



**Water Quality Assurance
Revolving Fund**

**Annual Report
Fiscal Year 2005**

September 2005

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FY 2005 Annual Report to the WQARF Advisory Board

This annual report has been prepared pursuant to SB 1513 (FY 2006 General Appropriations Bill), Laws 2005, Section 32, Page 44, Lines 26-32, which requires that a report on the Water Quality Assurance Revolving Fund (WQARF) be submitted to the Director of the Joint Legislative Budget Committee (JLBC) and to JLBC members by September 1, 2005.

WQARF PROGRAM OVERVIEW

Program Description

Through the WQARF Program, the Arizona Department of Environmental Quality (ADEQ) identifies, assesses, and cleans up soil and groundwater that is contaminated with hazardous substances. The program conducts these efforts statewide with support from state funds and also oversees privately-funded cleanup efforts. Responsible parties are identified and notified, and then legal and technical evidence is gathered for recovery of ADEQ's costs and enforcement of cleanup requirements.

WQARF was created under the Environmental Quality Act of 1986 to support clean up efforts in the state. The program underwent significant revisions as a result of what is known as the WQARF Reform Legislation of 1997 (Laws 1997, Chapter 287). The major provisions of the WQARF Reform Legislation are as follows:

Proportionate Liability - Liability for the costs of the cleanup of contaminated sites is proportionate, rather than joint. Cleanup costs are proportionately allocated among responsible parties using a process defined in statute. Identification of responsible parties and the allocation of cleanup costs are the responsibilities of ADEQ. A non-judicial allocation hearing process is available for the resolution of disputes regarding ADEQ's allocations.

Program Funding - The adoption of a proportionate liability system increased the need for adequate and dedicated program funding. To ensure that WQARF program funding is sufficient to administer the program and to pay allocated, uncollectible orphan shares, the legislature supports the WQARF program with an annual \$18 million expenditure. The fund is dependent upon the direct transfer of funds from legislative appropriations, corporate income tax, cost recovery, and special fees.

Site Prioritization - Sites are to be prioritized with a greater emphasis on risk to human health. The statute provides a process to score sites according to actual and potential exposure to hazardous substances. This score and other factors are considered when prioritizing the expenditure of WQARF funds.

Cleanup Methods and Goals - WQARF Reform provided for increased flexibility in the selection of groundwater cleanup methods and levels. ADEQ has adopted remedy selection rules that incorporate analysis of a range of cleanup options, from remediation of the contamination to no action. Significantly, the statute clarifies that the cleanup need not always result in the achievement of drinking water standards in the aquifer itself.

Community Involvement - Enhanced community involvement is provided for at all stages of the cleanup process. The statute establishes a process to encourage active community involvement, including provisions for notices, community involvement plans, and the formation of a community advisory board for each site.

Settlements - Prompt settlements as an alternative to litigation are encouraged. ADEQ is authorized to offer a 25 percent discount to responsible parties who settle after the Department provides notice to them of their proportionate share of liability.

In addition to the costs of administering the program and conducting remedial actions, A.R.S. § 49-282(E) authorizes WQARF funding for other uses. Descriptions of the following uses/programs and their accomplishments are discussed later in the report:

- Emergency Response Program
- Voluntary Remediation Program
- Water Quality Monitoring Program
- State matching monies or to meet other obligations prescribed by § 104 of CERCLA
- Well Inspections and Approval Program at the Arizona Department of Water Resources
- Risk Assessment Program at the Arizona Department of Health Services

Program Process Overview

The date that a site is added to the WQARF Registry generally does not indicate the date that cleanup is started. Under most circumstances, numerous investigative, planning, community involvement, risk assessment, and legal steps must be executed before a cleanup can begin.

Once in the WQARF program, sites undergo a remedial investigation/feasibility study (RI/FS). An RI/FS is a two-phase investigation conducted by ADEQ or interested parties to investigate the scope of contamination and determine the alternatives for remediation. The RI/FS requires extensive technical information that may include soil and groundwater sampling and analysis of both the site property and adjoining areas that may also be contaminated. The objective of the RI/FS is to gather sufficient data to evaluate and select the most appropriate cleanup alternative for the site. Concurrently, ADEQ is required at most sites to conduct an extensive search to identify potentially responsible parties (PRP) searches.

During and following the RI/FS, legal negotiations may be undertaken in response to a party's request to settle liability early and to gain access to private properties for investigation or cleanup implementation. Community involvement activities take place during investigations and prior to

development of the proposed remedial action plan (PRAP), depending on site specific issues. These community involvement efforts may include the formation of community advisory boards (CABs) to assist in relaying information and concerns between the public, ADEQ, and interested parties. The Arizona Department of Health Services (ADHS) may also provide input to the remedial investigation through evaluation of potential risks to human health.

Once the FS is completed and cleanup alternatives are identified, a PRAP is developed and is made available for public comment. A record of decision (ROD) documenting the selected cleanup alternative is signed, followed by an allocation process in which past and future costs are distributed among responsible parties.

After the ROD is finalized, extensive remedial system design development and review must be undertaken. Several months to several years may be needed to finalize a design, construct the remedy, and start the actual cleanup. After the remedial system is constructed, operation and maintenance may be conducted as appropriate to the remedy.

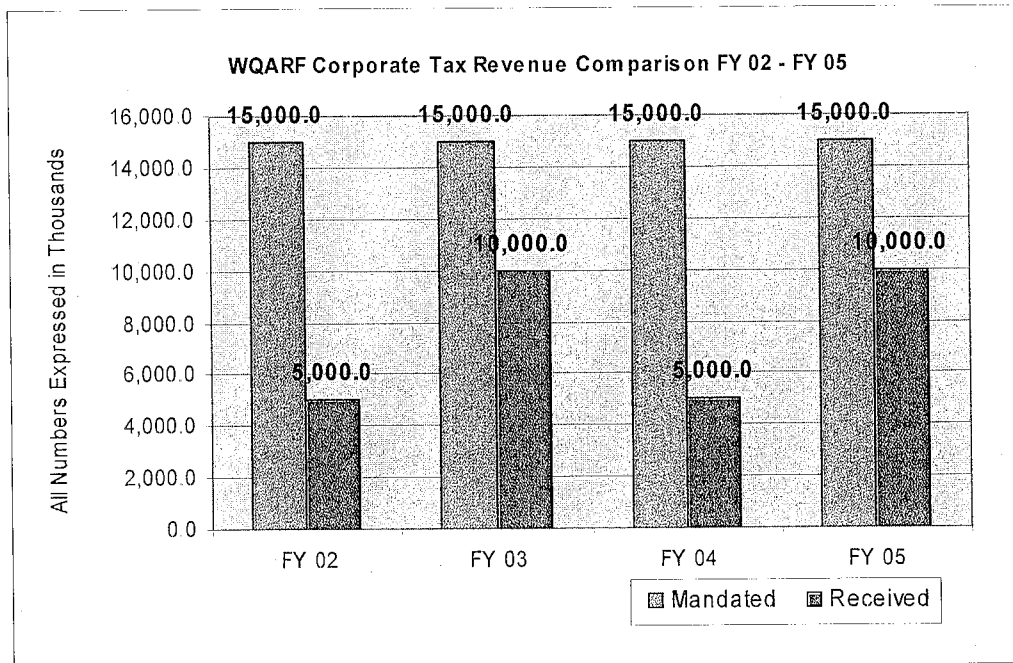
Because formal investigation and remediation can take many years, ADEQ developed a process to address contamination that requires immediate action. The early response action process can be used at any time prior to the implementation of a final remedy. Early response actions can be conducted to address any of the following conditions:

- To mitigate an immediate threat to public health or the environment;
- To clean up a source of contamination;
- To prevent migration of contamination to uncontaminated areas; or
- To provide drinking water to residents whose drinking water supply has been contaminated

MAJOR ISSUES & ACCOMPLISHMENTS FOR FY 2005

WQARF Funding

As described earlier in the report, ADEQ's ability to administer and implement the WQARF Program depends on \$18 million per year in dedicated funding. A.R.S. § 49-282(B) specifies that \$15 million of that \$18 million is transferred from the Corporate Income Tax. However, due to budget shortfalls, the WQARF Program only received one-half of the mandated Corporate Income Tax amount for Fiscal Years 2002, 2003, 2004, and 2005 (Please see table below). ADEQ should have received a total of \$60 million. Instead it received only \$30 million. This has left the Program with insufficient funds to address all existing and new sites on the registry. Underfunding of the program has caused ADEQ to postpone the implementation of several investigations and has delayed progress on several final cleanups, though the department continues to direct its limited resources on early response actions and other activities where human health is at risk.



One Site Added To The State's Superfund List

The WQARF Registry, created pursuant to A.R.S. §287.01, is a list of sites in Arizona where groundwater and/or soil contamination is known to be present. Sites listed on the Registry qualify for WQARF Funds for investigation and/or cleanup of contamination. There are currently 35 sites on the Registry, with the addition of one new site and the merging of the Shannon Road-Rillito Creek and El Camino del Cerro WQARF sites into one site named Shannon Road/El Camino del Cerro.

The 7th Avenue and Bethany Home Road site was placed on the WQARF Registry on August 25, 2004. Soil vapor and groundwater beneath the site is contaminated with tetrachloroethene (PCE) and trichloroethene (TCE) from a former dry cleaner. There are no drinking water production wells within the confines of the site, but two Salt River Project wells are located near the site and could be threatened if appropriate actions are not taken.

Early Response Actions

ADEQ's WQARF Program continues to place a high priority on early response actions (ERAs) where human health is potentially impacted, where sources of contamination can cause significant environmental impact, or where early actions can save significant WQARF funds by limiting the spread of contamination. Operation and maintenance continues at nine ERAs that were initiated in prior years. In FY 2005, the WQARF Program initiated the following ERAs:

7th Avenue & Bethany Home Road - ADEQ constructed a soil vapor extraction (SVE) system to remove the source of tetrachloroethene (PCE) and trichloroethene (TCE) contamination at the former dry cleaner. The PCE and TCE present in soil represents a continuing source of

contamination in groundwater. The ERA was also necessary to prevent exposure as the site has been vacant for some time and is currently planned for commercial development. The SVE system was installed and began operation in June 2005. Remediation strategies for PCE contaminated groundwater are currently being evaluated.

Central and Camelback - In an effort to locate the source of groundwater contamination, ADEQ conducted an ERA evaluation during June 2004 near the Maroney's dry cleaning facility. Results indicated that soil vapor concentrations near the facility could be a continuing source to groundwater contamination. ADEQ initiated an ERA in January 2005 to address the presence of soil vapors. A pilot study was completed and results indicated that installation of a full scale SVE system is necessary. ADEQ is currently negotiating access with the property owner to install a SVE system in FY 2006 near the Maroney's facility.

An ERA was initially started at this site due to the presence of vapors in an adjacent parking garage. ADEQ installed a pump and treat system in 2003 as part of an ERA to control the migration of contaminated groundwater and to prevent exposure to vapors in the garage.

Shannon Road/El Camino del Cerro - In FY 2005, ADEQ funded modifications to an existing treatment system at Metropolitan Domestic Water Irrigation District (Metro). Since 1999, ADEQ has been funding an ERA at the Shannon Road/El Camino del Cerro site consisting of a treatment system designed to prevent the spread of contamination and also to provide drinking water to Metro. Upon discovery of PCE and TCE contamination in their South Shannon production well, Metro constructed a treatment system to remove these contaminants from the water prior to delivery to customers. Recently, PCE and TCE contaminant levels have risen and the treatment system requires significant modification. Through a cooperative agreement with Metro, ADEQ is funding the system modification and the continued operation and maintenance costs.

South Mesa - In September 2004, ADEQ began operation of an expanded SVE system to remove the source of contamination at a former facility located at 1545 North McQueen Road in Gilbert. The ERA was initiated to reduce the presence of PCE vapors in a building and to reduce a continuing source of contamination to the groundwater.

FY 2005 ACTIVITIES AND ACCOMPLISHMENTS AT WQARF SITES

Summaries are provided below of activities and accomplishments for sites on the WQARF Registry. The revenues and expenditures for the WQARF Program can be found in Appendix 1. A description of activities and accomplishments of the Program for FY 2005 can be found in Appendix 2. The 2005 Annual WQARF Registry Report is included in Appendix 3, which provides the site score, location, boundaries, and a brief description of investigation status or remedial action.

Remediation

- Millions of gallons of groundwater treated:

361.00	Broadway-Panatano
43.75	Central and Camelback
12.40	Los Reales Landfill
58.07	Payson PCE
1,793.15	Pinal Creek
<u>1.12</u>	Tyson Wash
2,269.49	FY 2005 Total

- Pounds of volatile organic compounds removed from the environment:

32.58	Central and Camelback
1,786.63	East Central Phoenix (32 nd St. & Indian School)
28.22	East Central Phoenix (40 th St. & Indian School)
.89	Los Reales Landfill
1,219.40	Park Euclid
6.50	Payson PCE
34.00	Silverbell Landfill
110.54	South Mesa
.96	Tyson Wash
296.00	West Central Phoenix - East Grand Avenue
<u>692.00</u>	West Central Phoenix - North Plume
4,219.32	FY 2005 Total

- Pounds of metals removed from the environment:

<u>3,294,200</u>	Pinal Creek
3,294,200	FY 2005 Total

Groundwater Wells Installed

- Installed by ADEQ

6	20 th Street & Factor
2	7 th Avenue & Bethany Home Road
1	Shannon Road/El Camino del Cerro
2	Tyson Wash
11	West Central Phoenix -North Canal Plume
<u>3</u>	West Van Buren
25	FY2005 Total

- Installed by potential responsible party (PRP)
 - 5 West Central Phoenix-West Osborn Complex
 - 1 West Central Phoenix -East Grand Avenue
 - 6 **FY2005 Total**

Soil/Soil Gas Samples Collected

- Collected by ADEQ
 - 415 **FY2005 Total**
- Collected by potential responsible party (PRP)
 - 185 **FY2005 Total**

Groundwater Samples Collected

- Collected by ADEQ/EPA
 - 1,484 **FY2005 Total**
- Collected by potential responsible party (PRP)
 - 783 **FY2005 Total**

Community Involvement Activities

- Fact Sheets:
 - 1 7th Avenue and Bethany Home Road
 - 1 Cooper and Commerce
 - 1 Tyson Wash
 - 2 Silverbell Landfill
 - 1 West Central Phoenix - West Osborn Complex
 - 1 Park Euclid
 - 7 **FY 2005 Total**
- Public Notices (Does Not Include Notices for CAB Meetings):
 - 3 7th Avenue & Bethany Home Road
 - 1 Central & Camelback
 - 1 Park Euclid
 - 1 Silverbell Landfill
 - 1 Shannon Road/El Camino del Cerro
 - 2 7th Street and Arizona Avenue
 - 9 **FY2005 Total**

- Public Meetings:
 - 4 Broadway – Pantano
 - 3 Klondyke Tailings
 - 3 Central Avenue & Camelback Road
 - 2 Shannon Road/El Camino Del Cerro
 - 2 Miracle Mile
 - 4 Park Euclid
 - 2 Payson PCE
 - 1 Silverbell Landfill
 - 1 South Mesa
 - 1 West Central Phoenix - East Grand Avenue
 - 1 West Central Phoenix - West Osborn
 - 4 West Van Buren
 - 28 **FY 2005 Total**

Legal Activities

- Total Consent Decrees/Consent Orders completed (ARS § 49-282.G.3):
 - 1 **FY 2005 Total**
- Terms of WQARF Consent Decrees (ARS § 49-282.G.3):
 - Bayless Investment & Savings Company \$225,000
- Qualified Business or Financial Hardship Settlement applications received (ARS § 49-282.G.4(a)):

No applications for qualified business or financial hardship settlements were received in FY 2005.
- Qualified Business or Financial Hardship Settlements denied (ARS § 49-282.G.4(b)):

No applications for qualified business or financial hardship settlements were denied in FY 2005.
- Qualified Business Settlements completed (ARS § 49-282.G.4(c)):

No qualified business settlements were completed in FY 2005.
- Financial Hardship Settlements completed (ARS § 49-282.G.4(d)):

No financial hardship settlements were completed in FY 2005.
- Prospective Purchaser Agreements completed:

No prospective purchaser agreements were completed in FY 2005.

- Access Agreements completed:
10 FY 2005 Total

- Potentially Responsible Party (PRP) Searches started:
2 FY 2005 Total

- FY 2005 Cost Recovery Activity (please see the table below). At the end of FY 2004, there were four WQARF cost recovery packages totaling \$249,598.08 which had been submitted for payment, but for which no payment had been received. During FY 2005, six packages totaling \$1,533,647.29 were prepared and seven payments, totaling \$472,779.23 were received. There were challenges, errors or discrepancies identified in some of those packages which reduced the amount paid to ADEQ by \$4,000. At the end of FY 2005, three packages totaling \$1,306,566.14 were outstanding.

Description	# of Packages	Dollar Amount
At the beginning of the year	4	249,598.08
New Packages	6	1,533,647.29
Payments Received	7	472,779.23
Adjustments Package reduction		4,000.00
Balance at end of year	3	1,306,566.14

FY 2005 ACTIVITIES AND ACCOMPLISHMENTS AT FEDERAL SITES

Pursuant to A.R.S. § 49-282(E)(1), WQARF can be used to provide state matching monies or to meet other obligations as prescribed by § 104 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). WQARF monies are also used for remedial actions at state-lead CERCLA sites which are reimbursed by the responsible parties. Summaries are provided below of activities and accomplishments at federal sites supported by ADEQ.

- Millions of gallons of groundwater treated:

45.400	Apache Powder
2.690	Hassayampa Landfill
.001	Luke AFB/Waterdog
130.800	Motorola 52 nd St. - OU1
1,723.000	Motorola 52 nd St. - OU2
6,314.000	North Indian Bend Wash
546.310	Phoenix-Goodyear Airport - South
287.000	Phoenix-Goodyear Airport - North
1,680.100	TARP - Tucson Airport Remediation Project
62.300	TIAA/Arizona Air National Guard Tucson
7.600	TIAA/Burr Brown
15.500	TIAA/Former West Cap
<u>315.000</u>	US Air Force Plant 44, Tucson
11,129.701	FY 2005 Total

- Pounds of volatile organic compounds removed from the environment:

31.12	Hassayampa Landfill
15,380.00	Davis-Monthan AFB - TPH (jet fuel)
705.00	161 st Air National Guard
445.00	Luke AFB/Waterdog
957.00	Motorola 52 nd Street/OU1
2,240.00	Motorola 52 nd Street/OU2
3,971.00	North Indian Bend Wash
193.75	Phoenix-Goodyear Airport/North
2.92	AANG 162 nd (TIAA)
.90	Burr Brown (TIAA) Texas Instruments
.36	Former West Cap (TIAA)
245.12	TARP - Tucson Airport Remediation Project
<u>181.20</u>	US Air Force Plant 44, Tucson
24,353.37	FY 2005 Total

- Pounds of hazardous substances removed from the environment:
 - 94,792 Apache Powder (nitrate)
 - 1,383 Motorola 52nd Street - Honeywell (solvent/jet fuel mixture)
 - 96,175** FY 2005 Total

- Pounds of other contaminants removed from the environment:
 - 15.6 Phoenix Goodyear Airport North (perchlorate)
 - 15.6** FY 2005 Total

- Pounds of metals removed from the environment:
 - 0** FY 2005 Total

- Tons of contaminated soil removed:
 - 132.50 Motorola 52nd Street - Honeywell Operable Unit
 - 68.74 Motorola 52nd Street- OU2
 - 2.00 USAF-Davis Monthan
 - 45.00 US Army - Camp Navajo
 - 248.24** FY 2005 Total

Community Involvement Activities at Federal Sites

- Fact Sheets and Public Notices:
 - 1 Apache
 - 1 Williams Field Bomb Target #6
 - 2 Williams AFB
 - 2 Camp Navajo
 - 1 Motorola 52nd Street
 - 1 Phoenix Goodyear Airport North & South
 - 8** FY 2005 Total

- Public Meetings:
 - 1 Williams Bomb Target #6
 - 2 Davis-Monthan AFB
 - 5 Williams AFB
 - 4 Camp Navajo
 - 6 Motorola 52nd Street
 - 3 Phoenix Goodyear Airport North and South
 - 6 UCAB - TARP, TIAA, AZ Air National Guard, USAF Plant 44
 - 27** FY 2005 Total

Legal Activities at Federal Sites

- Access Agreements:
0 FY 2005 Total
- Consent Decrees/Consent Orders:
1 FY 2005 Total
- Applicable or Relevant and Appropriate Requirements:
0 FY 2005 Total
- Records of Decision (ROD) and ROD Amendments:
0 FY 2005 Total

EMERGENCY RESPONSE PROGRAM

Pursuant to A.R.S. 49-282(E)(8), WQARF monies can be used for all reasonable costs incurred in remedial actions taken in response to a release or threat of a release of a hazardous substance or pollutant that presents an emergency to public health or the environment.

FY 2005 Activities and Accomplishments

The Emergency Response Unit (ERU) received and responded to 188 reported incidents, 30 of which required on-scene response actions. The ERU was also involved in several drills and exercises including the Arizona Statewide Homeland Security Terrorism Response Exercise and the annual Palo Verde Nuclear Generating Station Drill. In addition, the ERU dedicates significant staff resources in support of local, state and federal agencies during homeland security events, wildfire operations, as members of the Regional Response Team for the lower Colorado River, and to binational (Arizona/Sonora) hazardous waste response planning and coordination. Because of ERU's involvement, ADEQ has received hundreds of thousands of dollars in grant monies from the U.S. EPA and the Office of Domestic Preparedness (ODP). These grant monies have allowed the ERU to upgrade its ability to respond to threats to public health and safety. Significant emergency response actions include:

Release of Radioactive Materials in Transit: ERU personnel received a request for assistance from the Arizona Department of Public Safety (DPS) to respond to a reported release of radioactive material from a semi-truck on Interstate 40 westbound near Mile Marker 182.0 on August 15, 2004. The incident occurred at a rest stop just west of Flagstaff, Arizona which prompted the shut down of the westbound lanes of Interstate 40 and the rest stop. ADEQ assisted the DPS, Arizona Department of Transportation and the Arizona Radiation Regulatory Agency in determining that no radiation had leaked from the shipment.

Response to Potential Terrorist Attack: The ERU received a request for assistance from the DPS to respond to a suspicious odor which was found in the following City of Glendale buildings: 1) City Courthouse, 2) Public Safety and 3) Glendale Community College. Samples were taken to determine the substance which was maliciously dumped at each of the locations listed above. Both chemical and biological agents were tested for since initial first responders detected the presence of a biological agents with meters used. Laboratory analysis found no detection of chemical and biological agents, but the possibility remained that the material in question was acid.

Environmental contractors arrived on scene for remediation. The substance was absorbed, the area was rinsed clean and deodorizers were applied. One victim was taken to a local hospital and released after complaining of the smell which was a pungent odor.

Response to Acid Release in Phoenix: The ERU received a request on February 4, 2005 for assistance from the Phoenix Fire Department to respond to a spill of hydrofluorocilic acid from a semi-truck located near 5th Avenue and Monroe Street in Phoenix. Upon arrival, it was observed that the semi-truck trailer involved was leaking acid onto the curbside which was diked with dirt to prevent run-off into the local storm drains. The acid mixture was at 25% solution en route to a local industrial laundry facility when the accident occurred. The area from the 7th Avenue bridge northbound up to Monroe Street was affected and was shutdown by local police.

Phoenix Fire Department hazmat teams examined the leaking tote in the truck and reported that the top of the tote was cracked and leaking, approximately 110-130 gallons. A bucket-like container was placed under the dripping trailer to prevent further spillage onto the roadway. Later in the day, environmental contractors confirmed that the tote had completely leaked out, approximately 330 gallons. It was suspected that eleven people, had come in contact with the substance. The eleven, primarily local police who had closed off the area, were evaluated at local hospitals and released.

The run-off affected local storm drains from the 7th Avenue bridge northbound to Monroe Street. It was relayed to the environmental contractor that City of Phoenix had requested that all storm drains affected be pumped out using a vacuum truck. In addition, it was suspected that a drywell located on Monroe Street, just west of 5th Street may have been affected. ERU had City of Phoenix Fire contact Public Works to inspect the drywell in question and relay the information to the responsible party for remediation, under ADEQ guidelines.

It was reported by Phoenix Fire that the railroad lines under the 7th Avenue bridge may have been affected by the acid by spilling through drain holes located on the bridge. ERU contacted Union Pacific Railroad and advised them that they may want to inspect the rails

near 7th Avenue. The main railroad line was temporarily closed and Union Pacific Railroad contacted Environmental Response Inc. for inspection. No contamination of the rail lines was found and the mainline was re-opened.

It was agreed that the contaminated roadways and scene area be neutralized with calcium hydroxide then swept up. The semi-trailer was crossloaded into another vehicle and clean up operations were underway. The entire area was re-opened to general traffic at approximately 2200 hours.

A.R.S. § 49-282(E)(11) also provides for reimbursement to political subdivisions for costs incurred in response to a release or a threat of a release of a hazardous substance or pollutant that presents an immediate and substantial endangerment to the public health or environment. There were no new applications received in FY 2005.

VOLUNTARY REMEDIATION PROGRAM

Senate Bill 1454 went into effect on July 18, 2000, which created a new Voluntary Remediation Program (VRP) to be implemented by ADEQ. The VRP provides an opportunity for property owners, prospective purchasers and other interested parties to investigate and remediate a contaminated site in cooperation with ADEQ. The volunteer reimburses ADEQ for oversight costs through a signed reimbursement agreement. Upon successful completion of remediation activities, the volunteer has the opportunity to receive either a no further action (NFA) or conditional NFA determination from ADEQ for a site or portion of a site. A.R.S. § 49-282(E) and §49-187 authorizes the use of WQARF funds for this program, although no transfer to VRP occurred this year because the program is self sufficient.

FY 2005 Accomplishments

VRP continues its success in encouraging property owners, prospective purchasers, and other interested parties to investigate and cleanup contaminated sites in cooperation with the agency. Benefits of the program include reducing exposures to contaminants and ensuring that cleanups meet applicable requirements. In exchange for their initiative and cooperation, program participants benefit from ADEQ's expedited review of the clean up and upon successful completion, a closure document that is accepted by all relevant ADEQ programs. In addition, applicants can utilize the closure document to demonstrate to potential purchasers and lending institutions that all applicable cleanup standards have been achieved.

Due to aggressive marketing, referrals from successful applicants, and program enhancements, the numbers of applicants to the VRP continues to grow. In 2005, the VRP accepted 12 new sites

containing both soil and groundwater contamination. ADEQ continues to educate consultants and potential applicants about the benefits of the program by sharing other success stories.

Several applicants that have gone through the VRP for one site have returned to the program for additional sites where remediation is needed. In addition, ADEQ has integrated the VRP into its enforcement strategy for facilities that have been identified by the regulatory programs as requiring remediation. These facilities are encouraged to enter the VRP in lieu of enforcement action. This not only provides for a facility to return to compliance, but also allows both the facility and ADEQ to focus time and money on the cleanup instead of on efforts to compel the clean up. It also allows the agency's inspection and enforcement staff to focus on identifying new sites and allows VRP staff to ensure that remediation is conducted in a consistent manner across the agency.

There are currently 79 active and 90 closed sites in the VRP with remediation of 575,963 tons of soil at participating VRP sites. A detailed description of VRP activities and accomplishments can be found in Appendix 4.

WATER QUALITY ASSESSMENT AND MANAGEMENT PROGRAM

Pursuant to A.R.S. § 49-282(E)(3), WQARF monies are used for the costs of monitoring, assessing, identifying, locating, and evaluating the degradation, destruction, loss of or threat to the waters of the state resulting from a release of a hazardous substance to the environment. Pursuant to A.R.S. § 49-282(E)(6), WQARF monies are also used for the costs of the water quality monitoring program described in A.R.S. § 49-225. A description of Water Quality Assessment and Management Program FY 2005 activities and accomplishments can be found in Appendix 5.

WELL INSPECTIONS AND APPROVAL PROGRAM

Pursuant to A.R.S. 282(E)(12) WQARF monies are used to fund the Arizona Department of Water Resources to conduct well inspections, remedial actions, and review and approval of well construction necessary to prevent vertical cross-contamination. The FY 2005 accomplishments of the Well Inspections and Approval Program can be found in Appendix 6.

RISK ASSESSMENT PROGRAM

Pursuant to A.R.S. 282(E)(15) WQARF monies are used to fund the Arizona Department of Health Services to assess and evaluate the effect of a release or a threatened release of hazardous substances to the public health, welfare, or the environment. The FY 2005 accomplishments of the Risk Assessment Program can be found in Appendix 7.

APPENDIX 1

Revenues and Expenditures

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
 WQARF REVENUES AND EXPENDITURES
 THROUGH THE PERIOD ENDING: 13th Month FY05
 PREPARED BY OFFICE OF FISCAL SERVICES 08/22/05

	FY 05 Actual
Balance	
Beginning Fund Balance	3,475.5
Prior Year Corporate Income Tax Reversion	
Total: Balance from Prior Year	3,475.5
Revenue Subject to 18M Cap	
Corporate Income Tax	10,000.0
Air Quality Fund	0.0
State Assurance Fund	500.0
Subtotal	10,500.0
Municipal Water (ARS 42-5302)	2,156.6
Fertilizer Registration (ARS 3-272)	40.9
HW Facility Registration Fee (ARS 49-929/49-930)	209.1
HW Manifest Resubmittal Fee (ARS 49-922.01)	5.1
Industrial Discharge Permit Fee (ARS 49-209)	86.4
Pesticide Registration (ARS 3-351)	911.0
Quality Assurance Fee (ARS 45-616)	356.6
Fees Subtotal	3,765.7
Total: Revenue Subject to 18M Cap	14,265.7
Revenue Not Subject to 18M Cap	
Responsible Parties	
Consent Decrees	735.7
Cost Recovery (ARS 49-282)	472.7
Responsible Parties Subtotal	1,208.4
Other Revenue	
Prospective Purchaser Agreement (ARS 49-285.01)	13.6
Interest (ARS 49-282)	158.1
Prior Year Reimbursement (ADHS)	7.4
Other Revenue Subtotal	179.1
Total: Revenue Not Subject to 18M Cap	1,387.5
Total: Beginning Balance and Revenue	19,128.7

Expenditures	
Non-Site Expenditures	6,947.7
Site Expenditures	6,280.6
Transfers Out	550.0
Total Expenditures	13,778.3

Proposed Carry Forward	
Beginning Balance and Revenue minus Expenditures	5,350.4
Committed Funds	0.0
Uncommitted Balance/Carry Forward	5,350.4

All figures expressed in thousands.

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Expenditure Statement

For Period Ending: 13th Month FY05

EXPENDITURE CATEGORIES	SPENDING PLAN	EXPENDITURES FY 2005	%Completed FY 2005
Core Expenditures:			
WQARF Professional & Support Staff	4,100.0	4,023.3	98.1%
Professional & Outside - Remedial Projects	34.0	33.5	98.6%
Hydrologic Support & Assessment	760.0	740.6	97.5%
Professional & Outside - Hydrologic Support & Assessment	450.0	441.5	98.1%
Preliminary Investigations	165.0	136.4	82.7%
Emergency Response	250.0	66.2	26.5%
Attorney General's Office	850.0	834.2	98.1%
PRP Identification/Liability	1,000.0	670.8	67.1%
Litigation	0.0	0.0	0.0%
Appeals	0.0	0.0	0.0%
Advisory Board	1.0	0.3	32.1%
Rule Development	30.0	0.0	0.0%
Community Involvement/General WQARF	5.0	0.7	14.7%
Subtotal - Core Expenditures	7,645.0	6,947.7	90.9%
Registry Sites			
RI/FS	4,258.0	2,849.8	66.9%
Clean-up	4,038.0	3,278.9	81.2%
Subtotal - Registry Sites	8,296.0	6,128.7	73.9%
Community Involvement (CAB)	80.0	62.8	78.5%
Preliminary Investigation	100.0	89.1	89.1%
Subtotal - Registry Sites & PI	8,476.0	6,280.6	74.1%
Subtotal - WQARF Program	16,121.0	13,228.3	82.1%
Dept of Health Services - Risk Assessment	100.0	50.0	50.0%
Dept of Water Resource - Appropriation Transfer Out	500.0	500.0	100.0%
Emergency Response - Aid to Municipalities/ER Contracts	0.0	0.0	0.0%
Voluntary Program	0.0	0.0	0.0%
Total Disbursements	16,721.0	13,778.3	82.4%

All figures expressed in thousands.

APPENDIX 2

WQARF FY 2005 Annual Report to the WQARF Advisory Board



WQARF Advisory Board FY05 Annual Report

Don Richey, Manager
Superfund Programs Section

June 24, 2005

WQARF Program Objectives

- Emergency Response Actions
- Operation and Maintenance (O & M) of Existing Systems
- Early Response Actions (ERAs) Already in Progress
- ERA Evaluations
- Remedial Investigations (RIs) That Are Nearing Completion
- Work Towards Final Remedies
- PRP Searches

2

FY05 Clean Up

- Remediated approximately 2.0 billion gallons of water
- Removed the following contaminants from the environment
 - 2,865 pounds of volatile organic compounds
 - 2.7 billion pounds of metals

3

New Sites

- 7th Avenue and Bethany Home site was added to the registry on August 25, 2004
- El Camino del Cerro and Shannon Road-Rillito Creek sites were combined into one site (Shannon Road/El Camino del Cerro)

4

Vulture Mill

- 1st remedy completed
- Installed irrigation system and seeded properties
- DEUR will be recorded
- Delisting the site

5

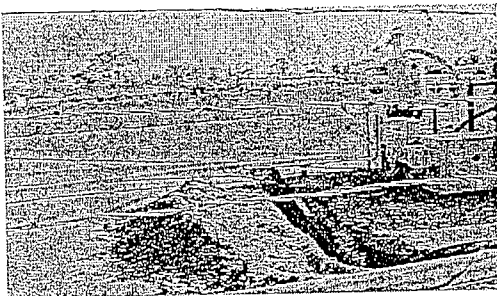
FY 05 Source Area Investigations & Cleanups

- 8 source area investigations completed (ERA Evaluations)
 - Central & Camelback (Maroneys)
 - 7th Ave and Bethany Home Road
 - WCP North Canal (Magic Metals, Osborn Products, Precise/Paraflex, and Southwest Metals)
 - Miracle Mile (Abrams Airborne and Spring Joint)
- Remediation System Installed
 - 7th Ave and Bethany
- O & M at 5 Sites
 - ECP (Viking Cleaners) SVE/AS
 - ECP (Alien's Cleaners) SVE/AS
 - Broadway Pantano SVE
 - WCP North Plume SVE
 - South Mesa SVE

6

7th Avenue and Bethany Home

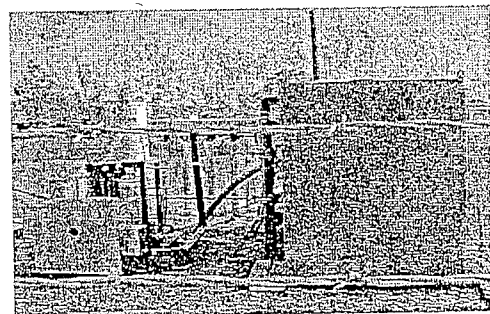
SVE System from ALSCO Site



7

7th Avenue and Bethany Home

SVE System from ALSCO Site



8

Protecting or Providing Arizona's Water – FY05

- Plume migration control (Pump & Treat)
 - Broadway Pantano
 - Central & Camelback
 - Tyson Wash
- Sentinel wells (Monitoring)
 - Park Euclid
 - WCP West Osborn Complex
- Providing alternate water supply or treating water
 - Payson
 - Shannon Road/El Camino del Cerro

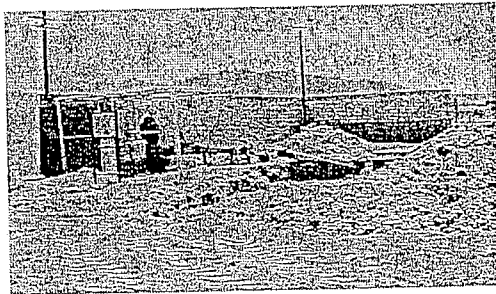
FY 05 Working Party Activities

- Broadway Pantano
 - City of Tucson is operating a pump & treat system at the St. Joseph's Hospital well
- ECP 48th St. & Indian School
 - SRP is currently permitting an SVE system under a GSC
- Shannon Road/El Camino del Cerro
 - Pima County is operating an SVE system
 - Metro Water is working to complete expansion of a well head treatment system as part of an interim remedial action

10

Shannon Road/El Camino del Cerro - ERA

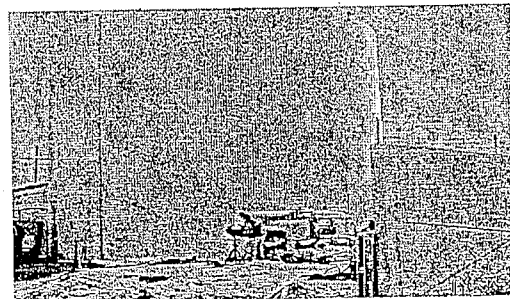
Expansion of Wellhead Treatment System at South Shannon Production Well



11

Shannon Road/El Camino del Cerro - ERA

Expansion of Wellhead Treatment System at South Shannon Production Well



12

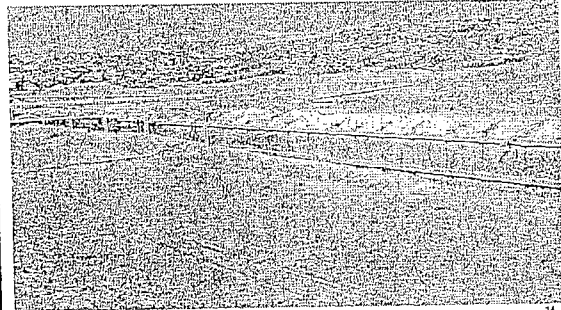
FY 05 Working Parties Actions (con't)

- Los Reales
 - City of Tucson is operating a pump & treat system
- Park Euclid
 - Mission Linen
 - Operating an SVE system and is conducting monitoring
 - Started construction and permitting of a multi-phase extraction system
- Pinal Creek
 - Numerous parties under Pinal Creek Consent Decree are conducting remedial actions

13

Pinal Creek

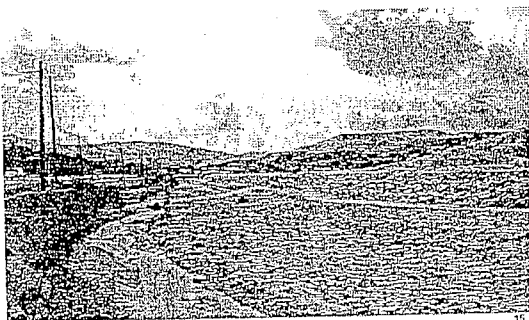
Bloody Tanks Wash – Before Channel Widening



14

Pinal Creek

Bloody Tanks Wash After Tailings Removal



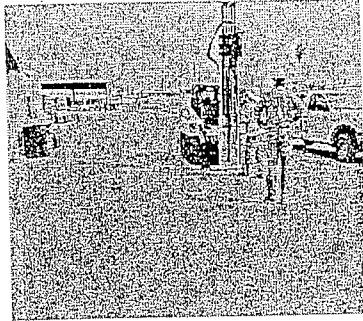
15

FY 05 Working Parties Actions (con't)

- Silverbell
 - City of Tucson is operating an SVE system and is examining enhanced bioremediation as a remedial action
- WCP East Grand
 - Univar is conducting GW monitoring, SVE, O&M, and will perform FS
- WCP West Osborn Complex
 - United completed SVE, completed the RI activities, and is conducting the FS under consent decree
- WCP North Plume
 - Hill Brothers currently conducting a soil gas survey

16

West Van Buren – Working Party Activity



- Air Liquide
 - Characterization
- Prudential
 - Characterization
- DOE WAPA
 - Characterization
- Univar
 - Operating SVE System
- Dolphin
 - Groundwater Monitoring

17

FY 05 Community Involvement Activities

- Administered 15 CABs
- Developed and disseminated WQARF fact sheets for several sites
- Delivered door to door notices for WQARF fieldwork at several sites
- Participated in various additional outreach events including Solid Waste Association of North America Expo, Scottsdale Association of Realtors Expo, and Verde River Days

18

FY 05 Legal & PRP Activities

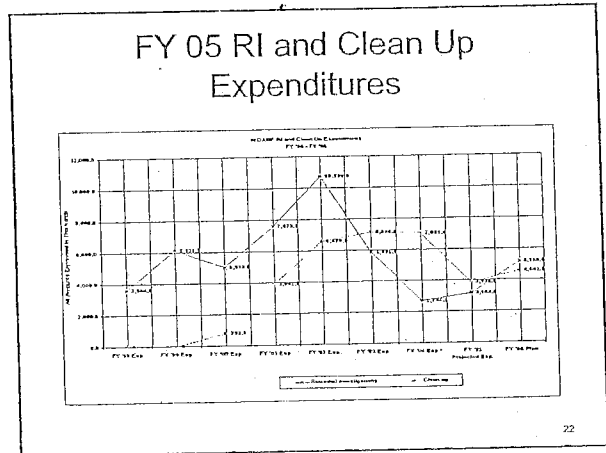
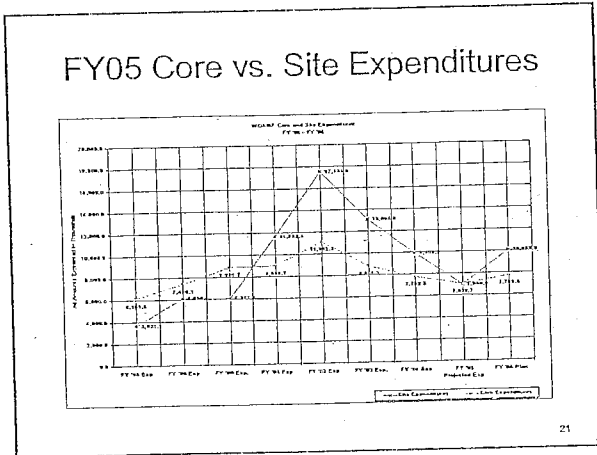
- Completed 209 witness interviews
- Issued 79 information request letters
- Completed scanning of 30,887 images
- Negotiated 1 settlement
 - 7th Avenue and Bethany Home Road
- Renewed an ISA with the Town of Payson
- Completed IGA with ADWR
- Filed 2 civil complaints
 - Ted's Truck Stop
- Issued one compliance order

19

PRP Search Status

- FY 05
 - Continued 4 best effort PRP searches
 - Completed 3 baseline PRP searches
- FY 06 planned activities
 - Continue 4 best effort PRP searches
 - Complete 2 baseline searches
 - Initiate 2 additional baseline PRP searches

20



- ### Issues for FY06
- New Registry sites
 - Removal of sites from Registry
 - Drycleaner program
 - Community Involvement
 - Aggressively pursuing PRP searches and associated RIs
 - Staffing issues
 - Enforcement
- 23

WQARF Preliminary Investigation (PI) Program

24

Current Status

- As of June 2005, there are 23 PI sites on the WQARF PI List:
 - 21 pending PI sites
 - 2 active PI sites
- Blue Ridge PI has been terminated
- Blue Hills Market (Dewey, AZ) was referred to the Drinking Water and Hazardous Waste programs

25

FY05 Program Accomplishments

- Screened 15 sites
- Placed 4 new sites on WQARF PI List:
 - 7th Street and Missouri Avenue - Phoenix
 - Miller Valley Road & Hillside Avenue - Prescott
 - Central Avenue and Mohave Street - Phoenix
 - Main Street & Kofa (Ted's) - Quartzsite
- Completed PI for Blue Ridge Elementary School
- Monitoring well abandonment at Lil Mike's #2 in Parker

26

Blue Ridge Elementary School

- TCE found in on-site irrigation wells used by the school with no obvious source
 - Highest TCE concentration detected was 5.3 ppb (October 2003)
- PI conducted to identify potential sources of the TCE contamination
- Field activities included:
 - Ground penetrating radar (GPR) survey
 - Conducting personal interviews
 - Collecting shallow sediment samples from nearby Billy Creek
 - Collecting soil and soil vapor samples at the school
 - Collecting groundwater samples from on-site irrigation wells and nearby domestic wells

27

Blue Ridge Elementary School

- PI Results:
 - No buried drums, tanks or debris was found in an approximate 25,000 square-foot area of the former ravine/illegal dumping area
 - Eight sediment samples from Billy Creek had no TCE
 - Ten on-site soil vapor samples had no TCE
 - Domestic wells samples had no TCE
 - Two sampling rounds of the on-site irrigation wells show TCE concentrations below the AWQS

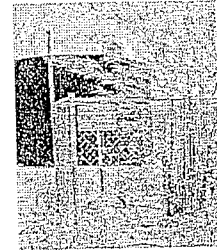
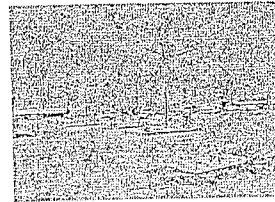
28

Ted's Truck Center

- June 2000 domestic well sampling
 - Benzene concentrations as high as 160 ppb.
- Jurisdiction to be clarified due to AST and USTs
- May 2004
 - ADEQ collected samples from approximately 11 domestic wells
 - Benzene concentration as high as 16 ppb
 - ADEQ installed 6 monitoring wells and 11 soil borings
- November 2004
 - Conducted a product removal pilot study
 - Pilot study results indicate that passive skimmers would be feasible to use at the site
 - Initiated free product removal using passive skimmers
 - Removed approximately 8.5 gallons of free product to date

29

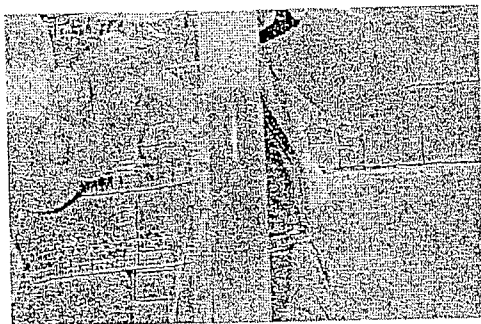
Ted's Truck Center



30

Ted's Truck Center

Free Product from MW-1



31

FY05 Program Accomplishments, cont.

- Miller Valley Road & Hillside Avenue-
Prescott
 - Initiated the PI
- Completed annual status reviews for all
deferred PI sites

32


Budget		
■ FY05	Budget	Expenditures
Sites:	\$100,000	\$80,000 ¹
■ FY06	Budget	
Sites:	\$250,000	

1: Projected thru June 30, 2005

33

- ### FY06 Program Objectives and Issues
- Complete PI for Miller Valley Road & Hillside Avenue.
 - Initiate PI for the 7th Street and Missouri site on the WQARF PI List.
 - Complete annual status reviews for all deferred PI sites.
- 34

- ### FY06 Program Objectives and Issues, cont.
- Use the Super Screen (covers WQARF and CERCLA) for site screening.
 - Revise Eligibility & Evaluation Model.
 - Maintain ASPL and WQARF PI List.
- 35



Voluntary Remediation Program

36

FY 05 Statistics

- 79 active sites
 - 53 entered after new VRP statute
- 90 closed sites
 - 41 closed under new VRP statute
- 28 withdrawn/transferred
- 572,085 tons of contaminated soil remediated

37

FY05 Statistics

- 11 new sites accepted
- 10 sites closed
 - 1 with institutional controls (DEUR)
- 0 applications denied
- 4 sites withdrew
 - 1 returned to VRP under a new owner

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APPENDIX 3

FY 2005 Annual WQARF Registry Report

**Arizona Department of Environmental Quality
2005 Water Quality Assurance Revolving Fund Registry**

Pursuant to A.R.S. § 49-287.01 (E), the Arizona Department of Environmental Quality (ADEQ) is providing this annual report of the location, remedial status, and score of the sites on the Water Quality Assurance Revolving Fund (WQARF) Registry as of December 31, 2004. The 7th Avenue and Bethany Home, Cooper and Commerce, and 56th Street and Earll sites were added to the Registry in 2004. The El Camino del Cerro and Shannon Road-Rillito Creek sites were combined into one site. The Registry includes those sites within the state that may pose risk to public health, welfare or the environment from the release of hazardous substances and for which there is current or planned investigation and cleanup. There are 35 sites on the WQARF Registry:

- 22 in Maricopa County,
- 7 in Pima County,
- 3 in Gila County,
- 1 in Graham County,
- 1 in La Paz County, and
- 1 in Yuma County

Sites on the Registry are scored based in part upon the type of contamination present, the location of the contamination, and the number of people that may be affected. The maximum score a site may receive is 120. Scores are used to help determine relative risk from the site and do not necessarily mean that there is direct exposure of contaminants. Whether the site is currently being remediated or is being investigated, ADEQ takes steps to identify the contamination and to prevent exposure.

The Registry and additional information regarding these sites is available on ADEQ's Web site at <http://www.azdeq.gov/environ/waste/sps/index.html>. With a 24 hour notice, an appointment to review the Registry and additional information is available Monday through Friday from 8:30 a.m. to 4:30 p.m., at ADEQ, Records Management Center, 1110 W. Washington, Phoenix, Arizona. Please contact (602) 771-4380 or 1(800) 234-5677, toll free in Arizona to schedule an appointment.

7th Avenue and Bethany Home Road – This site was placed on the WQARF Registry on August 25, 2004, and has a score of 29. The site is located in Phoenix and is bounded to the north by Berridge Lane, to the south by Bethany Home Road, to the east by Sixth Avenue and to the west by Eighth Avenue, and includes the 2.6-acre former shopping center that housed a dry cleaning facility.

ADEQ initiated an early response action (ERA) Evaluation on the site in October 2004 to collect data necessary to characterize the source area of PCE contamination below the site. The ERA Evaluation consisted of drilling ten soil borings and installation of five soil vapor extraction wells and two groundwater monitor wells at the site.

Based on the results of the ERA Evaluation, soil vapor extraction (SVE) has been proposed for remediation of PCE contaminated soil beneath the site. The SVE is scheduled to begin operations in April 2005. Remediation strategies for PCE contaminated groundwater are currently being evaluated. Quarterly groundwater monitoring of on-site monitor wells began in November 2004.

There are no drinking water production wells within the confines of the site, but ADEQ is closely monitoring the movement of the groundwater plume. Two Salt River Project irrigation wells near the site have been tested, and concentrations of PCE were not detected above the standard.

Contaminants of concern at the site include PCE and trichloroethene (TCE).

7th Street and Arizona Avenue - This site was placed on the WQARF Registry in April 2000, and has a score of 40. The site is located in downtown Tucson, approximately 1/3 mile north of Broadway Boulevard and approximately 3/4 mile east of Interstate 10. The site boundary is a northwest-trending oval extending approximately 1,200 feet from the former Oliver's Cleaners facility at 300 E. Seventh Street to approximately 150 feet north of Sixth Street and approximately 100 feet east of Seventh Avenue.

The remedial investigation (RI) has not been initiated, but groundwater monitoring continues. No drinking water wells have been impacted by the contamination from the site.

Contaminants of concern at the site include tetrachloroethene (PCE), trichloroethene (TCE), and cis-1,2-dichloroethene (cis-1,2-DCE).

16th Street and Camelback Road - This site was placed on the WQARF Registry in April 1999, and has a score of 23. The site is located in Phoenix and is bounded approximately by Medlock Drive to the north, Highland Avenue to the south, 17th Street to the east, and 14th Place to the west.

In 2003, ADEQ conducted an early response action (ERA) evaluation to determine the feasibility of installing a soil vapor extraction/air sparge remediation system. The RI has not been initiated, but groundwater monitoring continues.

Contaminants of concern at the site include tetrachloroethene (PCE), 1,2-dichloropropane and 1,2-dichloroethane (1,2-DCA).

20th Street and Factor Avenue - This site was placed on the WQARF Registry in March 2000, and has a score of 31. The site is located in Yuma, approximately 1/2 mile south of 16th Street and approximately 3/4 mile east of Fourth Avenue. The site boundary is a northwest-trending oval extending approximately 1,000 feet from the Houston International facility at 655 E. 20th Street on the southeast to 19th Street and Rail Avenue on the northwest.

In 2002, ADEQ conducted a soil removal action and cleaned out sumps and septic tanks at an active facility as part of an early response action (ERA). ADEQ is currently conducting another ERA to remove the source of tetrachloroethene (PCE). The remedial investigation (RI) has been initiated and groundwater monitoring continues.

Contaminants of concern at the site include tetrachloroethene (PCE) and cyanide.

56th Street & Earll Drive - This site was placed on the WQARF Registry on June 2, 2004, and has a score of 40. The site is located in Phoenix near 56th Street and Earll Drive.

The site consists of arsenic and trichloroethylene (TCE) contaminated groundwater plume. The site was originally investigated as part of the Motorola 52nd Street National Priorities List (NPL) site. However, groundwater data from both sites indicate that the two are separate and distinct plumes. Therefore, the site was disassociated from the larger Motorola 52nd Street NPL site. ADEQ is working cooperatively with a party potentially responsible for the contamination to further evaluate the site and develop a cleanup strategy.

Contaminants of concern at the site include TCE and arsenic.

Broadway Pantano - This site was placed on the WQARF Registry in December 1998, and has a score of 57. The site is located in the east-central part of Tucson and is bounded approximately by Speedway Boulevard to the north, Pantano Wash to the east, Broadway Boulevard to the south, and Sahuara Avenue (one half mile to the west of Wilmot Road) to the west.

The general groundwater flow direction is to the west. Known groundwater contamination has resulted in four Tucson Water production wells being removed from service. A groundwater containment system has been installed to prevent further westward migration of contaminated groundwater and impacts to additional wells. A confirmed source of the groundwater contamination is the former Broadway North Landfill. A soil vapor extraction system has been in place at the landfill since June 2000 to remove and treat contaminated landfill gases that are contributing to the groundwater contamination. ADEQ is evaluating the continued operation of the soil vapor extraction system at the landfill for potential closure. The remedial investigation (RI) is in progress and a community advisory board has been established for this site.

Contaminants of concern at the site include tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), methylene chloride and vinyl chloride.

Central and Camelback - This site was placed on the WQARF Registry in June 2000, and has a score of 32. The site is located in Phoenix at the southwest corner of Central Avenue and Camelback Road. The boundaries of the site are approximately Missouri Avenue to the north, a line 100 feet east of Central Avenue to the east, Pierson Street to the south and a line 600 feet west of Camelback road to the west.

In January 2003, ADEQ constructed a groundwater treatment system to remediate and control the migration of contaminated groundwater at the site as an early response action (ERA). In June 2004, ADEQ initiated an ERA evaluation of the Maroney's Drycleaner facility. The remedial investigation (RI) will be initiated in 2005. A community advisory board has been established for this site.

Contaminants of concern at the site include tetrachloroethene (PCE), trichloroethene (TCE), 1,2-dichloroethene (DCE), 1,2-dichloroethane (DCA), vinyl chloride and chloroform.

Cooper Road & Commerce Avenue - The site was listed on the WQARF Registry on June 14, 2004, and has a score of 33. The site is located in Gilbert near Guadalupe Road and Baseline.

Tetrachloroethylene (PCE) has been detected in soil and groundwater at the site. In 2001, groundwater samples collected from a Town of Gilbert monitoring well detected PCE concentrations above the aquifer water quality standard. A Town of Gilbert public supply well is nearby. ADEQ is currently evaluating the site for an early response action.

Contaminants of concern at the site in groundwater include PCE and trichloroethene (TCE). Contaminants of concern in the soils at the site include PCE, arsenic, chromium, copper, total petroleum hydrocarbons, mercury, and lead.

East Central Phoenix (ECP) 24th Street and Grand Canal - This site was placed on the WQARF Registry in May 2000, and has a score of 29. The site is located in Phoenix, and the current site boundary is a 400 foot diameter circle centered around the Salt River Project well 16E-6.8N.

The remedial investigation (RI) has not been initiated, but groundwater monitoring continues. Contaminants of concern at the site include tetrachloroethene (PCE).

ECP 32nd Street and Indian School Road - This site was placed on the WQARF Registry in May 2000, and has a score of 29. The site is located in Phoenix, and the current site boundary is a 400 foot diameter circle centered around the Salt River Project well 17E-8N.

ADEQ is conducting an early response action (ERA), which consists of a soil vapor extraction and air sparging system to remediate the source of PCE in the soil and groundwater. The remedial investigation (RI) has not been initiated, but groundwater monitoring continues.

Contaminants of concern at the site include tetrachloroethene (PCE).

ECP 38th Street and Indian School Road - This site was placed on the WQARF Registry in September 1998, and has a score of 25. The site is located in Phoenix, and the approximate site boundaries are Indian School Road on the north, 38th Street to the east, Amelia Avenue to the south, and 36th Street to the west.

An early response action (ERA) evaluation is being conducted for this site. The remedial investigation (RI) has not been initiated, but groundwater monitoring continues.

Contaminants of concern at the site include tetrachloroethene (PCE).

ECP 40th Street and Indian School Road - This site was placed on the WQARF Registry in September 1998, and has a score of 25. The site is located in Phoenix, and the approximate site boundaries are Devonshire Avenue on the north, 40th Street to the east, Amelia Avenue to the south, and 38th Street to the west.

ADEQ is conducting an early response action (ERA), which consists of a soil vapor extraction and air sparging system to remediate the source of PCE in the soil and

groundwater. The remedial investigation (RI) has not been initiated, but groundwater monitoring continues.

Contaminants of concern at the site include tetrachloroethene (PCE) and trichloroethene (TCE).

ECP 40th Street and Osborn Road - This site was placed on the WQARF Registry in May 2000, and has a score of 30. The site is located in Phoenix, and the current site boundary is an 800 foot diameter circle centered around the Salt River Project well 17.9E-7.5N.

An early response action (ERA) evaluation is being conducted for this site. The remedial investigation (RI) has not been initiated, but groundwater monitoring continues.

Contaminants of concern at the site include tetrachloroethene (PCE).

ECP 48th Street and Indian School Road - This site was placed on the WQARF Registry in March 1999, and has a score of 32. The site is located in Phoenix, and the site extends approximately 400 feet north and 160 feet south of Indian School Road in between 45th Place and 48th Street.

ADEQ and the Salt River Project have entered into an agreement to conduct a source control interim remedial action. SRP is constructing a soil vapor extraction/air sparge system to remediate the source of tetrachloroethene (PCE) in soil and groundwater at the site. The remedial investigation (RI) has not been initiated, but groundwater monitoring continues.

The contaminant of concern at the site is PCE.

East Washington Fluff - This site was placed on the WQARF Registry in June 1999, and has a score of 34. The site is located in Phoenix at 433 E. Buckeye Road and is ten acres in size. The site has been abandoned for approximately 15 years, and contains significant quantities of auto shredder fluff.

An early response action (ERA) was conducted to remove fluff piles and install a protective cap to prevent exposure to contaminants. The ERA was completed in September 2001. A remedial investigation (RI) and feasibility study (FS) have been completed. A community advisory board has been established for this site.

Contaminants of concern in soil at the site include arsenic, lead, cadmium and polychlorinated biphenyls (PCBs). The contaminants of concern have not been detected above aquifer water quality standards in groundwater beneath the site.

Estes Landfill - This site was placed on the WQARF Registry in April 1998, and has a score of 50. The site is located in Phoenix, south of Sky Harbor Airport and is bounded approximately by the Salt River to the north, Magnolia Street to the south, State Route 153 to the east, and 40th Street to the west.

The remedial investigation (RI)/ feasibility study (FS) and a proposed remedial action plan (PRAP) has been completed. ADEQ is evaluating comments on the PRAP. A community advisory board has been established for this site.

Contaminants of concern at the site include vinyl chloride, cis-1,2-dichloroethene (DCE), trichloroethene (TCE), benzene, bis(2-ethylhexyl)phthalate, arsenic barium, chromium, manganese, nitrate as N, and lead; in soil include lead, arsenic, and thallium.

Klondyke Tailings - This site was placed on the WQARF Registry in September 1998, and has a score of 69. The site is located in the unincorporated town of Klondyke, on the north bank of the Aravaipa Creek, approximately 4.5 miles upstream of the Aravaipa Canyon Wilderness Area. The site is comprised of two piles of mine tailings, the soil between and adjacent to these piles, and the area approximately 50 feet into the stream bed of Aravaipa Creek, directly adjacent to the tailings piles. The site is bounded to the east by Klondyke Road.

ADEQ has completed several studies as part of an early response action (ERA) evaluation. A remedial investigation (RI) is in progress and a community advisory board has been established for the site.

Contaminants of concern at the site include lead, cadmium, antimony, beryllium, copper, manganese, arsenic, and zinc.

Los Reales Landfill - This site was placed on the WQARF Registry in April 1999, and has a score of 32. The site is an active municipal sanitary landfill approximately 380 acres in size located in southeast Tucson and has been in operation since 1967.

The City of Tucson has implemented a groundwater pump and treat system as required by an existing remedial action plan. A portion of the treated water is re-injected into the aquifer and a portion is used for dust control at the landfill. The City has identified additional groundwater contamination at the landfill, and has completed additional site

characterization. After the full extent of contamination is determined, the groundwater treatment system will be expanded to treat additional contaminated water.

Contaminants of concern at the site include tetrachloroethene (PCE) and trichloroethene (TCE).

Miracle Mile - This site was placed on the WQARF Registry in September 1998, and has a score of 62. The site is located in Tucson and is bounded approximately by Wetmore Road to the north, Prince Road to the south, Flowing Wells Road to the east, and La Cholla Boulevard to the west.

ADEQ continues to define the extent of groundwater contamination and is evaluating early response actions (ERAs) for the regional aquifer. A remedial investigation (RI) is in progress and a community advisory board has been established for this site.

Contaminants of concern at the site include trichloroethene (TCE) and chromium.

Park-Euclid - This site was placed on the WQARF Registry in April 1999, and has a score of 51. The site is in Tucson and is approximately bounded by Ninth Street to the north, 14th Street to the south, Santa Rita Avenue to the east, and Park Avenue to the west.

ADEQ is continuing to define the extent of groundwater contamination and is evaluating early response actions (ERAs) for the perched and regional aquifers. A remedial investigation (RI) has been initiated and a community advisory board has been established for this site.

Contaminants of concern at the site include diesel free product and volatile organic compounds, including tetrachloroethene (PCE), trichloroethene (TCE), and cis-1,2-dichloroethene (cis-1,2-DCE).

Payson PCE - This site was placed on the WQARF Registry in April 1998, and has a score of 63. The site is located in Payson and is bounded approximately by Frontier Street to the north, Aero Drive to the south, Beeline Highway to the east, and McLane Road to the west.

Two groundwater treatment systems have been constructed. Clean water from these systems is delivered to the Town of Payson. A soil vapor extraction system was installed in August 2001, and has been shut down after contaminants were removed. The remedial investigation (RI)/feasibility study (FS), and proposed remedial action plan (PRAP) have been completed. A community advisory board, which also incorporates the Tonto and Cherry site, has been established for this site.

The contaminant of concern in the groundwater at the site is tetrachloroethene (PCE).

Pinal Creek - This site was placed on the WQARF Registry in October 1998, and has a score of 97. The site is located in Gila County in and around the communities of Globe and Miami, Claypool and Wheatfields. The site includes the BHP Copper and Phelps Dodge Miami mining properties, and the drainages and underlying aquifers of Miami Wash, Bloody Tanks Wash, Russell Gulch, and Pinal Creek. The site also includes the entire floodplain of Pinal Creek from the Old Dominion Mine to the Salt River, plus those portions of the communities underlain by contaminated groundwater.

The Pinal Creek Group, which consists of BHP, Phelps Dodge and Inspiration Copper, have been conducting remedial actions including source control since 1988 and have completed remedial investigations (RIs), risk assessments, a feasibility study (FS) and a recommended remedial action plan. They have also conducted a well replacement program for contaminated private and public supply wells.

Contaminants of concern in groundwater at the site include heavy metals such as aluminum, iron, manganese, copper, cobalt, nickel, zinc, cadmium, and other contaminants such as sulfate, acidity and dissolved solids. Localized soil and stream sediment contamination are being investigated; contaminants of concern include arsenic, lead, copper, cadmium, manganese, nickel and zinc.

Shannon Road/El Camino del Cerro – The El Camino del Cerro WQARF Site and Shannon Road-Rillito Creek WQARF Site were administratively combined into one site, the Shannon Road/El Camino del Cerro WQARF Site, in January 2005 based on sampling results showing there is a single plume. The El Camino del Cerro site was placed on the WQARF Registry in August 1998, and has a score of 71. The Shannon Road-Rillito Creek site was placed on the WQARF Registry in April 1999, and has a score of 53.

This site is located in northwest Tucson and is bounded approximately by Meadowbrook Park on the east, the Santa Cruz River on the west, El Camino del Cerro Road on the south, and on the north, a quarter mile north of Rillito Creek. The site consists of industrial and residential properties, and a former landfill which occupies approximately 20 acres in the southwest portion of the site.

The contaminant plume has impacted three community wells, which have been removed from service. One of these wells has a wellhead treatment system which removes contaminants in the groundwater in order to meet drinking water standards. This well is currently out of service while the treatment system is being upgraded. A remedial

investigation (RI) is in progress, and a joint community advisory board has been established for the site.

Contaminants of concern at the site include tetrachloroethene (PCE), trichloroethene (TCE), dichloroethene (DCE), 1,1-dichloroethene (1,1-DCE), vinyl chloride and benzene.

Silverbell Landfill - This site was placed on the WQARF Registry in April 1999, and has a score of 51. The site is located in Tucson at 3200 North Silverbell Road in northwest Tucson. The site is bounded approximately by Sweetwater Drive on the north, Grant Road/Ironwood Hills Drive on the south, Interstate 10 on the east, and Silverbell Road on the west, and is comprised of approximately 40 acres.

The City of Tucson has installed a pump and treat system to extract and clean up groundwater and a soil vapor extraction system to treat soils beneath the landfill as required by an existing remedial action plan. The City is currently evaluating alternative methods for groundwater remediation at the landfill.

Contaminants of concern at the site include tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride.

South Mesa - This site was placed on the WQARF Registry in August 1998, and has a score of 31. The site is located in Mesa and Gilbert and is bounded approximately by Tenth Avenue to the north, the railroad south of Baseline Road to the south, Stapley Road to the east, and the railroad west of Center Street to the west.

Two remedial action projects at the site have significantly reduced the contamination by treating pumped groundwater and extracting vapors from the soil. ADEQ began an early response action (ERA) in June 2004, to address the remaining subsurface contamination. A soil vapor extraction (SVE) well was installed and connected to the existing SVE system and the system began operations in September 2004. The remedial investigation (RI) has been completed and draft RI report is being prepared. A community advisory board has been established for this site.

Contaminants of concern at the site include tetrachloroethene (PCE), chromium, nickel, and manganese.

Tonto and Cherry - This site was placed on the WQARF Registry in June 2000, and has a score of 45. The site is located in Payson, approximately 400 feet west of the Beeline Highway and immediately north of Main Street. The site boundary is a northwest-trending

oval, extending approximately 1,200 feet from the intersection of Main Street and Colcord Avenue.

The remedial investigation (RI) and feasibility study (FS) have been completed and will be available for public comment. A community advisory board has been established for this site in conjunction with the Payson PCE site.

Contaminants of concern at the site include tetrachloroethene (PCE).

Tyson Wash - This site was placed on the WQARF Registry in December 1998, and has a score of 46. The site is located in the Town of Quartzsite and has boundaries approximately 300 feet to the north of Cowell Lane to the north, 400 feet east of Washington Boulevard to the east, 300 feet south of Cowell Lane to the south, and 200 feet west of Oregon Avenue to the west.

The remedial investigation (RI) has been completed. As part of an early response action (ERA) a groundwater treatment system has been constructed to prevent migration of the plume to private drinking water wells. A community advisory board has been established for this site.

Contaminants of concern at the site include tetrachloroethene (PCE) and trichloroethene (TCE).

Vulture Mill - This site was placed on the WQARF Registry in April 1998, and has a score of 65. The site is located just east of U.S. Route 89/93 about one mile northwest of the center of the Town of Wickenburg. The eastern boundary of the site is approximately 1/4 mile west of the Hassayampa River Channel.

ADEQ is currently implementing the remedy, which consists of excavation of contaminated soil, placement in a consolidation pile, installation of a clean soil cover, backfilling with clean soil, and groundwater monitoring and institutional controls for installation of new wells. A community advisory board has been established for this site.

Contaminants of concern at the site include lead, arsenic and mercury.

West Central Phoenix (WCP) East Grand Avenue - This site was placed on the WQARF Registry in April 1998, and has a score of 31. The site is located in Phoenix and is bounded approximately by Whitton Avenue to the north, Osborn Road to the south, 29th Avenue to the east, and 30th Avenue to the west.

The field investigative activities were completed in December 2001. The draft remedial investigation (RI) report has been completed and a working party has agreed to conduct the feasibility study (FS). The working party constructed a soil vapor extraction system in 2004. A community advisory board has been established for this site.

Contaminants of concern at the site include tetrachloroethene (PCE) and trichloroethene (TCE).

WCP North Canal Plume - This site was placed on the WQARF Registry in June 1998, and has a score of 27. The site is located in Phoenix and the approximate boundaries of this site are Indian School Road on the north, 36th Avenue on the east, Clarendon Avenue on the south, and 40th Avenue on the west.

The remedial investigation (RI) was initiated in February 2001 and ADEQ is conducting an early response evaluation. A community advisory board has been established for this site.

Contaminants of concern at the site include tetrachloroethene (PCE), trichloroethene (TCE) and chromium.

WCP North Plume - This site was placed on the WQARF Registry in April 1998, and has a score of 55. The site is located in Phoenix and is bounded approximately by Turney Avenue to the north, Indian School Road to the south, 38th Avenue to the east, and 43rd Avenue to the west.

The remedial investigation (RI) is underway and a soil vapor extraction system was installed at one facility as part of an early response action (ERA). A community advisory board has been established for this site.

Contaminants of concern at the site include tetrachloroethene (PCE) and trichloroethene (TCE).

WCP West Grand Avenue - This site was placed on the WQARF Registry in April 1998, and has a score of 22. The site is located in Phoenix and is bounded approximately by Osborn Road to the north, Earll Drive to the south, 33rd Avenue to the east, and 35th Avenue to the west.

The remedial investigation (RI) has been completed and a draft RI report was completed in February 2004. A community advisory board has been established for this site.

The contaminant of concern at the site is trichloroethene (TCE).

WCP West Osborn Complex - This site was placed on the WQARF Registry in August 1998, and has a score of 52. The site is located in Phoenix and is bounded approximately by the Grand Canal to the north, Pinchot Avenue to the south, 34th Drive to the east, and 39th Drive to the west.

A draft remedial investigation (RI) report has been completed and the proposed remedial objective report will be available for public comment in April 2005. A community advisory board has been established for this site.

Contaminants of concern at the site include trichloroethene (TCE) and tetrachloroethene (PCE).

West Van Buren - This site was placed on the WQARF Registry in April 1998, and has a score of 50. The site is located in Phoenix and is bounded approximately by Van Buren Street to the north, Buckeye Road to the south, Seventh Avenue to the east, and 83rd Avenue to the west. Between Seventh Avenue and 27th Avenue, there is an extension of the plume south to Lower Buckeye Road.

Dolphin Incorporated began operation of a soil vapor extract (SVE)/air sparge (AS) system at the Dolphin facility in October 1998. In December 2002, Dolphin received authorization from ADEQ for shut-down of the SVE/AS system. A SVE/AS and groundwater pump and treat remediation system began operation in March 2001 at the former American Linen Supply Company (ALSCo). The SVE/AS was discontinued in May 2003 because the response action objectives were attained. The groundwater pump and treat system continued operations until September 12, 2003, at which time ADEQ determined the system had reached its limit of effectiveness. In August 2002, ADEQ issued a no further action determination for the former Van Waters and Rogers facility.

The remedial investigation (RI) is in progress and additional monitoring wells have been installed by ADEQ to delineate the extent of the contamination and further investigate potential source areas. A community advisory board has been established for this site.

Contaminants of concern at the site include tetrachloroethene (PCE), trichloroethene (TCE), 1,1-dichloroethene (DCE), 1,1-dichloroethane (DCA), cis-1,2-dichloroethene (cis-1,2-DCE) and chromium.

Western Avenue Plume - This site was placed on the WQARF Registry in December 1998, and has a score of 51. The site is located in Avondale and Goodyear and is bounded approximately by Hill Drive to the north, Third Street to the east, and Litchfield Road to the

west; the southern boundary proceeds on a southwesterly angle approximately 1000 feet north of State Route 85 until it reaches the western boundary just north of the entrance to the Phoenix-Goodyear Airport.

A remedial investigation (RI) is in progress. A community advisory group has been established for this site in conjunction with the Phoenix-Goodyear Airport Superfund site.

The contaminant of concern at the site is tetrachloroethene (PCE).

RI = remedial investigation

FS = feasibility study

ERA = early response action

PRAP = preliminary remedial action plan

APPENDIX 4

Voluntary Remediation Program Site Status Table

Arizona Voluntary Remediation Program - Site Status

Updated: 6/30/05

ACTIVE SITES OR PROJECTS - 79													
Site Name	Site Code	Address	City	County	Zip	Date App Received	Date Accepted	Potential/Suspect Site Issues	Media	Project Manager	Status	RIMS #	CERCLIS ID #
EPNG Project	100500-00	Multiple sites in the project				n/a	n/a	Chromium	Soil & GW	JMM	Active		n/a
Cummins Southwest	506344-00	2239 N. Black Canyon Highway	Phoenix	Maricopa	85009	2/17/2005	6/8/2005	TPH, benzo(a)anthracene	Soil & GW	BS	Active		
Douglas Parcel 408-18-025C	506330-00	Fronting Hwy 80 E. of Intersection of Hwy 80 and 191	Douglas	Cochise	85607	2/15/2005	6/8/2005	Arsenic and copper in the soil.	Soil	KCV	Active		
Former Shell Service Station	506472-00	210 South Beeline Hwy.	Payson	Gila	85541	4/12/2005	6/8/2005	TPH, PAHs, RCRA Metals, and agricultural pesticides	Soil & GW	TJD	Active		n/a
Planned Library Property	506480-00	NWC of Ellsworth Rd. and Ocotillo Rd.	Queen Creek	Maricopa	85242	4/18/2005	6/6/2005	TPH, BTEX, and PAHs	Soil & GW	KCV	Active	2-34389	n/a
West Phoenix Power Plant	070932-00	4606 W. Hadley	Phoenix	Maricopa	85043	3/8/2005	5/27/2005	BTEX	Soil & GW	KCS	Active		n/a
SFPF Silvercreek Wash Release	506251-00	Vicinity of Silverbell Tree Dr. & Silver Island Way	Tucson	Pima		1/12/2005	1/13/2005		Soil & GW	TJD	Active		n/a
Jobbing Warehouse	506070-00	Near the intersection of W. 9th St. and Chino Rd.	Douglas	Cochise	85607	10/26/2004	12/22/2004	Arsenic, lead and copper	Soil	FMS	Active		n/a
Marley Park-Former Housing and Maintenance Areas	504822-01	SEC and SWC of Waddell Rd. and Bullard Ave.	Surprise	Maricopa	85379	8/3/2004	10/12/2004	Petroleum hydrocarbons, toxaphene, dieldrin, arsenic, and solid waste, and asbestos	Soil & GW	KCV	Active	2-35544	n/a
Terminal 2 Plume	505019-00	3400 E. Sky Harbor Blvd.	Phoenix	Maricopa	85034	1/29/2003	9/30/2004	Jet-A Fuel	Soil & GW	KCV	Active		NFRAP
Usery Pass Shooting Range	505949-00	3960 N. Usery Pass Road	Mesa	Maricopa	85207	8/6/2004	9/16/2004	Chromium, lead, mercury, 1,1-DBP, and acetone.	Soil & GW	JMM	Active		n/a
2052 N. 27th Avenue	505925-00	2052 N. 27th Avenue	Phoenix	Maricopa	85009	6/2/2004	6/25/2004	VOCs and lead	Soil & GW	JMV	Active	2-34736	n/a
Former Puregro Unit 0775020 - Coolidge	505820-00	1325 E. Coolidge Avenue	Coolidge	Pinal	85228	5/28/2004	6/17/2004	Toxaphene, dieldrin, chlordane, DDT, DDE, aldrin.	Soil & GW	KCV	Active	2-34735	n/a
Former Puregro Unit 0776040 - Gilbert	505800-00	1450 N. McQueen Road	Gilbert	Maricopa	85233	5/17/2004	6/3/2004	Pesticides	Soil & GW	KCV	Active	2-34733	n/a

Arizona Voluntary Remediation Program - Site Status

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Site Name	Site Code	Address	City	County	Zip	Date App Received	Date Accepted	Potential/Suspect Site Issues	Media	Project Manager	Status	RIMS #	CERCLIS ID #
IMC Magnetics Corp.	400002-00	1900 E. 5th St.	Tempe	Maricopa	85281	3/2/2004	4/15/2004	Arsenic, cadmium and nickel	Soil	SDG	Active	2-34714	n/a
Goodrich Turbomachinery Products (GTP)	070757-00	811 W. Broadway Rd.	Tempe	Maricopa	85282	3/16/2004	4/13/2004	PCE in soil, PCE: 1,1-DCE: 1,1-DCA: cis-1,2-DCE in groundwater.	Soil & GW	JMM	Active	2-34713	n/a
La Posada Hotel	500491-01	303 2nd Street	Winslow	Navajo	86047	3/31/2004	4/12/2004	Diesel fuel, TPH, ethylbenzene, xylene, PAHs in soil.	Soil	TJD	Active	2-34712	n/a
35 E. Toole	605721-00	35 E. Toole Ave.	Tucson	Pima	85702	3/16/2004	4/8/2004	Unknown	Soil	KCV	Active	2-34337	n/a
Former Sanders Aviation	070169-02	7001 S. Priest Dr.	Tempe	Maricopa	85283	2/5/2004	3/29/2004	Toxaphene and other pesticides.	Soil	SDG	Active	2-34699	AZD0035954114
Valencia Power Plant	503660-01	1710 N. Mastic Way	Nogales	Santa Cruz	85621	12/24/2003	2/18/2004	VOCs and chromium	Soil & GW	KCV	Active	2-34385	AZ0001038553
APS Buckeye Service Center	505542-00	615 N. 4th Street	Buckeye	Maricopa	85326	11/17/2003	1/16/2004	BTEX, MTBE, Gasoline Additives	Soil & GW	KCV	Active	2-34341	n/a
Silver Creek II Subdivision	505494-00	Area E. of Silver Creek Wash & west of Santa Cruz River along Silver Island Way	Tucson	Pima	85705	10/14/2003	10/22/2003	BTEX, MTBE, Gasoline Additives	Soil & GW	TJD	Active	2-34408	n/a
Former Bunker C. AST Phoenix Cement	505371-00	P.O. Box 428	Clarkdale	Yavapai	86324	8/8/2003	10/7/2003	TPH and PAHs	Soil	TJD	Active	2-34376	n/a
EPNG Gila Compressor Station	070350-00	Agua Caliente Rd.	Arlington	Maricopa	85322	7/24/2003	9/22/2003	Chromium, fluoride, nitrite, nitrate, lead, and arsenic	Soil & GW	JMM	Active	2-34366	n/a
Ironite Product Company	130077-01	Hwy. 69 N. Iron King Rd	Humboldt	Yavapai	86329	7/17/2003	9/15/2003	Not known at this time	Soil & GW	SDG	Active	2-34404	AZ0000309013
Los Reales/Southwest Disposal Area	505220-00	5306 E. Los Reales Rd.	Tucson	Pima	85706	5/29/2003	7/25/2003	1,1-DCE	Soil	JMV	Active	2-34416	AZD980636104
Arizona Portland Cement Co.	100055-00	11115 N. Casa Grande Hwy.	Rillito	Pima	85654	4/30/2003	6/27/2003	BTEX, PAHs	Soil	TJD	Active	2-34349	AZD0089394397

Arizona Voluntary Remediation Program - Site Status

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Site Name	Site Code	Address	City	County	Zip	Date App Received	Date Accepted	Potential/Suspect Site Issues	Media	Project Manager	Status	RIMS #	CERCLIS ID #
El Mirage Trap & Skeet	505147-00	SWC of El Mirage and Camelback Rds.	Litchfield Park	Maricopa	85340	4/10/2003	6/5/2003	Lead	Soil	KCV	Active	2-34374	n/a
Western Farm Service-Yuma Plant	140117-00	10741 S. Shortway Way	Yuma	Yuma	85365	2/18/2003	4/16/2003	Toxaphene, dieldrin, DDT, DDD, DDE, endrin, heptachlor epoxide, disulphate and nitrate	Soil & GW	JMM	Active	2-34391	AZ0000124792
BHP Superior Northwest Study Area	504994-00	North Pinal Avenue	Superior	Pinal	85273	1/9/2003	3/2/2003	Arsenic and metals	Soil	JMM	Active	2-34353	AZ001886654
McClintock/Rio Salado Pkwy Brownfields Redevelopment Area	504991-00	Between McClintock, Price, Rio Salado Pkwy and the Salt River	Tempe	Maricopa	85281	1/9/2003	2/21/2003	To be determined	Soil	KCV	Active	2-34358	AZ983476698 AZD980813570
Former Small Arms Firing Range	140057-00	Marine Corps Air Station	Yuma	Yuma	85369	11/18/2002	12/13/2002	Antimony, arsenic, copper, lead and zinc	Soil & GW	TJD	Active	2-34388	AZ0971590062
Rio Nuevo Landfill Stabilization Project	504075-00	n/a	Tucson	Pima	85701	11/8/2002	12/13/2002	To be determined	Soil	JMV	Active	2-34393	AZD983467986
Citrus Road	504891-00	SEC of Indian School Rd. and Citrus Rd.	Goodyear	Maricopa	85338	11/5/2002	12/10/2002	Petroleum hydrocarbons	Soil	JMV	Active	2-34357	n/a
Clementine Mine	504898-00	n/a	Peoria	Maricopa	85713	11/7/2002	12/10/2002	Arsenic, lead and manganese	Soil	JMM	Active	2-34348	n/a
Wigwam Blvd. (Litchfield Farms)	504892-00	SWC of Litchfield Rd Bypass and Indian School Rd.	Goodyear	Maricopa	85338	11/5/2002	12/10/2002	Petroleum hydrocarbons	Soil	JMV	Active	2-34392	n/a
Motorola Mesa Center-GW	502389-00	2200 W. Broadway Rd.	Mesa	Maricopa	85202	7/30/2002	9/6/2002	PCE	GW	JMM	Active	2-34360	AZD043848050
UPRR 36th Street	504734-00	NWC of Aviation Parkway and 36th Street	Tucson	Pima	85713	7/16/2002	9/3/2002	TPH, BTEX, PAHs and benzene	Soil & Soil & GW	MLD	Active	2-34377	n/a
Chevron Ajo Bulk Plant	504696-00	505 Malcate Street	Ajo	Pima	85321	6/24/2002	8/14/2002	TPH and BTEX	GW	JMV	Active	2-34356	n/a
Phoenix Mine	070355-00	44028 N. Spur Cross Rd	Cave Creek	Maricopa	85331	6/4/2002	6/21/2002	Lead and arsenic	Soil	JMM	Active	2-34367	n/a
7500 East Broadway	504543-00	7500 E. Broadway Rd.	Tucson	Pima	85710	3/29/2002	4/15/2002	PCE, TCE	Soil & GW	JMV	Active	2-34711	n/a
APS Grant Street Yard	504477-00	331 W. Grant Street	Phoenix	Maricopa	85003	2/19/2002	3/11/2002	PAHs and TPH	Soil	JMV	Active	2-34345	n/a
Target Southwest Distribution Center	504418-00	SEC of Van Buren & 75th Ave.	Phoenix	Maricopa	85043	12/27/2001	2/11/2002	Gasoline & diesel	Soil	JMV	Active	2-34413	n/a
Former Capitol Castings	504426-00	5857 S. Kyrene Rd	Tempe	Maricopa	85283	1/7/2002	1/18/2002	TPH, CVOCs	Soil & GW	TJD	Active	2-34378	AZD085453603
Georgia-Pacific Corp. Flagstaff Facility	030066-00	1600 E. Builer Ave.	Flagstaff	Coconino	86001	3/28/2001	5/9/2001		Soil & GW	JMM	Active	2-34365	AZD057017063
Line 90 Juniper Pump Station	503535-00	52 miles east of Kingman on Jolly Rd.	n/a	Mohave		2/7/2001	2/26/2001	Crude oil	Soil	JMM	Active	2-34398	n/a
Line 90 New Kingman Pump Station	503534-00	5 miles south of Kingman	Kingman	Mohave		2/7/2001	2/26/2001	Crude oil	Soil	JMM	Active	2-34403	n/a
Line 90 Oatman Pump Station	503538-00	4 miles southwest of Oatman	Oatman	Mohave		2/7/2001	2/26/2001	Crude oil	Soil	JMM	Active	2-34406	n/a

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Site Name	Site Code	Address	City	County	Zip	Date App Received	Date Accepted	Potential/Suspect Site Issues	Media	Project Manager	Status	RIMS #	CERCLIS ID #
Line 90 Old Kingman Pump Station	503929-00	13755 Hualapai Mountain Rd.	Kingman	Mohave		2/7/2001	2/26/2001	Crude oil	Soil	JMM	Active	2-34410	n/a
UPRR Yuma Yard "Dieselville"	503856-00	20th Street and Kennedy Lane	Yuma	Yuma	85384	12/27/2000	2/5/2001	TPH, BTEX	Soil & GW	JMM	Active	2-34382	n/a
Arizona Copper Company	503857-00	US Hwy. 191 and Zorrilla St.	Clifton	Greenlee	85533	12/21/2000	1/24/2001	Metals and asbestos	Soil	JMM	Active	2-34349	AZ0000032433
Southwest Cooperative Wholesale	503712-00	4121 E. Madison St. and 215 S. 41st St.	Phoenix	Maricopa	85034	10/18/2000	10/24/2000	Pesticides, metals, hydrocarbons, arsenic	Soil & GW	JMV	Active	2-34411	n/a
Roy Ginning Co.	071251-00	SWC of Gilbert and Germann	Chandler	Maricopa	85249	10/10/2000	10/18/2000	Hydraulic oil	Soil	JMV	Active	2-34394	n/a
Iron King/Copper Chief Mine	503451-00	5 Miles southwest of Cottonwood	n/a	Yavapai		5/12/2000	6/14/2000	Metals	Mine Water	JMV	Active	2-34401	n/a
Bisbee Smelter	020160-00	Behind Dart Rd. on south slope of Bucky O'Neill Hill	Bisbee	Cochise		4/11/2000	5/31/2000	Metals	Soil & GW	JMM	Active	2-34354	AZD981680242
APS Yuma Manufactured Gas Plant (MGP)	503262-00	175 N. Main Street	Yuma	Yuma	85365	2/14/2000	3/28/2000	Hydrocarbons, PAHs, VOCs	Soil	JMV	Active	2-34347	n/a
Anderson Clayton - Phoenix Oil Mill	070118-00	615 S. 51st Ave.	Phoenix	Maricopa	85043	3/3/2000	3/14/2000	Mercury	Soil	JMV	Active	2-34333	AZD983471418
Franklin Elementary School	503278-00	1645 W. McDowell Rd.	Phoenix	Maricopa	85007	2/22/2000	2/29/2000	Chlordane	Soil	JMM	Active	2-34334	n/a
APS Globe Manufactured Gas Plant (MGP)	503212-00	NWC of Mesquite and Pine Streets	Globe	Gila	85501	1/18/2000	2/25/2000	Hydrocarbons, cyanide, arsenic, lead	Soil & GW	JMV	Active	2-34344	n/a
Former Puregno #175	503108-00	6553 Guano Rd.	Casa Grande	Pinal		11/18/1999	2/25/2000	Pesticides	Soil	KCV	Active	2-34386	n/a
APS 2nd Ave. MGP (Great Western Silicon (GW))	503190-00	505 S. 2nd Ave.	Phoenix	Maricopa	85003	1/30/2000	2/7/2000	Benzene, PAHs, metals, petroleum hydrocarbons	Soil & GW	JMV	Active	2-34340	n/a
SRP - Crosscut Facility Honeywell Deer Valley Computer Park	500463-00	11515 E. Riggs Rd.	Chandler	Maricopa	85249	11/30/1999	1/24/2000	PCE	GW	KCV	Active	2-34373	AZD077538183
Honeywell Peoria Avenue	070280-00	998 W. Washington St.	Tempe	Maricopa	85281	8/9/1999	10/27/1999	Solvent and metals	Soil & GW	JMV	Active	2-34412	AZD980816961
	502825-00	13425 N. 31st Ave	Phoenix	Maricopa	85029	7/8/1999	7/28/1999	VOC and TCE	GW	JMM	Active	2-34397	AZD054408794
	070273-00	N. 23rd and Peoria Aves.	Phoenix	Maricopa	85029	7/6/1999	7/28/1999	DCE and TCE	GW	JMM	Active	2-34400	AZD980735542

Arizona Voluntary Remediation Program - Site Status

Updated: 6/30/05

Site Name	Site Code	Address	City	County	Zip	Date App Received	Date Accepted	Potential/Suspect Site Issues	Media	Project Manager	Status	RIMS #	CERCLIS ID #
APS Prescott MGP	502701-00	300 N. Granite	Prescott	Yavapai	86301	6/8/1999	6/15/1999	PAHs, TPH, benzene, lead in soils, Nitrate, cyanide, arsenic in GW	Soil & GW	JMV	Active	2-34346	n/a
UPRR San Simon Depot	502000-00	E. of Cochise Ave.	San Simon	Cochise	85632	3/24/1998	3/3/1999	Bunker-C fuel oil	Soil & GW	JMM	Active	2-34414	n/a
Clifton School - Phelps Dodge	502344-00	110 Hill Street	Clifton	Greenlee	85533	11/24/1998	12/15/1998	Smelter fallout metals	Soil & GW	JMM	Active	2-34361	AZ0000032433
UPRR 31st Street	502305-00	31st St. and Aviation Pkwy.	Tucson	Pima	85713	11/16/1998	12/15/1998	Diesel fuel	Soil & GW	MLD	Active	2-34415	AZD045804325
UPRR 34th Street	502304-00	34th St. and Aviation Pkwy.	Tucson	Pima	85713	11/16/1998	12/15/1998	Diesel fuel	Soil & GW	MLD	Active	2-34417	n/a
UPRR Former AZ Agrochemical Facility	502081-00	11th St. and Arizona Ave.	Yuma	Yuma	85364	7/23/1998	8/24/1998	Pesticides	Soil	JMM	Active	2-34380	AZD983484767
Anderson Clayton - Sunshine Gin	501830-00	1420 E. Cameo	Eloy	Pinal	85231	11/12/1997	7/13/1998	Hydraulic fluid	Soil	JMV	Active	2-34336	AZD982042624
UPRR 22nd St. Yard	501994-00	1255 S. Campbell Ave.	Tucson	Pima	85702	3/18/1998	5/11/1998	Diesel fuel	Soil	MLD	Active	2-34375	n/a
U of A Cotton Center Washing Sump	501871-00	4201 E. Broadway Rd.	Phoenix	Maricopa	85040	11/3/1997	3/4/1998	Pesticides, TPH, heavy metals, arsenic, chloroform, dieldrin	Soil	JMV	Active	2-34384	n/a
Shannon Hills Smelter	501938-00	End of Shannon Rd.	Clifton	Greenlee	85533	1/22/1998	2/23/1998	Mine tailings, arsenic, copper	Soil	JMM	Active	2-34402	AZ0000032433
APS Cholla Power Plant	090050-00	2 miles SE of Joseph City	Joseph City	Navajo	86032	11/13/1997	1/28/1998	PCE, TCE	GW	JMV	Active	2-34342	n/a
APS Cholla Power Plant	090050-02	2 miles SE of Joseph City	Joseph City	Navajo	86032	11/13/1997	1/28/1998	Fuel oil release	Soil & GW	JMV	Active	2-34343	n/a
HILP Dress	100056-01	Irvington Rd. and Mesquite Ranch Rd.	Tucson	Pima	85726	2/26/1997	4/24/1997	Aluminum dress	Soil	JMV	Active	2-34395	n/a

APPENDIX 5

Water Quality Assessment and
Management Program
FY 2005 Annual Report
to the WQARF Advisory Board

WATER QUALITY ASSURANCE REVOLVING FUND
ANNUAL REPORT TO THE JOINT LEGISLATIVE BUDGET COMMITTEE
WATER QUALITY ASSESSMENT AND MANAGEMENT
A.R.S. § §49-202 to 49-205; 49-208; 49-221 to 49-225; 49-249; 49-282

Linda Taunt, Manager 771-4416

ADEQ/Water Quality Division/Hydrologic Support and Assessment

July 1, 2004 through June 30, 2005

FY 2005 ACCOMPLISHMENTS

Water Quality Monitoring and Assessment

Surface Water Monitoring §49-225 (water quality monitoring) & §49-282 (remedial investigations)

- Integrated Report of the Status of Arizona's Water Quality finalized. This comprehensive report assesses water quality in streams, lakes and groundwater in Arizona's ten watersheds based on data collected between January 1, 1998 - December 31, 2002. From this assessment, those waters not attaining surface water quality standards and/or designated uses are placed on the 303(d) List of "impaired waters" for further investigation and remediation. (§49-225 & §49-282)
- Ambient Surface Water Program: FY05 monitoring completed where efforts were focused in the Colorado River/Grand Canyon and the San Pedro Watersheds. FY06 sample plan has been prepared and will focus efforts in the Santa Cruz and the Upper Gila Watersheds. HSAS continues to fund a Joint Cooperative Agreement with the USGS to sample the large rivers in the state from its gaging stations. Most of the analytical work for this program is performed by the ADHS State Laboratory. Drought continues to severely impact all surface water monitoring programs. (§49-225)
- Lakes Program Program: FY05 monitoring completed where efforts were focused in the Little Colorado River Watershed in support of ongoing lakes studies. Program continues to collaborate with the University of Arizona Water Resources Center to provide field support in monitoring the Valley drinking water reservoirs and in conducting effectiveness monitoring on several southern lakes. (§49-225) The lakes program was involved in several special investigations this year including: recurrent large fish kills on the Salt River reservoirs and several potential water related issues at a variety of locales including a dog park in Goodyear, city park near Laveen. (§49-282) The program has completed the draft lakes classification system and narrative nutrient criteria which will be included as part of the triennial review of surface water quality standards. Staff will complete the implementation procedures in support of these narrative standards in FY06. (§49-221 & §49-222)
- Priority Pollutant sampling program: No new fish consumption advisories were issued in FY05 as the Game and Fish Department was only able to provide limited sampling support to the program. ADEQ has obtained a "fish collection permit" which will allow staff to collect fish without G&F. Staff obtained replacement warning signage from the Department of Corrections for the Salt/Gila River through metropolitan Phoenix. This segment of the Salt/Gila River system has been under a fish consumption advisory for DDT and metabolites, toxaphane, dieldrin and chlordane since the early 1990s. (§49-282)
- HSAS finished the narrative implementation procedures for antidegradation, narrative bottom deposits and a narrative biocriterion standard and is in the process of adopting these documents as substantive policies. Aspects of the implementation procedures will be incorporated into the surface water quality standards rulemaking; other aspects will go into the impaired waters identification rule. There is significant stakeholder interest in these documents as well as the development of narrative nutrient standards. (§49-221 & §49-222)

UA/WRRC and ADEQ finalized report of study on five effluent dependent waters (EDW) in the state. The purpose of this study was to further characterize EDWs in order to develop suitable criteria and expectations. Final report will be posted on agency website. (§49-225)

- Status of ongoing water quality studies (§49-225 & §49-282):

Mule Gulch Study: rain continues to elude Bisbee. Because of the distance from Phoenix office, staff from SRO has been trained to respond to a storm event as they are 2+ hours closer to the site but sufficient rain is needed to warrant a trip. Project will rollover to FY06 workplan. The sampling is to establish site-specific objective for copper in several segments of Mule Gulch before the final report can be completed. Other pollutants of concern: cadmium, pH, zinc.

Pinto Creek Study – Series of winter storms resulted in collection of sufficient data to develop site specific objective (SSO) for copper in upper Pinto Creek. Contractor is incorporating this data and the resultant new water quality target for natural background into model. The SSO will be adopted through the ongoing triennial review of surface water quality standards process. Final report will proceed through public process immediately following adoption of SSO.

Tonto Creek Study – Final nitrogen report submitted to EPA for approval on 6/30/05 (2 segments). Staff is meeting with Gila County Health Department regarding grant opportunities to alleviate potential water quality problems in this area.

Lakeside Lake Study – Final report for narrative nutrients, low dissolved oxygen and high pH, submitted to EPA on 6/30/05. Staff is working with City of Tucson on preparing use attainability analysis in support of reclassifying Lakeside Lake from a warm water fishery to an effluent dependent lake. City is required to submit AZPDES Permit application on or before 8/15/05. AZPDES Permit will contain conditions to ensure lake will meet its designated uses and permit limitations. City had installed a dual aeration system in 2002 but it is unclear if this will be sufficient to correct all water quality issues.

Turkey Creek Metals Study: Draft report for (cadmium, copper, lead, zinc) is approximately 75% complete, delayed due to staffing shortages. USFS is conducting EE/CA on remediation measures needed to remedy three abandoned mines in the area that are contributing pollutants to Turkey Creek.

French Gulch study: Final report (for cadmium, copper, zinc) submitted to EPA on 6/28/05. APP Program investigating whether permit is required for activities ongoing at Zonia Mine.

Verde River Nutrient Study - Received data from a USGS Funding Agreement in June, 2003. If data gaps are resolved, HSAS will contract to include new data into model to finalize nutrient assimilation study. Study was originally commissioned to determine if assimilative capacity exists in the Verde River for potential wastewater discharges from the Verde Valley communities along the river – Clarkdale, Cottonwood, & Camp Verde and potential increase in on-site disposal systems in the headwaters areas of Paulden, Big Chino and Perkinsville. Recent project delays have been due to staffing shortages.

Middle Gila Pesticide study - HSAS conducted groundwater sampling for pesticides at 15+ wells along the Salt/Gila River and Dysart Drain in 2003. Development of workplan delayed due to staffing shortages. This project is in support of the fish consumption advisories posted along these river segments for historic pesticides.

Upper and Lower Lake Mary, Soldier Annex, Soldier Lake, Long Lake mercury studies: received final report from NAU on lake coring work to determine age of mercury deposition. A second study has been commissioned with NAU to create bathymetric maps for the five lakes in support of the modeling effort.

Sampling will be completed following 2005 summer monsoon. Modeling contractor hired in June, 2005. First stakeholder meeting held in late May, 2005. This study is in support of the fish consumption advisories posted at all five lakes for mercury in fish tissue.

West Fork Black River and Beaver Creek Turbidity Study -- staff has finalized data review and developed regional rating curves for this areas in the White Mountains. Final report will be completed by 9/30/05. This is the first of several proposed studies to determine appropriate suspended sediment/turbidity objectives by region.

Bill Williams Watershed Mercury Study: this study is on target for completion in March, 2006. The purpose is to determine the sources and remedies for mercury that is bioaccumulating in fish tissue in Alamo Lake (some of the highest tissue concentrations found in the state). Project will assign loads at three USGS gaging stations – one at each of the major tributaries to the lake – Big Sandy River, Santa Maria River and Burro Creek – and determine the necessary load reductions by watershed. Sampling was extended into spring, 2005 in support of regional curve development. Contractor is on target for finalizing loads and load reductions report by 9/30/05. Staff has conducted several public meetings with stakeholders. Phase II of the study will investigate sources within the three watersheds.

Oak Creek Bacteria Study – staff completed a comprehensive July 4th sampling effort at 17 sites throughout the canyon and downstream to Red Rock State Park. Slide Rock State Park was closed on Sunday of the holiday weekend due to bacteria exceedances. ADEQ's data will assist in determining sources and conditions that cause the spikes in bacteria.

Queen Creek Copper Study – staff has begun reconnaissance and installation of sampling equipment in the Queen Creek watershed. Sampling will begin in summer, 2005. Resolution Copper Co. has announced plans to develop a large underground copper mine along Queen Creek over the next 10-15 years. The findings of this study will be important to Resolution in informing the design that will be needed for its effluent treatment system to remove copper prior to any discharge to Queen Creek.

Nutriosio Creek effectiveness monitoring – staff has completed effectiveness monitoring on Nutriosio Creek. A local rancher has installed a number of best management practices in support of the Nutriosio Creek turbidity study (1999). Funding for the BMPs has been a combination of sources including ADEQ's Water Quality Improvement Grant Program, ADWR's Water Protection Fund and required match funds from the applicant. Staff has conducted water quality monitoring and geomorphic surveys to determine the effectiveness of those measures.

Boulder Creek Cleanup Project – staff continues to work with the Bureau of Land Management (BLM), private citizen and State Land Department on cleaning up three tailings piles and an adit which discharge arsenic, copper, zinc and mercury into Boulder Creek. BLM has agreed to pay for the engineering work necessary to stabilize and cap the middle and lower tailings piles, which are owned by the private party and State Lands, respectively. ADEQ is working with the parties to find appropriate "match" in order to apply to the ADEQ's Water Quality Improvement Grant program in October, 2005.

Groundwater Monitoring and Pesticide Program §49-225 (water quality monitoring) & §49-249 (pesticides)

- Ambient Groundwater Monitoring - Due to decrease in staffing levels, monitoring for FY05 fell behind: sampling in the Dripping Springs Basin is complete; Bill Williams Basin – 50% complete (project manager resigned in December). The Pinal AMA and the Agua Fria studies will carryover into FY06 workplan. (§49-225)

- Final reports issued for Detrital Valley and Meadview GW Basins. Draft reports completed for San Bernadino GW Basin. (§49-225)
- Ongoing well matching data confirmation, comparing sample data to existing database information.
- Maintaining an information submittal and review database for the pesticide data call-in program.
- Conducted extensive stakeholder process to modify Pesticide Contamination Prevention Program rules. Final rule package sent to GRRC in June, 2005. Hearing set for 9/13/05. New rules and new Groundwater Protection List (GWPL) will be effective in fall, 2005. The draft rule provides for significant changes to the pesticide program and will allow the use of expanded information and newer EPA protocols, modeling and new science in determining whether a pesticide being registered in Arizona has the potential to reach and pollute groundwater. Another significant change is removing the GWPL from rule which will allow for addition and deletion of chemicals to and from the list without formal rulemaking. – a huge resource savings and will make the GWPL more timely and effective. The new process requires publication of the draft List in the *Arizona Administrative Register* and on the agency's website for public review and comment prior to finalization. §49-225

Quality Assurance/Quality Control (QA/QC) Activities

- Served as WQD representative on QA/QC Advisory Committee for the redrafting of the agency's Quality Management Plan (QMP).

Other Technical Activities: §49-202 through §49-205

- Responded to 84 internal and external requests for water quality data information.
- Entered approximately 10,200 water quality results into groundwater water quality database.
- Continuing coordination with the remedial programs in Waste Programs Division to capture WQARF, CERCLA and UST groundwater quality data.
- Continue to develop performance measurement tools to determine effectiveness of several water quality programs including nonpoint source pollution control, best management practices and WQIP grants program (§49-225).
- Working with the Arizona Department of Health Services State Laboratory to enable the electronic transfer of laboratory sampling results to ADEQ.

APPENDIX 6

Well Inspection and Approval Program
FY 2005 Annual Report
to the WQARF Advisory Board

**Arizona Department of Water Resources
Water Quality Fund (AWQF)
Year-End Review Meeting
June 24, 2005**

1. Name of Program

Arizona Department of Water Resources Hydrology Division,
Technical Support Section, AWQF Unit

2. ADWR WQARF Program Objectives

Implementation of the following activities:

- Oversee Technical Evaluation of Well Applications (Notices of Intent to Drill, Abandon and Permits)*
- Development of Review Procedures for Well Applications (Notices of Intent to Drill, Abandon and Permits)*
- Coordination with ADEQ regarding Well Applications (Notices of Intent to Drill, Abandon and Permits)
- Coordination with ADEQ regarding Database Needs to support WQARF Program*
- Establish mechanism to exchange verified well locations and GPS measurements within ADWR's Wells-55 database⁺
- Conduct Well Inventories to Support WQARF Program⁺
- Other WQARF and water quality activities as required

*Required by statute or rule

+Recommended by Groundwater Cleanup Task Force

3. ADWR WQARF Program Accomplishments: 2004-2005

Accomplished the following during Fiscal Year 2005:

- Provided technical review of water quality and well construction for 657 Notices of Intent (NOI) to Drill and Abandon wells.
- Reviewed 308 permit applications to withdraw groundwater within or near WQARF or CERCLA sites including Poor Quality Ground Water Withdraw Permits for remediation.
- Re-submitted ADWR East Washington (EW) well inventory ADEQ Batch reports as requested by ADEQ in new format and administratively registered all wells determined not to be registered. Updated ADWR ACCESS database with significant changes. This data submittal consisted of over 1782 wells.
- Re-submitted ADWR West Central Phoenix (WCP) well inventory as requested by ADEQ in new format and administratively registered all wells determined not to be registered. Updated ADWR ACCESS database with significant changes. This data submittal consisted of over 1018 wells.

ADWR WQARF Program Accomplishments: 2004-2005 (Continued)

- Completed Final Well Inventory and transferred data to ADEQ for well inventory at Tyson Wash (TW) WQARF site (including Ted's Truck Stop). Initial well inventory included 827 individual well listings that were reduced to a preliminary inventory of 597 wells.
- Additional wells located during the "Field Verification" stage of TW WQARF site well inventory included 111 unmatched wells. Data collected in the field includes but is not limited to: well location, address, status, water use, well type, current well owner, casing diameter and site description, photographs, and hand-held GPS measurements.
- Collected and processed survey-grade GPS data at TW for 644 wells and integrated data into project database.
- Administratively registered all wells determined not to have a registration number and updated the project database with new well registration numbers at TW. Updated the ADWR well registry database (WELLS55) with field verified well data. Data includes well status, GPS well location and well elevation data, along with unique well identification, well matching, water use, owner information and well construction information.
- Submittal for Tyson Wash was transferred to ADEQ as required by the ADEQ/ADWR FY05 ISA (ASCII text table per ISA format and a CD copy of the project database). The total number of wells submitted to ADEQ for data loading consisted of 708 wells for the project.
- Completed and received ADEQ approval of West Van Buren (WVB) well inventory work plan. Reviewed ADEQ files of over 300 volumes of WQARF files, over 500 UST site files with well information and 30 volumes of VRP files for WVB files. Input data into electronic format from well logs.
- Collected other electronic data sources for WVB to be included in initial database development. Developed project database that contains well matching, construction and location information and completed well matching of initial well inventory for WVB that included 2,429 individual well listings that were reduced to a preliminary inventory of 1,280 wells. Compiled pre-existing matches between multiple data sources.

ADWR WQARF Program Accomplishments: 2004-2005 (Continued)

- Completed the "Field Verification" stage of WVB WQARF site well inventory. Data collected in the field includes but is not limited to: well location, address, status, water use, well type, current well owner, casing diameter and site description, photographs, and hand-held GPS measurements.
- All data source identifiers (wells) were attempted to be located within the WVB WQARF site project area. Duplicate wells were field verified and reconciled or matched in the project database. During the field verification stage, 77 preliminary additional wells were discovered and added to the database of which 613 wells total were field verified.
- Completed survey grade Global Positioning System (GPS) for over 320 wells in the project area.
- Submitted annual WQARF report to Legislature/WQARF Advisory Board for FY04.

4. ADWR 2004-2005 Budget/Detailed Expenditures by Category Please see attached budget.

5. ADWR Issues

A. Implementation Concerns

- A more permanent GIS link to ADEQ coverage's, Water Quality Database, and Safe Drinking Water Database data needs to be established to perform daily activities necessary to accomplish program objectives.
- Both ADWR and ADEQ database structures currently do not allow entry of information needed to meet program objectives.

6. ADWR 2005-2006 Program Objectives

- A. Continue technical oversight of Well Applications (Notices of Intent to Drill, Abandon and Permits) to prevent vertical cross-contamination between aquifers.
- B. Continue technical oversight of Well Permits for plume migration concerns during well impact reviews.

ADWR 2005-2006 Program Objectives (Continued)

- C. Finalize 1 well inventory at West Van Buren WQARF site.
- D. Conduct 2 well inventories at Klondyke and 20th Street & Factor WQARF sites.
- E. Complete well inventory backlog of re-submittals for two WQARF sites.
- F. Continue to provide data generated from well inventories to ADEQ.
- G. Continue to provide data generated from well inventories to update ADWR state registry database (WELLS 55).
- H. Continue to provide ADWR well verified data to ADEQ.
- I. Continue to administratively register unregistered wells in ADWR Wells-55 database (state well registry).
- J. Continue to coordinate with ADEQ regarding Database needs to support WQARF Program.

7. **ADWR 2005-2006 Planned Budget**
Please see attached budget.

Department of Water Resources
 Arizona Water Quality Fund
 Actual Expenditures Through May 31, 2005
 Projected Expenditures Through June 30, 2005

Beginning Fund Balance, July 1, 2004	324,541
FY05 Transfer In from ADEQ	500,000
Interest Earned	7,060
Balance Available	<u>831,601</u>
Personal Services	284,222
ERE	76,639
Travel - In State	14,234
Other Operating Expenditures	5,288
Equipment	3,375
Indirect	225,996
Total Budgeted Expenditures	<u>609,754</u>
Estimated Fund Balance Remaining, end of year	<u><u>221,847</u></u>

Department of Water Resources
 Proposed WQF Budget
 FY06

Estimated Fund Balance Forward	221,847
FY06 Transfer In	500,000
Balance Available	<u>721,847</u>
Personal Services	255,076
ERE	79,839
Travel - In State	41,316
Other Operating Expenditures	17,500
Indirect	169,266
Total Budgeted Expenditures	<u>562,997</u>
Estimated Fund Balance Remaining, end of year	<u><u>158,850</u></u>

**ADWR Monthly WQARF Advisory Board Report
May 2005**

- Review of Notices of Intent to Drill for Proximity to WQARF Registry Sites and Notification of Applicants (A.R.S. § 45-605).

550 well applications were reviewed in the month of May 2005 for proximity to WQARF sites.

- Review of Notices of Intent (NOI) and Well Permits to drill for Well Construction to Prevent Vertical Cross-Contamination (A.R.S. § 45-605).

WELL TYPE	DOD	DOD/ LUST	LUST	NPL	VRP	RCRA	WQARF	NPL/ LUST	WQARF/ LUST	WQARF/ RCRA	Total Wells Reviewed
Recovery											
Air Sparging			20				3				23
Injection											
Cathodic											
Domestic Stock Exempt											
Exempt	5		1				1				7
Non-Exempt Sump Pump, Trench Or Sand Points											
Geotechnical			2				3				5
Heat Pump											
Mineral Exploration											
Monitor	1		16	6	2		23				48
Non-Exempt			1				1				2
Non-Domestic Exempt											
Other							7				7
Withdrawal Permit											
Piezometer											
Replacement Well In New Location											
Grounding											
Service					1						1
Soil Vapor Extraction	3				3						6
Non-Service											
Vadose Zone For Recharge											
Vadose Zone											
Monitor Or Piezometer			11				11				22
Exploration											
Total Wells	9		51	6	6		49				121

- NOI and NOIA reviews for non-WQARF sites are funded by non-WQARF funding sources.
- Well abandonment applications are included in the above summary.

ADWR Monthly WQARF Advisory Board Report
May 2005 (Continued)

- **Data Management Program; Well Inventories, Well Verification Activities, Data Coordination with ADEQ (A.R.S. §~ 45-105, 45-618, 49-281).**

South Mesa (SM) – Paused work on re-submittal of ADEQ Batch reports for SM to complete other FY05 ISA requirements.

Payson PCE & Tonto and Cherry (TOP) & (TC)– Paused work on re-submittal of ADEQ Batch reports for TOP & TC to complete other FY05 ISA requirements.

West Van Buren (WVB) - Completed survey grade Global Positioning System (GPS) for over 320 wells in the project area. Completed “comprehensive field verification” of all wells in project area (over 2,500 wells in 28 sections). All wells were attempted to be field located, inventoried, and field matched. Began to reconcile the database and perform QA of the well inventory.

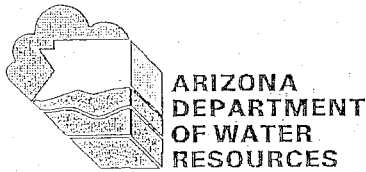
Data Management Activities

No activities to report.

- **Development of Special Well Construction Standards and Well Abandonment Procedures (A.R.S. §~ 45-594, 45-605 and A.A.C. R12-15-812, 816)**
No activities to report.
- **Evaluate Applications for Certificates of Assured and Adequate Water Supply to identify water quality and WQARF issues. (A.A.C. R12-15-704 and R-12-15-718)**
No activities to report.
- **Conduit Well Identification and Well Inspection Program (A.R.S. § 45-605)**
No activities to report.
- **Special Activities**
Began drafting ADEQ/ADWR WQARF FY06 ISA in cooperation with ADEQ.

**Department of Water
Resources
Water Quality Fund**
Monthly Financial Report
AY 05 For the Period through May
2005

Description	Current Budget	May Expenses	YTD Expenses	Encumbrances & Pre-Encumbrances	Current YTD Expenses	\$ Remaining	% Remaining
Personal Services	347,500	20,461	264,504		264,504	82,996	23.88%
Employee Related Expenditures	99,906	6,210	72,172		72,172	27,734	27.76%
Professional and Outside Services	0				0	0	no budget
In State Travel	25,000	2,470	11,625	2,267	13,892	11,108	44.43%
Out of State Travel	0				0	0	no budget
Other Operating Expenditures	18,000	146	4,539	446	4,985	13,015	72.31%
Capital Equipment	0				0	0	no budget
Non-Capital Equipment			3,376		3,376	-3,376	no budget
Transfers	0				0	0	no budget
Indirect	220,348		225,997		225,997	-5,649	-2.56%
	710,754	29,287	582,213	2,713	584,926	125,828	17.70%



Arizona Department of Water Resources
Water Quality Fund (AWQF)
Year-End Review Meeting

June 24, 2005

ADWR WQARF Program Objectives

- Oversee Technical Evaluation of Well Applications (Notices of Intent to Drill, Abandon and Permits)*
- Development of Review Procedures for Well Applications (Notices of Intent to Drill, Abandon and Permits)*
- Coordination with ADEQ regarding Well Applications (Notices of Intent to Drill, Abandon and Permits)
- Coordination with ADEQ regarding Database Needs to support WQARF Program*
- Establish mechanism to exchange verified well locations and GPS measurements within ADWR's Wells-55 database†
- Conduct Well Inventories to Support WQARF Program†
- Other WQARF and water quality activities as required

*Required by statute or rule

†Recommended by Groundwater Cleanup Task Force

ADWR WQARF Program Accomplishments 2004-2005

- Reviewed water quality and well construction for 657 Notices of Intent to drill or abandon wells
- Reviewed 308 permit applications to withdraw groundwater within or near WQARF, CERCLA and other sites
- Re-submitted ADWR East Washington Well Inventory
- Re-submitted ADWR West Central Phoenix Well Inventory
- Completed Tyson Wash (plus Ted's Truck Stop) Well Inventory (644 wells field verified and GPS surveyed)
- Completed field inventory phase of West Van Buren site (613 wells field verified, 320 wells GPS surveyed)

Department of Water Resources	
Arizona Water Quality Fund	
Actual Expenditures Through May 31, 2005	
Projected Expenditures Through June 30, 2005	
Beginning Fund Balance, July 1, 2004	324,541
FY05 Transfer In from ADEQ	500,000
Interest Earned	7,060
Balance Available	831,601
Personal Services	284,222
ERE	76,639
Travel - In State	14,234
Other Operating Expenditures	5,288
Equipment	3,375
Indirect	225,996
Total Budgeted Expenditures	609,754
Estimated Fund Balance Remaining, end of year	221,847

Issues

- Permanent links to ADEQ GIS coverages, WQ database and safe drinking water database needed to perform daily activities necessary to accomplish program objectives
- ADWR and ADEQ database structures currently do not allow entry of some information needed to meet program objectives

ADWR WQARF 2005 – 2006 Program Objectives

- Continue oversight of well applications to prevent vertical cross-contamination
- Continue oversight of well permits for water quality concerns and plume migration issues
- Finalize West van Buren Well Inventory
- Complete backlog of well inventory re-submittals for South Mesa and Payson WQARF sites
- Conduct well inventories of Klondyke and 20th Street and Factor sites
- Continue to provide well data generated from inventories to ADEQ
- Continue to update ADWR databases with data from well inventories
- Continue to administratively register unregistered wells in inventory areas as required
- Continue to coordinate with ADEQ regarding database needs to support the WQARF program

Department of Water Resources	
Proposed WQF Budget	
FY06	
Estimated Fund Balance Forward	221,847
FY06 Transfer In	500,000
Balance Available	721,847
Personal Services	255,076
ERE	79,839
Travel - In State	41,315
Other Operating Expenditures	17,500
Indirect	169,266
Total Budgeted Expenditures	562,997
Estimated Fund Balance Remaining, end of year	158,850

APPENDIX 7

Risk Assessment Program
FY 2005 Annual Report
to the WQARF Advisory Board

FY-05 Risk Assessment Summary

Arizona Department of Health Services

Risk Assessment Program

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Program Objectives

Program Created by A.R.S. § 36 - (1691-1694)

- Analyze health risks from environmental exposures
- Provide independent evaluation of strategies to prevent health risks from environmental exposures
- Provide the ADEQ and others with information to address potential public health risks from environmental exposures

FY 05 ISA Accomplishments

Completed 8 assigned public health risk task assignments for ADEQ programs under ISA

BHP Copper I
BHP Copper II
Silvercreek Wash Release Site
Former PureGro Facility Review
Kachina Trailer park
APS Prescott Manufactured Gas Plant
UA Cotton Research Facility
20th & Factor Project

Non ISA Projects (Free to ADEQ)

- Completed 7 health consultations under a grant from the Agency for Toxic Substances & Disease Registry (ATSDR)
- Public Health Consultation Lead in Drinking Water An Investigation of Arizona Schools [PDE 135K]
- Public Health Consultation Drinking and Irrigation Water Quality Blue Ridge Elementary School [PDE 119K] Lakeside, Navajo County, Arizona.
- Public Health Consultation Evaluation of Recent Data From Groundwater Monitoring Wells [PDE 133K] Gilbert, Maricopa County, Arizona.
- Public Health Consultation Benzene Exposure in Residential Drinking Water Everson Valley [PDE 163K] Yavapai County, Arizona.
- Public Health Consultation South Indian Bend Wash Landfill Area [PDE 143K] Tempe, Maricopa County, Arizona.
- Public Health Consultation Arsenic in Private Drinking Water Wells [PDE 135K], Cornville, Yavapai County, Arizona.
- Public Health Consultation Silver Creek Subdivision, Tucson, Pima County, Arizona (to be published before 7/1/05)

FY 05 ISA Task Assignments

Site name	Professional Hours
BHP Copper I	8
BHP Copper II	8
Silvercroft Wash Release Site	30
Former PureGro Facility Review	8
Kachina Trailer park	8
APS Prescott Manufactured Gas Plant	24
UA Cotton Research Facility	16
20 th & Factor Project	24
Total	126

FY 05 Budget & Expenditures

ADHS ISA Total Budget is \$100,000

- ISA between ADEQ & ADHS is < 1% of WQARF Budget
- ADHS Spent < 0.2% of WQARF Budget in FY 05

Category	Budget	Spent	Est. Return
Personnel	55,000	9,585	45,414
Benefits	16,445	2,368	14,076
Travel	1,000	0	1,000
Operations	6,831	0	6,831
Indirect	20,724	1,777	18,946
Total	\$ 100,000	\$ 13,730	\$ 86,269

Implementation for FY 06

- The ADHS plans to continue to operating the ADEQ Risk Assessment program by funding 0.1 FTE to conduct all ADEQ ISA risk assessment activities
- Hsin-I Lin will be replacing Will Humble as the the ADHS Risk Assessment Coordinator for FY 06
- Current workload is not a problem, although capacity may become a problem if a significant increase in work occurs
- Split funding an additional employee or increasing the 0.1 FTE funding level are preferred solutions if there is a significant workload increase

FY 2005 Budget

Category	Budget
Personnel	55,000
Benefits	16,445
Outside Services	0
Travel	1,000
Op. & Equip.	4,288
Indirect	23,267
Total	\$ 100,000