

# **FINAL REMEDIAL OBJECTIVES REPORT**

## **Miracle Mile WQARF Site Tucson, Arizona**



**June 28, 2012**

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## ACRONYMS

A.A.C.	Arizona Administrative Code
A.R.S.	Arizona Revised Statutes
ADEQ	Arizona Department of Environmental Quality
ADWR	Arizona Department of Water Resources
AWQS	Arizona Aquifer Water Quality Standard
bgs	below ground surface
CAB	Community Advisory Board
CAP	Central Arizona Project
COCs	Contaminant of Concern
DEUR	Declaration of Environmental Use Restriction
FWID	Flowing Wells Irrigation District
LWU	Land and Water Use Study
MCL	Maximum Contaminant Level
mg/kg	milligrams per kilogram
µg	micrograms
µg/L	micrograms per liter
PCE	tetrachloroethene, tetrachloroethylene, Perc
RI	Remedial Investigation
RO	Remedial Objective
RSC	Rental Service Corporation (aka RSC Equipment Rental)
SRL	Soil Remediation Level
TCE	trichloroethene, trichloroethylene
WQARF	Water Quality Assurance Revolving Fund

## 1.0 INTRODUCTION

The Arizona Department of Environmental Quality (ADEQ) has prepared this Final Remedial Objectives (ROs) Report for the Miracle Mile Water Quality Assurance Revolving Fund (WQARF) site (Site) in Tucson, Arizona.

The ROs for the Site were developed as required by R18-16-406 of the remedy selection rules of the Arizona Administrative Code (A.A.C.). These rules require that ROs be established for the current and reasonably foreseeable uses of land and waters of the state that have been or are threatened to be affected by release of a hazardous substance above a regulatory or risk-based standard. The rule specifies that the reasonably foreseeable uses of land are those likely to occur at the site. The reasonably foreseeable uses of water are those likely to occur within 100 years, unless a longer time period is appropriate (A.A.C. R18-16-406 [D]). Reasonably foreseeable uses are those likely to occur, based on information provided by water providers, well owners, land owners, government agencies, and others.

The ROs for the Site are based on the Land and Water Use Study (LWU) (see Appendix A). Not every use identified in the LWU will have a corresponding RO. Uses identified in the LWU may or may not be addressed based on information gathered during the public involvement process, the WQARF statutory authority, and whether the use is reasonably foreseeable. The LWU was available for public comment (as an appendix to the Draft Remedial Investigation [RI] Report) from March 30 to May 23, 2007. A public meeting to obtain community and stakeholder input on the LWU and proposed ROs was held by ADEQ on May 16, 2007, at ADEQ's Southern Regional Office in Tucson. ADEQ did not receive any proposed ROs from the public prior to issuance of the Proposed RO Report.

The Proposed RO Report was issued for a 30-day public comment period on October 28, 2008, and the public comment period ended on November 26, 2008. Copies of the public comments on the Proposed RO Report are in Appendix B. ADEQ's responses to the public comments on the Proposed RO Report are in Appendix C. This Final RO Report addresses comments from the public, stakeholders, the Miracle Mile Community Advisory Board (CAB) and/or other government agencies. This Final RO Report is an appendix to the June 28, 2012 Final RI Report.

The next step in the WQARF process, following issuance of the Final RI Report is conducting the Feasibility Study. The Feasibility Study will evaluate specific remedial measures and strategies to achieve the ROs and propose a reference remedy and at least two alternative remedies which are capable of meeting the ROs.

## DEFINITIONS

**Remedial Strategy:** One or a combination of the six general strategies identified in Paragraph B.4 of A.R.S.§49-282.06 and further defined in rules promulgated in accordance with this statute. In general, these strategies are as follows: plume remediation, physical containment, controlled migration, source control, monitoring, and no action.

**Remedial Measure:** A specific action taken in conjunction with remedial strategies as part of the remedy to achieve one or more of the remedial objectives. For example, remedial measures may include well replacement, well modification, water treatment, provision of replacement water supplies, and engineering controls.

**Reference Remedy:** A combination of remedial strategies and remedial measures which, as a whole, is capable of achieving remedial objectives. The reference remedy is compared with the alternative remedies for purposes of selecting a proposed remedy at the conclusion of the Feasibility Study.

**Alternative Remedy:** A combination of remedial strategies and remedial measures different from the reference remedy that is capable of achieving remedial objectives. The alternative remedies are compared with the reference remedy for purposes of selecting a proposed remedy at the conclusion of the Feasibility Study.

The ROs must be stated in the following terms: (1) protecting against the loss or impairment of each use; (2) restoring, replacing, or otherwise providing for each use; (3) when action is needed to protect or provide for the use; and (4) how long action is needed to protect or provide for the use.

## **2.0 REMEDIAL OBJECTIVES FOR LAND USE**

The Site currently consists largely of residential, commercial and light industrial areas. The Site lies across the boundaries of both the City of Tucson and Pima County. The area is largely “built-out” and currently neither the City of Tucson nor Pima County has any specific plans to re-develop the area. Based on information provided, land uses for the foreseeable future in the Site area are expected to remain similar to the current land uses.

### **2.1 SUMMARY OF CURRENT AND REASONABLY FORESEEABLE USES OF LAND**

Typically, ROs for land use are established for those properties known to be contaminated with hazardous substances above a Soil Remediation Level (SRL) or a risk-based level. At the Site, the former Spring Joint Specialists property is contaminated with concentrations of hexavalent chromium in subsurface soil above the SRL. The former Spring Joint Specialists property repaired hydraulic cylinders, suspension systems, pumps and motors from the local mines, and part of the repair included chrome plating.

Hexavalent chromium has been detected above the ADEQ Non-Residential SRL of 65 mg/kg in soil samples collected during the drilling of monitor well SJ-MW-1 located in the southwestern part of the property. Concentrations ranged from 73 mg/kg at 35 feet bgs to 159 mg/kg at 55 feet bgs. Also, during the same investigation, a borehole (B1) was drilled to a depth of 100 feet bgs at the Rental Service Corporation (aka RSC Equipment Rental or RSC) property located south of and adjacent to the Spring Joint Specialists facility. Most of the soil samples collected during drilling of the borehole were non-detect or contained less than 5 mg/kg of hexavalent chromium except for the sample at 60 feet bgs which contained 208 mg/kg. Additional assessment of the extent of soil contaminated with hexavalent chromium is necessary.

Remedial strategies for addressing the elevated hexavalent chromium in soil will be evaluated during the Feasibility Study. ADEQ will also ask the property owners to place a Declaration of Environmental Use Restriction (DEUR) on the properties or portions of the properties containing subsurface hexavalent chromium exceeding the residential SRL. A DEUR is a restrictive covenant designed to ensure that current and future property owners are aware of contamination on a site and take appropriate actions to prevent unacceptable exposure to the contamination. The DEUR remains in effect and is monitored by ADEQ until the property owner demonstrates that the release of the DEUR is appropriate.

The former Spring Joint Specialists and RSC properties are currently zoned for General and Intensive Commercial Operations. The locations on both properties where the subsurface hexavalent chromium was found at depth above the non-residential SRL are now paved with asphalt. Also, owners of both properties have indicated that they plan to continue commercial use of the properties, and there is no indication that the current zoning is likely to change. However, non-residential use of the property does not preclude potential excavation activities that could disturb surface and subsurface chromium-contaminated soils.

**The RO for land use at the former Spring Joint Specialists and RSC properties is to protect against possible exposure to hazardous substances in surface and subsurface soils that could occur if property improvements were made to facilitate commercial use. ADEQ will ask the property owners to place a DEUR on their properties (or portions of properties) containing hexavalent chromium above the residential SRL to ensure that current and future property owners maintain the property as non-residential use and maintain the asphalt as an engineering control. If additional work at the Site is necessary beyond maintenance of the asphalt cover, ADEQ will coordinate with the property owners and work towards a remedy that is compatible with these development plans.**

Soil sampling has also been performed by ADEQ at facilities within the Site in addition to the former Spring Joint Specialists and RSC facilities in order to evaluate other potential sources; however, the concentrations of contaminants detected at those facilities during this RI have been below the residential/non-residential SRLs. Therefore, based on these data, no ROs are needed for the land uses at those other facilities.

### 3.0 REMEDIAL OBJECTIVES FOR GROUNDWATER USE

Groundwater beneath the Site is present in a shallow, discontinuous, perched zone which exists from approximately 63 to 84 feet below ground surface (bgs) and the regional aquifer which begins at approximately 165 feet bgs. Trichloroethene (TCE) and chromium contaminant plumes are present above Arizona Aquifer Water Quality Standards (AWQSs) (same as the Maximum Contaminant Levels[s]) in both the perched groundwater zone and the regional aquifer. Perched groundwater monitor wells located on the former Spring Joint Specialists property have consistently shown levels of chromium and TCE well above the AWQS. Therefore, the perched zone in the area of the former Spring Joint Specialists property continues to be a potential source of chromium to the regional aquifer. Likewise, perched groundwater at the R.E. Darling and Abrams Airborne Manufacturing properties have consistently shown levels of TCE well above the AWQS, and thus continue to be potential sources of TCE to the regional aquifer.

Based on an Arizona Department of Water Resources (ADWR) well inventory and field verification, fifty-nine registered wells were identified within the Miracle Mile Potential Impact Area; thirty-nine of these wells are registered for monitoring use, six for cathodic protection, five for municipal provider use, eight for domestic use, and one for industrial/standby use. [The Site Potential Impact Area includes the groundwater containing a Site contaminant of concern (COC) above the regulatory standard and it includes the area near the plume which, based on natural or potential pumping-induced groundwater flow direction and dispersion, could become contaminated with a COC above the regulatory standard. The Potential Impact Area is shown in Figure 5 in Appendix A, the Miracle Mile LWU.] Based on ADWR's records, no water supply wells draw water from the perched groundwater.

ADEQ requested information from the owners of the fourteen water supply wells within the Potential Impact Area regarding current and future uses of their well water. ADEQ received information from the main municipal water provider in the Potential Impact Area, Flowing Wells Irrigation District (FWID), which indicated it did not plan to install and operate additional potable water supply wells in the near future. Most responses received also indicated that domestic or irrigation wells were not in use and that there is no intention of future use. One well owner indicated that the well in question did not exist. One well owner did indicate that the well is currently not being used, however in the future he would like to use the well water to irrigate his property.

The following ROs for groundwater use address use of the regional aquifer and not the perched groundwater. The perched groundwater is discontinuous across the Site and is not being used as a source of water. Remedial strategies for addressing TCE and hexavalent chromium exceeding AWQSs in regional aquifer will be evaluated during the Feasibility Study.

### **3.1 SUMMARY OF CURRENT AND REASONABLY FORESEEABLE USES OF WATER**

The Site includes the FWID which is the primary municipal water provider for the area. FWID currently operates eight wells, withdrawing approximately 2,800 acre-feet of groundwater per year for its approximately 15,000 customers. Three of these eight wells are active and located in or near the Site. FWID also has an inactive well in the Site, FWID-66, in which TCE was detected above the MCL and AWQS of 5 µg/L. FWID partnered with ADEQ to construct a combination VOC and arsenic treatment system. [NOTE: The arsenic is naturally occurring and thus is not a Site COC.] This system removes VOCs from the water extracted from two wells within the Site.

FWID does not expect to change the number of wells or the amounts of water removed from the aquifer in the near future. However, FWID does plan to use Central Arizona Project (CAP) water to augment the groundwater supply when CAP water becomes available. This alternative is not expected to occur for several years.

**The RO for groundwater will be to restore, replace or otherwise provide and protect for the current and future municipal use of the regional aquifer threatened or impacted by TCE and/or chromium contamination emanating from the Site. This action is needed for as long as the level of contamination in the groundwater resource threatens or prohibits its use as a municipal water supply.**

Pima County Wastewater Management owns a non-exempt water supply well within the Potential Impact Area and west of the Site contaminant plume. The owner has indicated that this well is used for standby/emergency industrial non-potable water supply.

**The RO for groundwater will be to protect for the future non-potable use of the regional aquifer threatened by the TCE and/or chromium contamination emanating from the Site. This action is needed for as long as the level of contamination in the groundwater resource threatens its use as a non-potable water supply.**

One private domestic well is located within the Site which could be used in the future. The well owner did indicate that the well is currently not used; however, in the future he would like to use the well water to irrigate his property if the groundwater becomes usable. No private

domestic wells are currently being used. All other private well owners indicated that they are not using well water and do not intend to do so in the future. Therefore, no RO for domestic water supply use is needed for this Site at this time.

**APPENDIX A**  
**LAND AND WATER USE STUDY**

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**LAND AND WATER  
USE STUDY FOR THE  
MIRACLE MILE WQARF SITE  
TUCSON, ARIZONA**

**Prepared for  
ARIZONA DEPARTMENT OF  
ENVIRONMENTAL QUALITY**

**URS Job No. 23444816.51000  
October 23, 2008**

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## LIST OF ACRONYMS AND ABBREVIATIONS

µg/L	micrograms per liter
1,1-DCE	1,1-dichloroethene
ADEQ	Arizona Department of Environmental Quality
ADWR	Arizona Department of Water Resources
AMA	Active Management Area
AWQS	Aquifer Water Quality Standard
bgs	below ground surface
CAP	Central Arizona Project
Freon 11	trichlorofluoromethane
Freon 12	dichlorodifluoromethane
FWID	Flowing Wells Irrigation District
gpm	gallons per minute
LWU	Land and Water Use
MCL	Maximum Contaminant Level
mg/L	milligrams per liter
mg/Kg	milligram per kilogram
MTBE	methyl tertiary butyl ether
PCE	tetrachloroethene
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
RO	Remedial Objectives
RSC	Rental Service Corporation (aka RSC Equipment Rental)
SI	Site Investigation
SRL	Soil Remediation Level
SJS	Spring Joint Specialists
TCE	trichloroethene
URS	URS Corporation
VOCs	volatile organic compounds
WQARF	Water Quality Assurance Revolving Fund

## **1.0 INTRODUCTION**

This Land and Water Use Study (LWU) report has been prepared for the Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Site (Site). URS Corporation prepared this report for the Arizona Department of Environmental Quality (ADEQ) to meet the requirements established under the Arizona Administrative Code (A.A.C.) R18-16-406 (D). The purpose of this report is to describe the current and reasonably foreseeable land and water uses for areas already impacted or threatened to be impacted by a contaminant release.

### **1.1 PROCESS OVERVIEW**

The process to complete the remedial investigation (RI) and select remedial objectives (ROs) begins with the completion of the Draft RI report, which includes the LWU report. A public meeting is held to solicit input for the selection of ROs within 45 to 90 days after the Draft RI has been available for public comment. Following the RO public meeting and the Draft RI comment period, ADEQ issues the proposed ROs report. The ROs chosen for a site are based on the uses identified in the LWU report. If there is significant public interest or additional information has been discovered, an additional public meeting to discuss the ROs may be held. The final ROs report is then prepared and included in the final RI report.

### **1.2 REPORT OBJECTIVES**

The purpose of the LWU report is to gather information regarding current and “foreseeable” uses of land or water that have been or are threatened to be impacted by a contaminant release, and to project time frames for future changes in those uses. Information gathered from property owners, water providers, municipalities, and well owners are to be included in the report.

In general, this report identifies various current and potential future uses of land and water in the vicinity of the Miracle Mile WQARF Site.

### **1.3 SITE BACKGROUND**

In September 1983, a groundwater supply well located at the Tra-Tel Tucson RV Park was found to contain tetrachloroethylene (PCE). The Tra-Tel RV Park is located north of Fort Lowell Road, near La Cholla Road, within the former Miracle Mile Interchange Area boundaries. In June 1986, trichloroethylene (TCE) was detected at a concentration 20 micrograms per liter ( $\mu\text{g/L}$ ) in a sample collected from an industrial well (Fairfax Industrial Park well) located approximately  $\frac{3}{4}$ -mile north-northeast of the Tra-Tel RV Park. [Five  $\mu\text{g/L}$  is the federal drinking water Maximum Contaminant Level (MCL) and the Arizona Aquifer Water Quality Standard

(AWQS) for both PCE and TCE.] In 1988, ADEQ initiated a Phase I investigation in the Site vicinity under the authority of federal Comprehensive Environmental Response, Compensation, and Liability Act.

Beginning in December 1989, ADEQ conducted a Phase II investigation of several industrial facilities within the Miracle Mile WQARF Site. The Phase II investigation included drilling, well installation, geophysical logging, sampling of five groundwater monitor wells (wells IRA-1 through IRA-5), and aquifer testing of two water supply wells. Results from the Phase II soil-gas and soil investigation indicated the presence of several volatile organic compounds (VOCs), including TCE, 1,1-DCE, PCE, methyl tertiary butyl ether (MTBE), trichlorofluoromethane (Freon 11), and dichlorodifluoromethane (Freon 12). In addition to VOC contamination in the regional aquifer, chromium was detected at a concentration of 0.097 milligrams per liter (mg/L) in a groundwater sample collected from the Fairfax well in June 1986. The MCL and AWQS for chromium is 0.10 mg/L. Between 1990 and 1997, 11 monitor wells (IRA-1 through IRA-10-230) were installed within the Site to investigate VOC contamination in the regional aquifer and one was installed to investigate the perched groundwater (IRA-10-100).

Since January 1992, ADEQ has been collecting groundwater level measurements and groundwater quality samples from several wells within the Miracle Mile WQARF Site on a periodic basis, mostly quarterly. In addition to defining the lateral and vertical extent of the plume, and its migration through time, evaluation of the quarterly groundwater level measurements and groundwater quality data provide information on water level trends and groundwater flow direction that assist in determining the location(s) of future monitor wells.

In April 1999, ADEQ contracted with URS to begin the Remedial Investigation/Feasibility Study (RS/FS) for the Miracle Mile Site. From 1999 through 2008, 18 additional monitor wells have been installed in the regional aquifer to delineate the extent of contamination and 17 monitor wells have been installed in the perched groundwater zone to evaluate potential sources of the regional aquifer contamination. Also, passive and active soil gas and soil investigations have been performed at facilities located in the vicinity of Romero Road between Prince and Roger Roads to evaluate potential sources of groundwater contamination.

## 2.0 USE EVALUATION

This section is intended to describe the current and reasonably foreseeable future uses of the land and water within the Miracle Mile WQARF Site. For the purposes of this report, the time frame considered reasonably foreseeable is confined to the next 100 years. [Figure 1](#) shows the approximate boundaries of the Site as well as the boundaries of the 100-Year Potential Impact Area. The boundaries of the Site are defined by the area in which groundwater exceeds an AWQS.

### 2.1 LAND USES

The Miracle Mile WQARF Site is partially located within the Tucson city limits and partially within unincorporated Pima County. In general, the northern half of the Site is located within unincorporated Pima County and the southern half of the Site lies within Tucson city limits. [Figure 2](#) shows the division of the Pima County and City of Tucson Jurisdiction. Details of meetings and personal contacts regarding land uses are presented in [Appendix A](#).

#### 2.1.1 Current Planning and Zoning

##### 2.1.1.1 Pima County Planning and Zoning

The Pima County regulated portion of the land within the Miracle Mile WQARF Site boundary encompasses approximately 286.84 acres or 55.47% of the total Site area. Much of the land use lying within the Pima County portion of the Site is considered Multiple Use Industrial. The area also includes some commercial and residential zones. The Industrial Multiple Use area composes approximately 222.73 acres or 77.65% of the Pima County areas of the Site. Residential areas compose approximately 56.12 acres or 19.56% of the Pima County areas of the Site. Commercial properties make up the remaining eight acres (2.79%) of the Pima County area of the Site. [Figure 3](#) shows the locations of the zoning areas within the Site. [Table 1](#) shows the acreage and zoning types contained within the Pima County portion of the Site.

##### 2.1.1.2 City of Tucson Planning and Zoning

The city limits of Tucson encompass approximately 230.24 acres or 44.53% of the Miracle Mile WQARF Site boundary. [Figure 4](#) and [Table 2](#) provide description of the zoning areas within the Tucson portion of the Site. This area includes 130.43 acres (56.65%) of industrial areas, 26.35 acres (11.44%) of commercial properties, and 73.46 acres (31.91%) of residential use zones.

## **2.1.2 Future Planning and Zoning**

Neither the City of Tucson nor Pima County areas within the Miracle Mile WQARF Site are expected to have significant zoning changes in the foreseeable future. The Pima County areas are considered by the county to be a growth area which will require new developments, in general, to comply with these uses: High Density Residential Units, Transitional Uses, and Campus Park Industrial Uses. The City of Tucson has indicated that they have no specific plans for the City of Tucson areas within the Miracle Mile WQARF Site and the current land use zoning is not expected to change. Therefore, in general, land uses within the foreseeable future are expected to remain similar to current land use zoning.

## **2.1.3 Site Specific Land Uses**

This section provides information on site-specific current and foreseeable future land uses at sites that either have been or are threatened to be impacted by “contaminant releases”. These summaries are based on responses from landowners to ADEQ regarding land use plans for the sites.

### ***2.1.3.1 Former Spring Joint Specialists Facility Property***

The former SJS facility property has deep soil contamination exceeding the hexavalent chromium non-residential SRL. This parcel is currently zoned for General and Intensive Commercial Operations. Currently the facility is empty and no operations are being performed on the site. The owner has indicated that the future use of the site will remain non-residential/commercial.

### ***2.1.3.2 Rental Service Corporation Facility Property***

Hexavalent chromium has been detected above the non-residential SRL in one deep [60’ bgs—in the perched groundwater smear zone] soil sample collected from the Rental Service Corporation (RSC) facility property. The RSC facility parcel is currently zoned for General and Intensive Commercial Operations. The owner of the property has indicated that the property is currently being used for light industrial/commercial purposes and will continue to be used as such for the foreseeable future.

## 2.2 GROUNDWATER USES

The Miracle Mile WQARF Site lies within the Tucson Active Management Area (AMA). The Tucson AMA was created by the Arizona Groundwater Management Code. Under the code, any withdrawal of groundwater within an AMA must be done under a groundwater right or permit. The only exception is an exempt well, which is a well that withdraws less than 35 gallon per minute (gpm); however these wells must still be registered with the Arizona Department of Water Resources. Two different groundwater rights can be used. A grandfathered water right is a right derived from past water use. A service area water right is a right that allows municipalities, water companies, or irrigation districts the right to withdraw water to serve those within their service areas.

The Potential Impact Area for the Miracle Mile Site encompasses 59 ADWR-registered wells: fourteen water supply wells, 39 groundwater monitoring wells, and six cathodic protection wells. The area does not encompass any appreciable surface water.

Of the fourteen water supply wells, seven are being used or planned for future usage: five municipal water supply wells, one private domestic water well, and one county-owned industrial well. Two water service providers maintain service areas within the Site Potential Impact Area. These seven wells, the monitor wells, and the water service provider areas are shown on [Figure 5](#). [Table 3](#) displays a summary of the wells within the Site Potential Impact Area. The following is a description of the uses of the wells within the Potential Impact Area.

### 2.2.1 Municipal Provider and Local Government Groundwater Use

#### 2.2.1.1 *Flowing Wells Irrigation District*

The Flowing Wells Irrigation District (FWID) currently operates and maintains eight wells. Four of these wells are within the Site Potential Impact Area. One of these four wells is within the Site plume, two are adjacent and to the east of the plume, and one is down-gradient of the plume. FWID withdrawals approximately 2,800 acre-feet per year of groundwater and serves approximately 15,000 customers. In 2006 FWID partnered with ADEQ to construct a combination VOC and arsenic treatment system involving two of the four wells within the plume. This system treats the water extracted from two wells within the Miracle Mile WQARF Site. FWID does not expect to change the number of wells or the amount of water removed from the aquifer in the near future.

However, FWID does plan to use Central Arizona Project (CAP) water to augment the groundwater supply when CAP water becomes available. This alternative is not expected to

occur for several years. FWID currently has no plans to drill new wells or modify any existing wells.

#### ***2.2.1.2 Villa Capri Mobile Home Park***

Villa Capri Mobile Home Park is a small municipal provider for mobile home residents. The on-site well, which supplies water for its residents, is outside of and down-gradient of the Site plume. The owners do not foresee any change in water usage in the future.

#### ***2.2.1.3 City of Tucson, Tucson Water***

The City of Tucson, Tucson Water Department also serves water to some areas within the Site Potential Impact Area. However, Tucson Water does not maintain any wells within the Potential Impact Area.

#### ***2.2.1.4 Pima County Wastewater Management Department***

Pima County Wastewater Management (PCWM) operates one well within the Site Potential Impact Area but outside of the current plume boundary. The well serves as a standby/emergency industrial supply well. Currently, PCWM has no plans to use the well for any other service type in the future.

### **2.2.2 Private Groundwater Use**

As previously mentioned, the area encompasses eight privately owned wells. The uses of these wells is based on information from ADWR records and include irrigation and private domestic use. Individual well owners were contacted regarding current and future uses of the wells. Seven well owners do not currently use the wells and have no plans of using them in the foreseeable future. One owner does not currently use the well because the well has low levels of TCE, but the owner would like to use the well for irrigation in the future when the groundwater becomes usable. A summary of all known wells located in the Potential Impact Area is provided in [Table 3](#). Details of the personal contacts with well owners are attached as [Appendix B](#).

### **3.0 ANALYSIS AND SUMMARY OF USES**

This section describes those land and water uses discussed in Section 2.0 that are most likely to be relevant to a discussion of Remedial Objectives.

#### **3.1 REASONABLY FORESEEABLE LAND USES**

Current and future site specific land uses include commercial activities at the RSC facility and possible operations consistent with general and intensive commercial operations at the SJS facility. The remainder of the Site area is composed largely of commercial and industrial areas with some residential areas. The current zoning plan is expected to stay the same for the foreseeable future.

#### **3.2 REASONABLY FORESEEABLE GROUNDWATER USES**

Current and future groundwater uses includes the following:

Municipal and Local Government Potable Supply – FWID currently uses groundwater to supply potable drinking water to its customers. Villa Capri Mobile Home Park uses groundwater to supply potable drinking water to its residents. These uses are expected to continue into the future. Pima County Wastewater Management currently uses groundwater to supply irrigation and industrial water on a standby/emergency basis.

Private Domestic Water Supply – Based on responses from private well owners, seven of the eight private domestic wells have no uses for the foreseeable future. One well would be used for irrigation purposes in the future should the groundwater be deemed usable for such operations.

#### **3.3 REASONABLY FORESEEABLE SURFACE WATER USES**

The Miracle Mile WQARF Site does not currently contain any appreciable surface water sources.

## **TABLES**

**Table 1.  
Pima County Zoning Summary**

Location Description	Usage Type	Area (acre)	Percent of County Jurisdiction Within WQARF Site
Total Area		286.84	100.00%
TR	Residential Transitional Zone	1.81	0.63%
CR-3	Single Residence Zone	37.72	13.15%
CR-4	Mixed-Dwelling Type Zone	1.80	0.63%
CR-5	Multiple Residence Zone	14.79	5.16%
CB-1	Local Business Zone	1.58	0.55%
CB-2	General Business Zone	6.42	2.24%
MU	Industrial Multiple Use Zone	222.73	77.65%

NOTE: The area of interest is the area within the boundaries of the Miracle Mile WQARF Site, as defined in Figure 3.

Table 2.  
City of Tucson Zoning Summary

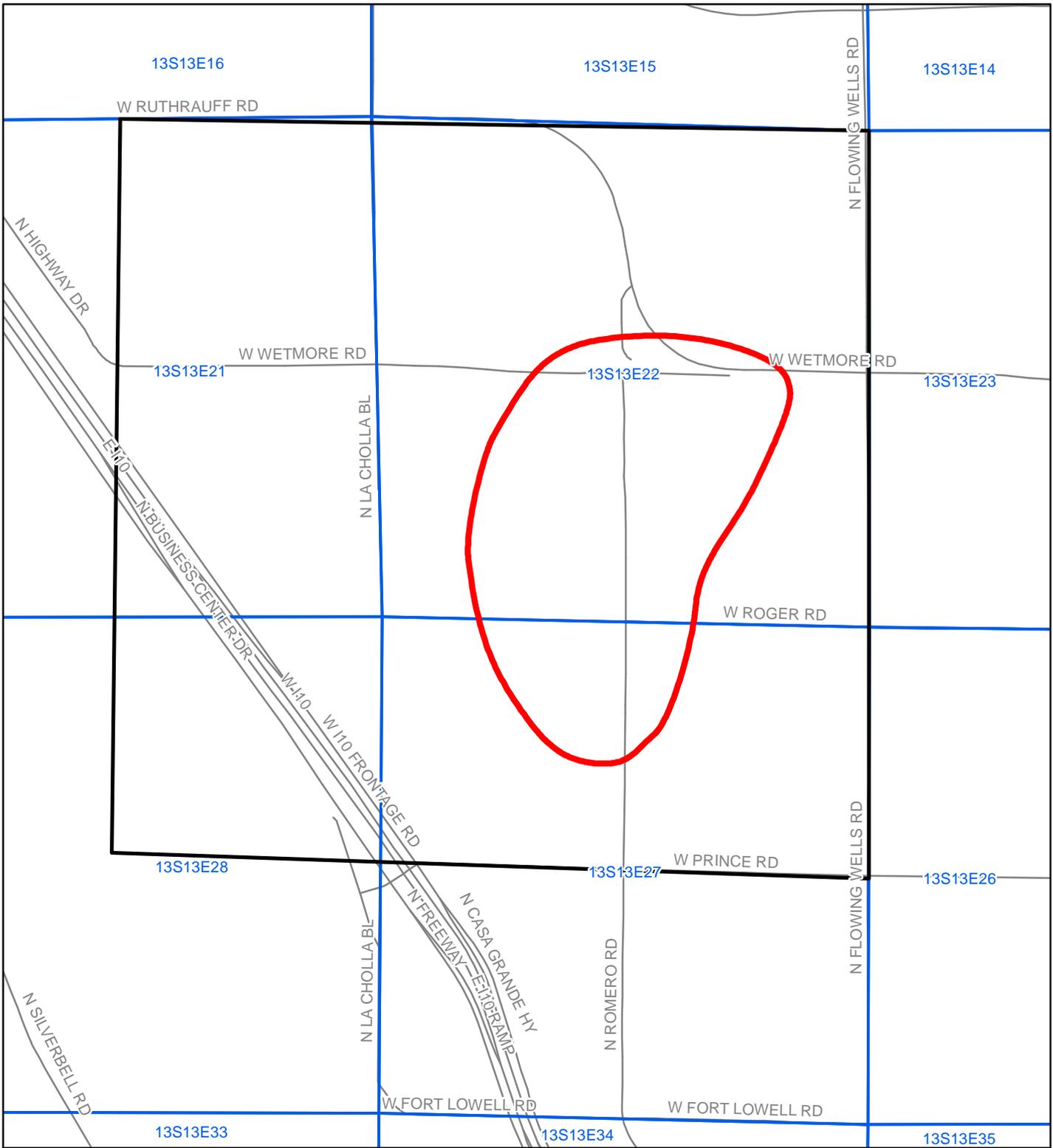
Location Description	Usage Type	Area (acre)	Percent of Tucson Jurisdiction Within WQARF Site
Total Area		230.24	100.00%
I-1	Light and Heavy Industrial	130.43	56.65%
MH-1	Mobile Home Zone	53.13	23.08%
R-1	Residential Single Family Zone	17.58	7.64%
C-2	General and Intensive Commercial Zone	26.35	11.44%
R-3	High Density Residential	2.75	1.19%

NOTE: The area of interest is the area within the boundaries of the Miracle Mile WQARF Site, as defined in Figure 4.

**Table 3.  
Water Use Summary Table**

Figure 5 Well ID	Well Description	OWNER	ADWR #	CADASTRAL LOCATION
1	INDUSTRIAL/COUNTY-- According to well owner, the well serves as a standby/emergency	Pima County Wastewater Management	55-639735	D-13-0-13-0-21DCC
2	MUNICIPAL--FWID-66--not in use because of TCE contamination	FWID	55-626042	D-13-0-13-0-22DAC
3	MUNICIPAL--FWID-70	FWID	55-626040	D-13-0-13-0-22DCB
4	MUNICIPAL--FWID-72	FWID	55-626038	D-13-0-13-0-22ABD
5	MUNICIPAL--FWID-75	FWID	55-626035	D-13-0-13-0-22DCD
6	PRIVATE--Well not currently used, would use for irrigation if possible	Robert and Cheryl Will (formerly Walter Douglas well)	55-611984	D-13-0-13-0-22000
7	SMALL MUNICIPAL	John Kai, Villa Capri Mobile Home Park	55-616505	D-13-0-13-0-21AAC
These wells are not shown on Figure 5 because they are not and will not be used.	PRIVATE--Well not used	John Krogstad (new owner, Brenda Limon)	55-700060	D-13-0-13-0-22CAC
	PRIVATE--No well on property, according to owner	North Tucson Business Center	55-604028	D-13-0-13-0-28ADC
	PRIVATE--Well not used	Eric & Sheree Anderson	55-700024	D-13-0-13-0-22BDA
	PRIVATE--Well not used	James C. Newell	55-700067	D-13-0-13-0-21DAB
	PRIVATE--Well not used	Robert C. Netherton	55-801453	D-13-0-13-0-27ABC
	PRIVATE--Well not used (dry)	Blake Holding Corp. (Shamrock Dairy)	55-700072	D-13-0-13-0-22BAD
	PRIVATE--No well on property, according to owner	Earl Williams	55-539788	D-13-0-13-0-22CDB
	PRIVATE--Well not used.	Danny F & Pao Mei NG	55-700008	D-13-0-13-0-22ADD
--	MONITOR	Chevron Products Company	55-599558	D-13-0-13-0-22BBB
--	MONITOR	City of Tucson - Env. Management Division	55-597788	D-13-0-13-0-28ADC
--	MONITOR	Tucson Water	55-562753	D-13-0-13-0-21DCC
--	MONITOR--IRA-01	ADEQ	55-529841	D-13-0-13-0-27BDB
--	MONITOR--IRA-02	ADEQ	55-529840	D-13-0-13-0-27BAA
--	MONITOR--IRA-03	ADEQ	55-529842	D-13-0-13-0-27ADB
--	MONITOR--IRA-04	ADEQ	55-557129	D-13-0-13-0-27BDA
--	MONITOR--IRA-05	ADEQ	55-530831	D-13-0-13-0-22CCC
--	MONITOR--IRA-06	ADEQ	55-547953	D-13-0-13-0-27BDD
--	MONITOR--IRA-07	ADEQ	55-547954	D-13-0-13-0-27BDD
--	MONITOR--IRA-08	ADEQ	55-557128	D-13-0-13-0-27BDA
--	MONITOR--IRA-09	ADEQ	55-562355	D-13-0-13-0-22DCC
--	MONITOR--IRA-10-100	ADEQ	55-561743	D-13-0-13-0-22DCC
--	MONITOR--IRA-10-230	ADEQ	55-561744	D-13-0-13-0-22DCC
--	MONITOR--IRA-11	ADEQ	55-586372	D-13-0-13-0-27BAC
--	MONITOR--IRA-12	ADEQ	55-586370	D-13-0-13-0-27BAC
--	MONITOR--IRA-13	ADEQ	55-586430	D-13-0-13-0-27ABB
--	MONITOR--IRA-14	ADEQ	55-586502	D-13-0-13-0-27BAD
--	MONITOR--IRA-15	ADEQ	55-586501	D-13-0-13-0-27BAD
--	MONITOR--IRA-16	ADEQ	55-586371	D-13-0-13-0-27BAC
--	MONITOR--IRA-17	ADEQ	55-596077	D-13-0-13-0-27BAD
--	MONITOR--IRA-18	ADEQ	55-596078	D-13-0-13-0-27BAD
--	MONITOR--IRA-19	ADEQ	55-596079	D-13-0-13-0-27BDA
--	MONITOR--IRA-20	ADEQ	55-596080	D-13-0-13-0-27BDA
--	MONITOR--IRA-21	ADEQ	55-596081	D-13-0-13-0-27BAD
--	MONITOR--IRA-22	ADEQ	55-596082	D-13-0-13-0-27BDA
--	MONITOR--IRA-23	ADEQ	55-596075	D-13-0-13-0-27BDA
--	MONITOR--IRA-24	ADEQ	55-900260	D-13-0-13-0-21ADD
--	MONITOR--IRA-25	ADEQ	55-596369	D-13-0-13-0-22CAA
--	MONITOR--IRA-26	ADEQ	55-596372	D-13-0-13-0-22CBD
--	MONITOR--IRA-27	ADEQ	55-900481	D-13-0-13-0-27BDA
--	MONITOR--IRA-28	ADEQ	55-900480	D-13-0-13-0-27BDA
--	MONITOR--IRA-29	ADEQ	55-900479	D-13-0-13-0-27BDA
--	MONITOR--IRA-30	ADEQ	55-900478	D-13-0-13-0-27BDA
--	MONITOR--IRA-31	ADEQ	55-900477	D-13-0-13-0-27ACC
--	MONITOR--Monitor well for past UST leaks	North Romero LLC	55-586407	D-13-0-13-0-27bad
--	MONITOR--SJ-MW-1	San Juan Springs Co.	55-201667	D-13-0-13-0-27ACC
--	MONITOR--SJ-MW-2	San Juan Springs Co.	55-201668	D-13-0-13-0-27ACC
--	MONITOR--SJ-MW-3	San Juan Springs Co.	55-201669	D-13-0-13-0-27ACC
These wells are not shown on Figure 5 because they are not water wells.	Cathodic Protection	Santa Fe Pacific Pipelines	55-545091	D-13-0-13-0-21DDC
	Cathodic Protection	Southwest Gas	55-529334	D-13-0-13-0-22CBB
	Cathodic Protection	Southwest Gas	55-530771	D-13-0-13-0-22AAC
	Cathodic Protection	Southwest Gas	55-530772	D-13-0-13-0-22CDB
	Cathodic Protection	Southwest Gas	55-530775	D-13-0-13-0-22BBD
	Cathodic Protection	Southwest Gas	55-531354	D-13-0-13-0-22DDD

## **FIGURES**

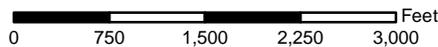


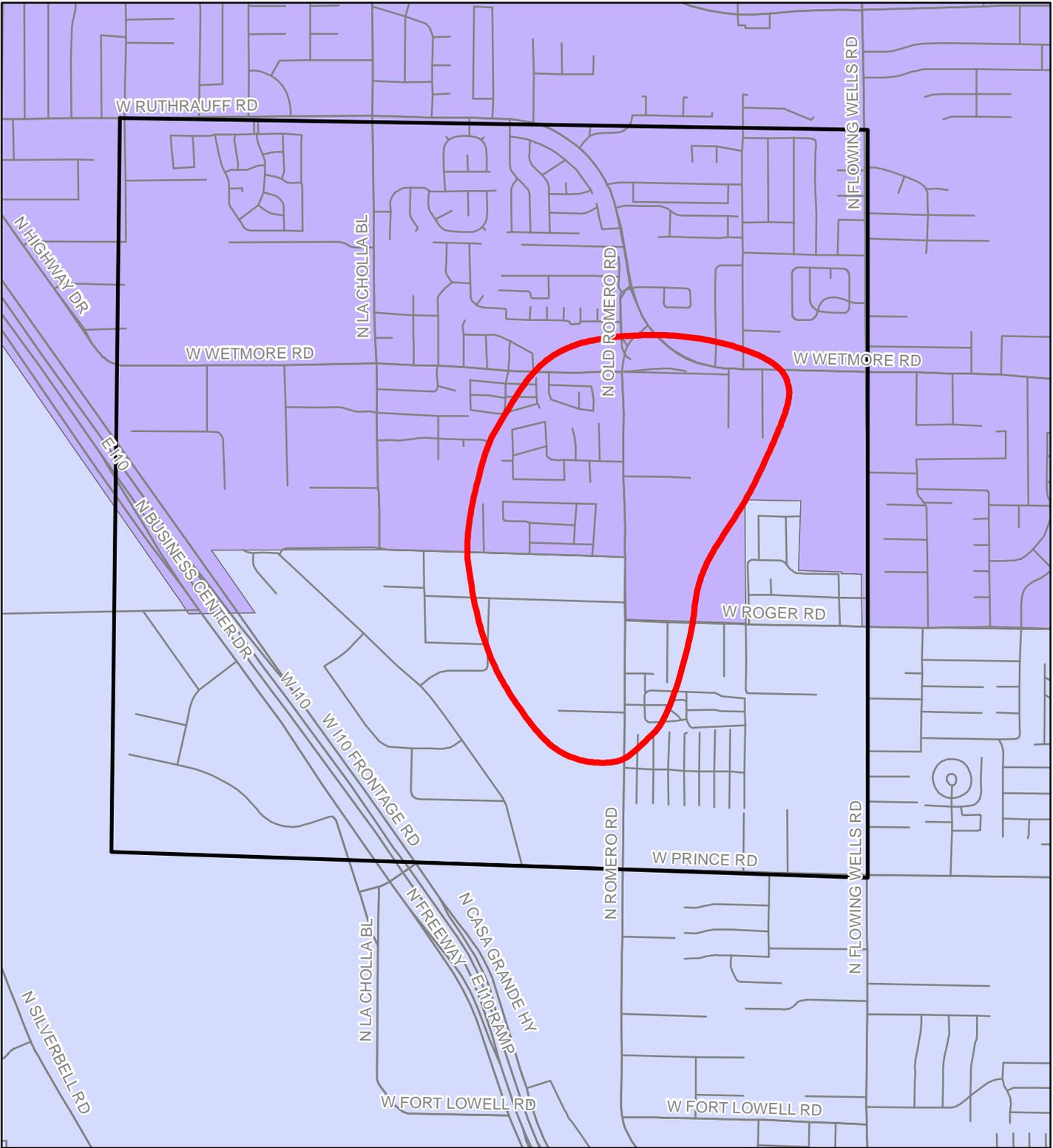
**LEGEND**

-  Miracle Mile WQARF Site [ $>5$  ug/L TCE AWQS (04-2005 through 04-2006)]
-  Potential Impact Area
-  Section Grid

Land And Water Use Study  
 Miracle Mile WQARF Site  
 Tucson, Arizona

**Figure 1:  
 Site Vicinity**



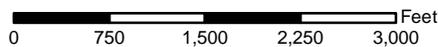


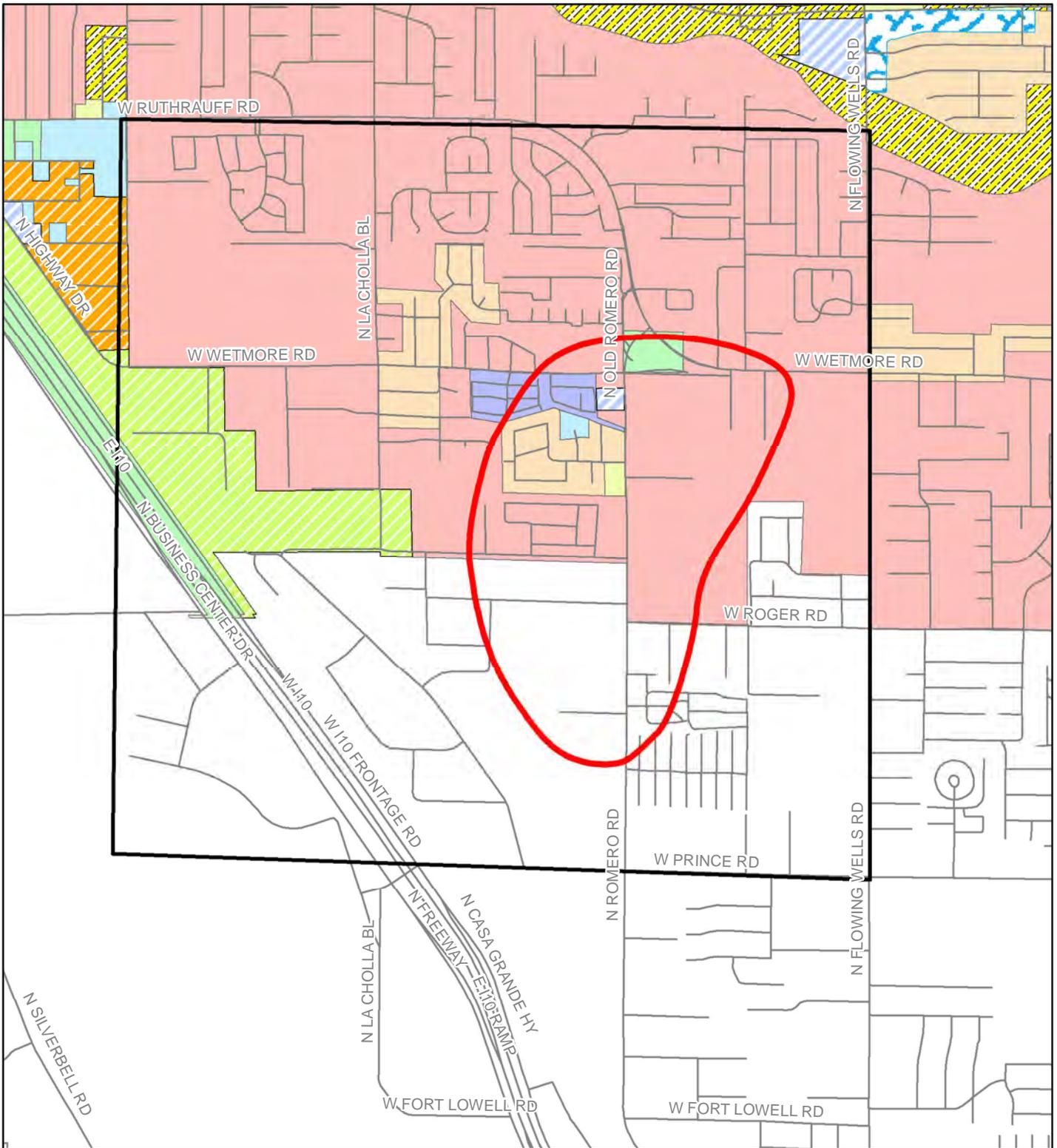
**LEGEND**

- Pima County
- Miracle Mile WQARF Site [ $>5 \text{ ug/L TCE AWQS}$  (04-2005 through 04-2006)]
- City of Tucson
- Potential Impact Area

**Land And Water Use Study  
Miracle Mile WQARF Site  
Tucson, Arizona**

**Figure 2:  
Jurisdiction Map**





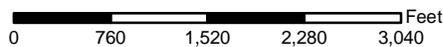
**LEGEND**

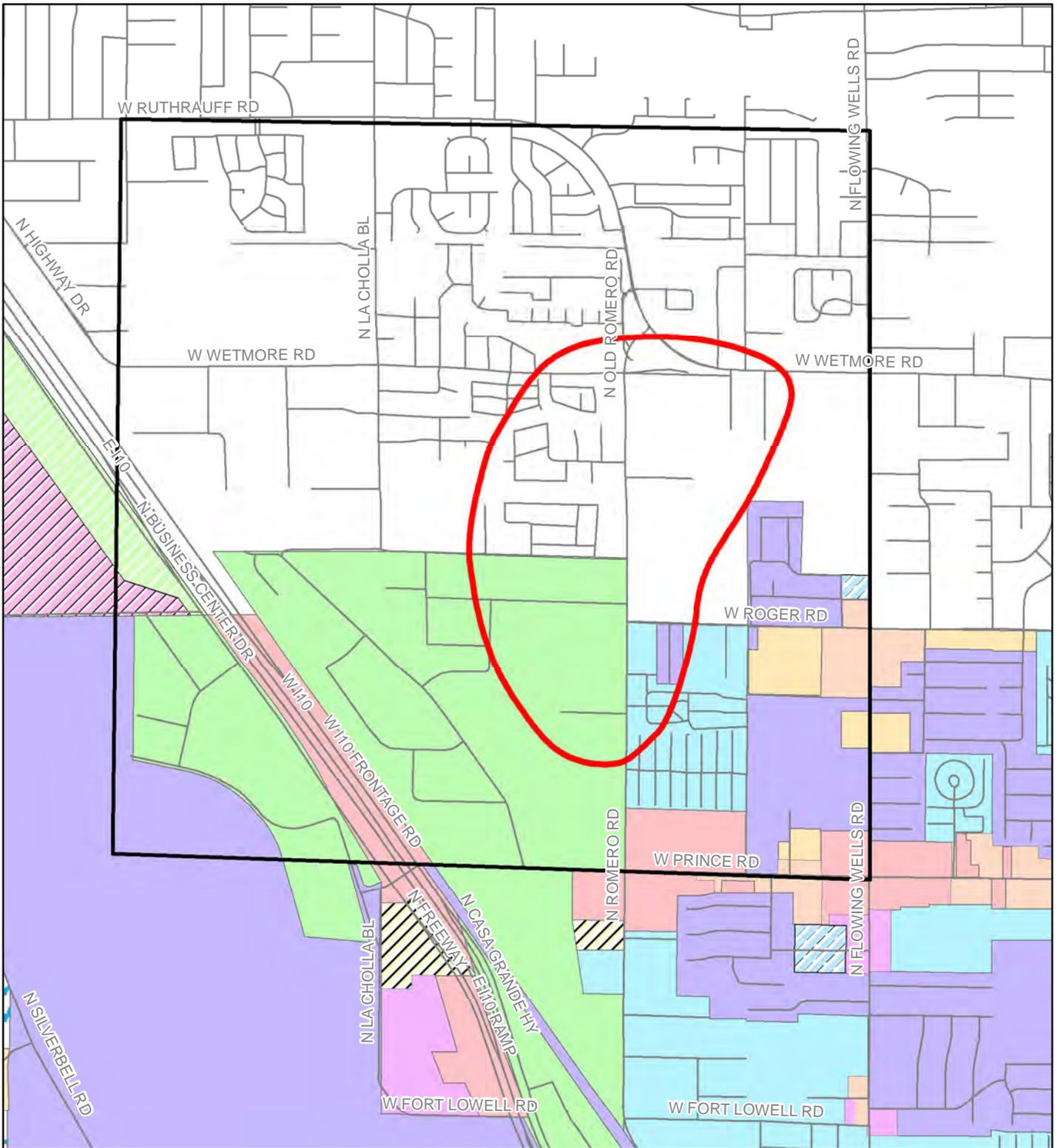
-  Miracle Mile WQARF Site [ $>5$  ug/L TCE AWQS (04-2005 through 04-2006)]
-  Potential Impact Area

	CB-1		CI-2		CR-4		SH
	CB-2		CR-2		CR-5		TR
	CI-1		CR-3		MU		

Land And Water Use Study  
 Miracle Mile WQARF Site  
 Tucson, Arizona

**Figure 3:  
 Pima County Zoning Map**



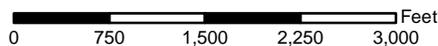


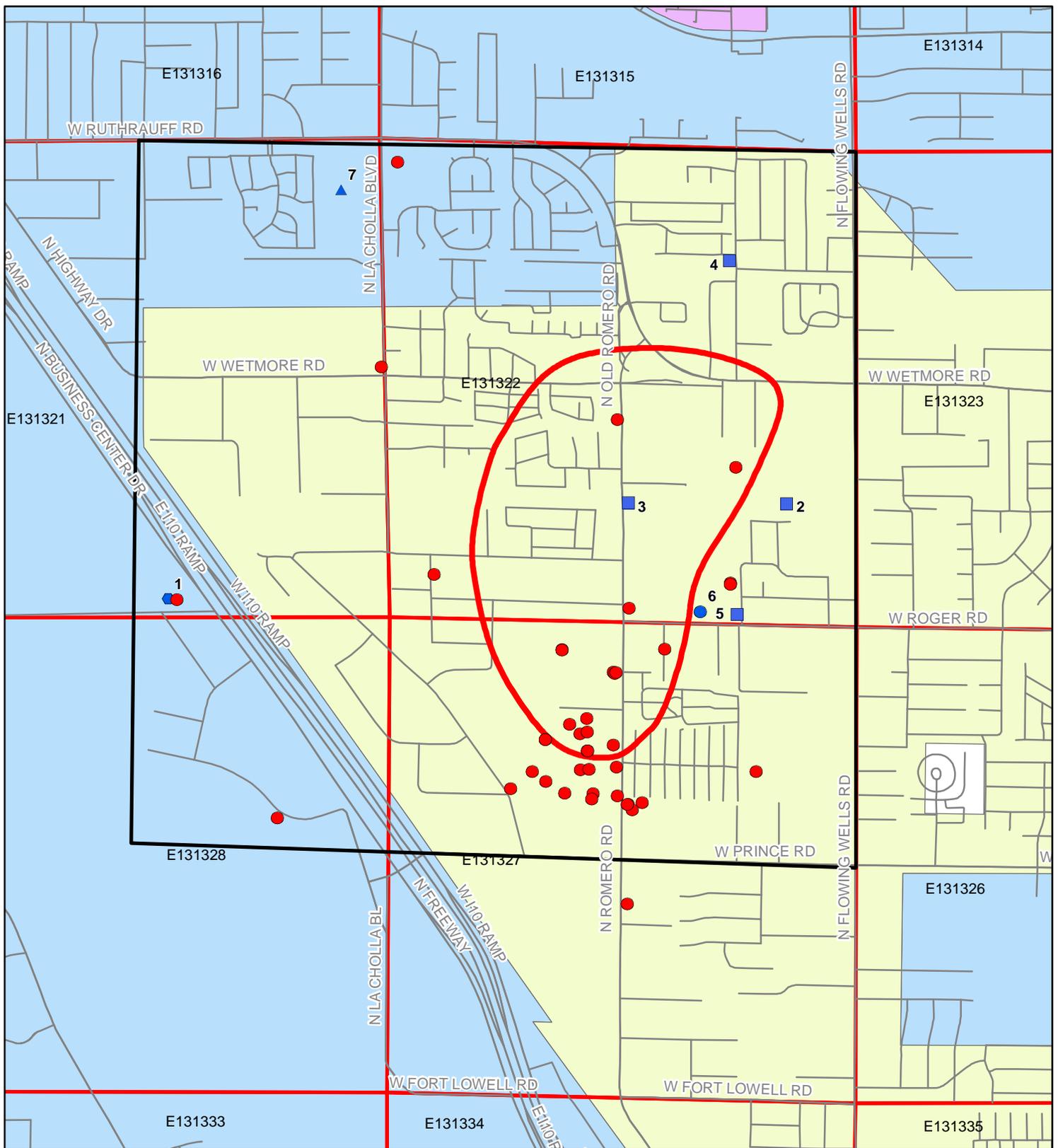
**LEGEND**

- ▭ Miracle Mile WQARF Site [ $>5$  ug/L TCE AWQS (04-2005 through 04-2006)]
- Potential Impact Area
- C-1
- C-2
- I-1
- MH-1
- O-3
- P-1
- R-1
- R-2
- R-3
- RV
- RX-1
- SR

**Land And Water Use Study  
Miracle Mile WQARF Site  
Tucson, Arizona**

**Figure 4:  
City of Tucson Zoning Map**





**LEGEND**

- Miracle Mile WQARF Site [ $>5$  ug/L TCE AWQS (04-2005 through 04-2006)]
- Potential Impact Area
- Flowing Wells Irrigation District
- Metropolitan DWID
- Tucson Water
- Monitor Well
- Municipal Well
- Private Well
- ▲ Small Municipal
- ◆ Industrial Supply

Note:  
Map does not show cathodic protection wells  
or unused private wells

Private and Municipal Wells shown with ID Number  
See Table 3 for well details

**Land And Water Use Study  
Miracle Mile WQARF Site  
Tucson, Arizona**

**Figure 5:  
Water Service  
Providers Map**



**APPENDIX A**  
**MEETING MINUTES AND CONTACTS REGARDING LAND USE**



**RECORD OF CONVERSATION**

**DATE:** November 16, 2006

**JOB NO.:** \_\_\_\_\_

**RECORDED BY:** William Neese

**OWNER/CLIENT:** ADEQ

**TALKED WITH:** Jim Mazzocco

**OF:** City of Tucson

**TELEPHONE:**  \_\_\_\_\_

**VISIT**

**MEETING**

**ROUTE TO:**

**INFORMATION**

**ACTION**

ROUTE TO:	INFORMATION	ACTION
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

**MAIN SUBJECT:** Miracle Mile Land and Water Use Study: City of Tucson Land Uses

**ITEMS DISCUSSED:**

ADEQ and URS met with personnel from the City of Tucson Planning Department. The City stated that it has no specific plans for the area within the Miracle Mile WQARF Site. The current zoning in that area is not expected to change significantly in the foreseeable future.



**RECORD OF CONVERSATION**

**DATE:** November 13, 2006

**JOB NO.:** \_\_\_\_\_

**RECORDED BY:** William Neese

**OWNER/CLIENT:** ADEQ

**TALKED WITH:** Jim Veomett

**OF:** Pima County

**TELEPHONE:**  \_\_\_\_\_

**VISIT**

**MEETING**

**ROUTE TO:**

**INFORMATION**

**ACTION**

ROUTE TO:	INFORMATION	ACTION
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

**MAIN SUBJECT:** Miracle Mile Land and Water Use Study: Pima County Land Uses

**ITEMS DISCUSSED:**

Below is a general summary of items discussed during the meeting.

- 1) The County has no specific Redevelopment or Revitalization plans for the subject area at this time.
- 2) The current comprehensive plan indicates this area as a Medium High Intensity Urban (MHIU) Area, and defines it as a Growth Area
- 3) The Current areas zoning and uses are not expected to change significantly based on this plan
- 4) New projects that may come up will either have to fit into the current zoning or will have to be consistent with the MHIU uses as defined in the comprehensive plan. These uses currently allow for High Density Residential Units, Transitional Uses, and Campus Park Industrial Uses.



Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • www.adeq.state.az.us



Stephen A. Owens  
Director

March 10, 2006

SROSPU06016

E-II-5240.20.2

Mr. Joel Herz  
3573 East Sunrise Drive, Suite 215  
Tucson, AZ 85718-3206

Re: Land Use Studies Relating to Miracle Mile Water Quality Assurance Revolving Fund  
(WQARF) Registry Site - Information Request – 3660 N. Romero Road, Tucson, AZ

Dear Mr. Herz:

Arizona Department of Environmental Quality (ADEQ) records indicate that San Juan Spring Co. DBA Spring Joint Specialists Co. (SJS) owns land that is located in or near the Miracle Mile WQARF registry site (see attached fact sheet). ADEQ is in the process of developing a draft Remedial Investigation (RI) report that will describe the extent of known contamination at the site and will also present information regarding current and reasonably foreseeable uses of land impacted or threatened to be impacted by the contamination.

As part of our preparation for this study, we have identified the land parcel where SJS is the owner of record and have mapped the parcel location in relation to the WQARF site (see attached Figures 1 and 2). We are requesting information you may have regarding current and reasonably foreseeable uses of land SJS owns at or near the site. Current and reasonably foreseeable uses of land are to be considered by ADEQ during the selection of a remedial action to address known contamination.

We are working to issue the draft RI report for public comment by June 2006. Please forward to me any information you may wish to provide by April 10, 2006. Should you wish to discuss this request for information, feel free to give me a call at 628-6722.

Sincerely,

Matthew Doolen, RG  
Project Manager  
Superfund Programs Unit  
Southern Regional Office

Attachments: Fact Sheet  
Site and Parcel Maps (parcel of interest highlighted)

Northern Regional Office  
1515 East Cedar Avenue • Suite F • Flagstaff, AZ 86004  
(928) 779-0313

Southern Regional Office  
400 West Congress Street • Suite 433 • Tucson, AZ 85701  
(520) 628-6733

## Miracle Mile Water Quality Assurance Revolving Fund Site January 2006

### SITE DESCRIPTION

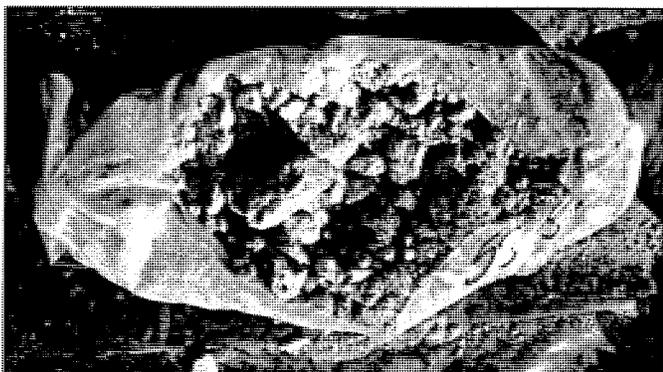
The Arizona Department of Environmental Quality (ADEQ) is investigating groundwater and soil contamination at the Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Site. The ADEQ WQARF program, which is also known as state Superfund, investigates and cleans up contaminated groundwater and soil sites throughout the state.

The Miracle Mile WQARF Site is located in west Tucson, and is bounded approximately by Wetmore Road to the north, Flowing Wells Road to the east, Prince Road to the south, and La Cholla Boulevard to the west.

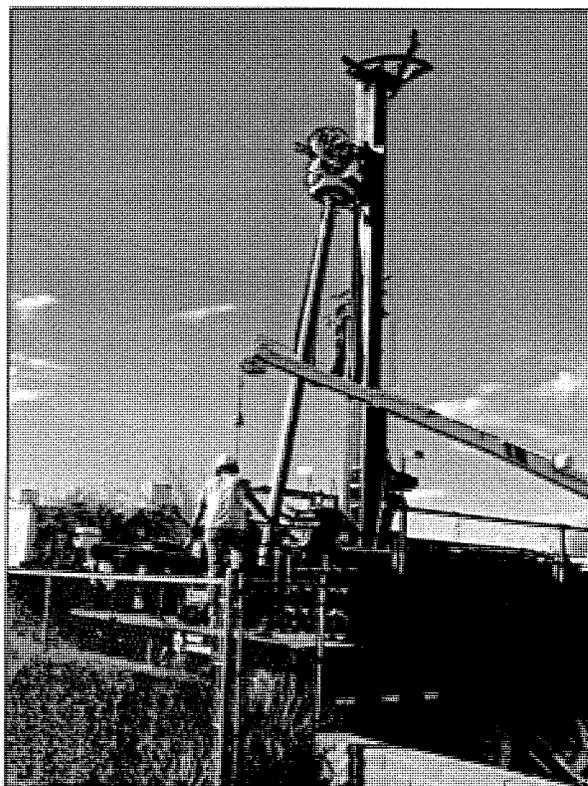
Groundwater at the site is contaminated with trichloroethene (TCE) and chromium occurring over regulatory limits. Depth to groundwater is about 70 feet below ground surface (bgs) in the perched aquifer, and about 160 feet bgs in the regional aquifer.

### SITE HISTORY

In the fall of 1983, the drinking water supply well at the Tra-Tel Tucson R.V. Park, located to the southwest of the present Miracle Mile WQARF Site, was found to be contaminated with PCE. Initial investigations focused on defining conditions within the site. These activities included soil and groundwater sampling, identification of facilities in the area of contamination, and distribution of survey questionnaires to these facilities.



Soil extracted during drilling is closely examined and analyzed to provide information about the hydrology and geology of the site.



Several monitor wells have been installed to investigate the contamination in and around the Miracle Mile WQARF site.

Subsequent investigations included facility inspections, facility record searches, reissuing of questionnaires, installation of monitor wells, and continuing groundwater sampling and monitoring.

The Miracle Mile site was placed on the WQARF Registry in September 1998.

### SITE INVESTIGATION/CLEANUP ACTION

In August 1995, ADEQ abandoned two private wells in the Miracle Mile area. A perched aquifer contaminated with volatile organic compounds (VOCs) was present in both wells. Water from this perched aquifer was cascading through the well bores and potentially contributing to the contamination of the deeper regional aquifer. Quarterly groundwater sampling and monthly water level measurements began in May 1999.

In 2001, in response to a request for an interim remedial action from Flowing Wells Irrigation District (FWID), ADEQ re-equipped one of their production wells (FWID-72) and constructed surface storage facilities after completion of a water supply study to identify and evaluate alternate water supplies.

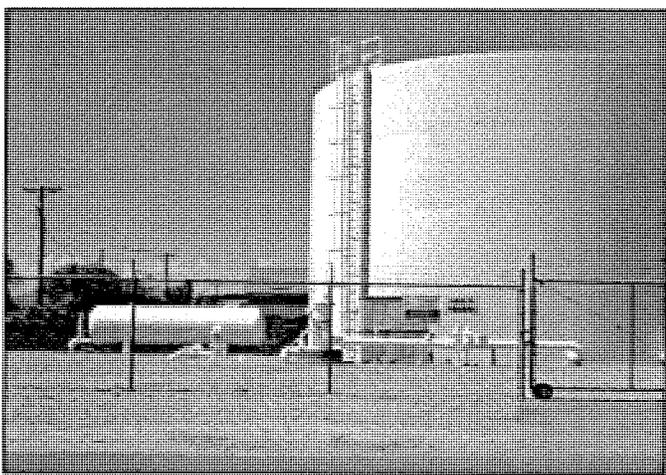
In Summer 2002, ADEQ abandoned the inactive Fairfax Industrial Park industrial production well to prevent potential cross-contamination between the contaminated perched aquifer and the underlying regional aquifer.

ADEQ is currently conducting the Remedial Investigation (RI) as part of the WQARF remediation process. The RI helps to determine what contaminants are present at the site, the extent of the contamination, and potential sources of the contamination. The Draft RI is expected to be completed by July 2006. Following the RI will be a Feasibility Study, which will identify and assess remedial options.

## HEALTH/WATER QUALITY

The Arizona Department of Health Services completed a Draft Baseline Human Health Risk Assessment in January 1995 of the Miracle Mile site. No significant health risks associated with this site were identified at that time.

There are potential risks associated with exposure to VOCs, principally through drinking contaminated groundwater. No one is known to be drinking contaminated water at this site; therefore, no one is known to be exposed or at risk of exposure to these contaminants. Cleanup activities are important to ensure the quality of future drinking water supplies.



*ADEQ is working to protect groundwater served by the Flowing Wells Irrigation District.*

## FOR MORE INFORMATION:

A Community Advisory Board (CAB) for the site was established in November 1999, and holds public meetings approximately four times a year. The purpose of the CAB is to advise ADEQ, the public and other interested parties about the issues and concerns of the community related to the investigation and cleanup of a WQARF site. The CAB consists of a diversified cross-section of the community, including residents, water providers, and other interested groups.

### Technical Information:

Matt Doolen  
ADEQ Project Manager  
400 W. Congress St., Suite 433  
Tucson, AZ 85701  
(520) 628-6722  
E-mail: [doolen.matthew@azdeq.gov](mailto:doolen.matthew@azdeq.gov)

### Community Involvement:

Eileen Palese  
ADEQ Community Involvement Coordinator  
400 W. Congress St., Suite 433  
Tucson, AZ 85701  
(520) 628-6712  
E-mail: [palese.eileen@azdeq.gov](mailto:palese.eileen@azdeq.gov)

Complete public files regarding the site are located at ADEQ's Phoenix offices. Call 1(800) 234-5677 for information.

For more information on this WQARF site or other WQARF sites in the State of Arizona, please visit the ADEQ Web site at: [www.azdeq.gov](http://www.azdeq.gov). In the left-hand column, click on Waste Programs, then on Superfund Programs. Look for the Site Information and Maps Link.

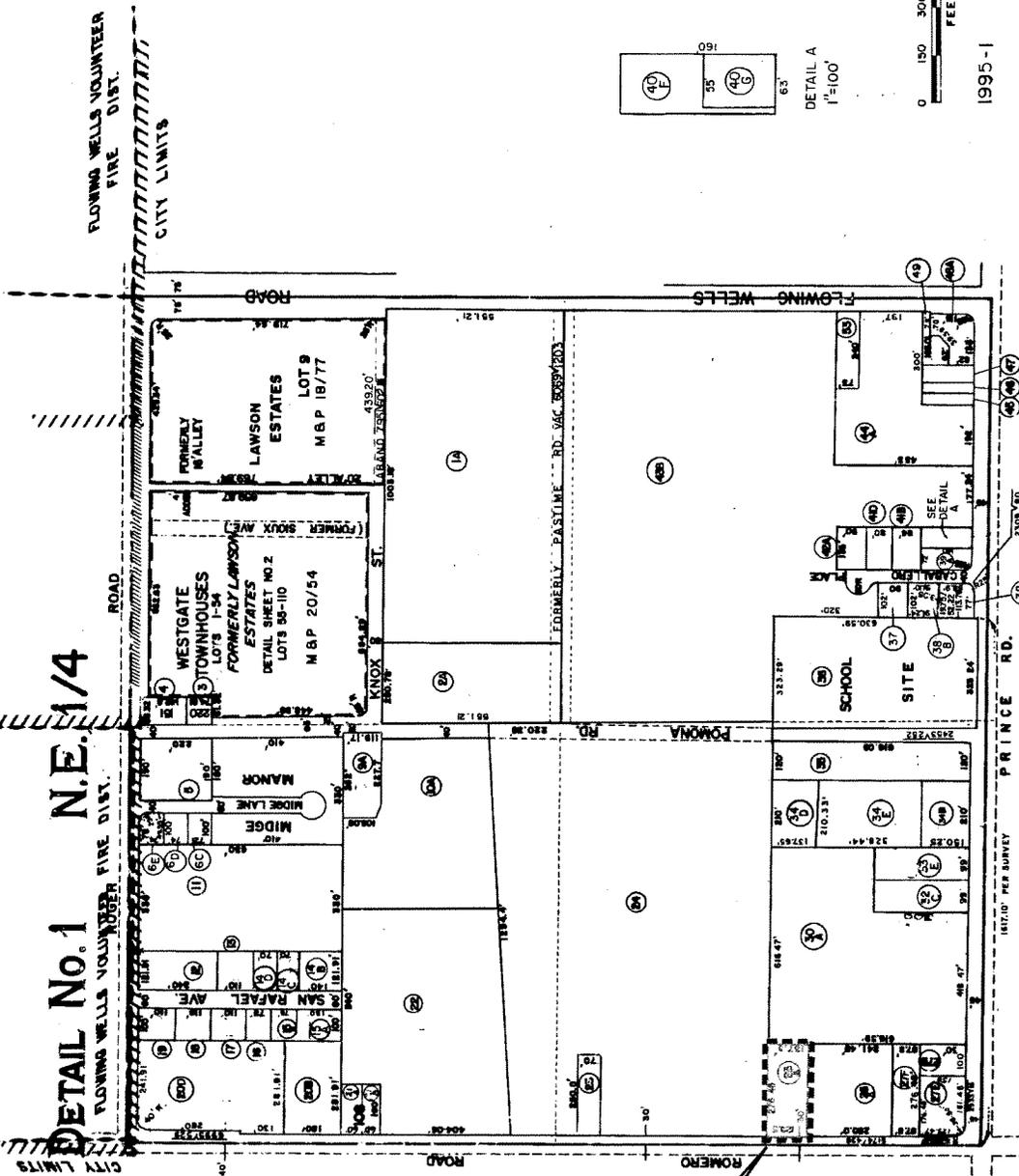
Para información en español sobre este sitio, se puede contactar a Melissa Hayes al (520) 770-3309.

# ASSESSOR'S RECORD MAP

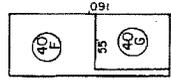
106-09  
2/6

## SECTION 27, TOWNSHIP 13 SOUTH, RANGE 13 EAST

### DETAIL No.1 N.E. 1/4



property location



DETAIL A  
1"=100'

C.O.T.  
PROJECT  
ARXA

1995-1

140 (3)

Figure 1





Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • www.adeq.state.az.us



Stephen A. Owens  
Director

March 10, 2006

SROSPU06017

E-II-5240.20.2

JDW Real Estate II LLC  
Attn: Rental Service Corp/Shiela Scott  
16225 Park Ten Place, Suite 200  
Houston, TX 77084

Re: Land Use Studies Relating to Miracle Mile Water Quality Assurance Revolving Fund  
(WQARF) Registry Site - Information Request – 3640 N. Romero Road, Tucson, AZ

Dear Ms. Scott:

Arizona Department of Environmental Quality (ADEQ) records indicate that JDW Real Estate II LLC (JDW) owns land that is located in or near the Miracle Mile WQARF registry site (see attached fact sheet). ADEQ is in the process of developing a draft Remedial Investigation (RI) report that will describe the extent of known contamination at the site and will also present information regarding current and reasonably foreseeable uses of land impacted or threatened to be impacted by the contamination.

As part of our preparation for this study, we have identified the land parcel where JDW is the owner of record and have mapped the parcel location in relation to the WQARF site (see attached Figures 1 and 2). We are requesting information you may have regarding current and reasonably foreseeable uses of land JDW owns at or near the site. Current and reasonably foreseeable uses of land are to be considered by ADEQ during the selection of a remedial action to address known contamination.

We are working to issue the draft RI report for public comment by June 2006. Please forward to me any information you may wish to provide by April 10, 2006. Should you wish to discuss this request for information, feel free to give me a call at (520) 628-6722.

Sincerely,

Matthew Doolen, RG  
Project Manager  
Superfund Programs Unit  
Southern Regional Office

Attachments: Fact Sheet  
Site and Parcel Maps (parcel of interest highlighted)

Northern Regional Office  
1515 East Cedar Avenue • Suite F • Flagstaff, AZ 86004  
(928) 779-0313

Southern Regional Office  
400 West Congress Street • Suite 433 • Tucson, AZ 85701  
(520) 628-6733

## Miracle Mile Water Quality Assurance Revolving Fund Site January 2006

### SITE DESCRIPTION

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The Miracle Mile WQARF Site is located in west Tucson, and is bounded approximately by Wetmore Road to the north, Flowing Wells Road to the east, Prince Road to the south, and La Cholla Boulevard to the west.

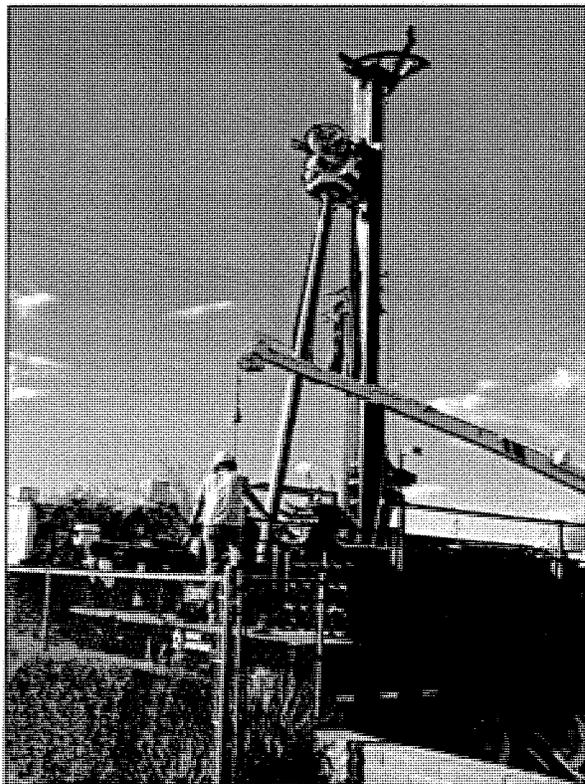
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### SITE HISTORY

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Several monitor wells have been installed to investigate the contamination in and around the Miracle Mile WQARF site.

Subsequent investigations included facility inspections, facility record searches, reissuing of questionnaires, installation of monitor wells, and continuing groundwater sampling and monitoring.

The Miracle Mile site was placed on the WQARF Registry in September 1998.

### SITE INVESTIGATION/CLEANUP ACTION

In August 1995, ADEQ abandoned two private wells in the Miracle Mile area. A perched aquifer contaminated with volatile organic compounds (VOCs) was present in both wells. Water from this perched aquifer was cascading through the well bores and potentially contributing to the contamination of the deeper regional aquifer. Quarterly groundwater sampling and monthly water level measurements began in May 1999.

In 2001, in response to a request for an interim remedial action from Flowing Wells Irrigation District (FWID), ADEQ re-equipped one of their production wells (FWID-72) and constructed surface storage facilities after completion of a water supply study to identify and evaluate alternate water supplies.

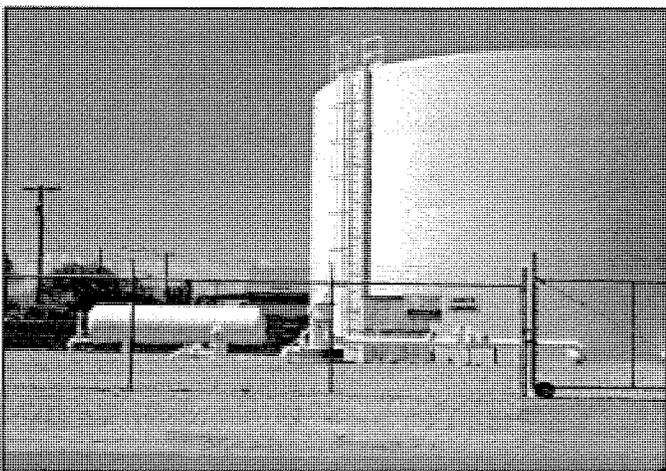
In Summer 2002, ADEQ abandoned the inactive Fairfax Industrial Park industrial production well to prevent potential cross-contamination between the contaminated perched aquifer and the underlying regional aquifer.

ADEQ is currently conducting the Remedial Investigation (RI) as part of the WQARF remediation process. The RI helps to determine what contaminants are present at the site, the extent of the contamination, and potential sources of the contamination. The Draft RI is expected to be completed by July 2006. Following the RI will be a Feasibility Study, which will identify and assess remedial options.

## HEALTH/WATER QUALITY

The Arizona Department of Health Services completed a Draft Baseline Human Health Risk Assessment in January 1995 of the Miracle Mile site. No significant health risks associated with this site were identified at that time.

There are potential risks associated with exposure to VOCs, principally through drinking contaminated groundwater. No one is known to be drinking contaminated water at this site; therefore, no one is known to be exposed or at risk of exposure to these contaminants. Cleanup activities are important to ensure the quality of future drinking water supplies.



*ADEQ is working to protect groundwater served by the Flowing Wells Irrigation District.*

## FOR MORE INFORMATION:

A Community Advisory Board (CAB) for the site was established in November 1999, and holds public meetings approximately four times a year. The purpose of the CAB is to advise ADEQ, the public and other interested parties about the issues and concerns of the community related to the investigation and cleanup of a WQARF site. The CAB consists of a diversified cross-section of the community, including residents, water providers, and other interested groups.

### Technical Information:

Matt Doolen  
ADEQ Project Manager  
400 W. Congress St., Suite 433  
Tucson, AZ 85701  
(520) 628-6722  
E-mail: [doolen.matthew@azdeq.gov](mailto:doolen.matthew@azdeq.gov)

### Community Involvement:

Eileen Palese  
ADEQ Community Involvement Coordinator  
400 W. Congress St., Suite 433  
Tucson, AZ 85701  
(520) 628-6712  
E-mail: [palese.eileen@azdeq.gov](mailto:palese.eileen@azdeq.gov)

Complete public files regarding the site are located at ADEQ's Phoenix offices. Call 1 (800) 234-5677 for information.

For more information on this WQARF site or other WQARF sites in the State of Arizona, please visit the ADEQ Web site at: [www.azdeq.gov](http://www.azdeq.gov). In the left-hand column, click on Waste Programs, then on Superfund Programs. Look for the Site Information and Maps Link.

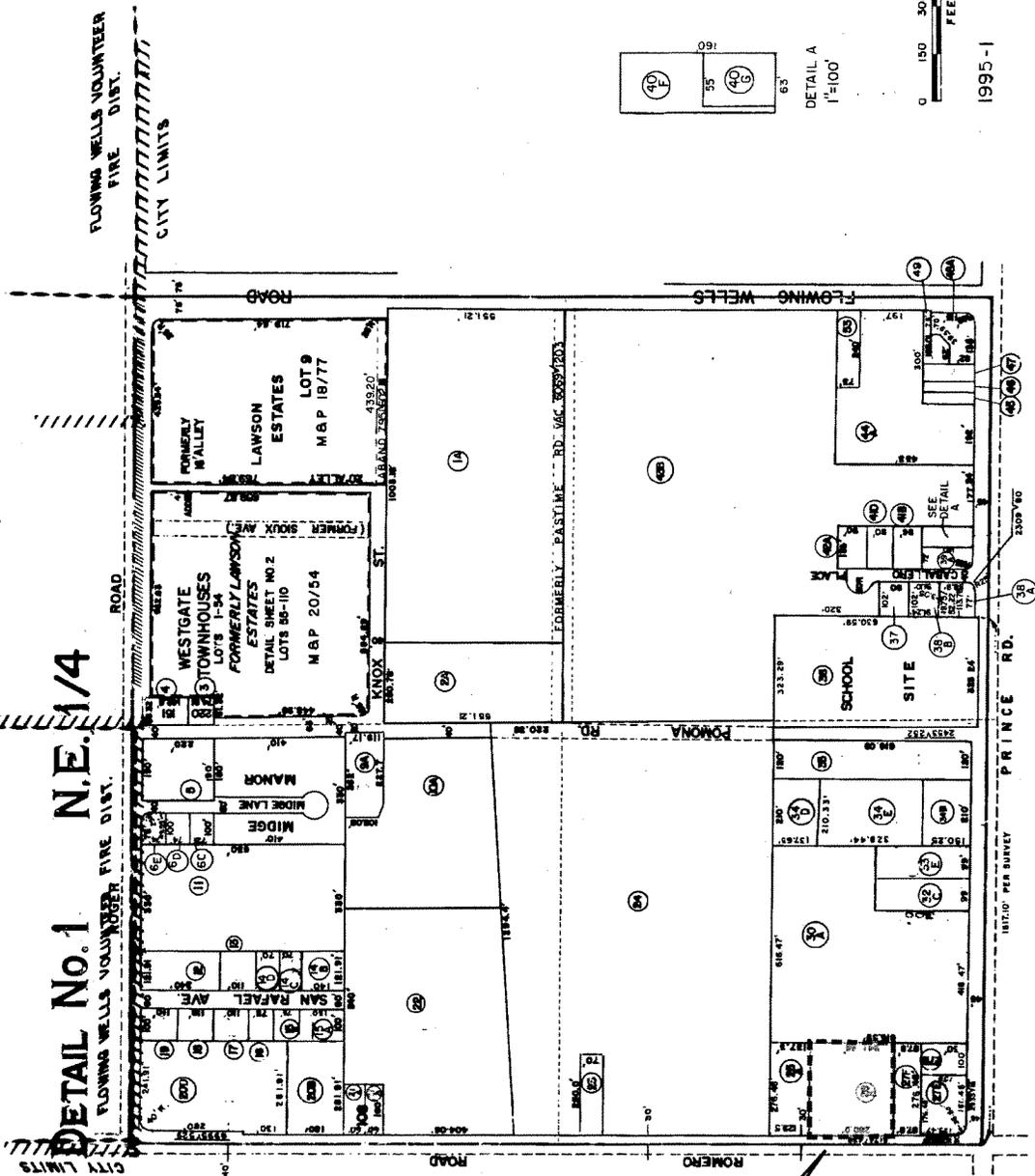
Para información en español sobre este sitio, se puede contactar a Melissa Hayes al (520) 770-3309.

# ASSESSOR'S RECORD MAP

106-09  
2/6

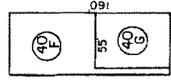
## SECTION 27, TOWNSHIP 13 SOUTH, RANGE 13 EAST

### DETAIL No. 1 N.E. 1/4



property location

C.O.T.  
PROJECT  
AREA

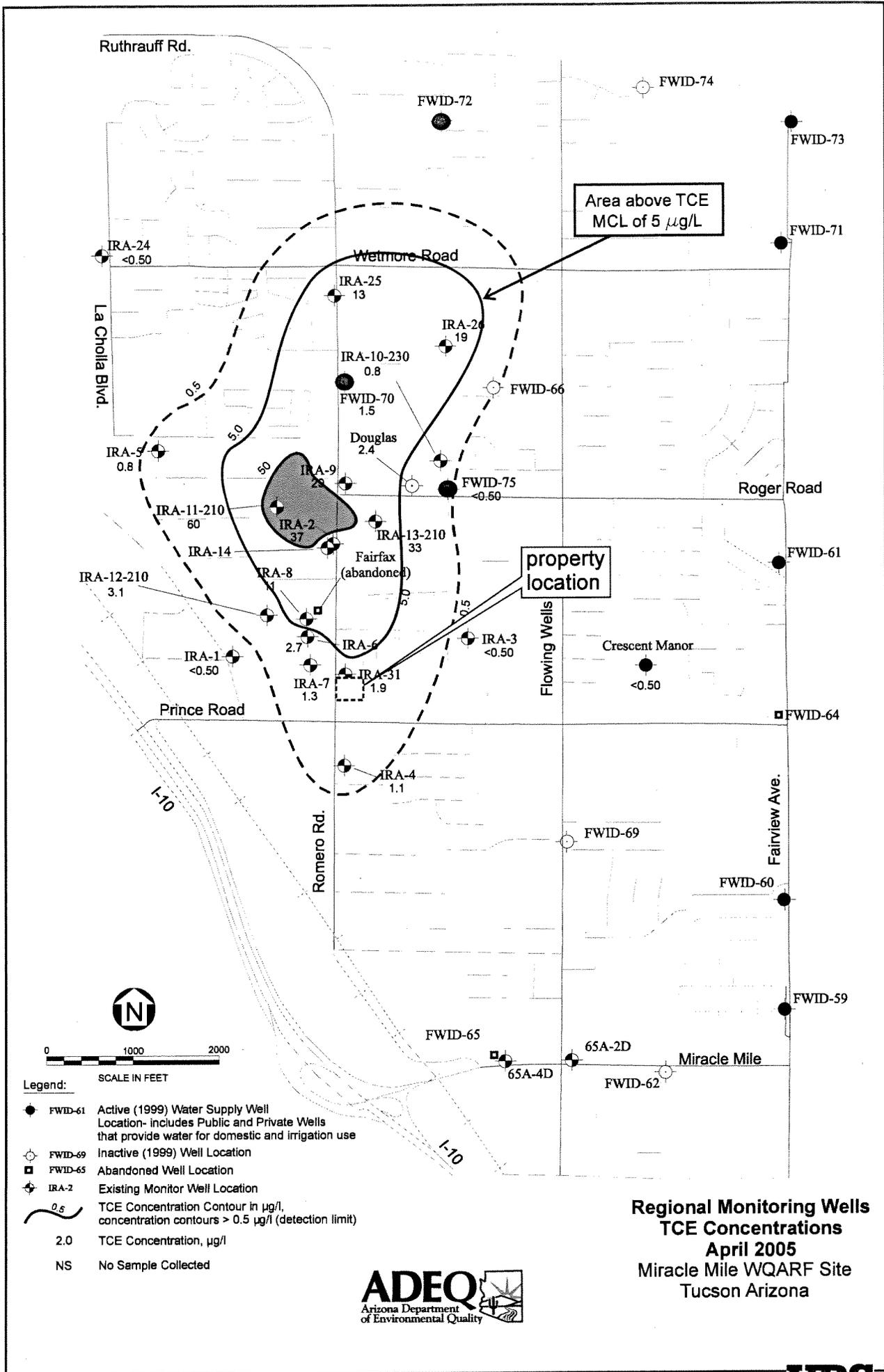


DETAIL A  
1"=100'

1995-1

140 (3)

Figure 1



P:\Miracle Mile Quarterly Reports\03-December\Figures



Figure 2



May 30, 2006

6929 Greenway Parkway, Suite 200  
Scottsdale, AZ 85254  
480.905.3300

Mr. Matt Doolen  
Project Manager  
Arizona Department of Environmental Quality  
400 West Congress Street, Suite 433  
Tucson, AZ 85701



Re: 3640 North Romero Road  
Tucson, AZ

Dear Matt,

In response to your correspondence dated March 10, 2005 and per our recent meeting, I am providing the Arizona Department of Environmental Quality with written notice that the above-reference property - leased by Rental Services Corporation (RSC) and owned by Warren Youel - is currently being used for a light industrial/commercial purposes and will continue to be used as such for the foreseeable future. Neither Mr. Youel nor RSC have plans for the property that include any type of residential or domestic care. If you have any further questions, please contact me at 480-226-6047.

Best regards,

Patrick S. Thurman, Esq.  
RSC Environmental Manager

cc: James Quarry  
Sheila Scott  
Warren Youel

# ADEQ Memorandum

Arizona Department  
of Environmental Quality

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**Date:** October 10, 2008

**To:** Miracle Mile WQARF Site—Land and Water Use Study

**From:** Gretchen Wagenseller, Project Manager

**Subject:** Land Usage at Former Spring Joint Facility Property—3660 North Romero Road

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During a telephone conversation which I had today with Barry Ellis, owner [Orcas Triad III, L.L.C.] representative for the referenced property, he indicated that the owners intended to keep the property usage commercial and that it wouldn't be in their financial interest to make it residential.

**APPENDIX B**  
**CONTACTS REGARDING WATER USE**



Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • www.adeq.state.az.us



Stephen A. Owens  
Director

December 21, 2005

SROSPU05,148

E-II-5240.20.2

Ms. Anice M. Radloff  
2106 W. La Osa Street  
Tucson, AZ 85705

Re: Water Use Studies Relating to Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Registry Sites; Information Request

Dear Ms. Radloff:

Arizona Department of Environmental Quality (ADEQ) records indicate that you own a well that is located in or near the Miracle Mile WQARF registry site (see attached fact sheet). ADEQ is in the process of developing a draft Remedial Investigation (RI) report that will describe the extent of known contamination at the site and will also identify (in consultation with well owners) impacts to water resources.

We are requesting information you may have regarding the current and future uses of water from the existing well or from wells you may plan on installing in the future. Specifically we are requesting information you may have regarding:

- locations and uses of existing wells, including all wells already impaired due to contamination; and
- location and uses, if known, of any planned wells.

As part of our preparation for this study, we have assembled existing information from our files regarding your well as represented on the attached map and table. We request that you supplement this information as you feel appropriate for ADEQ to better understand current and future planned uses of water from this well.

We are working to issue the draft RI reports for public comment by June 2006. Please forward to me any information you may wish to provide by February 15, 2006.

Northern Regional Office  
1515 East Cedar Avenue • Suite F • Flagstaff, AZ 86004  
(928) 779-0313

Southern Regional Office  
400 West Congress Street • Suite 433 • Tucson, AZ 85701  
(520) 628-6733



Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • www.adeq.state.az.us



Stephen A. Owens  
Director

December 21, 2005

SROSPU05,151

E-II-5240.20.2

Villa Capri Mobile Home Park, L.L.C.  
2305 W. Ruthrauff Road  
Tucson, AZ 85705

Re: Water Use Studies Relating to Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Registry Sites; Information Request

Dear Sir or Madam:

Arizona Department of Environmental Quality (ADEQ) records indicate that you own a well that is located in or near the Miracle Mile WQARF registry site (see attached fact sheet). ADEQ is in the process of developing a draft Remedial Investigation (RI) report that will describe the extent of known contamination at the site and will also identify (in consultation with well owners) impacts to water resources.

We are requesting information you may have regarding the current and future uses of water from the existing well or from wells you may plan on installing in the future. Specifically we are requesting information you may have regarding:

- locations and uses of existing wells, including all wells already impaired due to contamination; and
- location and uses, if known, of any planned wells.

As part of our preparation for this study, we have assembled existing information from our files regarding your well as represented on the attached map and table. We request that you supplement this information as you feel appropriate for ADEQ to better understand current and future planned uses of water from this well.

We are working to issue the draft RI reports for public comment by June 2006. Please forward to me any information you may wish to provide by February 15, 2006.

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(928) 779-0313

Southern Regional Office  
400 West Congress Street • Suite 433 • Tucson, AZ 85701  
(520) 628-6733



Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • www.adeq.state.az.us



Stephen A. Owens  
Director

December 21, 2005

SROSPU05,150

E-II-5240.20.2

Shamrock Farms Dairy & Creamery  
1900 W. Ruthrauff Rd.  
Tucson, AZ 85705

Re: Water Use Studies Relating to Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Registry Sites; Information Request

Dear Sir or Madam:

Arizona Department of Environmental Quality (ADEQ) records indicate that you own a well that is located in or near the Miracle Mile WQARF registry site (see attached fact sheet). ADEQ is in the process of developing a draft Remedial Investigation (RI) report that will describe the extent of known contamination at the site and will also identify (in consultation with well owners) impacts to water resources.

We are requesting information you may have regarding the current and future uses of water from the existing wells or from wells you may plan on installing in the future. Specifically we are requesting information you may have regarding:

- locations and uses of existing wells, including all wells already impaired due to contamination; and
- location and uses, if known, of any planned wells.

As part of our preparation for this study, we have assembled existing information from our files regarding your well as represented on the attached map and table. We request that you supplement this information as you feel appropriate for ADEQ to better understand current and future planned uses of water from this well.

We are working to issue the draft RI reports for public comment by June 2006. Please forward to me any information you may wish to provide by February 15, 2006.

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1515 East Cedar Avenue • Suite F • Flagstaff, AZ 86004  
(928) 779-0313

Southern Regional Office  
400 West Congress Street • Suite 433 • Tucson, AZ 85701  
(520) 628-6733



Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • [www.adeq.state.az.us](http://www.adeq.state.az.us)



Stephen A. Owens  
Director

December 21, 2005

SROSPU05,149

E-II-5240.20.2

Robert and Cheryl Will  
1564 W. Roger Road  
Tucson, AZ 85705

Re: Water Use Studies Relating to Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Registry Sites; Information Request

Dear Robert and Cheryl:

Arizona Department of Environmental Quality (ADEQ) records indicate that you own a well that is located in or near the Miracle Mile WQARF registry site (see attached fact sheet). ADEQ is in the process of developing a draft Remedial Investigation (RI) report that will describe the extent of known contamination at the site and will also identify (in consultation with well owners) impacts to water resources.

We are requesting information you may have regarding the current and future uses of water from the existing well or from wells you may plan on installing in the future. Specifically we are requesting information you may have regarding:

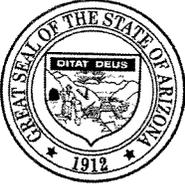
- locations and uses of existing wells, including all wells already impaired due to contamination; and
- location and uses, if known, of any planned wells.

As part of our preparation for this study, we have assembled existing information from our files regarding your well as represented on the attached map and table. We request that you supplement this information as you feel appropriate for ADEQ to better understand current and future planned uses of water from this well.

We are working to issue the draft RI reports for public comment by June 2006. Please forward to me any information you may wish to provide by February 15, 2006.

Northern Regional Office  
1515 East Cedar Avenue • Suite F • Flagstaff, AZ 86004  
(928) 779-0313

Southern Regional Office  
400 West Congress Street • Suite 433 • Tucson, AZ 85701  
(520) 628-6733



Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • www.adeq.state.az.us



Stephen A. Owens  
Director

December 8, 2005

SROSPU05,146

E-II-5240.20.2

Mr. W. David Crockett, Superintendent  
Flowing Wells Irrigation District  
3901 N. Fairview Avenue  
Tucson, AZ 85705

Re: Water Use Studies Relating to Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Registry Site - Information Request

Dear Dave:

ADEQ is in the process of developing the draft Remedial Investigation (RI) report for the Miracle Mile WQARF registry site in Tucson. As you may be aware, this draft RI report will include information regarding impacts to water resources collected in consultation with water providers and well owners within this area.

As described in the attached WQARF Remedy Selection rules [R18-16-406 (D)], we are requesting information you possess regarding current and reasonably foreseeable uses<sup>1</sup> of water resources that have been or are threatened to be impacted by releases at the Miracle Mile WQARF site and projected time frames for future changes in those uses. Specifically:

- information regarding current and reasonably foreseeable uses of water for each aquifer that is impacted or threatened to be impacted by the release at the site, considering any hydraulic connection between aquifers;
- the locations and uses of existing wells, including all wells already impaired due to contamination, the location and uses, if known, of any planned wells;
- any written water management plans used by the Flowing Wells Irrigation District for areas at and near the Miracle Mile WQARF registry site.

---

<sup>1</sup>Reasonably foreseeable uses of water are those likely to occur within 100 years unless a longer time period is shown to be reasonable based on site specific circumstances.

Northern Regional Office  
1515 East Cedar Avenue • Suite F • Flagstaff, AZ 86004  
(928) 779-0313

Southern Regional Office  
400 West Congress Street • Suite 433 • Tucson, AZ 85701  
(520) 628-6733

The attached WQARF Remedy Selection rules describe how water use information that you and others provide will be used by ADEQ to establish remedial objectives and to select final remedies for these sites. A summary of that process has also been attached for your information.

As we are working to issue the draft RI reports for public comment by June 2006, please forward to me any supplemental information you may wish to provide by February 15, 2006. Should you wish to discuss this request for information, feel free to give me a call at (520) 628-6722.

Sincerely,



Matthew Doolen, RG  
Project Manager  
Superfund Programs Unit  
Southern Regional Office

Attachments: Fact Sheet  
Remedy Selection Rules (R18-16-406)  
Site Maps

# WQARF Factsheet



[www.adeq.state.az.us](http://www.adeq.state.az.us)

**ADEQ  
Southern  
Regional  
Office**  
400 W. Congress  
Suite 433  
Tucson, AZ  
85701

(520) 628-6733  
(888) 271-9302

## Miracle Mile Site

### Site Description

The Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Site is located in the west area of Tucson between Roger Road to the north, Prince Road to the south, Bottletree Lane to the west and Flowing Wells Road to the east.

WQARF is a program established by the Arizona State Legislature to conduct statewide surface and groundwater monitoring, study health effects of contamination, perform emergency remedial actions and conduct site investigations and long-term remediations. The WQARF program is funded with state monies and funds recovered from parties responsible for contamination.

Groundwater at the Miracle Mile WQARF Site is contaminated with trichloroethene (TCE) and chromium, both occurring over regulatory limits.

### Site History

In the fall of 1983, groundwater was found to be contaminated at the Tratel Trailer Park, located to the southwest of the present Miracle Mile WQARF Site. The Letter of Intent proposing that remedial action be taken in the Miracle Mile Interchange Area was submitted by the Arizona Department of Environmental Quality (ADEQ) in June of 1987.

From 1985-89, the first phase of the Miracle Mile site investigations focused on obtaining background on conditions in the study area. These activities included soil and groundwater sampling, identification of facilities in the area of contamination, and distribution of survey questionnaires to these facilities.

The second phase of site investigations began in 1989 and included facility inspections, facility record searches, reissuance of questionnaires, installation of nine monitor wells, and continuing groundwater sampling and monitoring. The area of groundwater contamination for the Miracle Mile Site was reduced from about 20 square miles to approximately 10 square miles based on the results of these site investigations.

In August 1995, ADEQ abandoned two private wells in the Miracle Mile area. A perched aquifer contaminated with volatile organic compounds (VOCs) was present in both wells. Water from this perched aquifer was cascading through the well bores and potentially contributing to the contamination of the deeper regional aquifer.

A public comment period for placing the Miracle Mile Site on the WQARF Registry was held from March 23 to May 1, 1998. A responsiveness summary was completed and

the site was placed on the Registry in September 1998.

Ten additional monitor wells were installed in 2001 to help determine the nature and extent of groundwater contamination in the perched and regional aquifers.

During 2001-2002, ADEQ conducted a passive soil gas survey followed by additional soil and active soil gas sampling to identify any areas with significant soil contamination.

### **Site Investigation/Cleanup Action**

ADEQ is currently conducting the Remedial Investigation as part of the WQARF Site remediation process. The remedial investigation will be followed by a feasibility study to evaluate and select the appropriate cleanup option to protect groundwater resources at the Miracle Mile WQARF Site. Quarterly groundwater sampling and monthly water level measurements began in May 1999, and will continue throughout the Feasibility Study.

### **Potential Health Effects**

The Arizona Department of Health Services completed a Draft Baseline Human Health Risk Assessment in January 1995. No significant health risks associated with this site have been identified at this time.

None of the water that contains contaminants over regulatory limits is known to be used for drinking water supplies. Therefore, no one is known to be at risk of exposure to these ground-

water contaminants.

The local water provider is using groundwater from outside the Miracle Mile WQARF Site in order to ensure safe drinking water is delivered to the community.

Although contaminated water is not being used, cleanup activities are important to ensure future drinking water supplies.

### **For More Information...**

For further information about the Miracle Mile WQARF Site, please call Matt Doolen, ADEQ Project Manager at (520) 628-6722.

For information about community involvement or the Miracle Mile Community Advisory Board, established to discuss cleanup issues at the WQARF Site, contact Eileen Palese, ADEQ Community Involvement Coordinator, at (520) 628-6712.

*Copies of pertinent reports are placed in the site information repository at the Woods Library, 3455 N. 1<sup>st</sup> Avenue in Tucson, as they become available.*

For information about any WQARF Site, visit the ADEQ Web site at [www.adeq.state.az.us](http://www.adeq.state.az.us). Click on Environmental Programs on the left, then click on Waste Programs Division, scroll down to Superfund (WQARF/NPL) Programs, and follow the prompts for the information you need.

## Department of Environmental Quality - Water Quality Assurance Revolving Fund Program

early response action at a site or portion of a site shall notify the Department, in writing, of the early response action. The notice shall contain a brief description of the early response action and shall be given at least 15 calendar days before the early response action is commenced, or as soon thereafter as practicable depending upon the exigencies of the circumstances. If the early response action has commenced before the Department issues notice under A.R.S. § 49-287.03, written notice of the early response action shall be given within 15 calendar days after the Department's notice is given. After notice of a proposed remedial action plan has been given under R18-16-408(C), an early response action may be initiated only after the Department has approved the early response action.

- II. Any person may submit a request to the Department under R18-16-413 to approve an early response action or a work plan for an early response action. The request shall include the work plan and the written rationale for the early response action. The Department shall approve the work plan or early response action if it complies with the following:
1. The requirements of this Section and A.R.S. § 49-282.06(A);
  2. Community involvement activities under R18-16-404;
  3. The work plan provides for modifications to address unknown or changed conditions; and
  4. Any applicable requirements of R18-16-411 and R18-16-412.
- I. In considering whether an early response action is necessary to protect or provide a supply of water because a well is threatened by contamination, a well located in the area within 1/4 mile up-gradient, 1/2 mile cross-gradient and 1 mile down-gradient of the areal extent of contamination at the site shall be presumed to be threatened by the contamination. This presumption may be rebutted by evidence of well hydrology, geology, or geochemistry or by available information regarding the capture zone or rate of flow. In considering whether wells a greater distance from the areal extent of contamination are threatened, any evidence regarding local hydrology, geology, geochemistry, zone of capture, or rate of flow may be considered.

**Historical Note**

New Section made by exempt rulemaking at 8 A.A.R. 1491, effective March 4, 2002 (Supp. 02-1).

**R18-16-406. Remedial Investigations**

- A. The remedial investigation for a site or portion of a site shall:
1. Establish the nature and extent of the contamination and the sources thereof;
  2. Identify current and potential impacts to public health, welfare, and the environment;
  3. Identify current and reasonably foreseeable uses of land and waters of the state, and
  4. Obtain and evaluate any other information necessary for identification and comparison of alternative remedial actions.
- B. The Department or any person may perform all or any portion of a remedial investigation, except that once the Department has issued a notice under A.R.S. § 49-287.03 for a site, a person may perform such work only under a written agreement with the Department. A work plan shall be developed and implemented for all or any portion of a remedial investigation for a site or a portion of the site, as follows:
1. The work plan shall demonstrate that the work performed will meet the requirements of subsections (C) and (D) and that the work will be performed in accordance with guidance documents issued by the Department or standards or other guidance documents that are commonly accepted in the scientific community. Standards or guidance documents are considered to be commonly accepted in the scientific community if they are published in peer-reviewed literature such as a professional journal or publication of standards of general circulation, and if there is general consensus within the scientific community about the guidance document or standard.
2. Each work plan shall include the following elements:
    - a. A description of the work, including any community involvement activities to satisfy any applicable requirements of R18-16-403 or R18-16-404, a statement of justification for the work, and a plan for conducting the work;
    - b. A quality assurance project plan;
    - c. A site location map;
    - d. A schedule;
    - e. A health and safety plan consistent with 29 CFR 1910.120; and
    - f. A sampling and analysis plan.
  3. A work plan may be modified as work proceeds to address unknown or changed conditions or access problems.
  4. Any person proposing to implement a work plan for all or a portion of a remedial investigation shall, before implementing the work plan, notify the Department in writing of the name and address of the working party and a general description of the work being performed. This notice is for the Department's information only and receipt of the notice shall not constitute approval of the work plan. A person seeking approval of a work plan by the Department shall submit a written request under R18-16-413.
- C. The remedial investigation, which may be conducted in one or more phases to focus sampling efforts and increase the efficiency of the investigation, shall include field investigations to assess the following factors:
1. Physical characteristics of the site, including important surface features, soils, geology, hydrogeology, meteorology, and ecology;
  2. The extent and general characteristics of the hazardous substances released, including physical state, concentration, toxicity, propensity to bioaccumulate, persistence, and mobility;
  3. The extent, general characteristics, and degree of the source of the release;
  4. Current and reasonably foreseeable exposure routes for the hazardous substances released, such as inhalation, ingestion and dermal;
  5. Other factors, such as sensitive populations, that pertain to the characterization of the site or support the analysis of potential remedies; and
  6. Current and reasonably foreseeable impacts to aquatic and terrestrial biota.
- D. The remedial investigation shall include the collection of information regarding current and reasonably foreseeable uses of land or of waters of the state that have been or are threatened to be impacted by the release, and projected time-frames for future changes in those uses. Reasonably foreseeable uses of land are those uses of land likely to occur at the site. Reasonably foreseeable uses of water are those likely to occur within 100 years unless a longer time period is shown to be reasonable based on site-specific circumstances. Information may be solicited from any interested person including any known well owner. Information collected shall include:
1. Information regarding current and reasonably foreseeable uses of water for each aquifer that is impacted or threatened to be impacted by the release, considering any

- hydraulic connection between aquifers. The information shall include the locations and uses of existing wells, including all wells already impaired due to contamination, the locations and uses, if known, of any planned wells, and any written water management plans used by water providers whose water supplies may be impacted by the release. This information shall be collected in consultation with affected water providers.
2. Information regarding current and reasonably foreseeable uses of water for each segment of surface water impacted or threatened to be impacted by the release. This information shall be collected in consultation with affected water providers.
  3. Information regarding current and reasonably foreseeable uses of land impacted or threatened to be impacted by the release within the community involvement area. General land use information shall include the current type of use, density, character, and governmental jurisdictions. Future land use changes shall be considered using population projections, growth, plans for future development and local land use plans. This information shall be collected in consultation with local governments with land use jurisdiction. The information collected shall also include specific land uses and property ownership for properties where the land use is impacted or threatened to be impacted by the release.
- E. Using the data developed during the field investigation and information collected concerning uses of land and of waters of the state, a site-specific risk evaluation may be conducted to characterize the current risks to public health and the environment from contaminants of concern.
- F. Following the collection of data necessary to adequately characterize the site or portion of the site and the collection of information necessary to determine the uses of land and of waters of the state, a draft remedial investigation report shall be prepared, and if prepared by a person other than the Department, submitted to the Department. The draft remedial investigation report shall include the results of any risk evaluation conducted under subsection (E). The draft remedial investigation report may consist of a summary of the data and information collected with references to the supporting documentation and the location of the public repository where those documents may be reviewed. Copies of the draft remedial investigation report prepared by or approved for release by the Department shall be provided to the community advisory board, interested local government agencies, affected water providers, and the Department of Water Resources. Copies of the draft remedial investigation report also shall be made available to the community under the community involvement plan. Public notice shall be given of the opportunity to comment on the draft remedial investigation report. This notice may be combined with the notice given under subsection (I)(1).
- G. For remedial objectives used to select a soil remediation remedy, the landowner has the right to identify the type of land use in accordance with A.R.S. § 49-152 and 18 A.A.C. 7, Article 2. If the remedy for the site or portion of a site will address landfill or other non-soil materials other than waters of the state, the landowner may establish the current and reasonably foreseeable uses of its land provided that the remedial objectives for the site are not required to address land uses impaired by properties of materials located on or under the land other than the current or potential exposure to the hazardous substances contained in that material.
- H. If the remedy for the site or a portion of the site will not address waters of the state, a final remedial investigation report may be prepared containing the results of the site characterization and a listing of remedial objectives. The remedial objectives shall be based on the current and reasonably foreseeable uses of the property in accordance with subsection (G) and stated in accordance with subsection (I)(4). The report shall be accompanied by responsiveness summaries regarding comments, issues, and concerns regarding the draft remedial investigation report under subsection (F), and if the report is prepared by a person other than the Department, copies of the comments received. The report may be submitted to the Department for review under R18-16-413. If the Department approves the report, the procedures in subsections (I) and (J) do not apply, and the approved report may be used to select a remedy under R18-16-407(C) or R18-16-407(D). Notice of the availability of the final remedial investigation report shall be provided with the notice under R18-16-408(C).
- I. Except as provided in subsection (H), remedial objectives shall be developed as follows:
1. After the draft remedial investigation report is made available, the Department shall hold 1 or more public meetings to obtain information for purposes of establishing remedial objectives for the site. The Department shall provide notice of the public meeting. If a community advisory board has been formed for the site, public meeting arrangements shall be coordinated with the community advisory board. The initial public meeting shall be held not less than 45 calendar days and not more than 90 calendar days after release of the draft remedial investigation report, unless the Department sets a different date for good cause.
  2. At the public meeting, the Department shall solicit and consider proposed remedial objectives for the site. The Department also may receive and consider written information regarding proposed remedial objectives.
  3. Remedial objectives shall be generally consistent with the water management plans of all water providers whose water supplies are or may be impaired by the contamination and with the general land use plan established by the local land use jurisdiction.
  4. The Department shall prepare a report of the proposed remedial objectives for the site that shall list the current and reasonably foreseeable uses of land and the current and reasonably foreseeable beneficial uses of waters of the state. These uses shall be identified based upon information provided during the public meeting and any other information received. The report shall state the remedial objectives for each listed use in the following terms:
    - a. Protecting against the loss or impairment of each listed use that is threatened to be lost or impaired as a result of a release of a hazardous substance;
    - b. Restoring, replacing or otherwise providing for each listed use to the extent that it has been or will be lost or impaired as a result of a release of a hazardous substance;
    - c. Time-frames when action is needed to protect against or provide for the impairment or loss of the use; and
    - d. The projected duration of the action needed to protect or provide for the use.
  5. The Department shall provide notice and accept and consider public comment on the proposed remedial objectives in the remedial objectives report and shall hold at least 1 additional public meeting if significant public interest exists or if significant issues or information have been brought to the attention of the Department which have not been considered previously.

Department of Environmental Quality - Water Quality Assurance Revolving Fund Program

6. The Department shall prepare a final remedial objectives report.

J. Following the community involvement activities regarding the draft remedial investigation report and the remedial objectives report, a final remedial investigation report shall be prepared containing the results of the site characterization and the final remedial objectives report. The final remedial investigation report shall be accompanied by responsiveness summaries regarding comments, issues and concerns raised in the community involvement process and, if the report is prepared by a person other than the Department, copies of the comments received. After completion of the final remedial investigation report, changes to the remedial objectives are subject to the requirements of subsection (I). The Department shall provide notice of the availability of the final remedial investigation report.

K. Any person, other than a person proposing to perform work under an agreement under A.R.S. § 49-287.03(C), may submit a request under R18-16-413 for the Department to approve a work plan or a report for all or any portion of a remedial investigation. The Department shall approve a work plan for a remedial investigation if the request shows that the work will comply with this Section, community involvement activities will comply with R18-16-404, and the work plan provides for modifications to address unknown or changed conditions or access problems. The Department shall approve a draft remedial investigation report if the work is in compliance with an approved work plan or, if no work plan was approved, the remedial investigation complies with this Section and the community involvement activities have been conducted under this Article.

18-16-407. (A) (1) (a) by example: rule-making at § A.A.R. 1491, effective March 4, 2002 (5supp.02-1).

R18-16-407. Feasibility Study

A. The feasibility study is a process to identify a reference remedy and alternative remedies that appear to be capable of achieving remedial objectives and to evaluate them based on the comparison criteria to select a remedy that complies with A.R.S. § 49-282.06.

B. The Department or any person may perform all or any portion of a feasibility study, except that once the Department has issued a notice under A.R.S. § 49-287.03 for a site, a person may perform such work only under a written agreement with the Department. The feasibility study process shall include community involvement procedures in compliance with R18-16-404 and may be reported concurrently with the remedial investigation. A work plan shall be developed and implemented for all or any portion of a feasibility study for a site or a portion of a site, as follows:

1. The work plan shall demonstrate that the work performed will meet the requirements of this Section.
2. A work plan may be modified as appropriate.
3. A person proposing to initiate or a work plan for all or a portion of a feasibility study shall, before implementing the work plan, notify the Department in writing of the time and address of the working party and a general description of the work being performed. This notice is for the Department's information only and receipt of the notice shall not constitute approval of the work plan. A person seeking approval of a work plan by the Department shall proceed under R18-16-413.

C. For remedies addressing only landfills, an analysis of alternative remedies is not required. A feasibility study report shall be prepared that demonstrates:

1. That the proposed remedy addresses the contaminated soil in a manner that achieves compliance with A.R.S. § 49-152 and 18 A.A.C. 7, Article 2 and will achieve the remedial objectives for the use of the property.

2. That the proposed remedy was selected based upon best engineering, geological, or hydrogeological judgment following engineering, geological, or hydrogeological standards of practice, considering the following information:

- a. The remedial investigation;
- b. The best available scientific information concerning available remedial methods and technologies;
- c. A written analysis explaining how the remedy is consistent with A.R.S. § 49-282.06, including a brief explanation of the comparison criteria as applied to the remedy.

D. For remedies addressing only landfills that have not and will not impact groundwater or similar sites or portions of sites that have not and will not impact groundwater, and that contain material not subject to A.R.S. § 49-152 and 18 A.A.C. 7, Article 2, an analysis of alternative remedies is not required. A feasibility study report shall be prepared that demonstrates:

1. That the proposed remedy is designed to prevent human exposure to hazardous substances through the achievement of:

- a. Soil remediation levels established under 18 A.A.C. 7, Article 2, or
- b. Site-specific remediation levels based on a site-specific human health risk assessment, meeting a cumulative excess lifetime cancer risk between  $1 \times 10^{-4}$  and  $1 \times 10^{-6}$  and a hazard index no greater than 1.

2. That the excess lifetime cancer risk shall be selected by the Department based upon site-specific factors including the presence of multiple contaminants, the existence of multiple pathways of exposure, the uncertainty of exposure, and the sensitivity of the exposed population. With prior approval of the Department, a person may achieve a site-specific remediation level based on the use of institutional and engineering controls. The approval shall be granted in part on the demonstration that the institutional and engineering controls will be maintained.

3. That the proposed remedy was selected based upon best engineering, geological, or hydrogeological judgment following engineering, geological, or hydrogeological standards of practice, considering the following information:

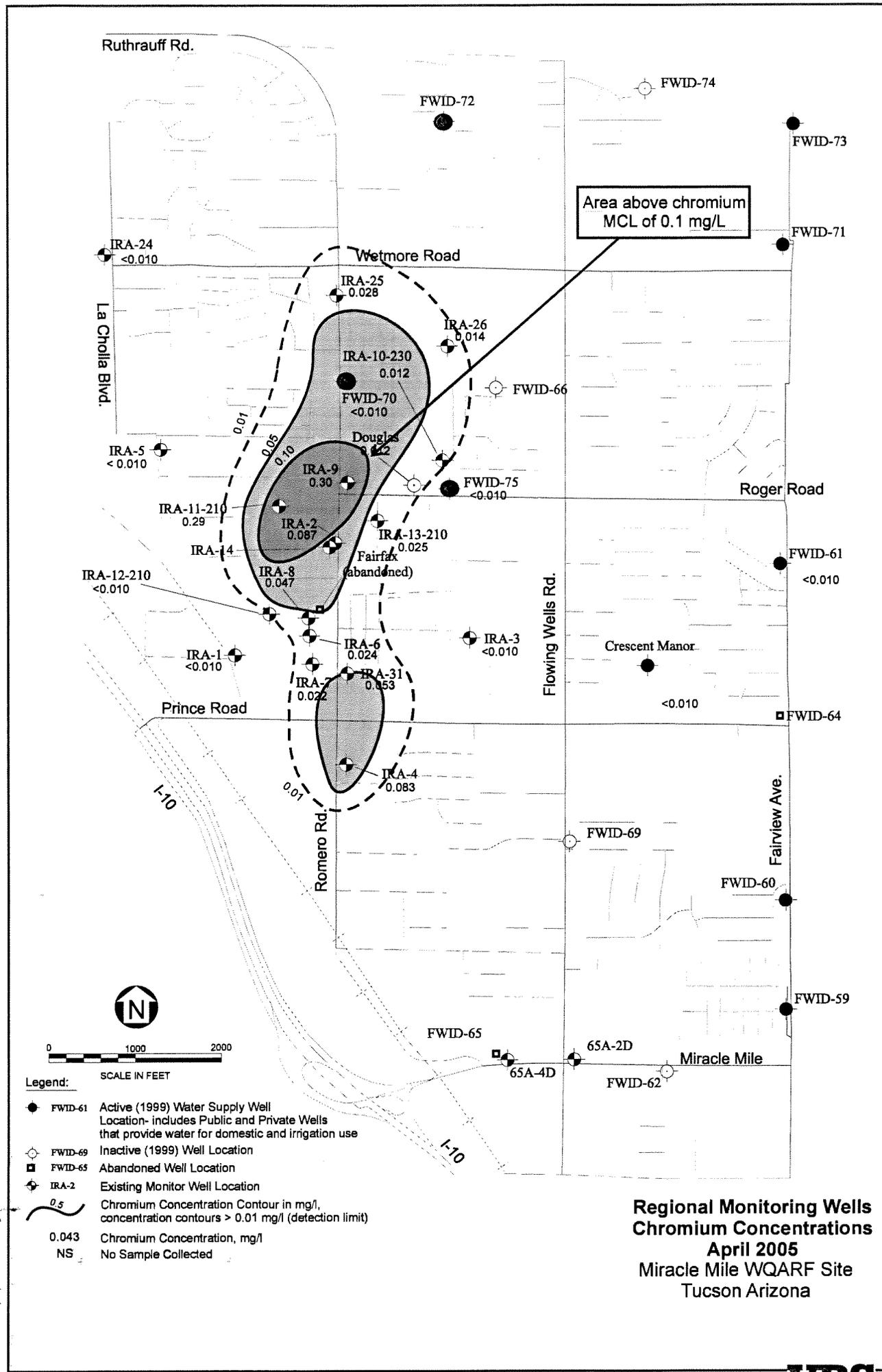
- a. The remedial investigation;
- b. The best available scientific information concerning available remedial methods and technologies;
- c. A written analysis explaining how the remedy is consistent with A.R.S. § 49-282.06, including a brief explanation of the comparison criteria as applied to the remedy.

4. That the proposed remedy will achieve all of the remedial objectives.

E. For remedies other than provided in subsections (C) and (D), the feasibility study shall provide for the development of a reference remedy and at least two alternative remedies as follows:

1. The reference remedy and alternative remedies shall be capable of achieving all of the remedial objectives. The reference remedy and each alternative remedy shall represent a remedial strategy under subsection (E) and all remedies are shown to be employed. The combination of the reference strategy and the remedial objectives for each





Ruthrauff Rd.

FWID-72

FWID-74

FWID-73

Area above chromium  
MCL of 0.1 mg/L

FWID-71

IRA-24  
<0.010

Wetmore Road

La Cholla Blvd.

IRA-25  
0.028

IRA-26  
0.014

FWID-66

IRA-10-230  
0.012

Douglas

IRA-5  
<0.010

FWID-75  
<0.010

Roger Road

IRA-11-210  
0.29

IRA-9  
0.30

IRA-13-210  
0.025

FWID-61

IRA-14

IRA-2  
0.087

Fairfax  
(abandoned)

IRA-12-210  
<0.010

IRA-8  
0.047

IRA-3  
<0.010

Crescent Manor

FWID-61  
<0.010

IRA-1  
<0.010

IRA-6  
0.024

Flowing Wells Rd.

<0.010

Prince Road

IRA-7  
0.022

IRA-31  
0.053

Fairview Ave.

FWID-64

I-10

IRA-4  
0.083

FWID-69

FWID-60



0 1000 2000

SCALE IN FEET

Legend:

- FWID-61 Active (1999) Water Supply Well Location- includes Public and Private Wells that provide water for domestic and irrigation use
- FWID-69 Inactive (1999) Well Location
- FWID-65 Abandoned Well Location
- ⊕ IRA-2 Existing Monitor Well Location
- 0.5 Chromium Concentration Contour in mg/l, concentration contours > 0.01 mg/l (detection limit)
- 0.043 Chromium Concentration, mg/l
- NS No Sample Collected

FWID-65

65A-2D

Miracle Mile

FWID-59

65A-4D

FWID-62



S H A M R O C K F A R M S

February 9, 2006



**Mr. Matthew Doolen, Project Manager  
Arizona Department of Environmental Quality  
400 W. Congress, Suite 433  
Tucson, AZ 85701**

**Dear Mr. Doolen:**

**This letter is in response to your inquiry of December 21, 2005 regarding wells on our property at 1900 W. Ruthrauff Rd. in Tucson. We have included with this response copies of segments of the ALTA topographical survey that show the two well locations we are aware of on this property. One well location is marked by hand and was not on the survey originally. The other (more recent well) was included on the survey.**

**Neither of these wells is believed to have been used since at least 1996. The well marked by hand has not been used for a considerably longer period of time. We have no more detailed information on well depths or casing depths to provide at this time as files for these wells are not available. If we find such information we will forward this information to your attention.**

**We currently have no plans to use either of these wells and also have no plans for any additional wells on this property.**

**If we can be of additional help on this matter, feel free to contact me at 602-477-2406.**

**Sincerely,**

**Jeff Patterson  
Vice-President of Operations  
Shamrock Foods Dairy Division**

**c.c. – Mike Krueger  
Norman McClelland**

DAIRY DIVISION  
2228 NORTH BLACK CANYON  
PHOENIX, ARIZONA 85009  
TEL 602-233-6401

9. The drainage easement recorded in Docket 0770 at Page 022 is not on this site but is shown on the survey drawing.

10. The electric easement recorded in Docket 8086 at Page 2288 is on this site but because of a flaw in the recording the exact location is not known. The approximate location is shown on the survey drawing.

11. The communication easement recorded in Book 71 of Misc. Records at Page 621 is on this site and shown on the survey drawing.

12. The communication easement recorded in Docket 1026 at Page 522 is not on this site.

13. The communication easement recorded in Docket 2013 at Page 306 is not on this site.

14. Docket 3531 Page 49 appears to be a water service agreement, not an easement.

15. The electric easement recorded in Docket 516 at Page 373 is adjacent to this site and shown on the survey drawing.

**CERTIFICATE**

To Fidelity National Title Insurance Company, Shamrock Foods, Inc., an Arizona corporation, Shamrock Farms Company, an Arizona corporation, and Shamrock Guernsey Farm, Inc.: This is to certify that this map or plat and the survey on which it is based were made (i) in accordance with the "Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys" jointly established and adopted by ALTA and ACSM in 1992; and includes Items 1, 2, 4, 5, 8, 9, and 10 of Table A thereof, and (ii) pursuant to the Accuracy Standards (as adopted by ALTA and ACSM and in effect on the date of this certification) of an Urban Survey.

Date last revised: July 23, 1996  
Date of last field check: June 10, 1996

**BRUCE F. SMALL**  
REGISTERED LAND SURVEYOR  
ARIZONA REG. NO. 12122

Range 13 East,  
described as

the East Quarter (NE

the Northeast  
POINT OF BEGINNING  
Road;

the centerline of a  
the centerline of New  
Map 637;

the prolongation of

the North  
POINT OF



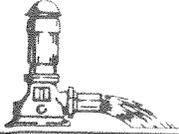
**ALTA/ACSM Land Title and  
Topographical Survey**  
**Shamrock Dairy - Central Parcel**  
**Ruthrauff Road**  
**Tucson, Pima County, Arizona**

**CBA** CELLA BARR ASSOCIATES  
4911 E. BROADWAY BLVD.  
TUCSON, ARIZONA 85711  
(520) 750-7474

SHEET NAME  
V:\0410109  
SHAM1.DWG  
SHT. 1 OF 1

HORIZ.	1" = 40'
PLOT	1:80
SIZE	36x24y
DESIGN	
DRAWN	AGW
CHKD.	BFS
DATE	JULY - 1996
JOB NO.	104101-09-0104





# FLOWING WELLS IRRIGATION DISTRICT

3901 North Fairview Avenue

Tucson, Arizona 85705-2699

December 30, 2005

Matt Doolen, Project Manager  
Superfund Programs Unit  
Arizona Department of Environmental Quality  
400 W. Congress, Suite 433  
Tucson, Arizona 85701



**Re: Water Use Studies Relating to Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Registry Site – Information Request**

Dear Matt,

The following is a response to your request for information for the draft remedial investigation report on the Miracle Mile WQARF site in Tucson.

As you are aware, the District serves potable water to approximately 15,000 customers on the northwest side of Tucson. All of the water is provided by some combination of 10 groundwater wells owned by the District. ADEQ is partnering with the District to build a combination VOC/Arsenic treatment plant for District Wells #70 and #75. Due to high levels of arsenic, Well #70 is shut off; Well #75 will be shut off in January 2006. The treatment plant is expected to be in operation in late spring of 2006.

By agreement with ADEQ these combined wells will run an average of 700gpm, for an estimated average of 700,000 gallons per day. This is somewhat different than historical pumping records for these two wells. Attached are projected pumping quantities for each District operating well assuming the 700gpm average for combined Wells #70 and #75. Due to the long history of the Miracle Mile Site, ADEQ already has pumping records for affected District wells dating back about 20 years. Due to this fact I will not include historical pump data.

The District is considered "built-out" so the typical annual groundwater withdrawal is projected to remain at approximately 2,800af/year. All District wells pump from the same aquifer.

Groundwater pumping will continue as it has historically until CAP water can be delivered to the District. We are currently partnering with three other water providers to plan and design a CAP treatment and delivery system. The actual implementation of this plan is several years into the future. When CAP water becomes available as an alternative supply we will still operate and maintain all groundwater wells. The CAP water will be used to augment our groundwater supply.

The District has no short-term plans to drill any new wells and there are no plans for further modifications to any well within the Miracle Mile Registry Site.

I hope this information answers the questions asked in your request. As always, if you have any questions, please contact me.

Yours truly,

A handwritten signature in black ink, appearing to read "David Crockett", written over a horizontal line.

David Crockett, Superintendent

Attachments

## Attachments

**(Annual Pumpage Recap from Flow Meters, CY 2001 – CY 2005)**

Wells #70 and #75 are projected to pump an estimated 255 million gallons every 12 months. That leaves an estimated 675 to 700 million gallons (annually) to come from the remaining District wells.

Historically, over the last five years, Wells #70 and #75 have combined to pump from a low of 35,000 gallons per day to a high in 2005 of approximately 900,000 gallons per day.

The 2005 Pumpage Recap shows pumping values for each well that will likely continue over the next few years.

2001 PUMPAGE RECAP from FLOW METERS (x 1,000 gallons)

	59	60	61	66	70	71	72	73	75	TOTALS
JAN	6,351	0	7,693	0	14,874	2,941	0	19,327	1,063	52,249
FEB	8,162	669	6,813	0	13,514	1,244	0	17,759	1,826	49,987
MAR	9,863	368	5,921	37	15,216	3,593	0	26,035	764	61,797
APR	9,259	0	7,925	0	14,549	7,020	0	26,065	2,241	67,059
MAY	18,602	0	11,400	0	14,761	17,315	0	30,382	1,279	93,739
JUN	18,942	376	10,935	48	13,857	23,095	0	31,712	2,343	101,308
JUL	15,615	8,878	13,488	0	14,194	9,764	0	28,416	863	91,218
AUG	16,895	15,926	9,782	0	14,327	8,636	0	24,955	1,064	91,585
SEPT	10,414	22,395	16,302	46	13,285	5,971	0	26,189	1,034	95,636
OCT	9,806	20,768	11,193	0	12,780	581	0	22,505	1,127	78,760
NOV	278	18,075	10,208	0	13,399	1,750	25	19,898	855	64,488
DEC	46	17,847	5,125	40	5,399	489	7,773	16,961	1,131	54,811
<b>TOTALS</b>	<b>124,233</b>	<b>105,302</b>	<b>116,785</b>	<b>171</b>	<b>160,155</b>	<b>82,399</b>	<b>7,798</b>	<b>290,204</b>	<b>15,590</b>	<b>902,637</b>

2002 PUMPAGE RECAP from FLOW METERS (x 1,000 gallons)

	59	60	61	66	70	71	72	73	75	TOTALS
JAN	0	15,292	14,741	0	0	1,663	13,584	8,966	237	54,483
FEB	0	13,851	11,657	0	0	2,879	11,641	14,734	0	54,762
MAR	0	14,618	13,823	0	0	2,577	14,701	21,102	1,374	68,195
APR	7,737	15,272	14,072	0	0	2,476	15,892	26,035	2,630	84,114
MAY	16,435	15,102	16,694	0	0	3,420	16,710	28,942	839	98,142
JUN	15,725	15,714	16,321	0	27	14,337	20,489	28,552	1,698	112,863
JUL	12,475	17,242	15,195	0	51	9,526	16,114	27,898	1,254	99,755
AUG	18,570	3,352	17,729	0	0	4,664	16,298	26,227	803	87,643
SEPT	17,557	11,407	11,161	0	0	2,324	14,861	25,260	952	83,522
OCT	3,171	17,751	14,612	0	0	3,500	14,124	22,176	856	76,190
NOV	0	14,785	15,027	0	0	1,382	9,949	19,591	1,437	62,171
DEC	3,243	11,885	13,593	0	28	130	4,909	20,269	476	54,533
TOTALS	94,913	166,271	174,625	0	106	48,878	169,272	269,752	12,556	936,373

2003 PUMPAGE RECAP from FLOWMETERS (x 1,000 gallons)

	59	60	61	66	70	71	72	73	75	TOTALS
JAN	8,628	9,475	10,618	0	42	24	5,411	22,634	684	57,516
FEB	7,327	8,755	9,148	0	0	33	5,395	18,114	1,119	49,891
MAR	8,540	10,118	11,052	0	0	1,337	12,351	17,341	696	61,435
APR	8,470	9,975	16,452	0	0	2,312	13,144	24,026	1,262	75,641
MAY	11,125	14,922	17,364	0	0	7,839	13,251	31,104	193	95,798
JUN	11,488	17,072	19,384	0	0	18,756	11,607	29,826	0	108,133
JUL	11,973	19,327	22,497	0	2,151	19,478	14,794	15,866	0	106,086
AUG	12,312	14,898	15,541	0	8,330	16,705	12,017	11,672	0	91,475
SEPT	12,512	11,617	17,413	0	0	11,538	9,703	24,863	0	87,646
OCT	13,002	10,537	14,523	0	0	6,583	9,331	24,235	0	78,211
NOV	10,873	11,410	5,991	0	0	2,626	10,232	21,422	0	62,554
DEC	11,762	12,074	1,565	0	0	1,662	9,438	22,549	0	59,050
<b>TOTALS</b>	<b>128,012</b>	<b>150,180</b>	<b>161,548</b>	<b>0</b>	<b>10,523</b>	<b>88,893</b>	<b>126,674</b>	<b>263,652</b>	<b>3,954</b>	<b>933,436</b>

2004 PUMPAGE RECAP from FLOWMETERS (x 1,000 gallons)

	59	60	61	66	70	71	72	73	75	TOTALS
JAN	14,152	537	10,965	0	0	1,804	7,280	18,564	0	53,302
FEB	10,218	12,557	1,818	0	0	16	6,363	21,516	0	52,488
MAR	12,582	16,541	1,351	0	0	4,467	8,279	24,094	0	67,314
APR	13,776	16,989	3,512	0	0	5,371	10,232	23,617	0	73,497
MAY	15,329	17,858	19,506	0	4,359	17,564	17,105	8,257	0	99,978
JUN	16,348	15,775	29,561	0	8,930	20,070	19,633	578	0	110,895
JUL	12,257	34,786	2,939	0	9,607	9,933	6,564	31,285	0	107,371
AUG	11,689	26,893	1,630	0	10,254	3,459	8,252	34,671	2,602	99,450
SEPT	11,132	15,995	2,125	0	9,761	2,953	7,250	30,886	8,122	88,224
OCT	7,877	9,224	1,732	0	10,292	593	6,692	27,797	8,640	72,847
NOV	8,261	9,438	1,169	0	9,864	38	3,475	18,221	8,066	58,532
DEC	9,440	10,430	1,309	0	1,095	26	0	15,814	16,324	54,438
TOTALS	143,061	187,023	77,617	0	64,162	66,294	101,125	255,300	43,754	938,336

2005 PUMPAGE RECAP from FLOWMETERS (x 1,000 gallons)

	59	60	61	66	70	71	72	73	75	TOTALS
JAN	8,866	9,315	1,066	0	12,387	62	0	12,962	8,513	53,171
FEB	6,744	7,046	863	0	11,021	21	0	10,680	11,428	47,803
MAR	8,081	8,576	273	0	12,009	56	0	14,535	19,333	62,863
APR	8,850	10,140	0	0	11,797	1,866	0	24,851	18,063	75,567
MAY	8,444	9,291	0	0	11,983	1,994	6,973	29,334	24,998	93,017
JUN	10,574	12,383	13,201	0	11,237	1,462	10,441	26,893	21,303	107,494
JUL	9,094	9,772	23,615	0	11,456	2,087	5,682	29,510	22,920	114,136
AUG	7,873	8,272	17,208	0	11,323	1,088	9,341	17,906	11,836	84,847
SEPT	8,612	9,161	14,136	0	10,860	132	10,463	20,798	19,202	93,364
OCT	7,954	8,450	16,667	0	1,814	364	6,961	18,782	19,021	80,013
NOV	6,439	6,810	14,378	0	0	351	9,600	15,545	14,092	67,215
DEC										0
TOTALS	91,531	99,216	101,407	0	105,887	9,483	59,461	221,796	190,709	879,490

**From:** Eileen Palese  
**To:** Doolen, Matthew  
**Date:** 3/14/2006 10:09:24 AM  
**Subject:** Land & Water Use - Villa Capri

I spoke with Karen Hartwell today, with W L Technologies. She is retained to maintain/test the well.

The well is a "community" water system, used for drinking water for only the mobile home park residents.

It was last tested through the ADEQ map program in 2002. Due for retesting. The System ID # is 20-445 (ADEQ).

She said she tests for lead, copper and nitrates. I asked about VOCs and she said none showed up in the Map testing, thus far.

She said the park is owned by a trust but will get back to me with the name and number of the lawyer for the trust.

She said she knows of no plans to install a well in the future. It might be considered if this well runs dry.

Her phone number is 625-1671. Mobile Home Park is 887-2255 (Dorothy).

Eileen Palese  
Community Involvement Coordinator  
Arizona Department of Environmental Quality (ADEQ)  
520/628-6712  
palese.eileen@azdeq.gov

3/22/06

Spoke to Herb Kai - <sup>manager</sup> ~~owner~~ of park. 744-1573

- do use well on daily basis for water supply for residents.

- not much irrigation

- have connection w/ Tucson Water that use when V.C. well is down for mechanical reasons.

MhD.

**From:** Eileen Palese  
**To:** Doolen, Matthew  
**Date:** 3/14/2006 10:15:39 AM  
**Subject:** Villa Capri Contact Information

Karen Hartwell called back to say the trust for Villa Capri Mobile Home Park is:

Brooke Felker at 520-742-0440 FAX: 520-622-7337

She said Ms. Felker can provide information about the name of the trust, if we need it.

Eileen Palese  
Community Involvement Coordinator  
Arizona Department of Environmental Quality (ADEQ)  
520/628-6712  
palese.eileen@azdeq.gov

**From:** Eileen Palese  
**To:** Doolen, Matthew  
**Date:** 3/13/2006 3:06:45 PM  
**Subject:** FYI: MM Land and Water Use Calls

Spoke with Robert Will.

He said they live at 1700 W. Roger Road, not at 1564 E. Roger. He said this is the only private well he is aware of in this area.

He said the property was originally a ranch house and divided up. There is some confusion about addresses in the area.

He does have a well at 1700 W. Roger, but does not use it at all because he said he was told by ADEQ that it is not safe to drink the water.

He wishes he could irrigate with the well water on his two acres, where he grows vegetables and fruit trees, but was told this would not be safe. He can't afford a treatment system.

He would like to use the well in the future once the contamination is cleaned up. He asked how long that would be and I told him that we did not know at this time.

I told him he may receive a followup letter from us, thinking you might want to correct the address and to confirm what he told me.

His phone number is 887-0777 if you need it in future.

Eileen Palese  
Community Involvement Coordinator  
Arizona Department of Environmental Quality (ADEQ)  
520/628-6712  
palese.eileen@azdeq.gov



Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • [www.azdeq.gov](http://www.azdeq.gov)



Stephen A. Owens  
Director

SROSPU 07:010

January 11, 2007

Robert C. Netherton  
4881 East Eastland Street  
Tucson, Arizona 85711

## SENT CERTIFIED MAIL

Re: Water Use Study Relating to Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Site; Information Request; Well Registration No. 55-801453, Tucson, Arizona

Dear Mr. Netherton:

Arizona Department of Water Resources records indicate that you own a well which is located near the Miracle Mile WQARF site [see attached Fact Sheet and Site Map]. Arizona Department of Environmental Quality (ADEQ) is in the process of developing a draft Remedial Investigation report that will describe the extent of known contamination at the site and will also identify (in consultation with well owners) impacts to water resources.

We are requesting any information you may have regarding the current and future uses of water from this existing well or from well(s) you may plan on installing in the future. Specifically, we are requesting information you may have regarding:

- Location, uses, depth and screened interval of the existing well(s), including any well(s) already impaired due to contamination; and
- Location and uses, if known, of any planned wells.

We also request that you supplement this information as you feel appropriate so that ADEQ can better understand current and future planned uses of groundwater pumped from wells at this property.

Northern Regional Office  
1801 W. Route 66 • Suite 117 • Flagstaff, AZ 86001  
(928) 779-0313

Southern Regional Office  
400 West Congress Street • Suite 433 • Tucson, AZ 85701  
(520) 628-6733

Mr. Netherton  
January 11, 2007

Please forward any information to me by January 22, 2007. If you have any questions or need additional information, please call me at 1-888-271-9302 extension 6663 or 520-628-6663.

Sincerely,

A handwritten signature in black ink that reads "Tina Le Page". The signature is written in a cursive style with a long, sweeping underline.

Tina Le Page  
Project Manager  
Superfund Programs Unit  
Southern Regional Office

Attachments: Fact Sheet  
Site Map

cc: Reading File  
William J. Neese, URS Corporation, 333 East Wetmore, Suite 611, Tucson, Arizona 85705

## Miracle Mile Water Quality Assurance Revolving Fund Site January 2006

### SITE DESCRIPTION

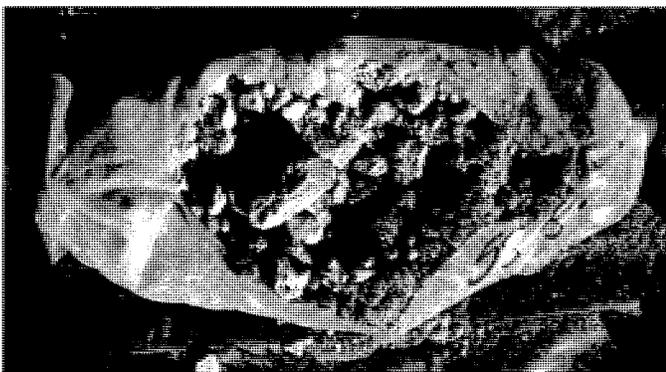
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The Miracle Mile WQARF Site is located in west Tucson, and is bounded approximately by Wetmore Road to the north, Flowing Wells Road to the east, Prince Road to the south, and La Cholla Boulevard to the west.

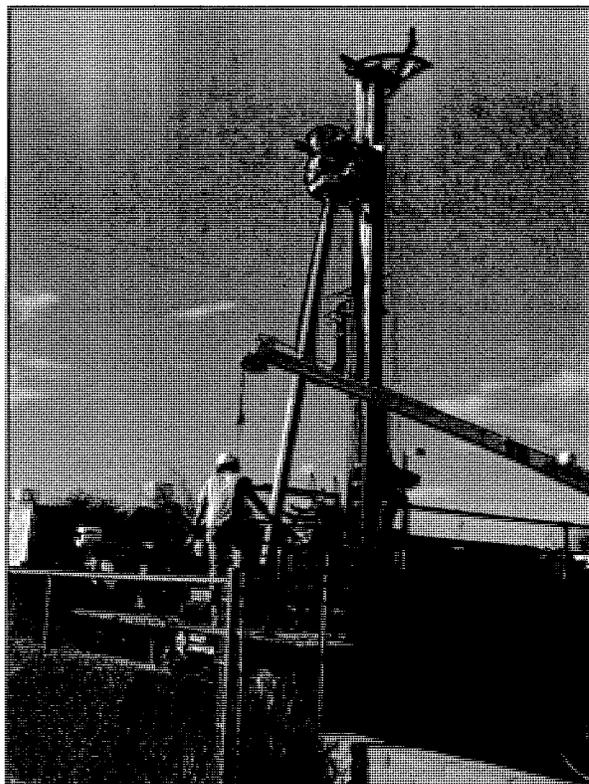
Groundwater at the site is contaminated with trichloroethene (TCE) and chromium occurring over regulatory limits. Depth to groundwater is about 70 feet below ground surface (bgs) in the perched aquifer, and about 160 feet bgs in the regional aquifer.

### SITE HISTORY

In the fall of 1983, the drinking water supply well at the Tra-Tel Tucson R.V. Park, located to the southwest of the present Miracle Mile WQARF Site, was found to be contaminated with PCE. Initial investigations focused on defining conditions within the site. These activities included soil and groundwater sampling, identification of facilities in the area of contamination, and distribution of survey questionnaires to these facilities.



Soil extracted during drilling is closely examined and analyzed to provide information about the hydrology and geology of the site.



Several monitor wells have been installed to investigate the contamination in and around the Miracle Mile WQARF site.

Subsequent investigations included facility inspections, facility record searches, reissuing of questionnaires, installation of monitor wells, and continuing groundwater sampling and monitoring.

The Miracle Mile site was placed on the WQARF Registry in September 1998.

### SITE INVESTIGATION/CLEANUP ACTION

In August 1995, ADEQ abandoned two private wells in the Miracle Mile area. A perched aquifer contaminated with volatile organic compounds (VOCs) was present in both wells. Water from this perched aquifer was cascading through the well bores and potentially contributing to the contamination of the deeper regional aquifer. Quarterly groundwater sampling and monthly water level measurements began in May 1999.

In 2001, in response to a request for an interim remedial action from Flowing Wells Irrigation District (FWID), ADEQ re-equipped one of their production wells (FWID-72) and constructed surface storage facilities after completion of a water supply study to identify and evaluate alternate water supplies.

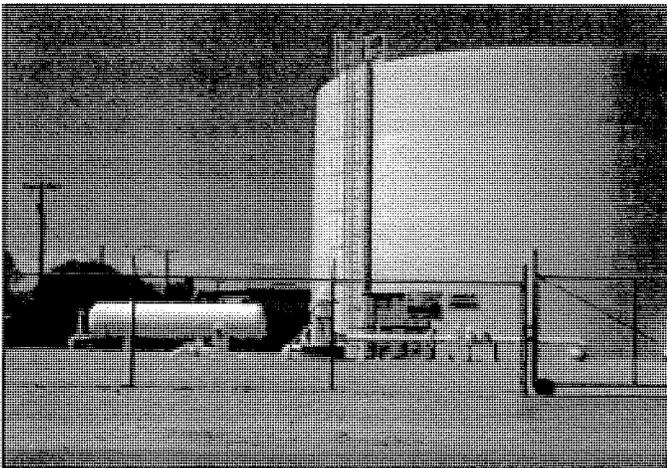
In Summer 2002, ADEQ abandoned the inactive Fairfax Industrial Park industrial production well to prevent potential cross-contamination between the contaminated perched aquifer and the underlying regional aquifer.

ADEQ is currently conducting the Remedial Investigation (RI) as part of the WQARF remediation process. The RI helps to determine what contaminants are present at the site, the extent of the contamination, and potential sources of the contamination. The Draft RI is expected to be completed by July 2006. Following the RI will be a Feasibility Study, which will identify and assess remedial options.

## HEALTH/WATER QUALITY

The Arizona Department of Health Services completed a Draft Baseline Human Health Risk Assessment in January 1995 of the Miracle Mile site. No significant health risks associated with this site were identified at that time.

There are potential risks associated with exposure to VOCs, principally through drinking contaminated groundwater. No one is known to be drinking contaminated water at this site; therefore, no one is known to be exposed or at risk of exposure to these contaminants. Cleanup activities are important to ensure the quality of future drinking water supplies.



ADEQ is working to protect groundwater served by the Flowing Wells Irrigation District.

## FOR MORE INFORMATION:

A Community Advisory Board (CAB) for the site was established in November 1999, and holds public meetings approximately four times a year. The purpose of the CAB is to advise ADEQ, the public and other interested parties about the issues and concerns of the community related to the investigation and cleanup of a WQARF site. The CAB consists of a diversified cross-section of the community, including residents, water providers, and other interested groups.

### Technical Information:

Tina Le Page  
ADEQ Project Manager  
400 W. Congress St., Suite 433  
Tucson, AZ 85701  
(520) 628-6663  
E-mail: [lepage.tina@azdeq.gov](mailto:lepage.tina@azdeq.gov)

### Community Involvement:

Eileen Palese  
ADEQ Community Involvement Coordinator  
400 W. Congress St., Suite 433  
Tucson, AZ 85701  
(520) 628-6712  
E-mail: [palese.eileen@azdeq.gov](mailto:palese.eileen@azdeq.gov)

Complete public files regarding the site are located at ADEQ's Phoenix offices. Call 1(800) 234-5677 for information.

For more information on this WQARF site or other WQARF sites in the State of Arizona, please visit the ADEQ Web site at: [www.azdeq.gov](http://www.azdeq.gov). In the left-hand column, click on Waste Programs, then on Superfund Programs. Look for the Site Information and Maps Link.

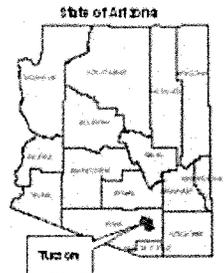
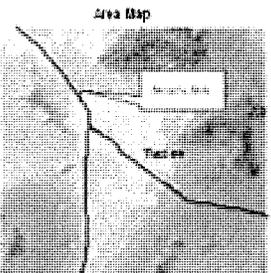
Para información en español sobre este sitio, se puede contactar a Melissa Hayes al (520) 770-3309.

# Miracle Mile WQARF Site, Tucson, Arizona



WASTE PROGRAMS DIVISION  
GIS and Data Management Unit

Tucson, Arizona  
December 2005



### Legend

- NAME**
- MIRACLE MILE
  - Wash Major
  - Major Streets
  - Streets

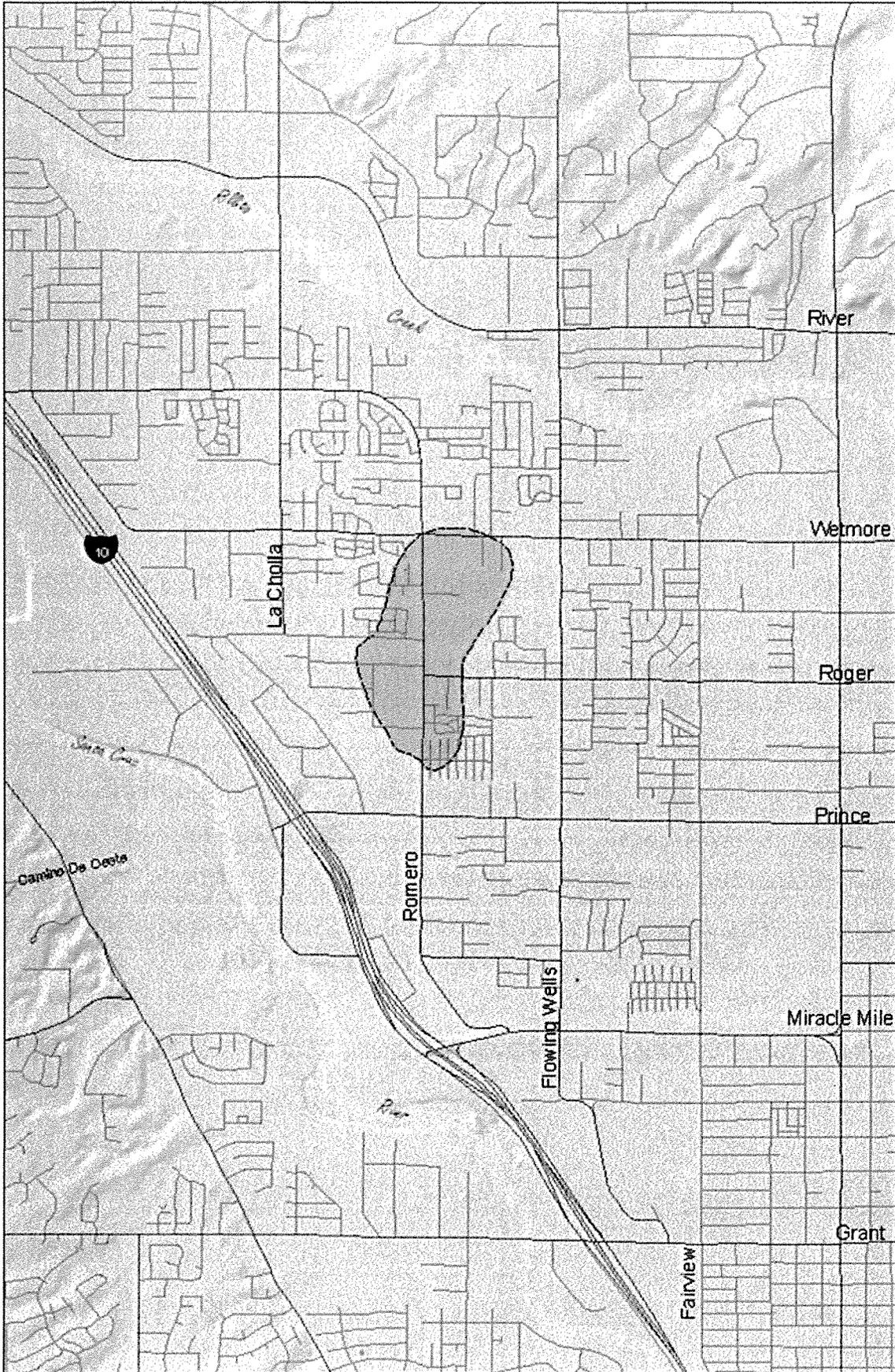


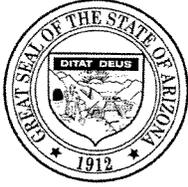
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Map produced by Arizona Department of  
Environmental Quality (ADEQ), GIS and  
Data Management Unit, Tucson  
Created by:

01/20/05  
12/15/05  
12/15/05  
12/15/05  
12/15/05

Data Source: Arizona Department of Environmental  
Quality, Arizona Land Resources Information System,  
Arizona Department of Transportation,  
Image:





Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • [www.azdeq.gov](http://www.azdeq.gov)



Stephen A. Owens  
Director

SROSPU 07:03

January 11, 2007

Angie Rados  
P.O. Box 15184  
Santa Ana, California 92705

## SENT CERTIFIED MAIL

Re: Water Use Study Relating to Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Site; Information Request; Property at Business Center Drive & River Park Drive, Tucson, Arizona

Dear Ms. Rados:

Arizona Department of Water Resources records indicate that you own a well at the referenced property which is located near the Miracle Mile WQARF site [see attached Fact Sheet and Site Map]. Arizona Department of Environmental Quality (ADEQ) is in the process of developing a draft Remedial Investigation report that will describe the extent of known contamination at the site and will also identify (in consultation with well owners) impacts to water resources.

We are requesting any information you may have regarding the current and future uses of water from this existing well or from well(s) you may plan on installing in the future. Specifically, we are requesting information you may have regarding:

- Location, uses, depth and screened interval of the existing well(s), including any well(s) already impaired due to contamination; and
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We also request that you supplement this information as you feel appropriate so that ADEQ can better understand current and future planned uses of groundwater pumped from wells at this property.

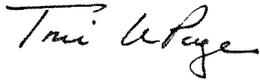
Northern Regional Office  
1801 W. Route 66 • Suite 117 • Flagstaff, AZ 86001  
(928) 779-0313

Southern Regional Office  
400 West Congress Street • Suite 433 • Tucson, AZ 85701  
(520) 628-6733

Ms. Rados  
January 11, 2007

Please forward any information to me by January 22, 2007. If you have any questions or need additional information, please call me at 1-888-271-9302 extension 6663 or 520-628-6663.

Sincerely,



Tina Le Page  
Project Manager  
Superfund Programs Unit  
Southern Regional Office

Attachments: Fact Sheet  
Site Map

cc: Reading File  
William J. Neese, URS Corporation, 333 East Wetmore, Suite 611, Tucson, Arizona 85705

## Miracle Mile Water Quality Assurance Revolving Fund Site January 2006

### SITE DESCRIPTION

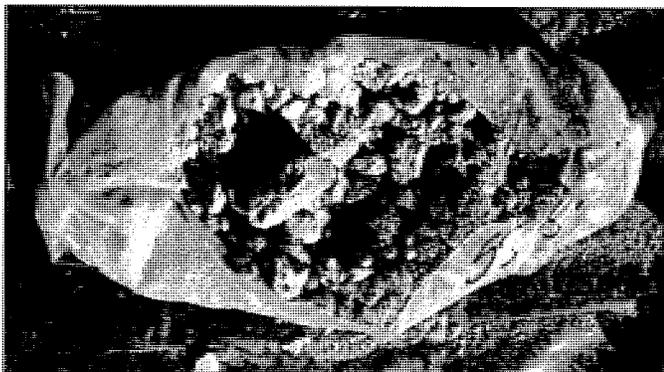
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The Miracle Mile WQARF Site is located in west Tucson, and is bounded approximately by Wetmore Road to the north, Flowing Wells Road to the east, Prince Road to the south, and La Cholla Boulevard to the west.

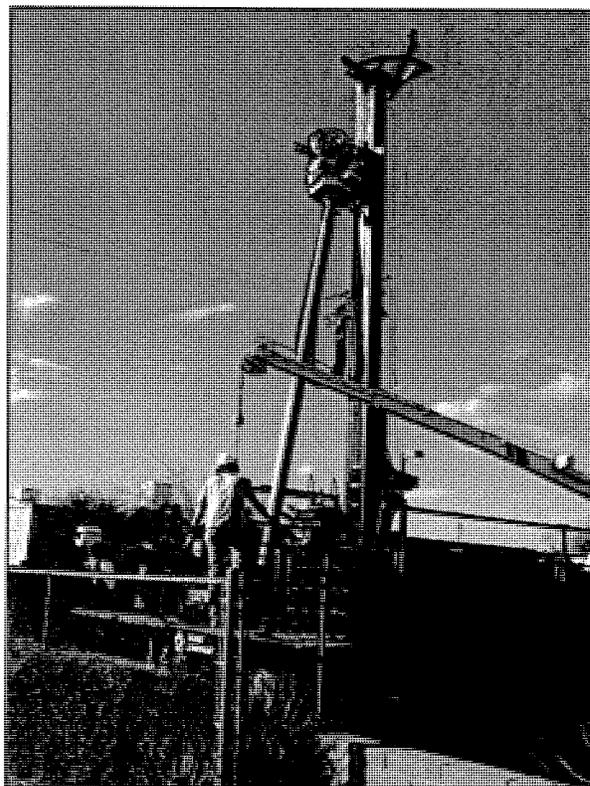
Groundwater at the site is contaminated with trichloroethene (TCE) and chromium occurring over regulatory limits. Depth to groundwater is about 70 feet below ground surface (bgs) in the perched aquifer, and about 160 feet bgs in the regional aquifer.

### SITE HISTORY

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The Miracle Mile site was placed on the WQARF Registry in September 1998.

### SITE INVESTIGATION/CLEANUP ACTION

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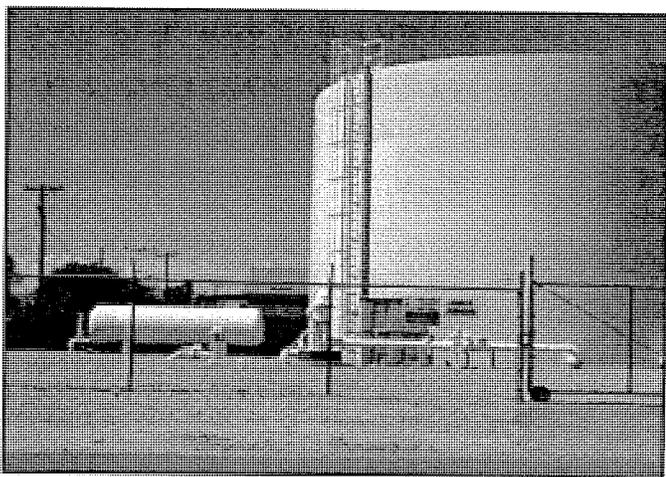
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*ADEQ is working to protect groundwater served by the Flowing Wells Irrigation District.*

## FOR MORE INFORMATION:

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### Technical Information:

Tina Le Page  
ADEQ Project Manager  
400 W. Congress St., Suite 433  
Tucson, AZ 85701  
(520) 628-6663  
E-mail: [lepage.tina@azdeq.gov](mailto:lepage.tina@azdeq.gov)

### Community Involvement:

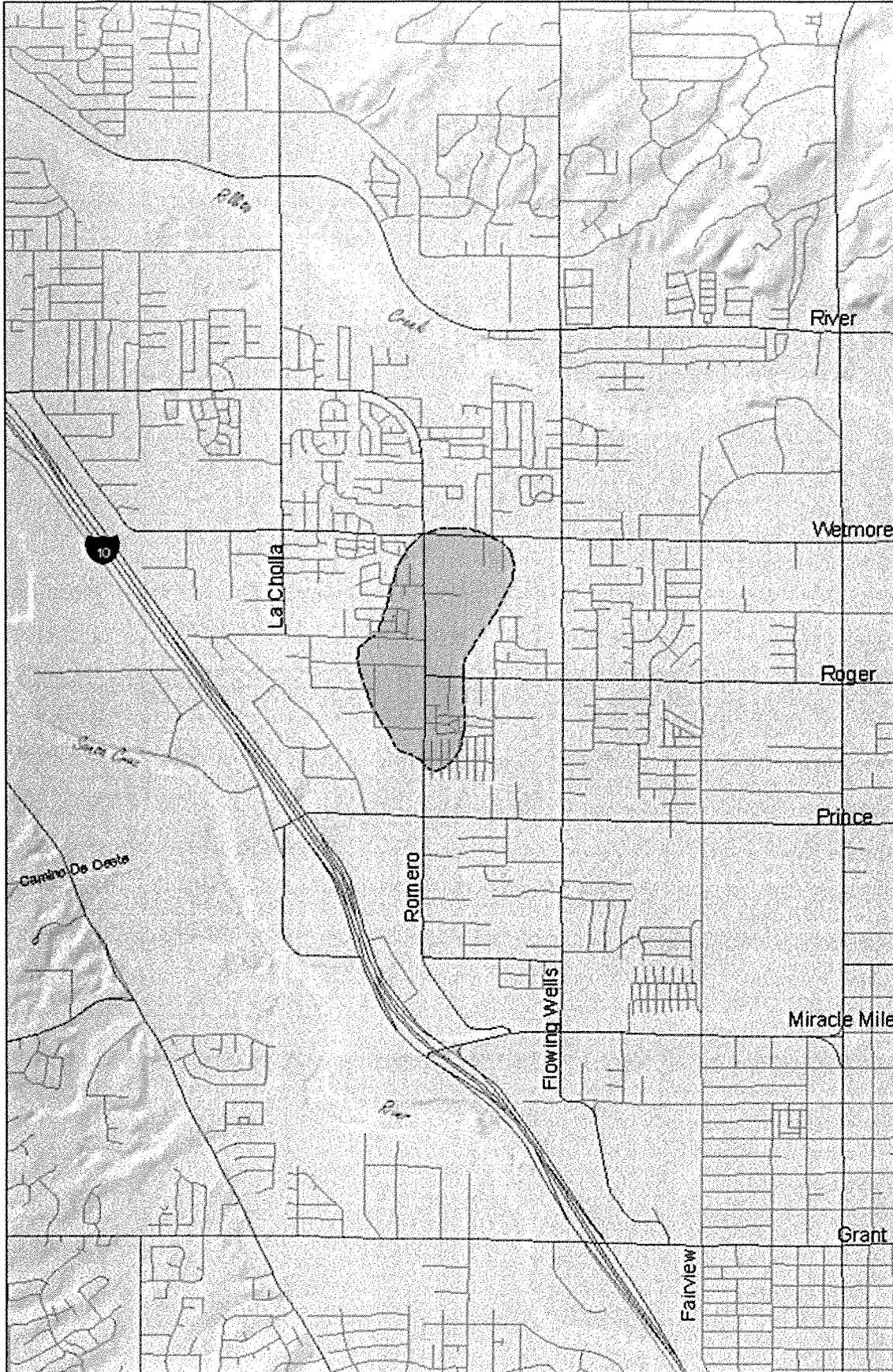
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ADEQ Community Involvement Coordinator  
400 W. Congress St., Suite 433  
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(520) 628-6712  
E-mail: [palese.eileen@azdeq.gov](mailto:palese.eileen@azdeq.gov)

Complete public files regarding the site are located at ADEQ's Phoenix offices. Call 1(800) 234-5677 for information.

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# Miracle Mile WQARF Site, Tucson, Arizona

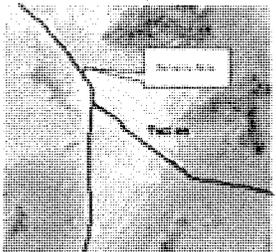




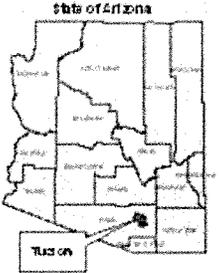
**WASTE PROGRAMS DIVISION**  
GIS and Data Management Unit

**Tucson, Arizona**  
December 2005

Area Map



State of Arizona



**Legend**

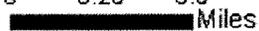
**NAME**

- MIRACLE MILE
- Wash Major
- Major Streets
- Streets

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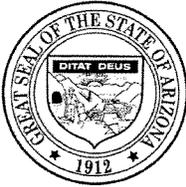
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Miles



Map produced by Arizona Department of Environmental Quality (ADEQ), GIS and Data Management Unit, Tucson, Arizona  
Checked by:

© 2005 Arizona Department of Environmental Quality  
Tucson, Arizona  
December 2005

Data Source: Arizona Department of Environmental Quality, Arizona Land Resource Information System, Arizona Department of Transportation.  
Issue:



Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • [www.azdeq.gov](http://www.azdeq.gov)



Stephen A. Owens  
Director

SROSPU 07:02

January 11, 2007

Mr. James C. Newell  
7997 West Amy Place  
Tucson, Arizona 85705

## SENT CERTIFIED MAIL

Re: Water Use Study Relating to Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Site; Information Request; Property at 2221 West Wetmore Road, Tucson, Arizona

Dear Mr. Newell:

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Mr. Newell  
January 11, 2007

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Tina Le Page  
Project Manager  
Superfund Programs Unit  
Southern Regional Office

Attachments: Fact Sheet  
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## Miracle Mile Water Quality Assurance Revolving Fund Site January 2006

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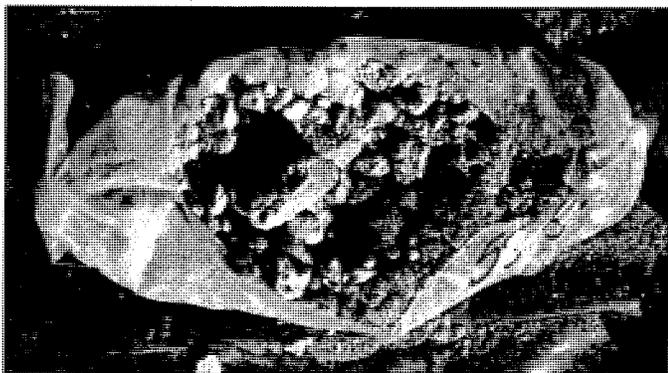
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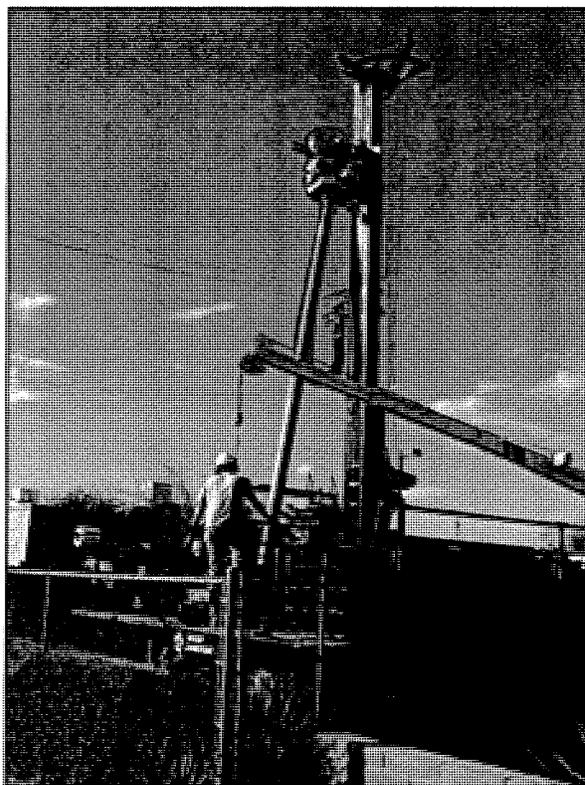
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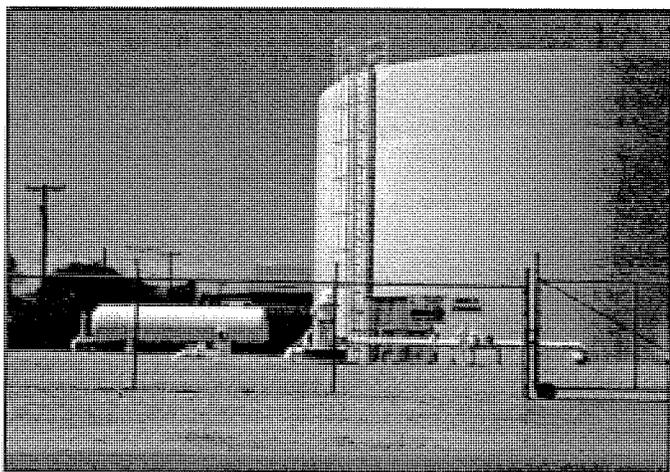
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### Technical Information:

Tina Le Page  
ADEQ Project Manager  
400 W. Congress St., Suite 433  
Tucson, AZ 85701  
(520) 628-6663  
E-mail: [lepage.tina@azdeq.gov](mailto:lepage.tina@azdeq.gov)

### Community Involvement:

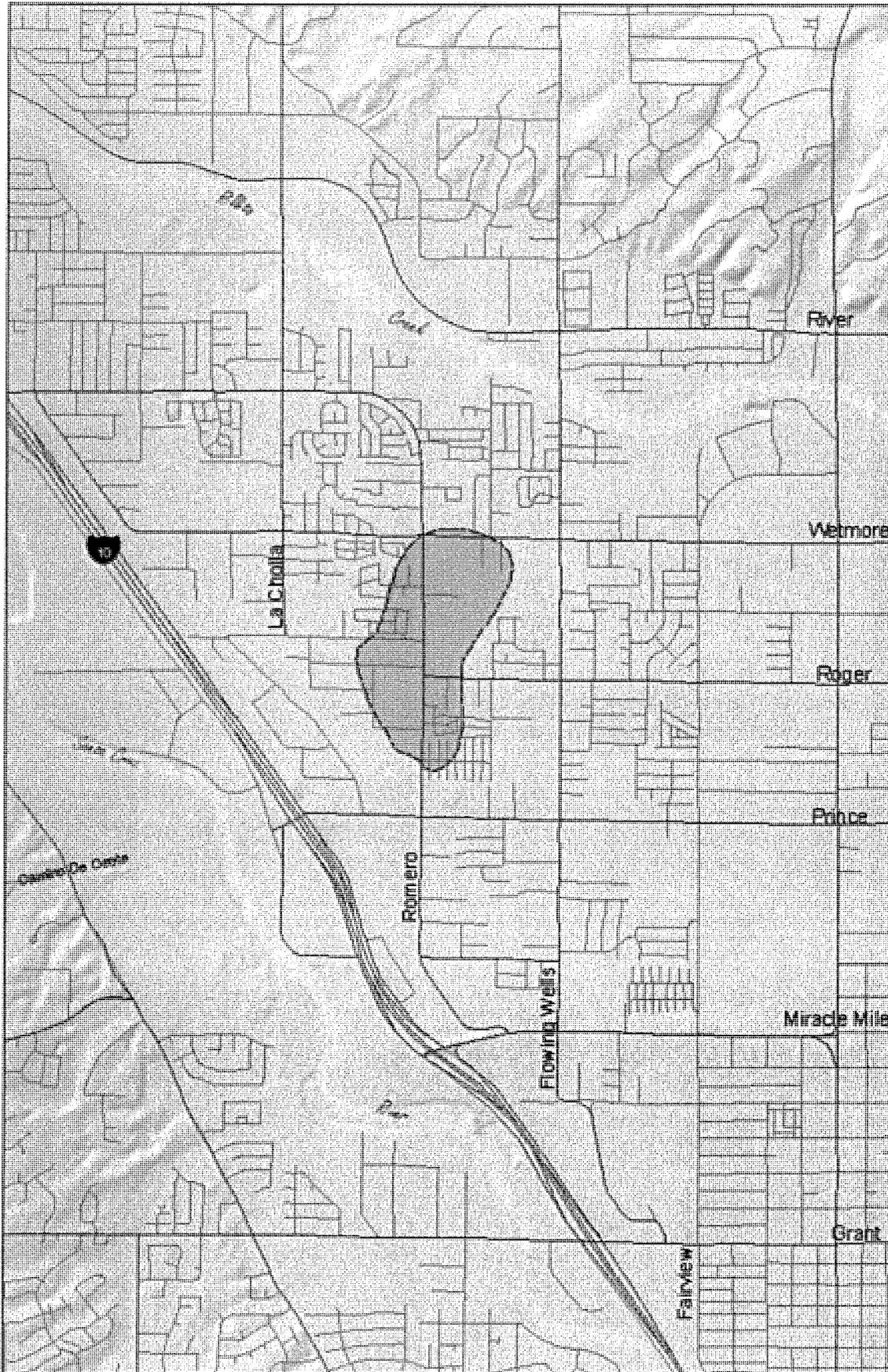
Eileen Palese  
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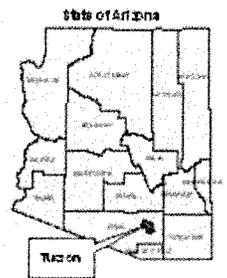
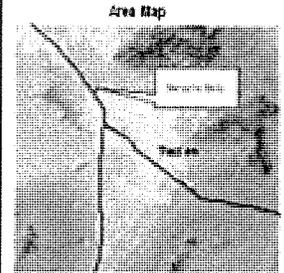
Para información en español sobre este sitio, se puede contactar a Melissa Hayes al (520) 770-3309.

# Miracle Mile WQARF Site, Tucson, Arizona



WASTE PROGRAMS DIVISION  
GIS and Data Management Unit

Tucson, Arizona  
December 2005



**Legend**

**NAME**

- MIRACLE MILE
- Wash Major
- Major Streets
- Streets



0 0.25 0.5 Miles

Map produced by Arizona Department of Environmental Quality (ADEQ), GIS and Data Management Unit, Tucson  
Checked by:

BY/for work performed by private consultant  
last on 2005/04/26, jmk/psk/cjs  
for ADEQ 2005/12/01,  
December 2005

Data Source: Arizona Department of Environmental Quality, Arizona Land Resources Information System, Arizona Department of Transportation.  
Image:



Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • [www.azdeq.gov](http://www.azdeq.gov)



Stephen A. Owens  
Director

SROSPU 07:08

January 11, 2007

Earl H. Williams  
1908 West Gardner Lane  
Tucson, Arizona 85706

## SENT CERTIFIED MAIL

Re: Water Use Study Relating to Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Site; Information Request; Well Registration No. 55-539788, Tucson, Arizona

Dear Mr. Williams:

Arizona Department of Water Resources records indicate that you own a well which is located near the Miracle Mile WQARF site [see attached Fact Sheet and Site Map]. Arizona Department of Environmental Quality (ADEQ) is in the process of developing a draft Remedial Investigation (RI) report that will describe the extent of known contamination at the site and will also identify (in consultation with well owners) impacts to water resources.

We are requesting any information you may have regarding the current and future uses of water from this existing well or from well(s) you may plan on installing in the future. Specifically, we are requesting information you may have regarding:

- Location, uses, depth and screened interval of the existing well(s), including any well(s) already impaired due to contamination; and
- Location and uses, if known, of any planned wells.

We also request that you supplement this information as you feel appropriate so that ADEQ can better understand current and future planned uses of groundwater pumped from wells at this property.

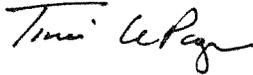
Northern Regional Office  
1801 W. Route 66 • Suite 117 • Flagstaff, AZ 86001  
(928) 779-0313

Southern Regional Office  
400 West Congress Street • Suite 433 • Tucson, AZ 85701  
(520) 628-6733

Mr. Williams  
January 11, 2007

Please forward any information to me by January 22, 2007. If you have any questions or need additional information, please call me at 1-888-271-9302 extension 6663 or 520-628-6663.

Sincerely,



Tina Le Page  
Project Manager  
Superfund Programs Unit  
Southern Regional Office

Attachments: Fact Sheet  
Site Map

cc: Reading File  
William J. Neese, URS Corporation, 333 East Wetmore, Suite 611, Tucson, Arizona 85705

## Miracle Mile Water Quality Assurance Revolving Fund Site January 2006

### SITE DESCRIPTION

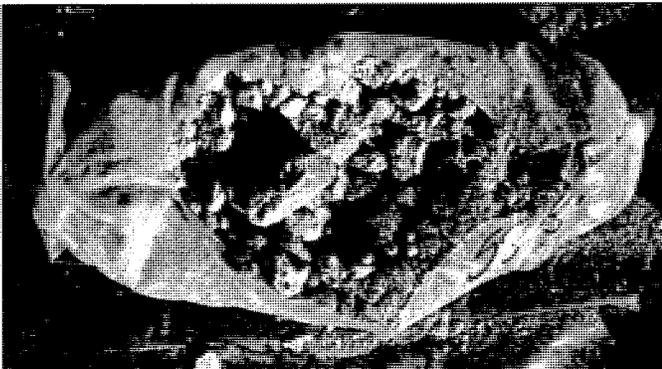
The Arizona Department of Environmental Quality (ADEQ) is investigating groundwater and soil contamination at the Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Site. The ADEQ WQARF program, which is also known as state Superfund, investigates and cleans up contaminated groundwater and soil sites throughout the state.

The Miracle Mile WQARF Site is located in west Tucson, and is bounded approximately by Wetmore Road to the north, Flowing Wells Road to the east, Prince Road to the south, and La Cholla Boulevard to the west.

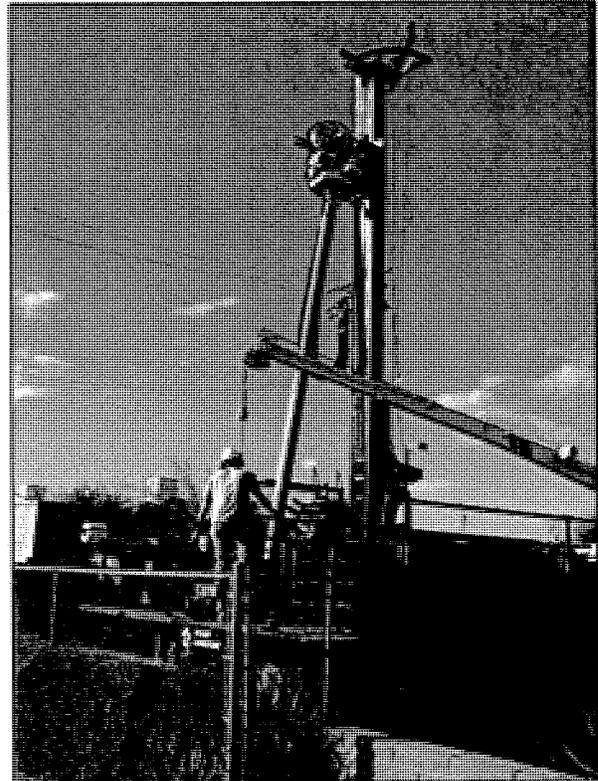
Groundwater at the site is contaminated with trichloroethene (TCE) and chromium occurring over regulatory limits. Depth to groundwater is about 70 feet below ground surface (bgs) in the perched aquifer, and about 160 feet bgs in the regional aquifer.

### SITE HISTORY

In the fall of 1983, the drinking water supply well at the Tra-Tel Tucson R.V. Park, located to the southwest of the present Miracle Mile WQARF Site, was found to be contaminated with PCE. Initial investigations focused on defining conditions within the site. These activities included soil and groundwater sampling, identification of facilities in the area of contamination, and distribution of survey questionnaires to these facilities.



Soil extracted during drilling is closely examined and analyzed to provide information about the hydrology and geology of the site.



Several monitor wells have been installed to investigate the contamination in and around the Miracle Mile WQARF site.

Subsequent investigations included facility inspections, facility record searches, reissuing of questionnaires, installation of monitor wells, and continuing groundwater sampling and monitoring.

The Miracle Mile site was placed on the WQARF Registry in September 1998.

### SITE INVESTIGATION/CLEANUP ACTION

In August 1995, ADEQ abandoned two private wells in the Miracle Mile area. A perched aquifer contaminated with volatile organic compounds (VOCs) was present in both wells. Water from this perched aquifer was cascading through the well bores and potentially contributing to the contamination of the deeper regional aquifer. Quarterly groundwater sampling and monthly water level measurements began in May 1999.

In 2001, in response to a request for an interim remedial action from Flowing Wells Irrigation District (FWID), ADEQ re-equipped one of their production wells (FWID-72) and constructed surface storage facilities after completion of a water supply study to identify and evaluate alternate water supplies.

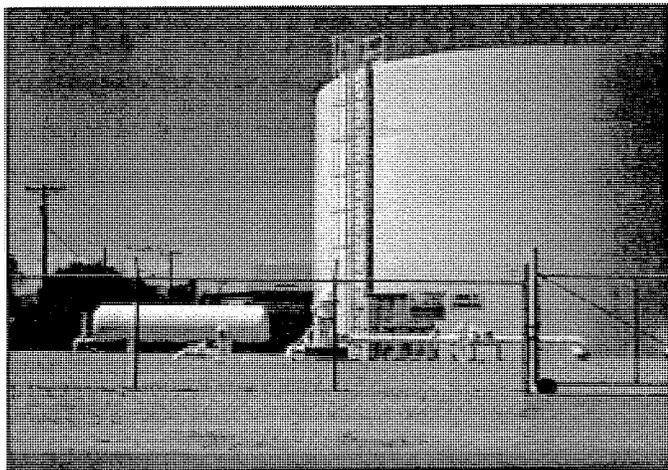
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ADEQ is currently conducting the Remedial Investigation (RI) as part of the WQARF remediation process. The RI helps to determine what contaminants are present at the site, the extent of the contamination, and potential sources of the contamination. The Draft RI is expected to be completed by July 2006. Following the RI will be a Feasibility Study, which will identify and assess remedial options.

## HEALTH/WATER QUALITY

The Arizona Department of Health Services completed a Draft Baseline Human Health Risk Assessment in January 1995 of the Miracle Mile site. No significant health risks associated with this site were identified at that time.

There are potential risks associated with exposure to VOCs, principally through drinking contaminated groundwater. No one is known to be drinking contaminated water at this site; therefore, no one is known to be exposed or at risk of exposure to these contaminants. Cleanup activities are important to ensure the quality of future drinking water supplies.



ADEQ is working to protect groundwater served by the Flowing Wells Irrigation District.

## FOR MORE INFORMATION:

A Community Advisory Board (CAB) for the site was established in November 1999, and holds public meetings approximately four times a year. The purpose of the CAB is to advise ADEQ, the public and other interested parties about the issues and concerns of the community related to the investigation and cleanup of a WQARF site. The CAB consists of a diversified cross-section of the community, including residents, water providers, and other interested groups.

### Technical Information:

Tina Le Page  
ADEQ Project Manager  
400 W. Congress St., Suite 433  
Tucson, AZ 85701  
(520) 628-6663  
E-mail: [lepage.tina@azdeq.gov](mailto:lepage.tina@azdeq.gov)

### Community Involvement:

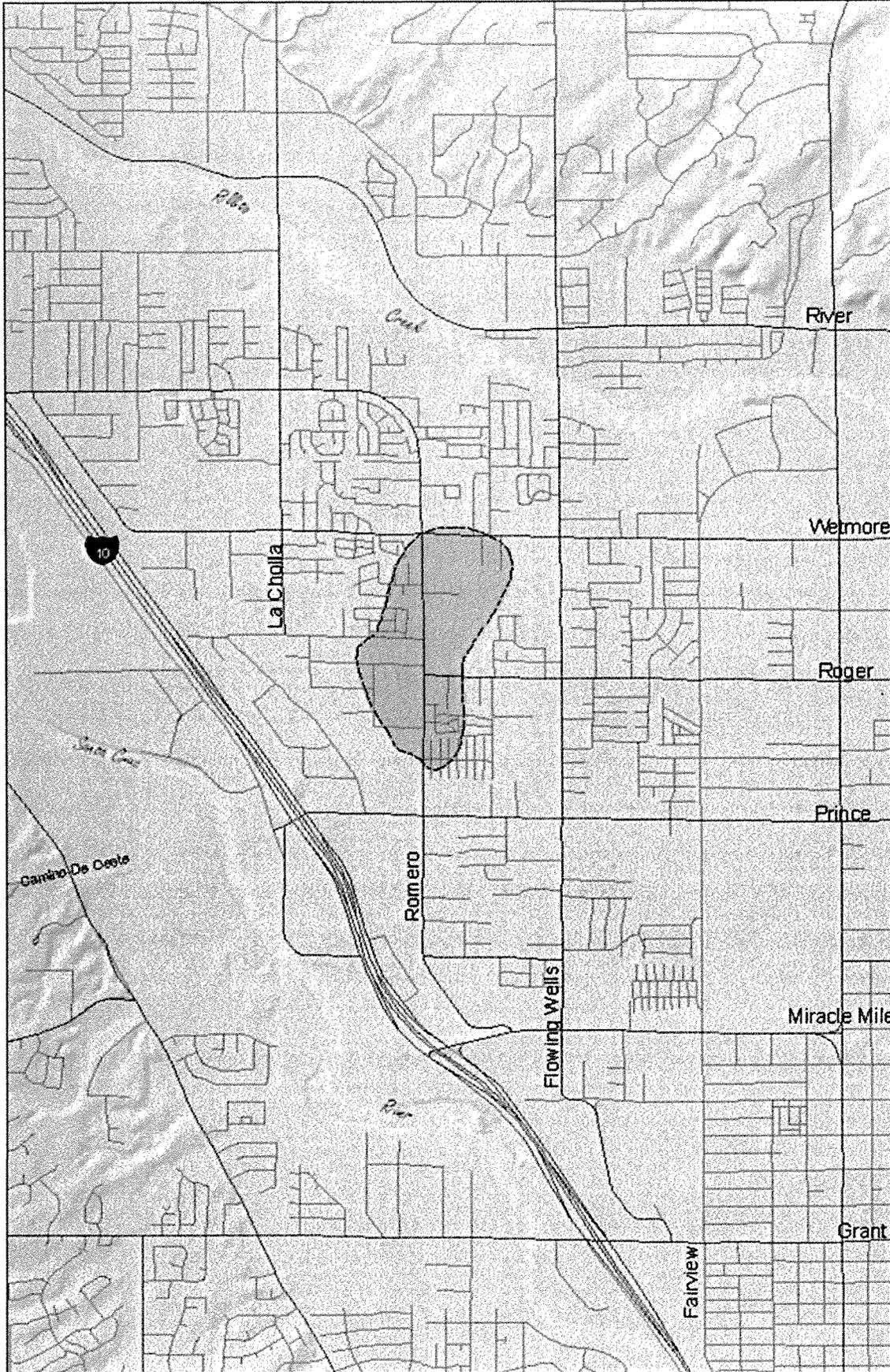
Eileen Palese  
ADEQ Community Involvement Coordinator  
400 W. Congress St., Suite 433  
Tucson, AZ 85701  
(520) 628-6712  
E-mail: [palese.eileen@azdeq.gov](mailto:palese.eileen@azdeq.gov)

Complete public files regarding the site are located at ADEQ's Phoenix offices. Call 1(800) 234-5677 for information.

For more information on this WQARF site or other WQARF sites in the State of Arizona, please visit the ADEQ Web site at: [www.azdeq.gov](http://www.azdeq.gov). In the left-hand column, click on Waste Programs, then on Superfund Programs. Look for the Site Information and Maps Link.

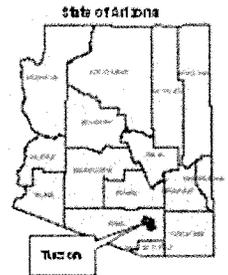
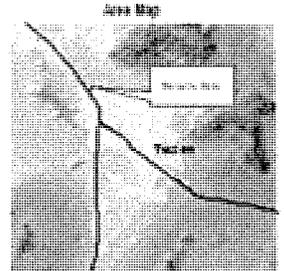
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# Miracle Mile WQARF Site, Tucson, Arizona



WASTE PROGRAMS DIVISION  
GIS and Data Management Unit

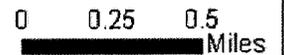
Tucson, Arizona  
December 2005



**Legend**

**NAME**

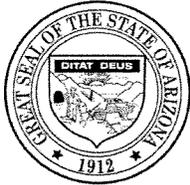
- MIRACLE MILE
- Wash Major
- Major Streets
- Streets



Map produced by Arizona Department of Environmental Quality (ADEQ), GIS and Data Management Unit, TSD Services provided by:

Environmental Systems Group of United Tech  
Last on 2005 available data provided  
Miracle Mile 2005 final  
December 2005

Data Source: Arizona Department of Environmental Quality, Arizona Land Resource Information System, Arizona Department of Environmental Quality



Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • [www.azdeq.gov](http://www.azdeq.gov)



Stephen A. Owens  
Director

SROSPU 07:09

January 11, 2007

Eric and Sheree Anderson  
10757 North Glen Abby Drive  
Tucson, Arizona 85737

## SENT CERTIFIED MAIL

Re: Water Use Study Relating to Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Site; Information Request; Property at 4541 North Romero Road, Tucson, Arizona

Dear Eric and Sheree Anderson:

Arizona Department of Water Resources records indicate that you own a well at the referenced property which is located near the Miracle Mile WQARF site [see attached Fact Sheet and Site Map]. Arizona Department of Environmental Quality (ADEQ) is in the process of developing a draft Remedial Investigation report that will describe the extent of known contamination at the site and will also identify (in consultation with well owners) impacts to water resources.

We are requesting any information you may have regarding the current and future uses of water from this existing well or from well(s) you may plan on installing in the future. Specifically, we are requesting information you may have regarding:

- Location, uses, depth and screened interval of the existing well(s), including any well(s) already impaired due to contamination; and
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Northern Regional Office  
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(928) 779-0313

Southern Regional Office  
400 West Congress Street • Suite 433 • Tucson, AZ 85701  
(520) 628-6733

Eric and Sheree Anderson  
January 11, 2007

Please forward any information to me by January 22, 2007. If you have any questions or need additional information, please call me at 520-628-6663.

Sincerely,



Tina Le Page  
Project Manager  
Superfund Programs Unit  
Southern Regional Office

Attachments: Fact Sheet  
Site Map

cc: Reading File  
William J. Neese, URS Corporation, 333 East Wetmore, Suite 611, Tucson, Arizona 85705

## Miracle Mile Water Quality Assurance Revolving Fund Site January 2006

### SITE DESCRIPTION

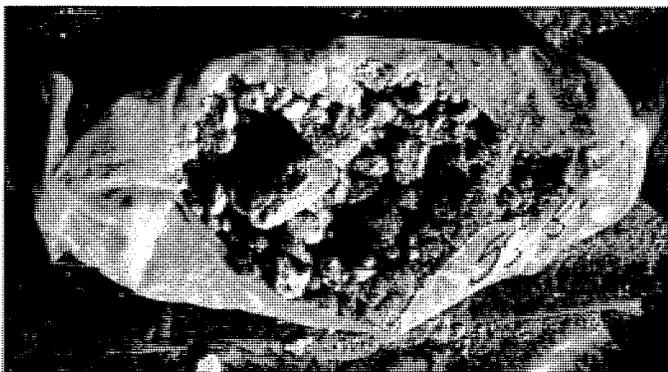
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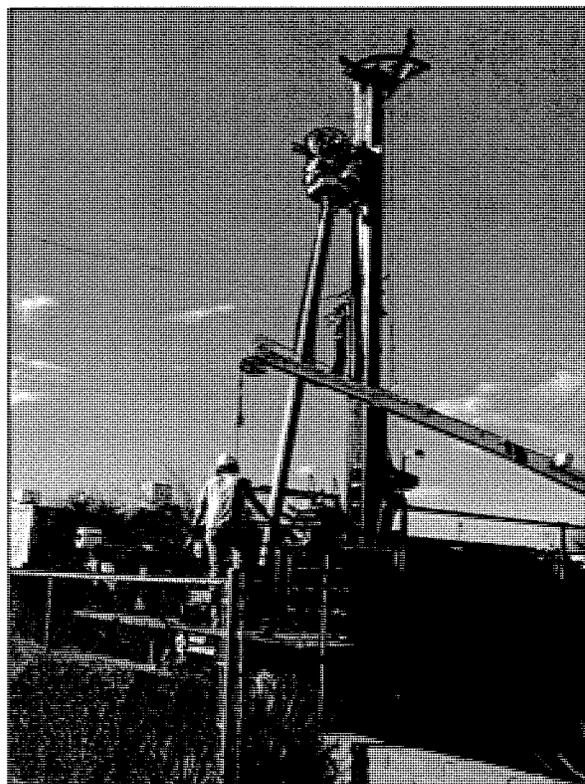
Groundwater at the site is contaminated with trichloroethene (TCE) and chromium occurring over regulatory limits. Depth to groundwater is about 70 feet below ground surface (bgs) in the perched aquifer, and about 160 feet bgs in the regional aquifer.

### SITE HISTORY

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The Miracle Mile site was placed on the WQARF Registry in September 1998.

### SITE INVESTIGATION/CLEANUP ACTION

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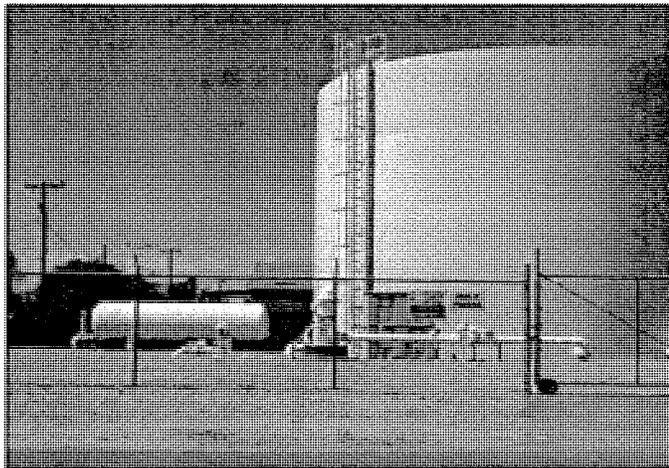
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## FOR MORE INFORMATION:

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### Technical Information:

Tina Le Page  
ADEQ Project Manager  
400 W. Congress St., Suite 433  
Tucson, AZ 85701  
(520) 628-6663  
E-mail: [lepage.tina@azdeq.gov](mailto:lepage.tina@azdeq.gov)

### Community Involvement:

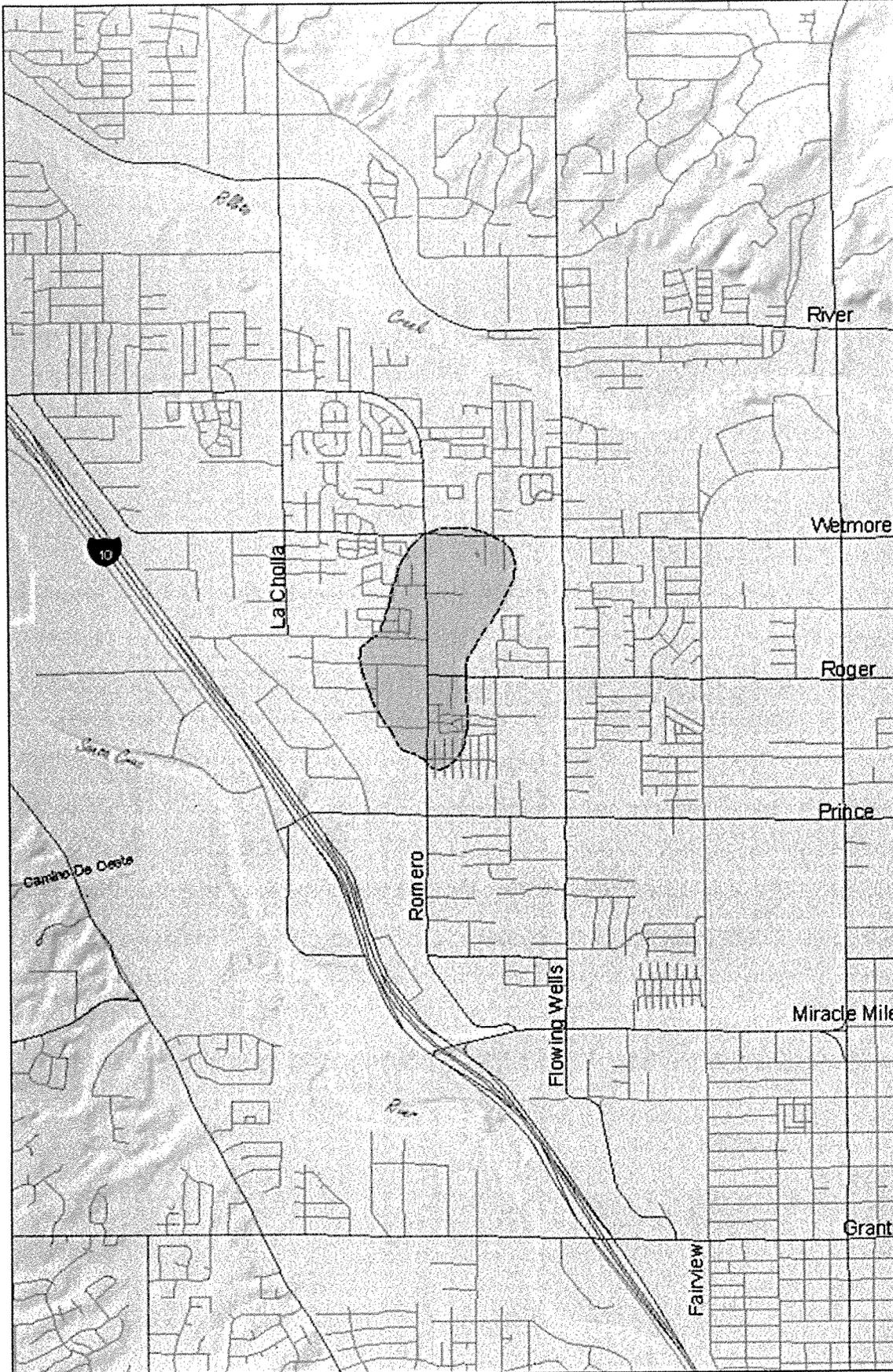
Eileen Palese  
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400 W. Congress St., Suite 433  
Tucson, AZ 85701  
(520) 628-6712  
E-mail: [palese.eileen@azdeq.gov](mailto:palese.eileen@azdeq.gov)

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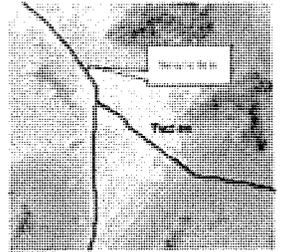
# Miracle Mile WQARF Site, Tucson, Arizona



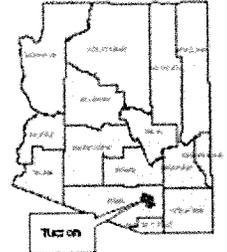
WASTE PROGRAMS DIVISION  
GIS and Data Management Unit

Tucson, Arizona  
December 2005

Area Map



Sub of Arizona



**Legend**

**NAME**

-  MIRACLE MILE
-  Wash Major
-  Major Streets
-  Streets

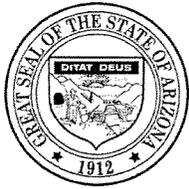


0 0.25 0.5  
Miles

Map produced by Arizona Department of  
Environmental Quality (ADEQ), GIS and  
Data Management Unit, TO Document  
Created by:

02/16/2005 10:46:00 AM  
Last on 2005/12/05 10:46:00 AM  
12/05/2005 10:46:00 AM  
December 2005

Data Source: Arizona Department of Environmental  
Quality, Arizona Land Use and Information System,  
Arizona Department of Environmental Quality,  
Image:



Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • [www.azdeq.gov](http://www.azdeq.gov)



Stephen A. Owens  
Director

SROSPU 07:06

January 11, 2007

Danny and Pao Mei  
2235 North Catalina Street  
Los Angeles, California 90027

## SENT CERTIFIED MAIL

Re: Water Use Study Relating to Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Site; Information Request; Property at 4445 Flowing Wells Road, Tucson, Arizona

Dear Danny and Pao Mei:

Arizona Department of Water Resources records indicate that you own a well at the referenced property which is located near the Miracle Mile WQARF site [see attached Fact Sheet and Site Map]. Arizona Department of Environmental Quality (ADEQ) is in the process of developing a draft Remedial Investigation report that will describe the extent of known contamination at the site and will also identify (in consultation with well owners) impacts to water resources.

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Northern Regional Office  
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Danny and Pao Mei  
January 11, 2007

Please forward any information to me by January 22, 2007. If you have any questions or need additional information, please call me at 520-628-6663.

Sincerely,



Tina Le Page  
Project Manager  
Superfund Programs Unit  
Southern Regional Office

Attachments: Fact Sheet  
Site Map

cc: Reading File  
William J. Neese, URS Corporation, 333 East Wetmore, Suite 611, Tucson, Arizona 85705

## Miracle Mile Water Quality Assurance Revolving Fund Site January 2006

### SITE DESCRIPTION

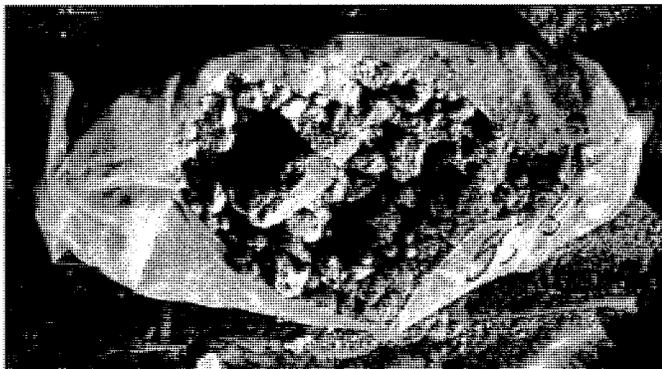
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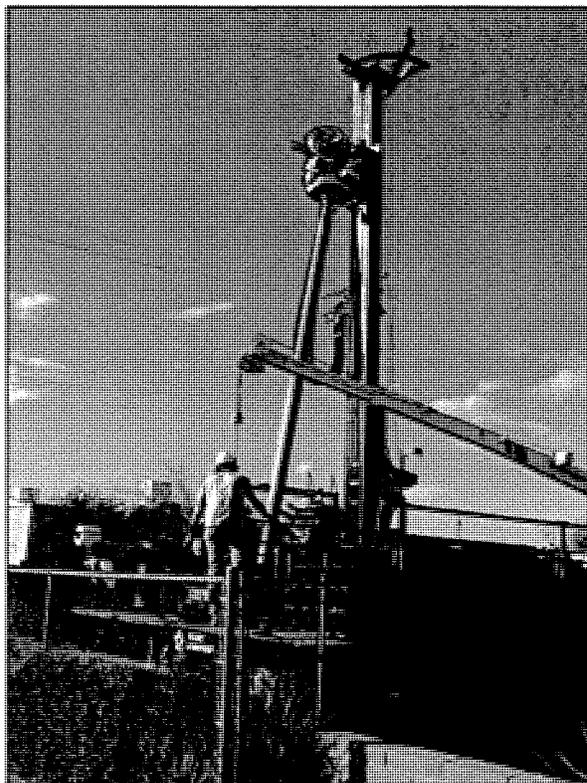
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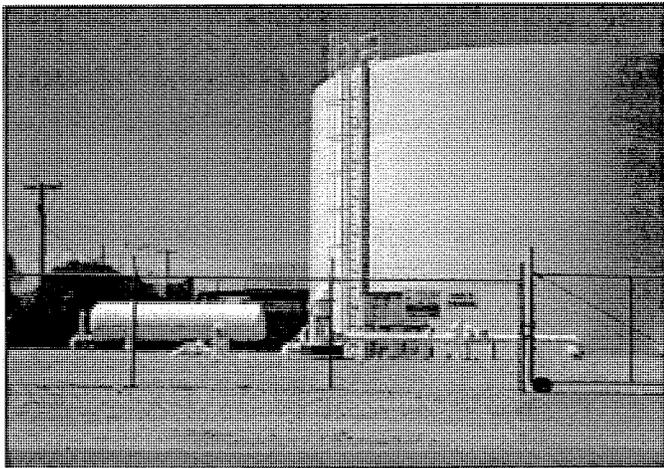
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E-mail: [lepage.tina@azdeq.gov](mailto:lepage.tina@azdeq.gov)

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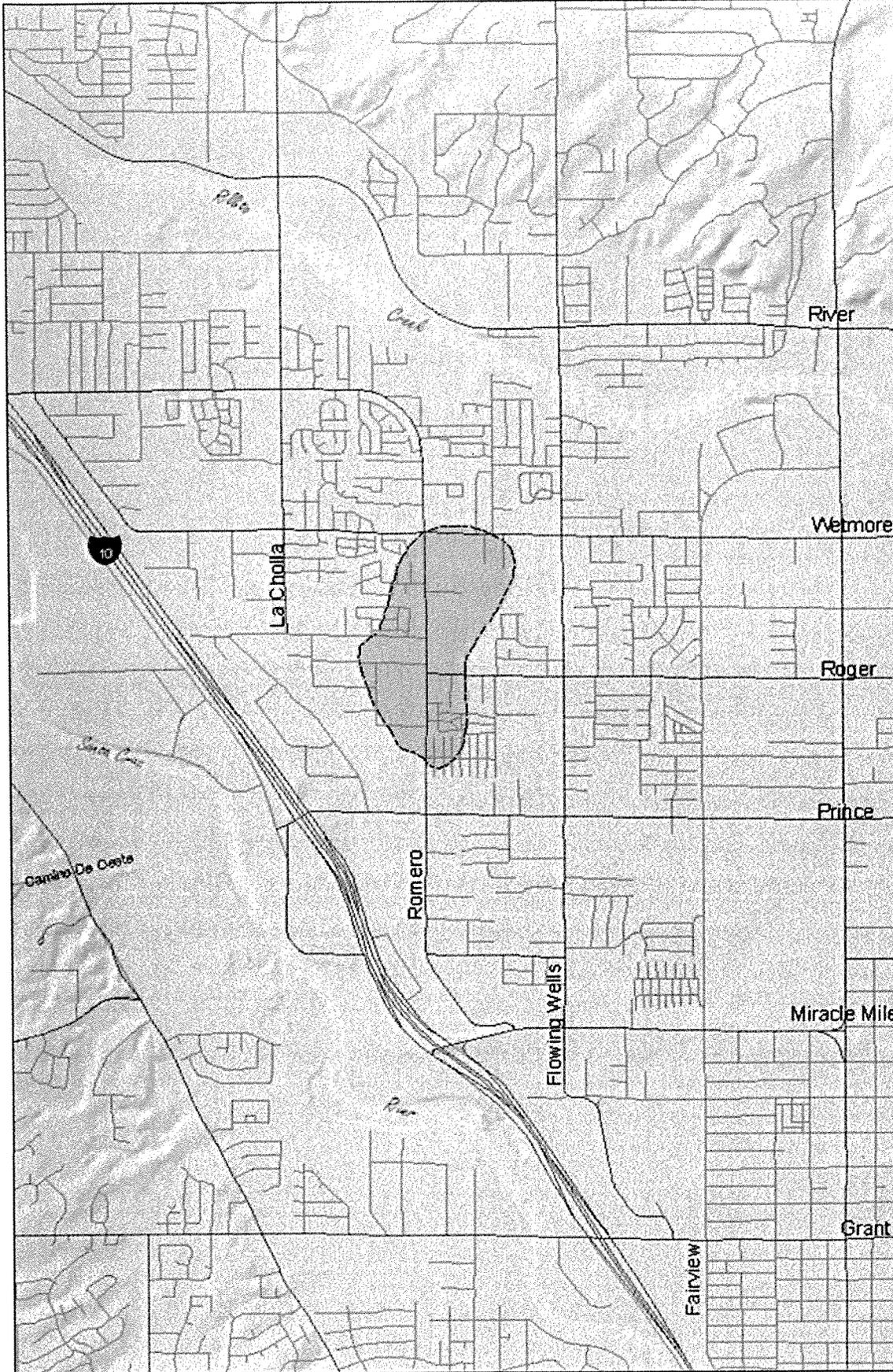
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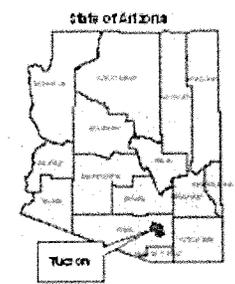
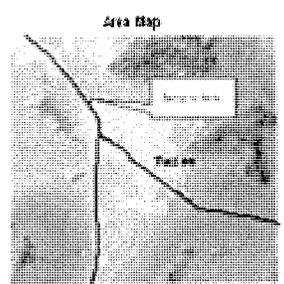
Para información en español sobre este sitio, se puede contactar a Melissa Hayes al (520) 770-3309.

# Miracle Mile WQARF Site, Tucson, Arizona

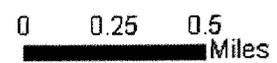


WASTE PROGRAMS DIVISION  
GIS and Data Management Unit

Tucson, Arizona  
December 2005



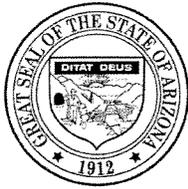
- Legend**
- NAME**
- MIRACLE MILE
  - Wash Major
  - Major Streets
  - Streets



Map produced by Arizona Department of Environmental Quality (ADEQ), GIS and Data Management Unit, Tucson, Arizona  
Checked by:

05/08/06 work map for essential project super fund  
Last on 2005/08/05 update project GIS  
05/08/06 2005/08/05  
December 2005

Data Source: Arizona Department of Environmental Quality, Arizona Land Use Data 2002, Information Systems, Arizona Department of Transportation, Image:



Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • [www.azdeq.gov](http://www.azdeq.gov)



Stephen A. Owens  
Director

SROSPU 07:05

January 11, 2007

John D. Krogstad  
4258 North Howe Place  
Tucson, Arizona 85707

## SENT CERTIFIED MAIL

Re: Water Use Study Relating to Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Site; Information Request; Property at 4258 Howe Place, Tucson, Arizona

Dear Mr. Krogstad:

Arizona Department of Water Resources records indicate that you own a well at the referenced property which is located near the Miracle Mile WQARF site [see attached Fact Sheet and Site Map]. Arizona Department of Environmental Quality (ADEQ) is in the process of developing a draft Remedial Investigation report that will describe the extent of known contamination at the site and will also identify (in consultation with well owners) impacts to water resources.

We are requesting any information you may have regarding the current and future uses of water from this existing well or from well(s) you may plan on installing in the future. Specifically, we are requesting information you may have regarding:

- Location, uses, depth and screened interval of the existing well(s), including any well(s) already impaired due to contamination; and
- Location and uses, if known, of any planned wells.

We also request that you supplement this information as you feel appropriate so that ADEQ can better understand current and future planned uses of groundwater pumped from wells at this property.

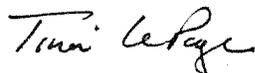
Northern Regional Office  
1801 W. Route 66 • Suite 117 • Flagstaff, AZ 86001  
(928) 779-0313

Southern Regional Office  
400 West Congress Street • Suite 433 • Tucson, AZ 85701  
(520) 628-6733

Mr. Krogstad  
January 11, 2007

Please forward any information to me by January 22, 2007. If you have any questions or need additional information, please call me at 520-628-6663.

Sincerely,



Tina Le Page  
Project Manager  
Superfund Programs Unit  
Southern Regional Office

Attachments: Fact Sheet  
Site Map

cc: Reading File  
William J. Neese, URS Corporation, 333 East Wetmore, Suite 611, Tucson, Arizona 85705

## Miracle Mile Water Quality Assurance Revolving Fund Site January 2006

### SITE DESCRIPTION

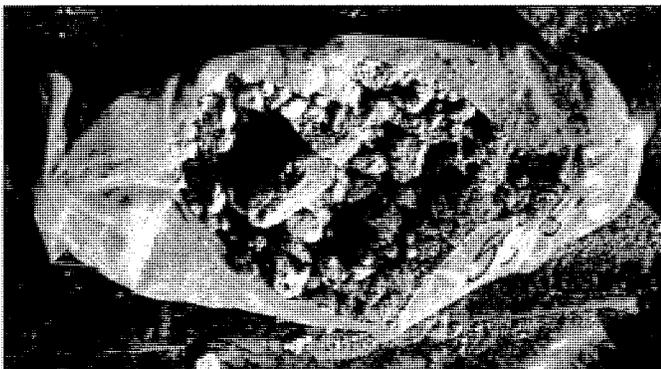
The Arizona Department of Environmental Quality (ADEQ) is investigating groundwater and soil contamination at the Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Site. The ADEQ WQARF program, which is also known as state Superfund, investigates and cleans up contaminated groundwater and soil sites throughout the state.

The Miracle Mile WQARF Site is located in west Tucson, and is bounded approximately by Wetmore Road to the north, Flowing Wells Road to the east, Prince Road to the south, and La Cholla Boulevard to the west.

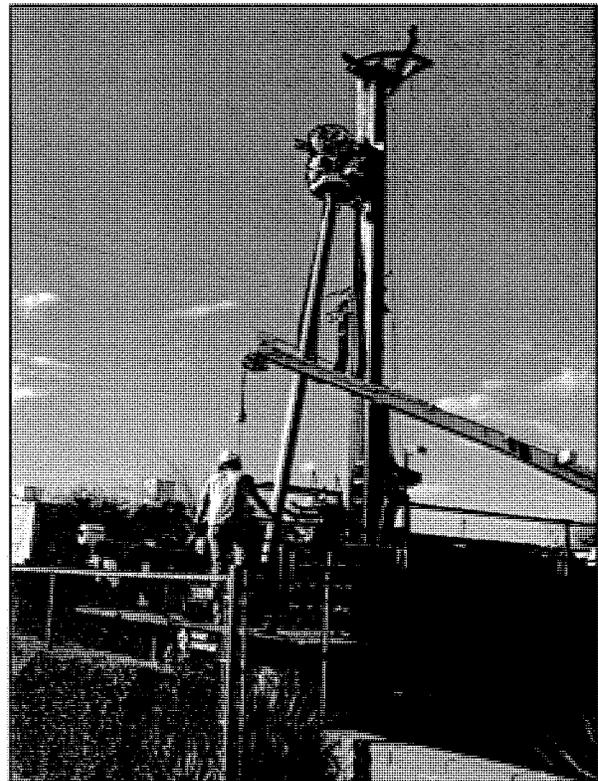
Groundwater at the site is contaminated with trichloroethene (TCE) and chromium occurring over regulatory limits. Depth to groundwater is about 70 feet below ground surface (bgs) in the perched aquifer, and about 160 feet bgs in the regional aquifer.

### SITE HISTORY

In the fall of 1983, the drinking water supply well at the Tra-Tel Tucson R.V. Park, located to the southwest of the present Miracle Mile WQARF Site, was found to be contaminated with PCE. Initial investigations focused on defining conditions within the site. These activities included soil and groundwater sampling, identification of facilities in the area of contamination, and distribution of survey questionnaires to these facilities.



Soil extracted during drilling is closely examined and analyzed to provide information about the hydrology and geology of the site.



Several monitor wells have been installed to investigate the contamination in and around the Miracle Mile WQARF site.

Subsequent investigations included facility inspections, facility record searches, reissuing of questionnaires, installation of monitor wells, and continuing groundwater sampling and monitoring.

The Miracle Mile site was placed on the WQARF Registry in September 1998.

### SITE INVESTIGATION/CLEANUP ACTION

In August 1995, ADEQ abandoned two private wells in the Miracle Mile area. A perched aquifer contaminated with volatile organic compounds (VOCs) was present in both wells. Water from this perched aquifer was cascading through the well bores and potentially contributing to the contamination of the deeper regional aquifer. Quarterly groundwater sampling and monthly water level measurements began in May 1999.

In 2001, in response to a request for an interim remedial action from Flowing Wells Irrigation District (FWID), ADEQ re-equipped one of their production wells (FWID-72) and constructed surface storage facilities after completion of a water supply study to identify and evaluate alternate water supplies.

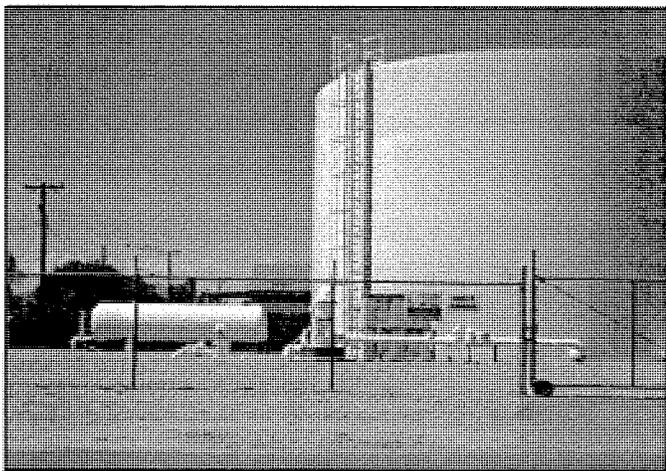
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## HEALTH/WATER QUALITY

The Arizona Department of Health Services completed a Draft Baseline Human Health Risk Assessment in January 1995 of the Miracle Mile site. No significant health risks associated with this site were identified at that time.

There are potential risks associated with exposure to VOCs, principally through drinking contaminated groundwater. No one is known to be drinking contaminated water at this site; therefore, no one is known to be exposed or at risk of exposure to these contaminants. Cleanup activities are important to ensure the quality of future drinking water supplies.



*ADEQ is working to protect groundwater served by the Flowing Wells Irrigation District.*

## FOR MORE INFORMATION:

A Community Advisory Board (CAB) for the site was established in November 1999, and holds public meetings approximately four times a year. The purpose of the CAB is to advise ADEQ, the public and other interested parties about the issues and concerns of the community related to the investigation and cleanup of a WQARF site. The CAB consists of a diversified cross-section of the community, including residents, water providers, and other interested groups.

### Technical Information:

Tina Le Page  
ADEQ Project Manager  
400 W. Congress St., Suite 433  
Tucson, AZ 85701  
(520) 628-6663  
E-mail: [lepage.tina@azdeq.gov](mailto:lepage.tina@azdeq.gov)

### Community Involvement:

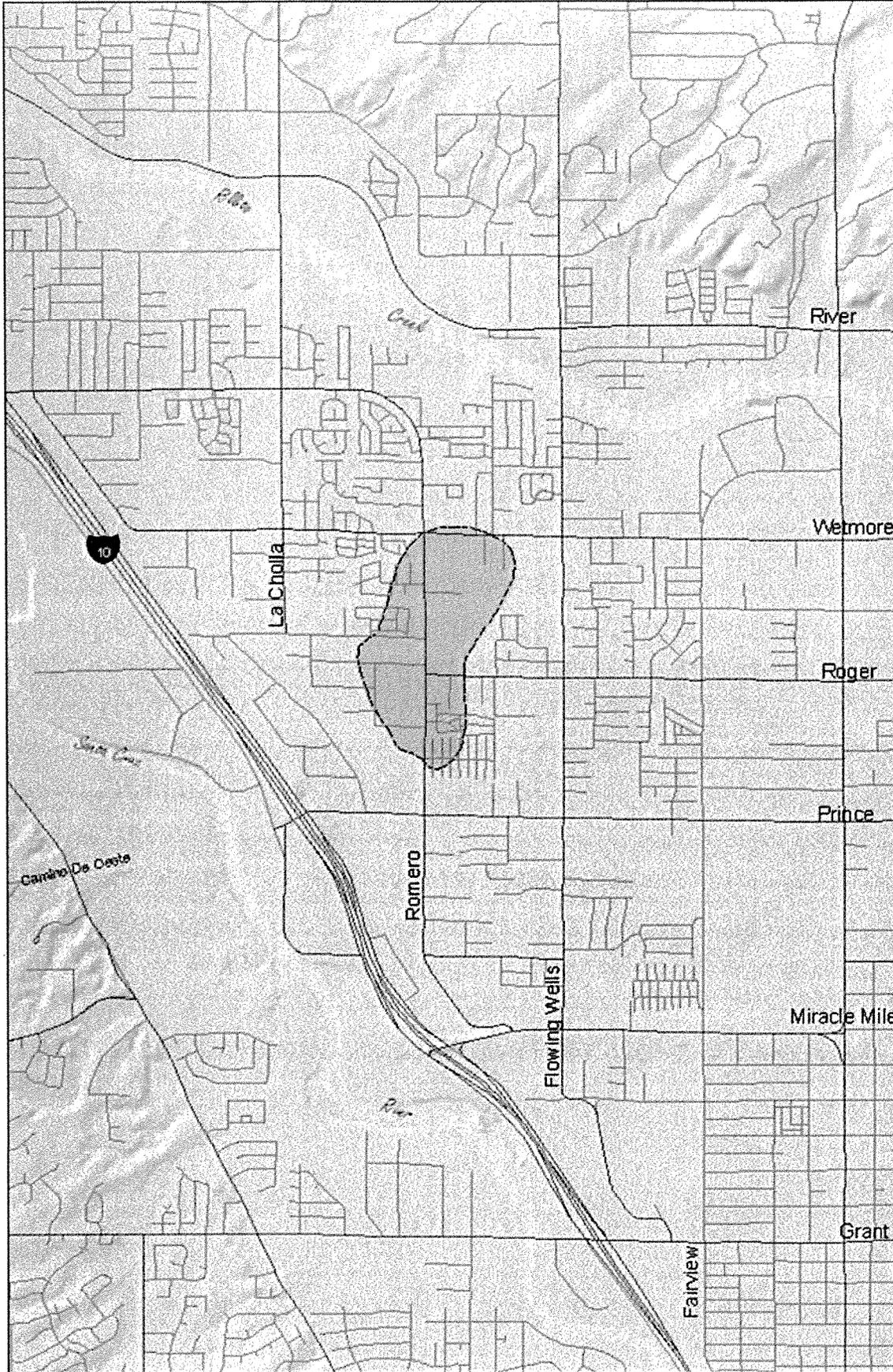
Eileen Palese  
ADEQ Community Involvement Coordinator  
400 W. Congress St., Suite 433  
Tucson, AZ 85701  
(520) 628-6712  
E-mail: [palese.eileen@azdeq.gov](mailto:palese.eileen@azdeq.gov)

Complete public files regarding the site are located at ADEQ's Phoenix offices. Call 1(800) 234-5677 for information.

For more information on this WQARF site or other WQARF sites in the State of Arizona, please visit the ADEQ Web site at: [www.azdeq.gov](http://www.azdeq.gov). In the left-hand column, click on Waste Programs, then on Superfund Programs. Look for the Site Information and Maps Link.

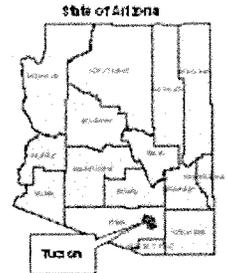
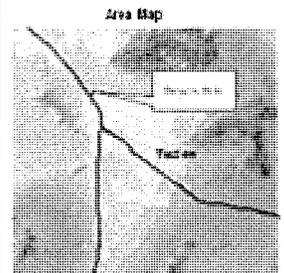
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# Miracle Mile WQARF Site, Tucson, Arizona

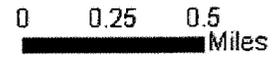


WASTE PROGRAMS DIVISION  
GIS and Data Management Unit

Tucson, Arizona  
December 2005



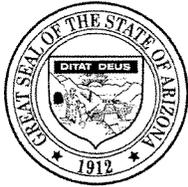
- Legend**
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Map produced by Arizona Department of  
Environmental Quality (ADEQ), GIS and  
Data Management Unit, TD-3000000  
Checked by:

02/20/06 10:41 AM  
Location: 2005 Statewide Geographic Data  
Update  
December 2005

Data Source: Arizona Department of Environmental  
Quality, Arizona Land Resources Information System,  
Arizona Department of Transportation,  
Esri



Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • [www.azdeq.gov](http://www.azdeq.gov)



Stephen A. Owens  
Director

SROSPU 07:07

January 11, 2007

John Kai  
2305 West Ruthrauff Road  
Tucson, Arizona 85706

## SENT CERTIFIED MAIL

Re: Water Use Study Relating to Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Site; Information Request; Well Registration No. 55-616505, Arizona

Dear Mr. Kai:

Arizona Department of Water Resources records indicate that you own a well which is located near the Miracle Mile WQARF site [see attached Fact Sheet and Site Map]. Arizona Department of Environmental Quality (ADEQ) is in the process of developing a draft Remedial Investigation report that will describe the extent of known contamination at the site and will also identify (in consultation with well owners) impacts to water resources.

We are requesting any information you may have regarding the current and future uses of water from this existing well or from well(s) you may plan on installing in the future. Specifically, we are requesting information you may have regarding:

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Northern Regional Office  
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(928) 779-0313

Southern Regional Office  
400 West Congress Street • Suite 433 • Tucson, AZ 85701  
(520) 628-6733

Mr. Kai  
January 11, 2007

Please forward any information to me by January 22, 2007. If you have any questions or need additional information, please call me at 1-888-271-9302 extension 6663 or 520-628-6663.

Sincerely,



Tina Le Page  
Project Manager  
Superfund Programs Unit  
Southern Regional Office

Attachments: Fact Sheet  
Site Map

cc: Reading File  
William J. Neese, URS Corporation, 333 East Wetmore, Suite 611, Tucson, Arizona 85705

## Miracle Mile Water Quality Assurance Revolving Fund Site January 2006

### SITE DESCRIPTION

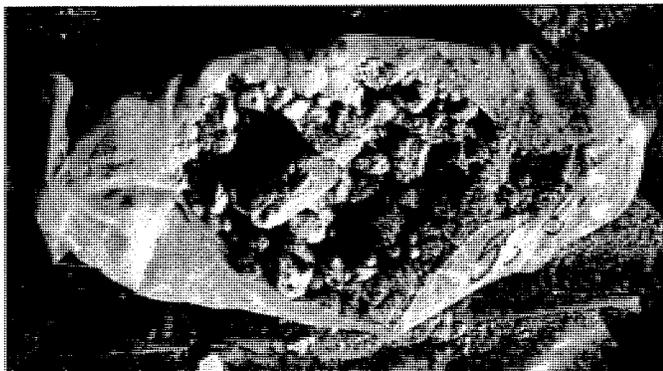
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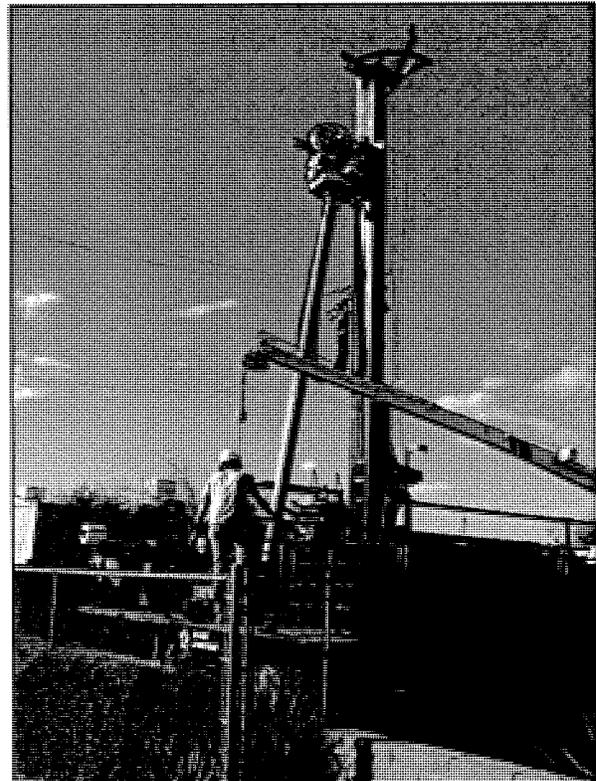
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### SITE INVESTIGATION/CLEANUP ACTION

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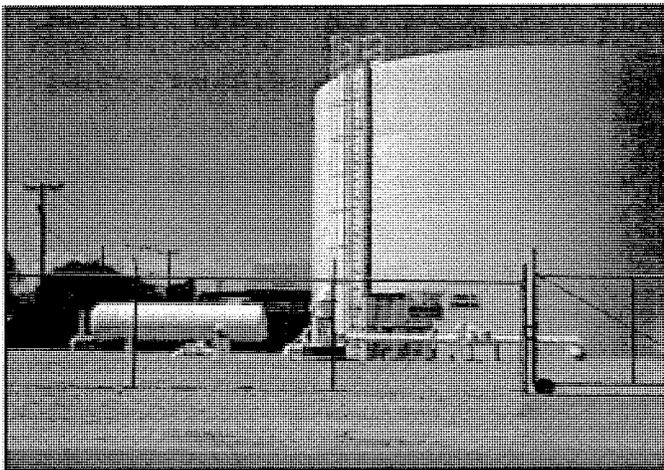
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## FOR MORE INFORMATION:

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### Technical Information:

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ADEQ Project Manager  
400 W. Congress St., Suite 433  
Tucson, AZ 85701  
(520) 628-6663  
E-mail: [lepage.tina@azdeq.gov](mailto:lepage.tina@azdeq.gov)

### Community Involvement:

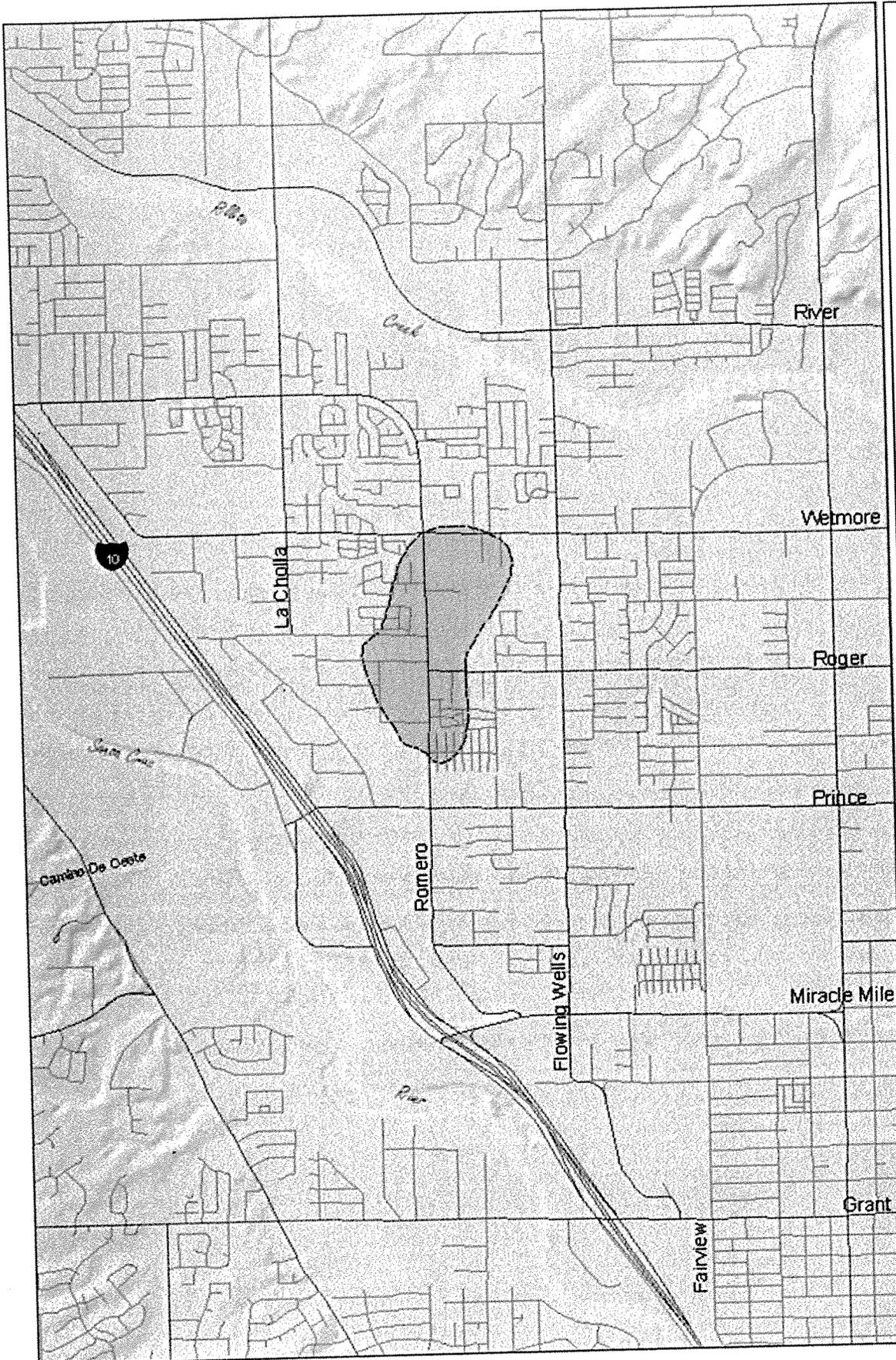
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# Miracle Mile WQARF Site, Tucson, Arizona



**ADEQ**  
Arizona Department of Environmental Quality

WASTE PROGRAMS DIVISION  
GIS and Data Management Unit

Tucson, Arizona  
December 2005

Area Map

State of Arizona

Legend

**NAME**

- MIRACLE MILE
- Wash Major
- Major Streets
- Streets

0 0.25 0.5 Miles

Map produced by Arizona Department of Environmental Quality (ADEQ), GIS and Data Management Unit, Tucson  
Checked By:

01/18/06 and 10/20/05  
Last on 2005/04/26 File: 010605  
11/06/05 11:35 AM  
December 2005

Data Source: Arizona Department of Environmental Quality, Arizona Land Resources Information System, Arizona Department of Transportation, Image:



Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • www.azdeq.gov



Stephen A. Owens  
Director

SROSPU 07:04

January 11, 2007

Robert and Cheryl Will  
4205 North 16<sup>th</sup> Place  
Tucson, Arizona 85705

## SENT CERTIFIED MAIL

Re: Water Use Study Relating to Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Site; Information Request; Well Registration No. 55-611984, Tucson, Arizona

Dear Robert and Cheryl Will:

Arizona Department of Water Resources records indicate that you own a well which is located near the Miracle Mile WQARF site [see attached Fact Sheet and Site Map]. Arizona Department of Environmental Quality (ADEQ) is in the process of developing a draft Remedial Investigation report that will describe the extent of known contamination at the site and will also identify (in consultation with well owners) impacts to water resources.

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Northern Regional Office  
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Southern Regional Office  
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Robert and Cheryl Will  
January 11, 2007

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Sincerely,



Tina Le Page  
Project Manager  
Superfund Programs Unit  
Southern Regional Office

Attachments: Fact Sheet  
Site Map

cc: Reading File  
William J. Neese, URS Corporation, 333 East Wetmore, Suite 611, Tucson, Arizona 85705

## Miracle Mile Water Quality Assurance Revolving Fund Site January 2006

### SITE DESCRIPTION

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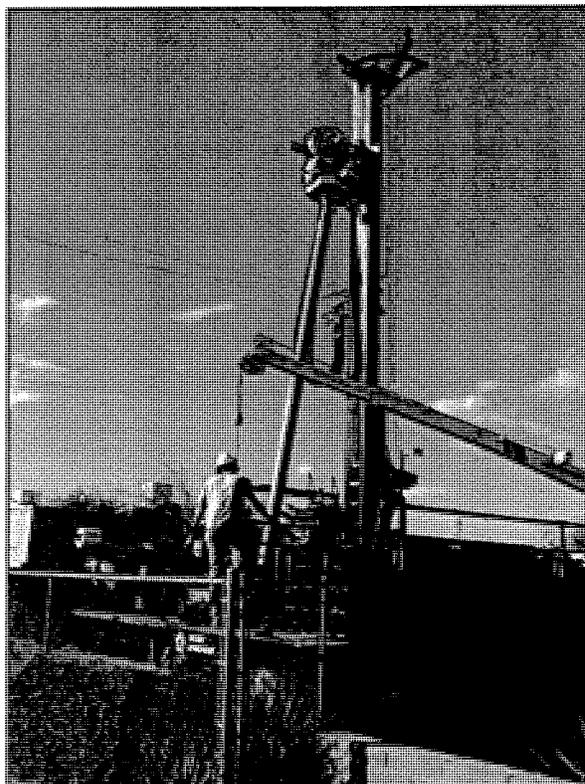
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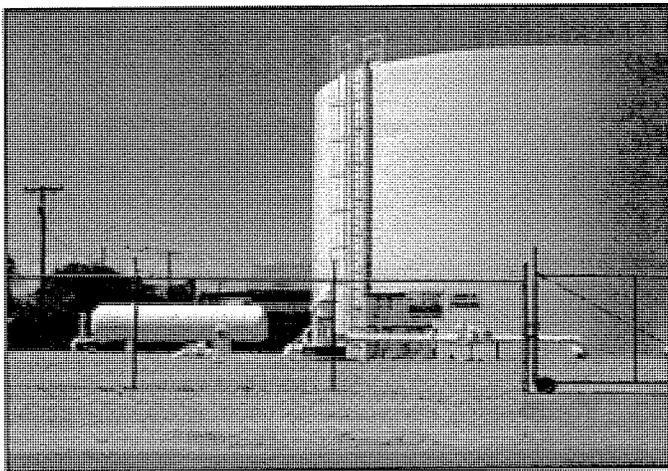
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Tina Le Page  
ADEQ Project Manager  
400 W. Congress St., Suite 433  
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E-mail: [lepage.tina@azdeq.gov](mailto:lepage.tina@azdeq.gov)

### Community Involvement:

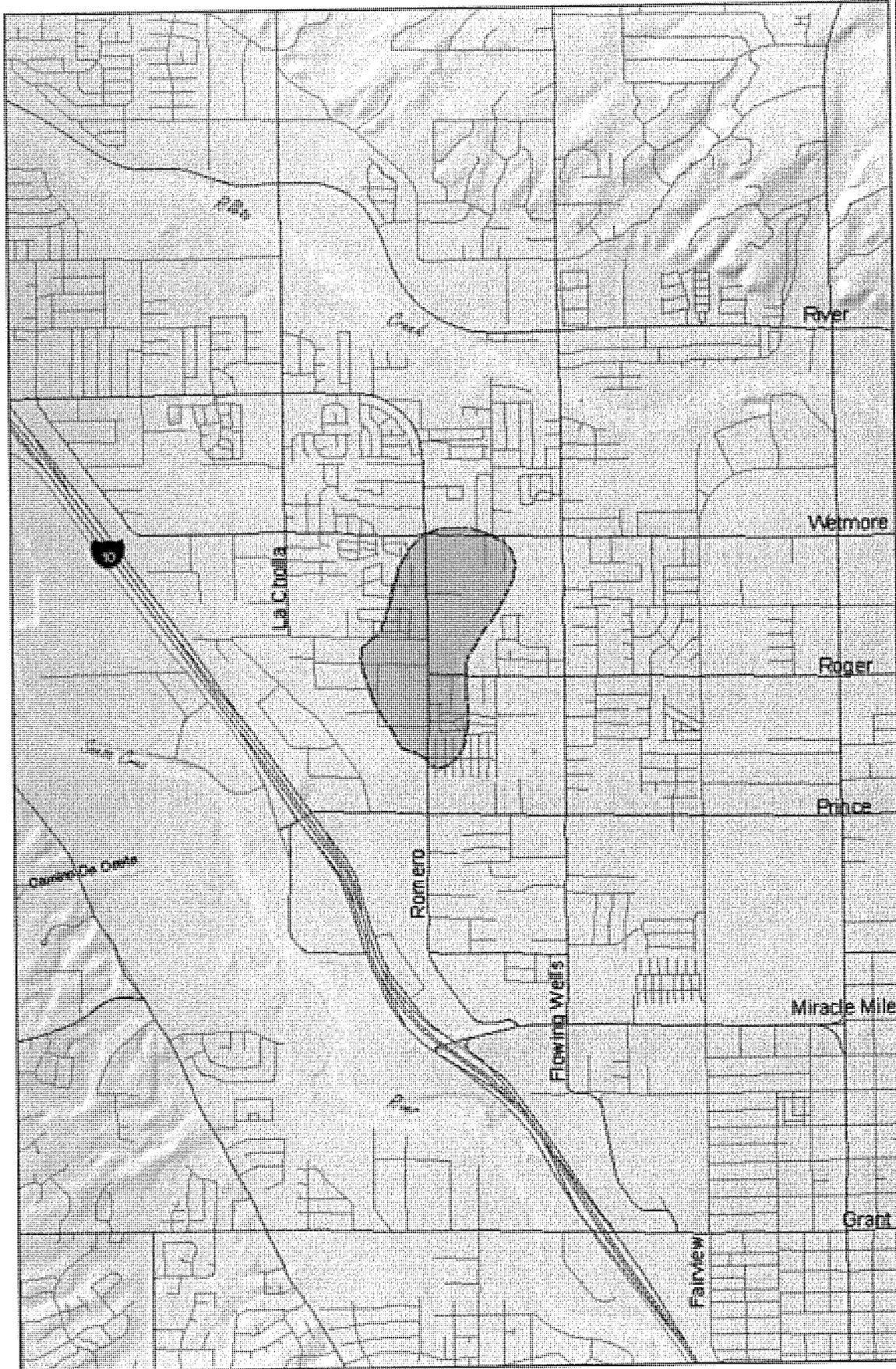
Eileen Palese  
ADEQ Community Involvement Coordinator  
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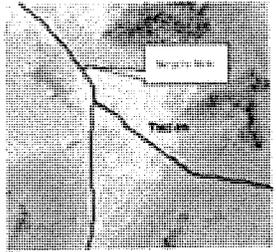
# Miracle Mile WQARF Site, Tucson, Arizona



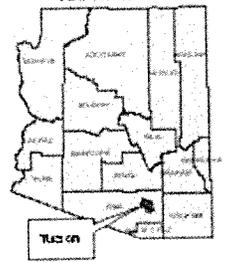
WASTE PROGRAMS DIVISION  
GIS and Cob Management Unit

Tucson, Arizona  
December 2005

Area Map

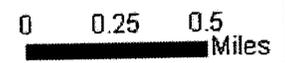


State of Arizona



**Legend**

- NAME**
- MIRACLE MILE
  - Wash Major
  - Major Streets
  - Streets



Map produced by Arizona Department of Environmental Quality (ADEQ), GIS and Cob Management Unit, Tucson. Checked by:  
 B. White and J. Smith. Project Supervisor  
 L. J. Smith. GIS and Cob Management Unit  
 December 2005

Data Source: Arizona Department of Environmental Quality, Arizona Land Use and Planning System, Arizona Department of Transportation.  
 Date:



"Tina LePage"  
<LePage.Tina@azdeq.gov>  
01/24/2007 04:21 PM

To "\"Gerald Fordham\" <gerald\_fordham@urscorp.com>  
cc "William Neese" <william\_neese@urscorp.com>  
bcc  
Subject Land & Water Use Study

Jerry- Hope all is well at URS.

Hopefully you received the letters (9) that I sent to the folks that had the wells that we needed more information on. I have heard from the following:

01/24/07 – Eric Anderson – owned property for ~15 years on FWID. Have not ever used the pump and have no intentions of ever using it.

1/17/07 – Robert Netherton – Well is not used and no plans of ever using it.

01/18/07 – Les Brown (Angie Rados Rep.) – did not know that well was on property. Only own a small portion of site now.

01/17/07 – James Newell – Well not used and not planned on ever being used.

01/16/07 – Robert Will – Well not being used because we told him water was contaminated. He needs/wants to use the well to irrigate 2 acres and to use in his house. Well is located at 1700 West Roger Road. Debra has collected GW samples from his well before.

01/22/07 – Earl Williams – Does not own any well at this location. He use to drill wells and maybe ADWR got information wrong.

Just received the certified letter receipts from Mei and Krogstad today. Have not gotten anything back from Kai as yet.

I think that we should wrap the report up as soon as we can. If I don't hear from these folks, I'll try calling them tomorrow. Let me know when you think we can finish this up. Let me know if you have any questions.

Thanks for your help,

Tina Le Page  
Project Manager  
ADEQ Southern Regional Office  
400 West Congress, Suite 433  
Tucson, AZ 85701  
520-628-6663 (phone)  
520-628-6745 (fax)



"Arturo Norzagaray"  
<Arturo.Noezagaray@wwm.pima.gov>  
05/22/2008 10:18 AM

To: William\_Neese@URSCorp.com  
cc  
bcc  
Subject: RE: Onsite Well Uses Summary

Yes that's correct. This well is only for standby and there are no plans in the future to use it at any time as a potable well.  
Thanks

Arturo Norzagaray  
Operations Supervisor Roger Road WRF  
(520) 888-4801

---

**From:** William\_Neese@URSCorp.com [mailto:William\_Neese@URSCorp.com]  
**Sent:** Thursday, May 22, 2008 9:56 AM  
**To:** Arturo Norzagaray  
**Subject:** Fw: Onsite Well Uses Summary

Art-

As we discussed earlier on the phone below is an email I sent to Tim in February summarizing your current and foreseeable uses of your onsite well. I have copied that summary in the email below:

"You currently maintain one well onsite (ADWR Well #55-639735). This well is currently used as a standby/emergency well for use as industrial supply to the plant facility but not used for potable supply. Currently there are no plans for future use as a potable well."

If you could review the summary and let me know if this is an accurate picture of your usage for the well, or make any comments that you feel necessary to give an accurate idea of the well's usage.

Thank you for time and I look forward to hearing from you soon.

Will

William J. Neese  
Environmental Engineer  
URS Corporation  
Tucson, Arizona  
Direct: (520) 407-2825  
Cell: (520) 465-7219  
william\_neese@urscorp.com

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----- Forwarded by William Neese/Tucson/URSCorp on 05/22/2008 09:50 AM -----

**William  
Neese/Tucson/URS  
Corp**

Totimothy.mcgarra@wvm.pima.gov

02/06/2008 02:31  
PM

ccGerald Fordham/Tucson/URSCorp@URSCorp

SubjectOnsite Well Uses Summary

Tim-

Thanks for taking the time to discuss the uses of your onsite well with me this afternoon. Below is a summary of the uses we discussed, please let me know if you would add or change anything that is listed.

"You currently maintain one well onsite (ADWR Well #55-639735). This well is currently used as a standby well for use as industrial supply to the plant facility but not used for potable uses as it does not have a disinfection system. The may in the future be used as a potable well should a disinfection system be installed."

Again thanks for your time and let me know if you have any changes to the above usage summary.

Will

William J. Neese  
Environmental Engineer  
URS Corporation  
Tucson, Arizona

Direct: (520) 407-2825  
Cell: (520) 465-7219  
william\_neese@urscorp.com

This e-mail  
and any  
attachment  
s are  
confidentia  
l. If you  
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n and you  
should  
destroy the  
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s or copies.

# Arizona Department of Water Resources Groundwater Right/Facility Report

RIGHT #:	56-000232.0000	STATUS DATE:	1/1/1985
AMA:	TUCSON AMA	RIGHT/PERMIT/FACILITY TYPE:	SMALL MUNICIPAL PROVIDER
LAND OWNERSHIP :		FILE STATUS:	ACTIVE - ACTIVE
2008 ALLOTMENT:	0.00	BMP Enrollee:	N
		RETIRE ACRES:	0.00
WATER DUTY ACRES:	0.00	IRRIGATION ACRES	0.00
		WATER DUTY	0
IRRIGATION DISTRICT NAME:		MAWA:	0

## NAME & ADDRESS

VILLA CAPRI MOB. HOME PARK, L.L.C.  
 ATTN HERB KAI  
 2305 W. RUTHRAUFF RD.  
 TUCSON AZ 85705

TYPE: OWNER

*887-2255*

*managed by Dorothy Restol*

## PLACE OF USE

\*\*\* NO DATA FOUND \*\*\*

## BOOK/MAP/PARCEL

\*\*\* NO DATA FOUND \*\*\*

## WELL SERVING

Well#	55 - 616505	Location	SW NE NE 21 T13.0S R13.0E	Year	2008
-------	-------------	----------	---------------------------	------	------

## RIGHT TO FACILITY RELATIONSHIPS

Related PCC	Relationship	Active Relationship	Reporting Flag
91-000784.0000	COMMUNITY WATER SYSTEM	Y	

DEPARTMENT OF WATER RESOURCES  
 99 EAST VIRGINIA AVENUE  
 PHOENIX, ARIZONA 85004



REGISTRATION OF EXISTING WELLS

READ INSTRUCTIONS ON BACK OF THIS FORM BEFORE COMPLETING  
 PRINT OR TYPE - FILE IN DUPLICATE

09

REGISTRATION FEE (CHECK ONE)  
 EXEMPT WELL (NO CHARGE)   
 NON-EXEMPT WELL - \$10.00

FOR OFFICE USE ONLY  
 REGISTRATION NO. 55- 616505  
 FILE NO. D(13-13)2100C  
 FILED 5-27-82 AT 3 pm  
 (DATE) (TIME)  
 INA -  
 AMA Tucson

- Name of Registrant:  
John Kai  
2305 W. RUTHRAUFF RD TUCSON ARIZ 85705  
 (Address) (City) (State) (Zip)
- File and/or Control Number under previous groundwater law:  
 (File Number) 35 (Control Number)
- a. The well is located within the SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  NE  $\frac{1}{4}$ , Section 21,  
 of Township 13S, N/S, Range 13E EW, G & SRB & M, in the  
 County of PIMA.  
 b. If in a subdivision: Name of subdivision \_\_\_\_\_  
 Lot No. \_\_\_\_\_, Address \_\_\_\_\_
- The principal use(s) of water (Examples: irrigation - stockwater - domestic - municipal - industrial)  
domestic, mobile home park
- If for irrigation use, number of acres irrigated from well \_\_\_\_\_
- Owner of land on which well is located. If same as Item 1, check this box   
KAI TRUST No 3  
2305 W. RUTHRAUFF RD TUCSON ARIZ 85705  
 (Address) (City) (State) (Zip)
- Well data (If data not available, write N/A)  
 a. Depth of Well 466 feet  
 b. Diameter of casing 12 3/4 inches  
 c. Depth of casing 466 feet  
 d. Type of casing .312 WALL A.P.T Grade B  
 e. Maximum pump capacity 250 gallons per minute.  
 f. Depth to water 115 feet below land surface.  
 g. Date well completed 6 9 1970  
 (Month) (Day) (Year)
- The place(s) of use of water. If same as Item 3, check this box   
SW 1/4 NE 1/4 Section 21 Township 13S Range 13E 1900  
SE 1/4 NW 1/4 NE 1/4 NW 1/4 Section 21 Township 13S Range 13E 1700  
NE 1/4 NE 1/4 + NW 1/4 NE 1/4 13S 13E 3500  
 Attach additional sheet if necessary.
- DATE 5/22/82 SIGNATURE OF REGISTRANT John Kai

MICROFILMED

JOHN KAI  
 VILLA CAPRI MOBILE HOME PARK  
 2305 W RUTHRAUFF RD  
 TUCSON AZ 85705

STATE OF ARIZONA  
 DEPARTMENT OF WATER RESOURCES  
 WATER RIGHTS ADMINISTRATIO  
 99 EAST VIRGINIA  
 PHOENIX, ARIZONA 85004

MICROFILMED

RECEIPT

KIND ENTRY	FILE REFERENCE NO.
55	616505
	THRU
55	

FUND SOURCE	ACCOUNT NO.			INT. ACCT.	ITEM DESCRIPTION	RATE	\$ AMOUNT
	AGENCY	CHAPTER	DIV.				
					Filing Fee for Registration of Existing Wells	10.00	10.00
					File No. D(13-13)21 aac	WAIVER GUESTS 1 CHK NO 865 55-1 10.00 TAX 0.00 TOTL 10.00 GEN.CHEK 10.00	
						# 768 R	15:55-

Check # 865

TOTAL \$ 10.00

7/30/82 jc



**Arizona Department of Water Resources**  
 Groundwater Management Support Section  
 P.O. Box 458, Phoenix, AZ 85001-0458  
 (602)471-2470, (800)3528488  
 www.water.az.us.gov

**NO FEE**

# Administrative Late Registration

Please Note: This form was filled out by ADWR as an administrative late registration under 45-593.B.

AMA/INA <i>Tucson 16</i>	SE
INITIAL DATE <i>07-17-01</i>	WS <i>09</i>
Q/RP/DOD/CERCLA <b>Miracle Mile</b>	

FILE NUMBER <i>D63-1022 add</i>
WELL REGISTRATION NUMBER <i>55-700008</i>

SECTION 1. REGISTRY INFORMATION																			
<b>LOCATION OF WELL</b>																			
ORIGINAL WELL DRILLER NAME (IF KNOWN) H LOVELESS	WELL LOCATION ADDRESS (IF KNOWN): 4445 Flowing Wells Rd., Tucson, AZ																		
ORIGINAL WELL DATE (IF KNOWN) 1/1/49	<table border="1"> <tr> <th>TOWNSHIP</th> <th>RANGE</th> <th>SECTION</th> <th>160 ACRE</th> <th>40 ACRE</th> <th>10 ACRE</th> </tr> <tr> <td>13 N <input checked="" type="checkbox"/> S</td> <td>13 E <input checked="" type="checkbox"/> W</td> <td>22</td> <td>A 1/4</td> <td>D 1/4</td> <td>D 1/4</td> </tr> </table>	TOWNSHIP	RANGE	SECTION	160 ACRE	40 ACRE	10 ACRE	13 N <input checked="" type="checkbox"/> S	13 E <input checked="" type="checkbox"/> W	22	A 1/4	D 1/4	D 1/4						
TOWNSHIP	RANGE	SECTION	160 ACRE	40 ACRE	10 ACRE														
13 N <input checked="" type="checkbox"/> S	13 E <input checked="" type="checkbox"/> W	22	A 1/4	D 1/4	D 1/4														
PREVIOUS OWNER (IF KNOWN): HARRY DASHIELL	<table border="1"> <tr> <th colspan="2">LATITUDE</th> <th colspan="2">LONGITUDE</th> </tr> <tr> <td>32 °</td> <td>17 ' 14.0001 "N</td> <td>110 °</td> <td>59 ' 43.0001 "W</td> </tr> </table>	LATITUDE		LONGITUDE		32 °	17 ' 14.0001 "N	110 °	59 ' 43.0001 "W										
LATITUDE		LONGITUDE																	
32 °	17 ' 14.0001 "N	110 °	59 ' 43.0001 "W																
ADDRESS:	What method was used to obtain the Latitude and Longitude?: <input type="checkbox"/> GPS <input type="checkbox"/> NAD27 <input type="checkbox"/> NAD83 <input checked="" type="checkbox"/> USGS Quad Map <input type="checkbox"/> Other <input type="checkbox"/> WGS84																		
	<table border="1"> <tr> <th>BOOK</th> <th>MAP</th> <th>PARCEL</th> <th># OF ACRES</th> </tr> <tr> <td>104</td> <td>03</td> <td>226B</td> <td></td> </tr> </table>	BOOK	MAP	PARCEL	# OF ACRES	104	03	226B											
BOOK	MAP	PARCEL	# OF ACRES																
104	03	226B																	
	<table border="1"> <tr> <th colspan="6">PLACE OF USE (IF DIFFERENT FROM LOCATION OF WELL)</th> </tr> <tr> <th>TOWNSHIP</th> <th>RANGE</th> <th>SECTION</th> <th>160 ACRE</th> <th>40 ACRE</th> <th>10 ACRE</th> </tr> <tr> <td>N/S</td> <td>E/W</td> <td></td> <td>1/4</td> <td>1/4</td> <td>1/4</td> </tr> </table>	PLACE OF USE (IF DIFFERENT FROM LOCATION OF WELL)						TOWNSHIP	RANGE	SECTION	160 ACRE	40 ACRE	10 ACRE	N/S	E/W		1/4	1/4	1/4
PLACE OF USE (IF DIFFERENT FROM LOCATION OF WELL)																			
TOWNSHIP	RANGE	SECTION	160 ACRE	40 ACRE	10 ACRE														
N/S	E/W		1/4	1/4	1/4														
	COUNTY WHERE WELL IS LOCATED Pima																		

SECTION 2. OWNER INFORMATION			
WELL OWNER		LANDOWNER (if different from Well Owner)	
FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL Danny F. & Pao Mei NG		FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL	
CURRENT MAILING ADDRESS 2235 N. Catalina St.		CURRENT MAILING ADDRESS	
CITY / STATE / ZIP Los Angeles, CA 90027		CITY / STATE / ZIP	
CONTACT PERSON		CONTACT PERSON	
TELEPHONE NUMBER	FAX	TELEPHONE NUMBER	FAX

SECTION 3. QUESTIONS			
Question	Yes	No	If Yes:
Is there another well name or identification number associated with this well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	PLEASE STATE Miracle Mile Unique ID: 511 GWSI: 321714110594301 ADEQ ID: 36101 Wells 35 ID: 26170      Regno35 ID: UofA ID: Other Well Names: D-13-13 22ADA
Was this well field verified?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Has this well been abandoned?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

700008

SECTION 4. WATER/SITE INFORMATION			
PRIMARY USE OF WATER		OTHER USES OF WATER	
CHECK <u>ONE</u> <input type="checkbox"/> Irrigation (# of acres ___) <input type="checkbox"/> Utility <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Municipal <input type="checkbox"/> Industrial <input type="checkbox"/> Mining <input type="checkbox"/> Stock <input type="checkbox"/> Recharge <input type="checkbox"/> Dewatering <input type="checkbox"/> Monitoring <input type="checkbox"/> Other (please specify):		CHECK <u>ALL THAT APPLY</u> <input checked="" type="checkbox"/> Irrigation (# of acres ___) <input checked="" type="checkbox"/> Utility <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Domestic <input checked="" type="checkbox"/> Municipal <input checked="" type="checkbox"/> Industrial <input checked="" type="checkbox"/> Mining <input checked="" type="checkbox"/> Stock <input checked="" type="checkbox"/> Recharge <input checked="" type="checkbox"/> Dewatering <input checked="" type="checkbox"/> Monitoring <input checked="" type="checkbox"/> Other (please specify):	
		DEPTH OF WELL 140 feet	MAXIMUM PUMP CAPACITY Gallons Per Minute
		DEPTH TO WATER 61 feet	
What types of logs are available for this well?:  Source: <input type="checkbox"/> Wells 35 <input checked="" type="checkbox"/> UofA Database  Is this a cancelled Wells 35 Well? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			

SECTION 5. WELL CONSTRUCTION (to the best of your knowledge)								
DEPTH FROM SURFACE		CASING						
FROM (feet)	TO (feet)	BOREHOLE DIAMETER (inches)	OUTER DIAMETER OF CASING (inches)	MATERIAL	BLANK OR NONE	PERFORATIONS		SLOT SIZE IF ANY (inches)
				STEEL, PVC, ABS or OTHER*		WIRE WRAP, SHUTTER SCREEN, MILLS KNIFE, SAW CUT or OTHER*	IF OTHER TYPE OF PERFORATION, EXPLAIN	
0	140		6					

Directions to the Well: 4445 Flowing Wells Rd.: SW of Rillito St. & Flowing Wells.

Remarks: Located in back yard of house #112, SE corner. Concrete well pad 22.5"x23.5"x3.5". No elec or hookups. A rock is placed over casing. Go to office to ask permission to go to well. The manager's trailer is #78 if office is closed.

### Miracle Mile Cross Tabulation Report

WELL NAME: D-13-13 22ADA Revised Location: D-13-13 22ADD UTM East: \_\_\_\_\_ Driller: H. Loveless

SECOND WELL NAME: \_\_\_\_\_ UTM North: \_\_\_\_\_ Elimination Criteria: 5

	Miracle Mile ID	WELLS 55	2nd Wells 55	GWSI ID	WELLS 35	ADEQ ID	2nd ADEQ ID	UofA ID	ADEQ95 ID
	511			321714110594301	26170	36101			
Cadastral	D131322ADD			D-13-13 22ADA	D-13013022ADA	D131322ADA			
Well Elev				2295		2295			
Hole Depth	140			140	140	140			
Well Depth	140			140	0	140			
Casing Diameter				6	0	6			
Casing Type									
Top Perforation									
Bot. Perforation									
Depth to Water	61				61				
Site Use				WITHDRAWAL					
Well Use					Water Production				
Water Use				DOMESTIC	Domestic				
Well Type						WELL			
Completion Date				1/1/49	1949	1/1/49			
Application Date									
Well Log									
Well Canceled									
Drill Method				UNDETERMINED					
First Name				HARRY		DASHIELL, HARRY			
Last Name				DASHIELL					
Company									
Address									
City									
State									
Zip									

Remarks:

Other Remarks:

--	--

200002



Search:

Businesses/Services

Where:

City Name or Zip



Save Location

find it!



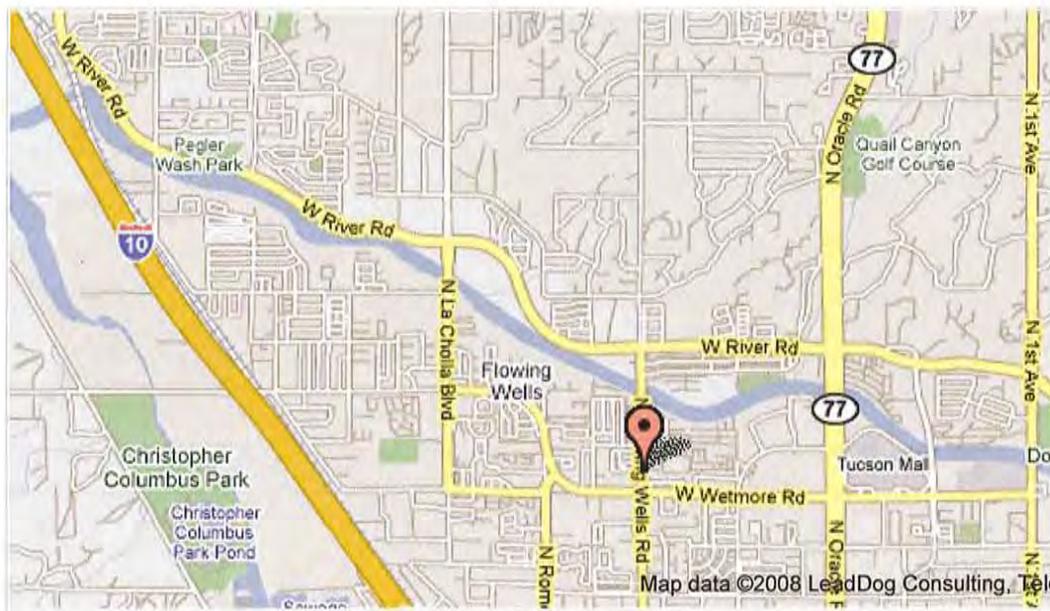
[USA](#) / [Arizona](#) / [Tucson](#) / [Leasing](#) / Santa Catalina Mobile Home P

### Santa Catalina Mobile Home Park

#### Santa Catalina Mobile Home Park

4445 North Flowing Wells Road Tucson, Arizona 85705

Phone: (520) 887-0836 Fax:



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Run Date: 09/03/2008

# AZ DEPARTMENT OF WATER RESOURCES

## WELL REGISTRY REPORT - WELLS55

---

<b>Location</b> D 13.0 13.0 22 C D B	<b>Well Reg.No</b> 55 - 539788	Cancelled	AMA TUCSON AMA
<b>Registered Name</b> WILLIAMS, EARL,H 1908 W GARDNER LN TUCSON AZ 85705	<b>File Type</b> NEW WELLS (INTENTS OR APPLICATIONS)	<b>Application/Issue Date</b> 07/06/1993	
<b>Owner</b> OWNER <b>Driller No.</b> 8 <b>Driller Name</b> EARL H. WILLIAMS WELL DRILLING <b>Driller Phone</b> <b>County</b> PIMA	<b>Well Type</b> DOMESTIC STOCK EXEMPT <b>SubBasin</b> UPPER SANTA CRUZ <b>Watershed</b> SANTA CRUZ RIVER <b>Registered Water Uses</b> DOMESTIC <b>Registered Well Uses</b> WATER PRODUCTION <b>Discharge Method</b> NONE <b>Power</b> NO POWER CODE LISTED		
<b>Intended Capacity GPM</b> 35.00			
<b>Well Depth</b> 0.00 <b>Pump Cap.</b> 0.00 <b>Draw Down</b> 0.00	<b>Case Diam</b> 0.00 <b>Case Depth</b> 0.00 <b>Water Level</b> 0.00 <b>Acres Irrig</b> 0.00	<b>Tested Cap</b> 0.00 <b>CRT</b> <b>Log</b> <b>Finish</b> NO CASING CODE LISTED	
<b>Contamination Site:</b> YES - WITHIN 1 MILE OF A WQARF SITE			
<b>Comments</b> EXPIRED CXL:			
<b>Current Action</b> 8/16/2004 880 CHANGE IN CONTAMINATION SITE Action Comment: Old WQARF Code = NULL			

# ADEQ Memorandum

Arizona Department  
of Environmental Quality

---

**Date:** September 4, 2008

**To:** Miracle Mile WQARF Site—Land and Water Use Study

**From:** Gretchen Wagenseller, Project Manager

**Subject:** Water Usage at Villa Capri Mobile Home Park—ADWR #55-616505

---

During a telephone conversation which I had today with Dorothy Kestol, Manager, Villa Capri Mobile Home Park (MHP), 2305 West Ruthrauff Road, Tucson, Arizona, she confirmed that the main water source for the MHP residents is the on-site well [with municipal water as back-up]. Ms. Kestol indicated that they are already at capacity regarding the number of residences.

# ADEQ Memorandum

Arizona Department  
of Environmental Quality

---

**Date:** September 4, 2008

**To:** Miracle Mile WQARF Site—Land and Water Use Study

**From:** Gretchen Wagenseller, Project Manager

**Subject:** Water Usage at Santa Catalina Mobile Home Park—55-700008

---

During a telephone conversation which I had today with Maureen Richard, Manager, Santa Catalina Mobile Home Park (MHP), 4445 North Flowing Wells Road, Tucson, Arizona, she confirmed that the water source for the MHP residents is municipal water—not private well water.

# ADEQ Memorandum

Arizona Department  
of Environmental Quality

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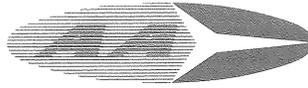
**Date:** September 10, 2008 and September 11, 2008  
**To:** Miracle Mile WQARF Site—Land and Water Use Study  
**From:** Gretchen Wagenseller, Project Manager  
**Subject:** Water Usage at 4258 North Howe Place—ADWR #55-700060

---

During a September 10<sup>th</sup> telephone conversation which I had today with Nancy Davis, Customer Service, Flowing Wells Irrigation District (FWID), confirmed that the residence at 4258 North Howe Place receives water from FWID.

Brenda Limon [661-0241], resident at 4258 North Howe Place, indicated during a telephone call on September 11<sup>th</sup> that she does not know that there is a water well at her house and she confirmed that she receives her water from FWID.

**APPENDIX B**  
**PUBLIC COMMENTS ON OCTOBER 28, 2008 PROPOSED REMEDIAL  
OBJECTIVES REPORT**



**ABRAMS AIRBORNE MANUFACTURING, INC.**

3735 N. ROMERO RD.

TUCSON, ARIZONA 85705

Office #: (520) 887-1727

FAX #: (520) 293-8807

November 24, 2008

HAND-DELIVERY



Ms. Gretchen Wagenseller, Project Manager  
ADEQ Project Manager  
Arizona Department of Environmental Quality  
400 West Congress  
Suite 433  
Tucson, Arizona 85701

Re: Comments of Abrams Airborne Manufacturing, Inc. (Abrams) on ADEQ Miracle Mile WQARF Registry Site Proposed Remedial Objectives (RO) report, dated October 28, 2008

Dear Ms. Wagenseller:

As you know, ADEQ's 2004 expanded site investigation of the Abrams facility is discussed in Section 1.3.2 of the RO Land & Water Use Study Report. In response to ADEQ's public notice of the subject RO report, dated October 28, 2008 (appended hereto at Attachment "A"), Abrams submits written comments to ADEQ-which include prior document submissions by Abrams to ADEQ (which are incorporated by reference to this comment letter-and which documents are in ADEQ's possession), including Abrams' Supplemental Comments on the Arizona Department of Environmental Quality Expanded Site Investigation of the Miracle Mile WQARF Registry Site and the Abrams Airborne Manufacturing, Inc. Facility, dated October 5, 2004 ("Supplement No. 1"), all attachments to and documents referenced in "Supplement No. 1", all documents submitted to ADEQ by Abrams and Brown & Caldwell from 1988 to the present, Abrams' May 23, 2007 letter to Ms. Tina Le Page, ADEQ, captioned Comments of Abrams Airborne, Manufacturing, Inc. (Abrams) on URS draft remedial investigation (RI) report on Miracle Mile WQARF Registry Site, dated March 9, 2007, Brown & Caldwell's May 23, 2007 letter to Gary Abrams (captioned Comments of Abrams Airborne Manufacturing, Inc. (Abrams) on URS draft remedial investigation (RI) report of the Miracle Mile WQARF Registry Site, dated March 9, 2007), all enclosures to and documents referenced in the afore-mentioned May 23, 2007 Brown & Caldwell letter, and a letter, dated November 21, 2008, from Brown & Caldwell to Gary Abrams (appended hereto as Attachment "B").

If you have any questions or comments on this letter, or the documents contained or referenced herein, please contact me at (520) 887-1727.

Sincerely,

Gary Abrams, President  
Abrams Airborne Manufacturing, Inc.

Enclosures: Attachments "A" and "B"

cc: Jim Vieregg-Abrams Airborne Manufacturing Inc.  
Ed Ricci-Brown & Caldwell



# Public Notice

## 30-DAY PUBLIC COMMENT PERIOD

### Arizona Department of Environmental Quality (ADEQ) Notice of Release of Proposed Remedial Objectives (RO) Report for the Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Registry Site

**PLEASE TAKE NOTICE**, the Arizona Department of Environmental Quality (ADEQ) has determined to release the Proposed Remedial Objectives Report which will become part of the final Remedial Investigation (RI) Report for the **Miracle Mile WQARF Registry Site** in Tucson, Pima County, Arizona.

An RI report is prepared to identify the nature and extent of contaminated soil and waters of the state and the sources thereof; identify current and potential impacts to public health, welfare and the environment; identify present and reasonably foreseeable uses of land and waters of the state; and obtain and evaluate any other information necessary for identification and comparison of alternative remedial actions.

The Proposed Remedial Objectives Report lists the current and reasonably foreseeable beneficial uses of land and waters of the state. These uses are identified based on information provided through public comment.

The Miracle Mile WQARF Site is bounded approximately by Wetmore Road to the north, Flowing Wells Road to the east, Prince Road to the south, and La Cholla Boulevard to the west.

The current contaminants of concern in soil and groundwater are trichloroethene (TCE) and chromium. Contaminants of concern at the site may change as new data become available.

A copy of the proposed Remedial Objectives Report is available for review at the following locations:

• **ADEQ Southern Regional Office**, Suite 433, 400 W. Congress, Tucson, AZ. Call 520-628-6715 or 1-888-271-9302 to request a copy or CD of the Proposed Remedial Objectives Report.

• **Ward 3 City Council Office**: Karin Uhlich, 1510 E. Grant Road, from 8:30 a.m. to 4:30 p.m., Monday–Friday.

• **Joel D. Valdez Main Library**, 101 N. Stone Avenue, Tucson, 3<sup>rd</sup> floor Reference Desk/Public Comment Documents. Call 791-4393 for hours.

• **ADEQ Central Office**, 1110 W. Washington Street, Phoenix, AZ. Please call the ADEQ Records Center at 602-771-4380 or 800-234-5677 [press 1/option 7/option 2] for an appointment, 8:30 a.m. to 4:30 p.m., Monday–Friday.

 **PARTIES WISHING TO MAKE COMMENTS** regarding the Proposed Remedial Objectives Report for this site may make such comments in writing by mail to ADEQ, *Attention: Gretchen Wagenseller*, ADEQ Project Manager, 400 W. Congress, Suite 433, Tucson, AZ 85701.

*Comments received will be compiled in a Responsiveness Summary to be included in the final RI Report. Anyone who submits comments will receive a copy of the Responsiveness Summary.*

**DEADLINE FOR COMMENTS:** Written comments on the Miracle Mile Proposed Remedial Objectives Report must be postmarked to ADEQ by **November 26, 2008**. The comment period has ended on the draft Remedial Investigation Report.

*Dated this 28<sup>th</sup> day of October, 2008  
Gretchen Wagenseller, Project Manager  
Arizona Department of Environmental Quality*

For more information about the Miracle Mile WQARF Site Contact:  
**Gretchen Wagenseller, ADEQ Project Manager: 520-628-6708**, or  
**Eileen Palese, ADEQ Community Involvement Coordinator: 520-628-6712**  
**Web Site Information at: [www.azdeq.gov](http://www.azdeq.gov)**

201 East Washington Street  
Suite 500  
Phoenix, AZ 85004  
Tel: (602) 567-4000  
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ATTACHMENT "B"

November 19, 2008



Mr. Gary Abrams  
President  
Abrams Airborne Manufacturing, Inc.  
3735 North Romero Road  
Tucson, Arizona 85705

15-136090.001

Subject: Brown and Caldwell Comments on the Proposed Remedial Objectives Report, and the Land and Water Use Study for the Miracle Mile WQARF Site

Dear Mr. Abrams:

Brown and Caldwell has reviewed the *Proposed Remedial Objectives Report* (Report) prepared by the Arizona Department of Environmental Quality (ADEQ) and dated October 28, 2008, as well as Appendix A to the Report titled *Land and Water Use Study For The Miracle Mile WQARF Site* (Study) which was prepared by URS for ADEQ.

The Report and Study provide the basis for a Feasibility Study in the Miracle Mile Water Quality Assurance Revolving Fund Registry (WQARF) Site (Site), which in turn forms the basis for the ultimate remedial strategy for the Site. As described in the Report, it is our understanding that the focus of the remedial activities will be on the regional groundwater and on the Spring Joint property as a continuing source of contamination. It is our opinion that these both are well-based objectives, and are supported in both the Report and the Study.

In section 1.3.2 of the Study, there was a discussion of an Expanded Site Inspection (ESI) on the Abrams Airborne Manufacturing, Inc. (Abrams) property which was conducted in 2004. Brown and Caldwell's evaluation of the ESI report leads to the same conclusion appearing in the Study: "VOCs observed in soils sampled during the perched well installations are an artifact of the contamination observed in perched groundwater from these locations." In other words, there was no hazardous substance release at or from the Abrams property which caused the observation of low VOC levels in soils occurring near the water table. Rather, the observed volatile organic compounds (VOCs) were a result of the historical up-and-down movement of the perched water table; a so-called "wicking" effect. To further underscore this point, there were 12 vertical soil borings completed on the Abrams property during the ESI, and there were 168 soil samples collected from these 12 borings, from the ground surface to near the perched water table in 5-foot intervals. No VOC contamination was observed above 50 feet in any sample.

Although there is a brief discussion about the Abrams property in the Study as referenced above, there is no mention in either the Report or the Study of the R.E. Darling (Darling) property immediately adjacent to and north of Abrams. Abrams has, during the course of the WQARF investigation, gathered various evidentiary information about the Darling property, and has submitted investigative documents to ADEQ. Much of this information is summarized in two documents:

- “Supplement No. 1” – Supplemental Comments on the Arizona Department of Environmental Quality Expanded Site Investigation (ESI) of the Miracle Mile WQARF Registry Site and the Abrams Airborne Manufacturing, Inc. Facility, dated October 5, 2004.
- Comments of Abrams Airborne Manufacturing, Inc. (Abrams) on the March 9, 2007 URS Draft Remedial Investigation (RI) Report on Miracle Mile WQARF Registry Site, dated May 23, 2007.

As presented in these two documents, there is a multitude of evidence regarding the historical chemical usage and disposal activities at the Darling property. We will not repeat in this comment letter the details that are contained in these two documents and which have already been provided to ADEQ. In summary, these two documents and other information provided to ADEQ discuss the technical findings from the RI, witness accounts of chemical usage and disposal activities at the Darling property and at the Desert Auto property to the south of Abrams, as well as the Spring Joint property, elevation contours and storm water runoff patterns between the Darling and Abrams properties (from north to south onto Abrams), aerial photography of grossly evident staining at the Darling property and to a lesser extent at Desert Auto, and locations of dry well locations on the Darling property.

In particular, we are surprised that a discussion of Darling is not included in either the Report or the Study, because it is our professional opinion that the Darling property may well represent a continuing source of contamination to the perched groundwater, if not a future source of contamination to regional groundwater. We fully understand that a comprehensive study of the perched aquifer is difficult since it is discontinuous. We also fully understand that the focus of the feasibility study will justifiably be on the regional aquifer. However, if one disregards all the other information available to ADEQ during the WQARF study, including the information made available by Abrams, focusing on only several key points (below) makes it clear that Darling has been a source of contamination to groundwater.

1. Refer to Figure 24 in the March 9, 2007 RI Report by URS for ADEQ. This figure clearly shows elevated VOC soil gas concentrations in several distinct areas on the Darling property. Correlating with the soil gas, the highest single area of VOC concentrations in the perched aquifer occur at well IRA-19. As discussed in Supplement #1, well IRA-19 is completed adjacent to a historical building or shack on the Darling property, immediately adjacent to and northeast of the Abrams property. It has been proven through affidavits and photography that the referenced building was used for chemical storage and parts washing. Only one boring was completed by ADEQ in that area. On a relative basis, it showed higher VOC contamination than any other location on the Darling property. However, it should be

underscored that only ONE sample was analyzed at this location and it was taken at 80 feet below the ground surface. This single observation could in no way even remotely provide an evaluation of the potential soil contamination at this shack. The combination of witness affidavits, historical photographs, soil gas results, and perched groundwater results clearly support a historical source of VOC contamination in this area. Unfortunately for Abrams, those same aerial photographs, as well as records of land elevation and storm runoff, show that overland runoff from this area flowed onto the Abrams property around the east-southeast perimeter of the Abrams property. It should also be noted that ponding against the north margin of the Abrams building has similarly occurred via southerly overland flow from Darling.

2. Refer again to Figure 24 in the RI Report. Note that the second highest concentration of VOCs in both soil gas and perched groundwater occur in the central corridor of the Darling property. As discussed in Supplement #1, this area of elevated contamination corresponds closely with evidenced historical activities on the Darling property, as well as the Fairfax well. ADEQ completed 12 vertical borings and 168 samples on the Abrams property. In stark contrast, ADEQ planned for and executed 6 borings and only 10 samples on the Darling property. This disproportionate sampling scheme between the two properties does not make technical sense to us, especially in light of the evidentiary information submitted to ADEQ. We understand that there are funding, schedule, and related scoping issues related to the execution of work at State Superfund areas. However, we also believe that insufficient work was conducted at the Darling property to evaluate whether that property is a contributor to groundwater contamination.
3. Refer to Figure 25 in the RI Report. This figure shows a contour of trichloroethylene (TCE) concentrations in the regional aquifer. The southerly extent of the loosely contoured plume extends to the middle of the Darling property, not inconsistent with the observations noted in the second point above. Due to the limited regional monitoring well coverage in this area, we realize that it is difficult to ascertain a source and the overall plume dynamic in regional groundwater. However, as previously discussed, we are equally concerned that addressing a regional groundwater solution without fully approaching potential VOC contamination from the Darling property may likely compromise the overall feasibility and remedial actions to be undertaken by ADEQ.

Based on Abrams' comprehensive investigation of its own historical practices and records, as well as the extensive work completed at the Abrams property by ADEQ and reported in the ESI report, it is our professional opinion that Abrams has not had hazardous substance releases and has not contributed to perched or regional groundwater contamination. It is our further opinion that it would be prudent for ADEQ to conduct further investigation on properties adjacent to Abrams including the Darling property, and that no further investigation or response action be undertaken by ADEQ or EPA at the Abrams property.

Mr. Gary Abrams  
November 19, 2008  
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If you have any questions or comments, please feel free to contact me at (602) 567-3917.

Very truly yours,

BROWN AND CALDWELL, INC.

A handwritten signature in cursive script, appearing to read "Edward D. Ricci". The signature is written in dark ink and is positioned above the printed name.

Edward D. Ricci  
SVP- Environmental Services



November 26, 2008

**VIA HAND DELIVERY**

**CITY OF  
TUCSON**  
ENVIRONMENTAL  
SERVICES

Ms. Gretchen Wagenseller  
Project Manager  
Superfund Program Unit – Southern Regional Office  
Arizona Department of Environmental Quality  
400 W. Congress St., Suite 433  
Tucson, AZ 85701

**Re: City of Tucson Comments on the Proposed Remedial Objectives Report  
for the Miracle Mile Water Quality Assurance Revolving Fund Registry  
Site**

Dear Ms. Wagenseller:

The City of Tucson has reviewed the above referenced report. We have no comments on the soil and groundwater proposed remedial objectives as outlined in the report.

If you have any questions, please contact Jeff Drumm or Molly Collins at (520) 791-5414.

Sincerely,

FOR

Nancy Petersen  
Deputy Director, Environmental Services  
City of Tucson

NP/mc/cj

cc: Ralph Marra, Tucson Water



S:\EMCOMMON\Molly\Miracle Mile Comments.doc





November 20, 2008

Gretchen Wagenseller  
ADEC Project Manager  
400 W. Congress, Suite 433  
Tucson, Arizona 85701

**Re: Proposed Remedial Objectives Report**

Gretchen,

Thank you for sending the Proposed Remedial Objectives Report for the Miracle Mile WQARF site. I have reviewed the report as requested and have the following comments.

Page 4 of the report covers chromium contamination at the Spring Joint Specialties property on Romero Road. The last sentence states "...therefore based on this data, no ROS are needed for the land uses at those facilities." With the knowledge that there is chromium contamination in the soil and perched aquifer under this property it is critical to minimize the movement of any contamination from this site. The District owns two production wells down gradient from this property and steps must be taken to protect the regional aquifer from chromium contamination from the property.

Page 6 had three bold-type paragraphs that refer to groundwater. The first paragraph refers to the "future municipal use of the regional aquifer impacted by TCE emanating from this site." The next two bold-type paragraphs list TCE, chromium and 11-dichloroethene contaminants. The contaminants listed should be consistent in all three paragraphs.

I appreciate the opportunity to comment and would be happy to answer any questions you may have.

Yours truly,

A handwritten signature in black ink, appearing to read "David Crockett".

David Crockett, Superintendent

(Letters/ADEC/Wagenseller-WQARF Remedial Objectives Report\_20Nov08)

3901 North Fairview  
Tucson, Arizona 85705

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**APPENDIX C**

**RESPONSIVENESS SUMMARY FOR PUBLIC COMMENTS ON THE  
OCTOBER 28, 2008 PROPOSED REMEDIAL OBJECTIVES REPORT**

## **RESPONSIVENESS SUMMARY**

### **MIRACLE MILE PROPOSED GROUNDWATER REMEDIAL OBJECTIVES REPORT -- WATER QUALITY ASSURANCE REVOLVING FUND SITE TUCSON, ARIZONA**



**ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY  
400 West Congress, Suite 433  
Tucson Arizona 85701  
Southern Regional Office**

**June 28, 2012**

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## **INTRODUCTION**

The Arizona Department of Environmental Quality (ADEQ) is presenting this responsiveness summary to comments received from various parties on the ADEQ *Proposed Remedial Objectives Report—October 28, 2008, Miracle Mile Water Quality Assurance Revolving Fund Site, Tucson, Arizona* (RO report). The RO report was made available for public review and comment between October 28, 2008 and November 26, 2008. ADEQ received written comments from the following: (1) Flowing Wells Irrigation District, (2) Abrams Airborne Manufacturing, Inc., (3) the City of Tucson—Environmental Services. ADEQ has prepared this Responsiveness Summary for all comments received regarding the RO report. No other comments were received in the period allotted. [Note that the comments from these parties provided below in italicized bold print are word-for-word as they were provided to ADEQ.]

### **COMMENTS FROM FLOWING WELLS IRRIGATION DISTRICT**

Comments regarding the Proposed RO report were received in a letter from the Flowing Wells Irrigation District (FWID) to ADEQ, dated November 20, 2008.

***Page 4 of the report covers chromium contamination at the Spring Joint Specialties property on Romero Road. The last sentence states “...therefore based on this [sic] data, no ROs are needed for the land uses at those facilities.” With the knowledge that there is chromium contamination in the soil and perched aquifer under this property it is critical to minimize the movement of any contamination from this site. The District owns two production wells down gradient from this property and steps must be taken to protect the regional aquifer from chromium contamination from the property.***

ADEQ Response: ADEQ agrees that the former Spring Joint Specialist property chromium contamination which is above the Arizona soil remediation level needs to be addressed in the final remedy for the Miracle Mile Water Quality Assurance Revolving Fund Site (Site). Source control of the chromium-contaminated soil (for protection of the groundwater) will be one of the remedial strategies evaluated during the Feasibility Study. At this point, given the discontinuous nature of the perched groundwater (it does not yield sufficient water to be defined as an “aquifer”) at the Site, it is doubtful that actual cleanup of the perched groundwater for protection of the regional aquifer is practicable. However, this possibility will also be considered during the Feasibility Study.

Regarding FWID's comment regarding the Proposed RO Report text “...therefore based on this [sic] data, no ROs are needed for the land use at those facilities,”--Immediately preceding that sentence, ADEQ had been discussing other facilities at the Site (besides the Spring Joint Specialists and Rental Service Corporation (aka RSC Equipment Rental) at which ADEQ also had performed soil sampling, but had not found contaminants above SRLs. These are the facilities to which ADEQ was referring in the sentence quoted by FWID in its comment. To clarify, ADEQ has inserted the adjective “other” between “those” and “facilities.”

***Page 6 had three bold-type paragraphs that refer to groundwater. The first paragraph refers to the “future municipal use of the regional aquifer impacted by TCE emanating from this site.” The next two bold-type paragraphs list TCE, chromium and 11-dichloroethene [sic] contaminants. The contaminants listed should be consistent is [sic] all three paragraphs.***

ADEQ Response: ADEQ agrees with FWID’s comment; the contaminant list will be made consistent. ADEQ has determined that, based on the presently-available data, only TCE and chromium are Site contaminants of concern (COCs), and both COCs are listed in the groundwater ROs.

### **COMMENTS FROM THE CITY OF TUCSON**

Comments regarding the proposed RO report were received in a letter from the City of Tucson, Environmental Services to ADEQ, dated November 26, 2008.

***The City of Tucson has reviewed the above referenced report. We have no comments on the soil and groundwater proposed remedial objectives as outlined in the report.***

ADEQ Response: No response is needed.

### **COMMENTS FROM ABRAMS AIRBORNE**

Comments regarding the Proposed RO Report were received in a letter from Abrams Airborne Manufacturing, Inc. (Abrams) to ADEQ, dated November 24, 2008. The comments were in an attached letter from Brown and Caldwell (B&C) to Abrams Airborne Manufacturing, dated November 19, 2008. B&C commented that the contamination at the R.E. Darling (Darling) facility is not discussed in either the Land and Water Use Study (LWU) or the RO Report. They also note that the LWU includes a Section 1.3.2 covering Abrams facility environmental data, but there is no corresponding section on the Darling facility. [Section 1.3.2 has been deleted from the final LWU]. Thereafter, B&C’s comments pertain mainly to ADEQ’s previous investigations at the Darling and Abrams facilities, contaminants coming onto Abrams property from its neighbors, and the contamination in the soil gas and perched groundwater at the Darling facility. These comments had also largely been previously provided to ADEQ by Abrams in its May 23, 2007 comment letter on the Draft RI Report. Therefore, the reader is referred to ADEQ’s response to Abrams comments on the Draft RI Report contained in the Responsiveness Summary in Appendix A of the Final RI Report for ADEQ’s responses to those comments.

However, a main concern expressed in B&C’s comment letter does pertain to ROs and will be addressed here. B&C comment as follows:

***However, as previously discussed, we are equally concerned that addressing a regional groundwater solution without fully approaching potential VOC contamination from the Darling property may likely compromise the overall feasibility and remedial actions to be undertaken by ADEQ.***

ADEQ Response: ADEQ agrees that the TCE-contaminated perched groundwater beneath the Darling property is one of the likely sources of the TCE contamination in the regional aquifer and a potential future source of contamination to the regional aquifer. During the Feasibility Study, ADEQ will evaluate “source control” as one remedial strategy for achieving the ROs for the regional aquifer.