

**700S 1600E PCE Superfund Site
Community Advisory Group (CAG)
Meeting Minutes
December 9, 2021
*Virtual Meeting via Microsoft Teams***

Members Present:	Organization:	Members Present:	Organization:
Rebecca Gerhart	EA Region 8 Project Manager	Jim Webster	Community Member
Ryan Kloberdanz	EPA region 8 Community Involvement Coordinator	Lonnie Mercer	Community Member
Maureen Petit	Utah Department of Environmental Quality (UDEQ) Project Manager	JF	Community Member
Dave Allison	UDEQ, Division of Environmental Response and Remediation Community Involvement Coordinator	Steve	Community Member
Teresa Gray	SLC Public Utilities	Kim Young	Chairman of the Foothill Sunnyside Community Council
Briana Kistler	Environmental Health and Safety Department for the University of Utah	Shannon Smith <i>(facilitator)</i>	VA CERCLA Program Manager
Paige Walton	ERG (VA contractor)	Wynn John <i>(facilitator)</i>	VA CERCLA Technical Manager
Sharon Shultz	ERG (VA contractor)	Susanne Fairclough <i>(facilitator)</i>	VA CERCLA Contracts Manager


Welcome (Slide 1)

Community Advisory Group
Update

700S 1600E PCE PLUME SUPERFUND SITE

9 Dec 2021

VETERANS HEALTH ADMINISTRATION – SLC VA MEDICAL CENTER
SHANNON SMITH – PROGRAM MANAGER
WYNN JOHN – TECHNICAL MANAGER
SUSANNE FAIRCLOUGH – CONTRACT MANAGER



The Department of Veterans Affairs (VA) helped facilitate the 700S 1600E Superfund Site Community Advisory Group (CAG) meeting on Dec 9, 2021. The subject of the meeting was an update on the progress of the site investigation and the information gathered and documented in the Remedial Investigation (RI) Report. The Draft RI report is currently under review by EPA Region 8 and Utah Department of Environmental Quality (UDEQ).

Introduction (Slide 2)

Introduction

- The SLC VAMC operated a dry-cleaning operation that used tetrachloroethylene (abbreviated as PCE) in the late 1970s and early 1980s.
- During this period, dry-cleaning residuals were likely disposed of into the sanitary sewer system which leaked into the ground.
- PCE-contaminated groundwater is present beneath the VAMC property and in areas downgradient, extending to approximately 1100 East.

PCE


- PCE is a colorless liquid used for dry cleaning fabrics and degreasing metals.
- Long-term exposure (longer than one year) to low levels of PCE may cause damage to the nervous system (neurotoxicity), vision issues, and cancer.

During the introduction, Ms. Smith gave a brief background of the Superfund site and explained VA's involvement. A description of PCE and potential health concerns from long-term exposure was also presented.

Remedial Investigation Overview (Slide 3)

Remedial Investigation Overview

CERCLA Process



Remedial Investigation was conducted from 2015-2021 to determine:

- Nature and extent of contamination
- Future fate and transport of contamination
- Potential risk to human health and the environment

An overview of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process was presented in Slide 3. Ms. Smith noted that VA is currently under the remedial investigation phase and listed the key objectives for completing a comprehensive remedial site investigation.

Ms. Smith turned the meeting over to Mr. Wynn John, VA Technical Manager, to describe the objectives in more detail.

Nature and Extent of Contamination (Slide 4)

Nature and Extent of Contamination

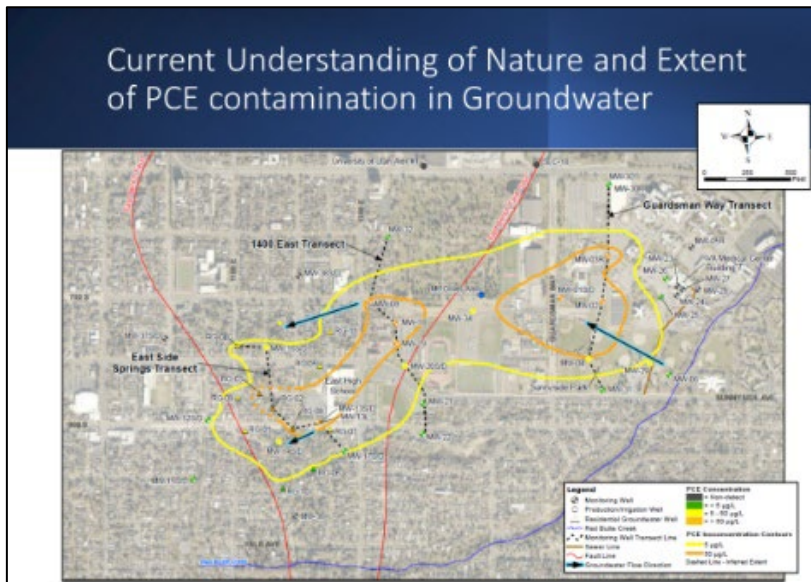
- Installation of monitoring wells and sampling of groundwater
 - Installed 77 monitoring wells
 - Collected 419 groundwater samples
- Sampling surface water (seeps and springs)
 - Collected 96 surface water samples from 55 locations
- Sampling soil and sediments
 - Collected 298 samples from 44 locations
- Sampling soil gas and indoor air (vapor intrusion)
 - Collected 134 soil gas samples
 - Sampled indoor air at 76 structures (homes, schools and churches)

One of the first objectives of the RI was to determine the nature and extent of contamination. Starting with Slide 4, Mr. John explained how this objective was met by completing the following actions:

- Installation of groundwater monitoring wells and sampling groundwater.
- Sampling surface water which in this area are, primarily, seeps and springs that occur naturally often in resident's yards.
- Water samples were also collected from Red Butte Creek.
- Collected soil and sediment samples Most of the soil samples collected were near the VA facility to determine the source of the chemical release near the dry-cleaning operation.

- Collected indoor air samples from 76 structures throughout the site. In the 76 structures, VA collected at least one sample and sometimes up to five, per structure, over multiple sampling events.

Current Understanding of Nature and Extent of PCE Contamination in Groundwater (Slide 5)



Mr. John reiterated that these results are from the Draft RI and are not final, but VA feels confident the summary information shown in this presentation is unlikely to change.

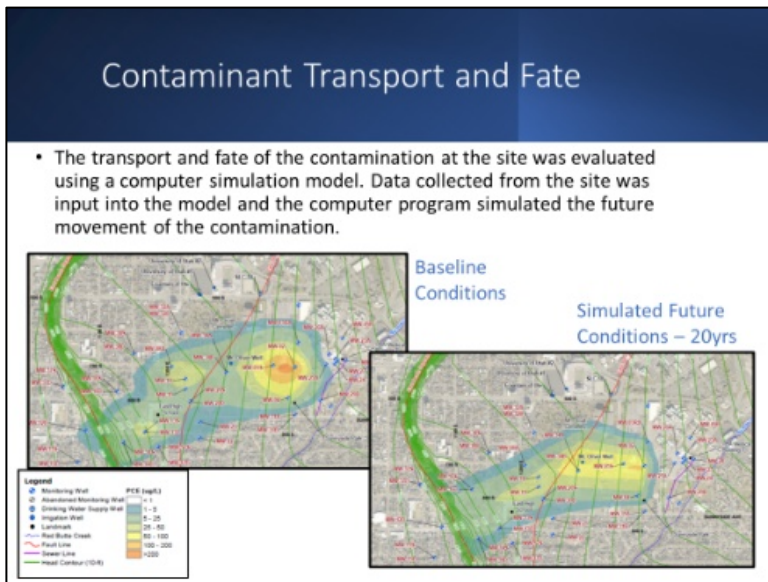
The figure presented in Slide 5 is an aerial view of the project area. The description of this view is as follows:

- The irregular shaped feature is the groundwater plume. The groundwater is present in the deep and shallow aquifer, and this figure is a combination of those two aquifers.
- The yellow line shows the

dissolved PCE concentration in groundwater and represents concentrations of PCE above five micrograms per liter (ug/L). If this was drinking water, the maximum contaminant level (MCL) for PCE in water is 5 ug/L.

- It's important to note that no one is using this water for drinking water right now.
- The orange line is 50 ug/L dissolved PCE in groundwater.
- The blue arrows represent the shallow groundwater flow direction. Near Red Butte Creek, the shallow groundwater flow direction is to the northwest, away from the creek. As you move away from the creek, groundwater follows the topography.
- The 5 ug/L groundwater plume contour doesn't extend underneath the VA campus where the dry-cleaning operation was located which suggests that the source of contamination was most likely dispersed along cracks in the sewer line toward Sunnyside Park. This likely occurred over several years and eventually migrated into groundwater that has now moved off site.

Contaminate Fate and Transport (Slide 6)



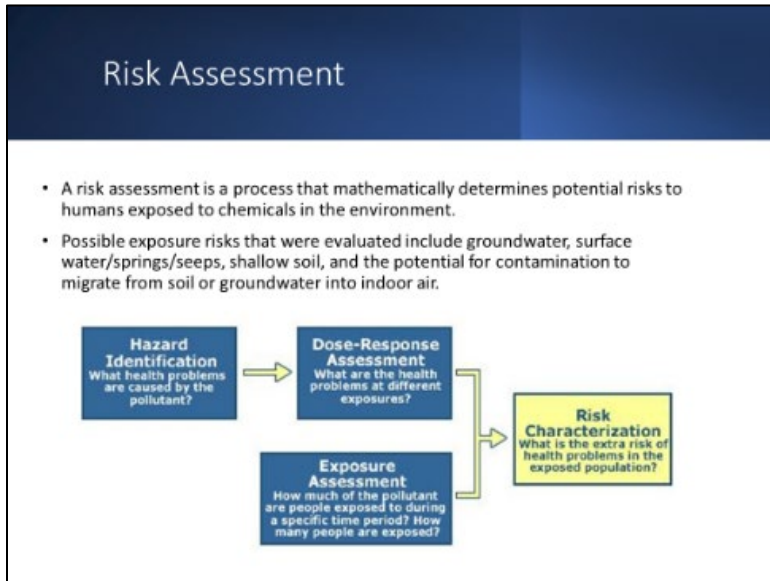
Mr. John continued with a discussion of contaminant fate and transport. A computer simulation model was developed as part of the remedial investigation to evaluate how the contamination travels through the site. The model used historical precipitation data, nearby well pumping data, geologic and hydrogeologic data, as well as averaged water quality data collected at the site to simulate current conditions observed in the groundwater. The “Baseline Conditions” figure (the starting point for the model) looks similar to the groundwater contour in the previous figure (Slide 5). With this information, VA modeled several scenarios to assess possible future conditions at the site.

- The first model scenario was “current conditions”. Based on the model, without any changes to conditions in the area, the plume would still be present in 20 years within a similar footprint; however, the highest concentrations within the plume (orange areas) will have decreased in size.
- Other scenarios, including changes in irrigation well pumping at wells located at the University of Utah, were evaluated. Changes in pumping at the irrigation wells did not appear to substantially affect the groundwater plume.

A Salt Lake City Public Utilities drinking water supply well, identified as SLC-18, is located just north of the site. The water supply well has operated in the past; however, it is not currently operating. Based on communication with Salt Lake City, SLC-18 may return to service, particularly if drought conditions continue in the future. Based on the model, pumping at the well would influence the current groundwater plume, and depending on the pumping rate, dissolved PCE could reach that location within 5 years of pumping.

- This was identified as a primary concern for future operations and future transport contamination in the area. Salt Lake City and the Utah Division of Drinking Water are aware of this information. Mr. John also stated the safety of the drinking water source will be a top priority for VA, as well as Salt Lake City and the Utah Division of Drinking Water.

Risk Assessment (Slide 7)



Next, Mr. John discussed risk assessments. VA completed a Screening Level Ecological Risk Assessment (SLERA) and a Human Health Risk Assessment (HHRA) for the site.

A Risk Assessment, either Ecological or Human Health, is a process that mathematically determines potential risk due to exposure to chemicals in the environment. The figure in Slide 7 illustrates the typical risk assessment process.

- Hazard Identification includes studies to determine health problems associated with the chemical, or chemicals, of concern. These are health studies conducted by researchers and health professionals.
- Dose-Response Assessments are also health studies that evaluate the amount (“dose”) of chemical exposure that would be necessary to cause harmful health effects.
- Exposure Assessment evaluates the concentrations of contaminants present in the environment and how people may be exposed. The data collected from the site, as well as fate and transport modeling aided in completing this assessment.
- The final step is Risk Characterization where a quantitative evaluation of risk is calculated based on the contaminants present, concentrations, routes of exposure, and populations present.

Risk Assessment Results (Slide 8)

Risk Assessment Results

- Anticipated Risks
 - Indoor Air Vapor Intrusion – vapor intrusion from soil gas or groundwater into structures
 - Groundwater ingestion – use of untreated groundwater for domestic purposes
- Numerous other exposure scenarios were evaluated.

active mitigation.

Another concern that was identified in the risk assessment was potential groundwater ingestion. The VA is not aware of any scenario where anyone has a water well used for drinking water, or an active water right where they have their own private well. Any potential impacts to the (currently inactive) Salt Lake City Municipal drinking water well will be a top priority moving forward.

Other exposure scenarios were also evaluated; for example, exposure to surface soil (such as through yard work or trenching), exposure to surface water (such as irrigation, incidental exposure, or a pet drinking the surface water), and wildlife exposure to contamination. The preliminary risk assessment results indicated that those exposures would not result in unacceptable risk.

Next Steps (Slide 9)

Next Steps

Feasibility Study

- The process of developing, screening, and evaluating remedial action alternatives
 - Focus will be on risks identified in RI
 - May involve additional data collection

➔ Proposed Plan, Record of Decision and Construction

Mr. John indicated that the site human health risk assessment identified two exposure scenarios that could present a concern at the site:

In some areas, the dissolved PCE concentration in groundwater could be close enough to building foundations that vapor from groundwater could migrate into a structure and result in indoor air concentrations of PCE that it could create a potential risk. VA plans to continue indoor air sampling in the project area.

- VA has sampled 76 residential and commercial structures at the site. To date, only one home has been found where the PCE concentration in the home required

Following the remedial investigation discussion, Ms. Smith, described moving forward with the Feasibility Study phase at the site.

- The Feasibility Study (FS) evaluates potential treatment options to address site risks most effectively and efficiently. As treatment options are developed, additional data may need to be collected at the site. This could include constructing and operating small-scale treatment systems prior to full-scale construction.

- The Feasibility Study will be

provided to EPA and UDEQ. A summary of the study will be provided to the community in a Proposed Plan (PP). The public is highly encouraged to review the PP and provide comments and feedback.

- The next step, after receiving public input, is preparing the Record of Decision (ROD) which will document the final remedy at the site. The Record of Decision is signed by VA, EPA and UDEQ. Once the ROD has been approved by all agencies, remedy implementation will begin.

Upcoming Fieldwork (Slide 10)

Upcoming Fieldwork

- Indoor Air sampling planned for Feb 2022
 - Focusing on homes that have not been previously sampled
 - How to encourage more residents in focus areas to volunteer for indoor air sampling?
- Groundwater sampling Spring 2022

Slide 10 presents VA’s plans for upcoming fieldwork including indoor air sampling in February and groundwater sampling in Spring 2022.

Ms. Smith explained the indoor air sampling will primarily be focused on sampling homes that have not been previously sampled. VA will be requesting participation along 800 S and along Douglas Street, because there has been limited participation in this area. Ms. Smith suggested to the CAG members to encourage their neighbors to sign up. Ms. Smith also said VA is looking for any ideas the CAG members may have to get the word out and get more people participating

in the program. The indoor air sampling is free.

Meeting Wrap-Up (Slide 11)

Next Meeting and Questions

Next Meeting: June 9, 2022

Agenda items for next meeting?

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Ms. Smith concluded the meeting asking for questions and noting the next regularly scheduled CAG meeting is scheduled for June 9, 2022. The attendees did not have any questions.

Ms. Gerhart spoke on the possibility of scheduling a special session of the CAG in late January or early February to give the members a chance to meet with the Technical Assistance Services for Communities (TASC) contractor, Skeo, to discuss the remedial investigation of the site.

Ms. Gerhart mentioned that Hagai Nassau with Skeo can be reached at HNassau@skeo.com. She stated that if

anyone in the community has any questions, Hagai will take the questions, his team will review them, discuss with EPA, and get an answer back as soon as possible. She added that if anybody is interested, they can go to <https://pceplume.org> VA's CERCLA website and using the contact form, enter their email to be on a distribution list for the special session CAG meeting.

Ms. Smith followed up by mentioning the PCEplume.org contact form can also be used for requesting indoor air sampling or to ask any questions. Ms. Smith stated that VA is always happy to answer questions regarding the site. She also said that if a community member wants a map, or any kind of materials, VA is happy to do that as well.

Ms. Smith concluded the meeting and thanked everyone for joining.