

# 700S 1600E PCE Plume Community Advisory Group (CAG)

## Meeting Minutes

July 17,2024

<b>Attendee</b>	<b>Organization</b>	<b>Attendee</b>	<b>Organization</b>
Shaun Cwick	EPA Region 8 RPM	Mary O'Connell	Resident / Friends of Sunnyside Park
Missy Haniewicz	EPA Community Involvement Coordinator	Gleed Toombes	Resident / Friends of Sunnyside Park
Briana Kistler	UofU Environmental, Health, and Science (EHS)	Josh Knudsen	Resident
Hayley Shaffer	Salt Lake County EHS	Robin Carbaugh	Resident
Dave Allison	Utah Division of Environmental Response and Remediation Community Involvement	Steve Mason	Resident
Teresa Gray	SLC Public Utilities (PU)	Greg House	VA Public Affairs Specialist
Jesse Stewart	SLC PU		

## Welcome (Slide 1)

COMMUNITY ADVISORY GROUP  
UPDATE


700S 1600E PCE PLUME SUPERFUND SITE

17 JULY 2024

VETERANS HEALTH ADMINISTRATION – SLC VA MEDICAL CENTER

Shannon Smith – Program Manager  
Wynn John – Technical Manager  
Zane Kozarec – Project Engineer

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VA began with welcoming all who were in attendance, and providing a quick summary of what will be discussed during the presentation, including proposed treatability studies. The VA CERCLA staff was then introduced, they include Shannon Smith – Program Manager, Wynn John – Technical Manager, and Zane Kozarec – Project Engineer.

## Background (Slide 2)

Introduction

- The SLC VAMC operated a drycleaning operation that used tetrachloroethylene (abbreviated as PCE) in the late 1970s and early 1980s.
- During this period, drycleaning 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.

VA provided an introduction to the Site with a brief history of dry-cleaning operations and a description of the physical properties of PCE, common uses of PCE, and negative health impacts from long-term exposure to PCE.

A Resident asked a question regarding what specific cancers are caused by PCE exposure which VA answered that they

believe PCE is classified as a suspected carcinogen and can cause nervous system damage at low levels and has shown to cause cancer in mice.

## Remedial Investigation Overview (Slide 3)

### Remedial Investigation Overview

#### CERCLA/SUPERFUND Process

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graph LR; A[Site Discovery and NPL Listing] --> B[Characterization Remedial Investigation / Feasibility Study]; B --> C[Remedy Selection Record of Decision]; C --> D[Cleanup];
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The site **Remedial Investigation** was conducted from 2015-2022. It involved:

- collecting over 900 environmental samples to evaluate the extent of PCE, and
- assessing the potential risks to human health.

The *Remedial Investigation Report (RI)* was finalized in Sep 2022 and is available at [www.PCEPlume.org](http://www.PCEPlume.org) in the Administrative Record.

VA described the CERCLA process and the current phase of the process the Site is in. Currently, the Site is in the “Characterization and Feasibility Study” phase and will move to “Remedy Selection and Record of Decision”, where there will be an opportunity for public input and comments.

The VA conducted a Remedial Investigation of the Site from 2015-2022 and collected over 900 environmental


samples to evaluate the extent of the PCE plume and the potential risks to human health.

## Remedial Investigation Findings (Slide 4)

**REMEDIAL INVESTIGATION FINDINGS**

The RI identified two potential health risks:

- Indoor Air Vapor Intrusion (*inhalation*) – vapor intrusion from soil gas or groundwater into structures
- Groundwater ingestion – potential future use of untreated groundwater for domestic purposes



The **Feasibility Study (FS)** will evaluate cleanup options that address groundwater contamination (the source of the two potential health risks).


VA described the two potential health risks identified by the Human Health Risk

Assessment completed as part of the Remedial Investigation: indoor air vapor intrusion, and future potential groundwater ingestion. Indoor air vapor intrusion was evaluated primarily using vacuum canisters, and roughly 80-100 homes had their indoor air tested.

VA is not aware of any private drinking wells in operation within the plume, and the nearby public drinking water well (SLC-18) has not been in operation for over 20 years. VA is not aware of anyone using contaminated groundwater from the plume as drinking water currently.

## Feasibility Study (Slide 5)

**Feasibility Study (FS)**

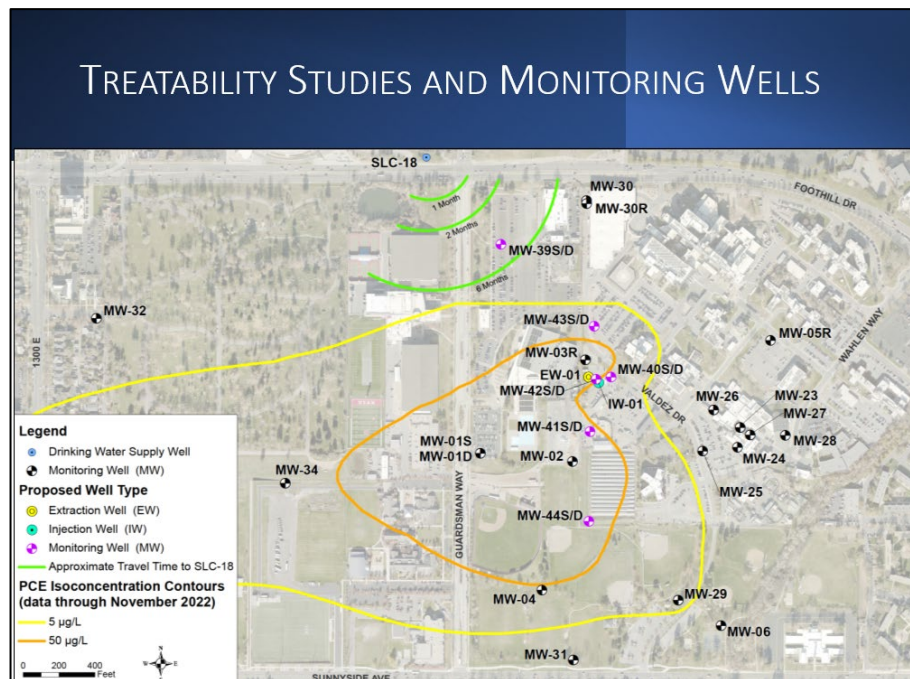


**Feasibility Study:** The process of developing, screening, and evaluating remedial action (cleanup) alternatives

- Main objective: determine treatment technologies that will effectively reduce risks to human health in a reasonable timeframe
- Study will focus on groundwater treatment technologies based on the risks identified in RI
- Additional data collection and treatability studies (small-scale field study) may be conducted as part of the process

VA provided a general description of what a Feasibility Study entails within the CERCLA process. VA has selected a few treatability studies to evaluate different treatment options which were discussed in more detail later in the presentation.

## Current Site Map (Slide 6)



VA showed a map of the source area within the Site. VA pointed out some important landmarks such as the historical location of dry-cleaning operations, the main hospital, Sunnyside Park, and Salt Lake City's drinking water well.

VA explained the green lines; they were developed using a groundwater model from the Remedial

Investigation and show how long it would take groundwater to reach SLC-18 in a maximum pumping scenario. Questions were asked by the audience about the direction of groundwater flow observed at the Site which was answered by VA and SLC Public Utilities. Groundwater flow typically mimics ground surface (east to west) but is complicated by Red Butte Creek.

VA also described geologic and hydrogeologic trends observed at the Site. The Site can generally be described as having both a shallow and deep aquifer, primarily defined by clay layers. Contamination is generally located within the shallow aquifer but has been found at the top of the deep aquifer in some locations.

The audience asked how far below the surface the shallow aquifer is found. The depth to the shallow aquifer is roughly 120 ft deep around the VA hospital and Sunnyside Park but can be within 50 ft or less beneath the residential areas of the Site.

## Treatability Studies and Monitoring (Slide 7)

TREATABILITY STUDIES AND MONITORING		
Study	Location	Objective
Bioremediation Amendment Injection Test	West side of VA Medical Center (area with highest onsite PCE concentrations)	Prevent migration to SLC municipal well when/if operating, and reduce PCE groundwater concentrations
Aquifer Performance Test	West side of VA Medical Center	Define aquifer characteristics that would affect injection and extraction efficiency.
MW-39 "Sentinel" Monitoring Well	University of Utah Parking Lot, southeast of intersection of Guardsman Way and 500 South.	Assess deep groundwater (greater than 200 ft) contamination near SLC municipal water well if returned to use ( <i>not currently in service</i> )

VA described the two tests to be conducted as part of the Feasibility Study, looking into the feasibility of either an in situ or ex situ treatment procedure. The VA described the general procedure of the Bioremediation Test. The bioremediation amendment injection test will investigate the ability of anaerobic bacteria to biodegrade PCE as well as mass reduction of the

contaminant.

The VA then described the general procedure of the Aquifer Performance Test, saying that it will primarily evaluate the feasibility of extracting groundwater through understanding aquifer characteristics.

Finally, VA described the goal of the installation of MW-39, saying MW-39 is located close enough to SLC-18 to provide warning if contaminants are moving towards SLC-18, should the well be put into operation. SLC Public Utilities does not anticipate using SLC-18 in the next couple years.



## Field Work (Slide 8)

### FIELD WORK



- Complete well installation (ongoing)
- Treatability Studies planned to start in August 2024
- Additional groundwater sampling will also be conducted.
- Anticipate data sets will be available to discuss in approximately nine months.

VA provided information on the ongoing well installations that are part of the Feasibility Study. VA also provided a timeline estimate for the Bioremediation Injection test where emulsified vegetable oil will be injected and surrounding monitoring wells will be sampled 2, 6, and 12 months afterwards to evaluate effectiveness.

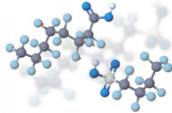
The audience asked a question about which prospective treatment process would be cheaper. VA answered that it is difficult to know which treatment would be better financially due to a number of variables.

## PFAS Question (Slide 9)

PFAS QUESTION

**EPA expressed concerns about potential PFAS contamination at the site associated with healthcare operations.**

- PFAS – Are manufactured chemicals widely used in industry and consumer products, including healthcare equipment and devices, pharmaceuticals, cleaning products and stain- and water-resistant treated materials.
- Propose to conduct a Preliminary Assessment/Site Inspection (PA/SI) with limited initial sampling.
  - PA/SI plan is being prepared.
  - Anticipate collecting groundwater from select existing monitoring wells.



VA provided a background on why PFAS is now an interest at the Site and a brief definition of PFAS. This definition also included common applications of PFAS. VA also described what the approach to addressing EPA's concerns with PFAS. It will include a Preliminary Assessment of the VA campus, highlighting processes that may have led to PFAS

contamination, and a Site Inspection, conducting limited PFAS sampling of the Site.

A question was asked by the audience about how a PFAS plume, if discovered, will be incorporated into the already established site. VA answered that it will depend on the extent of a discovered PFAS plume. If it follows the same general area as the PCE plume, then it will be incorporated in the already established Operable Unit 1. If it is something different, it could be addressed under a separate Operable Unit.



## Next Meeting and Questions (Slide 10)

### NEXT MEETING AND QUESTIONS

Agenda items for next meeting?

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VA opened the floor up to any questions the audience may have about the Site. The audience asked when was the last time the monitoring wells were sampled. VA answered that samples were collected in 2021 and 2022. VA explained for most wells there is already a large dataset of samples collected over multiple years. This dataset showed the

plume has remained fairly stable and is not expected to move too far from where it currently sits. VA also clarified that any sample results from the Treatability Study would likely take 9 months from the samples collection date for it to be released to the public.

The audience requested a meeting in 9 months (April 2025) to discuss new results from the Treatability Study. The audience also asked to be notified should VA observe any unexpected results.