

**FOURTH FIVE-YEAR REVIEW REPORT FOR
VASQUEZ BOULEVARD AND I-70 SUPERFUND SITE
DENVER COUNTY, COLORADO**



Prepared by

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LIST OF ABBREVIATIONS AND ACRONYMS

ARAR	Applicable or Relevant and Appropriate Requirement
ASARCO	American Smelting and Refining Company Incorporated
CDPHE	Colorado Department of Public Health and Environment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CIC	Community Involvement Coordinator
EPA	United States Environmental Protection Agency
ESD	Explanation of Significant Differences
FYR	Five-Year Review
IC	Institutional Control
LUCIP	Land Use Control Implementation Plan
µg/dL	Micrograms Per Deciliter
mg/kg	Milligrams Per Kilogram
mg/kg/day	Milligrams Per Kilogram Per Day
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
PRP	Potentially Responsible Party
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation and Feasibility Study
ROD	Record of Decision
RPM	Remedial Project Manager
RSL	Regional Screening Level
UU/UE	Unlimited Use/Unrestricted Exposure

I. INTRODUCTION

The purpose of a five-year review (FYR) is to evaluate the implementation and performance of a remedy to determine if the remedy is and will continue to be protective of human health and the environment. The methods, findings and conclusions of reviews are documented in FYR reports such as this one. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The U.S. Environmental Protection Agency (EPA) is preparing this FYR pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121, consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 Code of Federal Regulations (CFR) Section 300.430(f)(4)(ii)) and considering EPA policy.

This is the fourth FYR for the Vasquez Boulevard and I-70 Superfund site (Site or VB/I-70). The triggering action for this statutory review is the completion date of the previous FYR. The FYR has been prepared because hazardous substances, pollutants or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure (UU/UE).

The Site consists of three operable units (OUs). OU-1 addresses residential soil cleanup. OU-2 addresses the former Omaha & Grant Smelter location. OU-3 addresses the former Argo Smelter location. This FYR Report addresses OU-1. This FYR Report does not address OU-2 and OU-3 because remedial actions have not yet been selected for those OUs.

The EPA remedial project manager (RPM), Jessica Duggan, led the FYR. Participants included EPA RPM Rebecca Geyer, community involvement coordinator (CIC) Meg Broughton, Colorado Department of Public Health and Environment (CDPHE) project manager Fonda Apostolopoulos, CPDHE CIC Lauren Whitney, and Treat Suomi and Ryan Burdge from Skeo (EPA FYR support contractor). The review began on 5/2/2024.

The EPA decided that a protectiveness determination of the residential soil cleanup at the Vasquez Boulevard and I-70 Superfund Site OU-1 cannot be made until more information is obtained. Further information will be obtained by applying the 2024 Updated Soil Lead Guidance for CERCLA sites and Resource Conservation and Recovery Act (RCRA) Corrective Action Facilities (Updated Soil Lead Guidance) and using the recommended lowered screening levels to determine whether further investigation is warranted and whether additional response actions are needed for the remedy to remain protective. It is expected that these steps could take about 36 months to complete, after which a protectiveness determination will be made using the information received through the application of the 2024 Updated Soil Lead Guidance. [<https://semspub.epa.gov/work/HQ/100003435.pdf>]

La EPA ha decidido que no se puede tomar una determinación de protección de la limpieza del suelo residencial en el OU-1 del sitio Superfund Vasquez Boulevard e I-70 hasta que se obtenga más información. Se obtendrá más información aplicando la Guía Actualizada de Plomo en el Suelo de 2024 para sitios CERCLA e Instalaciones de Acción Correctiva de la Ley de Conservación y Recuperación de Recursos (RCRA) (Guía Actualizada de Plomo en el Suelo) y utilizando los niveles de detección reducidos recomendados para determinar si se justifica una investigación adicional y si se necesitan acciones de respuesta adicionales para que las acciones correctivas sigan siendo protectoras. Se espera que estos pasos puedan tardar unos 36 meses en completarse, después de lo cual se realizará una determinación de protección utilizando la información recibida a través de la aplicación de la Guía Actualizada de Plomo en el Suelo de 2024. [<https://semspub.epa.gov/work/HQ/100003435.pdf>]

Site Background

The 4.5-square-mile OU-1 area is in the north-central section of the city and county of Denver, Colorado (Figure 1). Historically, the area was a major smelting center for the Rocky Mountain West. Beginning as early as the 1870s, two smelting plants – Omaha & Grant and Argo – operated at the Site. They refined gold, silver, copper, lead and zinc until the early 1900s, when operations ceased. Afterward, residential, commercial and industrial development of the area followed. Smelter operations deposited heavy metals in the area, contaminating soils.

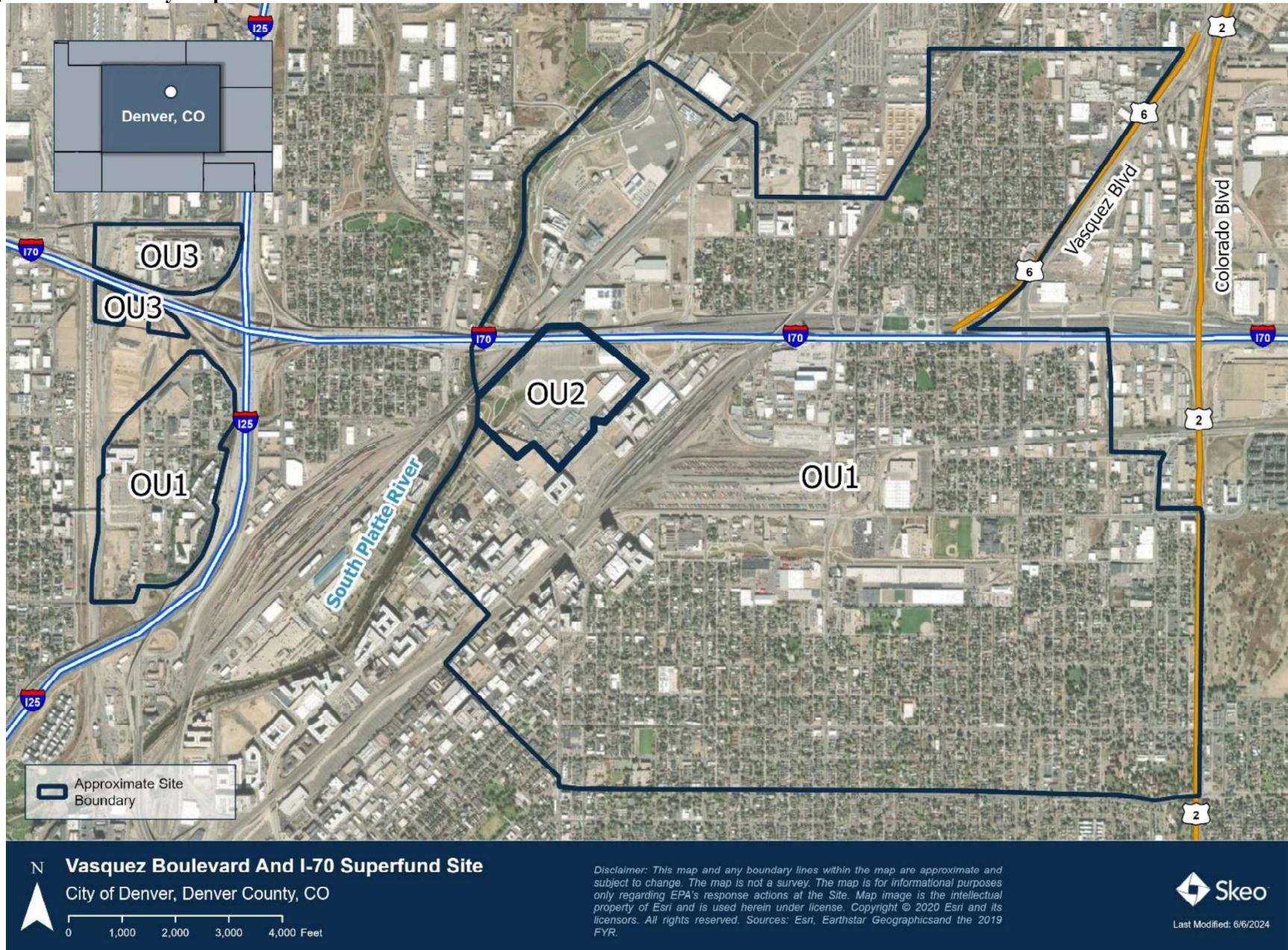
OU-1 is defined as residential yards, schools and parks in the Site area with levels of lead and/or arsenic in surface soil that present an unacceptable risk to human health. OU-1 includes all or part of five neighborhoods – Cole, Clayton, Elyria-Swansea, southwest Globeville and Curtis Park. OU-1 includes residential yards in the site area where levels of lead and/or arsenic in soil presented an unacceptable risk to human health. There were about 4,500 residential properties in OU-1, most of which were single-family homes. OU-1 also includes some multi-family homes, apartment buildings, schools and parks, but did not include commercial and industrial properties. OU-2 and OU-3 include non-residential, commercial and industrial properties and address the former smelter properties. Surrounding land uses include residential, commercial and industrial areas.

Appendix A provides a list of documents reviewed during this FYR. Appendix B provides a chronology of site events. The EPA and the CDPHE deleted OU-1 from the Superfund program’s National Priorities List (NPL) in September 2019.

FIVE-YEAR REVIEW SUMMARY FORM

SITE IDENTIFICATION		
Site Name: Vasquez Boulevard and I-70		
EPA ID: CO0002259588		
Region: 8	State: CO	City/County: Denver/Denver
SITE STATUS		
NPL Status: Final		
Multiple OUs? Yes	Has the Site achieved construction completion? No	
REVIEW STATUS		
Lead agency: EPA		
Author name: Jessica Duggan with contractor support provided by Skeo		
Author affiliation: EPA Region 8 and Skeo		
Review period: 5/2/2024 - 9/25/2024		
Date of site inspection: 5/23/2024		
Type of review: Statutory		
Review number: 4		
Triggering action date: 9/25/2019		
Due date (five years after triggering action date): 9/25/2024		

Figure 1: Site Vicinity Map



II. RESPONSE ACTION SUMMARY

Basis for Taking Action and Response Actions

In July 1993, the state of Colorado and the American Smelting and Refining Company Incorporated (ASARCO) entered into a Consent Decree for contamination at the nearby ASARCO Globe Smelter site. As part of the settlement agreement, ASARCO collected soil samples in residential yards in the Globeville neighborhood. While collecting these samples, ASARCO found random occurrences of arsenic at elevated levels in residential yards at increasingly greater distances from the Globe plant smelter location. As a result, the CDPHE began a limited soil sampling program in the Elyria and Swansea neighborhoods, located just east of the Globeville neighborhood across the South Platte River. The results indicated that high concentrations of arsenic and lead in soil extended far beyond the Globeville neighborhood. The CDPHE requested immediate assistance from the EPA following these results. In 1998, the EPA mobilized an emergency response team to conduct extensive soil sampling efforts and time-critical removal actions. Soil sampling efforts showed that soils at many residential properties in what is now referred to as OU-1 had concentrations of arsenic or lead at unacceptable levels.

In September 1998, the EPA issued an Action Memorandum that established a basis for conducting a time-critical removal action based on emergency response sampling efforts at residential properties in OU-1. The memorandum required the removal and replacement of soil at any residential property with an average arsenic soil concentration greater than 450 milligrams per kilogram (mg/kg) and/or an average lead soil concentration greater than 2,000 mg/kg. In October and November 1998, the EPA conducted time-critical soil removals at 18 residential properties.

The EPA added the Site to the NPL in July 1999. After additional investigations from August 1999 through November 2000, the EPA led more time-critical soil removals at 30 residential properties.

The EPA conducted extensive residential soil sampling and performed a risk assessment as part of OU-1's 2001 remedial investigation and feasibility study (RI/FS). The EPA collected soil samples at two-inch depth intervals from 0 to 12 inches total depth. Primary contaminants of concern included lead and arsenic. The EPA determined that the principal threats posed to residents included incidental ingestion of soil and dust in and around homes and yards, and ingestion of home-grown vegetables. The EPA also determined that there was a range of possible sources for the contamination, including smelting operations and lead paint and pesticide application. The EPA concluded that contaminant concentrations were highest in the first 2 inches of soil and decreased with depth, with limited contamination found below 6 inches.

In March 2003, the EPA issued a second Action Memorandum that established the basis for conducting a non-time-critical removal action at residential properties. The memorandum required the removal and replacement of soil at any residential property with an average arsenic soil level greater than 240 mg/kg and/or average lead soil levels greater than 540 mg/kg. In late 2003, the EPA conducted non-time-critical soil removals at 133 residential properties.

In September 2003, the EPA selected a remedy for contaminated residential soils in the Site's OU-1 Record of Decision (ROD). The ROD identified the following remedial action objectives (RAOs) for arsenic and lead in soil:

RAOs for Arsenic in Soil

- For residents living at the Site, prevent exposure to soil containing arsenic at levels predicted to result in an excess lifetime cancer risk associated with ingestion of soil which exceeds 1×10^{-4} (one in 10,000) using reasonable maximum exposure assumptions.
- For residents living at the Site, prevent exposure to soil containing arsenic in levels predicted to result in a chronic or sub-chronic hazard quotient associated with ingestion of soil which exceeds 1, using reasonable maximum exposure assumptions.

- For children with soil pica behavior who live at the Site, reduce the potential for exposure to arsenic in soil that result in acute effects.¹

RAOs for Lead in Soil

- Limit exposure to lead in soil such that no more than 5% of young children (72 months or younger) who live at the Site are at risk for having blood lead levels higher than 10 micrograms per deciliter (µg/dL) from such exposure. This provides 95% confidence that children exposed to lead in soil will be protected.

The selected OU-1 remedy, as determined in the 2003 ROD and modified by a 2014 Explanation of Significant Differences (ESD), includes:

- Implementation of a soil sampling program for all residential properties that had not been adequately tested.
- Implementation of a community health program.
- Removal and off-site disposal of contaminated soils at residential properties with the highest soil composite concentration of arsenic greater than 70 mg/kg and/or the average lead concentration greater than 400 mg/kg to a depth of 12 inches, and backfilling of excavated areas with clean soil.
- Implementation of institutional controls for residential properties where the property owner denied the EPA access to sample or remove soil.

Status of Implementation

Soil Sampling Program

Prior to the ROD for OU-1, the EPA sampled about 75% of the residential properties within the OU-1 boundary for lead and arsenic. For properties not adequately tested during this time, the EPA implemented a program of ongoing soil sampling. The 2001 RI/FS determined that outdoor soils were not a significant contribution to the levels of arsenic and lead in indoor dust, so indoor dust sampling was not necessary.

The soil sampling program began with identifying properties that required sampling. After getting permission from property owners, the EPA collected soil samples from each property and analyzed them for lead and arsenic. The EPA provided results to the property owners and determined if soil removal was needed. Soil sampling as part of the remedial action took place from 2005 to 2015, with a majority taking place in 2005 and 2006. The EPA sampled 99% of residential properties in OU-1.

Residential Soil Removal

The EPA removed soil at properties that had arsenic soil concentrations greater than 70 mg/kg or that had lead soil concentrations greater than 400 mg/kg. For properties where soil removal was conducted, all accessible soils in the whole yard were removed to a depth of 12 inches. Since the EPA had previously determined contamination was only present in the surface soil, the EPA considered excavation to 12 inches to be sufficient to remove site contaminants. At the homeowner's request, flower beds and vegetable gardens were sampled individually. If the concentrations of lead and arsenic in the flower beds or vegetable gardens were found to be below the action levels, then soil removal was not required in these areas. This was the only situation where a partial soil removal occurred at a property.

Between 1998 and 2003, the EPA completed cleanups at 181 properties, disposing of contaminated soils off-site. From 2004 through 2015, the EPA and ASARCO conducted soil removals at 633 properties, disposing of contaminated soils off-site.

¹ Soil pica is the intentional ingestion of unusually high amounts of soil. Groups at risk of soil pica include children aged 6 years and younger and developmentally delayed individuals.

As called for in the ROD, soil sampling and removal as part of the remedy action were started in 2004 and considered completed in 2008. As of 2008, the unaddressed properties in OU-1 included 55 that had not been sampled and 155 that had been identified for cleanup through sampling but were not cleaned up due to the homeowner not providing access to the EPA despite numerous attempts at contacting the homeowner. In the 2009 FYR, the EPA determined the remedy at OU-1 was not protective of human health for properties where the EPA was not granted access from the property owner to either sample or cleanup despite the EPA's efforts to contact the owners numerous times. As part of the first FYR evaluation, a review was conducted of the title records for the unaddressed properties at the time; this review indicated that property transfers were occurring without a process in place to notify the new property owners of the contamination/possible contamination on their property.

EPA determined it was not cost effective to keep the option for sampling and cleanup for these unaddressed properties open into the indefinite future. Therefore, the EPA signed the 2014 ESD to modify the OU-1 selected remedy to incorporate additional informational ICs for the unaddressed properties.

Prior to implementation of the informational ICs, the EPA initiated an outreach effort in 2012 and 2013 to the owners of the remaining unaddressed properties. Earlier in 2012, the EPA had determined that as many as 50% of these properties had changed owners since the sampling and cleanup effort had ended in 2008. The EPA did not feel it was appropriate to implement the informational ICs on these properties without attempting to coordinate with the new owners. The EPA offered these property owners a final chance to have their property sampled and/or cleaned up, which was performed in 2012 through 2015 for the properties where access was granted.

Table 1 lists the number of residential properties remediated each year. Figure C-1 illustrates the OU-1 cleanup.

Table 1: Summary of Remediated Properties, by Year

Year	Number of Properties Remediated
1998 – 2003	181
2004	326
2005 ^a	212
2006 ^a	65
2008	3
2013	21
2014	4
2015	2
Total	814
<i>Notes:</i>	
a. ASARCO completed the remediation of 62 properties in 2005 and 38 properties in 2006 (100 properties total) in accordance with the Consent Decree. These actions have been combined with the EPA actions for the total of properties remediated in those years.	

For soil removals conducted from 2004 through 2008, the EPA transported contaminated soil to the nearby ASARCO Globe Smelter site for disposal. The EPA placed this soil with the soil removed during the ASARCO Globe Smelter site residential cleanup. ASARCO agreed to conduct all maintenance of the residential soil repository as part of the ASARCO Globe Smelter site actions. For soil removals in 2013 through 2015, the EPA transported and disposed of contaminated soils at the Denver and Arapahoe Disposal site in Aurora, Colorado, because the repository at the ASARCO Globe Smelter site had been closed.

After placement of clean soil in the remediated residential yards, the EPA landscaped each property in accordance with the restoration plan agreed upon by the homeowner. If the restoration plan included sod, then the property was watered for 30 days to establish the new sod. The 2008 Final Site Report for OU-1 contained analytical results of the backfill soil used. In the 18 samples collected, the highest lead result was 41 mg/kg while the majority of the samples were around 11 mg/kg.

The EPA conducted exterior, lead-based-paint assessments at all properties that received soil removal due to elevated lead concentrations and concern of recontamination. A total of 312 properties met the criteria for lead-based-paint assessments. During the assessments, the EPA tested all structures, including garages, fences and sheds with chipping and peeling paint, for lead-based paint. If lead-based paint peeling on a property was sufficient to cause recontamination of the soil above the action level, the EPA performed an exterior lead-based-paint abatement at the property. As a result of the assessments conducted, 128 homes received exterior, lead-based-paint abatements.

Community Health Program

The EPA developed a community health program in consultation with an advisory stakeholder group for the Site; the city and county of Denver implemented the program. The community health program consisted of two activities: biomonitoring services for children and community outreach. Participation in the program was voluntary and there was no charge to eligible residents and property owners for any of the services offered by the program. The community health program ended in 2008 when the EPA intended to end the soil sampling and remediation program.

Biomonitoring

The primary goal of the biomonitoring program was to test young children and pregnant women to determine if they had been exposed to lead and/or arsenic. This was done through the following tasks:

- Establish and staff periodic testing clinics in each neighborhood.
- Collect and analyze biomonitoring samples, which included blood lead and urinary arsenic.
- Report results to each participant.
- Recommend environmental and medical follow-up actions to parents, if needed.

The city and county of Denver held 38 clinics between November 2004 and October 2006. During that time, 661 individuals participated in the biomonitoring program. Twenty individuals were identified with elevated blood lead above the Centers for Disease Control and Prevention concentration of 10 µg/dL. The city and county of Denver referred the parents of children with elevated blood-lead concentrations to organizations that provided environmental and medical follow-up actions.

Community Outreach

The city and county of Denver conducted community outreach using a door-to-door canvassing outreach model, with community health workers providing individual health education. The community health workers were community members that the city and county of Denver trained to provide health information concerning lead and arsenic exposure and to serve as resource contacts. The community health workers were trained to provide the following information:

- Health effects of lead.
- Health effects of arsenic.
- Soil pica behavior.
- Soil sampling and soil removal aspects of the remedy.
- Biomonitoring program.

Community health workers visited 94% of the homes in the Site boundary. In addition, outreach was conducted to real estate agents and contractors who live or work within the Site communities by mailing them relevant information.

In February 2017, the EPA issued the Final Remedial Action Report, which documented remedial actions completed at the Site. In November 2018, the CDPHE concurred with the EPA's Notice of Partial Deletion for OU-1. A Notice of Intent for Partial Deletion of Operable Unit (OU) 1 of the Vasquez Boulevard and I-70 Superfund Site was published in the Federal Register on February 6, 2019. The publication of this notice was intended to inform the public that the EPA planned to delete OU-1 of the Site from the National Priorities List,

and provide a 30-day public comment period on the proposed deletion. The closing date for comments on the Notice of Intent to Delete was March 8, 2019, and extended to April 8, 2019. The EPA prepared a Responsiveness Summary to public comments received, and all public comments were considered in the EPA's final decision to delete the Site from the NPL. The deletion of OU-1 was published on September 20, 2019, in the Federal Register (84 FR 49479).

Changes in the EPA's Lead Guidance

On January 17, 2024, EPA OLEM released the "Updated Residential Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities" (2024 Updated Soil Lead Guidance), which updates the residential soil lead screening level (RSL) and removal management level (RML) for the CERCLA and RCRA programs and provides additional guidance for setting residential lead preliminary remediation goals (PRGs) and cleanup levels. The 2024 Updated Soil Lead Guidance recommends that regions use the most current version of the Integrated Exposure Uptake Biokinetic (IEUBK) model, with 5 µg/dL as the 95th percentile target blood lead level and site-specific environmental data (e.g., lead concentrations in various media and bioavailability) to develop PRGs and cleanup levels for residential land use. If an additional source of lead (e.g., lead water service lines, lead-based paint, non-attainment areas where the lead concentrations exceed NAAQS) is identified, 2024 Updated Soil Lead Guidance recommends 3.5 µg/dL as the 95th percentile target blood lead level. The 2024 Updated Soil Lead Guidance also recommends that the EPA region adjust PRGs and cleanup levels to account for uncertainty, technical limitations (i.e., detection/quantification limits), and site-specific soil lead background.

The EPA will evaluate how the Updated Lead Guidance may impact the OU-1 cleanup that was conducted at the VB/I-70 site and determine if additional investigation and/or cleanup is needed. The EPA will use the updated RSLs as well as site-specific factors, including risk factors and community input, to determine if a change in the OU-1 lead cleanup level is appropriate. The EPA will share information on planned activities and results as they become available. Appendix J includes supplemental parcel data on properties within OU-1.

Institutional Control (IC) Review

In 2014 and 2015, the EPA implemented institutional controls for 72 residential properties in OU-1 where property owners denied the EPA access to sample and/or remove soil. The EPA filed a Notice of Potential Environmental Conditions for residential properties where the EPA never sampled and a Notice of Environmental Conditions for properties where soil was not removed even though it was deemed necessary based on the EPA's soil sampling results for lead and/or arsenic. These notices are filed with the Denver Office of the Clerk and Recorder in the title records and serve to notify present, prospective and future owners and current residents of the potential for elevated levels of lead or arsenic in the properties' soils. In addition, the 2008 Land Use Control Implementation Plan (LUCIP) is also in place across the city of Denver. The LUCIP requires the City of Denver to provide the CDPHE with information when a building permit is pulled under the city and county of Denver building permit program for a property that is located within the boundaries of a Superfund site. When this happens for properties at the Site, the EPA is notified by CPDHE and CPDHE provides the prospective builder with information about potential risks at that property.

In October 2014, the EPA filed a Withdrawal Notice to remove the Notice of Potential Environmental Conditions/Notice of Environmental Conditions from 17 properties where institutional controls were in place but were no longer needed. Three of these 17 properties were remediated in 2008, so the Notice of Environmental Conditions was no longer required. For the remaining 14 properties, the owners agreed to give the EPA access to sample and/or clean up their properties. The EPA conducted sampling at these properties from July through September 2014. Based on the sampling results, three of the 14 properties required cleanup, which was completed by October 2014. After these three properties were cleaned up, the EPA filed a Withdrawal Notice on each of the 14 properties. These actions resulted in the 2017 Remedial Action Report indicating there were 55 properties with institutional controls. However, after that report was issued, the EPA filed withdrawals for two more properties on September 12, 2017, leaving 53 properties with individual notices.

O&M activities are required for the institutional controls added to the remedy in the 2014 ESD. O&M activities include monitoring the institutional controls and preparing and mailing annual informational letters. Starting in 2015, the EPA and the CDPHE began sending annual information letters to property owners, residents and renters

for the 53 properties with institutional controls.² Each letter provides specific information on the individual property and how to minimize contact with and exposure to potentially contaminated soils. The CDPHE has been responsible for the annual mailings since 2016. Annual informational letters are currently sent out in English and Spanish. Appendix I contains two sample informational letters for both properties that did not consent to sampling and those that consented to sampling but not cleanup.

Beginning in 2018, the EPA began referring property owners to the CDPHE as part of ongoing O&M activities. During the FYR period, the CPDHE was notified by the city of Denver several times pursuant to the LUCIP and provided information to property owners or current residents specific to their situation. In most cases, CPDHE determined the properties to not have lead and/or arsenic levels above residential-use standards. As a result, no additional response action was required.

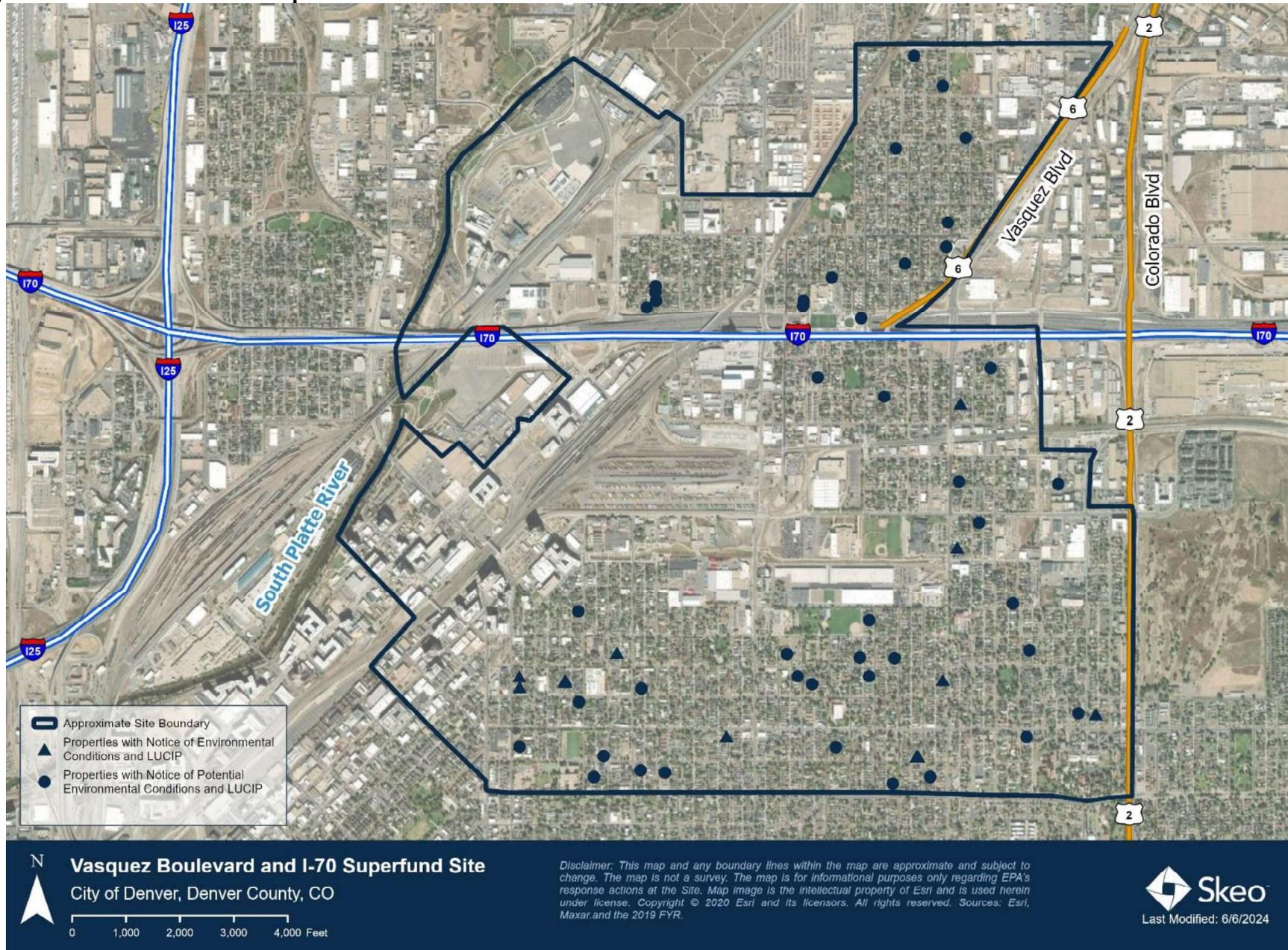
Table 2 lists the institutional controls implemented in OU-1. Tables H-1 and H-2 in Appendix H contain a detailed list of properties with institutional controls. Figure 2 shows a map of OU-1 parcels with institutional controls.

² The 2017 Remedial Action report lists 55 properties with institutional controls. However, on September 12, 2017, EPA filed withdrawals for two properties.

Table 2: Summary of Planned and/or Implemented Institutional Controls (ICs)

Media, Engineered Controls and Areas That Do Not Support UU/UE Based on Current Conditions	ICs Needed	ICs Called for in the Decision Documents	Impacted Parcels	IC Objective	Title of IC Instrument Implemented
Soils – OU-1 residential properties where soil removal is warranted but could not be conducted because access was not granted by property owner.	Yes	Yes	See Figure 2 and Table H-1 for a list of impacted parcels.	Notify present, prospective and future owners and current residents of the elevated levels of lead or arsenic in the properties' soils.	Notice of Environmental Conditions
				Track property parcels with waste left in place and flag the Site when a building permit is pulled on that property under the city and county of Denver building permit program.	Land Use Control Implementation Plan (LUCIP)
Soils – OU-1 residential properties where the EPA was not able to sample because access was not granted by property owner.	Yes	Yes	See Figure 2 and Table H-2 for a list of impacted parcels.	Notify present, prospective and future owners and current residents of the potential for elevated levels of lead or arsenic in the properties' soils.	Notice of Potential Environmental Conditions
				Track property parcels with waste left in place and flag the Site when a building permit is pulled on that property under the city and county of Denver building permit program.	LUCIP

Figure 2: Institutional Control Map



III. PROGRESS SINCE THE PREVIOUS REVIEW

This section includes the protectiveness determinations and statements from the last FYR Report as well as the recommendations from the last FYR Report and the status of those recommendations.

Table 3: Protectiveness Determinations/Statements from the 2019 FYR Report

OU #	Protectiveness Determination	Protectiveness Statement
1	Protective	The remedy at OU-1 is protective of human health and the environment.

Table 4: Status of Recommendations from the 2019 FYR Report

Issue	Recommendations	Current Status	Current Implementation Status Description	Completion Date (if applicable)
Some institutional controls were filed by property owner name and may not be found during property record research in Denver.	Evaluate ways to ensure the institutional controls are discoverable in the Denver property database.	Completed	<p>The EPA reviewed the Denver Clerk’s system and worked with the CDPHE to make changes to the notification process:</p> <ul style="list-style-type: none"> Before the yearly mailings, the CDPHE reviews the Denver Property Taxation and Assessment System to determine if there was a change in property ownership. If there is a change in ownership, the CDPHE will send a certified letter to the property address and the owner of record. 	<p>Completed Issue/Recommendation from 2019 FYR on 5/28/2020</p> <p>CPDHE continues to implement process during annual mailings.</p>

IV. FIVE-YEAR REVIEW PROCESS

Community Notification, Community Involvement and Site Interviews

The EPA used several outreach methods to notify the public of the FYR, including newspaper, YouTube video, site webpage and flyers. All outreach methods stated that the FYR was underway and invited the public to participate in the interview process. A public notice was published in the *Denver Post* on 5/23/2024 (Appendix D) in both English and Spanish. In addition, the EPA updated the site webpage with an announcement of the FYR. The EPA also published a YouTube video announcing the FYR and inviting input from the public: <https://www.youtube.com/watch?v=CRht4rnHdaQ>. The EPA distributed English and Spanish flyers to several city of Denver recreation centers in the OU1 area, the Tepeyac Community Health Center, and the Valdez-Perry Branch Library.

On 5/2/2024, EPA staff (Jessica Duggan, Rebecca Geyer, and Meg Broughton) viewed the VB/I-70 information repository at the Valdez-Perry Branch Library. The information repository contains publicly available documents. The EPA noted that the repository contained the OU-1 partial deletion documents and some historical information but was missing the first and third FYR. The EPA has noted the need to replace this information to keep the file up to date.

During the period of June 13 to July 9, 2024, the Community Involvement Coordinator conducted four interviews for the FYR. The CIC interviewed one resident, two non-resident stakeholders, and one CDPHE employee. Interviews focused on their knowledge and perceptions of the EPA’s activities at the Site in the last five years. Interview responses can be found in Appendix E, and below is a summary of those responses.

All respondents were aware of the site and the previous soil cleanup actions, but two respondents noted that not all OU1 residents may be aware of the contamination or cleanup that has occurred, perhaps due to turnover of residents or lack of engagement from the EPA. Although some vandalism and trespassing issues were noted, there were no concerns with these impacting the effectiveness of the remedy. Two non-resident stakeholder activists interviewed, who were previously involved in the Site's Community Advisory Group, noted that the EPA's recent engagement and information sharing with the community has been minimal. Potential outreach methods suggested or recommended in interviews included: billboards, social media, direct mailers, in-person events at local recreation centers, and utilizing local non-profit community organizations to assist in engaging the community.

The results of the review and the report will be made available on the Site's webpage (www.epa.gov/superfund/vb-i70) and the Site's local information repository, Valdez-Perry Branch Library, located at 4690 Vine Street in Denver, Colorado, 80216.

Data Review

No data has been collected at OU-1 during this FYR period.

Site Inspection

The site inspection took place on 5/23/2024. Participants included EPA RPM Jessica Duggan, EPA RPM Rebecca Geyer, EPA CIC Meg Broughton, CDPHE project manager Fonda Apostolopoulos, CDPHE CIC Lauren Whitney, and Treat Suomi from EPA contractor Skeo. The purpose of the inspection was to assess the protectiveness of the remedy. Appendix F includes the site inspection checklist. Appendix G includes site inspection photographs.

Site inspection participants began by driving around parts of the OU-1 residential area. There was nothing to inspect for remediated OU-1 properties since contaminated soils were excavated and disposed of off-site. Appendix F provides a list of the areas visited. Participants observed many residential properties with exposed bare soil but were unable to determine if these properties had been sampled or remediated previously. Participants visited two properties where institutional controls were the only remedy. One property appeared to be well-maintained. The second property had large amounts of materials on it, making it hard to see the condition of the property. The EPA is assessing all OU-1 properties to identify areas needing more evaluation and possible cleanup due to changes in land use, screening levels and potential cleanup goals for lead in soil.

V. TECHNICAL ASSESSMENT

QUESTION A: Is the remedy functioning as intended by the decision documents?

Question A Summary:

The selected remedy is functioning as intended by the 2003 ROD and modified by the 2014 ESD. For properties with lead or arsenic concentrations above ROD action levels, removal of contaminated residential soils with off-site disposal prevents direct contact with contaminated soils. The EPA removed contaminated soil at a total of 814 residential properties.³ Implementation of institutional controls at residential properties where property owners did not consent to sampling and/or soil removal notifies present property owners and current residents of the contaminated soils or potentially contaminated soils at the properties.

The 2014 ESD required O&M activities for implemented institutional controls. These annual activities include monitoring the institutional controls, reviewing property records for the properties with institutional controls and mailing annual informational letters. Starting in 2015, the EPA and the CDPHE began sending annual information

³ Section II, Response Actions, details 181 cleanups between 1998 and 2003. Table 1 details 633 cleanups between 2004 and 2015.

letters to property owners and residents at properties with institutional controls. After the 2019 FYR, the CDPHE now follows the following process:

- Before the yearly mailings, the CDPHE reviews the Denver Property Taxation and Assessment System to identify any changes in property ownership. For properties with a change in ownership, the CDPHE will send a certified letter to the property address and the owner of record.
- The CDPHE sends a Spanish version alongside the English version.
- The CDPHE includes the Denver Office of the Clerk and Recorder's record identifier for notices in the annual letters.
- The CDPHE changed the link that points to the Spanish version to read "En Español."

QUESTION B: Are the exposure assumptions, toxicity data, cleanup levels and RAOs used at the time of the remedy selection still valid?

Question B Summary:

There have been no significant changes in the neighborhoods in OU-1, so there are no expected changes to the site conceptual model used in the health risk assessment for OU-1 that would affect the remedial decisions in the 2003 ROD. The arsenic cleanup level remains valid because the carcinogenic and noncarcinogenic toxicity values have not changed since the 2003 ROD.

The 2003 ROD's lead cleanup goal was based on CERCLA lead risk assessment policy at the time the EPA issued the ROD. On January 17, 2024, EPA OLEM released the "Updated Residential Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities" (2024 Updated Soil Lead Guidance), which updates the residential soil lead screening level (RSL) and removal management level (RML) for the CERCLA and RCRA programs and provides additional guidance for setting residential lead preliminary remediation goals (PRGs) and cleanup levels. The 2024 Updated Soil Lead Guidance recommends that regions use the most current version of the Integrated Exposure Uptake Biokinetic (IEUBK) model, with 5 µg/dL as the 95th percentile target blood lead level and site-specific environmental data (e.g., lead concentrations in various media and bioavailability) to develop PRGs and cleanup levels for residential land use. If an additional source of lead (e.g., lead water service lines, lead-based paint, non-attainment areas where the lead concentrations exceed NAAQS) is identified, 2024 Updated Soil Lead Guidance recommends 3.5 µg/dL as the 95th percentile target blood-lead level. The 2024 Updated Soil Lead Guidance also recommends that the EPA region adjust PRGs and cleanup levels to account for uncertainty, technical limitations (i.e., detection/quantification limits), and site-specific soil lead background.

In accordance with the Updated Lead Guidance, the EPA will use the new recommended screening levels and other site-specific information to determine whether further investigation is warranted and whether additional response actions are necessary for the OU-1 remedy to remain protective. The Site is located within a community with Environmental Justice (EJ) concerns and will be among the highest EPA Region 8 priority sites to re-evaluate under the 2024 Updated Lead Guidance. The public can learn more about the Updated Lead Guidance on the EPA website (<https://www.epa.gov/superfund/lead-superfund-sites-guidance#updatesoil>).

QUESTION C: Has any other information come to light that could call into question the protectiveness of the remedy?

No other information has come to light that could call into question the protectiveness of the remedy.

VI. ISSUES/RECOMMENDATIONS

Issues/Recommendations
OU(s) without Issues/Recommendations Identified in the FYR:
<i>None</i>

Issues and Recommendations Identified in the FYR:

OU(s): OU1	Issue Category: Other			
	Issue: On January 17, 2024, the EPA issued the Updated Soil Lead Guidance for CERCLA sites and RCRA Corrective Action Facilities that lowered recommended RSLs for lead-contaminated soil.			
	Recommendation: In accordance with the Updated Lead Guidance, use new screening levels to determine whether further investigation is warranted and whether additional response actions are necessary for the OU-1 remedy to remain protective.			
Affect Current Protectiveness	Affect Future Protectiveness	Party Responsible	Oversight Party	Milestone Date
Yes	Yes	EPA	EPA	9/30/2027

VII. PROTECTIVENESS STATEMENT

Protectiveness Statement(s)		
<i>Operable Unit:</i> 1	<i>Protectiveness Determination:</i> Protectiveness Deferred	<i>Planned Addendum Completion Date:</i> 9/30/2027
<p><i>Protectiveness Statement:</i></p> <p>A protectiveness determination of the remedy at OU-1 cannot be made until more information is obtained. Further information will be obtained by applying the 2024 Updated Soil Lead Guidance for CERCLA sites and RCRA Corrective Action Facilities and using the recommended lowered screening levels to determine whether further investigation is warranted and whether additional response actions are necessary for the OU-1 remedy to remain protective. It is expected these steps could take about 36 months to complete, after which a protectiveness determination will be made using the information received through the application of the 2024 Updated Soil Lead Guidance for CERCLA sites and RCRA Corrective Action Facilities.</p>		

VIII. NEXT REVIEW

The next FYR Report for the Vasquez Boulevard and I-70 Superfund site is required five years from the completion date of this review.

APPENDIX A – REFERENCE LIST

Concurrence of Partial Deletion of Vasquez Boulevard and I-70 Superfund Site. Colorado Department of Public Health and Environment. November 2, 2018. SEMS ID: 1905476

Explanation of Significant Differences, Operable Unit 1, Vasquez Boulevard and I-70 Superfund Site, Denver, Colorado. EPA Region 8. September 2014. SEMS ID: 1552122

Final Institutional Control Implementation and Assurance Plan, Vasquez Boulevard and I-70 Superfund Site, Denver, Colorado. Prepared for EPA Region 8 and U.S. Army Corps of Engineers, Omaha District by CB&I Federal Services LLC. November 2016. SEMS ID: 1833610

Final Remedial Action Report, Vasquez Boulevard and I-70 Superfund Site, Denver, Colorado. Prepared for EPA Region 8 and U.S. Army Corps of Engineers, Omaha District by CB&I Federal Services LLC. February 2017. SEMS ID: 1867122

Memorandum of Understanding – Land Use Control Implementation Plan (LUCIP), Denver, Colorado. City and County of Denver and State of Colorado. November 18, 2008.

Record of Decision, Operable Unit 1, Vasquez Boulevard and I-70 Superfund Site, Denver, Colorado. EPA Region 8. September 25, 2003. SEMS ID: 2005189

Second Five-Year Report, Vasquez Boulevard and I-70 Superfund Site, Denver, Colorado. EPA Region 8. September 2014. SEMS ID: 1771624

Third Five-Year Report, Vasquez Boulevard and I-70 Superfund Site, Denver, Colorado. EPA Region 8. September 2019. SEMS ID: 100006901

APPENDIX B – SITE CHRONOLOGY

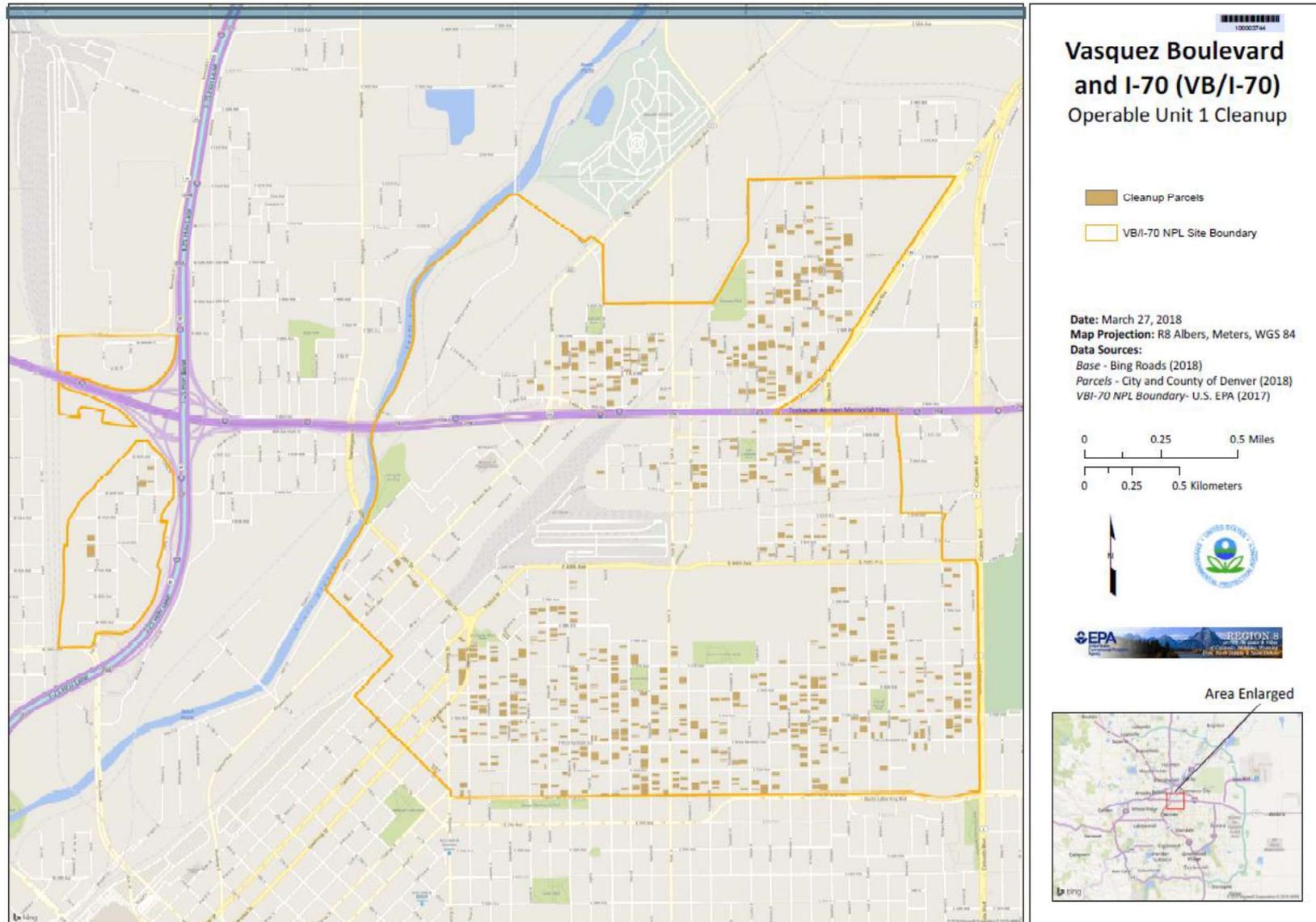
Table B-1: Site Chronology

Event	Date
The Omaha & Grant and Argo smelting plants refined gold, silver, copper, lead and zinc at the Site	1870 – early 1990s
The CDPHE began a limited soil sampling program in the Elyria and Swansea neighborhoods	1997
The CDPHE requested the EPA’s assistance following the results of the limited soil sampling program; the EPA mobilized an emergency response team to conduct extensive soil sampling efforts and time-critical removal actions at residential properties where contaminated soil posed immediate health risks	1998
The EPA began Phase I and Phase II soil sampling on residential properties	March 1998
The EPA completed Phase I and Phase II soil sampling on residential properties	August 1998
The EPA issued an Action Memorandum for a time-critical removal action	September 1998
The EPA began time-critical soil removal actions	October 1998
The EPA completed time-critical soil removal actions	November 1998
The EPA began the OU-1 RI/FS	December 17, 1998
The EPA added the Site to the NPL	July 22, 1999
The EPA began Phase III soil sampling	August 1999
The EPA completed Phase III soil sampling	November 2000
The EPA finalized the RI Report and the baseline human health risk assessment	July 2001
The EPA finalized the FS Report	October 1, 2001
The EPA issued an Action Memorandum for non-time-critical soil removal actions	March 6, 2003
The EPA completed the remedial design for the soil removal component of the OU-1 remedy	March 14, 2003
The EPA completed the remedial design for the community health component of the OU-1 remedy	March 27, 2003
The EPA conducted non-time-critical removal actions	July 2003
The EPA signed the OU-1 ROD	September 25, 2003
The EPA, the CDPHE and ASARCO entered into a Consent Decree for some OU-1 remedial actions	January 21, 2004
The EPA began OU-1 remedial actions	March 31, 2004
The EPA completed non-time-critical soil removal actions	March 2004
The EPA issued the Final Site Report detailing soil sampling and soil removal activities through 2006	2007
The EPA issued the Final Site Report Addendum detailing soil sampling and soil removal activities in 2008	August 2008
The EPA signed the Site’s first FYR Report	September 30, 2009
The EPA began more soil sampling at previously unaddressed properties	July 2012
The EPA began soil removal activities at previously unaddressed properties	August 2013
The EPA completed more soil sampling at previously unaddressed properties	September 2013
The EPA began filing site institutional controls for unaddressed properties with the city and county of Denver Office of the Clerk and Recorder	June 2014
The EPA issued the OU-1 ESD and signed the Site’s second FYR Report	September 30, 2014

Event	Date
The EPA completed soil removal activities at previously unaddressed properties	June 2015
The EPA finalized site institutional controls for unaddressed properties with the Denver Office of the Clerk and Recorder	July 2015
The EPA issued the Final Sampling and Construction Site Report Addendum for soil sampling and soil removal activities from 2012 through 2015	November 2015
The EPA issued the final Remedial Action Report for OU-1	February 22, 2017
The CDPHE concurred with EPA's Notice of Partial Deletion for OU-1	November 2018
The EPA published a Notice of Partial Deletion for OU-1	September 20, 2019
The EPA signed the Site's third FYR Report	September 25, 2019
The EPA issued Updated Soil Lead Guidance for CERCLA sites and RCRA Corrective Action Facilities	January 17, 2024

APPENDIX C – SITE MAPS

Figure C-1. OU-1 Cleanup



Source: The EPA.

APPENDIX D – PRESS NOTICE

The Denver Post, LLC

PUBLISHER'S AFFIDAVIT

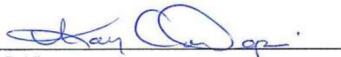
City and County of Denver)
State of Colorado)
)

The undersigned Nicole Maestas being first duly sworn under oath, states and affirms as follows:
1. He/she is the legal Advertising Reviewer of The Denver Post, LLC, publisher of The Denver Post and Your Hub.
2. The Denver Post and Your Hub are newspapers of general circulation that have been published continuously and without interruption for at least fifty-two weeks in Denver County and meet the legal requisites for a legal newspaper under Colo. Rev. Stat. 24-70-103.
3. The notice that is attached hereto is a true copy, published in Your Hub for Denver Downtown/East/West (including counties of Denver, Jefferson, Arapahoe, and Adams) on the following date(s):

_____ May 23, 2024 _____


Signature

Subscribed and sworn to before me this
29 day of ___May___, 2024.


Notary Public

(SEAL)

KAY C. DAPICE
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19944012554
MY COMMISSION EXPIRES AUGUST 19, 2026

EPA PUBLIC NOTICE EPA REVIEWS CLEANUP Vasquez Boulevard/I-70 Superfund Site

EPA is currently conducting its fourth Five-Year Review (FYR) of Operable Unit 1 of the Vasquez Boulevard and I-70 Superfund Site, located in Denver, Colorado. Operable Unit 1 is a subsection of the site that includes residential soils in six neighborhoods. EPA conducts these reviews to ensure that cleanups continue to protect public health and the environment. Findings from this FYR will be available in late September 2024.

We want to hear from you!

EPA interviews community members as part of the FYR process. To participate in an interview about the residential soils of the site, please contact Community Involvement Coordinator Meg Broughton at 720-762-7444.

For questions or to provide site-related information for the review:

Meg Broughton, EPA Community Involvement Coordinator
Phone: 720-762-7444 Email: Broughton.Meg@epa.gov

Learn more online at:
<https://www.epa.gov/superfund/vbi70>

AVISO PÚBLICO DE LA EPA LA EPA EVALÚA LA LIMPIEZA Sitio Superfund de Vasquez Boulevard/I-70

La EPA está llevando a cabo actualmente su cuarta Evaluación Quinquenal (FYR) de la Unidad Operable 1 del Sitio Superfund de Vasquez Boulevard/I-70, ubicado en Denver, Colorado. La Unidad Operable 1 es una subsección del sitio que incluye los suelos residenciales en seis vecindarios. La EPA lleva a cabo estas evaluaciones para garantizar que las limpiezas continúen protegiendo la salud pública y el medioambiente. Los resultados de esta evaluación quinquenal estarán disponibles a fines de septiembre de 2024.

¡Queremos saber su opinión!

La EPA entrevista a miembros de la comunidad como parte del proceso de evaluación quinquenal. Para participar en una entrevista sobre los suelos residenciales del sitio, comuníquese con la Coordinadora de Participación Comunitaria Meg Broughton llamando al 720-762-7444.

Para hacer preguntas o dar información sobre el sitio a evaluar:

Meg Broughton, Coordinadora de Participación Comunitaria
Teléfono: 720-762-7444
Correo electrónico: Broughton.Meg@epa.gov

Obtenga más información en línea en:
<https://www.epa.gov/superfund/vbi70>

Please note: The Denver Post will no longer be issuing paper tears. They will only be a digital copy.

APPENDIX E – INTERVIEWS

VASQUEZ BOULEVARD/I-70 SUPERFUND SITE (OU1) FIVE-YEAR REVIEW INTERVIEW FORM	
Site Name: VASQUEZ BOULEVARD/I-70	
EPA ID:	
Interviewer name:	Interviewer affiliation:
Subject name: Resident 1	Subject affiliation: Swansea Resident
Subject contact information:	
Interview date: 6/13/2024	Interview time: 9:30AM
Interview location:	
Interview format (circle one): In Person Phone Mail Email Other:	
Interview category: Resident	

1. Are you aware of the former environmental issues at the Site and the cleanup activities that have taken place to date? *Yes, his yard was sampled, he believes. His parent’s yard was sampled and remediated. Lifelong Swansea Resident.*

2. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)? *Many people do not know about the Superfund Site as there has been a lot of turnover and other environmental issues that the community is dealing with.*

3. Were you involved with or had an opinion concerning how the cleanup was decided and implemented? *No, too young.*

4. What have been the effects of this Site on the surrounding community, if any? *Community is largely unaware of living in a Superfund Site and he believes that not everyone is aware of general lead risk reduction message.*

5. Have there been any problems with unusual or unexpected activities at the Site, such as emergency response, vandalism or trespassing? *Vandalism and trespassing around Swansea Recreation Center. Some vandalism is common, especially near the park or in the front/entrance of the Swansea Rec Center.*

6. Are you aware of any community concerns regarding the site or its operation and administration? If so, please give details. *He mentions concern about the baseball field(s) within Swansea Park, which to his knowledge, is native soil and has not been remediated. Potential exposure for children playing baseball.*

7. Do you feel well informed about the EPA’s activities and progress? How can the EPA best provide site-related information in the future? *EPA has not been consistently present in the community for a long time. He recommended that EPA utilize local recreation centers and community-based organizations, such as Focus Points, to help spread the message. He also offered community meeting space to EPA.*

8. What extent of community involvement do you wish to have during the future work at the site? *Offered meeting space, and to help spread the word at the local Community Advisory Council, on which he volunteers.*

9. Do you have any comments, suggestions or recommendations regarding any aspects of the project? *No.*

VASQUEZ BOULEVARD/I-70 SUPERFUND SITE (OU1) FIVE-YEAR REVIEW INTERVIEW FORM	
Site Name: VASQUEZ BOULEVARD/I-70	
EPA ID:	
Interviewer name:	Interviewer affiliation:
Subject name: Resident 2	Subject affiliation:
Subject contact information:	
Interview date: 6/26/2024	Interview time: 2:30PM
Interview location: MS Teams	
Interview format (circle one): In Person Phone Mail Email Other: MS Teams	
Interview category: Activist/Stakeholder	

1. Are you aware of the former environmental issues at the Site and the cleanup activities that have taken place to date? *Yes. Very active in the environmental activism space. Originally introduced to this project and this community while working for an elected official. Felt that getting involved was the best thing to do, and she built trust with the community. Became involved with the Community Advisory Group post-remedy, very inspired by the idea that it is the most polluted zip code in the United States.*
2. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)? *The community did not really understand what was going on with the yard cleanups. Also confusion because of the fact that some yards got cleaned up and some others did not. Community, especially younger folks, lacks a true understanding of the history of the area and the “why” of the yard cleanups.*
3. Were you involved with or had an opinion concerning how the cleanup was decided and implemented? *No.*
4. What have been the effects of this Site on the surrounding community, if any? *Confusion and frustration. The community still feels that they have environmental health issues. The yard cleanups did not make anything better in terms of health because there is an understanding that there are many environmental issues—not just the lead in soils. Specific concerns of the Black Parents United Foundation on the prevalence of asthma in the community.*
5. Are you aware of any community concerns regarding the site or its operation and administration? If so, please give details. *There has been information about new lead guidance, and community members are asking if there is going to be a new yard cleanup.*
6. Do you feel well informed about EPA’s activities and progress? How can EPA best provide site-related information in the future? *EPA has communicated a little about the lead guidance change, but for at least a year prior to that, there was no information exchange between CAG and EPA. In prior CAG meetings, EPA often did not answer the questions of the community directly, which generated a lot of frustration.*
7. What extent of community involvement do you wish to have during the future work at the site? *Want to be involved as the leader of the CAG. Suggest billboard, social media, and direct mailers to talk about what we are doing. Engagement in schools is also a great technique. Bilingual and easy to understand. Offering to review materials for EPA.*
8. Do you have any comments, suggestions or recommendations regarding any aspects of the project? *Still frustrated with how long it takes to get government projects done; for-profit projects happen so quickly. Superfund moves at a snail’s pace. It seems like no one is on our side; we are David versus Goliath.*

VASQUEZ BOULEVARD/I-70 SUPERFUND SITE FIVE-YEAR REVIEW INTERVIEW FORM	
Site Name: VASQUEZ BOULEVARD/I-70	
EPA ID:	
Interviewer name: Meg Broughton	Interviewer affiliation: EPA
Subject name: Fonda Apostopoulos	Subject affiliation: CDPHE
Subject contact information:	
Interview date: 6/13/2024	Interview time: 2:30PM
Interview location:	
Interview format (circle one): In Person Phone Mail Email Other: MS Teams	
Interview category: State Agency	

1. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)?
Overall the work that has been performed over the years has made it more protective of human health and the environment. Exposure pathways have been minimized. The people that live in this community have been given ample notice on an annual year and we continue to improve; feels as though everything is working as it is supposed to.

2. What is your assessment of the current performance of the remedy in place at the Site?
*OUI, except for the properties that did not get cleaned up (denied remediation) or denied testing, the exposure pathway is minimized.
OU2 and OU3 – there is not remedy in place yet.*

3. Are you aware of any complaints or inquiries regarding site-related environmental issues or remedial activities from residents in the past five years?
From residents, no. From activists, yes. Residents may have had questions here and there, but no complaining.

4. Has your office conducted any site-related activities or communications in the past five years? If so, please describe the purpose and results of these activities.
Every year, CDPHE sends out letters to properties that aren't sampled or refused remediation. Attended CAG meetings when they were happening. Occasionally a prospective homeowner will reach out to verify the status of a remediated yard.

5. Are you aware of any changes to state laws that might affect the protectiveness of the Site's remedy?
No.

6. Are you comfortable with the status of the institutional controls at the Site? If not, what are the associated outstanding issues?
We have taken care of the concerns we have had in the past. The annual notice letters are part of the ICs at this site. Real estate transactions force people to revisit their property status and remind them of the prior cleanups and sampling.

7. Are you aware of any changes in projected land use(s) at the Site?
From time to time, commercial properties revert to residential. Commercial properties were never sampled so the owners do VCUP.

8. Do you have any comments, suggestions or recommendations regarding the management or operation of the Site's remedy?

The only improvement that could be made is in our communication and engagement of the community—not just activists. We need to focus on re-engaging the actual community residents. We need to focus on getting the right message, with regard to the changing lead guidance.

VASQUEZ BOULEVARD/I-70 SUPERFUND SITE (OU1) FIVE-YEAR REVIEW INTERVIEW FORM	
Site Name: VASQUEZ BOULEVARD/I-70	
EPA ID:	
Interviewer name:	Interviewer affiliation:
Subject name: Former TAG Advisor	Subject affiliation:
Subject contact information:	
Interview date: 7/9/2024	Interview time: 11:00AM
Interview location: In-Person	
Interview format (circle one): <input checked="" type="radio"/> In Person <input type="radio"/> Phone <input type="radio"/> Mail <input type="radio"/> Email <input type="radio"/> Other:	
Interview category: Stakeholder/Activist	

1. Are you aware of the former environmental issues at the Site and the cleanup activities that have taken place to date? *Yes. Aware of the environmental issues at the site. Previously the technical consultant under TAG. Originally became involved when CCoD built out the stormwater drainage at Globeville Park (OU2).*
2. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)? *Satisfied with the original goal and motive of the OUI cleanup. Not satisfied with the sampling techniques used during OUI. Does not agree with the delisting because not confident that the true source of contamination is understood.*
3. Were you involved with or had an opinion concerning how the cleanup was decided and implemented? *No, he was involved later, prior to the delisting.*
4. What have been the effects of this Site on the surrounding community, if any? *When the CAG was functioning effectively for a narrow period, the meetings had been informative, and the community was engaged. But the meetings went south and it was not enticing for community members. So they became disengaged.*
5. Are you aware of any community concerns regarding the site or its operation and administration? If so, please give details. *There has been information about new lead guidance, and community members are asking if there is going to be a new yard cleanup.*
6. Do you feel well informed about EPA's activities and progress? How can EPA best provide site-related information in the future? *Since the CAG stopped meeting regularly, there is almost no information from EPA. Prior to the disbanding of the CAG, the information from EPA had become less and less.*
7. What extent of community involvement do you wish to have during the future work at the site? *If there is a CAG that EPA will re-engage, he would be willing to volunteer his time again.*
8. Do you have any comments, suggestions or recommendations regarding any aspects of the project? *Advising resampling of the previously cleaned up yards to confirm that biological processes have not mobilized contaminants back into the top twelve inches of the soil.*

APPENDIX F – SITE INSPECTION CHECKLIST

FIVE-YEAR REVIEW SITE INSPECTION CHECKLIST																																																													
I. SITE INFORMATION																																																													
Site Name: Vasquez Boulevard and I-70	Date of Inspection: <u>5/23/2024</u>																																																												
Location and Region: Denver, CO Region 8	EPA ID: CO0002259588																																																												
Agency, Office or Company Leading the Five-Year Review: <u>Region 8</u>	Weather/Temperature: <u>Partly cloudy and 75 degrees Fahrenheit</u>																																																												
Remedy Includes: (check all that apply) <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><input type="checkbox"/> Landfill cover/containment</td> <td style="width: 50%; border: none;"><input type="checkbox"/> Monitored natural attenuation</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Access controls</td> <td style="border: none;"><input type="checkbox"/> Groundwater containment</td> </tr> <tr> <td style="border: none;"><input checked="" type="checkbox"/> Institutional controls</td> <td style="border: none;"><input type="checkbox"/> Vertical barrier walls</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Groundwater pump and treatment</td> <td></td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Surface water collection and treatment</td> <td></td> </tr> <tr> <td style="border: none;"><input checked="" type="checkbox"/> Other: <u>Soil removal</u></td> <td></td> </tr> </table>		<input type="checkbox"/> Landfill cover/containment	<input type="checkbox"/> Monitored natural attenuation	<input type="checkbox"/> Access controls	<input type="checkbox"/> Groundwater containment	<input checked="" type="checkbox"/> Institutional controls	<input type="checkbox"/> Vertical barrier walls	<input type="checkbox"/> Groundwater pump and treatment		<input type="checkbox"/> Surface water collection and treatment		<input checked="" type="checkbox"/> Other: <u>Soil removal</u>																																																	
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Attachments: <input checked="" type="checkbox"/> Inspection team roster attached <input checked="" type="checkbox"/> Site map attached																																																													
II. INTERVIEWS (check all that apply)																																																													
1. O&M Site Manager <table style="width: 100%; border: none; margin-top: 5px;"> <tr> <td style="width: 30%; text-align: center;">_____</td> <td style="width: 30%; text-align: center;">_____</td> <td style="width: 40%; text-align: center;">_____</td> </tr> <tr> <td style="text-align: center;">Name</td> <td style="text-align: center;">Title</td> <td style="text-align: center;">Date</td> </tr> <tr> <td colspan="3">Interviewed <input type="checkbox"/> at site <input type="checkbox"/> at office <input type="checkbox"/> by phone Phone: _____</td> </tr> <tr> <td colspan="3">Problems, suggestions <input type="checkbox"/> Report attached: _____</td> </tr> </table>		_____	_____	_____	Name	Title	Date	Interviewed <input type="checkbox"/> at site <input type="checkbox"/> at office <input type="checkbox"/> by phone Phone: _____			Problems, suggestions <input type="checkbox"/> Report attached: _____																																																		
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3. Local Regulatory Authorities and Response Agencies (i.e., state and tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices). Fill in all that apply. Agency <u>CPDHE</u> <table style="width: 100%; border: none; margin-top: 5px;"> <tr> <td style="width: 20%;">Contact</td> <td style="width: 30%;"><u>Fonda Apostopoulos</u></td> <td style="width: 15%; text-align: center;">_____</td> <td style="width: 15%; text-align: center;">_____</td> <td style="width: 20%; text-align: center;">_____</td> </tr> <tr> <td></td> <td style="text-align: center;">Name</td> <td style="text-align: center;">Title</td> <td style="text-align: center;">Date</td> <td style="text-align: center;">Phone</td> </tr> <tr> <td colspan="5">Problems/suggestions <input type="checkbox"/> Report attached: _____</td> </tr> </table> Agency _____ <table style="width: 100%; border: none; margin-top: 5px;"> <tr> <td style="width: 20%;">Contact</td> <td style="width: 30%;">_____</td> <td style="width: 15%; text-align: center;">_____</td> <td style="width: 15%; text-align: center;">_____</td> <td style="width: 20%; text-align: center;">_____</td> </tr> <tr> <td></td> <td style="text-align: center;">Name</td> <td style="text-align: center;">Title</td> <td style="text-align: center;">Date</td> <td style="text-align: center;">Phone</td> </tr> <tr> <td colspan="5">Problems/suggestions <input type="checkbox"/> Report attached: _____</td> </tr> </table> Agency _____ <table style="width: 100%; border: none; margin-top: 5px;"> <tr> <td style="width: 20%;">Contact</td> <td style="width: 30%;">_____</td> <td style="width: 15%; text-align: center;">_____</td> <td style="width: 15%; text-align: center;">_____</td> <td style="width: 20%; text-align: center;">_____</td> </tr> <tr> <td></td> <td style="text-align: center;">Name</td> <td style="text-align: center;">Title</td> <td style="text-align: center;">Date</td> <td style="text-align: center;">Phone</td> </tr> <tr> <td colspan="5">Problems/suggestions <input type="checkbox"/> Report attached: _____</td> </tr> </table> Agency _____ <table style="width: 100%; border: none; margin-top: 5px;"> <tr> <td style="width: 20%;">Contact</td> <td style="width: 30%;">_____</td> <td style="width: 15%; text-align: center;">_____</td> <td style="width: 15%; text-align: center;">_____</td> <td style="width: 20%; text-align: center;">_____</td> </tr> <tr> <td></td> <td style="text-align: center;">Name</td> <td style="text-align: center;">Title</td> <td style="text-align: center;">Date</td> <td style="text-align: center;">Phone</td> </tr> <tr> <td colspan="5">Problems/suggestions <input type="checkbox"/> Report attached: _____</td> </tr> </table>		Contact	<u>Fonda Apostopoulos</u>	_____	_____	_____		Name	Title	Date	Phone	Problems/suggestions <input type="checkbox"/> Report attached: _____					Contact	_____	_____	_____	_____		Name	Title	Date	Phone	Problems/suggestions <input type="checkbox"/> Report attached: _____					Contact	_____	_____	_____	_____		Name	Title	Date	Phone	Problems/suggestions <input type="checkbox"/> Report attached: _____					Contact	_____	_____	_____	_____		Name	Title	Date	Phone	Problems/suggestions <input type="checkbox"/> Report attached: _____				
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Agency _____	Contact _____	Name _____	Title _____	Date _____	Phone _____
Problems/suggestions <input type="checkbox"/> Report attached: _____					
4. Other Interviews (optional) <input checked="" type="checkbox"/> Report attached: _____					
Residents					
Former TAG advisor					
III. ON-SITE DOCUMENTS AND RECORDS VERIFIED (check all that apply)					
1. O&M Documents					
<input type="checkbox"/> O&M manual	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A		
<input type="checkbox"/> As-built drawings	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A		
<input type="checkbox"/> Maintenance logs	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A		
Remarks: _____					
2. Site-Specific Health and Safety Plan					
<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A			
<input type="checkbox"/> Contingency plan/emergency response plan	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A		
Remarks: _____					
3. O&M and OSHA Training Records					
<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A			
Remarks: _____					
4. Permits and Service Agreements					
<input type="checkbox"/> Air discharge permit	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A		
<input type="checkbox"/> Effluent discharge	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A		
<input type="checkbox"/> Waste disposal, POTW	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A		
<input type="checkbox"/> Other permits: _____	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A		
Remarks: _____					
5. Gas Generation Records					
<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A			
Remarks: _____					
6. Settlement Monument Records					
<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A			
Remarks: _____					
7. Groundwater Monitoring Records					
<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A			
Remarks: _____					
8. Leachate Extraction Records					
<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A			
Remarks: _____					
9. Discharge Compliance Records					
<input type="checkbox"/> Air	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A		
<input type="checkbox"/> Water (effluent)	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A		
Remarks: _____					

10.	Daily Access/Security Logs	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____				
IV. O&M COSTS				
1.	O&M Organization	<input checked="" type="checkbox"/> State in-house	<input type="checkbox"/> Contractor for state	
		<input type="checkbox"/> PRP in-house	<input type="checkbox"/> Contractor for PRP	
		<input type="checkbox"/> Federal facility in-house	<input type="checkbox"/> Contractor for Federal facility	
		<input type="checkbox"/> _____		
2.	O&M Cost Records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	
		<input type="checkbox"/> Funding mechanism/agreement in place	<input checked="" type="checkbox"/> Unavailable	
	Original O&M cost estimate: _____ <input type="checkbox"/> Breakdown attached			
	Total annual cost by year for review period if available			
	From: _____	To: _____	_____	<input type="checkbox"/> Breakdown attached
	Date	Date	Total cost	
	From: _____	To: _____	_____	<input type="checkbox"/> Breakdown attached
	Date	Date	Total cost	
	From: _____	To: _____	_____	<input type="checkbox"/> Breakdown attached
	Date	Date	Total cost	
	From: _____	To: _____	_____	<input type="checkbox"/> Breakdown attached
	Date	Date	Total cost	
	From: _____	To: _____	_____	<input type="checkbox"/> Breakdown attached
	Date	Date	Total cost	
3.	Unanticipated or Unusually High O&M Costs during Review Period			
	Describe costs and reasons: _____			
V. ACCESS AND INSTITUTIONAL CONTROLS <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A				
A. Fencing				
1.	Fencing Damaged	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Gates secured	<input checked="" type="checkbox"/> N/A
Remarks: _____				
B. Other Access Restrictions				
1.	Signs and Other Security Measures	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> N/A	
Remarks: _____				
C. Institutional Controls (ICs)				

1.	Implementation and Enforcement	
	Site conditions imply ICs not properly implemented	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
	Site conditions imply ICs not being fully enforced	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
	Type of monitoring (e.g., self-reporting, drive by): _____	
	Frequency: _____	
	Responsible party/agency: _____	
	Contact _____	_____
	Name	Title
		Date
		Phone
	Reporting is up to date	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
	Reports are verified by the lead agency	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
	Specific requirements in deed or decision documents have been met	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
	Violations have been reported	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
	Other problems or suggestions: <input type="checkbox"/> Report attached	
2.	Adequacy <input checked="" type="checkbox"/> ICs are adequate <input type="checkbox"/> ICs are inadequate <input type="checkbox"/> N/A	
	Remarks: _____	
D. General		
1.	Vandalism/Trespassing <input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> No vandalism evident	
	Remarks: _____	
2.	Land Use Changes On-Site <input type="checkbox"/> N/A	
	Remarks: <u>There are some individual properties that may have shifted between vacant, residential, commercial, industrial, parks or schools.</u>	
3.	Land Use Changes Off-Site <input checked="" type="checkbox"/> N/A	
	Remarks: _____	
VI. GENERAL SITE CONDITIONS		
A. Roads	<input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A	
1.	Roads Damaged <input type="checkbox"/> Location shown on site map <input type="checkbox"/> Roads adequate <input type="checkbox"/> N/A	
	Remarks: _____	
B. Other Site Conditions		
	Remarks: <u>Some properties have bare soil. This is not an issue with the current selected remedy, but as the EPA evaluates the impact of the new lead screening levels, the protectiveness of these properties is unknown.</u>	
VII. LANDFILL COVERS <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A		
VIII. VERTICAL BARRIER WALLS <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A		
IX. GROUNDWATER/SURFACE WATER REMEDIES <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A		
X. OTHER REMEDIES		
If there are remedies applied at the site and not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.		

XI. OVERALL OBSERVATIONS	
A.	Implementation of the Remedy
	Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is designed to accomplish (e.g., to contain contaminant plume, minimize infiltration and gas emissions). <u>For those properties with lead and/or arsenic concentrations above action levels, removal of contaminated residential soils with off-site disposal prevents direct contact with contaminated soils. Implementation of institutional controls at residential properties where sampling and/or soil removal was not consented to by the property owners notifies present property owners and current residents of the contaminated soils or potentially contaminated soils at the properties.</u>
B.	Adequacy of O&M
	Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy. <u>Not applicable.</u>
C.	Early Indicators of Potential Remedy Problems
	Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future. <u>On January 17, 2024, the EPA issued the Updated Soil Lead Guidance for CERCLA sites and RCRA Corrective Action Facilities that lowered recommended RSLs for lead-contaminated soil. In accordance with the guidance, these new screening levels will be used to determine whether further investigation is warranted and whether more response actions are necessary for the remedy to remain protective.</u>
D.	Opportunities for Optimization
	Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. <u>None noted.</u>

Site Inspection Roster:

Jessica Duggan, EPA
 Rebecca Geyer, EPA
 Meg Broughton, EPA
 Fonda Apostolopoulos, CDPHE
 Lauren Whitney, CDPHE
 Treat Suomi, Skeo

Inspection stops:

1. Meet at Swansea Recreation Center (2650 E 49th Ave., Denver, CO 80216)
2. Tour are near Swansea Rec Center, including Swansea Park, and couple of remediated yards on NW corner of Adams & Beekman Place.
3. Dunham Park (4401 Clayton St., Denver, CO 80216); (remediated homes near Clayton and E. 44th Ave. or Thompson St. and E. 45th Ave.). Near this area it looks like 4344 Steele Street was not remediated and has ICs or “notice of environmental conditions” in Appendix H of the 2019 FYR. Also a couple of other properties on Steele Street further south are also on the list of “notice of environmental conditions.”
4. Drive south on Steele Street.
5. Bruce Randolph School (3955 Steele St., Denver, CO 80205)
6. Remediated yards on NE corner of St. Paul St. and E. 36th Ave.
7. Travel west on E. 37th Ave., possible stop at Schafer Park.
8. Stop near E. 37th Ave. and Vine Street (Russell Square Park). Remediated properties on NE corner of E. 37th Ave. and Vine Street.
9. St. Charles Recreation Center (3777 Lafayette St., Denver, CO 80205). Remediation on Marion Street, north and south of E. 37th Street. 3548 Marion Street is on the “notice of environmental conditions” or ICs on the properties.

10. The Fox Street and W. 42nd Ave. area are identified as having remediation but from the aerial images, it may be in or adjacent to the RTD stations (Fox and 41st station).
11. 4419 Cherokee Street, Denver – In-home daycare with ~250ppm Pb. Located near 41st and Fox.

APPENDIX G – SITE INSPECTION PHOTOS



Grassy, fenced yard and sloped yard in OU-1



Yard with bare dirt and swing at intersection of Steele Street and Beekman Place



Fenced, bare backyards



Home with bare yard and playground equipment along Clayton Street



Dunham Park



Fronts of homes with bare backyards



Home with paved driveway



Home next to property with institutional controls



Property with institutional controls along Steele Street



Grass and turf fields at a middle school



Martin J. Schafer Park



Turf and grass at Wyatt Academy



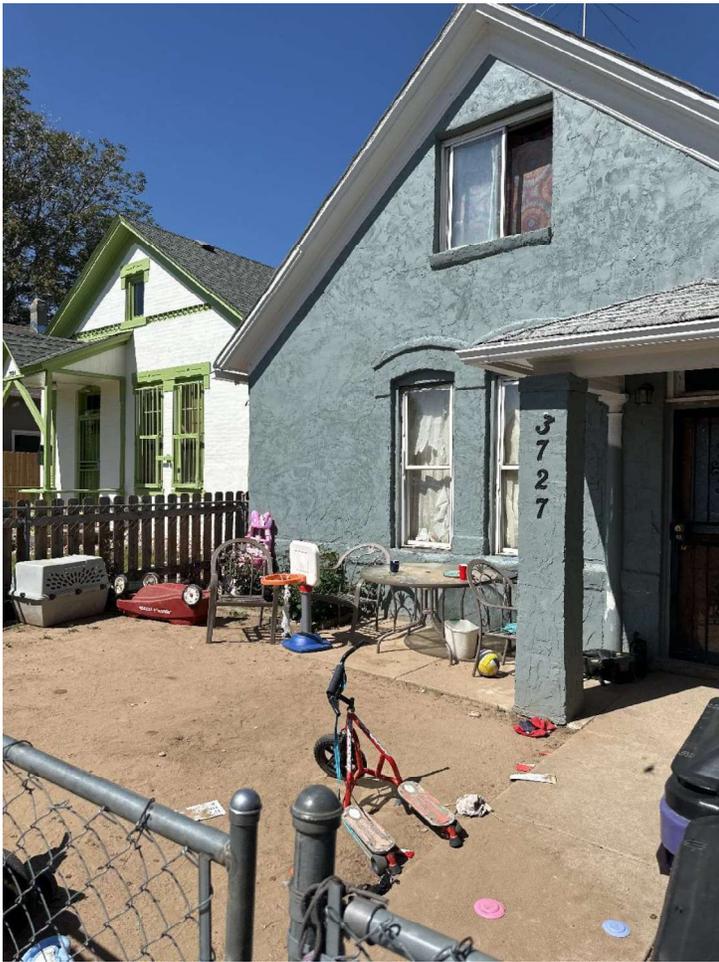
Entrance to Wyatt Academy



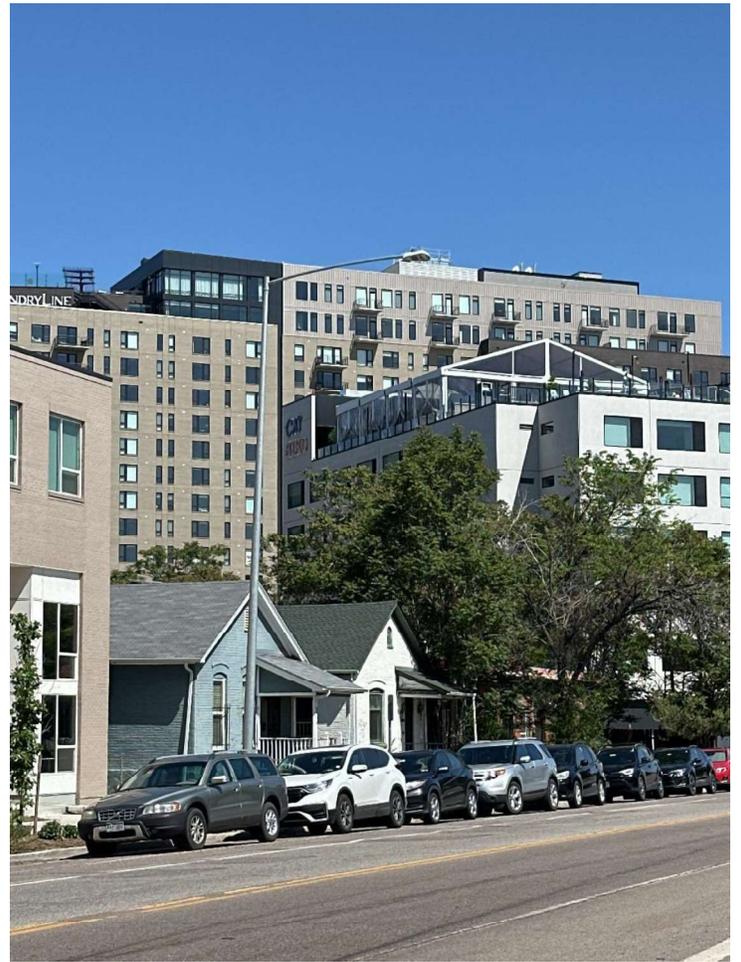
Remediated property now used for parking and storage



Remediated property with grassy yard



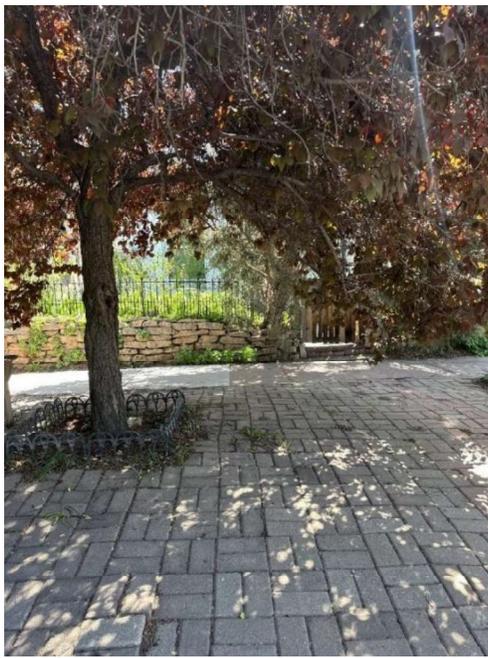
Property with bare yard



Remediated properties surrounded by new buildings along 42nd Street



St. Charles Recreation Center



Home with institutional controls



Home registered as hosting a daycare

APPENDIX H – INSTITUTIONAL CONTROL SUPPLEMENTAL INFORMATION

Table H-1: Properties with Notice of Environmental Conditions

Property Address	Property Parcel ID	Reception Number	Date Recorded
4344 STEELE ST	160762423	2014059506	5/23/2014
3928 STEELE ST	160772305	2014074076	6/25/2014
3430 JACKSON ST	160778966	2014074069	6/25/2014
3311 SAINT PAUL ST	160784222	2014088507	7/24/2014
3421 VINE ST	160801429	2014074067	6/25/2014
3351 GAYLORD ST	160802191	2014074066	6/25/2014
3624 GILPIN ST	160805556	2014074075	6/25/2014
3548 MARION ST	160806811	2014074073	6/25/2014
3518 MARION ST	160806862	2014074070	6/25/2014

Table H-2: Properties with Notice of Potential Environmental Conditions

Property Address	Property Parcel ID	Reception Number	Date Recorded
5125 STEELE ST	160638587	2014074146	6/25/2014
4976 FILLMORE ST	160640417	2014074144	6/25/2014
4823 STEELE ST	160641375	2014074143	6/25/2014
5017 ADAMS ST	160643696	2014074145	6/25/2014
4644 WILLIAMS ST	160756121	2014088509	7/24/2014
4675 HIGH ST	160756245	2015098106	7/16/2015
4685 HIGH ST	160756261	2015098105	7/16/2015
4780 SAINT PAUL CT	160762911	2014074142	6/25/2014
4735 MILWAUKEE ST	160763331	2014074141	6/25/2014
4653 COLUMBINE ST	160765066	2014074138	6/25/2014
4657 COLUMBINE ST	160765074	2014074139	6/25/2014
4611 CLAYTON ST	160765384	2014074137	6/25/2014
4431 ELIZABETH ST	160766836	2014074135	6/25/2014
2736 E 44TH AVE	160768251	2014074081	6/25/2014
4114 STEELE ST	160771121	2014074133	6/25/2014
3986 ADAMS ST	160772461	2014074132	6/25/2014
3811 MADISON ST	160773816	2014074131	6/25/2014
3626 MADISON ST	160776009	2014074124	6/25/2014
3434 GARFIELD ST	160778851	2014074111	6/25/2014
3737 FILLMORE ST	160781029	2014074129	6/25/2014
3620 CLAYTON ST	160781649	2014074122	6/25/2014
3528 COLUMBINE ST	160782777	2014074118	6/25/2014
3324 ELIZABETH ST	160784664	2014074109	6/25/2014
3526 GAYLORD ST	160800465	2014074117	6/25/2014
3244 HIGH ST	160802646	2014074106	6/25/2014
3753 FRANKLIN ST	160804207	2014074130	6/25/2014

3514 WILLIAMS ST	160805955	2014074115	6/25/2014
1526 E 35TH AVE	160807729	2014074078	6/25/2014
3439 WILLIAMS ST	160808326	2014074112	6/25/2014
1633 E 33RD AVE	160809152	2014074079	6/25/2014
3326 MARION ST	160809527	2014074110	6/25/2014
3242 WILLIAMS ST	160810169	2014074105	6/25/2014
4115 GARFIELD ST	162873094	2014074134	6/25/2014
5190 MILWAUKEE ST	163041691	2014074147	6/25/2014
3611 MILWAUKEE ST	163126327	2014074121	6/25/2014
2626 BRUCE RANDOLPH AVE	160784753	2014074080	6/25/2014
3227 MILWAUKEE ST #5	162924098	2014074082	6/25/2014
3500 BRUCE RANDOLPH AVE	160779440	2014074114	6/25/2014
3541-3547 COLUMBINE ST	160782912	2014074119	6/25/2014
3624-3626 JOSEPHINE ST	160781355	2014074123	6/25/2014
4447 COOK ST VCNT	160762024	2014074136	6/25/2014
4677 HIGH ST	160756253	2015098103	7/16/2015
4679 HIGH ST	160756261	2015098104	7/16/2015

APPENDIX I – SAMPLE INFORMATIONAL LETTERS

To whom it may concern...

This letter serves to inform you that the yard soil at the property listed above *may* have elevated levels of lead and/or arsenic. Lead is a heavy metal and arsenic a metal-like element. Both can cause serious health problems in people who are exposed via contaminated soil, dust, or other means. Steps you can take to reduce exposure to these possible contaminants in your soil are provided in the attached information sheet.

As part of the Vasquez Boulevard & Interstate 70 (VB/I-70) Superfund Site, the U.S. Environmental Protection Agency (EPA) and the Colorado Department of Public Health and Environment (CDPHE) conducted a thorough environmental investigation and cleanup of residential soils in your area from 1999-2014. This involved sampling each residential property if the property owner provided written access. Despite numerous attempts over many years, including mailings, meetings, flyers, door-to-door efforts and more, we were not granted access from the property owner(s) to sample this property. Thus, we can only tell you that your yard *may* have lead or arsenic at levels that would pose a health risk.

For perspective, of the thousands of properties that EPA and CDPHE did sample, approximately 20 percent had lead and/or arsenic in soil at levels posing unacceptable risk. The rest of the properties sampled, the majority, had levels of lead and/or arsenic below our level of concern and required no further action.

Although EPA and CDPHE do not have soil sampling data for this property, EPA and CDPHE consider it important to inform future buyers and current and future residents, including tenants, that this property *may* have soil contamination. Accordingly, EPA recorded a Notice of Potential Environmental Conditions with the the city and county of Denver Clerk and Recorder's office. In addition, this letter is mailed annually to both the property address and the property owner's address, if different.

Please refer to the *Dirt Alert* handout enclosed with this letter. You may obtain additional information at the following Website: <http://www.cdc.gov/nceh/lead/tips.htm>. You may also contact Fonda Apostolopoulos at the Colorado Department of Public Health and the Environment at 303-692-3411 for further information. For more information about the VB/I-70 Superfund Site, please visit: .

Sincerely,
Jeannine Natterman, Public Involvement Coordinator

A quien corresponda...

Esta carta tiene el objetivo de informarle que la tierra del suelo de la propiedad que se menciona *podría* tener altos niveles de plomo o arsénico. El plomo es un metal pesado y el arsénico un elemento similar al metal. Ambos pueden causar problemas de salud graves en personas que se exponen a través de suelo o polvo contaminados o por otras vías. En la hoja informativa que se adjunta, se incluyen medidas que puede tomar para reducir la exposición a estos posibles contaminantes en su suelo.

Como parte de Vasquez Boulevard & Interstate 70 (VB/I-70) Superfund Site, la U.S. Environmental Protection Agency (EPA) y el Colorado Department of Public Health and Environment (CDPHE) realizaron una investigación ambiental exhaustiva y limpieza de los suelos residenciales en su área entre 1999 y 2014. Esto implicó la recolección de muestras en cada propiedad residencial si el propietario otorgaba acceso por escrito. A pesar de numerosos intentos a lo largo de los años, lo que incluyó cartas, reuniones, folletos, esfuerzos puerta a puerta y más, no obtuvimos acceso del propietario para tomar una muestra en esta propiedad. Por lo tanto, solo podemos informarle que su patio *podría* tener niveles de plomo y arsénico que podría suponer un riesgo para la salud.

Para tener una idea, de las miles de propiedades en las que la EPA y el CDPHE tomaron una muestra, aproximadamente el 20 % tenían niveles de plomo y arsénico de un riesgo aceptable. El resto de las propiedades evaluadas, la mayoría, tenían niveles de plomo y arsénico no preocupantes y no requirieron mayor atención.

Si bien la EPA y el CDPHE no tienen datos de muestras para esta propiedad, la EPA y el CDPHE consideran que es importante informar a futuros compradores y residentes actuales y futuros, incluidos inquilinos, que esta propiedad *podría* tener contaminación en el suelo. Por eso, la EPA presentó un Aviso de posibles condiciones ambientales en la oficina del Secretario y registrador de la ciudad y el condado de Denver. Además, esta carta se envía anualmente por correo a la dirección de la propiedad y la dirección del propietario, si son diferentes.

Consulte el folleto “**¡Alerta de Tierra Contaminada!**” incluido en esta carta. Puede obtener información adicional en el siguiente sitio web: <http://www.cdc.gov/nceh/lead/tips.htm>. También puede comunicarse con Fonda Apostolopoulos en el Colorado Department of Public Health and the Environment al 303-692-3411 para obtener más información.

Para más información sobre sitio de VB/I-70 Superfund, visite .
Atentamente,

Jeannine Natterman
Coordinadora de participación pública

Mr. Stevenson Holmes Jr.
Ms. Sylvia H. Williams
2914 Shoreside Drive
Pearland, Texas 77584-7182

To whom it may concern...

This letter serves to inform you that the yard soil at the property listed above has elevated levels of lead and/or arsenic. Lead is a heavy metal and arsenic is a metal-like element. Both can cause serious health problems in people who are exposed via contaminated soil, dust, or other means. Steps you can take to reduce exposure to these possible contaminants in your soil are provided in the attached information sheet.

As part of the Vasquez Boulevard & Interstate 70 (VB/I-70) Superfund Site, the U.S. Environmental Protection Agency (EPA) and the Colorado Department of Public Health and the Environment (CDPHE) conducted a thorough environmental investigation and cleanup of residential soils in your area from 1999-2014. This involved sampling each residential property if the property owner provided written access. EPA and CDPHE were granted access to sample this property, and the sampling showed that the soil had lead or arsenic above acceptable levels. However, despite numerous attempts over many years, including mailings, meetings, flyers, door-to-door efforts and more, we were not granted access from the property owner(s) to clean up this property.

This annual letter is a means of informing future buyers and current and future residents, including tenants, that the soil at this property has lead and/or arsenic at levels EPA considers unacceptable. EPA also recorded a Notice of Environmental Conditions in the property file for this property at the city and county of Denver Clerk and Recorder's office to inform future buyers of these known conditions at this property. In addition, an annual letter is mailed to both the property address and the property owner's address, if different.

Please refer to the "***Dirt Alert***" handout enclosed with this letter. You may obtain additional information at the following Website: <http://www.cdc.gov/nceh/lead/tips.htm> You may also contact Fonda Apostolopoulos at the Colorado Department of Public Health and the Environment at 303-692-3411 for further information.

For more information, please visit the EPA VB/I-70 Website at:
<https://cdphe.colorado.gov/vasquez-blvd-i70-superfund-site>.

Sincerely,

Jeannine Natterman
Public Involvement Coordinator

A quien corresponda...

Esta carta tiene el objetivo de informarle que la tierra del suelo de la propiedad que se menciona tiene altos niveles de plomo o arsénico. El plomo es un metal pesado y el arsénico un elemento similar al metal. Ambos pueden causar problemas de salud graves en personas que se exponen a través de suelo o polvo contaminados o por otras vías. En la hoja informativa que se adjunta, se incluyen medidas que puede tomar para reducir la exposición a estos posibles contaminantes en su suelo.

Como parte de Vasquez Boulevard & Interstate 70 (VB/I-70) Superfund Site, la U.S. Environmental Protection Agency (EPA) y el Colorado Department of Public Health and Environment (CDPHE) realizaron una investigación ambiental exhaustiva y limpieza de los suelos residenciales en su área entre 1999 y 2014. Esto implicó la recolección de muestras en cada propiedad residencial si el propietario otorgaba acceso por escrito. La EPA y el CDPHE recibieron permiso para tomar muestras de esta propiedad y las muestras mostraron que el suelo tenía niveles de plomo o arsénico por encima de lo aceptable. A pesar de numerosos intentos a lo largo de los años, lo que incluyó cartas, reuniones, folletos, esfuerzos puerta a puerta y más, no obtuvimos acceso del propietario para realizar la limpieza de esta propiedad.

Esta carta anual tiene por objeto informar a futuros compradores y residentes actuales y futuros, incluidos inquilinos, que el suelo en esa propiedad tiene niveles de plomo o arsénico que la EPA considera inaceptables. La EPA también registró un Aviso de condiciones ambientales en el archivo de propiedad para esta propiedad en la oficina del Secretario y registrador de la ciudad y el condado de Denver para informar a futuros compradores sobre estas condiciones conocidas de esta propiedad. Además, se envía una carta anual por correo a la dirección de la propiedad y la dirección del propietario, si son diferentes.

Consulte el folleto "**Alerta de Tierra Contaminada**" incluido en esta carta. Puede obtener información adicional en el siguiente sitio web: <http://www.cdc.gov/nceh/lead/tips.htm> También puede comunicarse con Fonda Apostolopoulos en el Colorado Department of Public Health and the Environment al 303-692-3411 para obtener más información.

Para más información, visite el sitio web de EPA VB/I-70:

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Atentamente,
Jeannine Natterman, Coordinadora de participación pública

APPENDIX J – SUPPLEMENTAL PARCEL DATA

Parcel data in the OU-1 boundary were evaluated to determine properties that may be affected by the EPA's Updated Soil Lead Guidance for CERCLA sites and RCRA Corrective Action Facilities. This FYR identified the following schools and parks within the OU-1 boundary.

Schools

Early Excellence Preschool
Wyatt Academy Charter School
Bruce Randolph School
Swansea Elementary School
The Educare School at Clayton Early Learning Preschool
Colorado High School Charter
Mile High Early Learning Preschool Northeast
Harrington Elementary School
Former Inner-City School property (3550 N Josephine Street)
University Prep Elementary School Steele Street
Hope Center Early Childhood Education

Parks

Russell Square Park
Globeville Landing Park
Lorraine Granado Community Park
Saint Charles Place Park
Elyria Park
City of Nairobi Park
Dunham Park
Swansea Park
Schafer Park

Tables J-1 summarizes the sample results at properties not previously remediated.

Table J-1: Lead Sample Results at Properties Not Previously Remediated

Lead Sample Results	Number of Properties
Less than 100 mg/kg	779
100-200 mg/kg	1,572
200-400 mg/kg	1,258
Greater than 400 mg/kg	9