



Central Phoenix Sites

Water Quality Assurance Revolving Fund (WQARF)

7th Avenue and Bethany Home Road

16th Street and Camelback

Central and Camelback

Phoenix, Arizona

Community Involvement Plan



7th Avenue and Bethany Home Road



16th Street and Camelback



Central and Camelback

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Acronyms and Glossary of Terms

Disclaimer: All telephone numbers, email addresses and contact names are subject to change after the date of this publication. The statistical data provided in the community demographics section are approximated based on information provided by the 2010 U.S. Census.

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Community Involvement Plan – Introduction

The Arizona Department of Environmental Quality (ADEQ) is committed to involving citizens in the cleanup of contaminated sites in Arizona per the Water Quality Assurance Revolving Fund (WQARF) program. Created under the Environmental Quality Act of 1986 to support hazardous substance cleanup efforts in the state, WQARF is dependent upon legislative appropriations, cost recovery from responsible parties, corporate income taxes, and special fees for its funding.

The WQARF program identifies sites that are most in need of cleanup and adds them to the WQARF Registry. Sites on the WQARF Registry receive first consideration for distribution of funds for investigation and cleanup. WQARF Registry sites are assigned a numeric score based in part on the types of contaminants present, the location of the contaminants, and the number of people that may be affected by the contaminants. These scores are only one criterion used to help determine relative risk at the site and do not necessarily mean that there is a direct risk to humans or the environment.

The Central Phoenix community involvement area is located in central Phoenix, Arizona, and includes the 7th Avenue and Bethany Home Road, 16th Street and Camelback, and Central and Camelback WQARF sites. Collectively these sites will be referred to as the Central Phoenix WQARF sites.

- The 7th Avenue and Bethany Home Road WQARF site was placed on the WQARF Registry in 2004 with a score of 29 out of a possible 120.
- The 16th Street and Camelback WQARF site was placed on the WQARF Registry in 1999 with a score of 23 out of a possible 120.
- The Southwest Corner Source Area (SCSA) of the Central and Camelback WQARF site was placed on the WQARF Registry in 1999 with a score of 31 out of a possible 120. In June 2000, the entire Central and Camelback WQARF site, inclusive of the SCSA, was placed on the WQARF Registry with a score of 32 out of a possible 120.

Arizona Revised Statutes (A.R.S.) § 49-287.03(B) and § 49-289.03, as well as Arizona Administrative Code (A.A.C.) R18-16-404, specify that a community involvement plan (CIP) be developed for each site on the WQARF Registry before beginning the remedial investigation. Because the 7th Avenue and Bethany Home Road, 16th Street and Camelback, and Central and Camelback WQARF Registry sites are located near each other, one CIP has been developed to encompass all three sites. The purpose of the CIP is to provide a meaningful process for two-way communication between ADEQ and the public to keep the community informed about the progress of the site investigation and remediation. The CIP will accomplish this goal through the following:

1. Ensuring public access to project information in a timely manner;
2. Identifying a community involvement area and opportunities for community members and other stakeholders to participate in the decision-making process associated with the environmental investigation and remediation of the site;

3. Establishing a Community Advisory Board (CAB);
4. Designating an ADEQ spokesperson; and
5. Developing a plan for distributing site information to residents within the site's community involvement area.

This CIP describes ADEQ's role and public participation opportunities regarding the WQARF process. ADEQ community involvement staff will review and update this plan on a regular basis considering site-specific developments and public health and environmental impacts, as well as public comments and community concerns. ADEQ also will solicit and consider CAB input to this CIP.

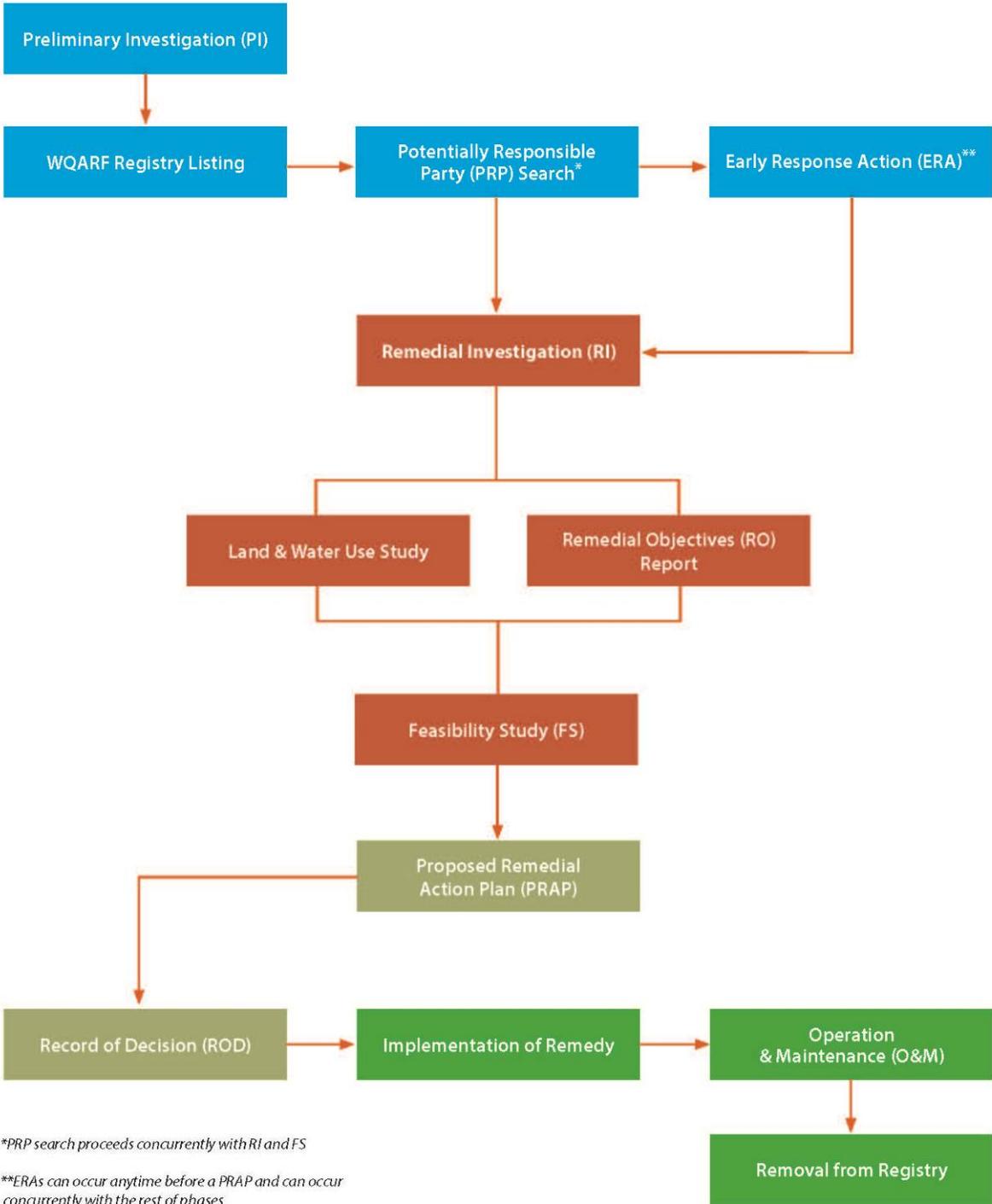
A. WQARF Process

The goal of the WQARF process is to clean up sites with groundwater and/or soil contamination to ensure human health and the environment are protected. The WQARF process uses a step-by-step approach to thoroughly investigate contaminated sites and determine the best method for achieving site cleanup. This process can take months, years, or in some cases, decades, to complete. Because each site is different, the WQARF process helps determine which cleanup method is best for a specific site.

For sites where the contamination has minimal impact to humans, cleanup may be achieved by restricting land or water use and allowing the contamination to dissipate naturally. For this method, regular monitoring of the groundwater or soil would occur to ensure that the contamination continues to decrease. For sites where the contamination may impact human use, the cleanup method may involve restricting land and water use, actively treating or filtering the groundwater to remove contamination, digging up any contaminated soil and removing it from the area, bioremediation/other in situ methods, or a combination of these actions.

The WQARF process flow chart that follows depicts the phases in the WQARF process from initial investigation of a site suspected of having contamination, to the implementation of the cleanup method (also known as the remedy), to eventual removal of the site from the WQARF Registry upon satisfactory cleanup. The WQARF process flow chart is color coded for ease of reference and corresponds to the Community Involvement Action Summary table in Chapter 4, where required community involvement activities by WQARF phase are discussed. Detailed definitions of each WQARF phase can be found in the glossary at the end of this CIP.

WQARF PHASES



B. Designated Spokesperson

A designated spokesperson will inform the public of upcoming events, ensure that the CIP is implemented according to schedule, and act as liaison between ADEQ and the community. In addition, the spokesperson will determine methods for personal contact, arrange for the availability of a translator at meetings as needed, and coordinate the recording of presentations, when appropriate. For further information regarding the Central Phoenix WQARF sites, please contact the designated spokesperson at the following:

Community Involvement Coordinator
ADEQ
1110 West Washington Street, 4th Floor
Phoenix, AZ 85007
(602) 771-4189
Or
(800) 234-5677, Ext. 6027714189
Fax: (602) 771-4138
View Community Involvement Contacts Online:
<http://www.azdeq.gov/function/about/waste.html#sps>

C. Information Repository and Website

Information repositories of existing public documents pertaining to the Central Phoenix WQARF sites are available for review both online and in person. Documents found in the repositories may vary across sites, but include WQARF Site Registry Reports, Remedial Investigation Reports, Remedial Objectives Reports, and Feasibility Studies, as well as site fact sheets, public notices, meeting documents, and correspondence related to the WQARF sites. Technical documents relating to future milestones in the WQARF process will be made available to the public as they are completed. Interested parties can review site information by visiting the information repositories online or in person as follows:

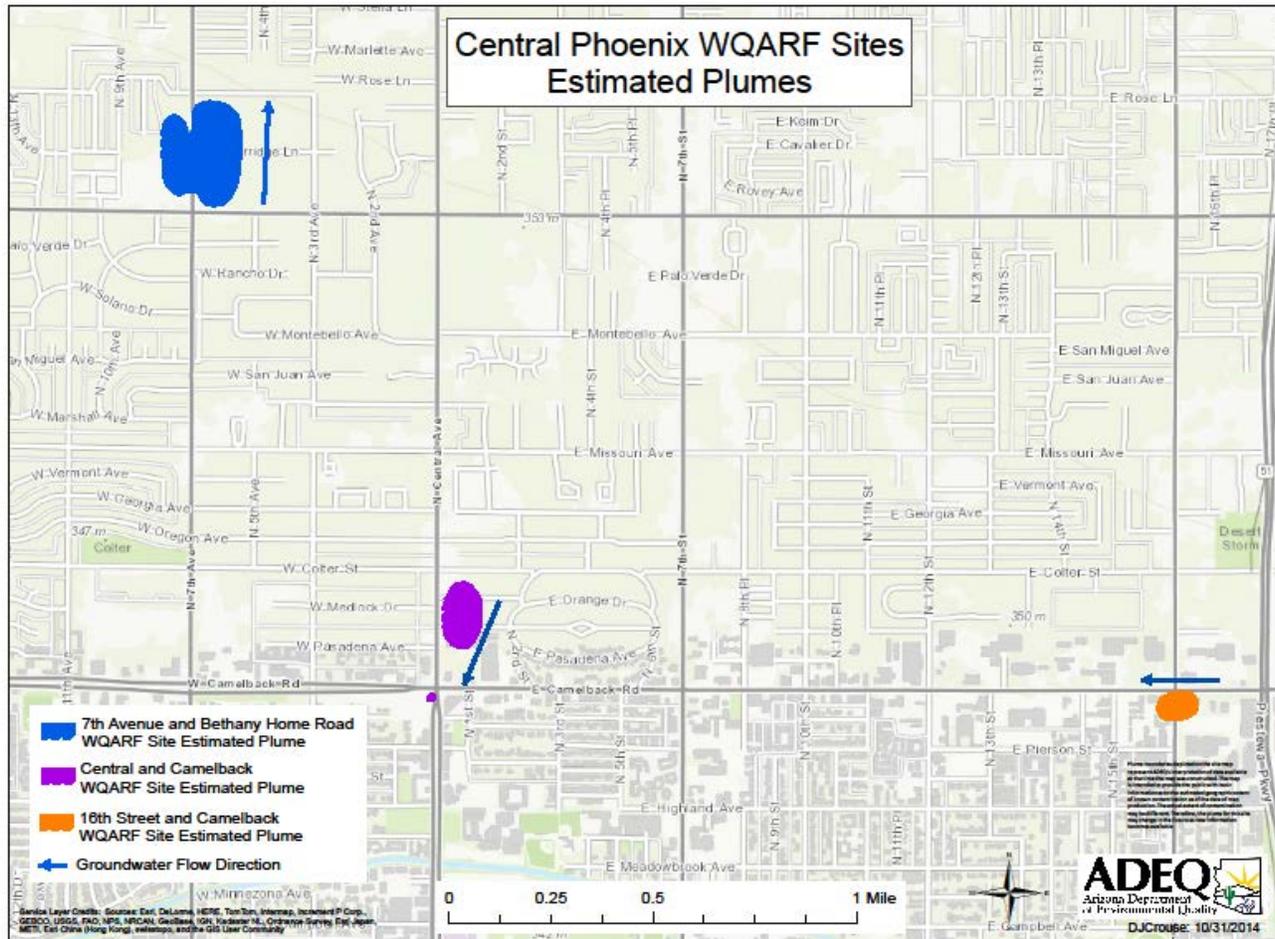
Online
http://www.azdeq.gov/environ/waste/sps/7th_Bethany_Home_Road.html
http://www.azdeq.gov/environ/waste/sps/16th_Street_Camelback.html
http://www.azdeq.gov/environ/waste/sps/Central_Camelback.html

In Person
ADEQ Records Center
1110 West Washington Street
Phoenix, AZ 85007
(602) 771-4380
Or
(800) 234-5677, Ext. 6027714380
(Please call to make an appointment)

To make alternate arrangements to review documents in person at a location nearest you, contact the ADEQ Community Involvement Coordinator.

Chapter 1 – Site Overview

The contaminated groundwater plumes and direction of groundwater flow at the Central Phoenix WQARF sites are shown on the following map.



7th Avenue and Bethany Home Road

The 7th Avenue and Bethany Home Road WQARF site is located in a mixed commercial and residential area of central Phoenix, Arizona. The contaminated groundwater plume is bounded approximately by West Rose Lane to the north, West Bethany Home Road to the south, North 5th Avenue to the east, and North 8th Avenue to the west. The site was placed on the WQARF Registry in 2004 with an eligibility and evaluation score of 29 out of a possible total of 120. The major factor leading to the site's score was the presence of tetrachloroethene (PCE) contamination in groundwater at levels exceeding Arizona Water Quality Standards (AWQS).

The site contaminants of concern are PCE, trichloroethene (TCE), and vinyl chloride. Other contaminants from off-site underground storage tank releases are 1,2-dichloroethane (1,2-DCA) and methyl tertiary butyl ether (MTBE).

In April of 2013, ADEQ initiated a pilot study for the final remedy of enhanced reductive dechlorination. In March 2014, groundwater samples were collected from 18 wells at the site to evaluate the results of the pilot study. Concentrations of PCE, TCE, and vinyl chloride in the pilot study treatment area were found to be significantly lower than concentrations detected before the pilot study. If funding allows, ADEQ intends to implement the enhanced reductive dechlorination treatment remedy for the site.

16th Street and Camelback

The 16th Street and Camelback WQARF site is located in a commercial area of central Phoenix, Arizona. The contaminated groundwater plume is bounded approximately by Camelback Road to the north, Highland Avenue to the south, 17th Street to the east, and 15th Street to the west. The site was placed on the WQARF Registry in 1999, with an eligibility and evaluation score of 23 out of a possible total of 120. The major factor leading to the site's score was the presence of PCE in groundwater at levels exceeding AWQS limits.

The site was originally divided into a northern and southern portion based on two different contaminant plumes. The current site contaminant of concern is PCE, which has been detected at elevated levels in the northern portion of the site. In an April 2014 groundwater sampling event, the highest detected concentration of PCE was 13.3 micrograms per liter. Contaminants in the southern portion of the site are no longer present at concentrations greater than their respective AWQS limits.

In June 2014, ADEQ completed a Draft Remedial Investigation report at the site for internal review.

Central and Camelback

The Central and Camelback WQARF site is located in a mixed commercial and residential area of central Phoenix, Arizona. Two contaminated groundwater plumes are bounded approximately by Georgia Avenue to the north, Mariposa Street to the south, 2nd Street to the east, and 1st Avenue to the west. The SCSA portion of the site was placed on the WQARF Registry in 1999 with an eligibility and evaluation score of 31 out of a possible total of 120. In June 2000, the entire Central and Camelback WQARF site, inclusive of the SCSA, was placed on the WQARF Registry with an eligibility and evaluation score of 32 out of a possible total of 120. The major factor leading to the site's score was the presence of PCE in groundwater at levels exceeding AWQS limits.

The site contaminants of concern are PCE and TCE. Other contaminants, which resulted from past underground storage tank releases, are benzene, toluene, ethylbenzene, total xylenes, MTBE, and 1,2-DCA.

In May 2014, the Draft Remedial Investigation Report was made available for a 60-day public comment period. In October 2014 the Proposed Remedial Objectives Report was made available for a 30-day public comment period. Comments to both reports were compiled in responsiveness summaries and included in the Final Remedial Investigation Report dated December 15, 2014.

For more detailed information about the history of the Central Phoenix WQARF sites, please refer to Appendix A (Site Histories) of this CIP.

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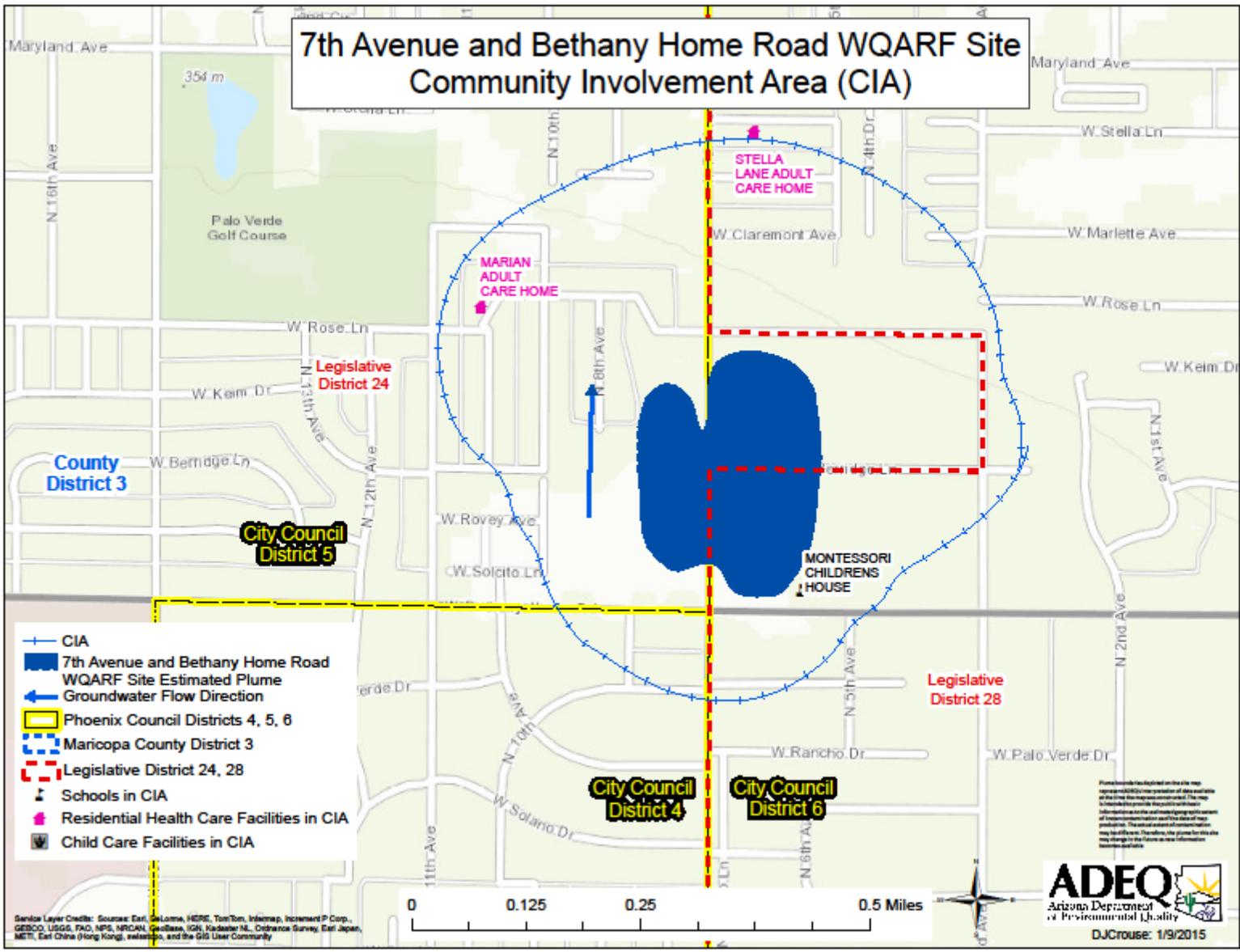
Chapter 2 – Community Profile

A. Community Involvement Area

ADEQ has established a community involvement area for each site per A.R.S. § 49-289.02(A) and (B). A community involvement area is established to designate a geographic area to which mass mailings will be delivered. Community involvement area boundaries are determined based on site-specific characteristics such as the affected media (i.e., soil, surface water, or groundwater), exposure routes, proximity to residential areas and public facilities, and level of community interest. The community involvement area may change as new information is received.

The maps on the following pages illustrate the 2014 community involvement areas for the three Central Phoenix WQARF sites.

7th Avenue and Bethany Home Road WQARF Site Community Involvement Area (CIA)



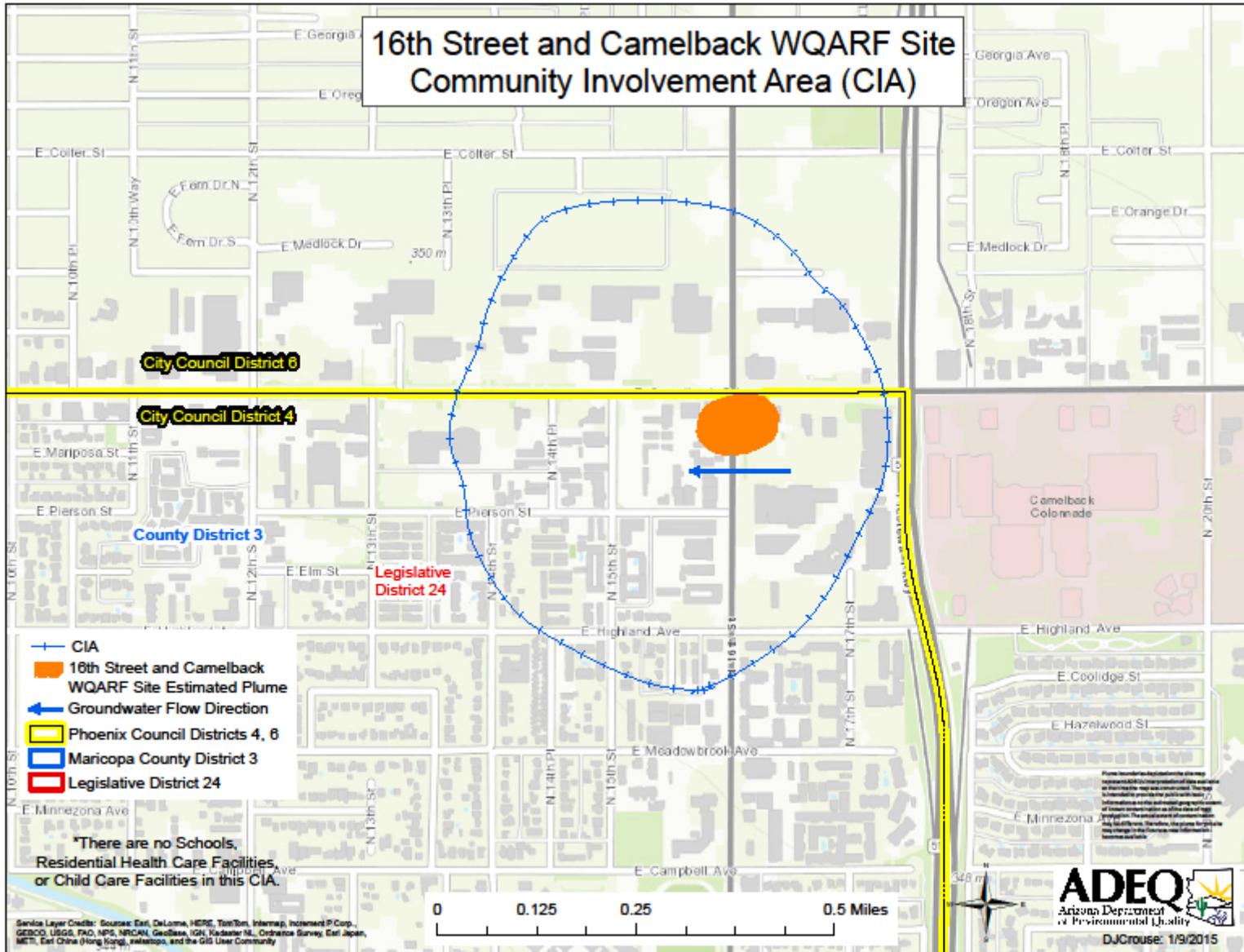
- +— CIA
- 7th Avenue and Bethany Home Road WQARF Site Estimated Plume
- ← Groundwater Flow Direction
- Phoenix Council Districts 4, 5, 8
- ▨ Maricopa County District 3
- ▨ Legislative District 24, 28
- ▲ Schools in CIA
- ◆ Residential Health Care Facilities in CIA
- Ⓜ Child Care Facilities in CIA

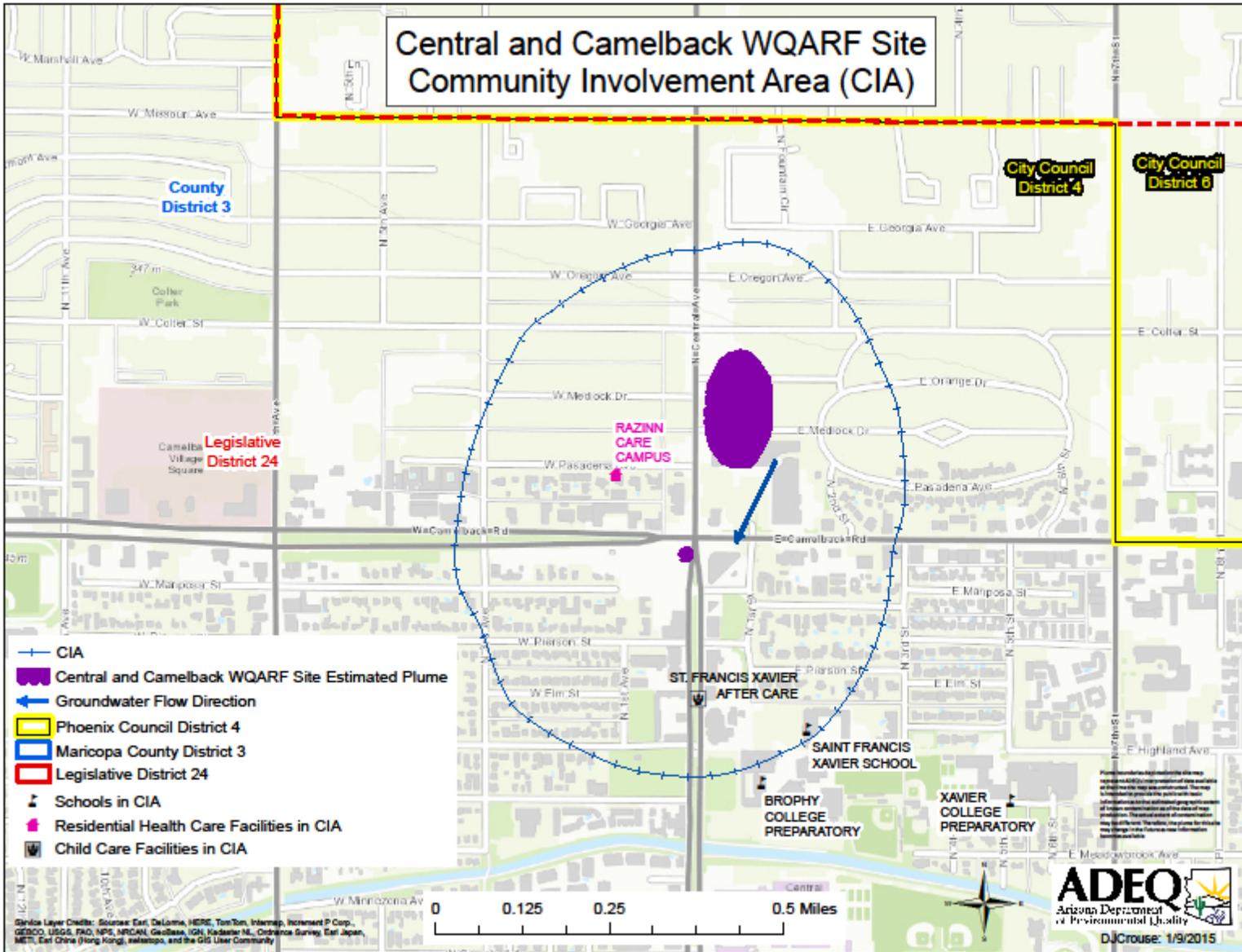
Source Layer Credits: Sources: Esri, DeLorme, HERE, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, Swellion, IGN, Intermap, Inc., Swellion, GEBCO, Esri, Japan, METI, Esri, China (Hong Kong), Swellion, and the GIS User Community

ADEQ
Arizona Department
of Environmental Quality

DJCrouse: 1/9/2015







B. Community Demographics

As the most populated city in Arizona, Phoenix's population in 2010 was 1,445,632 (as reported by the 2010 U.S. Census). The community involvement area boundaries for the Central Phoenix WQARF sites encompass four zip codes (85012, 85013, 85014, and 85016) and are estimated to contain approximately 40,042 households. The Central Phoenix WQARF sites are located within the boundaries of the City of Phoenix and consist of a mixture of commercial businesses, light industrial businesses and residential neighborhoods.

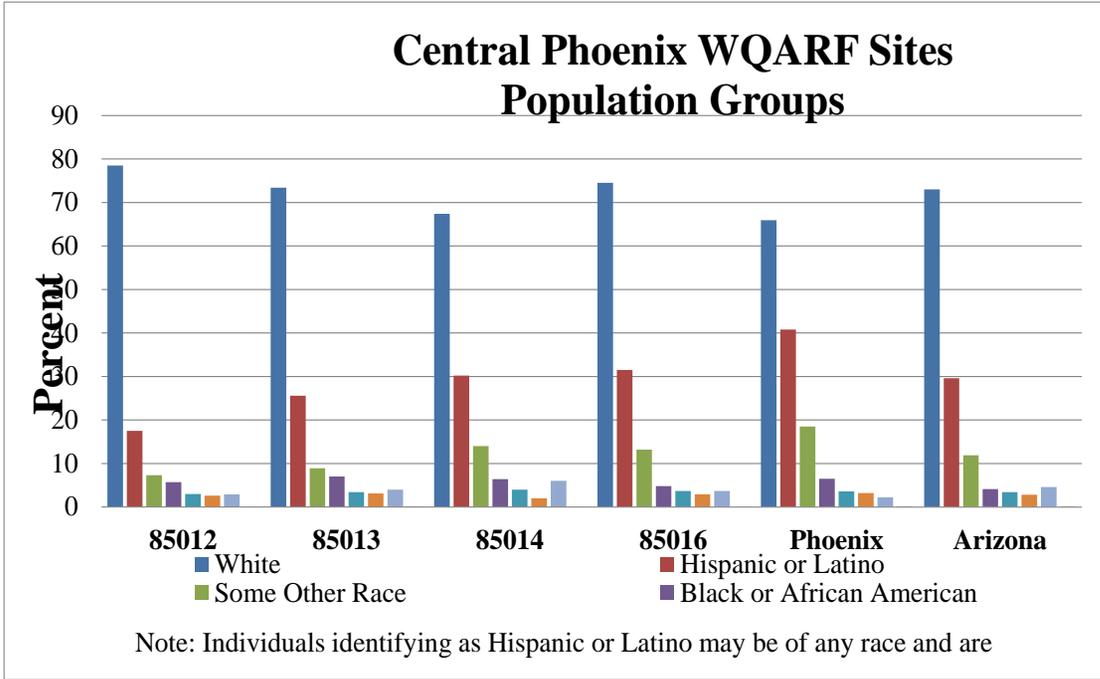
The 2010 U.S. Census data for the zip codes encompassed by the community involvement areas indicates that the total population was 85,382, with an average household size of 2.06 persons. Residents of the areas consisted of more homeowners (54.7%) than renters (45.3%). The median resident age is 38.6, which is older than the median age for Arizona residents as a whole (35.9).¹

As represented in the Population Groups graph that follows, the 2010 U.S. Census data show that residents in the Central Phoenix WQARF sites community involvement areas identify themselves as approximately 72.7% White; 10.9% Some Other Race; 6.0% Black or African American; 4.2% American Indian or Alaska Native; 3.5% Two or More Races; 2.7% Asian; and 0.1% Native Hawaiian.² According to the U.S. Census Bureau, people of Hispanic or Latino descent may be of any race. People identifying themselves as Hispanic or Latino within the Central Phoenix WQARF sites community involvement areas comprised 26.2% of the population, which is lower than the 29.6% average Hispanic and Latino population for the State of Arizona.

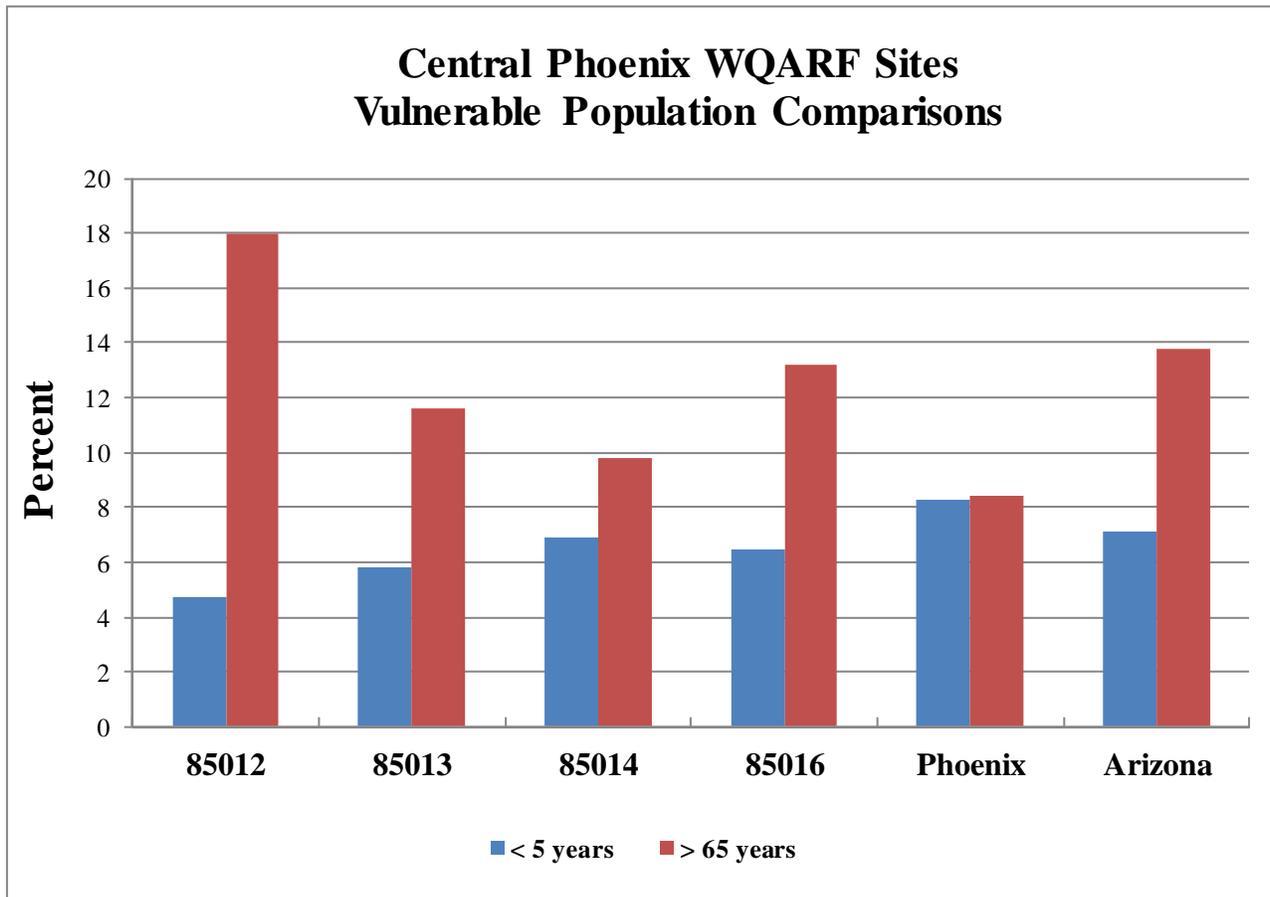
All percentages given in the following Population Groups chart and the previous two paragraphs are median averages of the 2010 U.S. Census data for the zip codes within the Central Phoenix WQARF sites community involvement areas.

¹ Calculations are an average of the four zip codes.

² Percentages are an average of the four zip codes and are rounded to the nearest tenth and thereby do not total 100 percent exactly.



ADEQ also looks at the community as a whole with an emphasis on the percentage of people who are unusually sensitive to contaminants. These people are those who are under the age of 5 or over the age of 65, as well as people with health issues. The percentages of age-sensitive populations within the Central Phoenix WQARF sites community involvement areas, according to 2010 U.S. Census data, are presented in the Vulnerable Population Comparisons graph that follows.



For further demographic information regarding the community involvement areas, please refer to the listing of neighborhood associations, community schools, and vulnerable population centers in Appendix B, and local and state elected officials in Appendix C.

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Chapter 3 – Community Issues and Concerns

To better understand the community and its concerns, ADEQ conducted telephone interviews with community and CAB members who have lived or worked in the areas surrounding the 7th Avenue and Bethany Home Road and Central and Camelback WQARF sites. The CAB members are listed in Appendix D. The following is a summary of their common concerns involving the environment, health and ADEQ outreach activities. Interviews have not been conducted for the 16th Street and Camelback WQARF site because recently it was merged with the 7th Avenue and Bethany Home Road and Central and Camelback CAB. Interviews for the 16th Street and Camelback WQARF site will be considered for the next CIP update.

A. Environmental and Health Concerns

Interviewee familiarity with the 7th Avenue and Bethany Home Road and Central and Camelback WQARF sites and their contaminants varied. The concerns expressed by community and CAB members relating to the current status of the sites echoed their larger concerns about the future of the site, possible health issues related to the site, and the condition of the water supply. Many of the interviewees expressed interest in “redevelopment [of the site area] into something useful” for the community.³ One interviewee requested more data regarding the exact contaminants threatening the groundwater and one interviewee expressed concern for the drinking water. Environmental and health concerns expressed by the interviewees spanned a variety of topics. Specific concerns noted by the interviewees included:

- Would the contaminated groundwater be an issue for drinking or irrigation water supplies?
- What would the effects on the water quality be?
- Would building on the site take into consideration all environmental issues?
- Would the contamination harm property values, future development, and/or traffic?
- How toxic is the site and how does it affect those living around the site?
- Was the site safe to live in?

Almost all of the interviewees wanted to know about the overall remedy for the site, as well as future investigations and a timeline for eventual cleanup.

B. Outreach and Other Concerns

Interviewees provided the following feedback and suggestions on current and future outreach pertaining to the 7th Avenue and Bethany Home Road and Central and Camelback WQARF sites:

³ It appears that some interviewees were under the impression that the property was publicly owned.

- Interviewees stated that they received information on the WQARF sites primarily from U.S. Mail and email notices, with some interviewees noting information obtained from local newspapers.
- Suggestions for other methods of communication included:
 - Communication with neighborhood associations,
 - Articles in local newspapers, and
 - Telephone calls.
- One interviewee suggested a meeting summary published in the *North Central News*.
- Several interviewees suggested holding the CAB meetings closer to the WQARF sites and their associated neighborhoods.

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Chapter 4 – Community Involvement Action Plan

In addition to providing the framework for the state to investigate and clean up contaminated sites, the WQARF program also requires that ADEQ involve the community in the cleanup process. The following Community Involvement Action Summary table describes the required community involvement activities by WQARF phase and illustrates where the Central Phoenix sites are in the WQARF process at the time of writing. This summary is followed by a description of the communications vehicles and techniques available to use. Multiple techniques to communicate with and educate the public may be used throughout the process of remediating the WQARF sites.

A. Community Involvement Action Summary – Required Activities

The following Community Involvement Action Summary table describes the required community involvement actions for the Central Phoenix WQARF sites and notes what actions have been completed to date. The Community Involvement Action Summary table is color coded to match the WQARF process flow chart in the CIP Introduction.

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Community Involvement Action Summary

WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date ⁴	Complete		
				7th Avenue and Bethany Home Road	Central and Camelback	16th Street and Camelback
Preliminary Investigation	Provide owners and operators a copy of the Draft WQARF Site Registry Report for a 15-day comment period prior to publishing a notice in a newspaper announcing the availability of the Draft WQARF Site Registry Report for a 30-day public comment period.	A.R.S. § 49-287.01(C) A.R.S. § 49-289.03(A)(1)	Mailing to owners and operators: <ul style="list-style-type: none"> -7th Avenue and Bethany Home Road, March 3, 2004 -Central and Camelback, February 2000 -16th Street and Camelback, June 2014 Public notice/comment; published in <i>Arizona Business Gazette/Arizona Republic</i> : <ul style="list-style-type: none"> -7th Avenue and Bethany Home Road, July 1, 2004 -Central and Camelback, April 9, 2000 -16th Street and Camelback, June 2014 	✓	✓	✓
WQARF Registry Listing	Following the listing of a site on the WQARF Registry, ADEQ will: <ul style="list-style-type: none"> • Establish a preliminary community involvement area (see Chapter 2, Section A) within 90 days of site listing on the WQARF Registry. • Provide written notice to the community on hazardous substance contamination in the area, the actual and potential risks and routes of exposure, possible health effects, and the opportunity to join the site mailing list. • Identify ADEQ personnel to contact for further information. 	A.R.S. § 49-289.02	Notice to community and development of a community involvement area: <ul style="list-style-type: none"> -7th Avenue and Bethany Home Road, October 2008 (hazardous substance notice first appeared in a 2004 fact sheet) -Central and Camelback, June 2000 (community involvement area was established in 1999 and updated in 2006) -16th Street and Camelback, June 2014 	✓	✓	✓

⁴ Dates marked with an asterisk are approximate.

Community Involvement Action Summary

WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date ⁴	Complete		
				7th Avenue and Bethany Home Road	Central and Camelback	16th Street and Camelback
WQARF Registry Listing (continued)	Develop a CIP that establishes a CAB, designates a spokesperson, provides for newsletters with current information about the status of remedial actions at the site, establishes a public document repository location, and provides for schedules of CAB meetings and public meetings. Update the CIP at least every 2 years.	A.R.S. § 49-287.03(D) A.R.S. § 49-289.03(B) A.R.S. § 49-289.03(C) A.A.C. R18-16-404(C)(1)(i) A.A.C. R18-16-404(C)(1)(j) A.A.C. R18-16-404(C)(1)(k) A.A.C. R18-16-404(C)(1)(o)	Original CIP: -7th Avenue and Bethany Home Road, February 2014 -Central and Camelback, March 2010 (Spokesperson designated February 2001) -16th Street and Camelback, December 2014 Updated CIP: -7th Avenue and Bethany Home Road, December 2014 -Central and Camelback, December 2014	✓	✓	✓
Early Response Action	A work plan shall be prepared for each Early Response Action that will include a description of work to be done, known site conditions, a plan for conducting the work; a description of community involvement activities for the Early Response Action under R18-16-404; and a schedule. Community involvement activities may include development of a community involvement plan under A.A.C. R18-16-404(C) or community involvement activities appropriate to the scope and schedule of the work performed such as a general public notice to those who may be impacted by field work as indicated in A.A.C. R18-16-404(D)(2). If immediate action is necessary to address a current risk to public health or the environment, to protect a source of water, or to provide a supply of water, the work plan and written rationale may be prepared and the community involvement activities may be conducted after commencement of the Early Response Action.	A.A.C. R18-16-404 A.A.C. R18-16-405(D)(2) A.A.C. R18-16-405(E) A.A.C. R18-16-405(G)	Notices: -7th Avenue and Bethany Home Road, October 2004 -Central and Camelback, 2001 -16th Street and Camelback, June 2014	✓	✓	✓

Community Involvement Action Summary

WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date ⁴	Complete		
				7th Avenue and Bethany Home Road	Central and Camelback	16th Street and Camelback
Remedial Investigation ⁵	Provide notice to interested parties announcing the availability of the Remedial Investigation Scope of Work or Work Plan, Fact Sheet, and CIP Outline for review and a 30-day public comment period. Provide notice indicating that any person by agreement with the ADEQ may develop and implement a work plan for the Remedial Investigation and Feasibility Study and solicit information regarding the current and future land and water uses at the site. ⁶ These notices shall also provide an opportunity to request a public meeting.	A.R.S. § 49-287.03(B) A.R.S. § 49-287.03(C) A.A.C. R18-16-301(C) A.A.C. R18-16-403(F) A.A.C. R18-16-403(G) A.A.C. R18-16-404(C)(1)(a) A.A.C. R18-16-406(B) A.A.C. R18-16-406(D)	Combined notices: -7th Avenue and Bethany Home Road, April 2009 -Central and Camelback, February 2001; A.R.S. § 49-287.03 notices were submitted in 2007 -16th Street and Camelback, June 2014	✓	✓	✓
	Establish a selection committee to choose CAB members for the site. The selection committee shall consist of the following number of people from each organization: <ul style="list-style-type: none"> • ADEQ: 1 • Potentially Responsible Party: 1 • Local Official : 1 • Local Community: 2 	A.R.S. § 49-289.03(D)	Selection committee: -7th Avenue and Bethany Home Road, March 2010 -Central and Camelback, August 2000 -16th Street and Camelback, no selection committee; CAB created on July 23, 2014, when merged with the 7th Avenue and Bethany Home Road and Central and Camelback CAB	✓	✓	Not Applicable
	Establish a CAB of between 5 to 20 members that represent a diversified cross section of the community. Within 90 days of appointment by the CAB selection committee, the CAB shall elect co-chairpersons and develop a charter defining operating procedures, membership terms and obligations, goals for developing issues, concerns and opportunities related to quick cleanup of the site, and any other anticipated activities for identifying and improving the public's access and understanding of information regarding the remediation process at the site.	A.R.S. § 49-289.03(C) A.R.S. § 49-289.03(F)	Establish CAB: -7th Avenue and Bethany Home Road, May 2010 -Central and Camelback, September 2000 -16th Street and Camelback, July 2014 7th Avenue and Bethany Home Road and Central and Camelback CABs merged on August 20, 2013. The 16th Street and Camelback CAB merged with these on July 23, 2014.	✓	✓	✓

⁵ A potentially responsible party search is conducted concurrently with the Remedial Investigation and Feasibility Study, but does not have mandated community involvement activities.

⁶ Data collected from land and water use studies will be incorporated into the Remedial Investigation and/or Remedial Objectives report per A.A.C. R18-16-406(D)-(I).

Community Involvement Action Summary

WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date ⁴	Complete		
				7th Avenue and Bethany Home Road	Central and Camelback	16th Street and Camelback
Remedial Investigation (continued)	Publish a combined ⁷ public notice announcing the availability of the Draft Remedial Investigation Report for review and a minimum 30-day public comment period as well as a public meeting to solicit Remedial Objectives for the site. The public meeting shall be held not less than 45 calendar days and not more than 90 calendar days after release of the Draft Remedial Investigation report, unless ADEQ sets a different date for good cause.	A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(b) A.A.C. R18-16-406(F) A.A.C. R18-16-406(I)(1) A.A.C. R18-16-406(I)(2)	Public notice and comment: -7th Avenue and Bethany Home Road, June 2010 -Central and Camelback, May 2014 -16th Street and Camelback, January 2015 Public meeting: -7th Avenue and Bethany Home Road, July 2010 -Central and Camelback, July 2014 -16th Street and Camelback, March 2015	✓	✓	✓
	Publish a public notice announcing the availability of the Proposed Remedial Objectives Report for a 30-day public comment period.	A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(c) A.A.C. R18-16-406(I)(5) A.A.C. R18-16-406(J)	Proposed Remedial Objectives Report public notice and comment: -7th Avenue and Bethany Home Road, September 2010; May 2011 -Central and Camelback, June 2014; October 2014 -16th Street and Camelback, April 2015	✓	✓	✓
	Publish a public notice of the availability of the Final Remedial Investigation Report, which shall contain the results of site characterization and the final Remedial Objectives Report. The final Remedial Investigation report shall be accompanied by responsiveness summaries regarding comments, issues and concerns raised in the community involvement process and, if the report is prepared by a person other than ADEQ, copies of the comments received.		Final Remedial Investigation Report public notice: -7th Avenue and Bethany Home Road, 2011 -Central and Camelback, January 2015 -16th Street and Camelback, May 2015	✓	✓	✓

⁷If not combined, separate public notices will be provided for the Draft Remedial Investigation/comment period and the Remedial Objectives solicitation and public meeting.

Community Involvement Action Summary

WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date ⁴	Complete		
				7th Avenue and Bethany Home Road	Central and Camelback	16th Street and Camelback
Feasibility Study	Provide notice to interested parties announcing the availability of the Feasibility Study Work Plan* <i>Although not mandated, ADEQ will also provide public notice upon completion of the Feasibility Study.</i>	A.A.C. R18-16-404(C)(1)(d) A.A.C. R18-16-407(B)	Feasibility Study Work Plan public notice: -7th Avenue and Bethany Home Road, June 2010 -Central and Camelback, February 2015 -16th Street and Camelback, May 2015	✓	✓	✓
			Feasibility Study public notice: -7th Avenue and Bethany Home Road, June 2010 -Central and Camelback, June 2015 -16th Street and Camelback, July 2015	✓	✓	✓
Proposed Remedial Action Plan	Publish a public notice announcing the availability of the Proposed Remedial Action Plan for a 30-day public comment period. Mail the same notice to interested parties. The notice will describe the proposed remedy and its estimated cost and identify where the Proposed Remedial Action Plan, Remedial Investigation, and Feasibility Study Reports may be inspected.	A.R.S. § 49-287.04(B) A.R.S. § 49-289.03(A)(2) A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(e) A.A.C. R18-16-408(A)	Proposed Remedial Action Plan public notice: -7th Avenue and Bethany Home Road, April 2015 -Central and Camelback, TBD -16th Street and Camelback, TBD	✓		
Record of Decision	Publish a public notice announcing the availability of the Record of Decision and Responsiveness Summary for review.	A.R.S. § 49-287.04(G) A.A.C. R18-16-404(C)(1)(f) A.A.C. R18-16-410				
Implementation of Remedy (Remedial Actions)	Publish a public notice announcing a request for ADEQ to approve remedial actions at the site. The notice will provide the opportunity for a 30-day public comment period.	A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(h) A.A.C. R18-16-413				
	Provide notice to the public and interested parties of a request for ADEQ to waive a regulatory requirement (permit) to complete remedial actions.	A.R.S. § 49-290 A.A.C. R18-16-404(C)(1)(l)				

Community Involvement Action Summary

WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date ⁴	Complete		
				7th Avenue and Bethany Home Road	Central and Camelback	16th Street and Camelback
	Provide notice to the public that fieldwork conducted to remove contaminants of concern may result in noise, light, odor, dust or other adverse impacts.	A.A.C. R18-16-404(C)(1)(m)	Numerous field activity notices have been provided to the community.	✓	✓	✓
Implementation of Remedy (Remedial Actions) (continued)	Provide notice to the public of a request for ADEQ to determine whether each of the Remedial Objectives for a site have been satisfied and will continue to be satisfied. The notice will provide the opportunity for a 30-day public comment period on the request.	A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(n) A.A.C. R18-16-416(B)				
Operation & Maintenance	Publish a public notice announcing the availability of the Operation & Maintenance Plan for review and a 30-day public comment period. Mail the same notice to interested parties.	A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(g) A.A.C. R18-16-411(E)				
Removal from Registry	<i>Although not mandated by Arizona statute or administrative code, ADEQ may publish a public notice upon the removal of the site from the WQARF Registry.</i>	Not applicable				
Any Phase	Publish a public notice announcing a request to ADEQ for a prospective purchaser agreement. The notice will provide the opportunity for a 30-day public comment period.	A.R.S. § 49-289.03(A)(3) A.A.C. R18-16-301(C)	7th Avenue and Bethany Home Road -No prospective purchaser agreement requests to date. Central and Camelback -Two prospective purchaser agreement notices were published in 1998 and January 2008 (see Appendix E). 16th Street and Camelback -No prospective purchaser agreement requests submitted to date.	✓	✓	✓

Community Involvement Action Summary

WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date ⁴	Complete		
				7th Avenue and Bethany Home Road	Central and Camelback	16th Street and Camelback
Any Phase	Publish a public notice announcing the intention of ADEQ to enter into a settlement agreement with a responsible party. The notice will provide the opportunity for a 30-day public comment period.	A.R.S. § 49-289.03(A)(4) A.A.C. R18-16-301(C)	<p>7th Avenue and Bethany Home Road:</p> <p>-One consent decree settlement notice was published in 2005 (see Appendix F)</p> <p>Central and Camelback:</p> <p>-No settlement agreement requests have been submitted to date.</p> <p>16th Street and Camelback:</p> <p>-One consent decree in 1994 (see Appendix F); notice publication date unknown</p>	✓	✓	✓

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B. Community Involvement Action Summary – Communication Techniques

There are required communications activities for every phase of the WQARF process as previously described in the Community Involvement Action Summary table. This section describes the specific activities and resources ADEQ uses and has available to communicate with, educate, and help the community and stakeholders be actively involved in the Central Phoenix WQARF sites.

ADEQ will continue to use the following resources to keep stakeholders informed throughout the process:

- 1. CAB** – The CAB has been conducting public meetings about the Central and Camelback WQARF site with ADEQ’s assistance since September 2000. The CAB has been conducting public meetings about the 7th Avenue and Bethany Home Road WQARF site with ADEQ’s assistance since May 2010. The 7th Avenue and Bethany Home Road and Central and Camelback CABs merged on August 20, 2013. The 16th Street and Camelback CAB merged with these on July 23, 2014. CAB members advise ADEQ on appropriate means of delivering site information as well as provide input regarding content. CAB members also serve as an information resource for their community. CAB meetings are held at a location and date mutually agreed upon by the CAB members and an ADEQ representative. Care is taken to ensure the location is easily accessible for the public to attend. For a list of current CAB members, see Appendix D.
- 2. Local Print Media** – ADEQ will publish all WQARF milestone public notices in the *Arizona Business Gazette*, which has a search function for public notices (<http://archive.azcentral.com/class/azbnotices.html>). For a list of other media outlets, see Appendix G.
- 3. U.S. Mail and Email Lists** – ADEQ maintains U.S. Mail and email address lists for the Central Phoenix WQARF sites. Mailing list addresses are compiled and updated on an ongoing basis through CIP updates; return mailers from fact sheets; CAB, open house, and/or public meeting attendance lists; and individual requests. These distribution lists include CAB members, local and state elected and appointed officials, neighborhood and home owner association contacts, and schools and vulnerable population centers representing/located within the sites’ community involvement areas (see Appendices B through D), and other interested parties.
- 4. ADEQ Website** – ADEQ’s website provides visitors with three areas of information related to the site and is updated on an ongoing basis:
 - **Calendar Page** – This calendar provides information regarding public meetings (including CAB meetings), notices, and public comment periods (<http://www.azdeq.gov/cgi-bin/vertical.pl>).
 - **CAB Meetings Page** – This page provides links to announcements, agendas, and minutes of CAB meetings (<http://www.azdeq.gov/environ/waste/sps/reg.html>).

- Site Information Pages – These pages provide detailed site information and access to the online information repositories for the sites, which includes milestone documents.
 - https://azdeq.gov/environ/waste/sps/7th_Bethany.html
 - https://azdeq.gov/environ/waste/sps/16th_Street_Camelback.html
 - https://azdeq.gov/environ/waste/sps/Central_Camelback.html
- 5. **ADEQ Notice Board** – Notice boards are located in ADEQ’s Phoenix and Tucson offices.
- 6. **Public Meetings** – Public meetings or open houses, beyond the CAB meetings, may be scheduled and conducted as needed and as determined by ADEQ and the CAB (for example, meetings with neighborhood/homeowners associations, schools or other community groups).
- 7. **Site Tours** – Tours of the sites may be requested and arranged in conjunction with the property owners and in compliance with current laws and regulations by contacting the ADEQ Community Involvement Coordinator.

The following Communication Techniques table illustrates how these techniques have and will be used throughout the WQARF process for the Central Phoenix WQARF sites.

Communication Techniques							
Communications Deliverable			Communications Recipients/Methods				
Type ⁸	Why	When	CAB Members	Interested Parties List	ADEQ Website	Local Print Media	ADEQ Notice Board
Notice	Provide notice of availability of milestone documents, request comments, and solicit input.	Per mandate (see Community Involvement Action Summary table).	✓	✓	✓ (site and calendar pages)	✓ (<i>Arizona Business Gazette</i>)	✓
CAB Meeting Notice/Agenda	Provide two-way communication about the status of site activities. The notice announces the meeting and provides the agenda.	Variable schedule based on level of site activity as scheduled by CAB and ADEQ, with the exception of the required public meeting for the solicitation of remedial objectives (see Community Involvement Action Summary table).	✓	✓	✓ (site, calendar, and CAB meetings pages)	Not applicable	✓
Technical Presentation	Provide current information about site activity or related topics.	At CAB meetings or at specially requested public meetings.	✓	Not applicable	✓ (site and CAB meetings pages)	Not applicable	Not applicable
Technical Milestone Document	Provide current technical information about site investigation/remediation activities (e.g., Remedial Investigation, Feasibility Study, etc.).	According to the WQARF Process as documents are developed and become available.	✓	Not applicable	✓ (online information repository)	Not applicable	Not applicable
Site Fact Sheet/Newsletter	Provide current information about site activity.	Published at the start of the Remedial Investigation and at specific milestones or other times as deemed appropriate by ADEQ and the CAB.	✓	✓	✓ (online information repository)	Not applicable	Not applicable
Public Meeting	Provide forum to solicit Remedial Objectives. (Note that this meeting may be conducted in conjunction with a CAB meeting.) Additional public meetings may be used to discuss site activities as determined by level of community interest.	As required/if requested.	✓	✓	✓ (site and calendar pages)	✓ (<i>Arizona Business Gazette</i>)	✓
Site Tour	Provide walking or driving tour of the site to observe current site conditions and the surrounding community and environment.	If requested, and with cooperation of current property owners.	Contact ADEQ Community Involvement Coordinator.				

⁸ Communications deliverables may be translated into Spanish if deemed necessary or requested.

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C. Other Resources and Contacts

In addition to the designated spokesperson and information repository identified at the beginning of this CIP, the appendices included in this CIP provide additional resources and contact information for the public to use as desired.

- **Appendix A** provides a history of major activities by year at the Central Phoenix WQARF sites.
- **Appendix B** provides a list of targeted communities in the Central Phoenix WQARF sites community involvement areas. These include neighborhood associations and community schools and vulnerable population centers that are in or near the community involvement areas.
- **Appendix C** provides a table of local and state elected officials, by ward or district, who represent communities within the community involvement areas. Note that some wards or districts may encompass more of the community involvement areas than others.
- **Appendix D** provides a table of the current Central Phoenix WQARF sites CAB members.
- **Appendix E** provides a list of parties that have requested, and received, from ADEQ prospective purchaser agreements for property in and around the Central Phoenix WQARF sites.
- **Appendix F** provides a list of parties that have consent decree settlements with ADEQ pertaining to the Central Phoenix WQARF sites.
- **Appendix G** provides a list of media outlets in the area. All future public notices for the Central Phoenix WQARF sites can be found by searching the *Arizona Business Gazette* publication (<http://archive.azcentral.com/class/azbjnotices.html>).
- **Appendix H** provides a list of other related state and local agencies that may be of interest to the public.

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Appendix A – Site Histories

The following presents site histories in chronological order for the Arizona Department of Environmental Quality (ADEQ) Central Phoenix Water Quality Assurance Revolving Fund (WQARF) sites.

7th Avenue and Bethany Home Road

1952–1960 The site property was originally developed in 1952 into a small shopping center, which included a market, a variety of commercial shops, and a dry cleaning facility. The dry cleaning facility began operation in 1955. The shopping center was connected to an on-site septic system. In 1960 the shopping center was connected to the Phoenix sewer system and discharges to the septic system are thought to have ended.

1995–2001 Three site investigations were completed by outside parties and confirmed the presence of tetrachloroethene (PCE) contamination in soil and groundwater at the site.

2004 In August, the site was placed on the WQARF Registry based on the detection of PCE in the soil and groundwater. Concentrations were found to be as high as 15,000 micrograms per liter ($\mu\text{g/L}$) in groundwater beneath the northeast corner of the site, exceeding the Arizona Aquifer Water Quality Standard (AWQS) for PCE of $5.0 \mu\text{g/L}$. The eligibility and evaluation score for placement on the WQARF Registry was 29 out of 120.



In October, ADEQ initiated an early response action (ERA) evaluation on the site to collect data necessary to characterize the source area of PCE contamination beneath the site. The ERA evaluation consisted of drilling 10 soil borings and installing 5 soil vapor extraction (SVE) wells and 2 groundwater monitoring wells at the site.

2005–2007 In September 2005, three off-site groundwater monitoring wells were installed to help define the extent of groundwater contamination. Based on the results of the ERA investigation, an SVE system was installed at the site. The SVE system was in operation from June 2005 to January 2006, when use was discontinued. During operation of the system, approximately 380 pounds of PCE were removed from the subsurface soils. In April 2006, a rebound test was conducted to determine if the volatile organic compounds (VOCs) remaining in the soil warranted further operation of the system. The results of this test indicated there were not enough

extractable VOCs remaining in the soils to warrant further operation of the system. In October 2006, confirmation borings were drilled and sampled in the areas of the SVE system. These samples confirmed the concentrations of PCE remaining in the soils were below residential soil remediation standards and groundwater protection levels. In April 2007, the SVE system was decommissioned.

- 2008 ADEQ initiated an investigation of an additional dry cleaner that operated at 6022 North 7th Avenue from the 1960s to approximately 1990. Field investigations in the early 1990s indicated a release of PCE from this dry cleaner, but the impact to the groundwater was not evaluated at the time. In March, two monitoring 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 indicated that PCE had been released to the groundwater beneath the site. Concentrations of PCE ranged from 8.0 to 24 µg/L. Trichloroethene (TCE) and vinyl chloride were also detected at levels above their respective AWQS limits.
- 2009 In January, ADEQ initiated the Remedial Investigation process. The outline of the community involvement plan and the scope of work for the Remedial Investigation were completed.
- 2010 In April, the Draft Remedial Investigation Report was released for public comment, and comments on the Remedial Objectives were solicited from the public in September. In November, one round of groundwater sampling of site monitoring wells was completed, and the results indicated that the plume was continuing to move to the north.
- 2011–2012 In April 2011, the Final Remedial Investigation Report was released and included the Remedial Objectives for the site. In May 2011, ADEQ initiated the Feasibility Study process, and the Final Feasibility Study was delivered to ADEQ in November 2012. The Feasibility Study recommended enhanced reductive dechlorination as the final remedy at the site. In January 2012, a round of groundwater sampling of the site monitoring wells was completed. Contaminant concentrations detected in the monitoring wells were generally higher than those detected in September 2010. PCE was detected at a maximum concentration of 2,300 µg/L in monitoring well MW-4, which is located near the source area. TCE and vinyl chloride were detected in monitoring well MW-12 at concentrations of 18 and 2.5 µg/L, respectively. Monitoring well MW-12 is located west of the main source area in a smaller source area associated with the former dry cleaner located at 6022 North 7th Avenue. The AWQS limits for TCE and vinyl chloride are 5 and 2 µg/L, respectively.
- 2013 In April 2013, ADEQ initiated the pilot test for enhanced reductive dechlorination at the site. To complete definition of the plume and add additional monitoring wells for the pilot test, ADEQ installed seven monitoring wells and

two injection wells at the site. During the initial pilot test injection, approximately 40,000 gallons of molasses were injected into the aquifer. One round of groundwater sampling was conducted from the 18 wells at the site. Concentrations detected in the monitoring wells were slightly lower than those detected in January 2012. PCE was detected at a maximum concentration of 1,400 µg/L in monitoring well MW-4, located near the source area. TCE and vinyl chloride were detected in monitoring well MW-12 at concentrations of 18 and 2.3 µg/L, respectively. In August 2013, the initial performance samples collected from the aquifer indicated enhanced reductive de-chlorination was occurring in an area within 15 feet of the injection wells. In the one year pilot test, PCE concentrations in the monitoring wells in the treatment area were reduced from concentrations as high as 550 µg/L to less than 1 µg/L.

2014 In March 2014, one round of groundwater samples was collected from the 18 wells at the site. Concentrations detected in the monitoring wells were generally slightly lower than those detected in April 2013. PCE was detected at a maximum concentration of 1,000 µg/L in monitoring well MW-4, which is located near the source area. Outside the treatment area, TCE and vinyl chloride were also detected in monitoring well MW-12 at concentrations of 13 µg/L and 1.5 µg/L, respectively. Monitoring well MW-12 is located west of the main source area in a source area associated with the former dry cleaner located at 6022 North 7th Avenue. The AWQS limits for TCE and vinyl chloride are 5 and 2 µg/L, respectively. If funding allows, ADEQ intends to move forward with the full-scale enhanced reductive de-chlorination treatment.

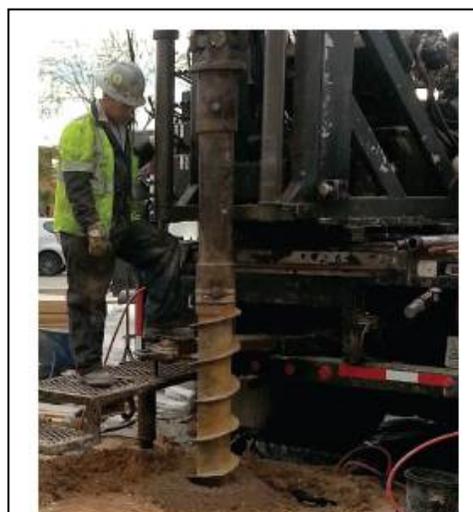
16th Street and Camelback

1994 In January, a Consent Decree was signed between Bank One and ADEQ. Bank One paid a settlement to ADEQ to be used for the investigation and cleanup of the property. Six monitoring wells were installed.

1995 ADEQ conducted a soil vapor survey. PCE concentrations were detected in soil at levels ranging from 1.3 to 2.3 µg/L.

1996 ADEQ installed four additional permanent groundwater monitoring wells and four temporary groundwater well points.

1999 On April 21, the site was added to the WQARF Registry with an eligibility and evaluation score of 23 out of a possible 120.



Drilling of Groundwater Well at 16th Street and Camelback

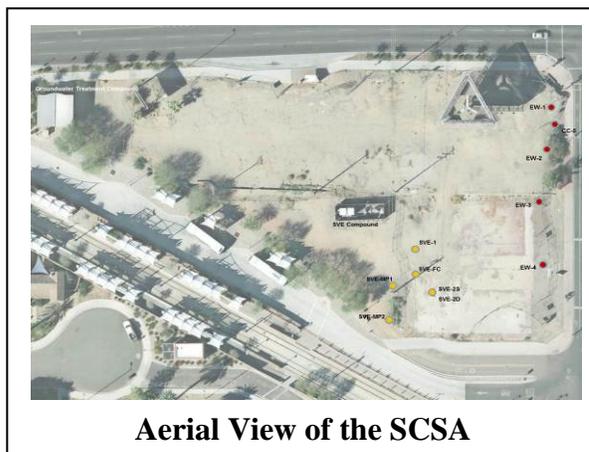
- 2002 In May, ADEQ began an ERA evaluation at the site. The ERA evaluation was designed to determine if a combination of SVE and air sparge remediation could provide source control and remediate the PCE groundwater contamination.
- 2003 In January, ADEQ installed two vapor extraction wells, one sparge point, and two observation wells. A pilot study was conducted to determine the feasibility of installing a vapor extraction/air sparge remediation system. In April, ADEQ received the results from the pilot study and requested that an ERA completion report be prepared. The results of the pilot study indicated that installation of a remediation system at the site would not be feasible or cost effective.
- 2004–2006 The ERA completion report requested by ADEQ was completed. Groundwater monitoring of the well network at the site continued, with 13 wells being sampled. Passive diffusion bags were used at the site beginning with the 2004 first quarter sampling event because the depth to groundwater had increased.
- In January 2004, ADEQ installed an additional monitoring well (MW-12) on the southwest corner of 16th Street and Camelback Road. The well was to aid in defining the downgradient extent of PCE contamination. In April 2006, due to declining water levels, ADEQ installed monitoring well MW-3A to replace well MW-3. Monitoring well MW-3A was installed to collect contamination data from the source area of the southern plume.
- During the August 2006 sampling event, the highest detected concentration of PCE in groundwater, 89 µg/L, was from a sample taken from a well in the northern plume. The highest concentration of 1,2-dichloroethane (1,2-DCA), 7 µg/L, was from a sample taken from a well in the southern plume.
- 2007 Based on the October groundwater sampling event, the highest concentrations of PCE and 1,2-DCA in groundwater were 24 µg/L and 3.4 µg/L, respectively.
- 2008 ADEQ continued to sample the northern and southern groundwater plumes.
- 2013 The highest concentration of PCE in groundwater detected during the May sampling event was 31.9 µg/L. Concentrations of 1,2-DCA in groundwater remained below the laboratory detection limit. ADEQ began installing two groundwater monitoring wells to better define the downgradient extent of PCE contamination in the northern plume.
- 2014 Two groundwater monitoring wells were installed at the site to delineate the downgradient extent of the northern plume. Groundwater samples were collected from all of the site wells that could be accessed in February and April. Based on the April 2014 groundwater sampling event, the highest concentrations of PCE and 1,2-DCA in groundwater were 13.3 µg/L and 0.62 µg/L, respectively.

Central and Camelback

1999 In January, the Southwest Corner Source Area (SCSA) portion of the site was placed on the WQARF Registry due to the detection of PCE in groundwater. Concentrations were found to be as high as 20,000 parts per billion. The eligibility and evaluation score for placement on the WQARF Registry was 31 out of 120.

2000 In June, the Central and Camelback site, inclusive of the SCSA, was listed on the WQARF Registry with a score of 32 out of 120.

2001 ADEQ initiated an ERA for the SCSA portion of the site to remediate groundwater contamination and control the migration of contamination into an underground parking garage located on the southeast corner of



Aerial View of the SCSA

Central Avenue and Camelback Road. The ERA consisted of the installation of four groundwater extraction wells, which was completed in December.

2003 On January 22, the groundwater remediation system located at 21 West Camelback Road began pumping and treating contaminated groundwater at a rate of approximately 90 gallons per minute. The treatment system removed VOCs by passing the contaminated groundwater through granular activated carbon. The treated water was discharged primarily to the Salt River Project Grand Canal and, during canal dry-out periods, to the City of Phoenix sanitary sewer. Periodic sampling of the effluent was conducted to ensure that the treated water complied with discharge standards. Eleven groundwater monitoring wells were installed to delineate the extent of the PCE plume.

2004 In June, an ERA evaluation of the Maroney's Dry Cleaners facility located at 4902 North Central Avenue was conducted. Four nested soil vapor wells and one groundwater monitoring well were installed during the ERA evaluation.

2005 In January, based on the results of the ERA evaluation, an SVE pilot test was conducted and SVE was chosen as an effective remedy for the subsurface soil contamination at the former Maroney's facility.

Groundwater samples from wells at the former Texaco station located at the corner of Central Avenue and East Colter Street were found to contain PCE.

- 2006 Two new wells were drilled at Medlock Drive and Orange Street to delineate the northern portion of the plume. ADEQ took over ownership of three City of Phoenix wells at the SCSA.
- 2007 ADEQ began the Remedial Investigation to determine the nature and extent of the contamination at the site. Three new wells were drilled, two south of the site on Pierson Street and one on private property at 15 West Camelback Road near the former Weiss Guys Car Wash location. In November, the SVE system began operating.
- 2008 In May, ADEQ installed two groundwater monitoring wells. ADEQ detected increasing levels of PCE in monitoring well CC-11 on East Orange Drive and in the Texaco wells at 5201 North Central Avenue.
- 2009 At the end of June, the SVE operational schedule was changed to monitor the rebound of contaminant vapors in the subsurface. The system alternatively would operate for 2 weeks and then be shut down for 2 weeks.
- 2010 In early January, the groundwater treatment system was shut down because it could not discharge to the Grand Canal while the canal was being dried out and cleaned. The system remained offline until early March due to budget constraints. The system was operated continuously after startup in March with two of the four extraction wells in operation. The SVE system continued to operate on a 2-week-on, 2-week-off schedule. The SVE system was turned off from the beginning of July to early September during the fiscal year 2011 contract negotiation period.
- 2011 In January, the groundwater remediation system was again shut down because it could not discharge to the Grand Canal while the canal was being dried out and cleaned. The system remained offline until early March to allow for minor repairs, calibrations, and upgrades. The system was operated continuously, after startup, with two of the four extraction wells in operation. The SVE system was operated on a 2-week-on, 2-week-off schedule, until December, when the system was operated continuously. A soil gas investigation was conducted in the area of the former Maroney's Dry Cleaners building, and a nested soil gas extraction well was installed.
- 2012 Multiple permits were renewed for the continued operation of the SVE system. A City of Phoenix Wastewater Discharge Permit (Permit Number 0710-021409) was terminated because groundwater treatment system no longer discharged wastewater to the City of Phoenix sewer system. The groundwater remediation system operated continuously, with two of the four extraction wells in operation until June. A soil gas extraction pilot test was conducted at the recently installed soil gas extraction well at Maroney's Dry Cleaners. The extraction well was connected to the SVE system after the Maricopa County Air Quality Department approved the required permit modification.

- 2013 Pumping equipment was removed from groundwater extraction well EW-1 and installed in monitoring well CC-5 because of sand infiltration problems with EW-1. The SVE was then operated full time with two extraction wells. A passive soil gas survey was conducted along Central Avenue, north of Camelback Road, to investigate possible releases that may have contributed to the groundwater plume in that area. Two groundwater monitoring wells were installed north of Camelback Road to better define the extent of the groundwater contaminant plume.
- 2014 The groundwater remediation and treatment system and the SVE system were operated full time, with the exception of shutdown for minor repairs and granular activated carbon change out. ADEQ conducted a sewer line video investigation and a soil investigation, and installed a groundwater monitoring well to conclude the investigation of possible additional sources for the northern contaminant plume. A Draft Remedial Investigation Report was completed and presented for public comment.

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Appendix B – Targeted Communities

A. Neighborhood Associations

The following presents neighborhood associations and their respective points of contact in the Central Phoenix Water Quality Assurance Revolving Fund (WQARF) sites community involvement areas.¹

7th AVENUE AND BETHANY HOME ROAD

Desert Horizon Precinct Block Watch² (602) 495-5006
Matt Makinster, 16030 N. 56th St., Scottsdale, AZ 85254 matt.makinster@phoenix.gov

Greater Progressive Christian Center² (602) 462-5525
Byron V. Garrett, 1529 W. McDowell Rd., Phoenix, AZ 85007 No email address provided

Ignition Project³ (602) 316-1400
Shon Bradford, 1441 W. Glendale Ave., Phoenix, AZ 85013 No email address provided

Latino Business Network (602) 279-4875
Joe Flores, 3411 N. 16th St., Phoenix, 85016 No email address provided

Maryland Site Council (602) 347-2300
Rebeccah Potavin, 6503 N. 21st Ave., Phoenix, AZ 85015 No email address provided

Mountain View Precinct Phoenix Neighborhood Patrol² 602-495-6896
Mary Roestenburg, 2075 E. Maryland Ave., Phoenix, AZ 85016 mary.roestenberg@phoenix.gov

North Central Phoenix Homeowners Association³ No phone number provided
Mary Crozier, 5025 N. Central Ave., #560, Phoenix, AZ 85012 marycrz@cox.net

North Phoenix Alliance (602) 459-0113
Bob Beletz, 3127 W. Sweetwater Ave., Phoenix, AZ 85029 rbeletz@cox.net

Palo Verde Block Watch Association (602) 330-2631
Mike Harren, 1418 W. Berridge Ln., Phoenix, AZ 85013 No email address provided

¹ Neighborhood associations were located primarily through the City of Phoenix Neighborhood Association website: <http://jphxprd.phoenix.gov/NSDAssoc/search-alpha-init.do>.

² This neighborhood association encompasses all three Central Phoenix WQARF sites.

³ This neighborhood association encompasses the 7th Avenue and Bethany Home Road and Central and Camelback WQARF sites.

A. Neighborhood Associations (continued)

7th AVENUE AND BETHANY HOME ROAD

Rancho Solana Water Improvement District Tim Sprague, No address provided	No phone number provided tsprague@southoval.com
Solana Community Alliance Sara Bromert-Price, 617 N. 2nd Ave., Phoenix AZ 85003	(602) 926-1860 sprice@neighborhoodpartners.org
Sun View Estates No. 1 Property Owners Association Diane Dick, 5920 N. 10th Ave., Phoenix, AZ 85013	(602) 246-6843 No email address provided
Sun View Estates No. 2 Homeowners Karen Williams, 1243 W. Rancho Dr., Phoenix, AZ 85013	(602) 228-4907 zeda.kw@gmail.com
Thunderdome Neighborhood Association for Non-Auto Mobility⁴ Sean Sweat, 100 E. Filmore St., #230, Phoenix, AZ 85004	No phone number provided phxthunderdome@gmail.com
Vallembrosa Neighborhood Association Carol Poore, 502 W. Palo Verde Dr., Phoenix, AZ 85013	(602) 451-6769 No email address provided

16th STREET AND CAMELBACK ROAD

Alondra-Mirada Condominium Association Bryan Anderson, 1241 E. Medlock Dr., #213, Phoenix, AZ 85014	(602) 670-4560 bcander2@cox.net
Biltmore Area Partnership Edward Rossi, 3104 E. Camelback Rd., #174, Phoenix, AZ 85016	(602) 957-6483 azbapphx@aol.com
Biltmore Networking Group Shahpar Shahpar, No address provided	(602) 255-6020 biltmorenetwork@gmail.com
Can Do⁵ Peter Drake, PO Box 10690, Phoenix, AZ 85064	No phone number provided peter-drake@cox.net
Canal North Neighborhood Association Leatrice Kitchell, 4620 N. 14th St., Phoenix, AZ 85014	(602) 400-7984 leatricekitchell@msn.com
Central City Precinct Phoenix Neighborhood Patrol⁵ Doreena Wiegart, 1902 S. 16th St., Phoenix, AZ 85034	(602) 495-5005 doreena.wiegart@phoenix.gov

⁴ This neighborhood association encompasses all three Central Phoenix WQARF sites.

⁵ This neighborhood association encompasses the 16th Street and Camelback and Central and Camelback WQARF sites.

A. Neighborhood Associations (continued)

16th STREET AND CAMELBACK ROAD

Coalition of East Phoenix (480) 990-9555
Deborah Cookson, 5950 E. Orange Blossom Ln., Phoenix, AZ 85018 No email address provided

Madison Park Neighborhood Community Alliance (602) 664-7500
Todd Stevens, 1431 E. Campbell Ave., Phoenix, AZ 85014 tstevens@msd38.org

North 13th Place Neighborhood Association (602) 264-8148
Mark Vinci, 5125 N. 13th Pl., Phoenix, AZ 85014 mvinci@cox.net

Phoenix Communities United⁶ (602) 251-0437
Corrine Widmer, No address provided cjwidmer@gmail.com

Phoenix Community Alliance⁶ No phone number provided
Don Keuth, 234 N. Central Ave., Ste. M-1100, Phoenix, AZ 85004 No email address provided

Preserve Our Community (602) 957-0020
Jeffrey N. Fine, PO Box 45297, Phoenix, AZ 85064 No email address provided

CENTRAL AND CAMELBACK

Brophy Concerned Neighbors Association No phone number provided
Sam Sprague, No address provided sam9@cox.net

Medlock Business Group No phone number provided
Georganne Bryant, No address provided info@francesvintage.com

Medlock Place Historic Neighborhood Association (602) 241-9895
Barry Wong, PO Box 10689, Phoenix, AZ 85064 barryw93@hotmail.com

Pierson Place Historic District Neighborhood Association (602) 279-6250
Charles M. Jones, 198 W. Mariposa St., Ste. 7, Phoenix, AZ 85013 piersonplace@cox.net

St. Francis District Neighborhood Association (602) 339-7719
Allene Pierce-Avey, 35 E. Pierson St., Phoenix, AZ 85012 ali.avey@hotmail.com

Uptown Business Coalition (602) 277-7937
Jacqueline Rich, 314 E. Rovey Ave., Phoenix, AZ 85012 jvrich@cox.net

⁶ This neighborhood association encompasses the 16th Street and Camelback and Central and Camelback WQARF sites.

A. Neighborhood Associations (concluded)

CENTRAL AND CAMELBACK

Windsor Square Block Watch

Suzanne Dohrer, No address provided

No phone number provided

dwlaw@prodigy.net

Windsor Square Community Council

Ken Mofefian, 345 E. Medlock St., Phoenix, AZ 85012

(301) 717-7000

[kenmofefian@gmail](mailto:kenmofefian@gmail.com)

Windsor Square Special Planning District

Ken Mosesian, 5025 N. Central Ave., PMB 516, Phoenix, AZ 85012

No phone number provided

kenmosesian@gmail.com

B. Community Schools

The Central Phoenix WQARF sites community involvement areas includes the Phoenix Unified School District. No community schools were located within the 16th Street and Camelback WQARF site community involvement area. The following list presents the community schools in the Central Phoenix WQARF sites community involvement area:

7th AVENUE AND BETHANY HOME ROAD

Montessor Children’s House

516 W. Bethany Home Rd., Phoenix, AZ 85013

(602) 264-0096

CENTRAL AND CAMELBACK

Brophy College Preparatory

4701 N. Central Ave., Phoenix, AZ 85012

(602) 264-5291

Saint Francis Xavier School

4715 N. Central Ave., Phoenix, AZ 85012

(602) 266-5364

Xavier College Preparatory

4710 N. 5th St., Phoenix, AZ 85012

(602) 277-3772

C. Vulnerable Population Centers

The following list presents a list of vulnerable population centers, including places such as child care and assisted living facilities, in the Central Phoenix WQARF sites community involvement areas. No vulnerable population centers were located within the 16th Street and Camelback WQARF site community involvement area.

7th AVENUE AND BETHANY HOME ROAD

Marian Adult Care Home (602) 433-9102
1002 W. Rose Ln., Phoenix, AZ 85013

Stella Lane Adult Care Home (602) 441-4696
531 W. Stella Ln., Phoenix, AZ 85013

CENTRAL AND CAMELBACK

Razinn Care Campus (602) 803-9575
37 W. Pasadena Ave., Phoenix, AZ 85013

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Appendix C – Local and State Elected Officials

As of the publication of this community involvement plan, the 2014 community involvement areas for the Central Phoenix Water Quality Assurance Revolving Fund sites falls under Phoenix City Council Districts 4, 5, and 6; Maricopa County Supervisorial District 3; and Arizona Legislature Districts 24 and 28.

CITY Officials	COUNTY Supervisors	STATE Representatives	STATE Senators
City Hall 200 W. Washington St. Phoenix, AZ 85003 (602) 262-7111	Maricopa County 301 W. Jefferson St. 10 th Floor Phoenix, AZ 85003 (602) 506-3416	Arizona House of Representatives Capitol Complex 1700 W. Washington St. Phoenix, AZ 85007 (602) 926-4221	Arizona State Senate Capitol Complex 1700 W. Washington St. Phoenix, AZ 85007 (602) 926-3559
Mayor City of Phoenix Greg Stanton (602) 262-7111 mayor.stanton@phoenix.gov	County Supervisor District 3 Andy Kunasek (602) 506-7562 akunasek@mail.maricopa.gov	Representative District 24 Lela Alston Room # 332 (602) 926-5829 lalston@azleg.gov	Senator District 24 Katie Hobbs Room # 308 (602) 926-5325 khobbs@azleg.gov
City Manager City of Phoenix Ed Zuercher (602) 262-6941 ed.zuercher@phoenix.gov		Representative District 24 Ken Clark Room # 115 (602) 926-3108 kenclark@azleg.gov	Senator District 28 Adam Driggs Room # 212 (602) 926-3016 adriggs@azleg.gov
Phoenix City Council Member District 4 Laura Pastor (602) 262-7447 council.district.4@phoenix.gov		Representative District 28 Kate Brophy McGee Room # 304 (602) 926-4486 kbrophymcgee@azleg.gov	
Phoenix City Council Member District 5 Daniel Valenzuela (602) 262-7446 council.district.5@phoenix.gov		Representative District 28 Eric Meyer Room # 334 (602) 926-3037 emeyer@azleg.gov	
Phoenix City Council Member District 6 Sal DiCiccio (602) 262-7491 council.district.6@phoenix.gov			

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Appendix D – Community Advisory Board Members

The following table presents a list of the Central Phoenix Water Quality Assurance Revolving Fund (WQARF) sites Community Advisory Board (CAB) members as of December 2014.

Central Phoenix WQARF Sites CAB Co-Chairs		
Stan Watts (602) 279-7488 dwlaw@compuserve.com watts@dwlaw.net	Chad Johnson (480) 329-2920 chad.johnson@sci-us.com	
CAB Members		
Paul Barquinero (602) 677-5050 barquinero@aol.com	Daniel Kingston (602) 258-4500 kingstonautomotive@yahoo.com	Lynn Morrow (602) 277-7445 l.d.morrow@cox.net
Pam Perry (602) 279-6250 pamperry@cox.net	Peter Zorbas (602) 277-6341 <i>no email address available</i>	Paul Cox (602) 904-2878 tom.cox.ceo@gmail.com
Maureen Rooney (602) 327-1781 maureenrooney@cox.net	Alicia Hawley (260) 449-1511 hawlaa01@gmail.com	

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Appendix E – Prospective Purchaser Agreements

The following table presents a list of parties that have requested and received prospective purchaser agreements from the Arizona Department of Environmental Quality for properties in or around the Central Phoenix Water Quality Assurance Revolving Fund (WQARF) sites as of December 2014. Prospective purchaser agreements were located for the Central and Camelback WQARF Registry site only. The table includes purchaser name, property location, the date that public notices for these agreements were issued, and the dates these agreements became effective.

Purchaser Name	Property Location	Public Notice Date	Effective Date
Cornerstone at Central & Camelback, LLC; Cornerstone at Central, LLC; Cornerstone at Camelback, LLC; Central & Camelback Edge, LLC; Central & Mariposa, LLC; Cornerstone at Camelback, L.L.C.; and Central & Camelback Edge, L.L.C.	Southwest Corner of Camelback Road and Central Avenue	1/24/2008	3/21/2008
Outdoor Systems, Inc.	Southwest Corner of Camelback Road and Central Avenue	Unknown	4/15/1998

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Appendix F – Settlements

The following table presents a list of parties that have entered into consent decree settlements with the Arizona Department of Environmental Quality for properties in or around the Central Phoenix Water Quality Assurance Revolving Fund (WQARF) sites as of May 2011. A consent decree settlement was located for both the 7th Avenue and Bethany Home Road and 16th Street and Camelback WQARF sites. The table includes party name, the date the consent decree was signed by the judge, and the date that public notices for these settlements were issued.

WQARF Site	Party Name	Public Notice Date	Date Consent Decree Signed by Judge
16th Street and Camelback	Bank One	Unknown	01/1994
7th Avenue and Bethany Home Road	Bayless Investment & Trading Company	Unknown	4/20/2005

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Appendix G – Media Outlets

The following list presents Phoenix media outlets that may be used by the public and Community Advisory Board members to promote information on the Central Phoenix Water Quality Assurance Revolving Fund sites. The *Arizona Business Gazette* is the external media outlet that the Arizona Department of Environmental Quality uses to publish all public notices related to the sites.

A. Newspapers and Magazines

The Arcadia News 3850 E. Indian School Rd., Phoenix, AZ 85018	(602) 840-6379
The Arizona Business Gazette 200 E. Van Buren St., Phoenix, AZ 85004	(602) 444-8000
The Arizona Republic 200 E. Van Buren St, Phoenix, AZ 85004	(602) 444-8000
The Camelback Corridor News 3104 E. Camelback Rd., Phoenix, AZ 85016	(602) 956-8414
East Valley Tribune 1620 W. Fountainhead Pky., Ste. 219, Tempe, AZ 85282	(602) 898-6500
La Voz 200 E. Van Buren St., Phoenix, AZ 85004	(602) 444-3821
North Central News 5308 N. 12th St., Ste., 402, Phoenix, AZ 85014	(602) 277-2742

B. Radio

Arizona News Radio Network (<i>Arizona news and sports to 30 stations</i>) 14605 N. Airport Dr., Ste. 370, Scottsdale, AZ 85260	(480) 483-8415
Bonneville International Corporation (KMVP, KMVP-FM, KTAR, KTAR-FM) 7740 N. 16th St., Ste. 200, Phoenix, AZ 85020	(602) 277-5827
CBS Radio Stations, Inc. (KMLE, KOOL-FM, KZON) 840 N. Central Ave., Phoenix, AZ 85014	(602) 452-1000

B. Radio (Continued)

Clear Channel Communications (602) 260-6000
(KESZ, KFYI, KGME, KNIX-FM, KMXP, KTZR, KXEW, KYOT-FM, KZZP)
4686 E. Van Buren St., Ste. 300, Phoenix, AZ 85008

Maricopa County Community College District (480) 834-5627
(KBAQ, KJZZ)
2323 W. 14th St., Tempe, AZ 85281

Phoenix FCC License Sub, LLC (480) 838-0400
(KAZG, KDKB, KDUS, KSLX-FM, KUPD)
1900 W. Carmen St., Tempe, AZ 85283

Riviera Broadcasting Co. (602) 648-9800
(KEXX, KKFR, KMVA, KOAI)
4745 N. 7th St., Ste. 410, Phoenix, AZ 85014

Sierra H. Broadcasting, Inc. (480) 994-9100
(KAJM, KNJR)
1710 E. Indian School Rd., Ste. 205, Phoenix, AZ 85016

Univision Radio License Corporation (602) 308-7900
(KHOT-FM, KNOV-FM, KKMR, KOMR, KQMR)
4745 N. 7th St., Ste. 140, Phoenix, AZ 85014

C. Television

KAET Channel 8 (PBS) (602) 496-8888
555 N. Central Ave., Ste. 500, Phoenix, AZ 85004

KNXV Channel 15 (ABC) (602) 273-1500
515 N. 44th St., Phoenix, AZ 85008

KPHO Channel 5 (CBS) (602) 264-1000
4016 N. Black Canyon Hwy., Phoenix, AZ 85017

KPNX Channel 12 (NBC) (602) 257-1212
200 E. Van Buren St., Phoenix, AZ 85004

KSAZ Channel 10 (FOX) (602) 257-1234
511 W. Adams St., Phoenix, AZ 85003

KTAZ Channel 39 (Telemundo) (602) 648-3900
4625 S. 33rd Pl., Phoenix, AZ 85040

KTVW Channel 33 (Univision) (602) 243-3333
6006 S. 30th St., Phoenix, AZ 85042

Appendix H – Related Agencies and Contact Information

The following list presents additional resources that may be used by the public and Community Advisory Board members to address concerns or questions related to the Central Phoenix Water Quality Assurance Revolving Fund sites.

A. State of Arizona

Arizona Department of Agriculture

1688 W. Adams St.
Phoenix, AZ 85007
Phone: (602) 542-4373

Arizona Department of Health Services

150 N. 18th Ave.
Phoenix, AZ 85007
Phone: (602) 542-1025

Arizona Department of Water Resources Groundwater Permitting and Wells Section

3550 N. Central Ave.
Phoenix, AZ 85012
Phone: (602) 771-8527

B. City of Phoenix

City of Phoenix Housing Department

251 W. Washington St., 4th Floor
Phoenix, AZ 85003
Phone: (602) 262-6794

City of Phoenix Water Services Department

305 W. Washington St., Ste. 200
Phoenix, AZ 85003
Phone: (602) 262-6251

Public Works Department

Garbage and Recycling
200 W. Washington St., 7th Floor
Phoenix, AZ 85003
Phone: (602) 262-7251

C. Other

Agency for Toxic Substances and Disease Registry

Western Branch – Region 9

75 Hawthorne St.

Ste. 100, M/S:HHS-1

San Francisco, CA 94105

Phone: (800) 232-4636

Consumer information line: (800) 223-0618

Real Estate Seller Disclosures

Arizona Department of Real Estate

Phone: (602) 771-7799

<http://www.aaronline.com/wp-content/uploads/2013/01/seller-property-disclosure-statement.pdf>

Salt River Project

1521 N. Project Dr.

Tempe, AZ 85281

Phone: (602)-236-3333 (water customer service)

<http://www.srpnet.com/contactus/default.aspx>

Acronyms and Glossary of Terms

1,2-Dichloroethane (1,2-DCA): A colorless liquid used as a solvent for plastics, oils and fats, as a degreaser, as a fumigant in insecticide sprays, in halon fire extinguishers, and in cementing of rubber.

Aquifer: An underground rock formation composed of such materials as sand, soil, or gravel, that can store groundwater and supply it to wells and springs. In aquifers, groundwater occurs in sufficient quantities to be used for drinking water, irrigation, and other purposes.

Aquifer Water Quality Standard (AWQS): State of Arizona maximum levels for contaminants which apply to groundwater in aquifers designated for drinking water use. For example, the AWQS for tetrachloroethene (PCE) is 5 micrograms per liter ($\mu\text{g/L}$).

Arizona Administrative Code (A.A.C.): is where the official rules of the state of Arizona are published. The *Code* is the official compilation of rules that govern state agencies, boards, and commissions.

Arizona Department of Environmental Quality (ADEQ): ADEQ is the executive agency of the Arizona State Government mandated to enforce and administer the State's environmental laws and regulations.

Arizona Revised Statutes (A.R.S.): State laws adopted by the Arizona State Legislature.

Cleanup: Actions taken that deal with a release or threat of a release of hazardous substances that could adversely affect public health and/or the environment. The word "cleanup" is sometimes used interchangeably with the terms remedial action, removal action, response action, remedy, remediation, or corrective action.

Community Advisory Board (CAB): A diverse group of community members interested in or affected by the presence of a WQARF site. By statute, ADEQ is required to form a CAB for each WQARF Registry site where ADEQ is initiating a Remedial Investigation. ADEQ seeks the CAB's input in the decision-making process and works with them from the onset of the RI/FS process until the requirements of the record of decision have been fulfilled.

Community Involvement Area: The mailing area of residences and businesses used in the notification for public meetings and other written notices regarding a site.

Community Involvement Coordinator: The ADEQ employee responsible for ensuring that all statutes and rules related to the involvement of the public and public outreach at WQARF sites are upheld and complied with by ADEQ. Community Involvement Coordinators manage and coordinate the work of CABs for WQARF sites.

Community Involvement Plan (CIP): A document that identifies techniques used by ADEQ and EPA to communicate effectively with the public during the Superfund cleanup process at a specific site. This plan describes the site history, nature and history of community involvement,

and concerns expressed during community interviews. In addition, the plan outlines methodologies and timing for continued interaction between the Agencies and the public at the site.

Contamination: Any hazardous or regulated substance released into the environment.

Contaminant: Any physical, chemical, biological or radiological substance or matter present in any media at concentrations that may result in adverse effects on air, water or soil. A harmful or hazardous matter introduced into the environment that is not normally found there, or not naturally occurring

Early Response Action (ERA): Refers to a remedial action performed prior to the final remedy, and often prior to the Remedial Investigation. An ERA addresses current risks to public health, welfare, and the environment; protects or provides a supply of water; addresses sources of contamination; or controls or contains contamination where such actions are expected to reduce the scope or cost of the remedy needed at the site. Also referred to as an interim remedial action.

Feasibility Study (FS): A process to identify a reference remedy and alternative remedies that appear to be capable of achieving the Remedial Objectives for the site. It is often done as part of a two-phase investigation in conjunction with a Remedial Investigation (RI/FS).

Granular Activated Carbon (GAC): Treatment process used to remove dissolved contaminants from water by absorption.

Groundwater: Water located beneath the ground surface in soil pore spaces and in the fractures of geologic formations. A formation of rock or soil is called an aquifer when it can yield a usable quantity of water.

Hazardous Substance: Any material that, because of its quantity, concentration, physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment.

Information Repository: A collection of documents about a specific project. Information on certain WQARF and Superfund sites may be available at ADEQ offices and libraries throughout the state.

Methyl Tertiary Butyl Ether (MTBE): A colorless liquid that is a derivative of fossil fuels.

Monitoring Wells (Monitor Wells): Wells installed for the purpose of collecting samples such as groundwater and soil gas. Analytical results from samples are used to characterize the extent of contamination, the direction of groundwater flow, and the types and quantities of contaminants present in the groundwater.

Operation and Maintenance (O&M): 1. Activities conducted after a WQARF/Superfund site action is completed to ensure that the action is effective. 2. Actions taken after construction to ensure that facilities constructed to treat waste water will be properly operated and maintained to achieve normative efficiency levels and prescribed effluent limitations in an optimum manner. 3. On-going

asbestos management plan in a school or other public building, including regular inspections, various methods of maintaining asbestos in place, and removal when necessary.

Plume: A well-defined area of contamination in groundwater, soil or the air, often used to describe the dispersion of contamination in soil and/or groundwater.

Potentially Responsible Party (PRP): Those parties (individuals, corporations) identified by state or federal authorities as potentially liable for cleanup costs at a contaminated site.

Preliminary Investigation (PI): The process of collecting and reviewing available information about a known or suspected hazardous waste site or release.

Proposed Remedial Action Plan (PRAP): A document which reviews the cleanup alternatives presented in the site Feasibility Study and identifies ADEQ's preferred alternative. Selection of a preferred alternative is not a closed-end commitment to use that alternative; rather, it is a way for the agency to indicate, based on experience and expertise, which alternative is the most likely course of action. ADEQ must actively solicit public review of and comment on all the alternatives under consideration.

Public Comment Period: A period during which the public can formally review and comment on various documents and ADEQ actions.

Record of Decision (ROD): A legal document that announces and explains the cleanup methods ADEQ will use at a Superfund/WQARF site. The Record of Decision is based on information and technical analysis generated during the Remedial Investigation and Feasibility Study, and on consideration of comments received during the public comment record for the Proposed Remedial Action Plan.

Remedial Action (RA): Any action taken to investigate, monitor, assess and evaluate the release or threat of release of hazardous substances or contaminants to the environment. It may also refer to the actual "cleanup" of the environment by various removal, treatment, monitored remediation, or corrective actions. The term cleanup is sometimes used interchangeably with the terms remedial action, removal action, response action, remedy, remediation, or corrective action.

Remedial Investigation (RI): Establishes the nature and extent of the contamination and the sources; identifies current and potential impacts to public health, welfare, and the environment; identifies current and reasonable foreseeable uses of land and waters of the state; and obtains and evaluates any information necessary for identification and comparison of alternative remedial actions.

Remedial Objective (RO): Established remedial goals for the current and reasonably foreseeable uses of lands and waters of the state that have been or are threatened to be affected by a release of hazardous substance.

Remediation: Cleanup or other methods used to remove or contain a toxic spill or hazardous materials.

Remedy: Cleanup method chosen for a site.

Responsible Party: An individual or company (e.g., an owner, operator, transporter, or generator of hazardous waste) that is responsible for the contamination problems at a Superfund/WQARF site. Whenever possible, responsible parties are required to clean up hazardous waste sites they have contaminated.

Responsiveness Summary: A summary of oral and written comments (and ADEQ responses to those comments) received during the public comment period.

Soil Vapor Extraction (SVE): Soil vapor extraction removes contaminant vapors from below ground for treatment above ground. Soil vapor extraction removes vapors from the soil above the water table by applying a vacuum to pull the vapors out. The method is used for chemicals that evaporate easily – such as those found in solvents and gasoline.

Superfund: The program operated under the legislative authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA) that funds and carries out EPA solid waste emergency and long-term removal and remedial activities. These activities include establishing the National Priorities List, investigating sites for inclusion on the list, determining their priority, and conducting and/or supervising cleanup and other remedial actions. It provides for the cleanup of hazardous substances released into the environment, regardless of fault. The term Superfund also is used to refer to cleanup programs designed and conducted under CERCLA and its subsequent amendments.

Tetrachloroethene or Tetrachloroethylene or Perchloroethene (PCE): A clear, colorless, liquid with a chloroform or sweet odor and a low boiling point; a solvent used for dry-cleaning; degreasing and drying metals and other solids; dissolving waxes, greases, oils, fats, and gums, and in other industrial applications. PCE is a potential occupational carcinogen. Evaporation of PCE increases as temperature increases.

Trichloroethene or Trichloroethylene (TCE): A colorless liquid used as a solvent, metal degreasing agent, and in other industrial applications.

Volatile Organic Compounds (VOC): A large group of carbon-containing compounds that are easily dissolved into water, soil, or the atmosphere and evaporate readily at room temperature. Examples of VOCs include PCE, TCE, benzene, toluene, ethylbenzene, and xylene. These contaminants are typically generated from metal degreasing, printed circuit board cleaning, gasoline, and wood preserving processes.

Water Quality Assurance Revolving Fund (WQARF): Also known as the State Superfund. WQARF is the program and funding which is used to address hazardous substance releases within the state that are not covered by other specific programs.