

**RECORD OF DECISION
16th STREET & CAMELBACK
WQARF REGISTRY SITE
PHOENIX, ARIZONA**

February 2017

Prepared for:

Arizona Department of Environmental Quality
Remedial Projects Unit
1110 West Washington
Phoenix, Arizona 85007



**RECORD OF DECISION
16th STREET & CAMELBACK
WQARF REGISTRY SITE
PHOENIX, ARIZONA**

APPROVAL PAGE

Prepared By: Kevin C. Snyder 2/15/17
Kevin C. Snyder, R.G. Project Manager Date
Arizona Department of Environmental Quality

Approved By: Scott R. Green 2/15/17
Scott R. Green, R.G., Manager Date
Remedial Projects Unit
Arizona Department of Environmental Quality

Approved By: Tina L. Le Page 2/23/17
Tina L. Le Page, Manager Date
Remedial Projects Section
Arizona Department of Environmental Quality

Approved By: Laura L. Malone 3/3/17
Laura L. Malone, Director Date
Waste Programs Division
Arizona Department of Environmental Quality



1.0 DECLARATION1-1

1.1 SITE NAME AND LOCATION 1-1

1.2 BASIS AND PURPOSE..... 1-1

1.3 SITE ASSESSMENT 1-1

1.4 SELECTED REMEDY 1-2

1.5 STATUTORY DETERMINATIONS 1-3

2.0 SITE BACKGROUND 2-1

2.1 SITE DESCRIPTION 2-1

2.2 SOURCE OF RELEASES..... 2-1

2.3 CHRONOLOGY OF SITE ACTIVITIES..... 2-1

2.4 CONTAMINATION REQUIRING REMEDIATION 2-3

2.4.1 Groundwater 2-3

3.0 SELECTED REMEDY 3-1

3.1 SELECTED REMEDY SUMMARY 3-1

3.2 ACHIEVEMENT OF REMEDIAL OBJECTIVES & REMEDIAL ACTION CRITERIA . 3-4

3.3 COMPLIANCE WITH ARIZONA ADMINISTRATIVE CODE 3-4

3.4 COMMUNITY INVOLVEMENT AND PUBLIC COMMENT REQUIREMENTS..... 3-5

3.5 SCHEDULE 3-7

4.0 RESPONSIVENESS SUMMARY 4-1

5.0 COST 5-1

5.1 HISTORIC COSTS 5-1

5.2 FUTURE COSTS..... 5-1

6.0 CONCLUSIONS 6-1

7.0 REFERENCES 7-1

TABLES

Table 3-1. Site-Specific Public Participation Activities

Table 5-1. Summary of Costs to Implement the Selected Remedy

FIGURES

Figure 1-1. Site Location Map

Figure 1-2. Site Layout and Monitoring Well Locations

Figure 2-1. Recent Groundwater Chemistry Results from Sampling in 2015 and 2016

APPENDICES

Appendix A. Responsiveness Summary, Proposed Remedial Action Plan Written Comments



LIST OF ACRONYMS	
A.A.C.	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
ADWR	Arizona Department of Water Resources
A.R.S.	Arizona Revised Statute
AWQS	Aquifer Water Quality Standards
CAB	Community Advisory Board
CIP	Community Involvement Plan
COC	Contaminant of Concern
1,2-DCA	1,2-Dichloroethane
1,2-DCP	1,2-Dichloropropane
ERA	Early Response Action
ERD	Enhanced Reductive Dechlorination
FS	Feasibility Study
MNA	Monitored Natural Attenuation
PCE	Tetrachloroethene
PRAP	Proposed Remedial Action Plan
RI	Remedial Investigation
RO	Remedial Objectives
ROD	Record of Decision
SRP	Salt River Project Agricultural Improvement and Power District
µg/L	micrograms per liter
UST	underground storage tank
VOC	volatile organic compound
WQARF	Water Quality Assurance Revolving Fund



1.0 DECLARATION

1.1 SITE NAME AND LOCATION

This Record of Decision (ROD) is for the 16th Street and Camelback Water Quality Assurance Revolving Fund (WQARF) Registry Site (Site), located in Maricopa County, Phoenix, Arizona (Figure 1-1). The Site is located in a commercial area of Central Phoenix and is bounded by East Camelback Road to the north, North 17th Street to the east, East Highland Avenue to the south, and North 15th Street to the west (Figure 1-2). The site was added to the WQARF Registry on April 21, 1999 with an eligibility and evaluation score of 23 out of a possible 120.

1.2 BASIS AND PURPOSE

This ROD presents the selected remedy for the Site, chosen in accordance with applicable requirements with Title 18, Chapter 16 of the Arizona Administrative Code (A.A.C.). The process for selecting the remedy also complied with Arizona Revised Statute (A.R.S.) Title 49, Chapter 2, Article 5. The Arizona Department of Environmental Quality (ADEQ), as the lead agency, has reviewed the remedy and determined that site completion criteria used to evaluate the selected remedial action for contaminants of concern (COCs) which have been detected above regulatory or risk-based levels in groundwater at the Site and remedial objectives (ROs) have been satisfied. This ROD describes the basis for the selected remedy and addresses all elements of A.A.C. R18-16-410 under the WQARF Program. The decision in this ROD is based upon previous activities and investigations conducted and performed for this site documented and placed in ADEQ's Administrative Record file.

1.3 SITE ASSESSMENT

Volatile organic compounds (VOCs) historically detected in groundwater samples collected within the boundaries of the Site included tetrachloroethene (PCE), benzene, 1,2-dichloroethane (1,2-DCA), and 1,2-dichloropropane (1,2-DCP). PCE has been detected in the highest concentrations and is the only VOC currently exceeding the Aquifer Water Quality Standard (AWQS) of 5 micrograms per liter ($\mu\text{g/L}$).

Remedial Investigation (RI) and groundwater monitoring activities conducted since 1994 indicated that soil and groundwater at the Site had been impacted by PCE in the northern



portion of the Site (north plume) and by petroleum hydrocarbons including 1,2-DCA and 1,2-DCP in the southern portion of the site (south plume). Based on data collected during the RI, the source of PCE in the north plume was identified as a former drycleaner and the south plume was former service stations (Figure 1-2). An early response action (ERA) pilot test to evaluate remedial options of soil at the north plume determined that soil/soil vapor concentrations were low enough that installation of a remedial system was not feasible or cost effective. An underground storage tank (UST) and contaminated soil were excavated from the area of the south plume. No additional soil remediation is warranted at the Site.

As mentioned above groundwater monitoring and sampling data indicated that the Site consisted of two separate contaminant plumes from two different sources. Since initiation of the RI in 1994, COC concentrations have declined in the groundwater. Currently the only COC detected in groundwater is PCE at the north plume. The other COCs have degraded to non-detect concentrations in the south plume.

1.4 SELECTED REMEDY

The selected remedy at the Site, as specified in the *Proposed Remedial Action Plan for the 16th Street & Camelback WQARF Site, Phoenix, Arizona* dated July 2016, hereafter referred to as the PRAP (ADEQ/Matrix-CALIBRE, 2016), is to conduct Monitored Natural Attenuation (MNA) at the Site.

MNA is a remedial measure that involves routine groundwater sampling and analysis to monitor the results of one or more naturally occurring physical, chemical, or biological processes that reduce the mass, toxicity, volume, or concentration of chemicals in groundwater. MNA is a mechanism by which COCs are reduced (often slowly) by natural means without other control, removal, treatment, or aquifer-modifying activities. These in-situ processes may include biodegradation, dispersion, dilution, sorption, and volatilization of contaminants. MNA is not typically implemented as a sole remediation method while source areas remain (i.e., remaining contaminant residues in soil) but is applicable at sites, such as this Site, where no ongoing contaminant sources remain.



Performance monitoring will be used to judge the effectiveness and adequacy of the MNA remedy selected for groundwater at the Site. Utilizing the selected remedy of MNA the AWQS should be reached Site wide in approximately 12 years. This timeframe is calculated to be adequate for natural processes to reduce COC concentrations to less than the AWQS and to confirm that COC concentrations have not rebounded.

A summary description of the selected remedy is provided in Section 3.0 of this ROD. Upon completion of remedial actions, all wells associated with the Site will be abandoned in accordance with the PRAP and applicable Arizona Department of Water Resources (ADWR) requirements as promulgated in A.A.C. R12-15-816. After completion of the above actions, ADEQ will delist the Site as stated in A.R.S. 49-287.01 (K).

1.5 STATUTORY DETERMINATIONS

In May 2015, ADEQ completed the RI report (ADEQ & Brown and Caldwell, 2015) and in June 2015 the Feasibility Study (FS) report (ADEQ & Matrix/CALIBRE, 2015) was completed pursuant to A.R.S. §49-287.03. The RI report:

- Established the nature and extent of the contamination and the sources thereof;
- Identified current and potential impacts to public health, welfare and the environment;
- Identified current and reasonable foreseeable uses of land and waters of the state;
- Obtained and evaluated information necessary for identification and comparison of alternative remedial actions.

Based on this information, the FS evaluated three different remedial options and identified the remedy for use at the Site. The FS:

- Provided for the development of a reference remedy and at least two alternative remedies which were capable of achieving all of the remedial objectives;
- Insured that the reference remedy was based upon best engineering, geological, or hydrogeological judgment;
- Provided one alternative remedy that was more aggressive than the reference remedy; and



- Provided one alternative remedy that was less aggressive than the reference remedy.

In accordance with A.R.S. §49-287.04, the PRAP discussed the reference remedy recommended by the FS and provided costs to implement the reference remedy (ADEQ/Matrix-CALIBRE, 2016). Public comments on the selected remedy were solicited and were received. The PRAP:

- Identified the boundaries of the Site;
- Identified results of the RI and FS;
- Proposed the selected remedy and its cost: and
- Described how the remedial goals and selection factors were evaluated.

Pursuant to ARS §49-287.04(H), this ROD is the final administrative decision as defined under ARS §41-1092. MNA is selected as the remedy for the Site because it meets the following criteria:

- Adequately assures the protection of public health and welfare of the environment;
- To the extent practicable, provides for the control, management and cleanup of the PCE maximizing beneficial use of the groundwater; and
- Is reasonable, necessary, cost-effective and technically feasible.



2.0 SITE BACKGROUND

2.1 SITE DESCRIPTION

The Site is located in a commercial area of East Central Phoenix in Maricopa County and is bounded by East Camelback Road to the north, North 17th Street to the east, East Highland Avenue to the south, and North 15th Street to the west (Figure 1-2). Historical occupants and/or operations at the Site included a landscape and tree nursery, a dry cleaning operation, an extermination business, a vehicle service station, and a plumbing shop. These businesses discontinued operations over 20 years ago. The Site is currently occupied by a number of retail and commercial businesses including a restaurant and public storage facility.

The boundaries of the Site are defined by the extent of two historical/current groundwater contaminant plumes on the property, referred to in the PRAP and this ROD as the North Plume and the South Plume areas. PCE is the COC in groundwater located within the North Plume area and 1,2-DCA and 1,2-DCP were the COCs in the South Plume area groundwater.

2.2 SOURCE OF RELEASES

Data collected during the RI (ADEQ/Brown & Caldwell, 2015) indicate that contaminant releases occurred in soil and groundwater at the Site near the southeastern corner of 16th Street and Camelback Road (Figure 2-1). COCs detected above regulatory or risk-based levels at the Site include PCE, 1,2-DCA, and 1,2-DCP. A former dry cleaning operation is identified as the source of PCE and vehicle service station is identified as the source of 1,2-DCA and 1,2-DCP.

2.3 CHRONOLOGY OF SITE ACTIVITIES

The following chronology of environmental work conducted under the WQARF program from 1994 to date was obtained from ADEQ's website (ADEQ, 2016).

- 1994: A Consent Decree was signed in January, between Bank One and ADEQ. Bank One paid a settlement to ADEQ to be used for the investigation and clean-up of the property. Six monitor wells were installed.
- 1995: ADEQ conducted a soil vapor survey. PCE concentrations were detected in soil from 1.3 to 2.3 µg/l.



WQARF SITE

- 1996: ADEQ installed four additional permanent groundwater monitor wells and four temporary groundwater well points.
- 1999: The site was added to the WQARF Registry on April 21st with an eligibility and evaluation score of 23 out of a possible 120.
- 2002: In May, ADEQ began an ERA evaluation at the site. The ERA evaluation was designed to determine if soil vapor extraction and air sparge remediation was feasible to 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 is not feasible or cost effective.
- 2004 - 2006: An ERA completion report was completed (ADEQ, 2006). Groundwater monitoring of the well network continued at the site. There were 13 wells monitored and sampled on the site as part of the monitoring well network. Passive diffusion bags are used at the site, due to a drop in the depth of groundwater. Passive diffusion bags were first used during the 1st quarter 2004 sampling event.
 - ADEQ installed an additional well (MW-12) in January 2004, on the property located on the southwest corner of 16th Street and Camelback. The purpose of the well was to aid in defining the down gradient extent of PCE contamination. Due to declining water levels, in April 2006, ADEQ installed well MW-3A to replace well MW-3. The purpose of well MW-3A is to collect contamination data from the source area of the southern plume.
 - The highest concentration of PCE in groundwater at the site was 89 µg/l based on the August 2006 sampling event. The highest concentration of 1,2-DCA in groundwater was detected at 7 µg/l. 1,2-DCP was not detected in any of the groundwater samples.
- 2007: Based on the October groundwater sampling event, the highest concentration of PCE and 1,2-DCA in groundwater was 24 µg/l and 3.4 µg/l, respectively. 1,2-DCP was not detected in any of the groundwater samples.
- 2008: ADEQ continued to sample wells in the northern and southern groundwater plumes.
- 2013: Based on a May groundwater sampling event, the highest concentration of PCE in groundwater was 31.9 µg/l. Groundwater samples for 1,2-DCA and 1,2-DCP remain



below the laboratory detection limit. ADEQ also installed two groundwater monitoring wells to further define the down gradient extent of PCE contamination of the North 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 current highest concentration of PCE and 1,2-DCA in groundwater is 13.3 µg/l and 0.62 µg/l, respectively. 1,2-DCP was not detected in any of the groundwater samples.
- 2015: ADEQ finalized the RI Report, a FS Work Plan, and the FS Report. Groundwater monitoring and sampling was conducted in February and March 2015. The sampling results show that COCs in groundwater are continuing to attenuate.
- 2016: ADEQ published a PRAP detailing a proposed remedy for remediation of COCs in groundwater at the Site, and solicited public comment on the proposed remedy. Groundwater monitoring and sampling was conducted in October 2016.

2.4 CONTAMINATION REQUIRING REMEDIATION

Based on the information and evaluations presented in the *Remedial Investigation Report, 16th Street & Camelback WQARF Site* prepared by ADEQ and Brown & Caldwell on behalf of ADEQ in 2015 (RI Report) and the *Feasibility Study Report, 16th Street & Camelback WQARF Site* prepared by the Matrix-CALIBRE Team on behalf of ADEQ in 2015 (FS Report), concentrations of COCs in soil and surface water at the former dry cleaner and former vehicle service station are below Arizona cleanup standards or non-detect, so cleanup of these media are not required at the Site. However, the North Plume requires remediation and performance monitoring to demonstrate remedy effectiveness. PCE in groundwater is the COC in the North Plume.

2.4.1 Groundwater

Based on groundwater monitoring data collected at the Site since 2002, concentrations of 1,2-DCA and 1,2-DCP within groundwater monitoring wells located in the South Plume at the Site are currently below AWQS of 5 µg/L. Concentrations of PCE in groundwater located in the North Plume exceed the AWQS of 5 µg/L.



North Plume Area. The horizontal extent of PCE contamination in groundwater is roughly defined by the network of Site groundwater monitoring wells as shown in Figure 2-1. PCE occurs below the northern portion of the Site near the former dry cleaner, and extends from the area around monitoring well OW-1D to the northwest past 16th Street slightly past monitoring well MW-13 and to the west of 15th Street slightly past monitoring well MW-14. The downgradient edge of the PCE plume in groundwater is near monitoring wells MW-13 and MW-14 where concentrations of PCE were below the AWQS of 5 µg/L in the February 2015 groundwater monitoring event; PCE was slightly above the AWQS in these two wells (MW-13 and MW-14) in the October 2016 sampling event. The southern extent of PCE is defined by monitoring well MW-2, and the northern extent is generally defined by MW-13. Overall, the concentrations of PCE in groundwater have decreased steadily since the original wells were installed in 1992.

South Plume Area. The horizontal extent of 1,2-DCA and 1,2-DCP contamination in groundwater is defined by the network of Site groundwater monitoring wells as shown in Figure 2-1. The plume of 1,2-DCA and 1,2-DCP has reduced in size with concentrations below the AWQS of 0.5 µg/L at the Site monitoring wells based on the groundwater monitoring events conducted on Site through 2015.



3.0 SELECTED REMEDY

The proposed remedy that was selected by the FS and carried forward to the PRAP consisted of the following (ADEQ/Matrix, 2016):

- **Selected Remedy:** MNA; and
- **Contingency for:** Enhanced reductive dechlorination (ERD) injection.

The PRAP (ADEQ/Matrix-CALIBRE, 2016) provides the basis for the Selected Remedy.

3.1 SELECTED REMEDY SUMMARY

MNA (the Reference Remedy) was selected as the Site remedy. MNA is a remedial measure that involves routine groundwater sampling and analysis to monitor the results of one or more naturally occurring physical, chemical, or biological processes that reduce the mass, toxicity, volume, or concentration of chemicals in groundwater. MNA is a mechanism by which COCs are reduced (often slowly) by natural means without other control, removal, treatment, or aquifer-modifying activities. These in-situ processes may include biodegradation, dispersion, dilution, sorption, and volatilization of contaminants. MNA is not typically implemented as a sole remediation method while source areas remain (i.e., remaining contaminant residues in soil) but is applicable at sites, such as this Site, where no ongoing contaminant sources remain. This remedial measure requires groundwater monitoring over a period of years to verify that attenuation is occurring and to ensure that progress is made in terms of meeting the ROs.

Groundwater monitoring data collected from the Site during the last 10+ years demonstrates that in source area and down gradient portions of the plume attenuation is occurring, most likely dominated by advection and dispersion. There is an indication of slow dechlorination/degradation in some monitoring wells based on the presence of intermediate degradation products. MNA is a proven remedial alternative that provides both short and long-term effectiveness given that PCE concentrations at the Site have decreased over the past 10 years. The residual risk to the aquifer after MNA is completed is low. MNA is consistent with potentially affected water providers and their long-term plans. The MNA remedy is



considered to be reliable based on the relatively low concentrations in groundwater and the lack of a continuing/ongoing source of contamination in soil.

Performance monitoring will be used to judge the effectiveness and adequacy of the MNA remedy selected for groundwater at the Site. A detailed explanation of the performance monitoring requirements and a decision logic for deciding when monitoring can be terminated at each well is presented in the PRAP (ADEQ/Matrix-CALIBRE, 2016). Based on the results of the groundwater monitoring event conducted in October 2016, the edge of the PCE plume appears to extend beyond monitoring well MW-14 to the west and monitoring well MW-13 to the north. To allow adequate monitoring of remedy performance, new sentinel wells will be installed at locations downgradient of monitoring well MW-14 and MW-13 (see Figure 2-1). In addition, based on input from representative of the Salt River Project Agricultural Improvement and Power District (SRP) existing monitoring well MW-11 will be utilized as a new sentinel well between the North Plume and SRP production well SRP 15E-8.5N.

Groundwater monitoring has been conducted in the North Plume wells since 1999. Concentrations of COCs have declined to relatively low values over the last several years. Accordingly, collecting one sample per year should be sufficient to monitor and evaluate the ongoing effectiveness of MNA as the groundwater remedy for the Site. The monitoring element of the MNA remedy is forecast to last for 12 years. Monitoring may be terminated earlier in individual wells if results in two consecutive monitoring events are below the AWQS, with the exception of wells MW-12, MW-13, and MW-14, which are in sentinel locations, down gradient from the source area. It is anticipated that these wells may need to be monitored annually if any up gradient wells remain above the AWQS. After each monitoring event, the data will be evaluated to see if trends are observed that suggest a change in sampling protocols is appropriate.

Termination of performance monitoring at a given monitoring well location can occur after the PCE concentration in a given well declines below the AWQS followed by one additional confirmation sample result at the given well in a subsequent period. An exception to this rule is for the wells down gradient of the source area, MW 12, MW13, and MW 14, where because of their location as sentinel wells, concentrations may increase due to advective transport from the source area. Consequently, the trend at those wells should be considered before



WQARF SITE

monitoring is terminated. Other existing wells not recommended for groundwater sampling will be closed in accordance with ADWR requirements.

After the first periodic review, if groundwater contaminants are not attenuating then ADEQ may decide to institute the contingency to accelerate the natural degradation process currently taking place at the Site by implementing enhanced reductive dechlorination (ERD) in the source area using existing wells.

This contingency would consist of the injection of a carbon-source electron donor substrate such as a soluble food-grade sucrose-based solution or edible oil substrate. Substrate injection would occur in existing wells and would be implemented semiannually for two years with additional groundwater monitoring and sampling conducted semiannually at the same time.

The ERD injection contingency would be conducted in coordination with injections proposed at another WQARF site and would be conducted in existing monitoring wells if Site COCs should increase in concentration for three consecutive groundwater sampling events. This contingency could also be conducted if groundwater samples collected from the downgradient most groundwater monitor well, a new sentinel well (beyond MW-14) exceeds the AWQS for COCs for three consecutive sampling events. As part of the contingency contaminant fate and transport evaluation also will be conducted to determine the predicted extent of COC migration beyond the sentinel monitoring wells. If data indicate that migration will be less than 1,000 feet, then no action other than the ERD contingency will be taken. However, if data indicate otherwise then a further downgradient groundwater monitor well will be installed and ERD injection locations will be evaluated. Injections will be conducted until COC concentrations in the sentinel wells are less than AWQS.

In the event that groundwater levels drop and site wells become dry for extended periods, the remedy includes the installation of one new site monitoring well at the location of monitoring well MW-12. This component of the contingency will be triggered if groundwater levels drop below the level of the well screen for three consecutive groundwater monitoring events.



3.2 ACHIEVEMENT OF REMEDIAL OBJECTIVES & REMEDIAL ACTION CRITERIA

Per A.A.C. R18-16-408(B)(3), the selected remedy must achieve each of the ROs established by ADEQ for the Site. In accordance with A.A.C. R18-16-406(I), ADEQ prepared a RO Report (ADEQ, 2015) for the Site that established remedial objectives for the current and reasonably foreseeable uses of land and waters of the State of Arizona that have been or are threatened to be affected by a release of a hazardous substance. Per A.A.C. R18-16-407, the remedial objectives were evaluated in the FS Report (ADEQ/Matrix-CALIBRE, 2015) and, according to A.A.C. R18-16-408 and A.R.S. 49-287.04(A)(B) & (C), considered in development of the remedial action alternatives presented in the PRAP (ADEQ/Matrix-CALIBRE, 2016).

No remedial objectives were established for land use, soil or surface water due to the lack of COCs. However, a remedial objective to protect regional groundwater for use as a groundwater supply by the City of Phoenix and the SRP was established. Although groundwater is not currently used on Site, the regional aquifer is considered to be a drinking water source for the City of Phoenix and the SRP which must be protected. Remediation at the Site will be needed as long as the level of contamination in the groundwater at the Site threatens the use of the regional groundwater for municipal/drinking water uses.

The Selected Remedy achieves the ROs established for the Site and is designed to achieve the remedial action criteria pursuant to A.R.S. § 49-282.06A including the following:

- Assures the protection of public health, welfare and the environment.
- Provides for the maximum beneficial use of the groundwater resource.
- Is reasonable, necessary, cost-effective, and technically feasible.

3.3 COMPLIANCE WITH ARIZONA ADMINISTRATIVE CODE

In 1999, the Site was placed on the WQARF Registry by ADEQ with a score of 23 out of a possible 120. In 2015, ADEQ issued an RI Report (ADEQ/Brown & Caldwell, 2015) for public comment to meet the requirements under A.R.S. § 49-287.03 and A.A. C. R18-16-406. The report documented the results of field investigation activities that were conducted between 1994 and 2014. Solicitation for ROs to be included in the RO report was conducted during the Community Advisory Board (CAB) meeting process per A.A.C. R18-16-406(I). Based on the



solicitation, Land and Water Use Report, and water management plans of providers, a draft RO Report was prepared and put out for public comment prior to finalization.

A public notice was issued in accordance with the requirements outlined in A.A.C. R18-16-404(C)(1)(d). A FS Report (ADEQ/Matrix-CALIBRE, 2015) was prepared documenting the development and evaluation of alternatives for remediation of the site and providing a recommendation of a final remedy capable of achieving the remedial objectives developed for the project.

As a result of the work executed under the FS work plan and contained in the FS Report, a PRAP was prepared (ADEQ/Matrix-CALIBRE, 2016). The PRAP documented the results of the feasibility study and evaluated the selected remedy, MNA. The PRAP evaluated MNA including:

- The ability to achieve the remedial objectives with regard to both land use and groundwater use;
- Consistency with water management plans of affected water providers and the general land use plans of the local government(s); and
- Evaluation with regard to practicability, cost, risk, and benefit.

The selected remedy and alternative remedies are described in detail in the FS. A public notice regarding the PRAP was issued by the ADEQ and a public comment period held in accordance with A.R.S. § 49-287.04 and R18-16-404(C)(1)(e).

3.4 COMMUNITY INVOLVEMENT AND PUBLIC COMMENT REQUIREMENTS

A CAB was formed that has previously met on a regular basis to discuss issues and status of investigation and cleanup activities conducted at the Site. These meetings are open to the public and the last meeting was held on August 30 2016. Details of the CAB meeting agendas and minutes can be viewed on the ADEQ Web site at <http://www.azdeq.gov/environ/waste/sps/reg.html>. A Community Involvement Plan (CIP) (May 2016) was also developed for the Site. The following table lists specific public participation activities that have been completed for the Site.



Table 3-1. Site-Specific Public Participation Activities

Community Involvement Activities	Regulatory Citation/Rule	Date
Establish Community Involvement Area	A.R.S. § 49-289.02(A)	June 2014
Notice of Site listing on the Registry	A.R.S. § 49-287.01 A.R.S. § 49-289.03(A)	April 21, 1999
Hazardous substance contamination notice and fact sheet	A.R.S. § 49-289.02(B) A.R.S. § 49-287.03(B) A.A.C. R18-16-404(C)(1)(i)	June 2014
Establish CAB selection committee	A.R.S. § 49-289.03(D)	Merged with existing CAB
Establish CAB	A.R.S. § 49-289.03(C) A.R.S. § 49-289.03(F)(1)	July 2014
Notice of RI scope of work, fact sheet, and outline of CIP	A.R.S. § 49-287.03(B) A.R.S. § 49-287.03(C) A.A.C. R18-16-403(F) A.A.C. R18-16-403(G)	June 12, 2014
Establish information repository	A.R.S. § 49-289.03(B)	2014
Prepare and update CIP	A.R.S. § 49-287.03(D) A.R.S. § 49-289.03(C) A.A.C. R18-16-403(E) A.A.C. R18-16-404(C)	December 2014
Questionnaires mailed for draft Land and Water Use Study	A.A.C. R18-16-404	March 2014
Notice of opportunity to comment on draft RI Report	A.A.C. R18-16-404(C)(1)(b) A.A.C. R18-16-406(F)	January 22, 2015
Public meeting to establish ROs	A.A.C. R18-16-404(C)(1)(b) A.A.C. R18-16-406(I)(1)	March 11, 2015
Notice of opportunity to comment on proposed RO Report and availability of final RO Report	A.A.C. R18-16-404(C)(1)(c) A.A.C. R18-16-406(I)(5)	April 2, 2015
Public meeting(s) to discuss proposed/revised RO Report if needed	A.A.C. R18-16-406(I)(5)	Not Required
Notice of availability of final RI and RO Reports	A.A.C. R18-16-406(J)	May 14, 2015
Notice of availability of the FS Work Plan	A.A.C. R18-16-404(C)(1)(d)	May 14, 2015
Issue notice of availability and opportunity to comment on the PRAP	A.R.S. § 49-287.04(B) A.A.C. R18-16-404(C)(1)(e)	August 4, 2016
Notice of ROD & Responsiveness Summary Availability	A.R.S. § 49-287.04 (G) A.A.C. R18-16-404(C)(1)(f)	Notice will be published



- May 2015: The RI Report was issued for public comment to meet the requirements under A.A.C. R18-16-404(C)(1)(b) and A.A.C. R18-16-406(F). Comments were received during the 60-day comment period.
- March 2015: A CAB meeting was conducted pursuant to A.A.C. R18-16-404(C)(1)(b) and R18-16-406(I)(1), to discuss the RI Report, and to obtain input on ROs for the Site.
- April 2015: ADEQ issued the Proposed RO Report for public comment to meet the requirements established under A.A.C. R18-16-404(C)(1)(c) and A.A.C. R18-16-406(I)(5). No comments were received during the 30-day comment period.
- May 2015: The ADEQ issued the public notice for the FS Work Plan to meet the requirements of A.A.C. R18-16-404(C)(1)(d).
- August 2016: The ADEQ issued the PRAP for a 90-day public comment period to meet the requirements established under A.R.S. § 49-287.04(B) and A.A.C. R18-16-404(C)(1)(e). Comments were received during the 90-day comment period.

3.5 SCHEDULE

The selected remedy is ready to be implemented immediately. Based on a statistical evaluation of historical groundwater monitoring data presented in the PRAP, the AWQS for PCE should be reached Site wide in approximately 12 years (ADEQ/Matrix-CALIBRE, 2016). This timeframe is anticipated to be adequate for natural processes to reduce PCE concentrations to less than its AWQS and to confirm that PCE concentrations have not rebounded. Termination of performance monitoring at a given monitoring well location can occur after the PCE concentration in a given well declines below the AWQS followed by one additional confirmation sample result at the given well in a subsequent period. An exception to this rule is for the wells down gradient of the source area, MW-11, MW-12, MW-13, MW-14, and the new sentinel wells, concentrations may increase due to advective transport from the source area. Consequently, the trend at those wells will be considered before monitoring is terminated. Wells not recommended for groundwater sampling with the exception of up-gradient well MW-9 will be abandoned in accordance with ADWR requirements. After PCE concentrations are determined to remain below AWQS, all wells will be abandoned in accordance with ADWR requirements and the Site will be delisted.



4.0 RESPONSIVENESS SUMMARY

As per A.A.C. R18-16-410(B)(2) and A.R.S. 49-287.04(F), a comprehensive responsiveness summary shall be prepared by the director regarding all comments received on the PRAP after the conclusion of all public comment periods. A 90-day comment period for the PRAP was held starting on August 4, 2016 and ending on November 2, 2016. A public meeting was held on August 30, 2016 to discuss the PRAP. Oral comments were not received during the public meeting. Two letters containing written comments were received during the comment period; one from Ms. Julie Riemenschneider on behalf of the City of Phoenix – Office of Environmental Programs and one from Ms. Andrea Martinez on behalf of SRP. Copies of the comment letters and ADEQ responses to the comments are provided in Appendix A. No other comments were received on the PRAP.



5.0 COST

As required in A.A.C. R18-16-410(C), the following is a breakdown of costs incurred by the State excluding non-recoverable costs incurred by ADEQ and projected future remedial action costs.

5.1 HISTORIC COSTS

As previously discussed, soil and groundwater contamination were discovered in the early 1990s and investigation by ADEQ began in 1995. Costs have been incurred by ADEQ during characterization to the ROD. These activities to date have cost ADEQ \$834,090.91.

5.2 FUTURE COSTS

The anticipated cost to implement the selected remedy of MNA is \$551,371 and is summarized in Table 5-1. Based upon comments received during the public comment period, costs have been included for the installation and monitoring of three additional wells. Costs have also been included to perform groundwater monitoring and sampling of these wells as needed. Detailed cost backup is presented in Appendix B of the PRAP (ADEQ/Matrix-CALIBRE, 2016).



Table 5-1. Summary of Costs to Implement the Selected Remedy

Year	Calendar Year	Description	Cost ^{1,2}
1	2017	Monitoring + Install 3 wells + Abandon 6 wells	\$104,362
2	2018	Monitoring + Reporting	\$17,922
3	2019	Monitoring + Reporting	\$18,280
4	2020	Monitoring + Reporting	\$18,646
5	2021	Monitoring, Reporting + 5 year review	\$42,083
6	2022	Monitoring + Reporting	\$19,399
7	2023	Monitoring + Reporting	\$19,787
8	2024	Monitoring + Reporting	\$20,183
9	2025	Monitoring + Reporting	\$20,587
10	2026	Monitoring, Reporting + 5 year review	\$46,463
11	2027	Monitoring + Reporting	\$21,418
12	2028	Monitoring + Abandon 10 wells + Final Report	\$67,786
		Project Management (15%)	\$62,537
		Subtotal (includes Project Management)	\$479,453
		Contingency (15%)	\$71,918
		Total Cost	\$551,371
		ERD Contingency (4 rounds over two years)	\$40,744
		Total Cost with ERD Contingency	\$592,115

Notes

- 1) A 15% project management factor of tasks is included.
- 2) A 2% annual inflation rate is used.



6.0 CONCLUSIONS

The Selected Remedy chosen for the Site consists of MNA and performance monitoring to demonstrate remedy effectiveness. MNA is a remedial measure that involves routine groundwater sampling and analysis to monitor the results of one or more naturally occurring physical, chemical, or biological processes that reduce the mass, toxicity, volume, or concentration of chemicals in groundwater. MNA is a mechanism by which COCs are reduced (often slowly) by natural means without other control, removal, treatment, or aquifer-modifying activities. These in-situ processes may include biodegradation, dispersion, dilution, sorption, and volatilization of contaminants.

Performance monitoring will be used to judge the effectiveness and adequacy of the MNA remedy selected for groundwater at the Site. Utilizing the selected remedy of MNA the AWQS should be reached Site wide in approximately 12 years. This timeframe is anticipated to be adequate for natural processes to reduce COC concentrations to less than the AWQS and to confirm that COC concentrations have not rebounded.

In the event that performance monitoring suggests that the Selected Remedy is performing slower than anticipated or if PCE is detected in sentinel wells at concentration exceeding target levels, a contingency to accelerate the natural degradation process consisting of the injection of a carbon-source electron donor substrate such as a soluble food-grade sucrose-based solution or edible oil substrate would be implemented. Substrate injection would occur one or more times at existing wells and additional groundwater monitoring and sampling would be conducted to evaluate the effectiveness of the contingent portion of the remedy.

Once it is confirmed that COC concentrations have been reduced to less than the AWQS and have not rebounded, operations will cease and all equipment, monitoring wells, etc. associated with the Site investigation and remediation will be abandoned as detailed in the PRAP and in accordance with the ADWR requirements promulgated in A.A.C. R12-15-816. At this time there will be no need to protect human health and the environment and the Site will be delisted as stated in A.R.S. 49-287.01 (K). At any time prior to completion of the ROD, a portion of the Site may be issued a No Further Action Determination based on criteria contained in A.R.S. 49-287.01 (F) & (G).



7.0 REFERENCES

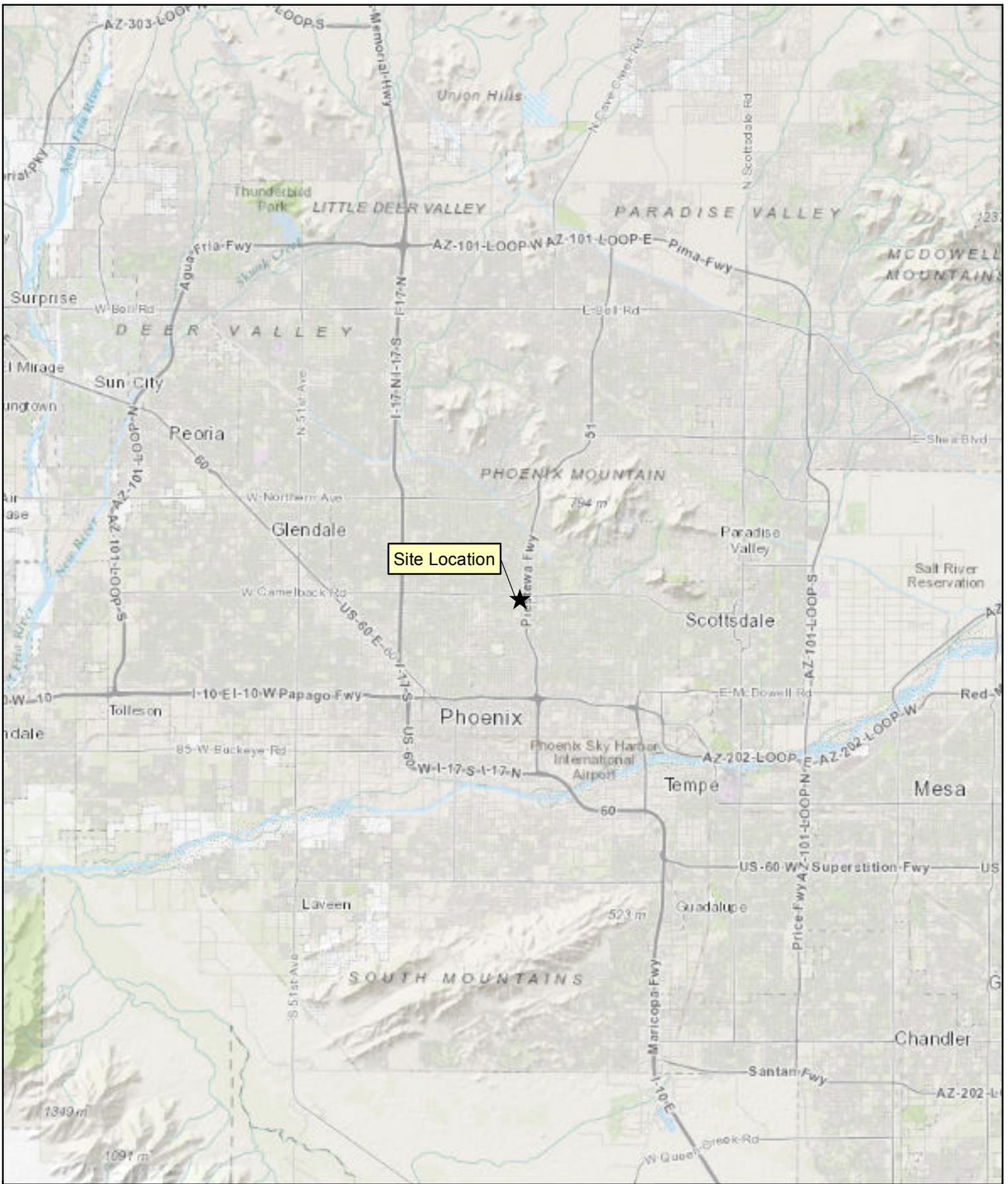
ADEQ, 2016. http://www.azdeq.gov/environ/waste/sps/16th_Street_Camelback.html. Site History. April 12, 2016.

ADEQ/Brown and Caldwell, 2015. Remedial Investigation Report, 16th Street and Camelback Road WQARF Site. May 2015.

ADEQ/Matrix-CALIBRE, 2015. Feasibility Study, 16th Street and Camelback Road WQARF Site. June 2015.

ADEQ/Matrix-CALIBRE, 2016. Proposed Remedial Action Plan for the 16th Street & Camelback WQARF Site, Phoenix, Arizona. July 2016.

FIGURES



Site Location

FILE C:\GIS\Projects\AEC\MapDocs\MapDocs_Sample_Loc.mxd 11/13/2014 1:50:00 PM

Drawn By: MPG
 QC'd By: JKC
 Drawing Date: 04/20/2016

Legend

★ Site Location

Site Location Map
 Record of Decision
 16th Street & Camelback
 WQARF Site
 20 April 2016

Figure
 1-1



Drawn By: MPG
 QC'd By: JKC
 Drawing Date: 04/20/2016

Legend

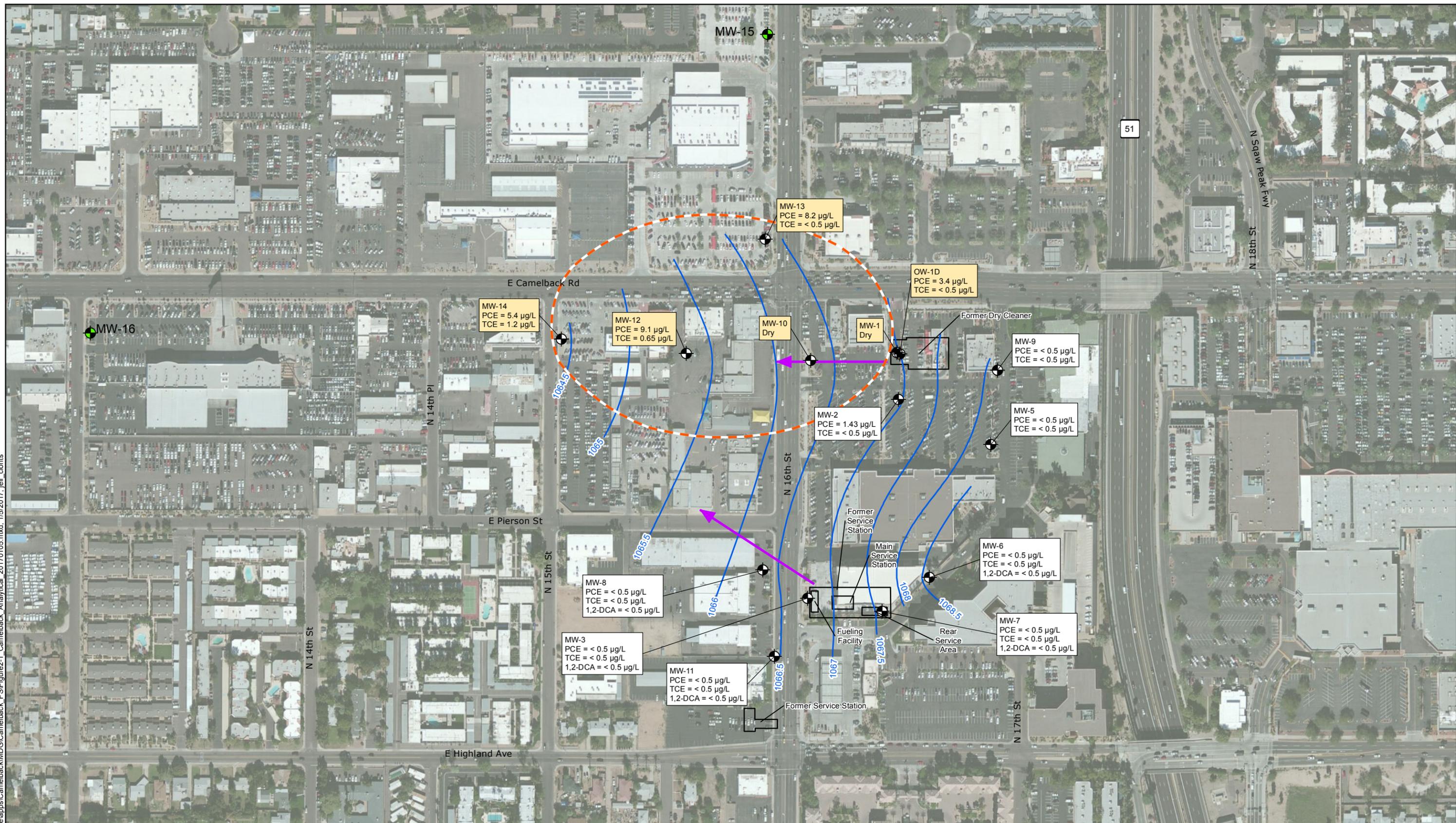
-  Monitoring Well
-  Former Buildings

Site Layout and Monitoring Well Locations
Record of Decision
16th Street & Camelback WQARF Site
 20 April 2016

Figure
 1-2

FILE: G:\gis_projects\ADEC\active\apps\WVB_Sample_Locs.mxd, 11/13/2014, wilson_wheeler

FILE: G:\gis_projects\ADEC\active\apps\Camelback\MIDG\Camelback_FS\Figure2-1_Camelback_Analytical_20170105.mxd, 1/5/2017, jeff_clonts



Drawn By: JKC	Legend	<ul style="list-style-type: none"> Monitoring Well New Sentinel Well Groundwater Potentiometric Contour Approximate Plume Boundary for PCE at AWQS of 5 µg/L Groundwater Flow Direction 	<ul style="list-style-type: none"> Former Buildings October 2016 Sampling Event February 2015 Sampling Event
QC'd By: CW	<p>Notes:</p> <p>AWQS for PCE = 5 µg/L; TCE = 5 µg/L</p> <p>All 1,2-DCA results are < 0.5 µg/L at north plume wells</p>		
Drawing Date: 1/5/2017			

Recent Groundwater Chemistry Results
from Sampling in 2015 and 2016
16th Street & Camelback
WQARF Site
 January 5, 2017



Arizona Department of Environmental Quality



MATRIX ENVIRONMENTAL



CALIBRE



0 125 250 Feet

Figure
2-1

Appendix A

Responsiveness Summary

Proposed Remedial Action Plan Written Comments

RESPONSIVENESS SUMMARY

As per A.A.C. R18-16-410(B)(2) and A.R.S. 49-287.04(F), a comprehensive responsiveness summary shall be prepared by the director regarding all comments received on the PRAP after the conclusion of all public comment periods. A 90-day comment period for the PRAP was held starting on August 4, 2016 and ending on November 2, 2016. A public meeting was held on August 30, 2016 to discuss the PRAP. Oral comments were not received during the public meeting. Two letters containing written comments were received during the comment period; one from Ms. Julie Riemenschneider on behalf of the City of Phoenix – Office of Environmental Programs and one from Ms. Andrea Martinez on behalf of the Salt River Project Agricultural Improvement and Power District. Copies of the comment letters and ADEQ responses to the comments are provided below. No other comments were received on the PRAP. The letters are summarized below with ADEQ responses. Copies of the letters follow the summaries and responses.

1) **Julie Riemenschneider/City of Phoenix**

Ms. Riemenschneider wrote:

The PRAP identifies Monitored Natural Attenuation (MNA) as the sole remedy for this site. In recent discussions with ADEQ, COP has been informed that enhanced reductive dechlorination (ERD) and/or a new monitoring well are also being considered. COP requests ADEQ to modify the PRAP to include a new monitoring well, increased groundwater monitoring and ERD as a treatment strategy for the North Plume Area (sic).

Monitored Natural Attention, by itself, is not an acceptable remedy for the North Plume Area. Interpretation of the data for this site suggests that the plume is moving. Groundwater values from the last sampling event range between 25.2 micrograms per liter (ug/l) to 4.29 ug/l for PCE. This data indicates the groundwater is above or very near the aquifer water quality standard (AWQS) for PCE of 5 ug/l at the point of compliance (POC) well identified as MW14. Therefore, the PRAP should include installation of another POC well, for the purpose of replacing the current POC well, MW14. The last time this well was sampled in February 2015 it had a PCE value of 4.29 ug/l. This data point indicates an increase from 1.42 ug/l in February 2014.

COP agrees with the use of ERD treatment on the contaminated plume. COP further recommends that if ERD is implemented ADEQ should increase the monitoring of the affected groundwater wells from once a year to quarterly during the entire period of ERD treatment. COP requests that the PRAP be modified to include these recommendations.

ADEQ Response:

MNA is an appropriate remedial technology for a moving plume provided the concentrations can be shown to be decreasing overall and that there is no continuing source. These factors exist at this site. ADEQ has added installation of a new sentinel well downgradient of the current downgradient well MW-14 and also added ERD injections as a contingency to the selected remedy. If the ERD contingency is implemented, semiannual monitoring will be sufficient to evaluate the contingency effectiveness.

2) **Andrea Martinez/SRP**

Ms. Martinez wrote:

SRP is supportive of the Matrix-CALIBRE approach of the proposed remedial action and monitored natural attenuation (MNA) as the selected remedy for the 16th Street and Camelback site. Additionally SRP request results of the annual monitoring reports for our records once monitoring begins.

ADEQ Response:

ADEQ will forward electronic copies of the reports to SRP upon receipt of final versions.

Ms. Martinez wrote:

Table 5-1 describes information about each monitoring well in and near the North Plume and Decision Logic Notes with respect to performance monitoring to demonstrate remedy effectiveness. As stated in the table, MW-13, located approximately 300 feet north of the centerline of the plume will continue performance monitoring as a sentinel well. SRP production well 15E-9.3N is located 0.2-miles north of MW-13, therefore we are in agreement that MW-13 will be an adequate sentinel well for SRP 15E-9.3N. SRP has a second production well, SRP 15E-8.5N, 0.4-miles south of the plume. No sentinel well has been identified in the PRAP for this SRP well. SRP requests an appropriately located and screened sentinel well between the North Plume and SRP 15E-8.5N. Additionally, SRP requests annual monitoring for this sentinel well. SRP recognizes the current groundwater flow direction south of the North Plume as generally northwesterly, however SRP production wells in some instances have changed groundwater flow direction due to pumping volumes.

ADEQ Response:

A review of available analytical results for volatile organic compounds (VOCs) for groundwater samples collected from well 15E-8.5N and ADEQ wells MW-8 and MW-11, located

between the SRP well and the North Plume, indicate that VOCs were not detected at concentrations greater than their AWQS when PCE concentrations were at least an order of magnitude higher at the North Plume. Therefore, ADEQ would not expect PCE concentrations to migrate now or in the reasonable foreseeable future to the SRP well during periods of pumpage. However, ADEQ will not abandon well MW-11 and will instead sample it annually as part of the groundwater monitoring and sampling program.

Ms. Martinez wrote:

This section describes a contingency to "expedite the natural degradation process" by using a round of enhanced reductive dechlorination (ERD) injection, rather than a remedy contingency if there is failure in the MNA remedy or sentinel wells are impacted. There are no established trigger limits for contingency action nor any contingency actions described in the PRAP, should the plume migrate beyond its current boundary or tetrachloroethene concentrations increase above prescribed trigger limits in the proposed sentinel wells. SRP requests this section be revised to provide clarification of the intended purpose of the ERD injections and establish a remedy contingency plan and action level triggers for the prescribed contingency plan.

ADEQ Response:

ADEQ has added ERD injections as a contingency to the selected remedy based on PCE concentrations detected during groundwater monitoring and sampling.

Ms. Martinez wrote:

Again, SRP appreciates the opportunity to provide the foregoing comments to ADEQ. SRP requests to review the revised PRAP once these important concerns are resolved, prior to finalization of the report. SRP reserves its right to provide additional comments once the foregoing concerns are addressed.

ADEQ Response:

ADEQ believes that the edits requested are not substantial to require reissuing the PRAP for an additional comment period. The comments received are addressed in this ROD.



City of Phoenix
OFFICE OF ENVIRONMENTAL PROGRAMS

October 31, 2016

Mr. Scott Greene
Unit Manager
Remedial Projects Unit
1110 W. Washington Street
Phoenix, Arizona 85007

Re: Proposed Remedial Action Plan (PRAP) dated August 4, 2016
16th Street and Camelback
Water Quality Assurance Revolving Fund Site
Phoenix, Arizona

Dear Mr. Green,

The City of Phoenix (COP), Office of Environmental Programs has reviewed the above referenced PRAP report and submits the following comments in response:

The PRAP identifies Monitored Natural Attenuation (MNA) as the sole remedy for this site. In recent discussions with ADEQ, COP has been informed that enhanced reductive dechlorination (ERD) and/or a new monitoring well are also being considered. COP requests ADEQ to modify the PRAP to include a new monitoring well, increased groundwater monitoring and ERD as a treatment strategy for the North Plume Area.

Monitored Natural Attention, by itself, is not an acceptable remedy for the North Plume Area. Interpretation of the data for this site suggests that the plume is moving. Groundwater values from the last sampling event range between 25.2 micrograms per liter (ug/l) to 4.29ug/l for PCE. This data indicates the groundwater is above or very near the aquifer water quality standard (AWQS) for PCE of 5 ug/l at the point of compliance (POC) well identified as MW14. Therefore, the PRAP should include installation of another POC well, for the purpose of replacing the current POC well, MW14. The last time this well was sampled in February 2015 it had a PCE value of 4.29 ug/l. This data point indicates an increase from 1.42 ug/l in February 2014.

COP agrees with the use of ERD treatment on the contaminated plume. COP further recommends that if ERD is implemented ADEQ should increase the monitoring of the affected groundwater wells from once a year to quarterly during the entire period of ERD treatment. COP requests that the PRAP be modified to include these recommendations.

COP concurs with ADEQ that the Remedial Objective has been reached in the South Plume Area. All wells are below AWQS and have been since 2007. Therefore, COP agrees no further remedial action is warranted for the South Plume area.

October 31, 2016
Mr. Scott Greene
Page 2

COP appreciates the opportunity to comment on this PRAP and the continued good work ADEQ does to ensure the protection of human health and the environment.

Sincerely,

A handwritten signature in cursive script that reads "Julie Riemenschneider". The signature is written in black ink and is positioned above the printed name and title.

Julie Riemenschneider
Environmental Programs Coordinator
Office of Environmental Programs, COP

CC:

Joe Giudice, OEP (electronic copy)
Elizabeth Zima, OEP (electronic copy)
Scott Green, ADEQ (electronic copy)
Tina LePage, ADEQ (electronic copy)



Mail Station: PAB259
Phone: (602) 236-2618
Email: andrea.martinez@srpnet.com

November 1, 2016

Via Electronic Mail

To: Mr. Kevin Snyder
ADEQ Project Manager
Waste Programs Division
110 W. Washington St.
Phoenix, AZ 85007
Email: kcs@azdeq.gov

Reference: **Proposed Remedial Action Plan
16th Street and Camelback WQARF Site
Phoenix, Arizona**

RE: Salt River Project Comments to Proposed Remedial Action Plan for the 16th Street and Camelback WQARF Site

Salt River Project Agricultural Improvement and Power District (SRP) appreciates the opportunity to provide comments on the July 2016 Proposed Remedial Action Plan (PRAP) for the 16th Street and Camelback Water Quality Assurance Revolving Fund (WQARF) Site in Phoenix, Arizona, prepared by Matrix-CALIBRE on behalf of Arizona Department of Environmental Quality (ADEQ). SRP has reviewed the draft PRAP and has several comments that need to be addressed before SRP can approve the proposed plan. SRP's comments are as follows:

Overall Comment:

SRP is supportive of the Matrix-CALIBRE approach of the proposed remedial action and monitored natural attenuation (MNA) as the selected remedy for the 16th Street and Camelback site. Additionally SRP request results of the annual monitoring reports for our records once monitoring begins.

Comment #1 (Section 5.3.2 North Plume Monitoring Recommendations):

Table 5-1 describes information about each monitoring well in and near the North Plume and Decision Logic Notes with respect to performance monitoring to demonstrate remedy effectiveness. As stated in the table, MW-13, located approximately 300 feet north of the centerline of the plume will continue performance monitoring as a sentinel well. SRP production

well 15E-9.3N is located 0.2-miles north of MW-13, therefore we are in agreement that MW-13 will be an adequate sentinel well for SRP 15E-9.3N.

SRP has a second production well, SRP 15E-8.5N, 0.4-miles south of the plume. No sentinel well has been identified in the PRAP for this SRP well. SRP requests an appropriately located and screened sentinel well between the North Plume and SRP 15E-8.5N. Additionally, SRP requests annual monitoring for this sentinel well. SRP recognizes the current groundwater flow direction south of the North Plume as generally northwesterly, however SRP production wells in some instances have changed groundwater flow direction due to pumping volumes.

Comment #2 (Section 5.10 Contingency for Proposed Remedy):

This section describes a contingency to “expedite the natural degradation process” by using a round of enhanced reductive dechlorination (ERD) injection, rather than a remedy contingency if there is failure in the MNA remedy or sentinel wells are impacted. There are no established trigger limits for contingency action nor any contingency actions described in the PRAP, should the plume migrate beyond its current boundary or tetrachloroethene concentrations increase above prescribed trigger limits in the proposed sentinel wells. SRP requests this section be revised to provide clarification of the intended purpose of the ERD injections and establish a remedy contingency plan and action level triggers for the prescribed contingency plan.

SRP expects the groundwater supply wells will transition to potable supply in the future so the chemical quality of the groundwater is a significant issue. The importance of groundwater and the ability to utilize the aquifer in local and large scale water management scenarios is critical to the future growth and wellbeing of the entire metro-area. We cannot overstate the importance of effective cleanups of contaminants which threaten the use of groundwater and the aquifers that host it.

Again, SRP appreciates the opportunity to provide the foregoing comments to ADEQ. SRP requests to review the revised PRAP once these important concerns are resolved, prior to finalization of the report. SRP reserves its right to provide additional comments once the foregoing concerns are addressed.

If you have any questions, please call me at 602-236-2618.

Sincerely,



Andrea Martinez

Principal Environmental Compliance Engineer

cc: Mark Hay, SRP
David Sultana, SRP