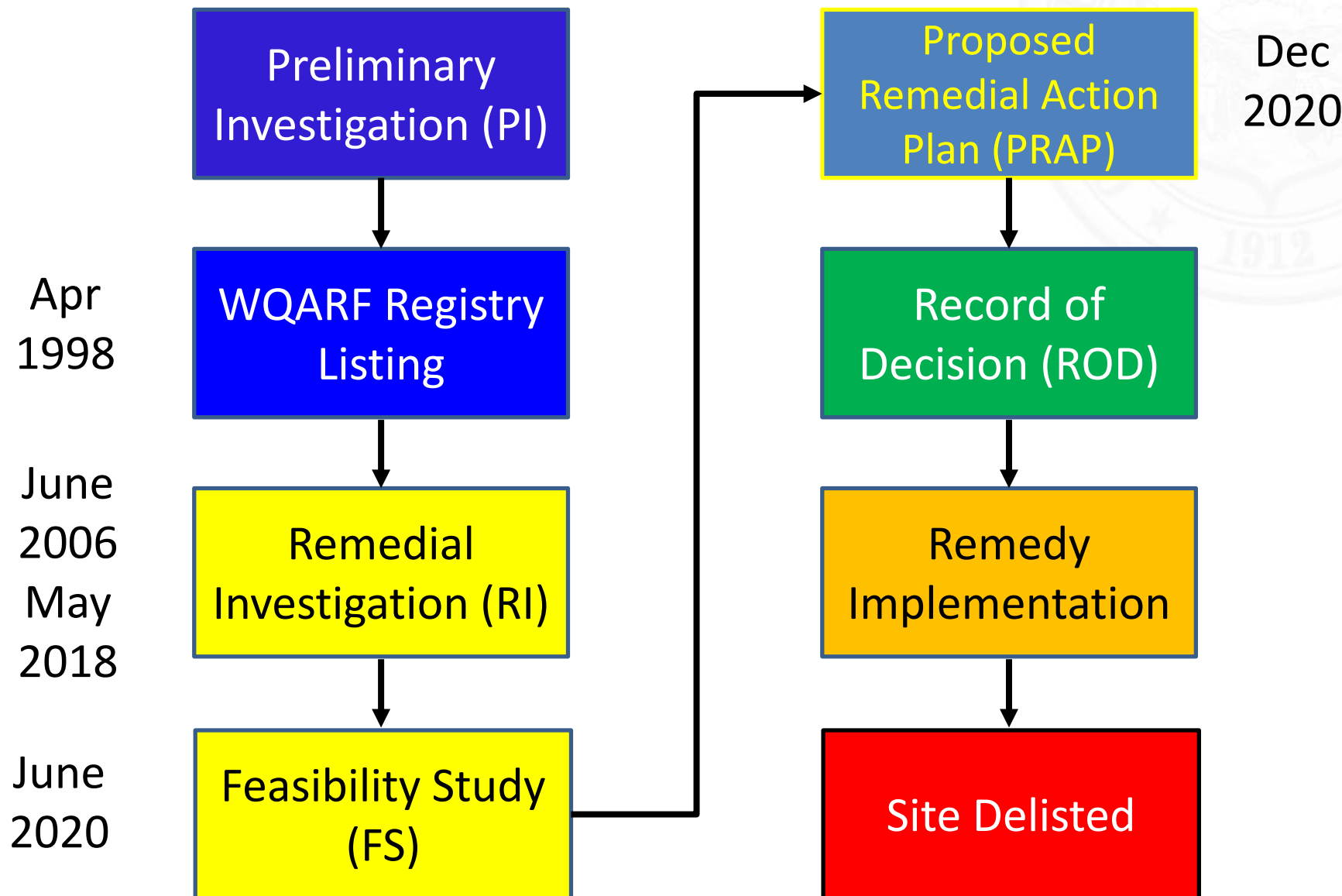


Project Update: West Central Phoenix East Grand Avenue WQARF Site

Tom Titus
CAB Meeting
February 23, 2021

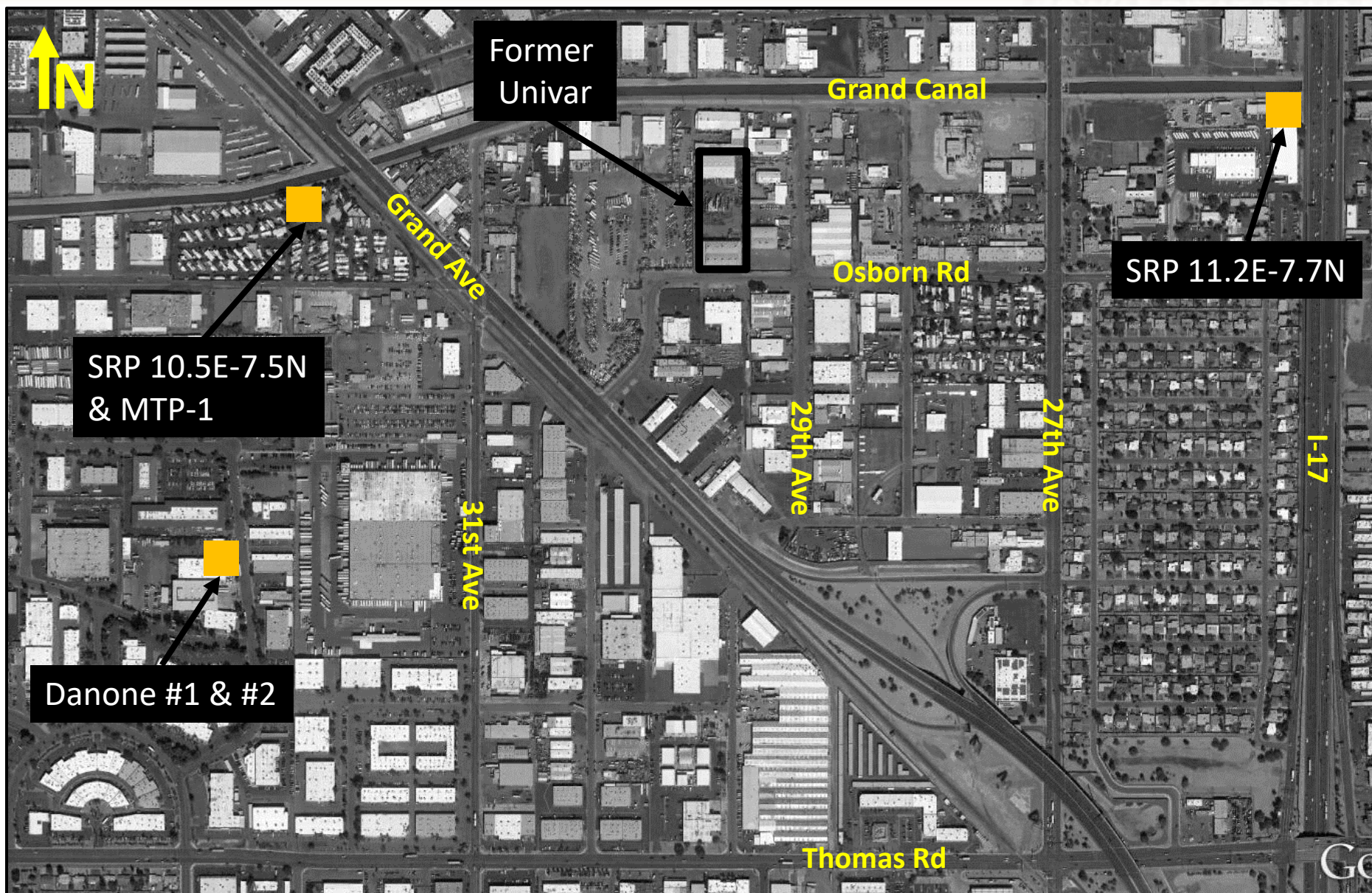


WQARF Process

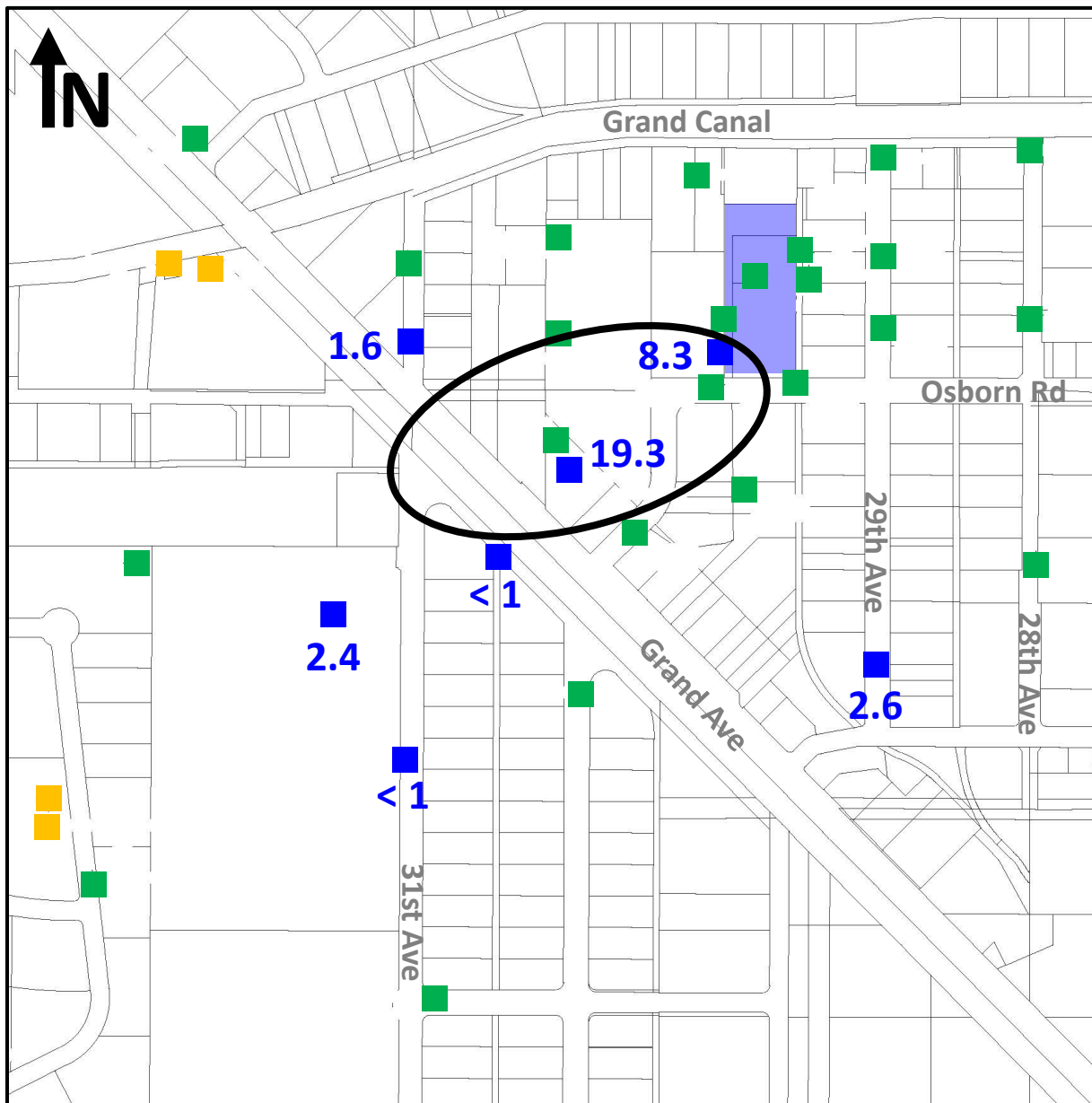


- Contaminants of Concern = Trichloroethene (TCE), Tetrachloroethene (PCE), & 1,1-Dichloroethene (1,1-DCE)
- Source of Contamination = Spills & Leaks at Former Univar Facility
- Current Impacted Media = Groundwater (Soil Contamination Was Previously Remediated with Soil Vapor Extraction)
- Potential Receptors = Down-Gradient Water Supply Wells

Site Detail Map



Groundwater (GW) Plume (Sept 2020)



- Monitoring Well Sampled
- Monitoring Well Not Sampled
- Production Well Not Sampled
- Plume Boundary
- 3.1 TCE Concentration (ppb)

Sept 2020

TCE = <1 to 19.3 ppb
PCE = <1 to 14.1 ppb
1,1-DCE = <1 to 10.1 ppb
GW Depth = 150 ft bgs
GW Flow Direction = North to Northwest

Objectives & Requirements:

- Defines Boundaries of the Site Subject to Remedial Action
- Presents Findings of the RI & FS Reports
- Describes Proposed Remedial Alternative, Contingencies, Costs, & Duration
- Considers Remediation Goals & Selection Factors (i.e., Rationale for Selecting the Remedy, How it Will Achieve Remedial Objectives, Consistency with Land & Water Use, & Lists Uncertainties)

Proposed Remedy

Remedial Technology	Duration (Years)	Cost (Millions)
Monitored Natural Attenuation (MNA)	18	\$1.76M
System Abandonment	<1	\$0.85M
<i>Subtotal</i>	<i>18</i>	<i>\$2.61M</i>
<u>Contingency</u> Wellhead Treatment	12	\$7.35M
TOTAL	18	\$9.96M

- MNA
 - Sampling at 10 Monitoring Wells
 - Annual Monitoring & Sampling
 - Annual Reporting
- Wellhead Treatment (Contingency)
 - Liquid Phase Granular Activated Carbon
 - SRP 10.5E-7.5N
 - Mobile Home Trailer Park Well

- PRAP Comment Period
 - Ends on **March 10, 2021**
 - To view:
https://static.azdeq.gov/wqarf/wcp_ega_prap2020.pdf
 - To comment:
Titus.Thomas@azdeq.gov
- Record of Decision (ROD)
- Implement MNA Remedy (i.e., Continue Groundwater Monitoring & Sampling)

Contact Information:

ADEQ Community Involvement Coordinator

Mary McGillicuddy

McGillicuddy.Mary@azdeq.gov

602.771.2336

ADEQ Project Manager

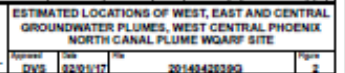
Tom Titus

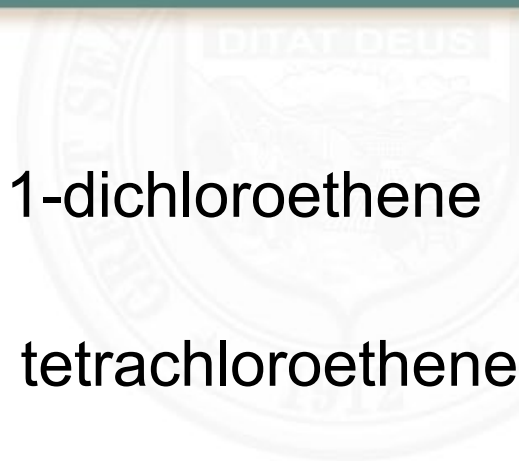
Titus.Thomas@azdeq.gov

602.771.0102

West Central Phoenix (WCP)
North Canal Plume (NCP)
Water Quality Assurance Revolving Fund
(WQARF) Registry Site

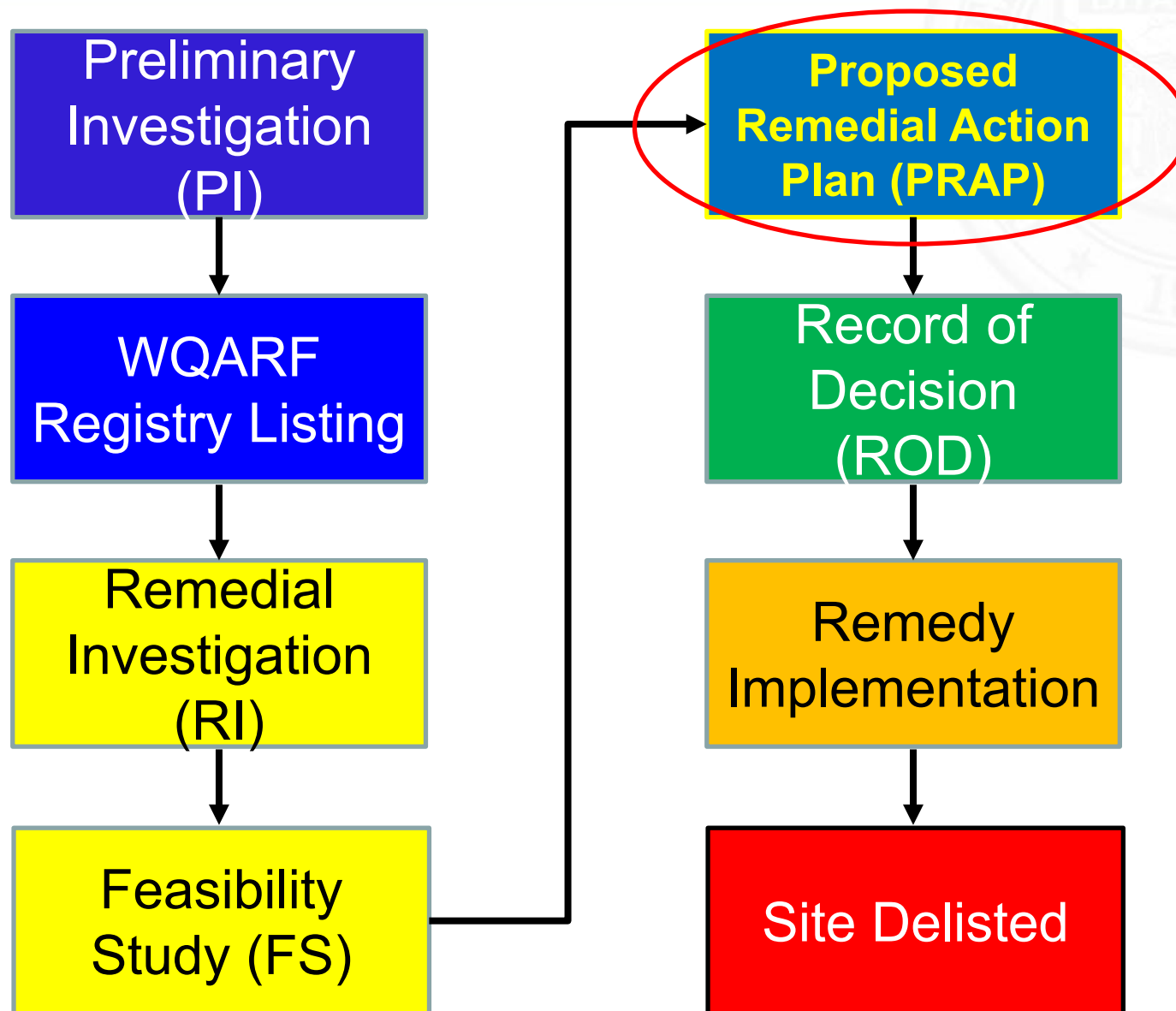
CAB Meeting
February 23, 2021





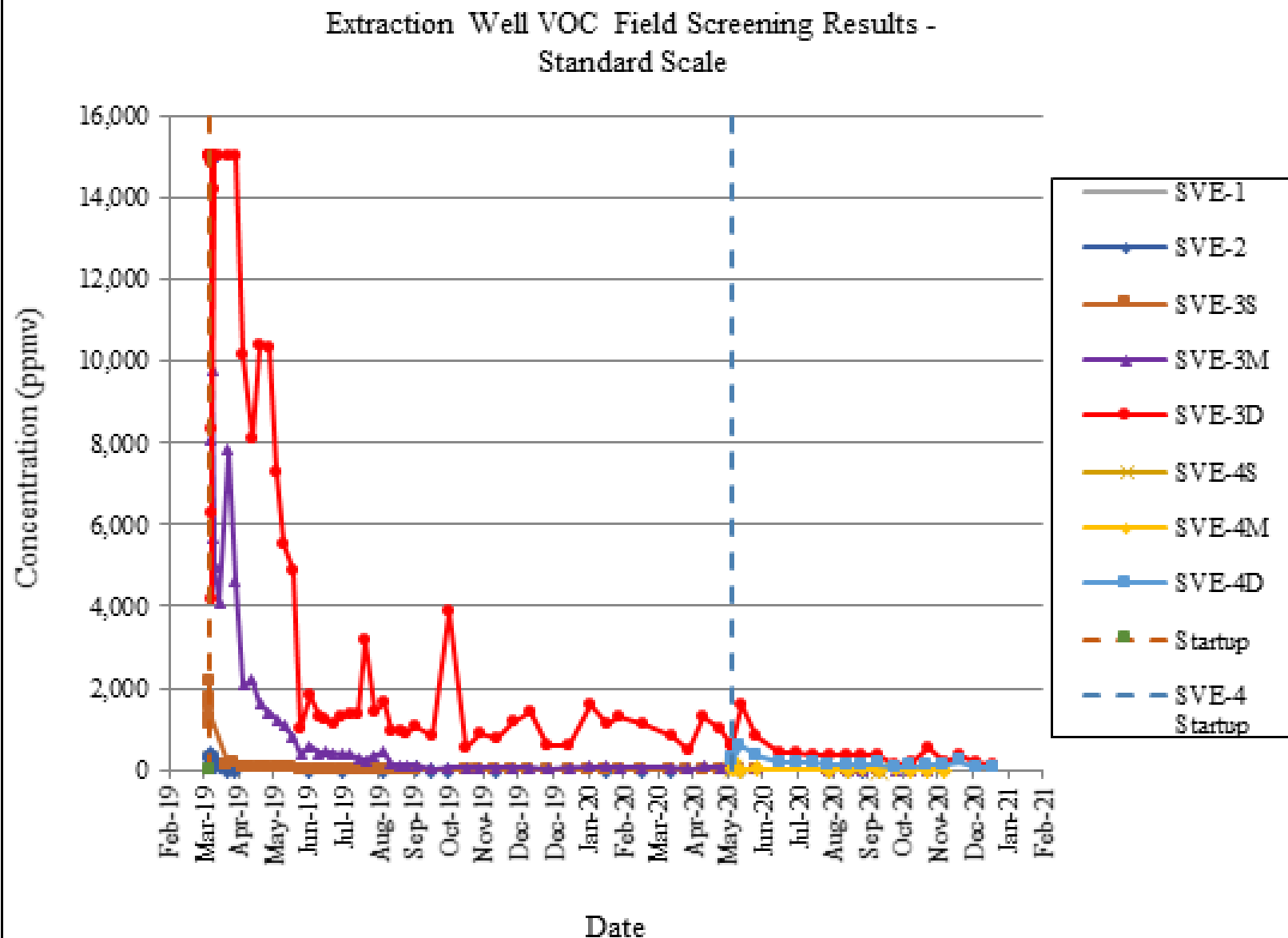
- Contaminants of Concern:
 - **West Plume:** trichloroethene (TCE) and 1,1-dichloroethene (1,1-DCE)
 - **Central Plume:** TCE and 1,1-DCE; limited tetrachloroethene (PCE) and chromium
 - **East Plume:** PCE
- Impacted Media: groundwater and soil (soil vapor)
- Exposure Pathway: drinking water through municipal water supply wells

WQARF Phase



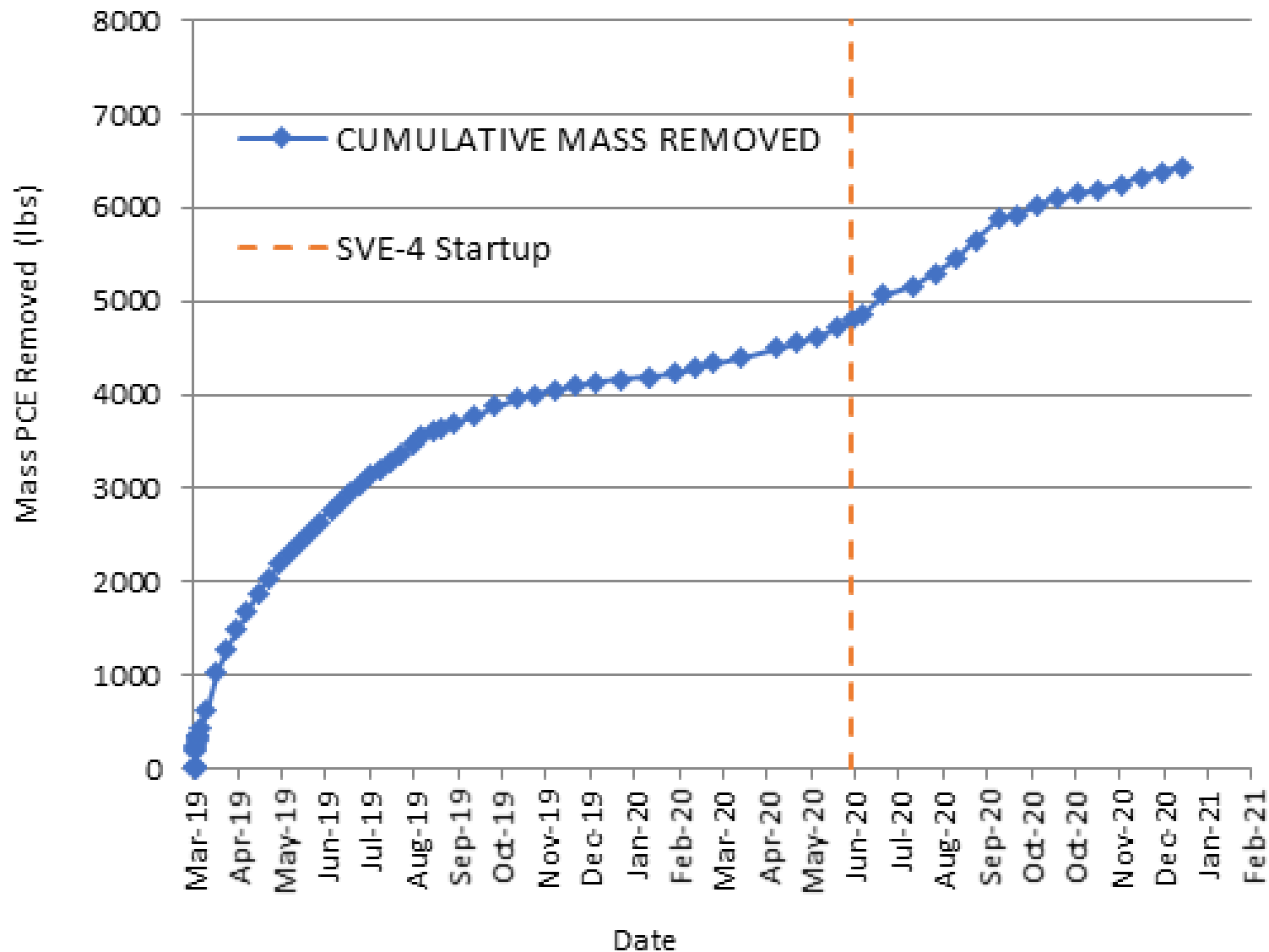
- October 2020: groundwater sampling conducted
 - *Maximum Contaminants of Concern (COC)* concentrations have remained constant or decreased since March and February 2020 groundwater sampling events.
- December 2020: Completed Proposed Remedial Action Plan (PRAP)
- January 2021: Performed a vacuum test on soil vapor extraction (SVE) well SVE-3D at the HCZ Custom Homes property

Recent Activities



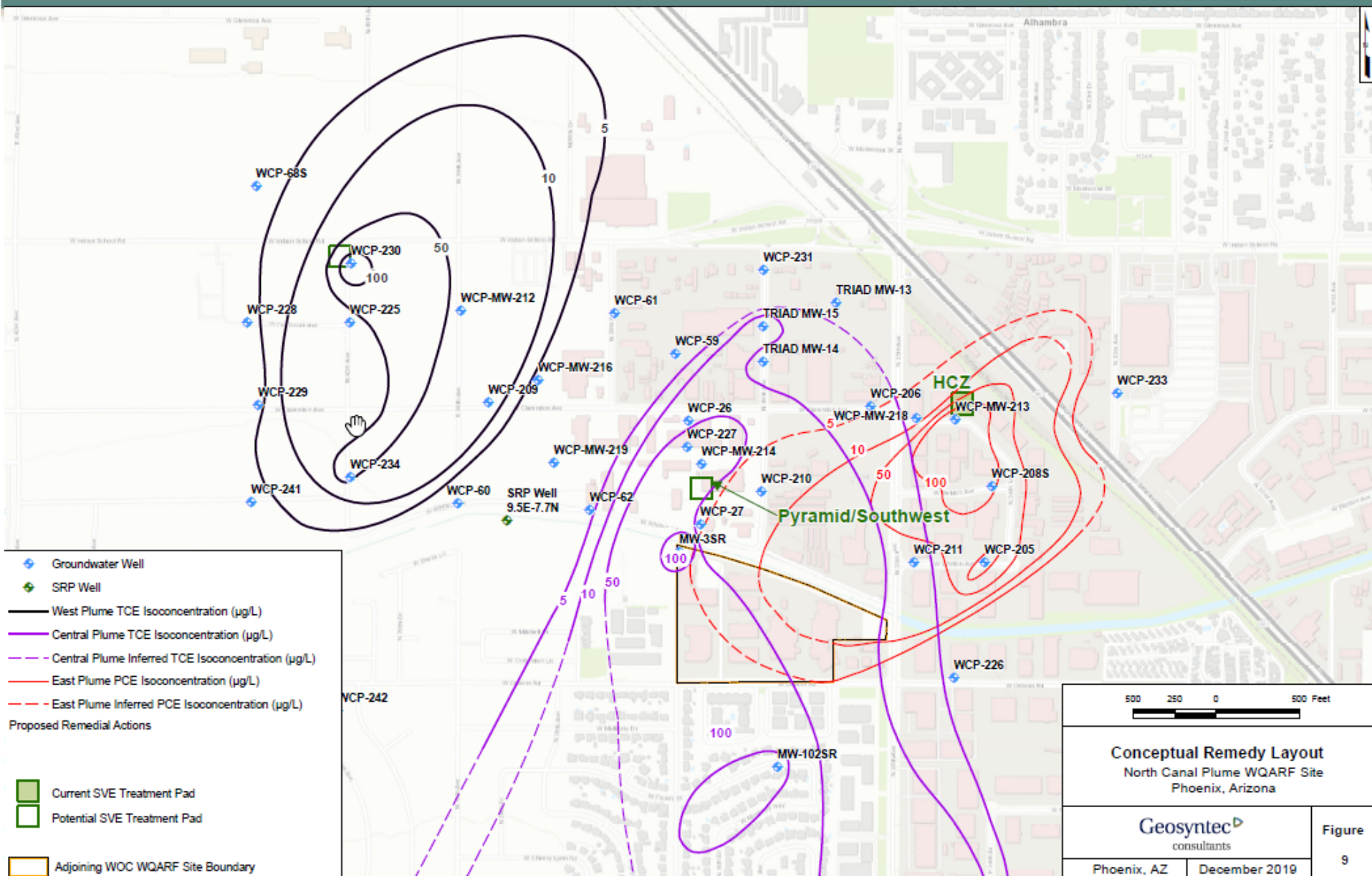
Recent Activities

Estimated Cumulative Mass of PCE Removed

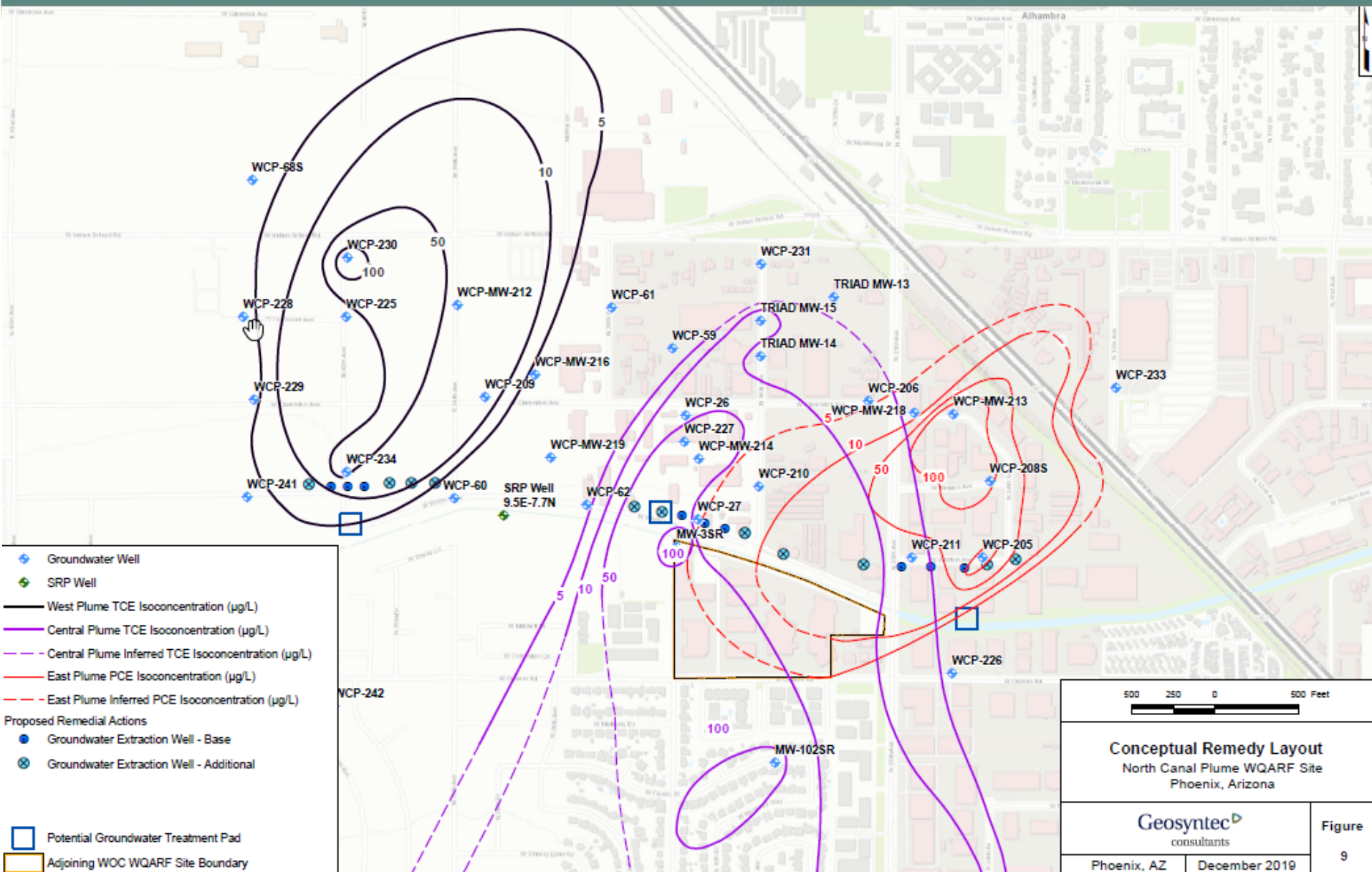


- Proposed remedy:
 - Vadose Zone: Soil Vapor Extraction (SVE)
 - Groundwater: Monitored Natural Attenuation (MNA)
- Contingencies:
 - Pump and Treat (P&T)
 - Groundwater monitor well installation
 - Wellhead treatment
 - In-situ chemical oxidation
- Currently in 90-day comment period (ends March 10, 2021)

ADEQ
Arizona Department
of Environmental Quality



Conceptual Remedy Layout



PRAP Summary of Costs

Table 2 - Summary of Costs for Proposed Remedy

Remedial Technology	Cost
<u>Vadose Zone</u>	
<i>Soil Vapor Extraction (OMM for up to 5 years)</i>	\$2,569,000
<u>Groundwater</u>	
<i>Monitored Natural Attenuation (up to 30 years)</i>	\$2,856,000
<i>SUBTOTAL</i>	\$5,425,000
Contingencies	
<u>Groundwater</u>	
<i>Pump and Treat</i>	\$13,287,000
<i>Wellhead Treatment</i>	\$9,789,000
<i>In-Situ Chemical Oxidation</i>	\$2,689,000
<i>Additional Groundwater Monitor Well Installation</i>	\$820,000
<i>SUBTOTAL</i>	\$26,585,000
TOTAL	\$32,010,000
Note: costs assume 3% annual inflation rate	

- Comment period on the PRAP report ends Wednesday, March 10, 2021
- How to view:
https://static.azdeq.gov/wqarf/wcp_ncp_prap2020.pdf
- How to comment:
 - **By Email:** Mannlein.Eric@azdeq.gov (*timestamped March 10, 2020*)
 - **By Mail** (Must be postmarked by March 10, 2021):
Eric Mannlein
ADEQ
1110 W. Washington St,
Phoenix, AZ, 85007

- Finalize Record of Decision
- Continue Operation & Maintenance of SVE System at HCZ Custom Homes Property
- Implement selected remedy per PRAP

Contacts

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