meeting with Tribal Council
12-05-07	Correspondence from Berry & Damore to Dr. Carole Klopatek transmitting MAG 208 Water Quality Management Plan Amendment materials for Dr. Klopatek's review
01-09-08	Correspondence from Berry & Damore to Dr. Carole Klopatek transmitting zoning and preliminary plat application submittal materials for Dr. Klopatek's review

**Summary of Comments Contained in Fort McDowell Yavapai Nation's 12/17/07 Letter  
and Developer's Response**

No.	FMYN Comment	Response
1	The Application doesn't include hydrological/geologic considerations to determine if material will enter the waters of the U.S.	As discussed in Section 3.4.1 of the Application, and Answer of our response provided on 10/5/07 to the FMYN's letter provided to us on 10/4/07, no discharge to waters of the US is anticipated. Preliminary hydrogeologic information is provided in Section 3.4.1 and Appendix F of the Application.
2	Was ADEQ consulted as to how this discharge may/will impact the Verde River or the aquifer.	There is no discharge to the Verde River or other surface waters. Accordingly, there will be no impact to the Verde River. Regarding the potential for impact to the aquifer, the facility will obtain and comply with an Aquifer Protection Permit (APP) and Underground Storage Facility permit. Ongoing consultation with ADEQ and ADWR will be required to obtain and demonstrate compliance.
3	If groundwater injection will be used as a method of recharge, what are the prospects for successfully receiving a Underground Injection Control Permit?	As discussed in Answer 4 of our response provided on 10/5/07 to FMYN's letter provided to us on 10/4/07, a UIC permit will not be needed for this project. The recharge will be accomplished under an Underground Storage Facility and Water Storage permits administered by the ADWR.
4	If effluent is going to be used to meet a water demand, a Reuse Permit will be required.	As discussed in Answer 2 of our response provided on 10/5/07 to the FMYN's letter provided to us on 10/4/07, direct reuse is not anticipated at this time and therefore a reuse permit would not be required.
5	There is a lack of scientific data on groundwater and soils, as required for a MAG 208 plan.	As discussed in Answer 6 of our response provided on 10/5/07 to FMYN's letter provided to us on 10/4/07, the small plant review and approval process under the MAG 208 does not require specific data on groundwater and soils. However, preliminary hydrogeologic information is provided in Section 3.4.1 and Appendix F of our Application.
6	The Applicant has acquired two new parcels that connect its Parcel B to the Parcel A service area. The Application should be modified to reflect the larger service area.	As discussed in Answer 8 of our response provided on 10/5/07 to FMYN's provided to us on 10/4/07, service areas are not regulated under Section 208 of the Clean Water Act. That stated, the service area anticipated at this time includes Parcel A only.
7	The number of homes proposed to be served by the treatment plant is inconsistent with the DMP, wastewater master plan, and Assured Water Supply application.	As discussed in Answer 9 of our response provided on 10/5/07 to FMYN's letter provided to us on 10/4/07, the number of homes proposed continues to be refined. The numbers cited in these documents are not grossly different, and in all cases represent a conservative estimate of the final number.
8	There is no mass balance between potable water use, wastewater production and effluent recharge between the Application and the DMP and AWS application.	As discussed in Answer 10 of our response provided on 10/5/07 to the FMYN's letter provided to us on 10/4/07, estimated numbers account for safety factors in the engineering design of the systems. Safety factors may not be equally applied across these planning documents but are in accordance with applicable standards and regulations.
9	Commercial development plans should be fully and accurately disclosed in all the applicant's reports and analysis.	As discussed in Answer 11 of our response provided on 10/5/07 to FMYN's letter provided to us on 10/4/07, as noted in the DMP, any commercial development is proposed to be developed pursuant to a Special Use Permit as permitted in Maricopa County's Zoning Ordinance. However, any and all development pursuant to Special Use Permits have been contemplated in our analysis to produce the most conservative estimates.
10	MAG requires that a letter must be sent to the nearest wastewater facility to determine if the proposed facility will adversely affect operation, financial structure, or reuse plans.	As discussed in Answer 12 of our response provided on 10/5/07 to FMYN's letter provided to us on 10/4/07, a copy of the 208 application was sent to FMYN on May 14, 2007 and we have received comments from the FMYN on 9/24, 10/2, 12/6 and 12/7 of 2007.
11	The financial information provided for wastewater operations and maintenance is inadequate and under-estimated.	As provided in Answer 13 of our response provided on 10/5/07 to the FMYN's letter provided to us on 10/4/07, the estimated O&M costs will be refined as the engineering design of the WRF proceeds.
12	The provided financial information indicates insufficient capital available for development costs.	As discussed in Answer 14 of our response provided on 10/5/07 to the FMYN's letter provided to us on 10/4/07, the estimated construction costs will be refined as the engineering design of the WRF proceeds. Sufficient capital is available.
13	A qualified water company to operate the wastewater facility must be selected and stated.	As discussed in Answers 14, 15 and 16 of our response dated 10/5/07 to FMYN's letter provided to us on 10/4/07, service contracts are under the purview of the County Improvement District and the Maricopa County Board of Supervisors who sit as the CID Board of Directors. Accordingly, these service contracts will be reviewed and approved by the Maricopa County Board of Supervisors at the appropriate time and in advance of the WRF operations.
14	Applicant has not considered the Bald Eagles and other endangered species.	As discussed in our Application and meetings with the FMYN, operations of this small package plant will not have an effect on the Verde River. Notwithstanding, the project is required to comply with Section 7 of the Endangered Species Act.
15		
16		
17		



# Fort McDowell Yavapai Nation

P.O. Box 17779, Fountain Hills, AZ 85269

OFFICE OF GOVERNMENT RELATIONS

Phone (480) 816-7161 Fax (480) 837-7957

## FAX TRANSMITTAL

January 28, 2008

Ms. Wendy Riddell  
Berry and Damore, LLC  
6750 E. Camelback Rd, Suite 100  
Scottsdale, AZ 85251

RE: Goldfield Preserve MAG 208 amendment proposal

Dear Ms. Riddell:

I received your letter dated January 18<sup>th</sup> late in the afternoon of January 24<sup>th</sup>. Unfortunately, since I had only just received the correspondence, your suggested meeting date of January 23<sup>rd</sup> had already lapsed. As mentioned in earlier conversations and correspondence, the Nation is closed on Fridays and we are unable to receive mail. Thus, if you need to reach me on an urgent matter, please feel free to contact me by cell phone as I often receive calls during non-business hours. In regard to the morning of January 29<sup>th</sup>, given the short notice I cannot change my early morning meeting as Council meets on this date. I understand that the developer has another meeting scheduled that morning thus this date and time does not appear to be mutually convenient. Therefore, do you have an alternate date? How about the week of February 4<sup>th</sup>?

In regard to your one page 'summary of comments contained in Fort McDowell Yavapai Nation's 12/17/07 letter and developer's response' we are disappointed that you have not provided additional data and material that the Nation, as you point out, has repeatedly requested. Your responses in the aforementioned letter, as you state, are identical to those provided earlier. To repeat them does not provide the meaningful dialog that the Nation as well the MAG Water Quality Committee had hoped and requested. We respectfully disagree with many of your statements and find them inadequate. Furthermore, your assertion that many of our requests are outside of MAG's purview is inaccurate; they are in fact within the MAG process and that is why we had brought them to your attention. I truly hope that further discussions with new data (including data that demonstrates the feasibility of such a plant) will be forthcoming.

Finally, in regard to your updated "contact data" sheet enclosure, I have received other

previously distributed contact data sheets whereby you track all superfluous data. I can appreciate your detailing the process; however much of this material is not representative of actual meetings that discuss issues raised by the Nation. A listing of dates, such as when the Nation represents itself at the County or your submission of materials to MAG or to the County where no contact has been made with the Nation, does not constitute a discourse.

The Nation is looking forward to more constructive dialog and data/reports/information. Please contact me at your earliest convenience in regard to a technical meeting.

Sincerely,



Dr. Carole Coe Klopatek  
Director of Government Relations

cc:

**Maricopa County (by post mail):**  
Supervisor Don Stapley  
Mr. Kevin Chadwick

**Salt River Pima-Maricopa Indian Community (by FAX):**  
President Diane Enos

**MAG (by FAX):**  
Mr. Rodger Klinger, Chair MAG Water Quality Committee  
Ms. Julie Hoffman, MAG Environmental Planner

**Fort McDowell Yavapai Nation:**  
Fort McDowell Yavapai Nation Tribal Council  
Phil Dorchester, FMYN General Manager  
Drew Ryce, General Counsel, FMYN



Salt River  
**PIMA-MARICOPA INDIAN COMMUNITY**

10005 E. OSBORN RD. / SCOTTSDALE, ARIZONA 85256-9722 / PHONE (480) 850-8000

SRPMIC and Representatives of the Preserve at Goldfield Ranch  
Regarding the MAG 208 Water Quality Management Plan Amendment

January 29, 2008

A G E N D A

1. Introductions
2. Purpose
3. SRPMIC Issues

- Detrimental impacts to the Verde and/or Salt rivers through connectivity to the aquifer receiving effluent recharge from the proposed Water Reclamation Facility.

Goldfield Response

- Impacts to the SRPMIC groundwater resources through connectivity of the underground aquifer below the Preserve at Goldfield Ranch Development and the SRPMIC.

Goldfield Response

- Water Reclamation Facility failure resulting in groundwater contamination and lack of sufficient contingency plan to address such a failure.

Goldfield Response

4. Conclusion

Berry & Damore LLC

Wendy R. Riddell, Esq.  
(602) 616-8771 Mobile  
wr@berrydamore.com

Our File No. 00017.0002

January 30, 2008

**Via Certified Mail, Return Receipt Requested, to:**

Dr. Carole C. Klopatek  
Director of Government Relations  
Fort McDowell Yavapai Nation  
17661 East Yavapai Road  
Fort McDowell, Arizona 85264

**Re: The Preserve at Goldfield Ranch / MAG 208 Amendment Proposal**

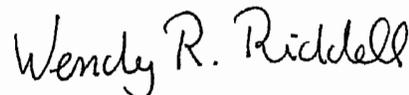
Dear Dr. Klopatek:

This letter is in response to your January 28, 2008 letter regarding the above-referenced matter.

We would propose a meeting on February 13, 2008 at 10:00 a.m. at your offices. Please advise as to your availability.

Thank you for your consideration and I look forward to your reply.

Very truly yours,



Wendy R. Riddell

WRR/jm

cc: Don Kile  
Lynsi Waggoner  
Lee Storey  
Garry Hays

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 PS Form 3800, August 2006 See Reverse for Instructions



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VIA FACSIMILE (480) 362-7593 and U.S. MAIL

January 30, 2008

Ms. Vivian Saunders  
Special Assistant on  
Congressional & Legislative Affairs  
Salt River Pima-Maricopa Indian Community  
10005 E. Osborn Road  
Scottsdale, Arizona 85256

**RE: MAG 208 - The Preserve at Goldfield Ranch**

Dear Ms. Saunders:

Thank you for taking the time to meet with us yesterday to discuss the MAG 208 process and the concerns expressed by the Salt River Pima Maricopa Indian Community ("Community"). We appreciated the opportunity to make our consultants available at that meeting to address the issues raised by you and your technical team.

As we confirmed in the meeting, all data developed to date to support our request for a MAG 208 small plant amendment and to obtain an Analysis of Assured Water Supply, including all hydrologic information filed with the ADWR and included in the MAG 208 application, has been provided to the Community and your technical team. The issue before the MAG Water Quality Advisory Committee (WQAC) is whether or not the application meets "technical sufficiency." Chairman, Roger Klinger, stated at the last WQAC meeting, that our application *does* meet "technical sufficiency" at the same level as have all the other small plant treatment facilities routinely approved by the WQAC. Approval by the WQAC, however, does not mean that the process is complete or that the facility will ultimately be approved and permitted by the governing jurisdictions such as ADWR, ADEQ and MAG. There is more work to be done and we welcome the Community's participation in that process.

We understand and respect the larger questions being asked about the small wastewater treatment plant facility and the concern regarding impacts on the water resources of the Community, particularly as they relate to water quality and facility contingency plans. These issues are routinely addressed in the next step, when permits are sought at ADWR and ADEQ and after more detailed engineering plans are formulated. The WQAC is only the first step in that process and only deals with the sufficiency of conceptual plans. Approval by the WQAC does not preclude the Community from participating in and reviewing technical information that will be developed to support the filing of required regulatory permits. We welcome the Community's input on these important issues at the next stage of the process where such concerns can be addressed in greater detail once the engineering plans are finalized. We also confirm our willingness to provide the Community and its technical team with copies of the data we generate to support the permitting process. It is at that phase of technical review that more details will be available regarding water quality impacts and specific contingency plans.

With that understanding, we are optimistic that you will consider sending a letter to MAG stating that the Community is no longer opposed---or that it is neutral---to the WQAC's approval of our small wastewater facility conceptual plan at this time. It may be appropriate for that letter to recognize that the Community may still have technical concerns after reviewing the more definitive information that will be required of the developer as part of the permitting process at ADWR and ADEQ. We would also anticipate that the Community will desire the developer to have continuing open and productive dialogues with the Community. Please know that we are committed to working with you and the Community throughout the project.

Once again, thank you for your hospitality.

Sincerely,  
**GOLDFIELD PRESERVE DEVELOPMENT, LLC**



Don Kile  
President

cc: Garry Hays (via email)  
Wendy R. Riddell (via email)  
Lee Storey (via email)

Please file:  
Ellman / The Preserve

**Jeannette Miller**

---

**From:** Jeannette Miller  
**Sent:** Monday, February 11, 2008 8:10 AM  
**To:** 'cklopatek@ftmcdowell.org'  
**Cc:** Wendy Riddell  
**Subject:** The Preserve at Goldfield Ranch / MAG 208 Amendment Proposal

Dr. Klopatek,

Please see attached correspondence. Thank you.

Jeannette Miller  
Paralegal  
BERRY & DAMORE, LLC  
6750 East Camelback Road, Suite 100  
Scottsdale, Arizona 85251  
480-385-2729 Direct  
480-385-2757 Facsimile  
[jm@berrydamore.com](mailto:jm@berrydamore.com)

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2/11/2008

February 11, 2008

Via E-Mail at cklopatek@ftmcdowell.org and  
Via Facsimile at (480) 837-7957, to:

Dr. Carole C. Klopatek  
Director of Government Relations  
Fort McDowell Yavapai Nation  
17661 East Yavapai Road  
Fort McDowell, Arizona 85264

**Re: The Preserve at Goldfield Ranch / MAG 208 Amendment Proposal**

Dear Dr. Klopatek:

This letter responds to your contention that we have seemingly been unresponsive and have not provided constructive dialog in regard to the scheduling of a technical meeting in connection with the MAG 208 amendment proposal. Additionally, we are now for the third time asking you to respond to our request for a meeting on February 13<sup>th</sup> at 10:00 a.m. at a location convenient to you.

We have responded timely to all your correspondences. The fact is that we have responded to your letters many of them within a 24 hour period. Please recall: (i) we responded to your October 17, 2007 letter within 24 hours of it being presented to us by Maricopa County; (ii) we again responded to the exact same concerns in December within 24 hours to a letter presented to us by MAG; (iii) you sent us a letter dated January 17, 2008 and we sent a responsive letter on January 18, 2008; and (iv) on January 30, 2008 we sent a responsive letter to yours dated January 28, 2008. In addition, we have tried to communicate with you through e-mails, letters, and facsimiles, and we have not received a response from you. We are now compelled to respond through return receipt certified mail. And yet, in your letters you continually publicly criticize us that we are not responsive.

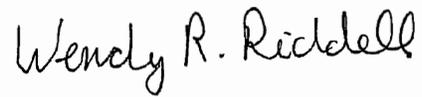
We are deeply disappointed that you have not been responsive to our letters or e-mails requesting a meeting, while publicly stating that you desire to meet. It is imperative to us that we have, and will continue to have, an open dialogue with the Fort McDowell Yavapai Nation. We want to address the Nation's questions and concerns. Therefore, it would be in our best interest to get the technical meeting scheduled as quickly as possible. Once again, we propose to meet on February 13, 2008 at 10:00 a.m. at a location convenient for you. We have made arrangements for all of our team members to be available and have been awaiting your response for two weeks.

*February 11, 2008*

*Page 2*

We would appreciate a response.

Very truly yours,



Wendy R. Riddell

WRR:jm

cc: Don Kile  
Lynsi Waggoner  
Lee Storey  
Garry Hays  
Julie Hoffman

February 13, 2008

**Via E-Mail, Facsimile, and US Mail return receipt:**

Mr. David Nelson  
Steptoe and Johnson LLP  
201 E. Washington St.  
Suite 1600  
Phoenix, AZ 85004

Dr. Carole C. Klopatek  
Director of Government Relations  
Fort McDowell Yavapai Nation  
17661 East Yavapai Road  
Fort McDowell, Arizona 85264

**Re: *The Preserve at Goldfield Ranch / MAG 208 Amendment Proposal***

Dear Mr. Nelson and Dr. Klopatek:

The letter attached to your February 11<sup>th</sup> correspondence from Dr. Klopatek dated February 5<sup>th</sup> was never received. To avoid this issue going forward, I would suggest that it is appropriate that all correspondence be sent through Mr. Nelson and we welcome his involvement. Additionally, please be advised that all supporting documentation regarding the feasibility of the Goldfield Ranch project appropriate at this stage was provided to Dr. Klopatek months ago, including:

- Development Master Plan (all 3 versions)
- RUPD Application
- Preliminary Plat Application
- Master Drainage Report
- Landscape Plan
- Traffic Impact Analysis
- Master Water Report and Amendment
- Master Wastewater Report and Amendment
- MAG 208 Application and revisions
- Vicinity Map
- Land Use Plan depicting location of proposed facility
- Map depicting location of Existing CC&Ns
- Map depicting existing developed parcels within Goldfield Ranch

February 13, 2008

Page 3

- MAG 208, Section 4.5.2, Small Plant Review Process
- Sponsorship Letter from Maricopa County
- Financial Assurance Letter and Consolidated Financial Report
- Agreement with A Quality Water Company and Company Information
- Hydrogeologic Study performed by Southwest Groundwater Consultants
- Water Reclamation Facility Conceptual Site Plan
- Map depicting Water Reclamation Facility Proximity to Waterways
- Map depicting Proximity to other Water Reclamation Facilities

In addition, please be aware that there is substantial documentation that is publicly available to assist Dr. Klopatek in her review. For ease of reference, we would direct your attention to the following:

- ADWR, 2004. *Maps Showing Groundwater Conditions in the Phoenix Active Management Area, Maricopa, Pinal and Yavapai Counties, Arizona – Nov. 2002 – Feb. 2003*, by S.J. Rascona. Arizona Department of Water Resources, 2004
- 1999. *Third Management Plan, 2000-2010, Phoenix Active Management Area*, Arizona Department of Water Resources, December, 1999
- 1999. Arizona Department of Water Resources, Basic Data Branch and Operations.
- 1994. A Regional Groundwater Flow Model of the Salt River Valley – Phase II, Phoenix Active Management Area, Numerical Model, Calibration, and Recommendations. Modeling Report No. 8. Arizona Department of Water Resources, March 1994.
- 1993. A Regional Groundwater Flow Model of the Salt River Valley – Phase I, Phoenix Active Management Area, Hydrologic Framework and Basic Data Report. Modeling Report No. 6. Arizona Department of Water Resources, April 1993.
- Deslauriers, E.C. 1997. Geophysics and Hydrology of the Lower Verde River, Maricopa County, Arizona. M.S. thesis, Arizona State University (LD 179.151977. D47)
- E.L. Montgomery & Associates, 2004. Physical Availability Determination in Support of a Modification of Designation of Assured Water Supply for Chaparral City Water Company, Fountain Hills, Arizona. Consultant's Report
- 1985. Preliminary Report, Assured Water Supply Report, Goldfield Heights, Maricopa County, Arizona. Consultant's Report.
- Pope, Jr. C.W. 1974. Geology of the Lower Verde River Valley, Maricopa County, Arizona. M.S. thesis, Arizona State University (LD 179.151974P66)

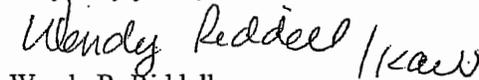
February 13, 2008

Page 3

- Thomsen, B. W. and H.H. Schumann, 1968. Water resources of the Sycamore Creek Watershed, Maricopa County, Arizona. U.S. Geological Survey Water-Supply Paper 1861
- Skotnicki, S.J., E. M. Young, T.C. Goode and G.L. Bushner 2003. *Subsurface Geologic Investigation of Fountain Hills and Lower Verde River Valley, Maricopa County, Arizona*. Arizona Geological Survey Contributed Report CR-03-B.
- Southwest Ground-water Consultant's Inc. 2006. *Attachment IV, Hydrologic Study, Goldfield Preserve, Maricopa County, Arizona*, in *Application for Analysis of Assured Water Supply*, File No. 28.500095.000. Arizona Department of Water Resources, December 22, 2006.

Thank you for letting us know that your client is unavailable to meet at the date and time that we have been proposing. We do look forward to meeting with the Nation, and would propose to meet either February 25<sup>th</sup>, 26<sup>th</sup>, or 27<sup>th</sup> at 10:30 am, at a location to be determined. We would appreciate a timely response so that we can ensure all of the appropriate consultants are available.

Very truly yours,

  
Wendy R. Riddell

cc: Don Kile  
Lynsi Waggoner  
Lee Storey  
Garry Hays  
Julie Hoffman  
Roger Klingler

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Dr. Carole C. Kiopatek  
 Director of Government Relations  
 Fort McDowell Yavapai Nation  
 17661 E. Yavapai Rd.  
 Fort McDowell, AZ 85264

2. Article Number  
 (Transfer from service label)

PS Form 3811, February 2004

7006 2150 0002 5591 7468

Domestic Return Receipt

102295-02-A-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

X

Agent Addressee

B. **RECEIVED**

C. Date of Delivery

D. Is delivery address different from item 1?  Yes  No  
 If YES, enter below:  Yes  No

D. WARRINGTON

3. Service Type

- Certified Mail
- Registered
- Insured Mail
- Express Mail
- Return Receipt for Merchandise
- C.O.D.

4. Restricted Delivery? (Extra Fee)

Yes  No

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

**OFFICIAL USE**

Postage \$	
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total P.	

Sent To: Dr. Carole C. Kiopatek  
 Director of Government Relations  
 Fort McDowell Yavapai Nation  
 17661 E. Yavapai Rd.  
 Fort McDowell, AZ 85264

PS Form 3800, August 2006 See Reverse for Instructions

7006 2150 0002 5591 7468

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

**OFFICIAL USE**

Postage \$	
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total	

Sent To: Mr. David Nelson  
 Steptoe and Johnson LLP  
 201 E. Washington St.  
 Suite 1600  
 Phoenix, AZ 85004

PS Form 3800, August 2006 See Reverse for Instructions

7006 2150 0002 5591 7475



Transaction Report						
Send Transaction(s) completed						
No.	TX	Date/Time	Destination	Duration	P. #	Result Mode
706	FEB-13	16:58	480 837 7957	0°01'09"	004	OK N ECM

Berry & Damore LLC

# FAX TRANSMITTAL

**TO:** David R. Nelson, Esq. **FAX:** 602-257-5299  
 Dr. Carole C. Klopatek 480-837-7957

**FROM:** Wendy R. Riddell, Esq.

**PAGES:** 4 (INCLUDING COVER) **DATE:** February 13, 2008

**RE:** The Preserve at Goldfield Ranch CC:

URGENT  FOR REVIEW  PLEASE COMMENT  PLEASE REPLY  PLEASE RECYCLE

THE ORIGINAL DOCUMENT BEING TRANSMITTED:

WILL NOT BE SENT  WILL BE SENT BY REGULAR MAIL  
 WILL BE SENT BY OVERNIGHT DELIVERY  OTHER:

COMMENT:

See attached from Wendy Riddell



THE ELLMAN COMPANIES  
International Real Estate and Corporate Investments  
Established 1972

February 28, 2008

Via Hand Delivery, E-mail, and Facsimile to:

Dr. Carole C. Klopatek  
Director of Government Relations  
Fort McDowell Yavapai Nation  
17661 East Yavapai Road  
Fort McDowell, Arizona 85264

**Re: *The Preserve at Goldfield Ranch/ MAG 208 Amendment Proposal***

Dear Dr. Klopatek:

Thank you for taking the time to meet with us to review the details of the *MAG 208 Water Quality Management Plan Amendment Small Plant Review and Approval for The Preserve at Goldfield Ranch Water Reclamation Facility*. For ease of review, we have itemized each of the issues you raised at our meeting on February 27, 2008, and provided responses.

1. You stated that you have not received a letter as a neighboring jurisdiction exploring alternative wastewater treatment options. You specifically stated that this is required by MAG.

Response: Thank you for acknowledging that we have participated in numerous meetings on numerous occasions with the Fort McDowell Yavapai Nation ("FMYN") on this matter. We have held very specific discussions with the former President Raphael Bear and Chief Executive Office, Orlando Moreno. At those meetings, FMYN clearly stated there was no desire to provide wastewater services to The Preserve at Goldfield Ranch. President Bear and Mr. Moreno explained in very specific terms that if we had the ability to provide our own services that would be preferable to a wet crossing of the Verde River with a raw sewage line feeding your plant. Given the distance, topography, land ownership, the existing State Route 87, and the engineering constraints (e.g. scour protection) associated with crossing the Verde River, it is impractical to consider a connection to your existing facility. Frankly, we were quite surprised when you intimated that the Tribe may now be interested in such a wet crossing. We nonetheless remain confident that such a proposal would be both impractical and environmentally irresponsible.

2. You have stated that the Amendment does not provide an emergency plan and/or redundancy.

Response: Plans for redundancy and emergency action will be developed and submitted for approval by the Arizona Department of Environmental Quality ("ADEQ"), as required under the Aquifer Protection Permit ("APP"). However, we offer the following insight into our plan for the water reclamation facility ("WRF"). I am comfortable after our discussions yesterday that you understand the sequential nature of the review and approval process and that additional details including provisions for redundancy and emergency action which will be submitted to appropriate agencies when required.

With regard to the construction of the facility, it will be managed under a Storm Water Pollution Prevention Plan as required by ADEQ which will mandate Best Management Practices such as, but not limited to, erosion control, dust control, sediment control, and good housekeeping/materials management. The WRF will have an operating capacity in excess of the projected average daily flow rate. Effluent storage also will be provided allowing temporary storage to manage operational issues. In the unlikely event of a catastrophic failure, on site retention minimizes the likelihood that such a catastrophic failure will impact areas beyond the WRF site. Additionally redundant recharge wells will be provided to allow operational flexibility for routine maintenance and when necessary.

3. You specifically asked us to provide information or insight on how we will manage mounding and biological clogging to our injection wells.

Response: Quarterly reporting to the Arizona Department of Water Resources ("ADWR") of groundwater levels in monitoring and recharge wells will be required pursuant to the Underground Storage Facility ("USF") permit to prevent such an occurrence. These additional points should help to alleviate your concerns:

- Additional analyses, testing and modeling of the hydrogeology will be conducted as required as part of the USF permit application. ADWR will not grant the permit unless we demonstrate the ability for the aquifer to accept the recharge water.
- The depth to groundwater in this vicinity is nearly 300 feet below the land surface, giving ample room for localized mounding.
- Injection wells will target the lower, confined aquifer, even further below the surface.

Biological clogging of the injection wells will be minimized through proper operation of the WRF, including maintenance of proper filtration and disinfection of the effluent. Further, an operation and maintenance manual for the facility will mandate monitoring of well efficiency and occasional pumping of the injection wells based on predetermined set points. As is common practice for this technology, this reversal of flow helps to scour potential biofilms

which may accumulate in the well casing. Effluent storage and a redundant recharge well will allow continued operations while this routine maintenance is performed.

Fountain Hills Sanitary District, the City of Scottsdale, the City of Chandler, among numerous others both within and outside of the state have successful and operational recharge wells. These facilities are operated under the terms and conditions of USF permits and APPs, under the jurisdiction of ADWR and ADEQ as will the Goldfield facility. Lessons learned from these similar facilities will be considered and applied as appropriate in the design of the WRF and recharge wells.

4. You have asked us to provide a more detailed site plan and engineered schematics. You further stated your belief that a detailed, engineered site plan is required for MAG approval.

Response: At the request of Water Advisory Committee, we provided a conceptual site plan following the October 22, 2007 hearing. The MAG staff and the Chairman of the Committee each acknowledged that the submittal was acceptable to meet the Committee's needs. More detailed construction, engineering and specification documents will be provided to FMYN as they are produced and available later in the process. As we have explained, numerous additional approvals must be pursued from other regulatory agencies including the USF (ADWR), and APP (ADEQ) and approval to construct (Maricopa County). As we committed at the meeting, these details will be provided to you when these applications are filed.

5. You stated that your opinion of our referenced range of operating costs is too low.

Response: The range of operating and maintenance costs referenced in the Amendment is \$150,000 to \$200,000. That range was established with the collective experiences of our Project Engineer and the proposed operator. In response to your comments, we reviewed this range with other existing plant operators and suppliers, namely Arizona-American, Marwood, and Severn Trent. Based upon your input and our review with these agencies, we agree to alleviate your concerns and immediately notify MAG Staff of our intent to revise the application to reflect a range of \$250,000 to \$300,000.

6. You requested that we prepare a written statement addressing the question of who will pay for the initial capital costs related to the design, construction and installation of the plant and facilities. In addition, you requested a similar statement addressing who will be responsible for the costs associated with start up operation and maintenance until such a time as there is an appropriate number of utility subscribers.

Response: As you are aware, Maricopa County Board of Supervisors adopted a Resolution forming a County Improvement District (and the Board of Supervisors sits as the Board of Directors of that District) to oversee the wastewater services for The Preserve. A copy of that Resolution is attached for your convenience. The Resolution requires that the developer,

Goldfield Preserve Development, LLC, pay for any capital costs associated with the wastewater facility and then dedicate it at no cost to the District. Once the facility is operational, the users will be billed as rate payers for the ongoing operation and maintenance. Regarding the start up operating costs, the developer will continue to pay its' proportionate share of the ongoing operation and maintenance. Ultimately, all of this is governed by the Maricopa County Board of Supervisors in their capacity as the Board of Directors of the Improvement District.

7. You stated that you do not believe that we have proven our financial capability.

Response: Please direct your attention to Appendix D of our application. This Appendix includes both a Financial Assurance Letter and Consolidated Financial Report. The Financial Report includes an independent auditor's assessment of the Consolidated Financial Report.

8. You requested that we include Parcel B within the boundaries and parameters of our WRF as a viable alternative to on lot septic systems.

Response: We agree. Pursuant to your request, we will notify MAG Staff immediately of our intent to amend our MAG 208 application to include Parcel B within the service area. A copy of the amended plan will be provided to you immediately upon filing with MAG. For your information, Parcel B will consist of ten (10) lots and the existing capacity of the proposed WRF is more than adequate to accommodate your request.

9. You further suggested that the additional parcels Goldfield Preserve Development, LLC have purchased should be included within the service area.

Response: Any additional property that has been acquired subsequent to the submittal of the Amendment has not been analyzed for its residential development feasibility. Nonetheless, to address your concern will notify MAG staff immediately of our intent to amend our MAG 208 application to include the contiguous parcels. Please understand as we discussed at the meeting, these parcels were purchased for the purposes of mitigating roadway design matters and realignment of collector roads serving The Preserve and Goldfield Ranch. We will, however, take into consideration the underlying zoning categories to determine the development feasibility of the parcels at this time. There is ample capacity to serve these additional 39 lots.

10. You continued with a request that Parcels C and D be included.

Response: Parcels C and D are located south of the State Route 87. As we pointed out, the WRF is located north of State Route 87 and several miles into Goldfield Ranch. The topographic and jurisdictional wash constraints make connecting Parcels C and D to the small package plant unfeasible. Parcels C and D will be developed with large lot single

family home sites, each in excess of one acre. Maricopa County has jurisdiction over this matter and permits the development of individual lots in excess of one acre in size on septic systems.

11. You requested that we revise the Amendment to reflect the language provided in the DMP Amendment related to the matter of reuse, where feasible.

Response: We agree. We will notify MAG immediately of the revision and we will track the language exactly as it is stated in the stipulation to the DMP. For your immediate information, Section 3.4.1 of the application will be revised to state:

*To the maximum extent feasible, irrigation water supplied for common and open space areas will be supplied by treated effluent by build out of the development. Reuse of treated effluent will be coordinated through ADEQ and be in accordance with the terms and conditions of a Reuse Permit. Effluent generated by the WRF also will be recharged into the aquifer. No discharge to waters of the U.S. will be sought or permitted.*

12. You requested that we immediately apply for our APP or USF permits. You suggested that this is something that we should be required by MAG to complete prior to receiving the approval of MAG Water Quality Advisory Committee.

Response: As we discussed, we have not yet applied for the APP or USF permit. These are permits we will seek once we have approval of the MAG Regional Council and we have completed the requisite engineering necessary to meet the applicable requirements set forth by ADEQ and ADWR, the agencies claiming jurisdiction over these matters. Consistent with our business practices heretofore and as expressed at all of our meetings, FMYN will be provided full and complete copies of these applications immediately upon filing with the respective agencies.

13. You stated that the Arizona Corporation Commission reports purportedly state that A Quality Water Company will be dissolved in 2010.

Response: We are proposing A Quality Water Company as the licensed water services provider. However, the ultimate water services provider must be approved by the Maricopa County Board of Supervisors in their capacity as the Board of Director for the Improvement District. If A Quality Water Company is not in good standing at that time, another qualified water services provider will be chosen.

14. You questioned us as to whether we had further hydro geologic information to submit to you.

Response: We do not. You have been provided full and complete copies of all the hydrological data that has been prepared to support the Amendment. Additional information will be provided as this plan progresses and again we are committed to providing that

*Dr. Carole Klopatek*  
*February 28, 2008*  
*Page 6*

information to the FMYN and obtaining your input. Please also keep in mind that we will not be discharging into any waters of the US.

15. You requested a statement of clarification as to whether the resort/spa had been taken into account in our water calculator with the ADWR.

Response: Please direct your attention to the water calculator we provided as part of our application to ADWR, a copy of which is attached hereto for your immediate convenience. This section includes a commercial component which accounts for the clubhouse and the resort/spa building. Further, the demand for four swimming pools is included in the application. The multi-family component accounts for 120 rooms which represents the casitas. I hope this resolves any further confusion on this issue and confirms for you that the resort/spa component has been considered in the analysis.

We appreciate the opportunity to meet with you and the constructive dialogue that took place. As you can see we have responded to your concerns, and in many cases modified our application in order to address the points of our agreements.

At the meeting you mentioned that you had reviewed other approved MAG 208 Small Plant Applications that were directly comparable to the application we have submitted. You suggested that we review these applications as well and agreed to provide copies of those for our immediate review leading into the Work /Study Session that MAG is scheduling. In order for us to better understand your position, a review of these reports would be very helpful. Please let us know when those copies are available and we would be happy to come by your office and pick them up. Alternatively please let us know that names of the facilities and we can obtain our own copies from MAG.

Sincerely,  
GOLDFIELD PRESERVE DEVELOPMENT, LLC



Don Kile  
President

Enclosures

cc: Wendy Riddell  
Don Stapley  
Roger Klingler  
Dennis Smith  
Julie Hoffman  
Vivian Saunders  
David Nelson  
Lindy Bauer

**MARICOPA COUNTY BOARD OF SUPERVISORS MINUTE BOOK**

**FORMAL SESSION  
August 8, 2007**

Project Number	Name	Budget
T173	Sun City Mill and Overlay: Phase 2	\$3,030,000
T223	Olive Avenue at Reems Road	\$1,133,000
T244	Olive Avenue at Aqua Fria	\$10,000
T254	Riggs Road at Sonoqui Wash	\$123,000
T275	Meridian Road from Empire to Germann	\$550,000

Also approve an amendment to the current FY 2008-2012 five-year CIP for Fund (234) – Transportation Capital Projects Fund adopted by the Board on June 20, 2007 by decreasing the FY 2007-08 (Year 1) capital budget for the following projects:

Project Number	Name	Capital Budget
T006	Unallocated Force Account	\$188,000
T002	Project Reserve Account	\$4,658,000

The requested adjustment results in a net budget impact of zero. (C6408024800) (ADM2000-003)

**GOLDFIELD PRESERVE DOMESTIC WATER IMPROVEMENT DISTRICT**

Item: The Board of Supervisors has received a petition to organize the Goldfield Preserve Domestic Water Improvement District for the purpose of providing domestic water and wastewater services to the properties in *The Preserve at Goldfield Ranch* development, pursuant to A.R.S. §48-1012. If approved, the petitioners further request that the Board of Supervisors appoint an initial Board of Directors.

The intent of this district is to create a legal entity to provide water and wastewater service to the proposed development. Due to the non-contiguous, remote nature of this development, a private water company is not feasible. The Town of Fountain Hills has no objection to the creation of this district.

The creation of a Domestic Water Improvement District (DWID) with a separate Board of Directors at this time limits the Board of Supervisors oversight of the District. It is the desire of the County and the intent of the developer to construct the water and wastewater facilities as part of the development and then convey them at no cost to the District. A County Improvement District can serve this purpose and allows the Board of Supervisors to remain as the governing body. Once facilities are constructed and operation and maintenance is necessary, the facilities can be conveyed to the District and the property owners can petition the Board of Supervisors to convert the County Improvement District to a DWID with their own elected Board of Directors.

Therefore, the Superintendent of Streets Office recommends the Board of Supervisors not create a Domestic Water Improvement District at this time, as requested by the petitioner's; but grant the formation of a County Improvement District with the Board of Supervisors serving as the District's Board of Directors in accordance with A.R.S. §§48-906 and 48-908 for the limited purpose of operating and maintaining domestic water and wastewater facilities for *The Preserve at Goldfield Ranch* development. The developer will construct the facilities and convey them to the District at no cost to the District. (ADM4302) (C6408018000)

Chairman Brock asked Richard Wallace, Superintendent of Streets, MCDOT, to come forward and give the department's overview on this District.

MARICOPA COUNTY BOARD OF SUPERVISORS MINUTE BOOK

FORMAL SESSION  
August 8, 2007

Mr. Wallace's remarks supported the language of the above item. He said that due to the non-contiguous boundary and remote location, a private utility company does not appear to be a viable option in forming a domestic district. He explained that a County Improvement District could serve the same purpose and eliminate any differences that might arise between a private district's board of directors and the County Board of Supervisors, and asked for this change in the petition. He added that the petitioner is comfortable with this recommendation.

Motion was made by Supervisor Stapley to recommend the Board of Supervisors deny the petition to create a Domestic Water Improvement District at this time, but, with the consent of 100% of the property owners within the district, to approve the creation of the Goldfield Preserve Improvement District with the Board of Supervisors serving as the District's Board of Directors, in accordance with A.R.S. 48-906 and 48-908, for the limited purpose of operating and maintaining the domestic water and wastewater facilities. The boundaries of said district to be consistent with those outlined in the original petition for the Domestic Water Improvement District.

Supervisor Stapley said the district could move forward to the point where improvements are complete, inspected and approved. At that point the Board would anticipate a request to move the district to an elected private body to assume the duties of a board of directors for the district.

Gary Hayes had registered to speak if needed, but there were no questions from the Board.

Motion was seconded by Supervisor Wilson, and unanimously carried (5-0) to deny the petition to create a Domestic Water Improvement District at this time, but, with the consent of 100% of the property owners within the district, approve the creation of the Goldfield Preserve Improvement District with the Board of Supervisors serving as the District's Board of Directors in accordance with ARS §48-906 and §48-908 for the limited purpose of operating and maintaining domestic water and wastewater facilities. The boundaries of said district to be consistent with those outlined in the original petition for the Domestic Water Improvement District.

**REGIONAL SCHOOL DISTRICT #509 VOUCHERS/WARRANTS**

The Board of Supervisors, pursuant to its authority granted in A.R.S. §15-1001, will consider for approval vouchers presented by the County School Superintendent of Maricopa County to draw warrants on the County Treasurer against Maricopa County Regional School District #509 School District funds for necessary expenses against the school district and obligations incurred for value received in services (except for payroll vouchers) as shown in the Vouchers. (ADM3814-003)

The Board of Supervisors may consider ratifying any Maricopa County Regional School District #509 vouchers and/or warrants (except for payroll vouchers) approved in accordance with the procedures of A.R.S. §15-321 since the last meeting of the Board of Supervisors. The Board of Supervisors may hear staff reports on the vouchers and warrants being considered. The Vouchers are on file in the Maricopa County's Clerk of the Board's office and are retained in accordance with ASLAPR approved retention schedule. (ADM3814-003) Staff may update the Board of Supervisors on regional schools operations and finances. (ADM3814-005)

Motion was made by Supervisor Stapley, seconded by Supervisor Wilson and unanimously carried (5-0) regarding action on the following vouchers:

Ratify Voucher No. 6048	\$69,406.06
Ratify Voucher No. 6049	\$40,024.03

December 21, 2006

### SUBDIVISION DEMAND CALCULATOR

**PLEASE FILL OUT AND PRINT BOTH WORKSHEETS AND ATTACH TO YOUR APPLICATION!**

Site Information

Name of Subdivision:

Goldfield Preserve

	TOTAL ACRES	Acres in Turf	Acres in LWU	Acres NWU
<b>Gross Acres:</b>	2213.30			
Net Acres:				
<b>Residential acres:</b>	617.24			
<i>Acres in lots:</i>	617.12			
Single family acres:	587.12			
Multi-family acres:	30.00			
<b>Non-residential acres:</b>	1596.06	10.00	33.00	1514.98
<i>Right of way acres:</i>	1596.06	10.00	33.00	1514.98
<i>Tract acres:</i>	3.44			
<b>Commercial acres:</b>				
Golf course acres:				
Number of golf holes:				
Common area acres*:	1544.48	10.00	19.50	1514.98
Detention/Retention basin acres:	13.50	0.00	13.50	0.00
Park acres:				
Public Pools (6):	0.03			
Equestrian:	34.60			

NOTE: Residential acres includes all land uses classified as residential. Acres in lots is the sum of the square footage of all lots.

NOTE: The sum of the tract acres and the right of way acres should equal the non-residential acres. The sum of all the specific types of non-residential land uses should equal the tract acres.

NOTE: The sum of all the specific types of land use acres, plus the right of way acres, should equal the gross acres.

NOTE: LWU = Low water use, NWU = No water use (hardscape or native vegetation)

Name of Subdivision: Goldfield Preserve

SUBDIVISION DEMAND CALCULATOR						
December 21, 2008						
Enter the AMA the subdivision is located in*: PHX		* Enter PHX for Phoenix, TUC for Tucson, PIN for Pinal, PRE for Prescott or SCR for Santa Cruz.				
If you are not sure if you are located inside or outside of an AMA, contact the Office of Assured and Adequate Water Supply at (602) 771-8585.						
Enter the COUNTY the subdivision is located in: MARICOPA		* Enter either APACHE, COCHISE, COCONINO, GILA, GRAHAM, GREENLEE, LA PAZ, MARICOPA, MOHAVE, NAVAJO, PIMA, PINAL, SANTA CRUZ, YAVAPAI, or YUMA.				
<b>Residential Usage*</b>						
Category	PPHU	GPCD or per house/day	Demand/HU/YR (af/yr)	No. HU (Lots)	Residential Demand/Yr (af/yr)	
Single Family (int)	2.89	57.00	0.17	968.00	166.50	
Multi-Family (int)	2.89	57.00	0.17	120.00	20.61	
Single Family Landscape (ext)	1.00	178.00	0.20	968.00	193.01	
Multi-Family Landscape (ext)	1.00	77.00	0.09	120.00	10.35	
Single family Demand/HU/YR			1.35			
Multi-family Demand/HU/YR			0.26			
	Square Feet	Acres	Demand Factor (af/yr)	No. HU (Lots)	Large Lot Adjustment Demand/Yr (af/yr)	
Average Lot Size (sq. ft)**	8750.00	0.20				
TMP Model Lot Size (sq. ft)	7,500 - 10,000	0.17 - 0.23				
Large Lot Adjustment	0.00	0.00				
1/2 low water use	0.00	0.00	1.50	258.00	0.00	
1/2 turf	0.00	0.00	4.90	258.00	0.00	
	Square Feet	Acres	Demand Factor (af/yr)	No. HU (Lots)	Large Lot Adjustment Demand/Yr (af/yr)	
Average Lot Size (sq. ft)**	11700.00	0.27				
TMP Model Lot Size (sq. ft)	7,500 - 10,000	0.17 - 0.23				
Large Lot Adjustment	1700.00	0.04				
Restricted low water use	0.00	0.00	1.50	200.00	0.00	
Restricted turf	0.00	0.00	4.90	200.00	0.00	
Native Vegetation	1700.00	0.04	0.00	200.00	0.00	
	Square Feet	Acres	Demand Factor (af/yr)	No. HU (Lots)	Large Lot Adjustment Demand/Yr (af/yr)	
Average Lot Size (sq. ft)**	43560.00	1.00				
TMP Model Lot Size (sq. ft)	7,500 - 10,000	0.17 - 0.23				
Large Lot Adjustment	33560.00	0.77				
Restricted low water use	5760.00	0.13	1.50	390.00	77.38	
Restricted turf	1100.00	0.03	4.90	390.00	48.26	
Native Vegetation	26700.00	0.61	0.00	390.00	0.00	
	Square Feet	Acres	Demand Factor (af/yr)	No. HU (Lots)	Large Lot Adjustment Demand/Yr (af/yr)	
Average Lot Size (sq. ft)**	65000.00	1.49				
TMP Model Lot Size (sq. ft)	7,500 - 10,000	0.17 - 0.23				
Large Lot Adjustment	55000.00	1.26				
Restricted low water use	5750.00	0.13	1.50	97.00	19.21	
Restricted turf	1100.00	0.03	4.90	97.00	12.00	
Native Vegetation	48150.00	1.11	0.00	97.00	0.00	
	Square Feet	Acres	Demand Factor (af/yr)	No. HU (Lots)	Large Lot Adjustment Demand/Yr (af/yr)	
Average Lot Size (sq. ft)**	165000.00	3.79				
TMP Model Lot Size (sq. ft)	7,500 - 10,000	0.17 - 0.23				
Large Lot Adjustment	165000.00	3.56				
Restricted low water use	6100.00	0.14	1.50	23.00	4.83	
Restricted turf	1100.00	0.03	4.90	23.00	2.85	
Native Vegetation	147800.00	3.39	0.00	23.00	0.00	
**NOTE: If the subdivision contains several groupings of lot sizes, the large lot adjustment needs to be calculated for each grouping of large lot sizes.						
Total Residential Demand					554.97	
Non-Residential Usage***						
For each category please enter either square feet or acres of land for that type of non-residential use within your subdivision.						
Category	Square Feet	Acres	Demand Factor (af/ac)		Non-Residential Demand (af/yr)	
Common Area1		19.50	1.50 low water use		29.25	
Common Area2		10.00	4.90 turf		49.00	
Right of Way		0.00	1.50 low water use		0.00	
Commercial use		3.44	2.25 all acres		7.75	
2 Public Pools (each at 700 square feet)	1400.00	0.03	Based on closest AMA pool		0.23	
2 Public Pools (each at 1,500 square feet)	3000.00	0.07	Based on closest AMA pool		0.48	
Public Pool (length x width = square feet)	1000.00	0.02	Based on closest AMA pool		0.17	
Public Pool (length x width = square feet)	1500.00	0.03	Based on closest AMA pool		0.25	
Equestrian (Number of Horses)		70.00	0.034 af/horse/yr		2.38	
Retention/Detention Basins		13.50	1.50 low water use		20.25	
Retention/Detention Basins		0.00	4.90 turf		0.00	
Total Non-Residential Demand					109.78	
Distribution Losses						
	Residential	Non-Residential	Total	Loss Factor %	Distribution Losses (af/yr)	
Demand af/yr	554.97	109.78	664.73	10.00	66.47	
Construction						
	No. of Lots	Demand (gals/lot)	100 yr demand (af)		Construction Demand (af/yr)	
	1088.00	10000.00	48.98		0.49	
Total Demand Per Year						
Residential Usage af/yr	554.97	Non-Residential Usage 109.78	Lost & Unaccounted for 66.47	Construction 0.49	Total Non-Res 176.72	Total Demand Per Year (af/yr) 731.69
Residential Usage GPCD	169				Total Demand GPCD 223	
Annual Build Out Demand	731.69					



**APPENDIX G**  
**HYDROGEOLOGIC STUDY**

**ATTACHMENT IV**

**HYDROLOGIC STUDY**



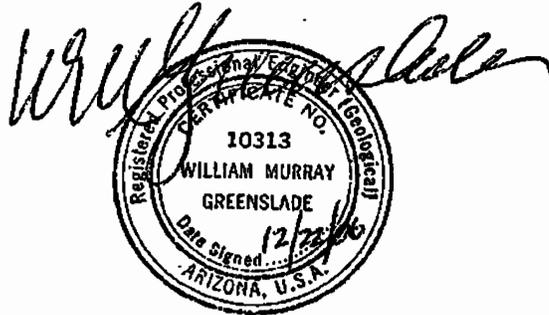
**ATTACHMENT IV**

**HYDROLOGIC STUDY**

**Goldfield Preserve  
Maricopa County, Arizona**

Prepared for:

**Goldfield Preserve Development, L.L.C.**  
4040 East Camelback Rd., Suite 250  
Phoenix, AZ 85018



Prepared by:

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Project No. B.1193

December 22, 2006



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### **APPENDIX NO.**

### **DESCRIPTION**

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D	WELL LOGS FOR CROSS SECTIONS
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## 1.0 INTRODUCTION

This hydrologic study has been prepared by Southwest Ground-water Consultants, Inc. (SGC) for the proposed Goldfield Preserve subdivision in Maricopa County, Arizona. The proposed project is primarily a residential subdivision consisting of 1,088 dwelling units on approximately 2,213 acres.

The project straddles Hwy 87 (Beeline Highway) in portions of sections 9, 10, 13, 15, 22, 23 and 24, Township 3 North, Range 7 East of the Gila and Salt River Base and Meridian. The Fort McDowell Indian Reservation borders the property on the west.

Goldfield Preserve is proposed as residential subdivision. A portion of the development will be sewerred (Parcel A and B); the remainder will be on septic systems. There will be no golf course.

A total of four (4) production wells are planned, two (2) on Parcel A and one each on Parcel C and E. Parcel D will be served by the well on Parcel C.

Previous owners of the property, Goldfield Heights Development Corporation obtained a Certificate of Assured Water Supply dated April 15, 1988. The certificate covered 532 lots in Sections 9, 10 and 15 and provided for a total demand of 732 af/yr.

The purpose of this hydrologic study is to estimate the effect that the new Goldfield Preserve subdivision will have on the available water resources and demonstrate that the ground-water is physically and continuously available under the Assured Water Supply Program (A.A.C. R12-15-703).



## **2.0 WATER DEMAND**

### **2.1 INTRODUCTION**

Estimated the demand for the Goldfield Preserve subdivision is based on the residential water demand factors published in the ADWR's Phoenix (PHX) Active Management Area (AMA) Third Management Plan (TMP), except for the persons per household which is estimated to be 2.7. Unit demand is calculated based on the interior use and exterior use for 968 single-family and 120 multiple-family dwelling units with an exterior demand based on a range of between 3,900 ft<sup>2</sup> to 11,900 ft<sup>2</sup> of irrigated landscaping around each home. On large lots the area outside the irrigated square footage will remain in native vegetation.

The subdivision's land use and water demand are based on a development plan of the subdivision. There will be five (5) separate parcels (A through E) within the subdivision. Figure 1 shows the development plan.

### **2.2 DEMAND**

Planned land use includes residential, commercial (spa and clubhouse) and equestrian. The average number of persons per household is 2.7. The per capita interior water demand is 57 gallons per capita per day (gpcd). Interior water use is, therefore, 154 gallons per day per dwelling unit (gpdu).

Exterior water demand will vary depending on the size of the lot. The amount of exterior irrigation water use will be limited by Goldfield Preserve subdivision restrictions on the amount of outside irrigation allowed in the Covenants, Conditions and Restrictions (CC&Rs). Depending on the lot size, outside irrigation will be limited to between seven (7) and 46 percent of the lot area. Turf will be limited to between 900 ft<sup>2</sup> and 2,000 ft<sup>2</sup>. A letter from the owner's attorney outlining the proposed outside irrigation limitation is included as Appendix A.

A total of 120 multifamily units (casitas) are planned. Demand for these units is based on the PHX AMA TMP demand factors. A spa and a clubhouse are also planned, including up to six (6) swimming pools. PHX AMA TMP demand factors for commercial facilities are assumed for the spa and clubhouse, with additional demand for the pools. Exterior water use at the spa is limited to seven (7) acres of turf and 2.5 acres of low water landscaping and three (3) acres of turf and one (1) acre of low water landscaping at the clubhouse. Two equestrian facilities are planned, one will have clubhouse. Demand for these facilities is based on 70 horses per day, and the PHX AMA TMP commercial demand factor for the clubhouse.

Open space, retention basins and public rights of way landscaping will be limited to low water use plantings per the Department's Low Water Use plant list.



Total annual water demand for the Goldfield Preserve is estimated to be 731.69 ac-feet. Table 1 provides a breakdown of the planned water uses.

**Table 1, Water Demand**

Category	Parcel	Unit Count	Use	Percent of Area	Area	Demand (af/yr)
Single-family - 70' x 125'	A	258	Indoor/Outdoor		8,750 sf	95.82
			Turf	10%	900 sf	0.00
			Low water	34%	3,000 sf	0.00
Single-family - 90' x 130'	A	200	Indoor/Outdoor		11,700 sf	74.28
			Turf	8%	900 sf	0.00
			Low water	38%	4,450 sf	0.00
Single-family - Min. 1 acre	A	390	Indoor/Outdoor		43,560 sf	144.84
			Turf	6%	2,000 sf	48.26
			Low water	22%	9,500 sf	77.36
Single-family - Min 65,000	B, C, D	97	Indoor/Outdoor		65,000 sf	36.02
			Turf	3%	2,000 sf	12.00
			Low water	15%	9,750 sf	19.21
Single-family - Min 165,000	E	23	Indoor/Outdoor		165,000 sf	8.54
			Turf	1%	2,000 sf	2.85
			Low water	6%	10,100 sf	4.83
Casitas	A	120	Indoor/Outdoor		30.0 ac.	30.96
Spa	A	1	Spa		85,000 sf	4.39
			Turf		304,920 sf	34.30
			Low water		108,900 sf	3.75
			Pools (2)		700 sf	0.24
			Pools (2)		1,500 sf	0.48
Clubhouse	A	1	Clubhouse		50,000 sf	2.58
			Turf		130,680 sf	14.70
			Low water		43,560 sf	1.50
			Pool (1)		1,000 sf	0.17
			Pools (1)		1,500 sf	0.25
Equestrian Facilities	A, C	2			34.6 ac.	2.38
	A	1	Clubhouse		15,000 sf	0.77



Collector Road Landscaping	A				16.0 ac.	24.00
Residential Retention/landscaping	A				13.5 ac.	20.25
Construction						0.49
System Losses (10%)						66.47
<b>TOTAL</b>						<b>731.69</b>



## 3.0 WATER SUPPLY

### 3.1 GEOLOGIC SETTING

The study area is located in the Fountain Hills Sub-basin of the Phoenix Active Management Area. The area is within a structurally-controlled basin near the boundary of the Transition Zone and Basin and Range physiographic provinces in central Arizona. The Transition Zone to the northeast is characterized by rugged mountains with local relatively small sediment-filled basins. The Basin and Range physiographic province to the west-southwest is comprised of large, deep alluvial basins separated by generally northwest trending mountain blocks.

Goldfield Preserve is characterized by undulating topography developed on alluvium that fills the Fountain Hills structural sub-basin. Principal geomorphic features include Adams Mesa to the north, Stewart Mountain to the south and the McDowell Mountains to the west. The Verde River drains the area to the north while the Salt River crosses the extreme southern edge of the sub-basin. These perennial streams meet at the southwestern corner of the sub-basin before flowing west into the Salt River basin. About 1.5 mile north of the Goldfield Preserve property Sycamore Creek flows out of the mountains on the east and into the Verde River to the west. Sycamore Creek is ephemeral, typically flowing only after precipitation events.

The Fountain Hills sub-basin is comprised of sediments deposited on Proterozoic granite. In the central portion of the sub-basin the depth of the sediments is estimated to be over 3,200 feet (Deslauriers, 1977). Beneath the Goldfield Preserve property the thickness of the sediments is unknown, but is at least 1,100 feet (Montgomery, 1985). A geologic map showing the rock formations exposed at the ground surface is presented on Figure 2.

Paleozoic and Mesozoic rocks are absent in the Fountain Hills sub-basin. Oligocene and Miocene sediments eroded from the Proterozoic granites were deposited in the area. Volcanic flows began to fill the area by the late Oligocene and Miocene and continued during the development of the Basin and Range period of extensional faulting when the Lower Verde River Basin was formed. The coarse alluvial deposits that formed in the basin during this period are referred to as the Needle Rock Formation, or the fanglomerate. During this period the basin was closed and drainage was from the mountainous areas on the periphery to the center of the basin. A playa deposit appears to have developed in the central portion of the basin, as evidenced by drill-logs reporting interbedded fine-grained sandstone, siltstone, claystone and limestone (Pemberton Ranch Formation). The full extent of this formation is unknown as most wells in the basin do not penetrate it. A test boring ((A(3-7)24 CBA)) located south of the Beeline Hwy drilled as part of this investigation appeared to encounter a thin section the playa deposit. Utilizing the available drillhole data the estimated extent of the playa is shown on Figure 2.



Coarse, cobble-rich conglomerates overly the playa deposits, indicating the basin had obtained external drainage during this time. Younger alluvial deposits continued to fill the basin even after external drainage had been established (Skotnicki, 2003).



## 3.2 HYDROGEOLOGY

### 3.2.1 Well Inventory

A total of 153 wells located in the area of the subdivision are noted in the 2006 ADWR 55 Well Registry. Except for the test wells, all are exempt wells. Figure 3 presents the location of known water and test wells. Data on these wells are given in Appendix B.

### 3.2.2 Aquifer Units

Hydrogeologic conditions in the area have been investigated previously including studies by the U.S. Geological Survey (USGS), Arizona Geological Survey (AGS), ASU Masters' students and various consultants. Of particular interest to the analysis of physical availability is a 1985 investigation by E. L. Montgomery & Associates. This investigation included the drilling of three (3) test wells and the performance of a 3-day pumping test.

Three (3) principal hydrogeologic units were encountered in the test wells. In descending order these are:

**Table 2, Hydrogeologic Units**

Depth (ft bls)	Description
0-350	Unconsolidated silt, sand and gravel. Younger basin-fill deposits (Tsy)
350-750	Siltstone, claystone and sandstone with some limestone and gypsum. Playa deposits. Pemberton Ranch Formation (Tsp)
750- >1125	Fanconglomerate. Semi-consolidated and fractured. Needle Rock Formation (Tsn)

Proterozoic granite is thought to underlie the fanconglomerate, although it was not penetrated by the test wells.

Ground water occurs in all three hydrogeologic units overlying the granite. The deeper fanconglomerate is the target aquifer for the Goldfield Preserve water supply. Ground water in the fanconglomerate appears to be under artesian conditions, with the playa deposits forming a confining layer where they are present (see Section 3.2.3). Static water level in the test production well (GE-3) was 295 ft bls in 1985. Depth to water in 2006 is 290 ft bls, indicating no measureable water level decline over time in spite of a significant increase in the number of exempt wells in the area. Many of these exempt wells do not penetrate the fanconglomerate, however, which may explain the lack water level change.



Water levels in the GE-2 and GE-3 are above the top of the fanglomerate unit, suggesting that the playa deposits act as a confining unit. Pumping tests confirm that the fanglomerate responds to pumping stress as a confined aquifer (see section 3.2.4).

As part of this investigation a test boring ((A(3-7)24 CBA)) was drilled in Parcel C south of the Beeline Highway (Figure 3). This boring encountered playa deposits interbedded in the alluvium at a depth of 100-270 ft bls. A hard, dense basalt (550-610 ft bls) was encountered at the top of the fanglomerate. Total depth of the boring was 1,000 ft bls. The log of this boring is given in Appendix C.

Figure 4 shows the location of hydrogeologic cross-sections through the property. Figures 5 and 6 present schematic east-west hydrogeologic cross-sections (A-A' and C-C') through the Goldfield Preserve subdivision. Figure 7 shows a north-south cross-section (B-B'). Well logs for the wells shown on the cross-sections are given in Appendix D.

### **3.2.3 Ground-water Recharge**

The USGS estimates that Sycamore Creek (located one to two miles north of the property – see Figure 4) yields about 6,000 af/yr of surface water, most of which percolates into the stream alluvium and eventually discharges to the Verde River at a rate of about 4,000 af/yr, leaving up to 2,000 af/yr to recharge the underlying aquifer units (Thomsen, 1968). Some water also infiltrates into the ground-water from the Verde River. The majority of the water from these sources likely recharges the upper alluvium, although some of the Sycamore Creek recharge may enter the deeper fanglomerate near the edge of the basin where the playa deposit is absent. The Salt River, which borders the extreme southern edge of the sub-basin is underlain at shallow depths by bedrock and is not thought to be a significant source of recharge (HydroSystems, 2003). HydroSystems, Inc. estimated the amount of mountain front recharge entering the Fountain Hills sub-basin to be approximately 2,095 af/yr (HydroSystems, 2003). This recharge is the likely source of water to the lower fanglomerate aquifer, as it enters the basin near the mountain fronts where the playa deposit is thin or absent.

### **3.2.4 Aquifer Parameters**

Montgomery & Associates installed three (3) test wells on the Goldfield Preserve property in 1985 (Montgomery, 1985). Data on these wells are given in Table 2. Location of the test wells is shown on Figure 3.



**Table 3, Test Well Construction Data**

Well	Cadastral Location	Reg No.	Static Water Level (Year) (ft bgs)	Total Depth (ft bgs)	Casing Diameter (in)	Slotted Interval (ft bgs)	Distance from GE-3 (ft)
GE-1	A(3-7)10ACB	55-511296	198.69 (2006)	800	4	400-800	3,000
GE-2	A(3-7)10CBC	55-511477	290.03 (2006)	1125	4	718-1125	267
GE-3	A(3-7)10CBD	55-511297	295 (1985)	995	10	789-989	-

Wells GE-2 and GE-3 are slotted in the lower fanglomerate aquifer unit. Well GE-1 is slotted in the confining playa unit and in the very top of the fanglomerate. Well GE-3 was pumped for 72 hours at an average rate of 603 gpm. Water levels were measured in all three wells. No water level response was noted in GE-1. A total of 10 ft of drawdown was observed in observation well GE-2. Maximum drawdown in the pumping well was 187.87 ft and occurred after approximately 24 hours of pumping. Plots of drawdown versus time for the pumping well (GE-3) and the observation well (GE-2) are given on Figures 8 and 9, respectively. Water level recovery versus time after pumping ceased in GE-3 and GE-2 are presented on Figures 10 and 11.

Montgomery analyzed the pumping test data utilizing semi-log (Cooper and Jacob, 1946) and log-log (Jacob, 1940) procedures for estimating transmissivity and storage coefficient of the aquifer materials. Results of these analyses are given in Table 4.

**Table 4, Aquifer Parameters**

Method	Drawdown				Recovery
	Semi-Log		Log-Log		Semi-Log
Well	Transmissivity (gpd/ft)	Storativity	Transmissivity (gpd/ft)	Storativity	Transmissivity (gpd/ft)
Pumping Well (GE-3)	35,000	-	-	-	40,000
Observation Well (GE-2)	51,000	0.0001	36,000 53,000	0.0005 0.001	33,000 58,000

Based on the above test results, Montgomery assumed an average transmissivity of 45,000 gpd/ft and a storativity of 0.0002 in their 1985 analysis of Assured Water Supply for the previously planned (but not built) Goldfield Heights development. Montgomery also conducted pumping tests on two (2) Chaparral Water Company wells located in Fountain Hills, AZ approximately five (5) miles to the west of Goldfield Preserve. These wells produce water from the fanglomerate aquifer. Calculated transmissivity from these tests ranges from 122,000 gpd/ft to 206,000 gpd/ft. Storativity values range from 0.0002 to 0.0009 (Montgomery, 2004).



Storativity values from all these tests are indicative of a confined aquifer (Driscoll, 1986). This is supported by the fact that water levels in the test wells and test bore hole (see below) are above the top of the fanglomerate aquifer.

This report utilizes the aquifer parameters determined from the 1985 well tests. For purposes of estimating physical availability, transmissivity and storativity are estimated to be 45,000 gpd/ft and 0.0002, respectively

### 3.2.5 Water Levels

Depth to water in wells is shown on Figure 12. As noted above, static water levels have been measured in test wells GE-1, GE-2 and GE-3. The Parcel C test boring was drilled with mud; direct measurement of test boring water level was not feasible. However, the depth to water estimated from the sonic log was between 420 and 440 ft bls. A zonal water quality sample was obtained from the interval 843-863 ft bls. The water level in this zone was 331 ft bls, suggesting that the fanglomerate may be under artesian pressure. All other water levels presented on Figure 12 are from driller reports in the ADWR 55 well data base.

The ADWR GWSI database was queried for historic water level data. There are no wells in the area of the property that have multiple water level measurements over time. Static water level in the test well GE-3 was 295 ft bls in 1985. Depth to water in 2006 is 290 ft bls, indicating no water level decline over time in spite of a significant increase in the number of exempt wells in the area. Many of these exempt wells do not penetrate the fanglomerate, however, and are perforated in the upper alluvium above the confining playa materials.

While the available data suggest no historic water level decline, it is recognized that long-term water level data in the fanglomerate are not available. Therefore, for purposes of estimating the annual areal decline for the Physical Availability Demonstration an average annual decline of one-half (0.5) foot is conservatively assumed.



## 4.0 PHYSICAL AVAILABILITY

Physical availability of a ground-water supply in the PHX AMA is defined as a maximum depth to water after 100 years of pumping no greater than 1,000 ft below ground surface (ft bgs). Applying the generally accepted methodology used by ADWR and using the computer program THWELLS, the maximum potential depth to water was computed based on the following assumptions:

1. Four (4) wells on Goldfield Preserve pumping a total of 732 ac-ft/yr (453 gpm)
2. Two impermeable boundaries (east and south )
3. Transmissivity of 45,000 gpd/ft (Montgomery 1985)
4.  $S_y$  of 0.0002 (Montgomery 1985)

The layout of the analysis is shown on Figure 13. After 100 years the maximum drawdown is 42.9 ft. Depth to static water on April 20, 2006 was 290.03 ft bgs. As discussed in Section 3.2.4, the decline in static water level over time is conservatively assumed to be one-half (0.5) ft/yr.

Maximum depth to water after 100 years of pumping at the build out rate (732 ac-ft/yr) is given below.

**Table 5, Depth to Water After 100 years**

Static Water Level	290 feet
100-Year Ground-water Decline @ 0.5 ft/yr	50 feet
Goldfield Preserve Drawdown	43 feet
<b>Goldfield Preserve Subdivision 100-Year Depth to Water</b>	<b>383 Feet</b>

The depth to water after 100 years is less than the maximum depth to water of 1,000 ft bgs allowed under R12-15-703. The proposed Goldfield Preserve subdivision meets the physical availability test.



## 5.0 GROUND-WATER QUALITY

Ground water in the study area is of suitable chemical quality for potable use with the possible exception of arsenic. A water sample was collected from test well GE-2 on February 24, 2006 and analyzed for selected inorganic constituents. Total dissolved solids (TDS) were 320 mg/l. This well is located in Parcel A of the Goldfield Preserve subdivision. Based on the laboratory report, the ground water from this well meets the current EPA inorganic drinking water standards except the Maximum Contaminant Level (MCL) of 10  $\mu\text{g/l}$  for arsenic. Total arsenic in this sample was reported to be 35  $\mu\text{g/l}$ .

A zonal (843-863 ft bls) water quality sample was collected from the Parcel C test boring on October 5, 2006. Analysis of this sample reported TDS of 190 mg/l with only arsenic, at 22  $\mu\text{g/l}$  exceeding the MCL. Laboratory reports of the water quality analyses are presented in Appendix E.

If testing of the installed production wells confirms that arsenic remains above the MCL, the level of arsenic will be reduced to drinking water standards before delivery to subdivision potable water users.



## 6.0 CONCLUSIONS

1. Goldfield Preserve is a master planned development located in the Fountain Hills Sub-basin of the Phoenix AMA. A total of 1,088 dwelling units are planned on approximately 2,213 acres. The development will be comprised of five (5) separate parcels (A through E).
2. Total estimated ground-water demand is 731.69 af/yr. There will be restrictions in the C. C. &R's on outside irrigation usage.
3. The development will be served by sewers in Parcels A and B and by septic systems in Parcels C through E.
4. A total of four production wells are planned, two (2) on Parcel A and one (1) each on Parcels C and E. Parcel D will be served by the well on Parcel C.
5. The development is underlain by over 1,100 feet of unconsolidated to moderately consolidated alluvial material. Three (3) major hydrogeologic units have been defined. The target aquifer for serving the Goldfield Preserve is the lower fanglomerate unit. On-site aquifer tests have estimated the transmissivity to be 45,000 gpd/ft with a storativity of 0.0002.
6. Depth to water after 100 years of pumping at the build-out rate (732 af/yr) is conservatively estimated to be 383 ft. The depth to water after 100 years is less than the maximum allowable depth to water of 1,000 ft bgs under A.A.C. R12-15-703. The proposed Goldfield Preserve subdivision meets the physical availability test.



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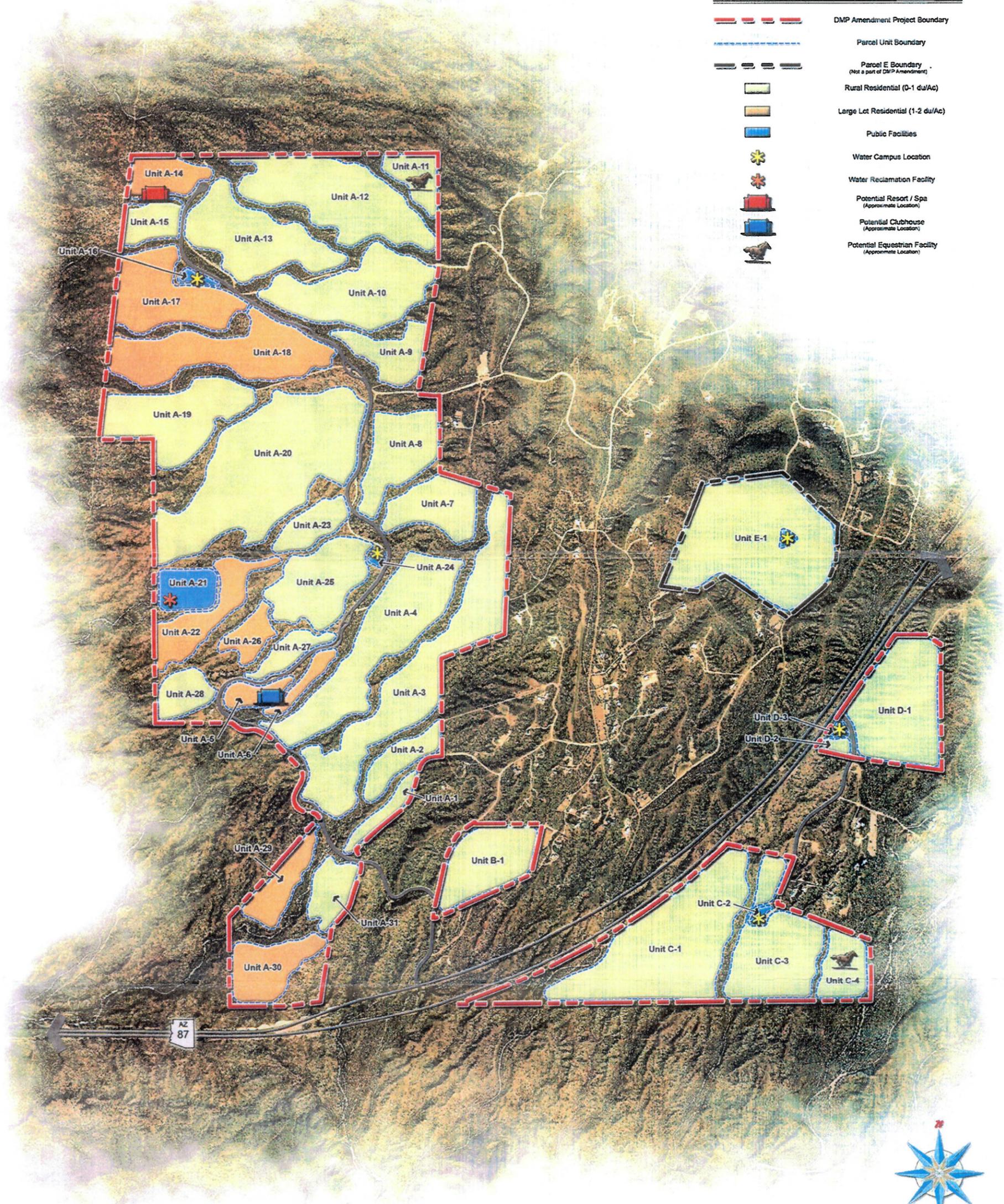
# The Preserve

## GOLDFIELD RANCH

### Development Plan

#### Legend

	DMP Amendment Project Boundary
	Parcel Unit Boundary
	Parcel E Boundary (Not a part of DMP Amendment)
	Rural Residential (0-1 du/Ac)
	Large Lot Residential (1-2 du/Ac)
	Public Facilities
	Water Campus Location
	Water Reclamation Facility
	Potential Resort / Spa (Approximate Location)
	Potential Clubhouse (Approximate Location)
	Potential Equestrian Facility (Approximate Location)



#### Notes

**CONCEPTUAL PLAN ONLY**  
 This plan is conceptual and indicates potential uses and configurations which may change as the development process is refined. Uses shown in open spaces may be amended. Parcel configurations are for representation of sizes but configurations and uses may also change as the development plan evolves.

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Figure 1

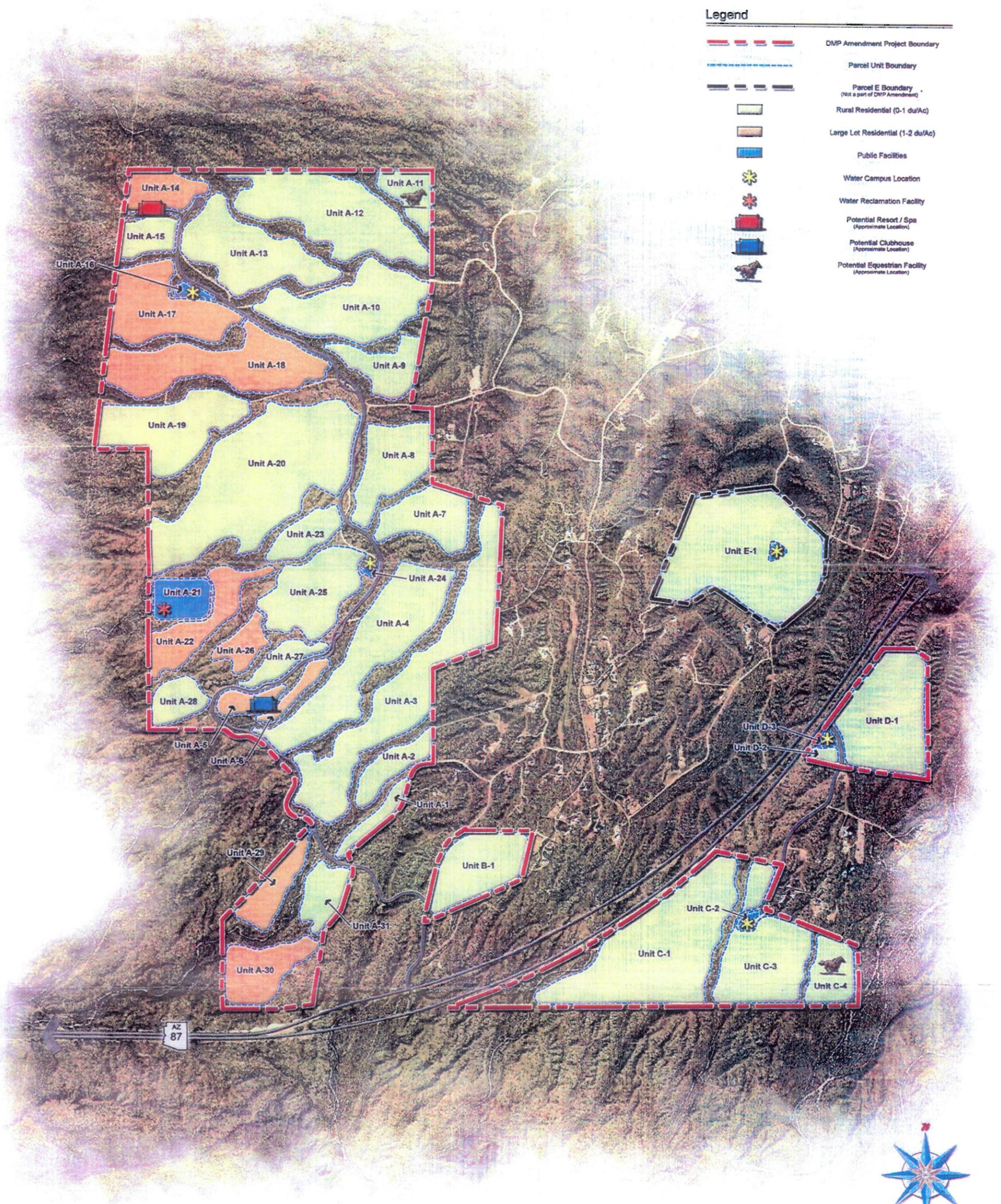
# The Preserve

## GOLDFIELD RANCH

### Development Plan

#### Legend

	DMP Amendment Project Boundary
	Parcel Unit Boundary
	Parcel E Boundary (Not a part of DMP Amendment)
	Rural Residential (0-1 du/Ac)
	Large Lot Residential (1-2 du/Ac)
	Public Facilities
	Water Campus Location
	Water Reclamation Facility
	Potential Resort / Spa (Approximate Location)
	Potential Clubhouse (Approximate Location)
	Potential Equestrian Facility (Approximate Location)



#### Notes

**CONCEPTUAL PLAN ONLY**  
 This plan is conceptual and indicates potential uses and configurations which may change as the development process is refined. Uses shown in open spaces may be amended. Parcel configurations are for representation of sizes but configurations and uses may also change as the development plan evolves.

7740 N.16th Street  
 Suite 100  
 Phoenix, AZ 85020  
 p: 602.567.1900  
 f: 602.567.1901  
 Engineers  
 Surveyors  
 Construction Management

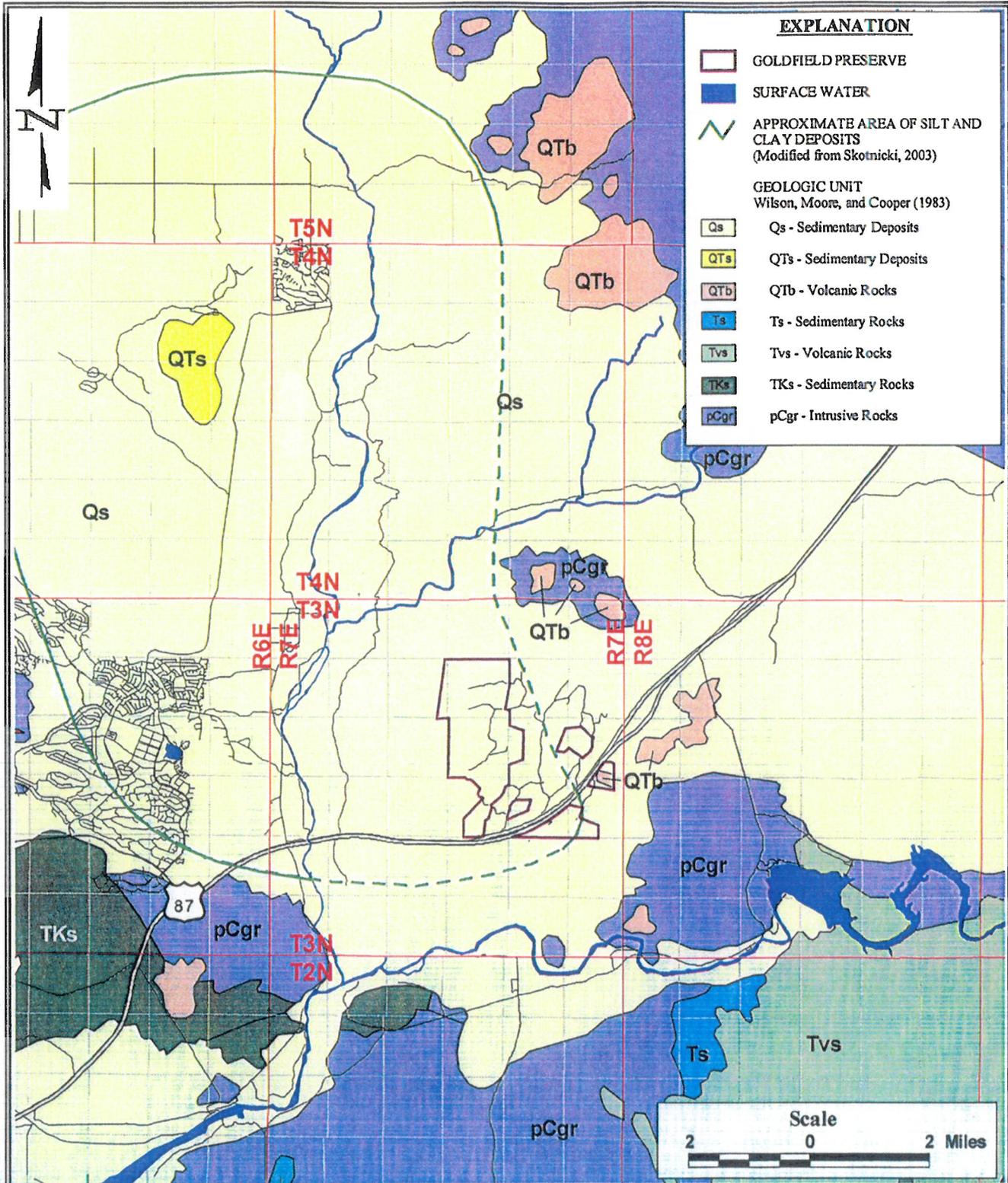
December 21, 2006  
 CMX Project #: 7147  
 Project Manager: T. Bonar  
 Designed By: A. Pungus  
 Graphics By: J. Newbegin  
 Drawn By: J. Newbegin

**CMX**  
 Construction Management

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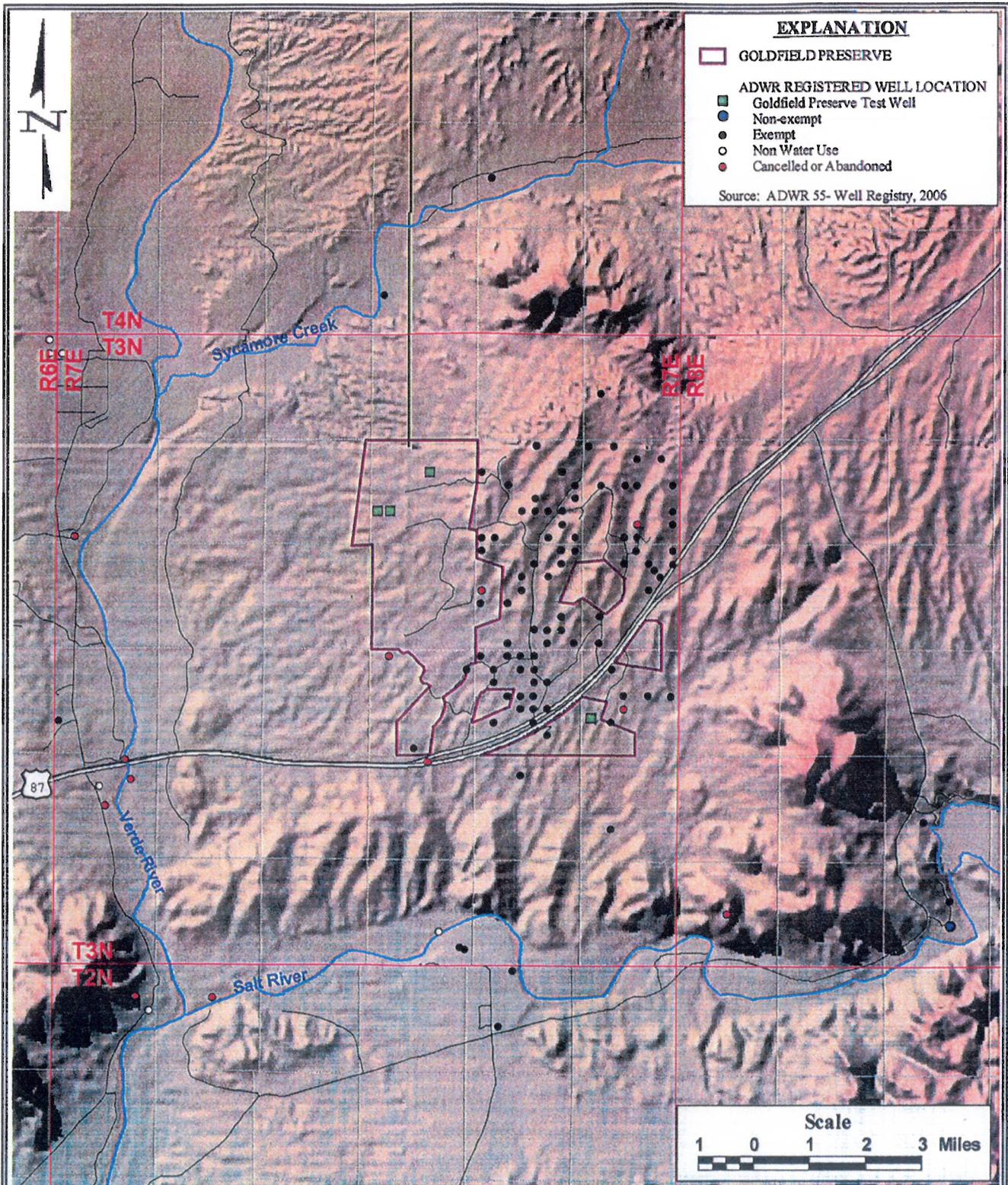
Figure 1



Southwest Ground-water  
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**GEOLOGY MAP**  
 Goldfield Preserve, Maricopa County, Arizona

**Figure**  
 2

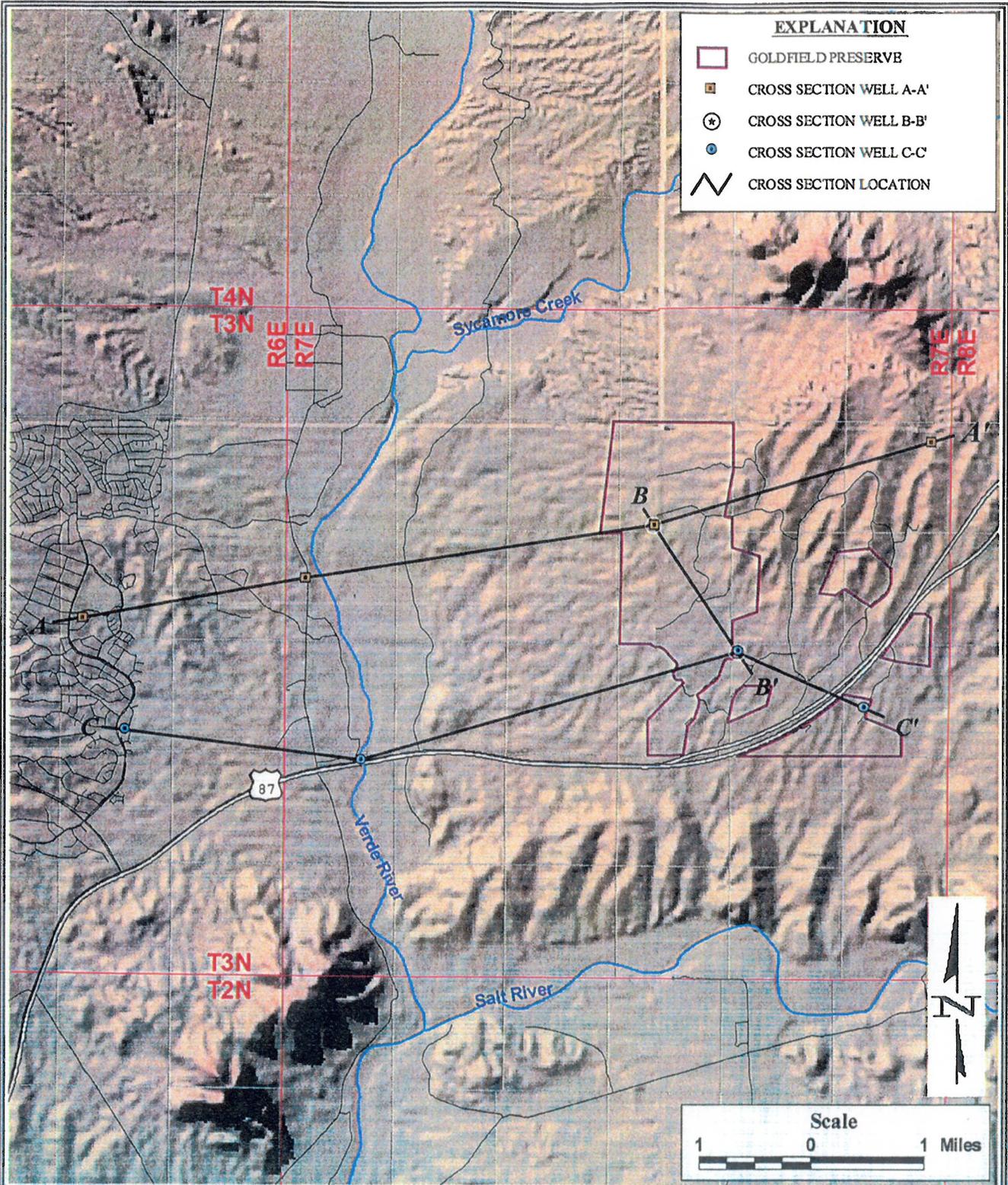


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**WELL INVENTORY MAP**  
 Goldfield Preserve, Maricopa County, Arizona

**Figure**  
**3**



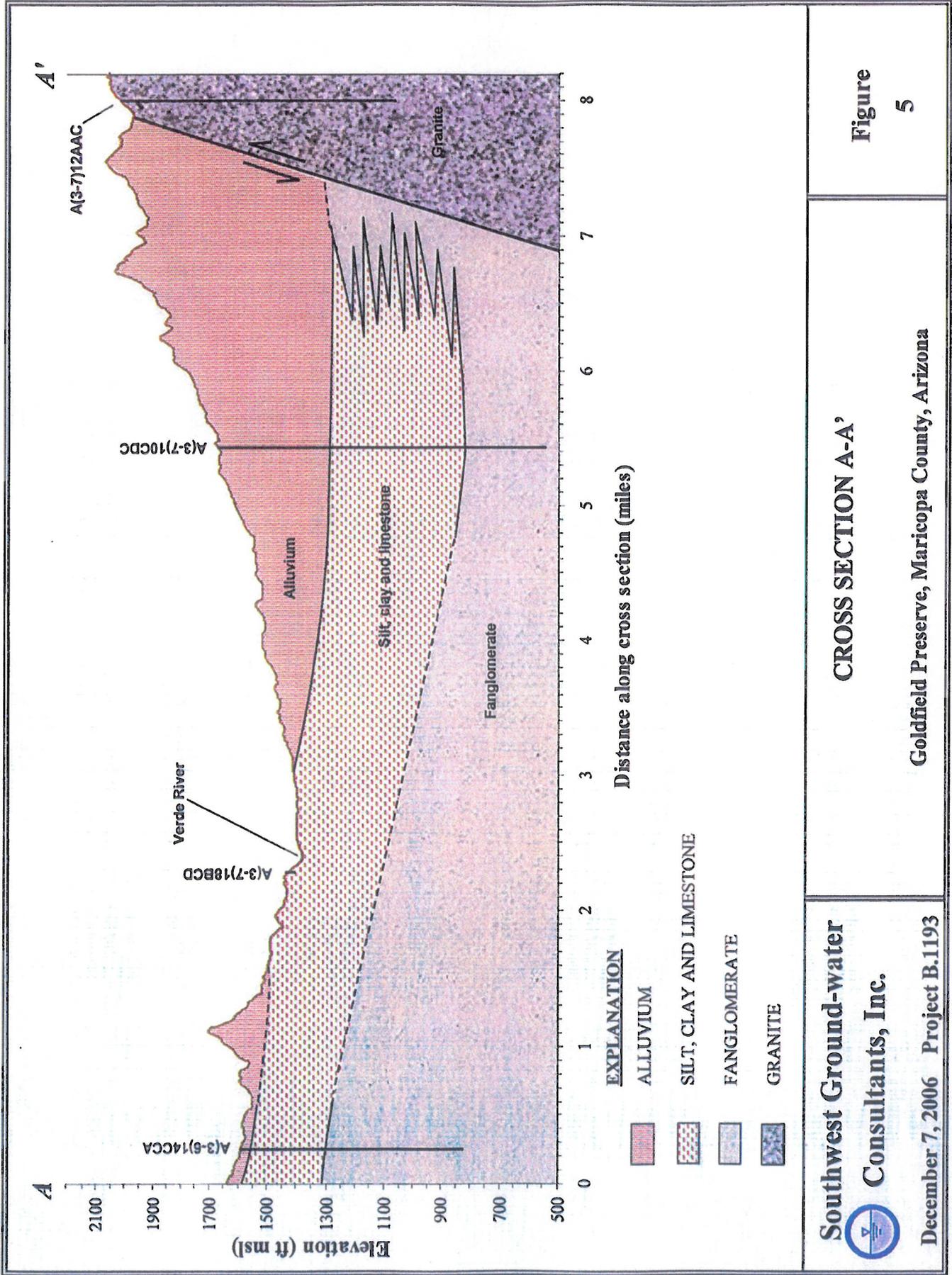
**Southwest Ground-water  
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**CROSS-SECTION LOCATIONS**

Goldfield Preserve, Maricopa County, Arizona

**Figure  
4**



A

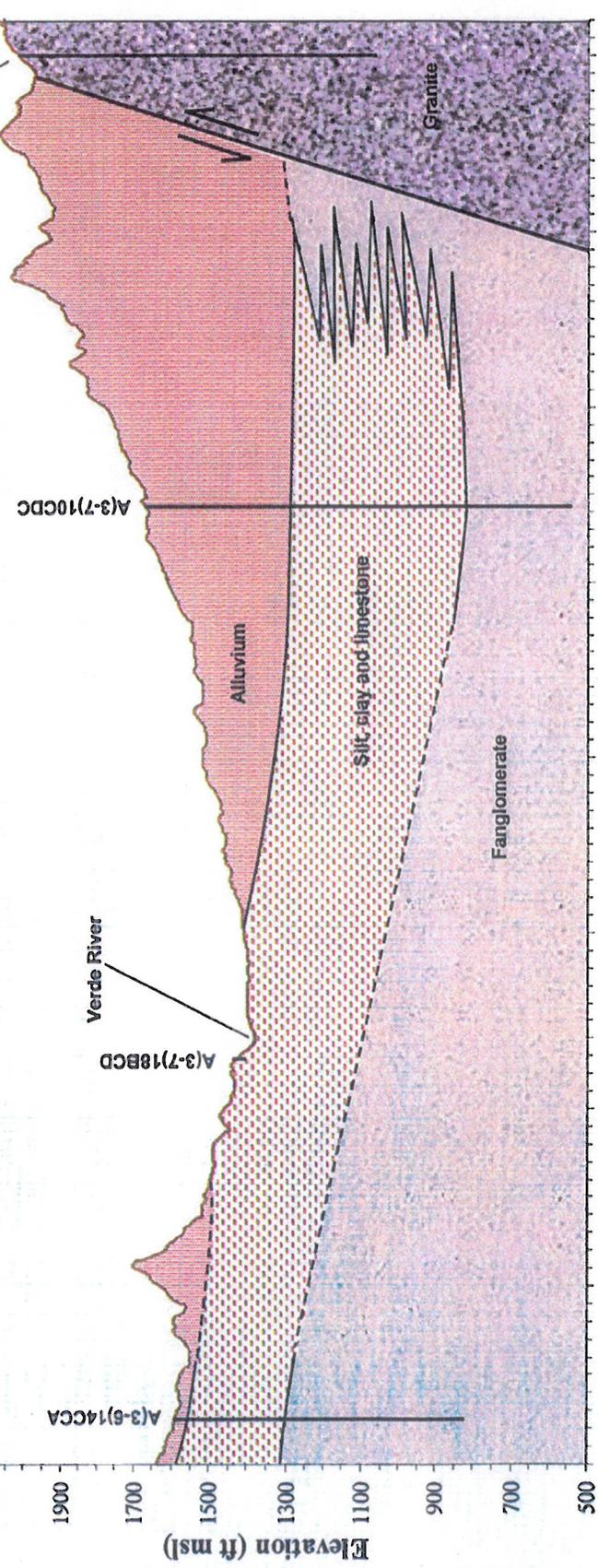
A'

A(3-7)12AAC

A(3-7)10DC

A(3-7)18BCD

A(3-6)14CCA



Elevation (ft msl)

Distance along cross section (miles)

- ALLUVIUM
- SILT, CLAY AND LIMESTONE
- FANGLOMERATE
- GRANITE

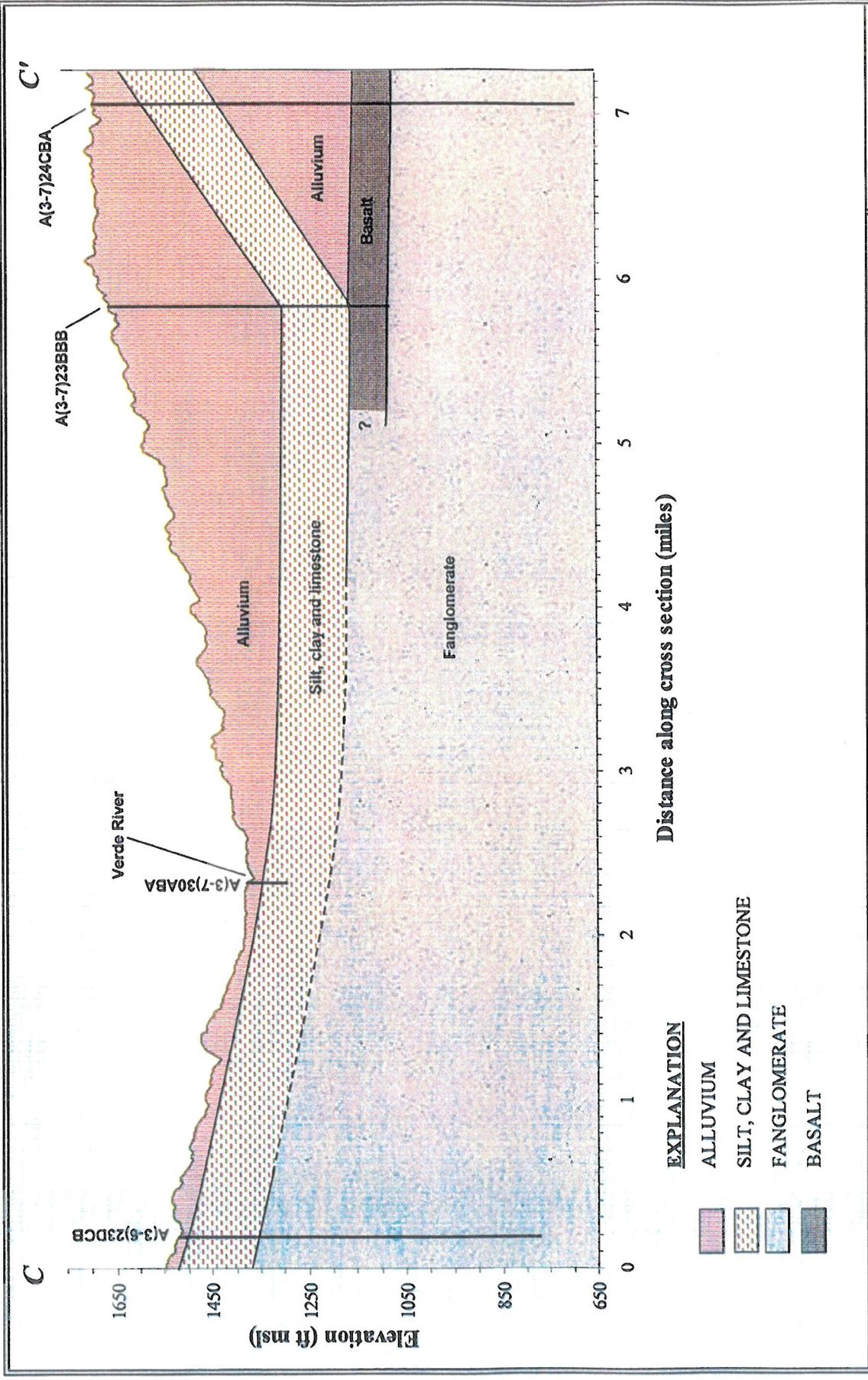
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**CROSS SECTION A-A'**

Goldfield Preserve, Maricopa County, Arizona

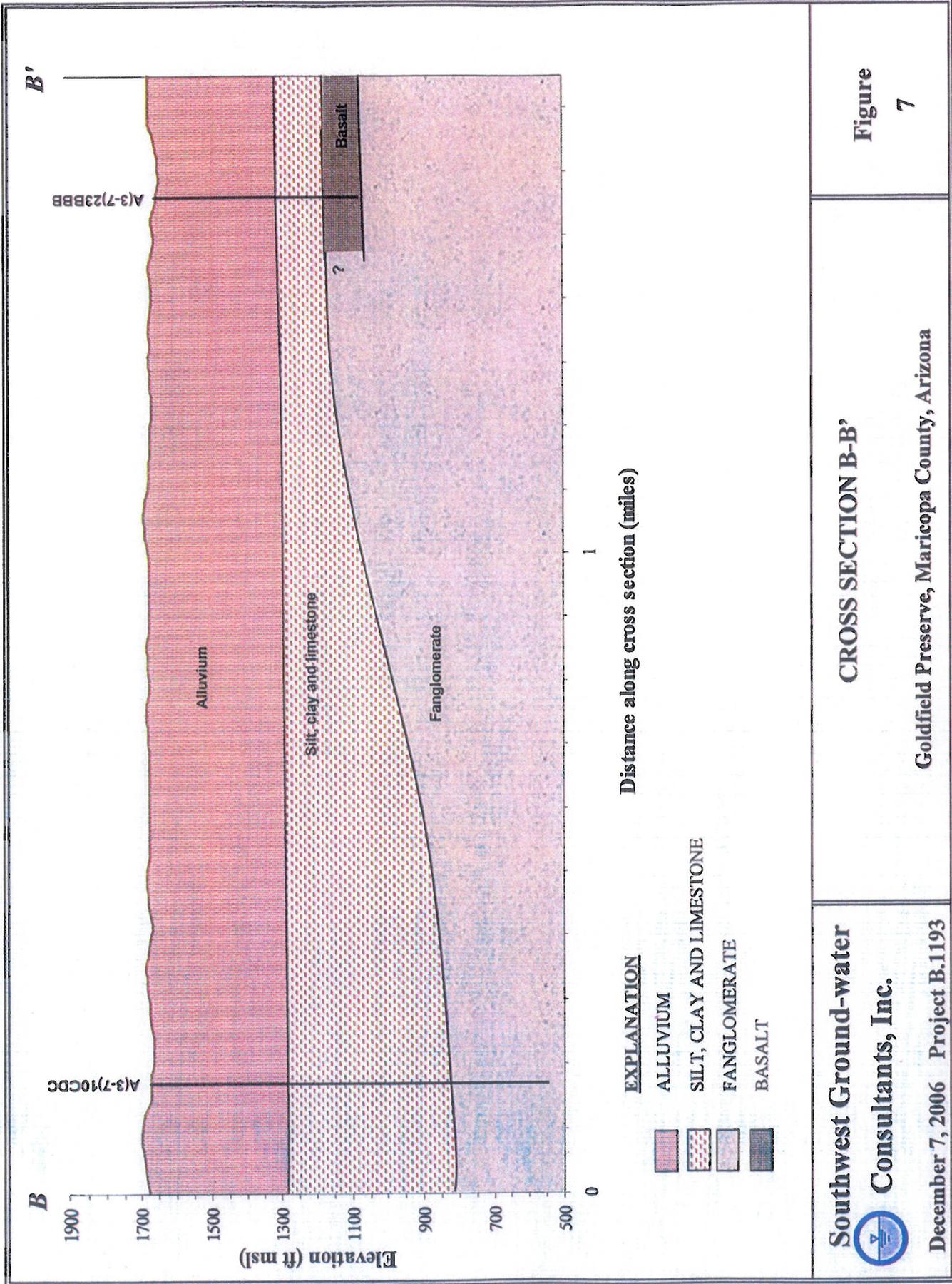
Figure 5



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**CROSS SECTION C-C'**  
 Goldfield Preserve, Maricopa County, Arizona

**Figure 6**

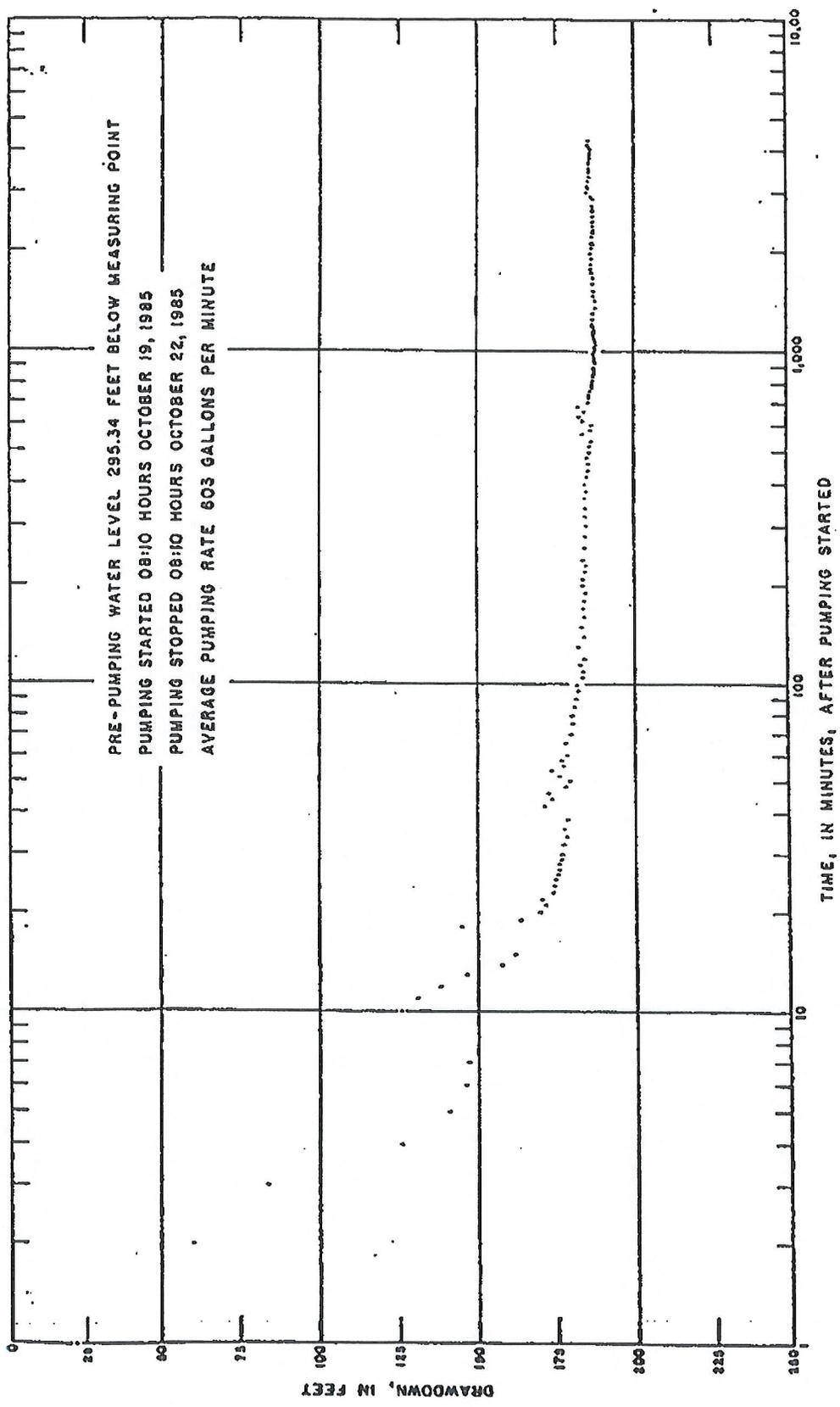


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**CROSS SECTION B-B'**  
 Goldfield Preserve, Maricopa County, Arizona

**Figure**  
**7**



Source: Montgomery, 1985

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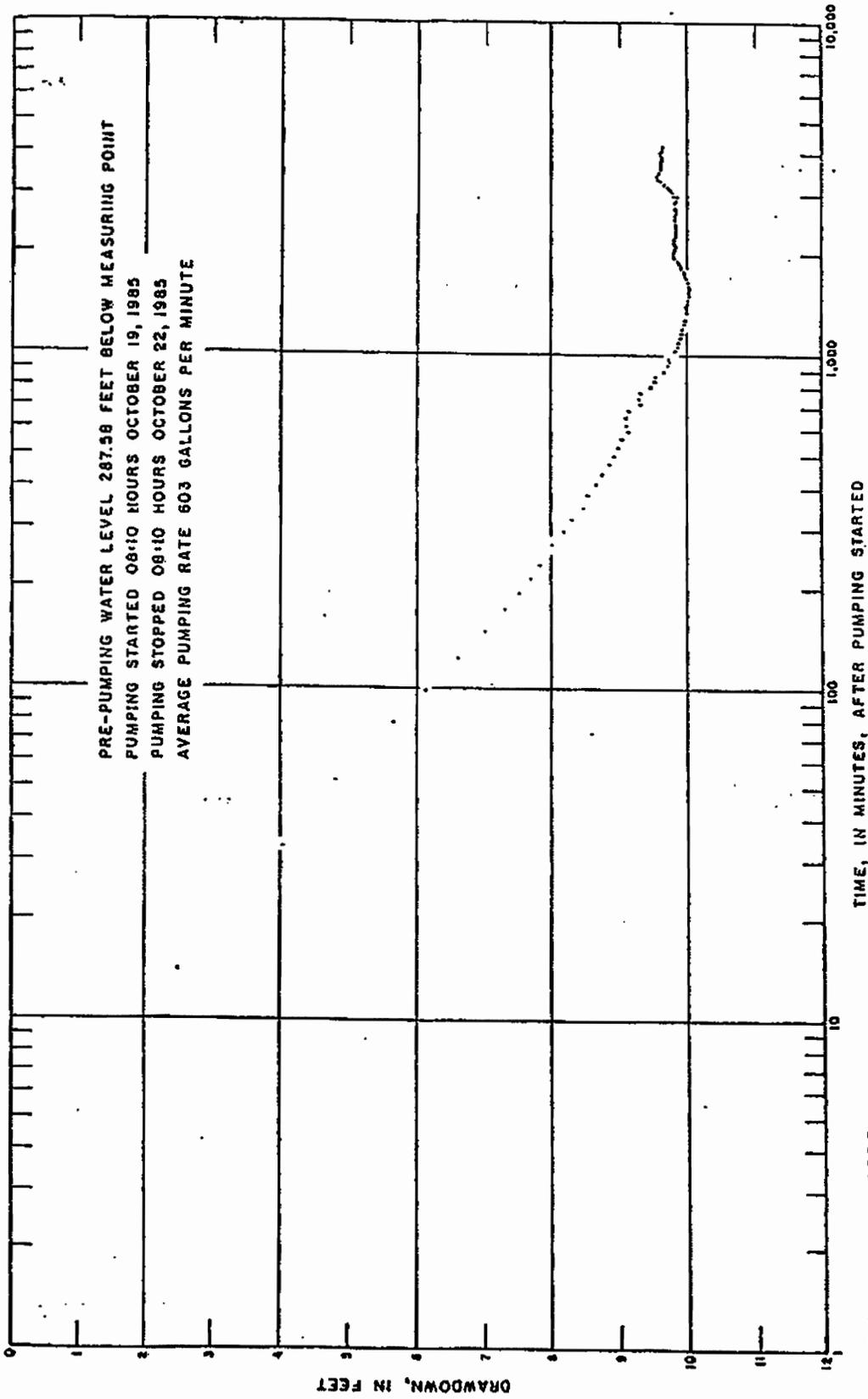


November 20, 2006 Project B1193

**DRAWDOWN VERSUS TIME  
 PRODUCTION WELL (GE-3)**

Goldfield Preserve, Maricopa County, Arizona

Figure  
 8



Source: Montgomery, 1985

Southwest Ground-water



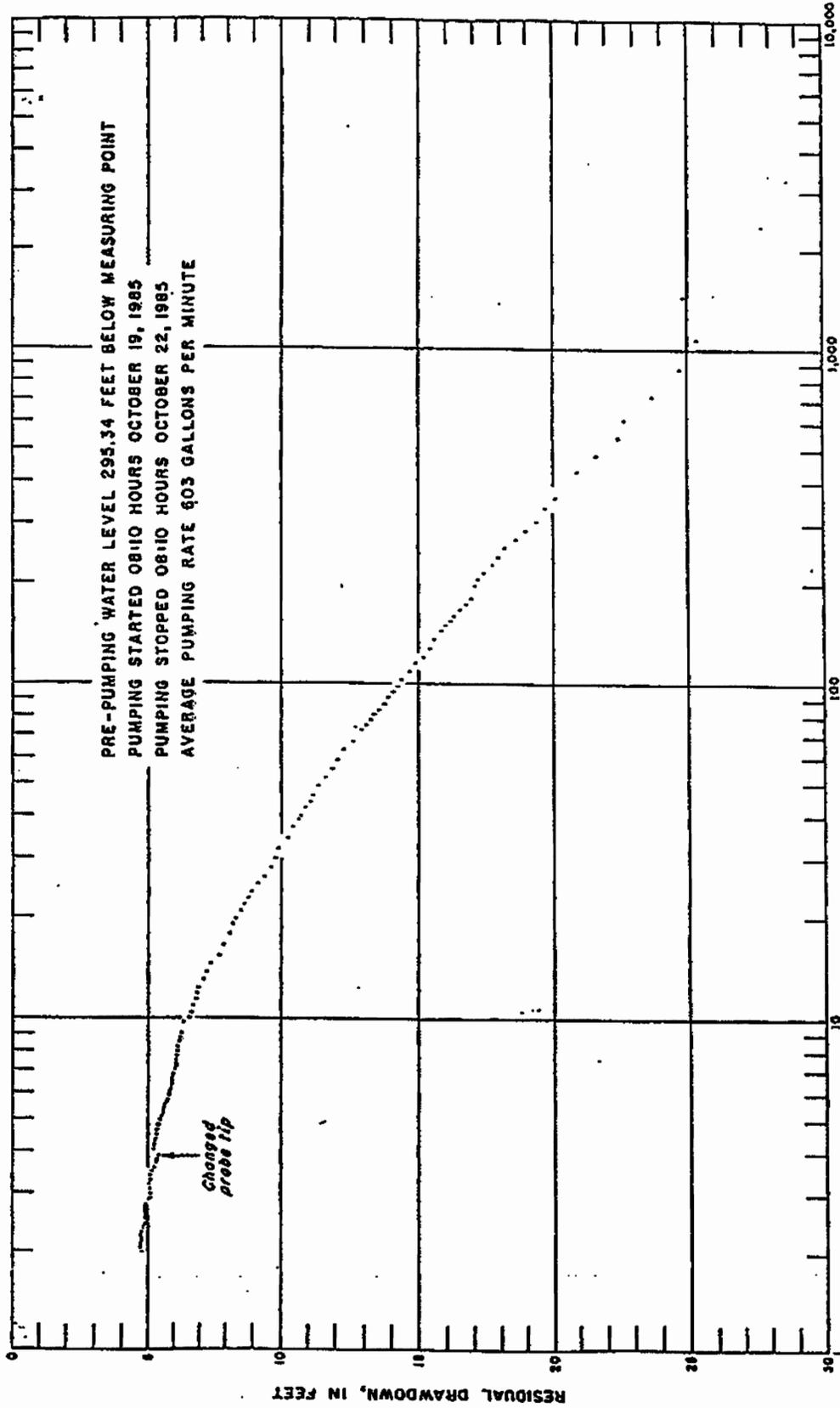
November 20, 2006 Project B1193

## DRAWDOWN VERSUS TIME OBSERVATION WELL (GE-2)

Goldfield Preserve, Maricopa County, Arizona

Figure

9



Source: Montgomery, 1985

Southwest Ground-water  
 Consultants, Inc.

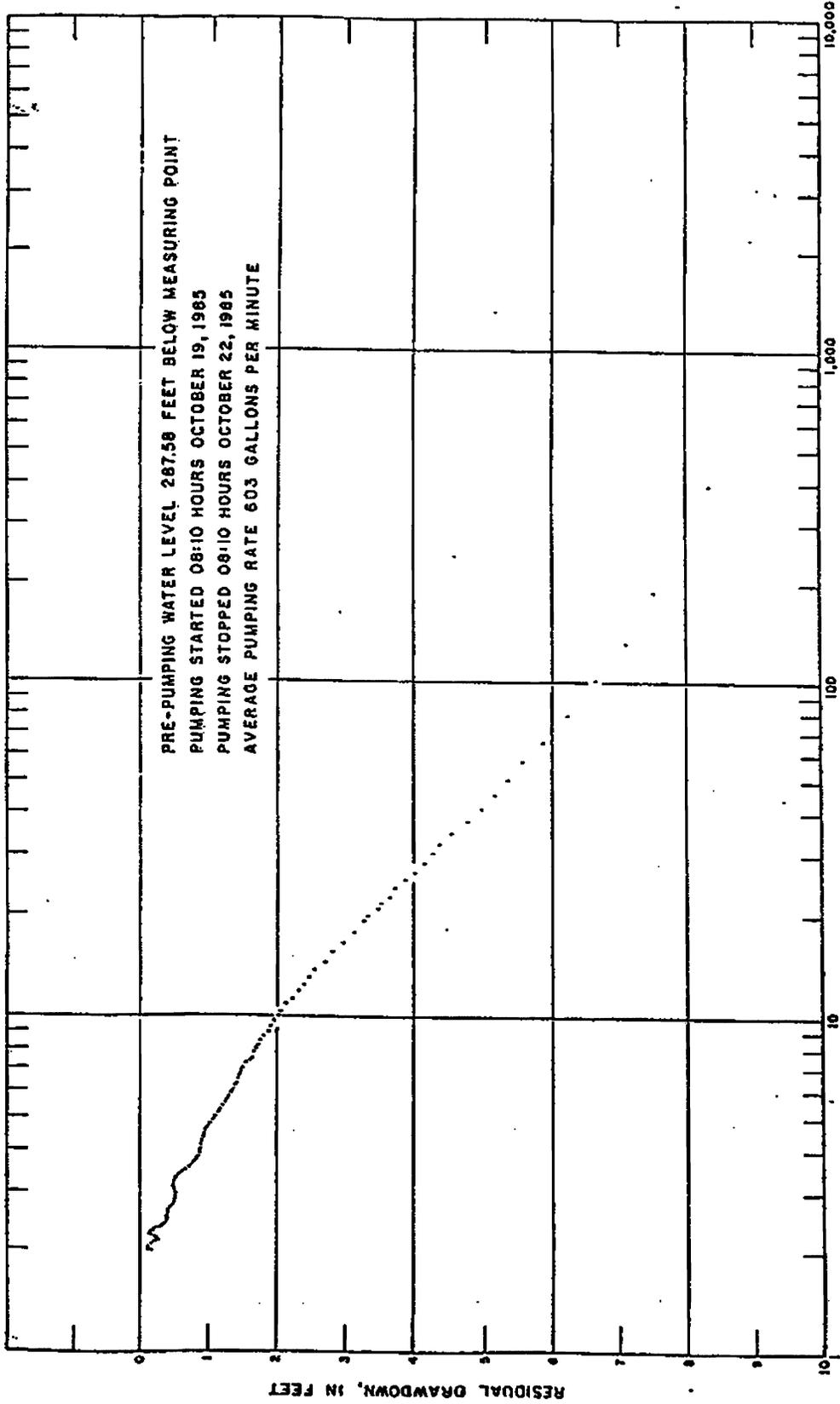


November 20, 2006 Project B1193

RESIDUAL DRAWDOWN VERSUS T/T' RATIO  
 PRODUCTION WELL (GE-3)

Goldfield Preserve, Maricopa County, Arizona

Figure  
 10



Source: Montgomery, 1985

Southwest Ground-water  
 Consultants, Inc.

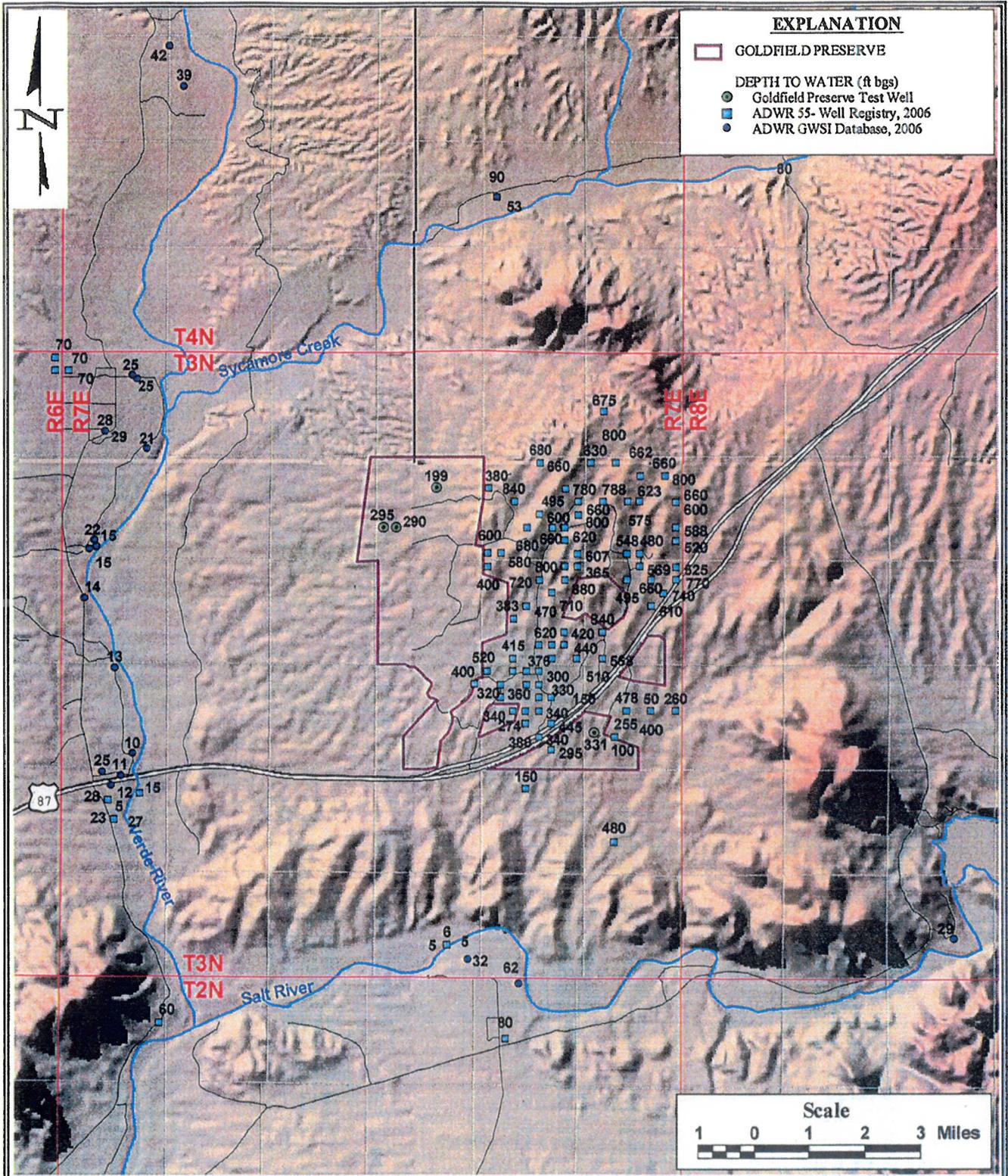


November 20, 2006 Project B1193

RESIDUAL DRAWDOWN VERSUS T/T' RATIO  
 OBSERVATION WELL (GE-2)

Goldfield Preserve, Maricopa County, Arizona

Figure  
 11



**EXPLANATION**

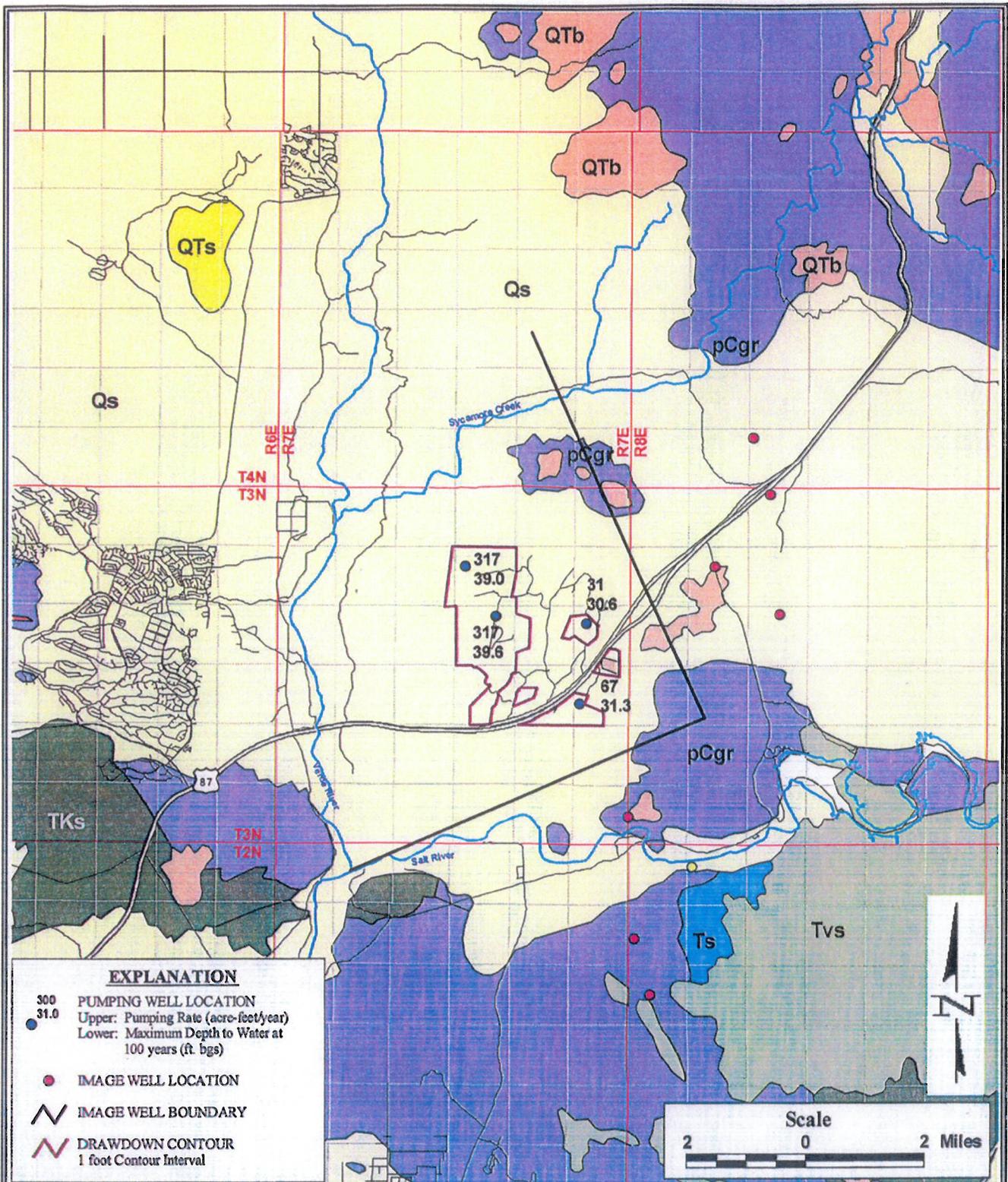
- GOLDFIELD PRESERVE
- DEPTH TO WATER (ft bgs)
- Goldfield Preserve Test Well
- ADWR 55- Well Registry, 2006
- ADWR GWSI Database, 2006

**Southwest Ground-water**  
  
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**DEPTH TO WATER MAP**

**Goldfield Preserve, Maricopa County, Arizona**

**Figure**  
**12**



**Southwest Ground-water  
 Consultants, Inc.**

December 4, 2006 Project B.1193

**IMPACT ANALYSIS MAP  
 100 YEARS PUMPING**

Goldfield Preserve, Maricopa County, Arizona

**Figure  
 13**