ADEQ
Arizona Department
of Environmental Quality

Water Quality Assurance Revolving Fund

Annual Report
Fiscal Year 2009

September 2009

ADEQ Publication #:
EQR 09-02

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This annual report has been prepared pursuant to HB 2643, Section 19 of Laws 2009, Chapter 12 making appropriations for the different departments of the state, for state institutions and for public schools; providing for certain reporting requirements. HB2643 requires that a report on the Water Quality Assurance Revolving Fund (WQARF) along with specific site budgets for FY2010 be submitted to the Joint Legislative Budget Committee (JLBC) members and to the Director of the JLBC by September 1, 2009. The FY2010 WQARF site budgets and FY2010 WQARF program projected budget can be found in Appendix 1.

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 state-wide using state funds and also oversees privately-funded cleanup efforts. Responsible parties are identified, 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 cleanup 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 WQARF reform legislation provided for 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 within the aquifer.

Community Involvement – Enhanced community involvement is required 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
- 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

Typically, upon addition of a site to the WQARF Registry, numerous investigative, planning, community involvement, risk assessment, and legal steps must be executed before cleanup can begin. Exceptions to this sequence of steps are made when early response actions are taken to protect human health or the environment. The WQARF Remedy Selection Process is outlined in Appendix 2.

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. During the RI/FS, 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, is collected. 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 (PRPs).

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 is emphasized during investigations, prior to development of the proposed remedial action plan (PRAP), and at other times as appropriate 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 finalized, followed by a liability allocation process in which past and future remediation 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 may be taken 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.

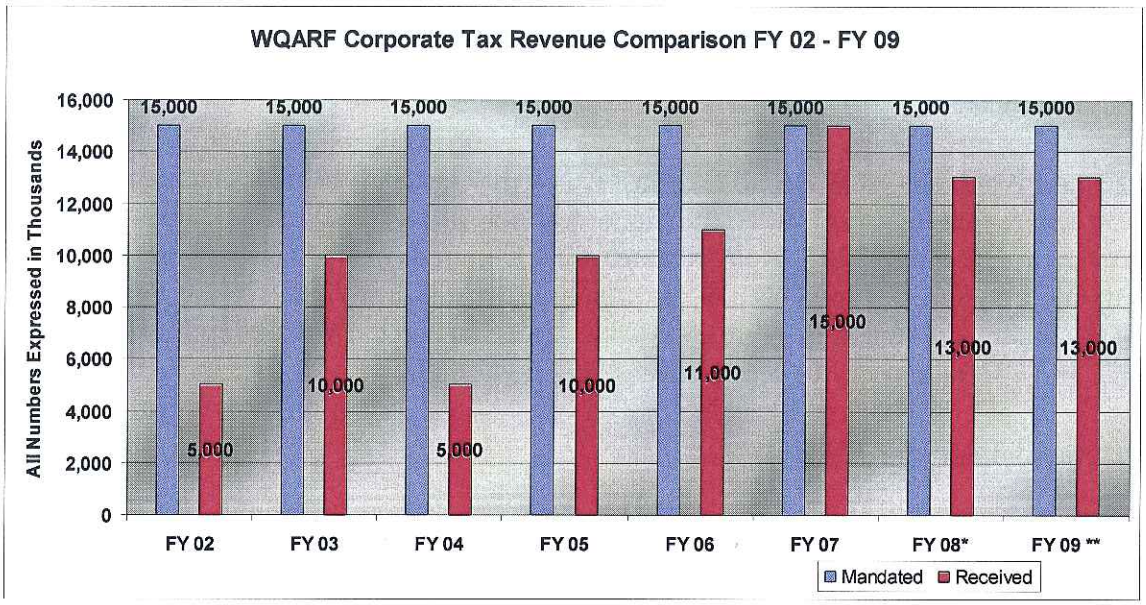
MAJOR ISSUES & ACCOMPLISHMENTS FOR FY 2009

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 Corporate Income Tax revenue. However, due to budget shortfalls, the WQARF Program received $34 million less in Corporate Income Tax revenue for fiscal years 2002 through 2007. In FY2007, the program received full Corporate Income Tax funding. This was the only time in the last eight fiscal years that this has occurred. As a result, ADEQ exceeded the $18 million revenue target in FY2007 and was able to prepare for early response actions at the Klondyke and Cooper and Commerce WQARF sites. The program was also able to complete several significant activities such as the first consent order at a WQARF site, first environmental lien, first ROD, and the first declaration of environmental use restriction (DEUR). During FY2008 and FY2009 the program once again experienced reductions in Corporate Income Tax transfers in the amount of $2 million each year. The WQARF program's fund balance was additionally reduced by legislative fund transfers in FY2008 of $3 million and in FY2009 of $13 million. The $20 million reduction over the last two fiscal years has significantly delayed cleanup at WQARF sites.

As a result of the FY2009 legislative fund transfer which reduced the WQARF fund balance by $13 million, ADEQ issued stop work directives on January 30, 2009 to all WQARF contractors for site activities that were not related to the operation and maintenance of soil and groundwater treatment systems. ADEQ was able to keep funding for 13 sites where treatment systems were actively operating; however, all other WQARF process activities at these sites (e.g., groundwater monitoring, feasibility studies, design and construction of remediation systems, etc) were stopped. Work at all remaining WQARF sites and any additional environmental activities funded under the WQARF program were also stopped. This reduction in WQARF funding had a negative impact on all sites and thus, in FY2009, many goals were not achieved.

The chart below depicts Corporate Income Tax funding of the WQARF program during the past nine fiscal years but does not account for the additional reduction in program funding that resulted from the legislative fund transfers.



The following is a summary of FY2009 WQARF accomplishments:

Early Response Actions

ADEQ's WQARF Program continues to place a high priority on early response actions (ERAs) at sites 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. In FY2009, the WQARF Program continued operation and maintenance (O&M) on numerous ERAs that were initiated in prior years.

In FY2009, the WQARF Program initiated the following ERA:

Cooper and Commerce: ADEQ began operation of a soil vapor extraction (SVE) system in December 2008. During the first six months of operation, approximately 4,195 pounds of PCE were removed from the soil. Start-up of the air sparge component of the system occurred in May 2009. Due to budgetary constraints, completion of the groundwater pump and treat system has been put on hold.

WQARF Preliminary Investigation Remedial Actions

Nogales Grand Avenue (not yet on WQARF registry): ADEQ has coordinated with Valle Verde Water Company to design and build wellhead treatment systems on two Valle Verde wells to treat PCE contaminated groundwater. Construction of the wellhead treatment system for wellhead #2 (granular activated carbon treatment) was completed and became operational in October 2008.

This system treated over 39 million gallons of groundwater during FY2009. In parallel to this effort, the City of Nogales and Valle Verde emergency water interconnection (Interconnect) pipeline was completed in February 2009.

Main Street and Kofa (not on WQARF registry): ADEQ has installed 44 wells that are part of a remediation system that uses three different types of technologies. ADEQ initiated operation of the SVE system in December 2007. Approximately 80,000 pounds (lbs) of volatile organic compounds (VOCs), have been removed from the subsurface soils in FY2009. ADEQ initiated start up of the dual phase system in February 2008 and approximately 3,990,000 gallons of water were treated and 233 gallons of free product recovered in FY2009.

Interim Remedial Actions (IRA)

IRAs are taken at a registry site to protect water supply wells, provide alternative water supplies, replace wells, or for water treatment. ADEQ has been working with the Salt River Project (SRP), Flowing Wells Irrigation District (FWID) and the Tucson Metropolitan Domestic Water Improvement District to implement interim remedial actions (IRAs) at the East Central Phoenix – 48th Street and Indian School, Miracle Mile, and Shannon Road/El Camino del Cerro WQARF sites, respectively.

East Central Phoenix – 48th Street and Indian School Road: As part of an agreement with and with funding from ADEQ, SRP is managing remediation activities at the site in order to protect a down-gradient SRP production well. A SVE system is in place and, approximately 298 pounds of PCE have been removed since system start-up in February 2006.

Miracle Mile: ADEQ entered into a cooperative agreement with FWID to provide wellhead treatment for the removal of VOCs at two FWID production wells. The treatment system was jointly designed and constructed by ADEQ and FWID and incorporated into FWID's arsenic treatment system. The 900 gallon per minute (gpm) system was put into operation in January 2007 and treated approximately 295 million gallons of water in FY2009.

Shannon Road/El Camino del Cerro: Through a cooperative agreement with Metropolitan Domestic Water Irrigation District, ADEQ has been funding the wellhead treatment and operation and maintenance costs associated with a system designed to treat VOC contaminated groundwater. Approximately 222 million gallons of water were treated and 28 pounds of VOCs removed by this system in FY2009.

Operation & Maintenance (O&M)

ADEQ continues to conduct or fund operation and maintenance (O&M) activities of the following groundwater pump and treat, soil cap maintenance, and soil vapor extraction systems:

- Broadway and Pantano (groundwater pump and treat)
- Central Avenue and Camelback Road (groundwater pump and treat and SVE system)
- Cooper and Commerce Avenue (SVE and air sparge)
- East Central Phoenix – 32nd Street and Indian School Road (SVE)
- Klondyke Tailings (upper tailings cap protection)
- Miracle Mile (Flowing Wells wellhead treatment)
- Nogales Grand Avenue (Valle Verde wellhead treatment)
- Payson PCE (groundwater pump and treat)
- Shannon Road/El Camino del Cerro (Metro Water wellhead treatment)
- Tyson Wash (groundwater pump and treat)
- Vulture Mill (soil cap maintenance)
- Main Street and Kofa [groundwater pump and treat (dual-phase extraction), ozone air sparge/SVE]
- West Central Phoenix – North Plume/F&B Manufacturing Co. (SVE)

Remedial Investigations (RI)

ADEQ initiated a remedial investigation at the following site in FY2009:

- 7th Ave and Bethany Home Road

ADEQ completed remedial investigations at the following sites in FY2009:

- West Central Phoenix – North Plume
- Western Ave PCE

Record of Decision (ROD)

- **Tonto and Cherry**: ADEQ issued the ROD on November 10, 2008
- **Tyson Wash:** ADEQ issued the ROD on June 30, 2009.

FY 2009 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 3. The 2009 Annual WQARF Registry Report is included in Appendix 4, which provides the site score, location, boundaries, and a brief description of investigation status or remedial action.

Remediation

- Millions of gallons of groundwater treated:

371	Broadway-Pantano
32	Central and Camelback

34	Los Reales Landfill
295	Miracle Mile
68	Payson PCE
3,394	Pinal Creek
222	Shannon Rd/El Camino del Cerro
0.6	Tyson Wash
4,417	**FY 2009 Total**

- Pounds of volatile organic compounds removed from the environment:

3.4	Broadway -Pantano
869	Central and Camelback
4,195	Cooper and Commerce
3.3	Los Reales Landfill
1.1	Miracle Mile
1.5	Payson PCE
28	Shannon Road/El Camino del Cerro
0.2	Tyson Wash
100	West Central Phoenix – East Grand Avenue
186	West Central Phoenix - North Plume
5,388	**FY 2009 Total**

- Pounds of metals removed from the environment:

3,085,034	Pinal Creek
3,085,034	**FY 2009 Total**

Groundwater Wells Installed

- Installed by ADEQ

3	Broadway-Pantano
1	Park Euclid
1	Western Avenue PCE
5	**FY2009 Total**

- Installed by potential responsible party (PRP)

5	Los Reales Landfill
1	Silverbell Landfill
6	**FY2009 Total**

Soil Vapor Wells Installed

12	20th Street and Factor Avenue
12	**FY2009 Total**

Groundwater Samples Collected

- Collected by ADEQ

785	**FY2009 Total**

Soil/Soil Gas Samples Collected

- Collected by ADEQ

103	**FY2009 Total**

Community Involvement Activities

- Fact Sheets:

1	7th Avenue and Bethany Home Road
1	Broadway-Pantano
1	Central and Camelback
3	**FY 2009 Total**

- Public Notices (Does Not Include Notices for CAB Meetings):

1	7th Avenue and Bethany Home Road (soil NFA)
1	Broadway-Pantano (draft RO Report)
2	Tonto & Cherry (PRAP and ROD)
1	Miracle Mile (draft RO Report)
1	West Central Phoenix (draft RO Report)
1	West Van Buren (draft RI Report)
7	**FY2009 Total**

- Public Meetings:

3	56th Street & Earll
3	Broadway–Pantano
3	Central & Camelback
4	Cooper & Commerce
2	East Central Phoenix (6 Sites)
2	Klondyke Tailings

2 Miracle Mile
2 Park Euclid
2 Payson PCE
3 Shannon Road/El Camino del Cerro
2 Tonto Street and Cherry Avenue
2 West Central Phoenix (5 Sites)
2 West Van Buren
4 Western Avenue
36 **FY 2009 Total**

Legal Activities

56th Street and Earll Drive: A WQARF Consent Order is being negotiated with Freescale.

Central Avenue and Camelback Road: A Prospective Purchaser Agreement (PPA) Consent Decree is under negotiation with Cornerstone.

The following summarizes WQARF legal activities for FY2009:

- Total Consent Decrees/Consent Orders completed (ARS § 49-282.G.3):
  1 FY 2009 Total
- WQARF Environmental Liens Issued (ARS § 49-295): No WQARF Environmental Liens were issued in FY2009.
- 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 FY2009.
- 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 FY2009.
- Qualified Business Settlements completed [ARS § 49-282(G)(4)(c)]:
  No qualified business settlements were completed in FY 2009.
- Financial Hardship Settlements completed [ARS § 49-282(G)(4)(d)]:
  No financial hardship settlements were completed in FY 2009.
- Prospective Purchaser Agreements Applications Received:
  10 FY 2009 Total
- Prospective Purchaser Agreements completed:
  6 FY 2009 Total

- FY2009 Cost Recovery Activity

Description	# of Packages	Dollar Amount	Total Dollar Amount
Packages at the beginning of the year:	0		$ 0
New Packages:	26		$ 348,605.29
19th Avenue Landfill	1	$ 2,028.87	
Asarco-Hayden	2	$ 28,608.25	
El Paso Natural Gas	6	$ 813.23	
Honeywell	4	$ 70,297.89	
ITT-Canon	1	$ 2,665.05	
Motorola 52nd Street	4	$ 76,590.65	
North Indian Bend Wash	1	$ 68,481.43	
Pinal Creek	5	$ 92,636.99	
United Industrial	2	$ 6,482.93	
Payments Received	26		($ 348,605.29)
Balance at end of year	0		$ 0

FY 2009 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.

Remediation

- Millions of gallons of groundwater treated:

68	Apache Powder
2	Hassayampa Landfill
122	Motorola 52nd St. - OU1
987	Motorola 52nd St. – OU2
6,156	North Indian Bend Wash

1,371	Phoenix-Goodyear Airport – North
516	Phoenix-Goodyear Airport – South Subunit A
536	Phoenix-Goodyear Airport – South Subunit C
2,271	TARP - Tucson Airport Remediation Project
49	TIAA/Arizona Air National Guard Tucson
27	TIAA/Zone E Three Hangers
240	US Air Force Plant 44, Tucson
18,001	USAF Williams AFB
30,346	**FY 2009 Total**

- Gallons of product removed

28,000	USAF Williams AFB
28,000	**FY 2009 Total**

- Pounds of volatile organic compounds removed from the environment:

13,606	Hassayampa Landfill
418	Motorola 52nd Street/OU1
929	Motorola 52nd Street/OU2
4,976	North Indian Bend Wash
1,511	Phoenix-Goodyear Airport/North
176	Phoenix-Goodyear Airport – South Subunit A
13	Phoenix-Goodyear Airport – South Subunit C
307	TARP - Tucson Airport Remediation Project
2	TIAA/Arizona Air National Guard Tucson
1,741	TIAA/Zone E Three Hangers and Vicinity
41	US Air Force Plant 44, Tucson
349,000	USAF Williams AFB
246,000	Yuma Proving Grounds
618,720	**FY 2009 Total**

- Pounds of hazardous substances removed from the environment:

34,934	Apache Powder (nitrate)
34,934	**FY 2009 Total**

Community Involvement Activities at Federal Sites

- Fact Sheets and Public Notices:

2	Motorola 52nd Street
2	**FY 2008 Total**

- Public Meetings:

3	Camp Navajo
3	Motorola 52nd Street
4	Phoenix Goodyear Airport North and South
4	Tucson Airport Area Projects
4	Williams AFB
18	**FY 2009 Total**

EMERGENCY RESPONSE PROGRAM

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

FY 2009 Activities and Accomplishments

The Emergency Response Unit (ERU) was notified of 214 incidents, 24 of which required on-scene response actions. During the year the ERU also took part in several drills and exercises around that state.

Significant emergency response actions include:

Double Tree Paper Mill Fire: On July 21, 2009 the ERU received a request for assistance from the Gila Bend Volunteer Fire Department through mutual aid for a fire at the Double Tree Paper Mill, located three miles South of State Route 85 and Interstate 8 on SR 85. The fire began on July 20, 2008 at 2:00 a.m. possibly due to a lightning strike. A warehouse which stores rolls of paper was fully engulfed in flames and has continued to burn through this morning. The Gila Bend Air Force Auxiliary Fire Department responded in mutual aid and originally requested ADEQ to respond. Air Force firefighting teams apparently smelled something similar to acid and decided to contact ADEQ Hazardous Air Emergency Response (HAER) for air monitoring assistance.

ERU examined the Material Safety Data Sheets (MSDS) and found a variety of acids, bromides, resins and hypochlorite solutions used in the manufacturing of paper.

Under the direction of Gila Bend Fire, the department allowed the fire to burn itself out. ADEQ ERU recommended that chemicals in a process area adjacent to the burning building be moved if fire threatens the building.

Nogales Port of Entry Odor Complaint: ERU received a request for assistance from the Arizona Department of Safety (AZDPS) Duty Office on January 25, 2009 in regards to a suspicious odor emanating from an evidence bag containing drugs which were seized at the Nogales Port of Entry. US Customs reported that officers which were performing the search had "nausea like" symptoms. The seized drugs were packaged cannabis which was hidden in a spare gasoline tank on a pick up truck. The evidence was contained in a clear plastic bag in which an odor of "old gasoline" was emanating.

ADEQ ERU arrived on scene and took samples which were analyzed by a mass spectrometer. The samples were confirmed as petroleum compounds. As well a test for PH was performed which showed a neutral "7" as well as a test for oxidizers was performed which was negative. The bag with the odor was disposed of by US Customs Officials. No further action is necessary.

J.O. Combs Middle School Caustic Bomb: On March 30, 2009 ERU received a request for assistance from the Pinal County Environmental Investigations Unit in regards to an explosion involving a base drain cleaner material in a improvised explosive device brought to a school at JO Combs Middle School located at 37611 N. Pecan Creek Drive located in Queen Creek, Arizona.

A student apparently brought an unknown amount of a caustic material in a device to a school yard at J.O. Combs School and threw the device across the school yard in the basket ball court area. Reports were that seven children were injured.

ERU made contact with Rich Dobson; J.O. Combs Director of Support Services and worked with Mr. Dobson to obtain a clean up contractor. A clean up contractor was hired and ERU remained on scene during the initial clean up phase of the incident.

An outside basketball court area and an adjacent desert landscape area were affected by the caustic spill. The contaminated desert landscape area was removed and packed in 30 gallon drums for disposal. The basketball court area which was contaminated was neutralized with an acid mixture. Since the spill occurred on school property, the school's personnel worked with the clean up contractor. ERU departed the scene at 1730 hours.

A.R.S. § 49-282(E) (11) also provides for reimbursement to political subdivisions for cost 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 the environment. There were no new applications received in FY 2009.

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 2009 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 and remedial actions, and for the review and approval of well construction design necessary to prevent vertical cross-contamination. The FY 2009 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 2009 accomplishments of the Risk Assessment Program can be found in Appendix 7.

APPENDIX 1

FY 2010 WQARF Site Budgets

FY 2010 WQARF Program Projected Budget

FY2010 WQARF Site Budgets

Site Name	Budget
7th Ave and Arizona	$0
7th Avenue and Bethany Home Road	$0
16th Street and Camelback	$0
20th and Factor	$325,000
56th Street and Earll Drive	$0
Broadway Pantano	$360,000
Central Avenue & Camelback Road	$180,000
Cooper and Commerce	$300,000
ECP-24th Street and Grand Canal	$0
ECP-32nd Street and Indian School	$200,000
ECP-38th Street and Indian School	$0
ECP-40th Street and Indian School	$0
ECP-40th Street and Osborn	$0
ECP-48th Street and Indian School	$0
East Washington Fluff	$0
Estes Landfill	$0
Klondyke Tailings	$0
Main Street and Kofa	$350,000
Miracle Mile	$90,000
Mountain View	$10,000
Nogales Grand Ave.	$212,500
Park Euclid	$29,000
Payson PCE	$140,000
Pinal Creek	$0
Shannon Road-Rillito Creek/El Camino del Cerro	$300,000
South Mesa	$0
Tonto & Cherry/Payson	$17,000
Tyson Wash	$45,000
Vulture Mill	$30,000
WCP - North Canal Plume	$0
WCP - North Plume	$150,000
WCP - Osborn Complex (site-specific)	$50,000
WCP - East Grand Ave.	$0
Western Avenue PCE	$76,000
West Van Buren	$10,000
Total WQARF Budget FY2010	**$2,874,500**

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
FY 09 Expenditures and FY 10 Projected Spending Plan
August 19, 2009

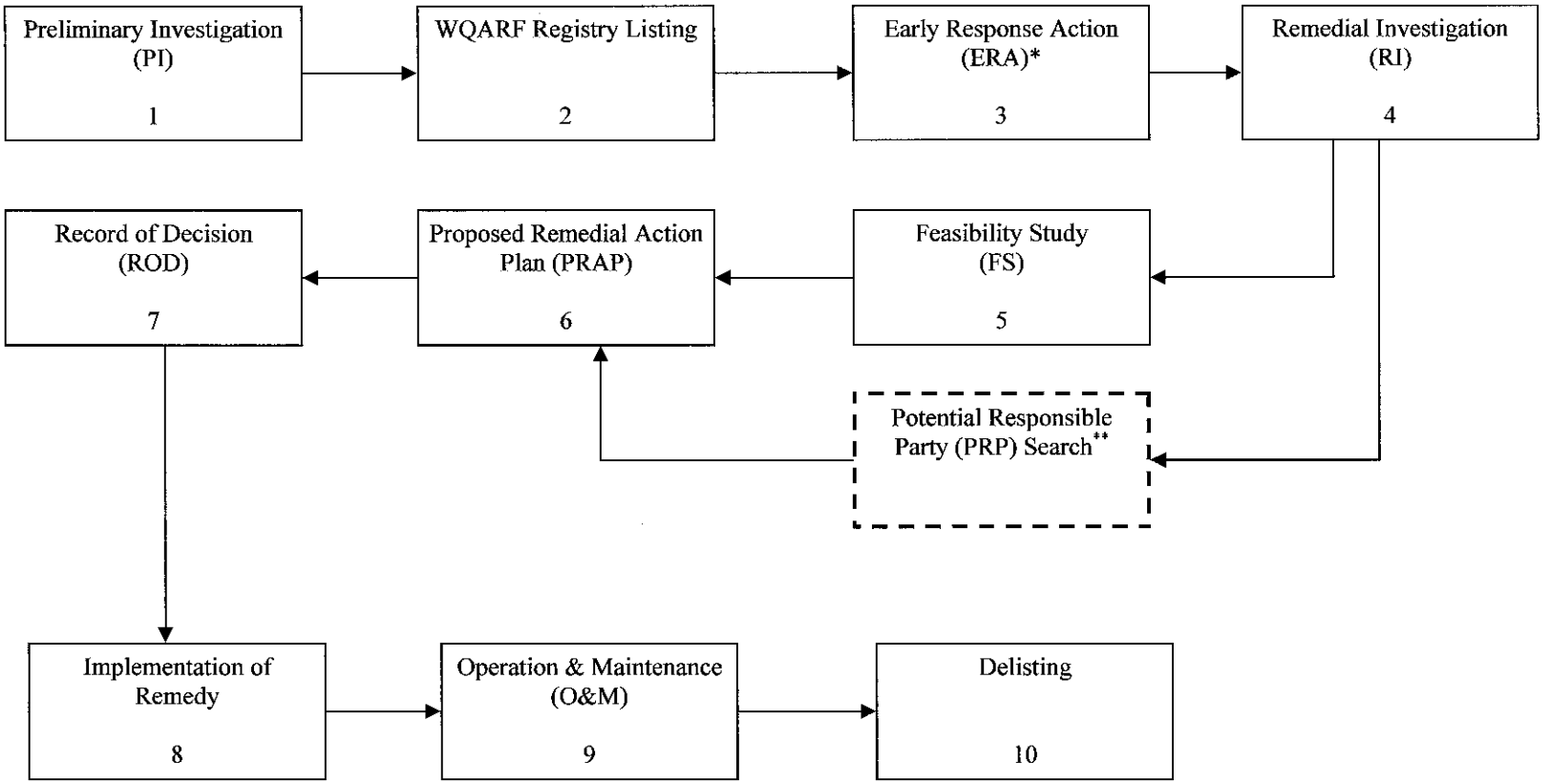
EXPENDITURE CATEGORIES	EXPENDITURES FY 2009	FY 10 SPENDING PLAN
Core Expenditures:		
WQARF Professional & Support Staff	4,350.9	4,552.8
Professional & Outside - Remedial Projects	(14.5)	34.0
Hydrologic Support & Assessment	759.5	773.7
Professional & Outside - Hydrologic Support & Assessment	250.9	50.0
Preliminary Investigations	244.8	275.3
Emergency Response	0.0	245.0
Attorney General's Office	594.2	699.8
PRP Identification/Liability	498.1	206.8
Litigation	66.3	110.1
Appeals	0.0	0.0
Advisory Board	0.0	0.0
Rule Development	0.0	0.0
Community Involvement/General WQARF	2.1	5.0
Subtotal - Core Expenditures	6,752.3	6,952.5
Registry Sites		
New Sites		500.0
RI/FS (RI, RO, FS, ERA & IRA Investigations)	3,181.3	2,102.0
Clean-up (PRAP/ROD, final O&M)	689.2	772.5
Subtotal - Registry Sites	3,870.5	3,374.5
Community Involvement (CAB)	12.8	20.0
Preliminary Investigation	103.2	200.0
Subtotal - Registry Sites & PI	3,986.6	3,594.5
Subtotal - WQARF Program	10,738.9	10,547.0
Dept of Health Services - Risk Assessment	27.0	60.0
Dept of Water Resource - Appropriation Transfer Out	525.0	300.0
Emergency Response - Aid to Municipalities	164.7	50.0
Voluntary Program	0.0	0.0
Total Disbursements	11,455.5	10,957.0

All figures expressed in thousands.

APPENDIX 2

WQARF Remedy Selection Phase Chart

WQARF Phases



* - ERAs can occur anytime before a PRAP and can occur concurrently with the rest of phases

** - PRP search proceeds concurrently with RI/FS

DESCRIPTION OF WQARF PHASES

1. Preliminary Investigation (PI)

The WQARF process begins when ADEQ receives information about a release or potential release of a hazardous substance. This information may come from a citizen complaint, from an investigation conducted by ADEQ or from an investigation conducted by an outside party. ADEQ assesses whether the information is credible, if another regulatory program has jurisdiction, or if the site is already being cleaned up voluntarily. If a potential release has occurred and no other regulatory program has jurisdiction, a WQARF PI is initiated.

The purpose of the PI is to confirm the release or potential release and determine whether further investigation or action is necessary. The PI is not a full investigation to determine the extent of the contamination nor is its purpose to identify the parties potentially responsible for the contamination. If ADEQ determines that no additional investigation or action is necessary, the site is removed from further consideration. If ADEQ determines that additional investigation or action is necessary, the site is scored using the eligibility and evaluation model and is eligible for listing on the WQARF registry.

2. WQARF Registry Listing

The WQARF registry provides public access to information on WQARF sites. The registry replaces the former WQARF Priority List and provides a list of sites where groundwater and/or soil contamination is known to be present. Sites listed on the WQARF registry qualify for WQARF funds for investigation and/or clean up. The WQARF registry contains a brief description of each site, the site's score, and the current status of the cleanup. The date that a site is added to the registry does not necessarily indicate the date that a cleanup is started.

3. Early Response Actions (ERAs)

Many years are normally required to conduct a full investigation of a site and select the remedy. ADEQ developed the ERA process to address contamination where human health or the environment 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. ERAs may be relatively inexpensive short-term actions, such as fencing or providing alternative water supplies, or they may involve an expensive large-scale groundwater treatment system.

An initial evaluation (ERA evaluation) of risks at a site occurs immediately after a site is listed in the WQARF registry. If a current or potential risk to human health or the environment exists through direct contact with a hazardous substance, an ERA may be implemented immediately. If there is no risk, ADEQ collects information about a site to determine if an ERA is appropriate to protect a water supply or to prevent the spread of contamination. A site is continuously reevaluated as more data becomes available and an ERA can be implemented at any time prior to the selection of a final remedy. Just as with the selection of a final remedy, the implementation of an ERA includes design and construction and may include a period of operation and maintenance.

4. The Remedial Investigation (RI)

The purpose of a RI is to collect enough information to determine the appropriate cleanup actions needed at the site. The information collected includes the physical characteristics of the site; the nature, extent and sources of the contamination and the actual and potential impacts of contaminants on the site to public health, welfare and the environment. The RI also identifies present and reasonably foreseeable uses of land and waters of the state that have been or may be impacted by the contamination.

After conditions at the site are known, ADEQ holds public meetings to establish remedial objectives. ADEQ invites land owners, local governments, water providers, and the public to discuss land and water uses impaired or lost due to the contamination as well as future uses which could be impacted by the contamination. Based upon this input, ADEQ prepares a report of the proposed remedial objectives for the site that lists the uses, the time-frames when completion of cleanup is required to protect or provide for the use, and the duration of the required actions.

5. The Feasibility Study (FS)

Using the information collected in the RI, the FS documents technologies and options that may achieve remedial objectives. Various options are identified and compared to facilitate selection of the most feasible and cost-effective cleanup method for the site.

6. Proposed Remedial Action Plan (PRAP)

After the FS is completed, ADEQ prepares a PRAP to document the proposed cleanup or remedy. The plan describes the means by which the proposed remedy will meet each of the remedial objectives identified in the RI and how accomplishment of the remedial objectives is to be measured. The plan also provides an estimate of the cost of the cleanup.

If ADEQ intends to seek recovery of costs from potentially responsible parties, notice is provided to these parties of the opportunity to submit an accounting of cleanup costs they may have incurred at the site and of the opportunity to object to costs submitted by other potentially responsible parties. Any costs approved by ADEQ as reasonable and necessary may be used as a credit against potential liability in a settlement or allocation.

7. Record of Decision (ROD)

The ROD documents the selected remedy for a site. The ROD includes an estimated cost, time-frames for beginning and completing the cleanup process, and a demonstration that the selected remedy meets the remedial objectives. After the ROD is signed, an allocation process follows in which past and future costs are distributed among responsible parties.

8. Implementation of Remedy

The design and implementation stage includes the development of the engineered design of the selected remedy and implementation of the remedy through construction. A period of operation and maintenance may follow the design and construction activities.

9. Operation and Maintenance (O&M)

The O&M is conducted pursuant to a schedule applicable to the type of remedy completed. This includes performance of all operations and maintenance steps required for performance of the remedy.

10. Delisting

Once the remedy is completed at a site, or ADEQ determines that no further investigation or cleanup is needed, the site is eligible for delisting from the WQARF registry.

APPENDIX 3

Revenues and Expenditures

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
WQARF REVENUES AND EXPENDITURES
THROUGH THE PERIOD ENDING: 13th MONTH FY09
PREPARED BY OFFICE OF FISCAL SERVICES August 5, 2009

	FY 08 Actual	FY 09 Projection	FY 09 Actual
Balance			
Beginning Fund Balance - WQARF & Priority Sites	11,864.6	7,212.6	7,212.6
Beginning Fund Balance - Site Specific Account	879.4	879.4	879.4
Sub-Total: Funds Available	12,744.0	8,092.0	8,092.0
Prior Year Corporate Income Tax Reversion	(1,029.6)	0.0	0.0
Total: Balance from Prior Year	11,714.4	8,092.0	8,092.0
Revenue Subject to 18M Cap			
Corporate Income Tax	15,000.0	15,000.0	13,000.0
HB2620 SEC20 Appropriated Reduction	(2,000.0)	(2,000.0)	0.0
State Assurance Fund	0.0	0.0	0.0
Subtotal	13,000.0	13,000.0	13,000.0
Municipal Water (ARS 42-5302)	2,920.3	2,482.0	2,005.8
Fertilizer Registration (ARS 3-272)	49.8	43.0	49.9
HW Facility Registration Fee (ARS 49-929/49-930)	243.0	191.7	206.7
HW Manifest Resubmittal Fee (ARS 49-922.01)	1.4	0.0	0.1
Industrial Discharge Permit Fee (ARS 49-209)	40.3	52.5	36.8
Pesticide Registration (ARS 3-351)	905.3	916.4	1,048.3
Quality Assurance Fee (ARS 45-616)	280.0	339.0	437.8
Fees Subtotal	4,440.1	4,024.6	3,785.2
Total: Revenue Subject to 18M Cap	17,440.1	17,024.6	16,785.2
Revenue Not Subject to 18M Cap			
Consent Decrees	953.5	309.6	309.6
Cost Recovery (ARS 49-282)	514.5	275.0	348.1
Responsible Parties Subtotal	1,468.0	584.6	657.7
Prospective Purchaser Agreement (ARS 49-285.01)	33.5	61.2	70.6
Interest (ARS 49-282)	601.1	67.8	89.1
Prior Year Reimbursement (ADHS)	6.7	18.0	
Other Revenue Subtotal	641.3	147.0	159.7
Total: Revenue Not Subject to 18M Cap	2,109.3	731.6	817.3
Total: Beginning Balance and Revenue	31,263.8	25,848.2	25,694.5
Expenditures			
Non-Site Expenditures	8,123.4	7,330.6	6,944.0
Site Expenditures	11,395.2	4,533.4	3,986.6
Transfers Out	600.0	525.0	525.0
General Fund Sweep	3,053.1	13,109.3	13,109.3
Total Expenditures	23,171.7	25,498.3	24,564.8
Proposed Carry Forward			
Beginning Balance and Revenue minus Expenditures	8,092.0	349.9	1,129.7
Revenue in Excess of 18M Cap to be Reverted			0.0
Uncommitted Balance/Carry Forward	8,092.0	349.9	1,129.7

NOTE: All figures expressed in thousands.

APPENDIX 4

FY 2009 Annual WQARF Registry Report

Arizona Department of Environmental Quality
2009 Water Quality Assurance Revolving Fund Registry

Pursuant to Arizona Revised Statute (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, 2008. 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 to humans or the environment. 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 Street, Phoenix, AZ. Please contact (602) 771-4380 or the toll free number 1-800-234-5677 ext. 7714380, 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 W. Rose Lane, to the south by W. Bethany Home Road, to the east by N. 5th Avenue and to the west by N. 8th Avenue. It 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 tetrachloroethene (PCE) contamination. The ERA evaluation consisted of drilling ten soil borings and the installation of five soil vapor extraction wells and two groundwater monitor wells at the site. Additional off-site groundwater monitor wells were installed in 2005.

Based on the results of the ERA Evaluation, soil vapor extraction (SVE) was chosen for remediation of PCE contaminated soil beneath the site. The SVE system began operations in June 2005 and the SVE system was shut down in January 2006 after recovering approximately 380 pounds of volatile organic compounds (VOCs). Confirmation soil samples indicated that the source area soils had been successfully remediated to levels that are below ADEQ soil remediation levels and groundwater protection levels. ADEQ initiated an investigation of an additional dry cleaner in the area of the site.

A dry cleaner operated at 6022 N. 7th Avenue from the 1960s to approximately 1990. Field investigations in the early 1990s indicated a release of PCE but the impact to the groundwater was not evaluated at that time. During March 2008, two monitor wells were installed on and near the property, and four additional borings were drilled and sampled adjacent to the building that housed the dry cleaner. Results of the investigation indicate PCE has been released to the soil and groundwater beneath the site but concentrations remaining in the soil at the property did not warrant further remediation. Concentrations of PCE in the groundwater range from 8.0 to 24 parts per billion. Trichloroethene (TCE) and vinyl chloride are also present above their respective Aquifer Water Quality Standards.

In December 2008, ADEQ granted Bayless Investment and Trading Company a No Further Action (NFA) Determination for soil at the site located at 540 W. Bethany Home Road, Phoenix, AZ. The soil NFA is for VOCs in soil and does not address any other area of land, groundwater or any other contaminants.

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 detected, but concentrations are below the drinking water regulatory standard. ADEQ will be establishing a community advisory board. ADEQ will complete the Draft Remedial Investigation Report in house.

Contaminants of concern at the site include PCE and 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 area extending approximately 1,200 feet from the former Oliver's Cleaners facility at 300 E. 7th Street to approximately 150 feet north of 6th Street and approximately 100 feet east of 7th Avenue.

ADEQ operates the soil vapor extraction (SVE) system as an early response action for the site. Over 700 pounds of volatile organic compounds were removed by the SVE system. No drinking water wells have been impacted by the contamination from the site. The remedial investigation has not been initiated.

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 15th Street to the west.

Based on the results of an Early Response Action Evaluation conducted in 2003, ADEQ determined that soil vapor extraction was not a feasible remedy for the site. The ADEQ is currently evaluating other potential remedies for the site and groundwater monitoring activities are on-going. The remedial investigation has not been initiated.

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 4th Avenue.

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). As part of the ERA, ADEQ excavated and disposed of the upper foot of cyanide-contaminated surface soils. Approximately 1,700 tons of contaminated soils were removed. In 2003, soil vapor samples were collected from at the Site to help evaluate the vertical extent of tetrachloroethene (PCE) contamination. In 2007, installation of additional deep groundwater monitor wells indicated that groundwater was present in three distinct zones: shallow at 50 to 90 feet below ground surface (bgs); middle (105 to 170 feet bgs) and deep (starting at 170 feet bgs). Each zone is divided by separate clay units. Groundwater samples from each zone indicated that the majority of the contaminant plume was located within the middle zone.

In 2008, ADEQ conducted a soil gas survey north and west of the Houston property to locate potential sources areas. Six permanent soil vapor monitoring probes were installed as part of the soil gas survey. Groundwater monitoring activities are on-going and no drinking water wells have been impacted by the contamination from the site. The remedial investigation has been initiated.

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

56th Street and 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 plume is bounded by Earll Drive to the north, Loop 202 (Red Mountain Freeway) to the south, 56th Street to the east and 32nd Street to the west.

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 trichloroethene (TCE) groundwater contaminant plumes are separate and distinct plumes. ADEQ is working cooperatively with a party potentially responsible for the contamination to further evaluate the site and develop a cleanup strategy. An early response action (ERA) evaluation has been completed, and the working party is currently designing an ERA groundwater pump and treat system that will include installation of two monitor wells and two extraction wells. ADEQ is in the process of negotiating a Consent Order with the working party. A community advisory board has been established for this site.

Contaminants of concern at the site include TCE.

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 to the west.

The approximate groundwater flow direction is to the west. Four Tucson Water production wells have been removed from service as a result of groundwater contaminated with volatile organic compounds (VOCs). A groundwater containment system has been installed to prevent further westward migration of contaminated groundwater and impacts to additional wells. The groundwater system has removed 46.8 pounds of tetrachloroethene (PCE). Confirmed sources of the groundwater contamination are the former Broadway North and South Landfills. A soil vapor extraction system was installed at the Broadway North Landfill in 2000 to remove and treat contaminated VOC landfill gases contributing to the groundwater contamination. This system was operated until 2002 and removed over 5,000 pounds of VOCs. The groundwater Remedial Investigation (RI) Report is nearing completion. The landfill RI is still in progress and a community advisory board has been established for this site.

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

Central Avenue and Camelback Road – This site was placed on the WQARF Registry in June 2000 and has a score of 32. The boundaries of the site are approximately Missouri Avenue to the north, 1st Street to the east, Pierson Street to the south and 3rd Avenue to the west.

In January 2003, ADEQ completed construction of a groundwater treatment system to remediate and control the migration of contaminated groundwater at the site as an early response action (ERA). The groundwater pump and treat system has been in operation since January 2003 and treats approximately 100 gallons per minute of groundwater. Cumulative tetrachloroethene (PCE) recovery is 271 pounds since start-up of this system in January 2003. In June 2004, ADEQ initiated an ERA evaluation of a former dry cleaner facility. Based on the results of the ERA evaluation, soil vapor extraction (SVE) was proposed for remediation of PCE contaminated soil beneath the site. The SVE system was installed in November 2007 and is currently in operation. Cumulative PCE/ trichloroethene (TCE) recoveries as of December 2008 are 1,834 pounds. The remedial investigation was initiated in 2007, and a community advisory board has been established for this site.

Contaminants of concern at the site include PCE, TCE, cis-1,2-dichloroethene (DCE) and vinyl chloride. Other contaminants present due to past releases from gasoline underground storage tanks in the area include benzene, toluene, ethylbenzene, total xylenes, methyl tertiary butyl ether, and 1,2-dichloroethane (DCA).

Cooper Road and Commerce Avenue – This 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 Cooper Road and the plume is bounded to the north by West Encinas Street, to the south by the Neely Ranch Preserve, to the east by the N. Neely Street and to the west by N. Ocotillo Drive.

Tetrachloroethene (PCE) and trichloroethene (TCE) have been detected in the 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 located nearby. Installation of off-site monitor wells began in 2003 and quarterly groundwater monitoring has been conducted at the site since March 2005.

ADEQ initiated an Early Response Action (ERA) Evaluation of the site in March 2006 to collect data necessary to characterize the source areas of volatile organic compounds and metals contamination at the site. The ERA Evaluation consisted of drilling and sampling twenty soil borings and installation of two soil vapor extraction (SVE)/air sparge (AS) wells, a groundwater extraction well and three soil vapor monitor wells. Construction of the SVE/AS and groundwater pump and treat remediation systems was completed in July 2008. Initial startup of the SVE system occurred on December 22, 2008. A community advisory board has been established for the site.

Contaminants of concern at the site in groundwater include PCE and TCE. Contaminants of concern in the soils at the site include PCE, arsenic, chromium, cooper, 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 current site boundary is a 400 foot diameter area centered around Salt River Project (SRP) Well 16E-6.8N.

ADEQ prepared a fact sheet as part of the A.R.S. § 49-287.03 notification to begin the remedial investigation (RI) for the site. ADEQ sent all A.R.S. § 49-287.03 notices and fact sheets out in June 2007. A community advisory board has been established for this site.

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 has two separate areas of groundwater contamination. The plumes are bounded by E. Monterosa Street to the north, 30th Street to the west, E. Clarendon Avenue to the south, and 32nd Place to the east.

ADEQ initiated a soil vapor extraction (SVE) early response action in December 2004 and approximately 3,100 pounds of PCE have been removed through December 2006. The SVE equipment has been dismantled at this site for use at another WQARF site. ADEQ prepared a fact sheet as part of the A.R.S. § 49-287.03 notification to begin the RI for the site. ADEQ sent all A.R.S. § 49-287.03 notices and fact sheets out in June 2007. A community advisory board has been established for this site.

Contaminants of concern at the site include 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 plume is bounded by Indian School Road to the north, 38th Street to the east, Picadilly Road to the south and 36th Street to the west.

ADEQ prepared a fact sheet as part of the A.R.S. § 49-287.03 notification to begin the RI for the site. ADEQ sent all A.R.S. § 49-287.03 notices and fact sheets out in June 2007. A community advisory board has been established for this site.

Contaminants of concern at the site include 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 plume is bounded by Devonshire Avenue to the north,

41st Street to the east, Amelia Avenue to the south, and 38th Street to the west.

ADEQ conducted an early response action, which consisted of a soil vapor extraction and air sparging system to remediate the source of PCE in the soil and groundwater. The system was started in December 2004 and extracted approximately 35 pounds of PCE from the subsurface. The system was shut down in June 2005.

ADEQ prepared a fact sheet as part of the A.R.S. § 49-287.03 notification to begin the RI for the site. ADEQ sent all A.R.S. § 49-287.03 notices and fact sheets out in June 2007. A community advisory board has been established for this site.

Contaminants of concern at the site include 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 current site boundary is an 800 foot diameter area centered around SRP Well 17.9E-7.5N.

ADEQ prepared a fact sheet as part of the A.R.S. § 49-287.03 notification to begin the RI for the site. ADEQ sent all A.R.S. § 49-287.03 notices and fact sheets out in June 2007. A community advisory board has been established for this site.

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 plume is bounded by Devonshire Avenue to the north, 48th Street to the east, E. Fairmont Avenue to the south and 45th Place to the west.

ADEQ and the SRP have entered into an agreement to conduct a source control interim remedial action (IRA). As part of the IRA, SRP constructed a soil vapor extraction system to remediate the source of PCE in soil at the site. Approximately 295 pounds of PCE have been removed since start-up in February 2006. Groundwater monitoring activities are currently being conducted at the site.

ADEQ prepared a fact sheet as part of the A.R.S. § 49-287.03 notification to begin the RI for the site. ADEQ sent all A.R.S. § 49-287.03 notices and fact sheets out in June 2007. A community advisory board has been established for this site.

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 ten-acre site is located in Phoenix at 433 E. Buckeye Road

An early response action (ERA) was conducted to remove auto shredder fluff piles and install a protective cap to prevent exposure to contaminants. The ERA was completed in September 2001. The remedial investigation, feasibility study, and proposed remedial action plan have been completed. On May 18, 2007, a Declaration of Environmental Use Restriction (DUER) was placed on the site that provides for a non-residential use restriction and acknowledges that there is an engineering control on the site. The pad was removed in 2008 and the cap was extended. A modified DUER will be recorded for the property.

Contaminants of concern in soil at the site include arsenic, lead, cadmium and polychlorinated biphenyls. 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 proposed remedial action plan (PRAP) have been completed. ADEQ is evaluating comments to the PRAP and is preparing a responsiveness summary. In January 2008, methane and VOC vapor samples were collected from the landfill.

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, and lead in groundwater; 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 during the remedial investigation (RI) phase of the site investigation including a bioavailability study, biological, archeological and cultural resources surveys and an acid-base accounting study. Private wells in the area were sampled to help determine the impacts of the tailings on the groundwater. No contaminants were found in the groundwater above regulatory levels. Sampling to determine the extent of off-site soil contamination began in 2006. To date, approximately 2,500 soil samples have been collected from the site and adjacent properties and analyzed by x-ray fluorescence. The limits of the 400 mg/kg residential Soil Remediation Level for lead have been defined to extend approximately 1/2 mile from the site and impact nine properties adjacent to the site.

Early response action activities continue at the site. These activities have included geophysical surveys to identify the presence of buried tanks or drums and minor repairs to the berms on the tailings piles to prevent erosion by rainfall. Aerial photography, topographic mapping, historic aerial photography analysis, floodplain delineation and analysis of the 10, 25, 50 and 100-year floodplains and a geomorphology study of Aravaipa and Laurel Creeks were done to evaluate possible remedies due to the site's location near these creeks. ADEQ selected gabion mattresses for erosion protection in October 2007. Erosion protection installation began in March 2008. As of June 30, 2008, erosion protection installation is complete on the upper tailings pile and the clean soil cap has been seeded. ADEQ, with the assistance of the EPA, is evaluating soil removal options on the residential properties located in the vicinity of the site. A draft of the RI Report was received from the contractor for ADEQ's review. ADEQ will work internally to finish the Draft RI Report. 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, has completed additional site characterization, and is in the process of expanding the groundwater treatment system to treat the additional contaminated water. Since 2000, the system has removed 10.7 pounds of tetrachloroethene (PCE) and 3.7 pounds of trichloethene (TCE).

Contaminants of concern at the site include PCE and 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.

The local water provider is operating an ADEQ funded wellhead treatment system as an early response action for the regional aquifer. The Remedial Investigation Report is nearing completion. 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 9th 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 monitor groundwater conditions upgradient from the University of Arizona water supply wells. Mission Linen operates a multi-phase extraction system at their property. This system removes tetrachloroethene (PCE) from groundwater and diesel free product. The remedial investigation is nearly complete, and a community advisory board has been established for this site.

Contaminants of concern at the site include 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 the plume is bounded approximately by Main Street to the north, Cedar Lane to the south, Beeline Highway (State Route 87) to the east, and McLane Road to the west.

Two groundwater treatment systems have been constructed. The Interim Groundwater Treatment System (IGTS) was constructed to remediate the contamination in the source area. The IGTS was operated from October 1998 to January 2003 and was shut down due to lowered levels of contamination. The Expanded Groundwater Treatment System (EGTS) began operation in October 1998 and continues to operate at the site treating contaminated water and preventing the contamination plume from migrating further. Treated water from the EGTS is delivered to the Town of Payson drinking water system. A soil vapor extraction system was installed in August 2001, and has been shut down after contaminants were removed. The remedial investigation, feasibility study, and proposed remedial action plan have been completed. ADEQ completed the Record of Decision for the site in June 2007. The site is currently in the operation and maintenance phase.

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 Freeport McMoRan (formerly 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.

Since 1988, the Pinal Creek Group (PCG), which consists of BHP, Freeport McMoRan and Inspiration Copper, has been conducting remedial actions including source control and has completed remedial investigations, risk assessments, a feasibility study and a recommended remedial action plan. It has also conducted a well replacement program for contaminated private and public supply wells. The PCG has been conducting groundwater extraction and treatment from the alluvial and the regional aquifers since 1988.

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 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. In January 2005, 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, based on sampling results showing there is a single site.

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 were removed from service. Metropolitan Domestic Water Improvement District is operating an ADEQ-funded wellhead treatment system as an early response action for the regional aquifer. The wellhead treatment system removes volatile organic compounds and arsenic in the groundwater in order to meet drinking water standards. The remedial investigation 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), 1,1-dichloroethene (1,1-DCE), vinyl chloride, benzene, and lead.

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 N. 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 a closed landfill of approximately 40 acres.

In October 1999, the City began operation of a soil vapor extraction system to remove volatile organic compounds (VOCs) from the soil. This system was operated for VOC removal until December 2006, by which time it had removed 2,089 pounds of VOCs including 748 pounds of tetrachloroethene (PCE). From December 2006 until April 2008, it was operated intermittently to control methane migration. In April 2008, the system was shut down and the equipment removed. The City is currently evaluating alternative methods for groundwater remediation at the landfill.

Contaminants of concern at the site include 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 10th 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 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. ADEQ shutdown the SVE system in November 2007 and removed it from the site in June 2008. The remedial investigation (RI) work has been completed and Draft RI Report is undergoing ADEQ review. 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 plume is a northwest-trending area, bounded by W. Cherry Street to the north, S. Colcord Road to the east, S. Tonto Street to the west and W. Frontier Street to the south.

Final reports include the Remedial Investigation Report completed May 21, 2007, the Feasibility Study Report completed July 6, 2007, the Proposed Remedial Action Plan completed June 20, 2008 and the Record of Decision (ROD) completed November 10, 2008. The community advisory board concluded its work and disbanded with the implementation of the ROD.

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 the contaminated groundwater plume is bounded by W. Sunset Street to the north, Oregon Avenue to the west, Main Street (Business I-10) to the south, and N. Central Boulevard (SR-95) to the east. The known groundwater contamination exists northwest of the intersection of State Hwy 95 and Business Route I-10 in the Town of Quartzsite.

As part of an early response action a groundwater treatment system was constructed and is currently being operated to prevent migration of the plume to private drinking water wells. The remedial investigation was completed June 30, 2003 with the feasibility study completed on June 23, 2007 and the Proposed Remedial Action Plan was completed in June 2008 with no comments received from the public. 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 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.

The Record of Decision was signed in September 1999 and ADEQ has implemented 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.

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 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 Remedial Investigation (RI) Report has been completed. In 2004, a working party constructed and still operates a soil vapor extraction system at the former Van Waters and Rogers facility. To date, over 1,000 pounds of volatile organic compounds (VOCs) have been removed. The working party is in the process of completing the Feasibility Study (FS). 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 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 RI was initiated in February 2001 and ADEQ conducted early response action evaluations in 2005. A Draft RI Report was completed for the project area, and the Final RI Report is in the process of completion. A community advisory board has been established for this site.

Contaminants of concern at the site include PCE, 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 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 RI is underway and a soil vapor extraction (SVE) system was installed at the F and B Manufacturing facility as part of an early response action (ERA). To date, the SVE system has removed over 41,000 pounds of VOCs. Further ERAs evaluations are being conducted to address groundwater contamination.

Through a working party agreement an SVE system has been operating at the Hill Brothers Chemical Company. To date this system has removed over 250 pounds of VOCs from the soils below the surface. The Remedial Objectives (RO) Report was completed in July 2008. A community advisory board has been established for this site.

Contaminants of concern at the site include PCE and 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 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 RI Report was completed along with the ROs in March 2005 for the site. A community advisory board has been established for this site

The contaminant of concern at the site is 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 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.

The RI Report was completed along with the ROs in May 2005 for the site. FS Reports for the deep and shallow plumes for the project site have been submitted and are being evaluated by ADEQ. A community advisory board has been established for this site.

Contaminants of concern at the site include TCE and 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, 7th Avenue to the east, and 83rd Avenue to the west. Between 7th Avenue and 27th Avenue, there is an extension of the plume south to Lower Buckeye Road.

Reynolds Metals Co. operated an SVE system periodically from 1989 to 1991. Approximately 3,100 tons of contaminated soil was excavated and hauled from the facility. A No Further Action (NFA) determination for 14 release areas was issued to Reynolds Metals Company in 2000. Maricopa County Materials Management operated a SVE system at their facility during the third and fourth quarter of 1997. In 2001, Maricopa County settled with ADEQ. Dolphin Incorporated began operation of a soil vapor extract (SVE)/air sparge (AS) system at their facility in October 1998. In December 2002, Dolphin received authorization from ADEQ for shut-down of the SVE/AS system. An SVE system was installed and operated periodically at the Van Waters and Rogers facility from 1992 to 1998. In August 2002, ADEQ issued a no further action (NFA) determination for the former Van Waters and Rogers facility. ChemResearch Company Inc. excavated and disposed of contaminated soil from beneath their facility. SVE/AS and groundwater pump and treat remediation systems began operation in March 2001 at the former American Linen Supply Company (ALSCo). This SVE/AS was discontinued in May 2003 because the response action objectives were attained. A groundwater pump and treat system continued operations until September 12, 2003 at which time ADEQ determined the system had reached its limit of effectiveness. ADEQ granted ALSCo an NFA determination for soil on March 24, 2008. Air Liquide America Specialty Gases, LLC and Prudential Overall Supply are currently conducting work under Consent Orders.

Additional monitoring wells were installed by ADEQ to delineate the extent of the contamination and further investigate potential source areas. The remedial investigation was completed and the report was submitted for public comment on October 31, 2008. Five parties submitted comments within the 60-day comment period. The final remedial investigation report and remedial objectives is in progress. 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, 3rd 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.

The Remedial Investigation Report along with the remedial objectives have been completed. 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).

DESCRIPTION OF WQARF PHASES

1. Preliminary Investigation (PI)

The WQARF process begins when ADEQ receives information about a release or potential release of a hazardous substance. This information may come from a citizen complaint, from an investigation conducted by ADEQ or from an investigation conducted by an outside party. ADEQ assesses whether the information is credible, if another regulatory program has jurisdiction, or if the site is already being cleaned up voluntarily. If a potential release has occurred and no other regulatory program has jurisdiction, a WQARF PI is initiated.

The purpose of the PI is to confirm the release or potential release and determine whether further investigation or action is necessary. The PI is not a full investigation to determine the extent of the contamination nor is its purpose to identify the parties potentially responsible for the contamination. If ADEQ determines that no additional investigation or action is necessary, the site is removed from further consideration. If ADEQ determines that additional investigation or action is necessary, the site is scored using the eligibility and evaluation model and is eligible for listing on the WQARF registry.

2. WQARF Registry Listing

The WQARF registry provides public access to information on WQARF sites. The registry replaces the former WQARF Priority List and provides a list of sites where groundwater and/or soil contamination is known to be present. Sites listed on the WQARF registry qualify for WQARF funds for investigation and/or clean up. The WQARF registry contains a brief description of each site, the site's score, and the current status of the cleanup. The date that a site is added to the registry does not necessarily indicate the date that a cleanup is started.

3. Early Response Actions (ERAs)

Many years are normally required to conduct a full investigation of a site and select the remedy. ADEQ developed the ERA process to address contamination where human health or the environment 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. ERAs may be relatively inexpensive short-term actions, such as fencing or providing alternative water supplies, or they may involve an expensive large-scale groundwater treatment system.

An initial evaluation (ERA evaluation) of risks at a site occurs immediately after a site is listed in the WQARF registry. If a current or potential risk to human health or the environment exists through direct contact with a hazardous substance, an ERA may be implemented immediately. If there is no risk, ADEQ collects information about a site to determine if an ERA is appropriate to protect a water supply or to prevent the spread of contamination. A site is continuously reevaluated as more data becomes available and an ERA can be implemented at any time prior to the selection of a final remedy. Just as with the selection of a final remedy, the implementation of an ERA includes design and construction and may include a period of operation and maintenance.

4. The Remedial Investigation (RI)

The purpose of a RI is to collect enough information to determine the appropriate cleanup actions needed at the site. The information collected includes the physical characteristics of the site; the nature, extent and sources of the contamination and the actual and potential impacts of contaminants on the site to public health, welfare and the environment. The RI also identifies present and reasonably foreseeable uses of land and waters of the state that have been or may be impacted by the contamination.

After conditions at the site are known, ADEQ holds public meetings to establish remedial objectives. ADEQ invites land owners, local governments, water providers, and the public to discuss land and water uses impaired or lost due to the contamination as well as future uses which could be impacted by the contamination. Based upon this input, ADEQ prepares a report of the proposed remedial objectives for the site that lists the uses, the time-frames when completion of cleanup is required to protect or provide for the use, and the duration of the required actions.

5. The Feasibility Study (FS)

Using the information collected in the RI, the FS documents technologies and options that may achieve remedial objectives. Various options are identified and compared to facilitate selection of the most feasible and cost-effective cleanup method for the site.

6. Proposed Remedial Action Plan (PRAP)

After the FS is completed, ADEQ prepares a PRAP to document the proposed cleanup or remedy. The plan describes the means by which the proposed remedy will meet each of the remedial objectives identified in the RI and how accomplishment of the remedial objectives is to be measured. The plan also provides an estimate of the cost of the cleanup.

If ADEQ intends to seek recovery of costs from potentially responsible parties, notice is provided to these parties of the opportunity to submit an accounting of cleanup costs they may have incurred at the site and of the opportunity to object to costs submitted by other potentially responsible parties. Any costs approved by ADEQ as reasonable and necessary may be used as a credit against potential liability in a settlement or allocation.

7. Record of Decision (ROD)

The ROD documents the selected remedy for a site. The ROD includes an estimated cost, time-frames for beginning and completing the cleanup process, and a demonstration that the selected remedy meets the remedial objectives. After the ROD is signed, an allocation process follows in which past and future costs are distributed among responsible parties.

8. Implementation of Remedy

The design and implementation stage includes the development of the engineered design of the selected remedy and implementation of the remedy through construction. A period of operation and maintenance may follow the design and construction activities.

9. Operation and Maintenance (O&M)

The O&M is conducted pursuant to a schedule applicable to the type of remedy completed. This includes performance of all operations and maintenance steps required for performance of the remedy.

10. Delisting

Once the remedy is completed at a site, or ADEQ determines that no further investigation or cleanup is needed, the site is eligible for delisting from the WQARF registry.

APPENDIX 5

Water Quality Assessment and Management Program

Arizona Department of Water Resources
Arizona Water Quality Fund
Year-End Summary
Fiscal Year 2009

1. ADWR WQARF Support Program Objectives

- Provide technical review of well applications (Notices of Intent to Drill or Abandon and Groundwater Withdrawal Permits)* and consult with Arizona Department of Environmental Quality (ADEQ) regarding new wells near contaminant sites.

- Conduct well inventories to support ADEQ's WQARF Program.+

- Coordinate with ADEQ regarding database needs in support of ADEQ's WQARF Program.*

- Establish mechanism to exchange verified well locations and GPS measurements within ADWR's Well Registry (WELLS55) database.+

- Perform other WQARF and water quality activities as required by statute, rule, or Interagency Service Agreement (ISA).

*Required by statute or rule
+Recommended by Groundwater Cleanup Task Force

2. ADWR WQARF Support Program Accomplishments: Fiscal Year 2009

- Well application and withdrawal permit review:
  - Reviewed 2,516 Notices of Intent (NOI) to Drill, Modify, or Abandon a Well for proximity to a WQARF/CERCLA or other contaminated sites.
  - Performed technical review of 1,218 NOIs to Drill/Abandon/Modify wells near or within WQARF/CERCLA sites for water quality concerns and well construction.
  - Reviewed 107 permit applications to withdraw groundwater, including Poor Quality Ground Water Withdraw Permits for remediation projects.

- Well inventories:
  - Vulture Mill, Wickenburg – Awaiting comments from ADEQ. 99% complete
  - Central Phoenix – Comprised of three WQARF sites (7th Avenue and Bethany Home Road, Central and Camelback, and 16th Street and Camelback). Completed ADEQ data submittal, report, and map. Awaiting any comments from ADEQ. 99% complete
  - East Central Phoenix – Comprised of six WQARF sites (24th Street and Grand Canal, 32nd Street and Indian School, 38th Street and Indian School, 40th Street and Indian School, 40th Street and Osborn Road, 48th Street and Indian School). Completed fieldwork and data review, database uploads, and ADEQ data submittal, report, and map. Awaiting any comments from ADEQ. 99% complete

- Other WQARF and Water Quality Activities
  - Submitted monthly and quarterly reports to ADEQ and the WQARF Advisory Board as required by the ADEQ-ADWR ISA.
  - Submitted annual report on ADWR WQARF activities to the Governor, Legislature, and WQARF Advisory Board for fiscal year 2008.

3. Statement of Revenues and Expenditures – Fiscal Year 2009

Arizona Water Quality Fund

Statement of Revenues and Expenditures
Fiscal Year 2009 for the period through June 2009

Description	Amount
Funds Available	
Balance Forward 07/01/08	$536,678
Transfer from ADEQ	525,000
Earnings on Investments (estimate)	9,846
Total Funds Available	$1,071,524
Expenditures	
Personal Services	$240,431
Employee Related Expenditures	73,121
Professional & Outside Services	-
In State Travel	11,643
Out of State Travel	-
Other Operating Expenditures	9,471
Capital Equipment	-
Non-Capital Equipment	-
Indirect	162,331
Total Expenditures	$496,997
Fund Takings by Legislature	(324,800)
Fund Balance, June 30, 2009	$249,727*

* The proposed FY2010 Budget shows a fund sweep of $240,600, expected to occur on July 1, 2009, or shortly thereafter, which will leave a fund balance $9,127.

4. ADWR WQARF Support Program Activities: Fiscal Year 2010

- Continue technical review of Notices of Intent to Drill, Abandon, or Modify a Well for water quality concerns and for compliance with applicable well construction requirements to prevent vertical cross-contamination between aquifers.

- Continue technical review of Groundwater Withdrawal Permit Applications for potential impacts to other wells of record from plume migration, and for compliance with applicable well construction requirements to prevent vertical cross-contamination between aquifers.

- Complete backlog (responding to ADEQ comments and revisions to submitted data) of in process well inventories (Central Phoenix, East Central Phoenix).

- Continue to coordinate with ADEQ regarding database needs in support of the WQARF Program.
- Continue to prepare monthly, quarterly, annual and other reports as specified in the Inter-agency Service Agreement for fiscal year 2010.
- Submit annual report on ADWR WQARF activities to the Governor, Legislature, and WQARF Advisory Board for fiscal year 2009.

5. ADWR Budget - Fiscal Year 2010

Arizona Water Quality Fund
Budget - Fiscal year 2010

Description	Amount
Funds Available	
Balance Forward 07/01/09	$249,727
Transfer from ADEQ	300,000
Total Funds Available	$549,727
Expenditures	
Personal Services	$173,824
Employee Related Expenditures	59,274
In State Travel	-
Other Operating Expenditures	975
Non-Capital Equipment	-
Indirect	117,808
Total Expenditures	$351,881
Less Fund Taking by Legislature FY10	(240,600)
Fund Balance (06/30/10 estimate)	$(42,754)

*FTE will need to be transferred to other funding sources when balance of fund approaches zero.

APPENDIX 6

Well Inspection and Approval Program

Arizona Department of Water Resources
Arizona Water Quality Fund
Year-End Summary
Fiscal Year 2009

1. ADWR WQARF Support Program Objectives

- Provide technical review of well applications (Notices of Intent to Drill or Abandon and Groundwater Withdrawal Permits)* and consult with Arizona Department of Environmental Quality (ADEQ) regarding new wells near contaminant sites.

- Conduct well inventories to support ADEQ's WQARF Program.+

- Coordinate with ADEQ regarding database needs in support of ADEQ's WQARF Program.*

- Establish mechanism to exchange verified well locations and GPS measurements within ADWR's Well Registry (WELLS55) database.+

- Perform other WQARF and water quality activities as required by statute, rule, or Interagency Service Agreement (ISA).

*Required by statute or rule
+Recommended by Groundwater Cleanup Task Force

2. ADWR WQARF Support Program Accomplishments: Fiscal Year 2009

- Well application and withdrawal permit review:
  - Reviewed 2,516 Notices of Intent (NOI) to Drill, Modify, or Abandon a Well for proximity to a WQARF/CERCLA or other contaminated sites.
  - Performed technical review of 1,218 NOIs to Drill/Abandon/Modify wells near or within WQARF/CERCLA sites for water quality concerns and well construction.
  - Reviewed 107 permit applications to withdraw groundwater, including Poor Quality Ground Water Withdraw Permits for remediation projects.

- Well inventories:
  - Vulture Mill, Wickenburg – Awaiting comments from ADEQ. 99% complete
  - Central Phoenix – Comprised of three WQARF sites (7th Avenue and Bethany Home Road, Central and Camelback, and 16th Street and Camelback). Completed ADEQ data submittal, report, and map. Awaiting any comments from ADEQ. 99% complete
  - East Central Phoenix – Comprised of six WQARF sites (24th Street and Grand Canal, 32nd Street and Indian School, 38th Street and Indian School, 40th Street and Indian School, 40th Street and Osborn Road, 48th Street and Indian School). Completed fieldwork and data review, database uploads, and ADEQ data submittal, report, and map. Awaiting any comments from ADEQ. 99% complete

- Other WQARF and Water Quality Activities
  - Submitted monthly and quarterly reports to ADEQ and the WQARF Advisory Board as required by the ADEQ-ADWR ISA.
  - Submitted annual report on ADWR WQARF activities to the Governor, Legislature, and WQARF Advisory Board for fiscal year 2008.

Arizona Department of Water Resources
Arizona Water Quality Fund
Year-End Summary
Fiscal Year 2009

3. Statement of Revenues and Expenditures – Fiscal Year 2009

Arizona Water Quality Fund
Statement of Revenues and Expenditures
Fiscal Year 2009 for the period through June 2009

Description	Amount
Funds Available	
Balance Forward 07/01/08	$536,678
Transfer from ADEQ	525,000
Earnings on Investments (estimate)	9,846
Total Funds Available	$1,071,524
Expenditures	
Personal Services	$240,431
Employee Related Expenditures	73,121
Professional & Outside Services	-
In State Travel	11,643
Out of State Travel	-
Other Operating Expenditures	9,471
Capital Equipment	-
Non-Capital Equipment	-
Indirect	162,331
Total Expenditures	$496,997
Fund Takings by Legislature	(324,800)
Fund Balance, June 30, 2009	$249,727*

* The proposed FY2010 Budget shows a fund sweep of $240,600, expected to occur on July 1, 2009, or shortly thereafter, which will leave a fund balance $9,127.

4. ADWR WQARF Support Program Activities: Fiscal Year 2010

- Continue technical review of Notices of Intent to Drill, Abandon, or Modify a Well for water quality concerns and for compliance with applicable well construction requirements to prevent vertical cross-contamination between aquifers.

- Continue technical review of Groundwater Withdrawal Permit Applications for potential impacts to other wells of record from plume migration, and for compliance with applicable well construction requirements to prevent vertical cross-contamination between aquifers.

- Complete backlog (responding to ADEQ comments and revisions to submitted data) of in process well inventories (Central Phoenix, East Central Phoenix).

- Continue to coordinate with ADEQ regarding database needs in support of the WQARF Program.
- Continue to prepare monthly, quarterly, annual and other reports as specified in the Inter-agency Service Agreement for fiscal year 2010.
- Submit annual report on ADWR WQARF activities to the Governor, Legislature, and WQARF Advisory Board for fiscal year 2009.

5. ADWR Budget - Fiscal Year 2010

Arizona Water Quality Fund
Budget - Fiscal year 2010

Description	Amount
Funds Available	
Balance Forward 07/01/09	$249,727
Transfer from ADEQ	300,000
Total Funds Available	$549,727
Expenditures	
Personal Services	$173,824
Employee Related Expenditures	59,274
In State Travel	-
Other Operating Expenditures	975
Non-Capital Equipment	-
Indirect	117,808
Total Expenditures	$351,881
Less Fund Taking by Legislature FY10	(240,600)
Fund Balance (06/30/10 estimate)	$(42,754)

*FTE will need to be transferred to other funding sources when balance of fund approaches zero.

APPENDIX 7

Risk Assessment Program

FY 08-09 Risk Assessment Summary

Arizona Department of Health Services

Risk Assessment & Health Consultation Program

Office of Environmental Health
(602) 364-3118
150 N. 18th Avenue, Phoenix, AZ

Leadership for a Healthy Arizona

Program Objectives

- Program Created by A.R.S. §36-(1691-1694)
  - Analyze health risks from environmental exposure
  - 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

Leadership for a Healthy Arizona

ADEQ/ADHS ISA Agreement

- ISA calls for $15,000 minimum quarterly payments, maximum $25,000
  - Extra $10,000 is dependent on additional amount of work
- ISA is used to provide availability of ADHS staff on demand
  - 3 staff funded = ~ 0.3 FTE ($60,000 annually will provide this base availability)

Leadership for a Healthy Arizona

FY 08-09 ISA Accomplishments

- No specific assignments received from ADEQ programs under ISA.

Leadership for a Healthy Arizona

FY 08-09 Non ISA Projects

- Health Consultations under Agency for Toxic Substances and Disease Registry (ATSDR) Cooperative Agreement Grant
  - Phoenix-Goodyear Airport Superfund Site, Maricopa, County
  - Paradise Valley Water System, Maricopa County
  - Old Tungsten Mill, Tucson, Pima County
  - Aggregate Products, Glendale, Maricopa County

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FY 08-09 Non ISA Projects

- Health Consultations under Agency for Toxic Substances and Disease Registry (ATSDR) Cooperative Agreement Grant (CONT.)
  - Corona del Sol High School, Tempe, Maricopa County
  - North Indian Bend Wash, Scottsdale, Maricopa County
  - Kinder-Morgan Facility in North Gila Valley, Yuma County
  - Iron King Mine Humboldt Smelter, Dewey-Humboldt, Yavapai County

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FY 08-09 Non ISA Projects Cont.

- Technical Assists
  - Formaldehyde
  - Nitrates
  - Old Fort Lowell

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FY 08-09 Budget & Expenditures

Category	Budget	Spent	Est. Unused
Personnel	55,000	15,271	39,729
Benefits	16,443	4642	11801
Travel	1,000	0	1,000
Operations	6,000	45	5,955
Indirect	21,557	5,881	15,675
Total	$100,000	$25,841	$74,159

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FY 2009-2010 Budget

Category	Budget
Personnel	55,000
Benefits	17,600
Travel	1,000
Operations	3,706
Indirect	22,694
Total	$100,000

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