

**SIXTH FIVE-YEAR REVIEW REPORT FOR
ALLIED PLATING, INC. SUPERFUND SITE
MULTNOMAH COUNTY, OREGON**



JULY 2023

Prepared by

**U.S. Environmental Protection Agency
Region 10
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Date

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LIST OF ABBREVIATIONS & ACRONYMS

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	Contaminant of Concern
CSO	Combined Sewer Overflow
DEQ	Department of Environmental Quality
EPA	United States Environmental Protection Agency
FYR	Five-Year Review
HI	Hazard Index
HQ	Hazard Quotient
IC	Institutional Control
MCL	Maximum Contaminant Level
mg/kg	Milligrams per Kilogram
NA	Not Available
NCP	National Contingency Plan
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
MLK	Martin Luther King
O&M	Operation and Maintenance
OU	Operable Unit
PFAS	Perfluoroalkyl Sulfonate
ppb	Parts per Billion
PRP	Potentially Responsible Party
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
ROD	Record of Decision
RPM	Remedial Project Manager
RSL	Regional Screening Level
UU/UE	Unlimited Use and Unrestricted Exposure
TCRA	Time-critical removal action

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 Contingency Plan (NCP) (40 Code of Federal Regulations (CFR) Section 300.430(f)(4)(ii)) and considering EPA policy.

This is the sixth FYR for the Allied Plating, Inc., Superfund Site (Site). 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).¹

The Site consists of one operable unit (OU), which is the focus of this FYR which addresses contaminated soil, sediment, surface water, and groundwater.

The Allied Plating, Inc. Superfund Site FYR was led by Laura Hanna, EPA Region 10 Remedial Project Manager (RPM). A site inspection to inform this FYR was performed on 12/1/2022. Site visit participants also included Sarah Miller from Oregon Department of Environmental Quality (DEQ) and Johnny Zimmerman-Ward from the EPA support contractor, Skeo.

Site Background

The 12-acre Site is located at 8135 Martin Luther King, Jr. (MLK) Boulevard and is part of an industrial and commercial district in northeast Portland, Oregon (Figure 1). There are three main areas at the Site: the former administrative and storage buildings; the former layout area (the location of the former plating operations building and storage yard); and the former impoundment area, which is located in a low-lying area of the Site (Figure 2). The Basic Fire Protection Company, which makes and installs fire prevention sprinkler systems, operates on the eastern part of the former administrative area. A freight shipping and hauling company, 5 Star Hauling LLC, uses the western part of the former administrative area for storage and vehicle parking. The Pacific Coast Fruit Company operates in the former layout area. The former impoundment area is used for truck maintenance and storage.

The past and current land use for the Site is industrial and commercial. The impoundment area and the former administrative building are zoned as Heavy Industrial (zoning code IH) and the former layout area is zoned as General Employment 2 (zoning code EG2) by the City of Portland (Chapter 33.140 [Portland Maps 2023]). Chapter 33.140.030(A) states the “emphasis of the zones (e.g., general employment) is on industrial, industrially-related, and office uses”. Both zoning codes IH and EG2 are considered industrial. In the future, it is likely that the area will remain industrial, however, residential use of the area is a remote possibility if zoning changes.

The Site is adjacent to industrial and manufacturing businesses to the north, west and east, and a restaurant to the south. Two hotels, the Holiday Hotel and the Portland Inn are located approximately 750 feet to the southeast of the Site across MLK Boulevard. To the north/northeast, on the other side of the Columbia Slough (Slough) is a mobile home park with 180 mobile homes that is located within approximately 1,200 feet of the Site and is accessible by bridge.

The Site slopes slightly to the north and in the early 1960s drained into the Slough, which is located 1,000 feet

¹ The 2013 FYR Report indicated that FYRs may no longer be necessary. EPA will continue to conduct FYRs at the Site because contaminant levels do not allow UU/UE.

west of the Site (Figure 1). The Slough flows northwest for approximately 6 miles before merging with the Willamette River.

A combined sewer overflow (CSO) pipeline runs in a northerly direction under the former impoundment area to an outfall in the Slough. The CSO line is a 36-inch square pipe constructed in 1928. During the 1992 removal action (described below in Section II) a remote-control video camera was used to inspect the pipeline. The pipeline appeared to be in good condition, and therefore not considered a conduit for drainage from the pond.

Appendix A lists additional resources used in preparation of this FYR Report. Appendix B provides the Site's chronology of events.

Groundwater

A single unconfined aquifer, the Troutdale Aquifer generally flows to the northwest, is located beneath the Site at about 10 feet below mean sea level. A localized perched shallow zone was found above the Troutdale Aquifer beneath the impoundment area, as reported in the Remedial Investigation (RI). This zone was located 5 feet below the surface (equating to 15 feet above mean sea level).

Following the draining of the pond, backfilling, and paving (described below in Section II), it can be surmised that this perched aquifer is no longer there or is significantly smaller. EPA has not, however, investigated to determine its current conditions. Groundwater is used by nearby facilities for irrigation and industrial processing, but drinking water at the Site and in the vicinity is provided by the City of Portland.

Site History and Activities Leading to Contamination

Available data indicate that prior to 1947, the site was vacant and most likely utilized as pasture. In 1947, the site was leased for use as a wrecking yard. In 1957, the building was leased by Allied Plating, Inc. as a chrome plating facility which operated until 1984 when the company declared bankruptcy and ceased operations.

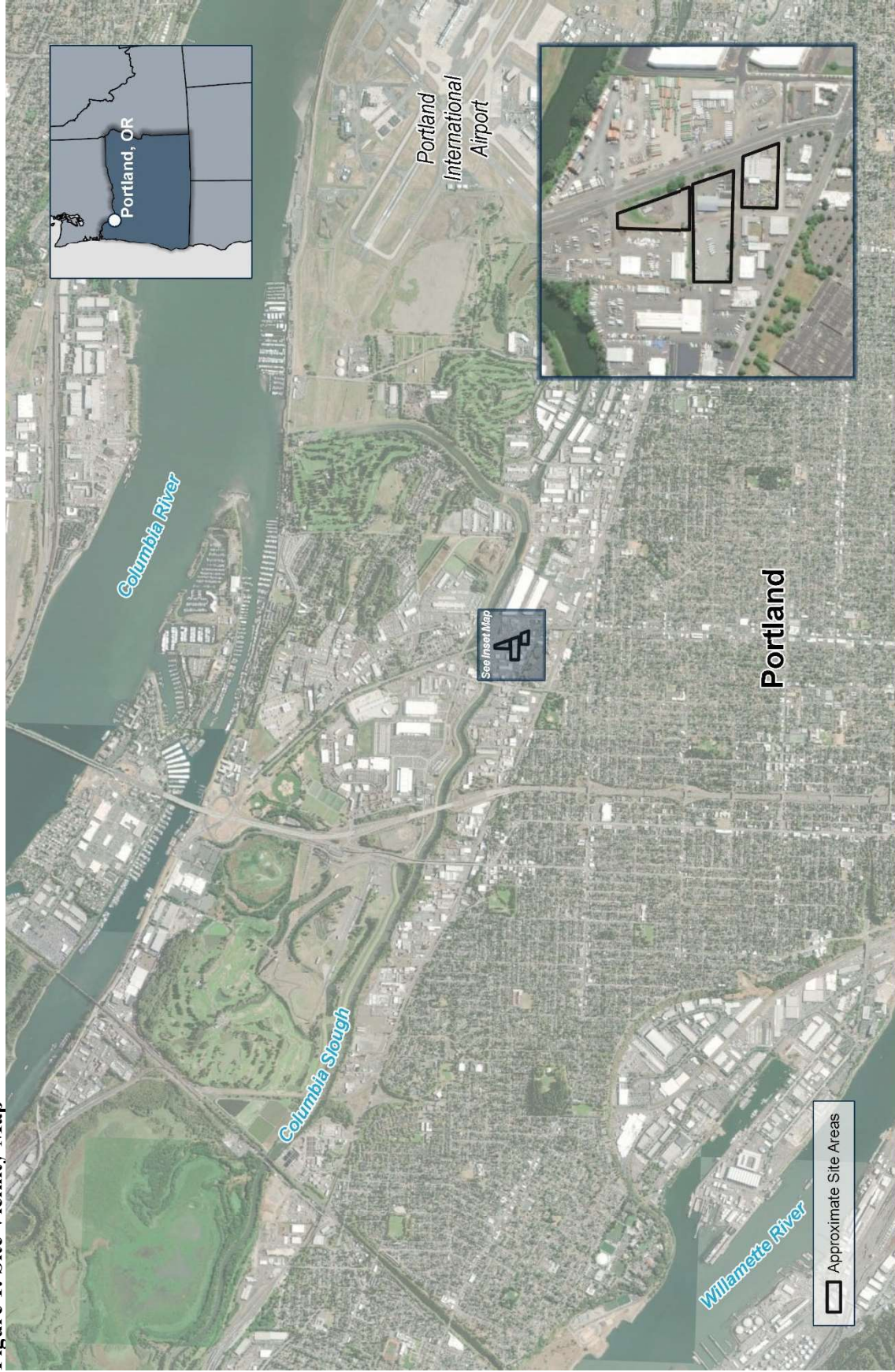
For over 25 years, the company discharged untreated wastewater into an unlined impoundment onsite, which was the main source of environmental contamination. Wastewater from plating operations was discharged to a swale draining to the Slough. Fill activities after 1969 altered the topography and cut off drainage to the Slough, which caused wastewater to collect in the impoundment area pond. The metals in the plating wastewater precipitated out, forming a layer of contaminated material on the bottom of the impoundment area. The former impoundment area pond was approximately 1.5 acres and 3 feet deep and was removed during the 1992 removal action (water and sediment base) and backfilled with quarry spalls.

Plating activities and waste disposal practices contaminated the perched shallow groundwater, surface water, sediment, and soil with metals. The contamination of the Site was mainly limited to the layer of plating waste in the impoundment area which primarily impacted the soil within the top six to 12 inches and concentrations decreased with depth.

FIVE-YEAR REVIEW SUMMARY FORM

SITE IDENTIFICATION		
Site Name: Allied Plating, Inc.		
EPA ID: ORD009051442		
Region: 10	State: OR	City/County: Portland/Multnomah
SITE STATUS		
NPL Status: Final		
Multiple Ous? No	Has the Site achieved construction completion? Yes	
REVIEW STATUS		
Lead agency: EPA		
Author name: Laura Hanna, with additional support provided by Skeo		
Author affiliation: EPA Region 10		
Review period: 8/23/2022 – 7/25/2023		
Date of Site inspection: 12/1/2022		
Type of review: Statutory		
Review number: 6		
Triggering action date: 7/25/2018		
Due date (five years after triggering action date): 7/25/2023		

Figure 1: Site Vicinity Map



N
 0 0.25 0.5 0.75 1 2 Miles

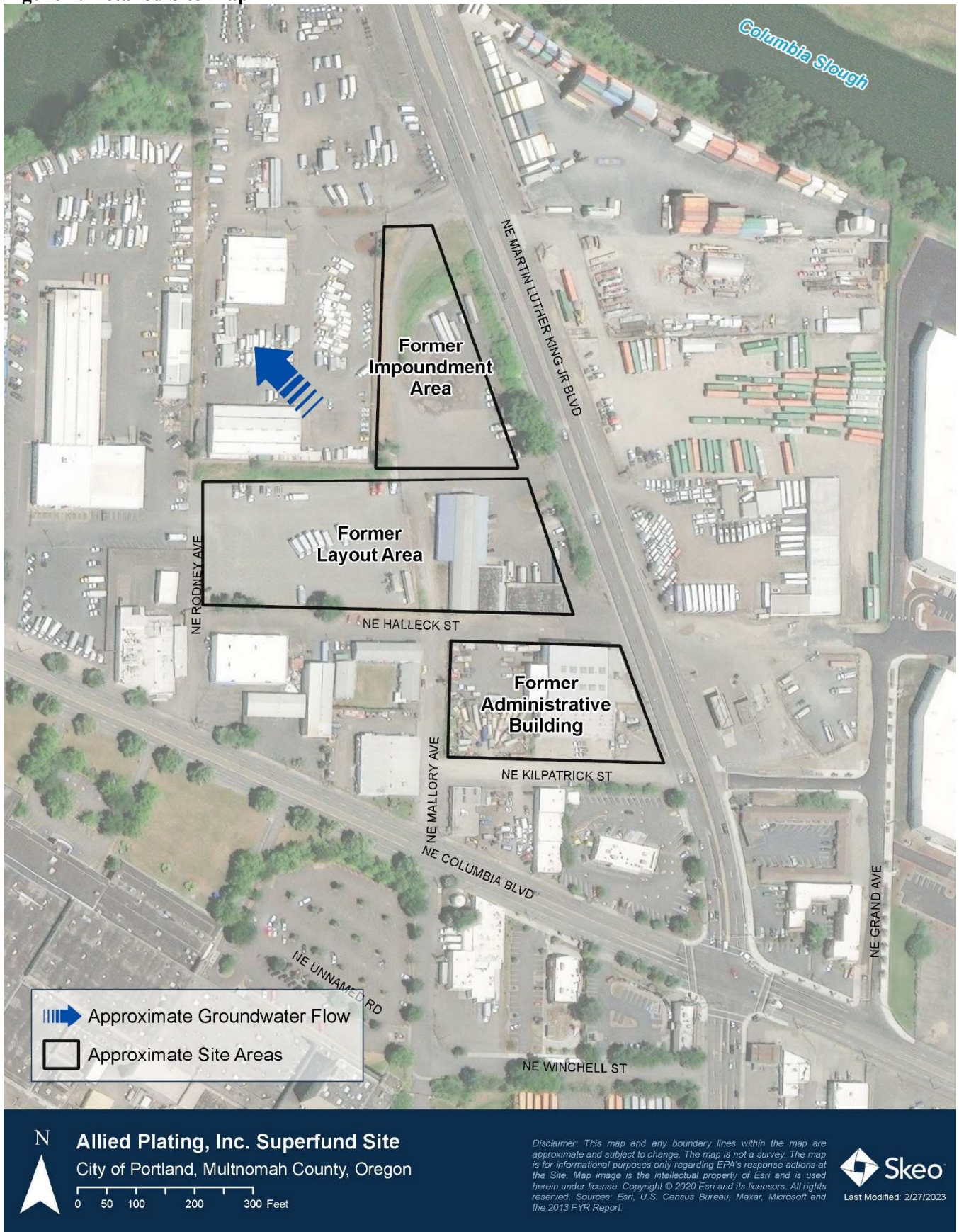
Allied Plating, Inc. Superfund Site
 City of Portland, Multnomah County, Oregon

□ Approximate Site Areas

Disclaimer: This map and any boundary lines within the map are approximate and subject to change. The map is not a survey. The map is for informational purposes only regarding EPA's response actions at the Site. Map image is the intellectual property of Esri and is used herein under license. Copyright © 2020 Esri and its licensors. All rights reserved. Sources: Esri, Maxar, U.S. Census Bureau and the 2013 FYR Report.

Skeo
 Last Modified: 2/27/2023

Figure 2: Detailed Site Map



II. RESPONSE ACTION SUMMARY

Basis for Taking Action

The Site operated as a chrome plating company from 1957 until 1984. In 1984, after Allied Plating stopped discharging liquid waste, the impoundment area pond receded, leaving a dry area covered with plating waste. In September 1984, EPA and Oregon DEQ jointly requested closure and post-closure plans from the current Site owner as part of a requirement of a Resource Conservation and Recovery Act (RCRA) permit. In November 1986, EPA and Oregon DEQ reached an agreement that transferred program jurisdiction from RCRA to Superfund. EPA proposed the Site for listing on the National Priorities List (NPL) in January 1987. EPA finalized the Site's listing on the NPL in February 1990.

During the pre-listing Site investigations, elevated levels of lead, chromium and nickel were found in both the perched aquifer and the Troutdale Aquifer. EPA conducted a RI at the Site between January 1990 and April 1992. The RI investigated contamination resulting from the direct discharge of wastewater or dumping of wastes, and the dispersal of these contaminants through the groundwater. The RI determined that the Site contamination was mainly limited to the layer of plating waste formed in the surface soil of the impoundment area.

Two rounds of groundwater monitoring were conducted during the RI in January and April 1991. The RI results indicated that Site-related groundwater contamination was no longer present in the Troutdale Aquifer above background levels. This was attributed to the fact that discharges from plating operations had ceased. Manganese was detected above background levels; however, it is not associated with plating operations at the Site. Manganese is prevalent upgradient and downgradient of the Site and is an area-wide contaminant. The monitoring wells installed in the lower aquifer zone generally contained lower concentrations of potential plating waste derived contaminants.

During the RI, one well screened in the shallow perched aquifer beneath the impoundment area exceeded the nickel maximum contaminant level (MCL) for drinking water, however, the MCL for nickel was later remanded in 1995.² The risk assessment for the Site determined the localized perched aquifer was not a potential drinking water aquifer and it was not included in the risk assessment. Based on the limited area of contamination, lack of evidence of contaminant migration since operations ceased, and plans to remove the remaining contaminant source, EPA concluded that no groundwater cleanup or further monitoring was necessary. Therefore, the last groundwater monitoring took place in April 1991 during the RI.

A baseline risk assessment was conducted as part of the RI. No soil contamination was found in the former administrative building area. Soil concentrations in the former layout area exhibited relatively low levels of contamination and were well below the industrial screening levels. For a residential scenario using conservative assumptions, hazard quotients (HQs) were less than 1 and excess lifetime cancer risk was less than 1×10^{-4} . Currently, EPA considers soil in the former layout area to be safe for industrial use (see Section V of this FYR Report).

RI results indicated that Site contamination was primarily limited to the impoundment pond area, and a risk assessment determined that the impoundment area was solely responsible for the unacceptable risks associated with the Site through exposure via direct contact and/or ingestion of impoundment area soil. The main contaminants of concern (COCs) were antimony, arsenic, copper, and nickel.

² EPA remanded the MCL for nickel on February 9, 1995. This means that while many water suppliers continue to monitor nickel levels in their water, there is currently no EPA legal limit on the amount of nickel in drinking water. Note that at the time of each subsequent review, including this review, there is still no drinking water standard for nickel. The residential risk-based screening level for nickel is 390 parts per billion (ppb): (<https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>)

Response Actions

In 1992, the Site was evaluated for a potential removal action as part of the Superfund Accelerated Cleanup Model Program. After consideration of this evaluation and other potential cleanup options, EPA determined that remediating the impoundment area as a time-critical removal action (TCRA) was the preferred option. EPA signed an Action Memorandum in October 1992. EPA selected risk-based cleanup levels for the impoundment area based on industrial use. Excavation continued until concentrations were below the cleanup goals (Table 1). The goal of the removal action was to clean up the Site so that the hazard index (HI) would be less than or equal to 1, and the excess cancer risk would be less than or equal to 1×10^{-4} for the industrial-use scenario.

Table 1: Impoundment Soil COC Cleanup Goals

COC	Cleanup Goal (mg/kg) *
Antimony	200
Arsenic	150
Copper	20,000
Nickel	10,000

Notes:
mg/kg = milligrams per kilogram
* = cleanup levels were set at one quarter of the individual contaminant values equal to an HI of 1 (these values were lower than those corresponding to the acceptable cancer risk). The rationale for this approach was that the cleanup would result in an HI that, at most, would be 1 ($4 \times 1/4$), assuming an additive effect from the chemicals.
Source: 1993 Record of Decision (ROD), pdf page 41

Following the completion of the TCRA, EPA conducted a risk assessment on the contaminant concentrations remaining in the surface soils of the impoundment area. The analysis assumed a lifetime exposure to the remaining residual contaminant concentrations. Under the industrial scenario, the impoundment area posed a risk of 8×10^{-6} and a Hazard Index of 0.35. For the residential scenario, the impoundment area posed a risk of 8×10^{-5} and a Hazard Index of 2.5. Those estimates were considered conservative and were calculated to provide a worst-case scenario. The actual risk likely would be much lower based on the facts that 1) the remaining contamination is under one or more feet of rock, preventing any direct exposures and 2) the area fills with water, and is below the surrounding grade, and so future residential or industrial use would require additional backfilling, resulting in covering the residual contamination by an additional 5 or more feet of backfill.

Record of Decision

EPA selected “No Further Action” for the Site's final remedy in the 1993 Record of Decision (ROD). EPA made its decision based on the following information:

- The removal action remediated the impoundment area to below 1×10^{-4} cancer risk and an HI of 1 for an industrial use scenario and EPA expected Site usage to remain industrial in the future.
- The results of the RI and risk assessment indicated that all other Site areas were below 1×10^{-4} excess lifetime cancer risk and an HI of 1 for all scenarios.
- Site-related groundwater contamination was present in one well; nickel was above the drinking water standard at that time. The well (IB06) was screened in the shallow perched aquifer in the vicinity of the impoundment area. The observed concentrations of nickel (655 to 690 ppb) were expected to drop when the source of contamination was removed (the plating waste). There is no current drinking water use and the deed restriction prevents future use of the groundwater.
- Although the manganese in the Troutdale aquifer poses a potential health threat, the contaminant is widespread in the groundwater in the area and is not Site-related.

The ROD did not require a deed restriction to restrict residential land use of the impoundment area. The ROD indicated that FYRs will be conducted to ensure that Site land use remains industrial.

Status of Implementation

The TCRA took place between October 20 and November 10, 1992. During the removal action, the surface water in the impoundment area pond was drained, treated, and discharged and about 900 tons of contaminated sediment and soil were excavated and transported for disposal at an appropriately permitted hazardous waste landfill. The impoundment area was backfilled with one foot of quarry rock and compacted. Approximately 5,600 tons of quarry rock were placed as backfill. As reported from the 1998 FYR site walk, the impoundment area was backfilled again after the removal action with approximately 5 to 10 feet of material leaving it on the same grade as the operational areas of the Site and additional partial paving has been completed to create a parking lot over the impoundment area. The impoundment area remained below the surrounding grade, allowing water to accumulate at the lowest point.

Following the removal action, and although shallow aquifer use was unlikely, EPA had the Site owner place a deed restriction on the former impoundment area to prevent the use of a well for drinking water unless the top of the screened interval is deeper than 20 feet below mean sea level, and the water from the well is tested to ensure that it meets drinking water standards before use. Following the removal action, the Site monitoring wells were abandoned in accordance with Oregon Water Resources Department regulations.

Since the ROD selected No Further Action for the Site's final remedy, there were no associated implementation activities. EPA deleted the Site from the NPL in November 1994. Except for FYRs, EPA has not conducted any activities at the Site since the removal action. Although the remediation goal for the TCRA was to remediate the site to industrial standards, the residual risk for a hypothetical residential scenario at the Site is only slightly above residential Regional Screening Levels (RSLs) discussed in Question B of this FYR Report for the Site COCs.

Institutional Control (IC) Review

The 1993 ROD noted that a deed restriction was placed on the former impoundment area parcels to preclude use of groundwater in April 1993. The objective of the institutional control (IC) was to ensure that wells would not be screened in the shallow aquifer zone. A copy of the restriction placed on the deed is in the Administrative Record for the Site. The deed restriction contains the following language:

“The undersigned as owners of said tracts agree to burden the above described real property with a restriction prohibiting the use of a well for drinking water unless the top of the screened interval is deeper than 20' below mean sea level, and the water from the well is tested to ensure that it meets drinking water standards before use.”

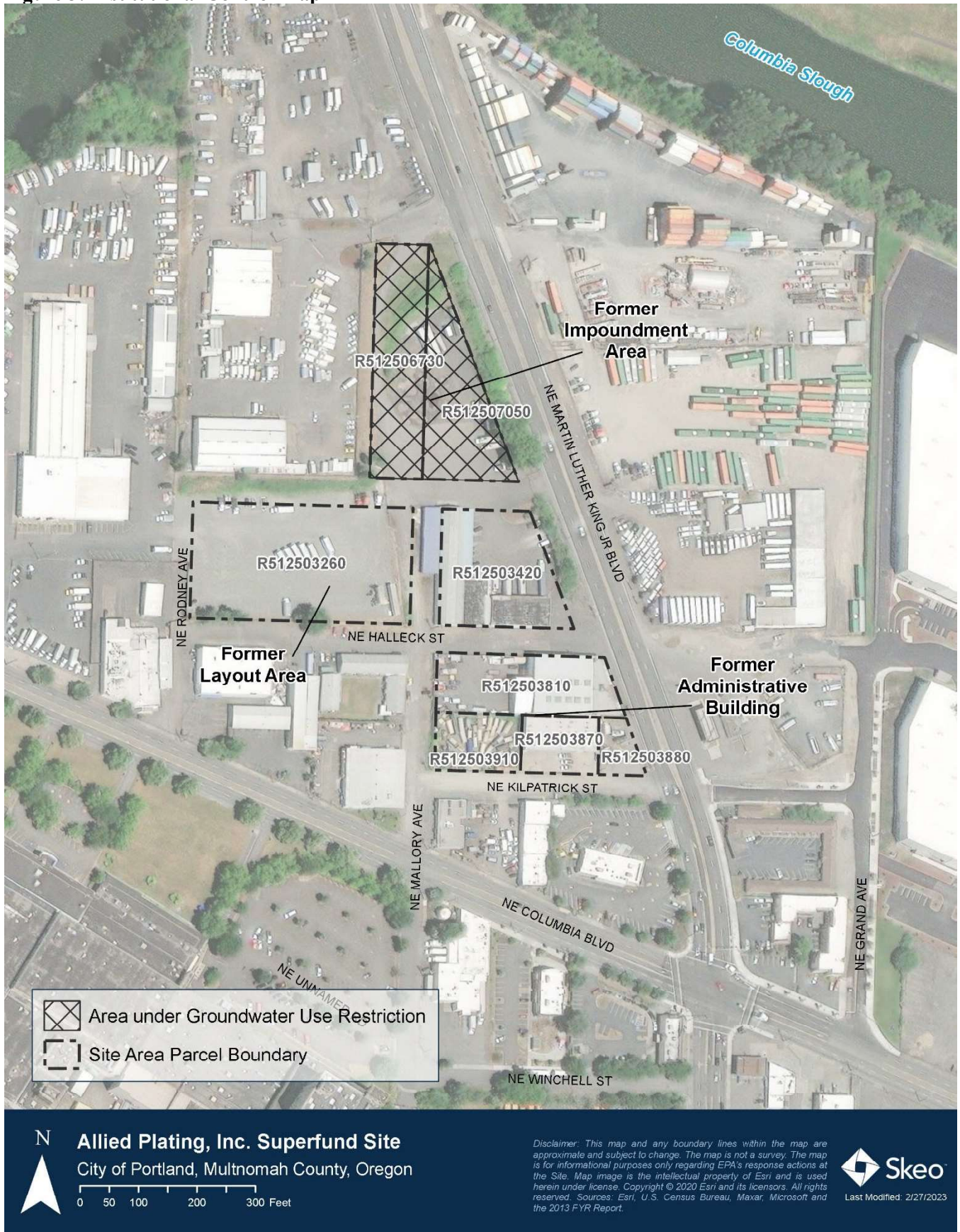
The 1992 Action Memorandum for the Site stated “deed restrictions: The site owner has agreed to place a deed restriction on the property so that it will remain zoned for industrial use only.” However, no IC restricting land use to industrial use was placed on Site. In the ROD, Section XIII stated that “A 5 year review will be conducted to ensure that the land use for the Site remains industrial.” The ROD indicated that the post-removal action contaminant concentrations resulted in a cancer risk of 8×10^{-5} and an HI of 2.5 under a residential-use scenario. The ROD indicated these values are extremely conservative due to the presence of one or more feet of rock backfilled after the removal action and that the area would need to be filled even further to allow for development due to the shallow water table.

The impoundment area is in an area zoned for heavy industrial uses, and its current use is industrial. The surrounding area also remains zoned for industrial purposes.

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 Parcel(s)	IC Objective	Title of IC Instrument Implemented and Date (or planned)
Groundwater	Yes	Yes	Impoundment Area (Parcels: R512506730 and R512507050)	Prevent use of the shallow aquifer.	Deed Restriction April 1993
Soil	Yes	Yes*		Ensure the Site remains zoned for industrial use.	Zoned Heavy Industrial by the City of Portland (zoning code IH, Chapter 33.140)
<p>* The 1992 Action Memorandum indicated a deed restriction would be used to ensure industrial uses at the Site in the future. However, a deed restriction was not required in the 1993 ROD, which indicated that FYRs would ensure the Site uses remain industrial.</p>					

Figure 3: Institutional Control Map



Systems Operations/Operation and Maintenance (O&M)

Beyond ensuring that the ICs remain in place, there are no O&M activities associated with the Site.

III. PROGRESS SINCE THE PREVIOUS REVIEW

This section includes the protectiveness determination from the previous FYR (Table 3). There were no issues and recommendations in the previous FYR Report.

Table 3: Protectiveness Determinations/Statements from the 2018 FYR Report

OU #	Protectiveness Determination	Protectiveness Statement
Sitewide	Protective	The remedy is protective of human health and the environment because contaminated soil was removed from the Site, cleanup goals were attained, and Site use is restricted as intended by the remedy.

IV. FIVE-YEAR REVIEW PROCESS

Community Notification, Community Involvement and Site Interviews

A public notice was made available by a public announcement in the Portland Harbor (PH) listserv³ on November 3, 2022. It stated that the FYR was underway and invited the public to submit any comments to EPA (Appendix C). The FYR announcement was also posted to the public-facing Allied Plating Superfund Site webpage. The results of the review and the report will be made available on EPA's Site webpage: www.epa.gov/superfund/allied-plating. No members of the public responded to the public notice.

During the FYR process, interviews were conducted to document any perceived problems or successes with the remedy that has been implemented to date. The interviews are summarized below. The interview forms are included in Appendix D.

Sarah Miller, Oregon DEQ Project Manager, indicated the Site looked clean with some stormwater puddling in the former impoundment area. The gravel cover appears intact and there are no changes to state laws or projected land use changes at the Site. Ms. Miller indicated that the City of Portland Industrial Stormwater Program is currently investigating unpermitted alterations to the storm sewer system at the businesses located on the Site.

Representatives of two of the businesses operating on the Site also participated in the interview process. One representative was aware of the former environmental issues at the Site and believes that overall, the cleanup worked well. Both business representatives reported issues with trespassing and vandalism, but these issues are not related to the Site.

Data Review

No data has been collected at the Site during this FYR period.

³ The Allied Plating Site is located northeast of the nearby Portland Harbor Superfund Site. Portland Harbor has a well-developed and active stakeholder engagement network and using the listserv for this site allowed EPA to efficiently reach stakeholders with likely interest in the Allied Plating Site.

Site Inspection

The Site inspection took place on 12/1/2022. Participants included EPA RPM Laura Hanna, Sarah Miller from Oregon DEQ, and Johnny Zimmerman-Ward from EPA support contractor Skeo. The purpose of the inspection was to assess the protectiveness of the remedy. The completed Site inspection checklist and photographs are provided in Appendix E and Appendix F, respectively.

Site inspection participants toured and photographed the former impoundment area, the former layout area, and the administrative and storage building area. The former impoundment area is now a truck storage area. This area had standing water and appeared to have poor drainage. A stormwater manhole was observed in the impoundment area. Other Site areas were well maintained by current business operations on Site. The west side of the former layout area is secured storage for trucks and buses. The east side of the former layout area still has a building with tenants. It is also used for truck storage. The former administrative building area is in use by a local business and is also secured by fencing. Discussions and interviews were conducted with operators of current businesses at the Site. Current Site uses are consistent with industrial use.

V. TECHNICAL ASSESSMENT

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

Question A Summary:

Yes, the remedy is functioning as intended by the decision documents. Contaminated soils and sediment were excavated from the impoundment area during the TCRA and the area was backfilled with quarry rock and later with more fill and compacted gravel and was partially paved. The impoundment area was remediated to industrial use standards. Current and anticipated future land use and zoning at the Site remains industrial. The 1992 Action Memorandum indicated a deed restriction would be used to ensure industrial uses at the Site in the future. However, EPA determined that a deed restriction was not required. The 1993 ROD indicated that FYRs would ensure the Site uses remain industrial. The 1993 ROD also indicated that the property would likely remain in industrial use and any development would involve adding extra fill material, further isolating any contaminated material that may remain.

A groundwater use restriction is in place for the impoundment area. It appears to be functioning as intended. There are no drinking water wells in the impoundment area. The Site was observed to be in good condition during the Site inspection. The impoundment area remains slightly below grade and retains shallow surface water intermittently.

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

Question B Summary:

Yes, the exposure assumptions, toxicity data, cleanup levels and RAOs used at the time of the remedy remain valid. Exposure at the Site was based on direct contact and ingestion of soil and groundwater, which remain valid. Removal action cleanup levels for the impoundment area were based on acceptable risk for industrial use. A screening-level risk assessment was conducted on the cleanup levels (Appendix G, Table G-1). The cleanup levels remain valid and protective, with HQs less than 1 and excess cancer risk less than 1×10^{-4} for the industrial use scenario. Removal action cleanup goals in the impoundment area and the maximum concentrations post-removal action were also compared with residential RSLs (Appendix G, Table G-2 and G-3). The results indicate that the cancer and noncancer risks are outside EPA's acceptable risk range for some contaminants when compared to the RSLs for residential use. However, the RSLs are not intended to be cleanup goals and are conservative and the cleanup was not meant to support residential use. In addition, the Site is not used for residential purposes and is zoned for industrial use.

Maximum concentrations in the layout area were also compared to residential RSLs to ensure this area remains safe for residential use; these concentrations do not represent current site conditions but were used for a health protective risk assessment (Table G-4, Appendix G). The layout area is currently paved which functions as a barrier to exposure via direct contact for surface soil. The results indicated the maximum contamination is well below EPA’s acceptable risk range for cancer and that the HQ is less than 1 for noncancer risks for all contaminants except for nickel. The maximum concentration of nickel slightly exceeds the noncancer HQ of 1 (Table G-4). Since this is based on the maximum concentration of nickel and is only slightly above an HQ of 1, the overall risk level at the former layout area is expected to be below the HQ of 1.

The objective of the TCRA, to attain cleanup levels in the impoundment area, was met, and the area was covered with compacted gravel.

During the 5th FYR in 2018, EPA evaluated the likelihood that perfluoroalkyl sulfonate (PFAS) may have been used at the Site. First, Allied Plating closed in 1984, two years prior to California's first steps requiring PFAS to address airborne hexavalent chrome at chrome-plating facilities. There would have been an additional cost to use these suppressants and, without the requirement in place, it would have been unlikely for a company to invest in the method so close to going out of business. Second, emission controls were not required for chrome-plating facilities until 1988, four years after operations ceased. Additionally, throughout its years of operations, the City and State repeatedly cited Allied Plating for failure to operate in line with environmental regulations. Based on the above evaluation, EPA concluded that it is unlikely that PFAS would have been used at the Site.

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

While the issue identified below does not impact the implemented remedy or the protectiveness of the remedy at the Allied Plating Superfund Site, it does affect the Site property. EPA will continue to support the Oregon DEQ and City of Portland by keeping the lines of communication open with regards to land use, compliance, and enforcement actions, as needed on Site.

The City of Portland inspected the Pacific Coast Fruit Company at 8235 NE MLK Boulevard on multiple occasions (12/30/2020, 1/29/2021, 3/17/2021, and 2/8/2022) to determine whether the Site is eligible for a No Exposure Certification or if a National Pollutant Discharge Elimination System (NPDES) 1200-Z General Industrial Stormwater Permit (stormwater permit) is necessary for operations at the Site (Balogh, K., Personal Email Communication, 2022). A No Exposure Certification has not been issued as the City Code compliance issues have not been resolved. Three unpermitted alterations to the storm sewer system occurred. Resolution for the unpermitted alterations is ongoing between Oregon DEQ and the City of Portland.

VI. ISSUES/RECOMMENDATIONS

Issues/Recommendations
OU(s) without Issues/Recommendations Identified in the FYR:
OU1

OTHER FINDINGS

- The 1992 Action Memorandum for the Site stated “deed restrictions: The site owner has agreed to place a deed restriction on the property so that it will remain zoned for industrial use only.” However, no IC restricting land use to industrial was placed on Site. In the ROD, Section XIII. stated that “A 5 year review will be conducted to ensure that the land use for the site remains industrial.” Because soils in the former impoundment area may exceed standards for residential use, and future residential use of the property may be a remote possibility, EPA recommends assessing if an IC is needed to prevent land use change. This conclusion is based on the understanding that the current conditions at the Site include the

initial remedy of a 1-foot cap and an additional 5 to 10-feet of fill that was placed at the Site. The State of Oregon requires a 3-foot cover for residential use (Oregon DEQ 2017). Therefore, under the scenario outlined in the ROD, if residential use was considered, EPA would likely require a 3-foot cap. The current Site is capped with approximately 6 to 11 feet. The evaluation during the upcoming FYR period will verify these assumptions and determine if the Site meets residential use criteria and therefore would not need an IC for land use.

VII. PROTECTIVENESS STATEMENT

Sitewide Protectiveness Statement
<i>Protectiveness Determination:</i> Protective
<i>Protectiveness Statement:</i> The remedy is protective of human health and the environment because contaminated soil was removed from the Site, cleanup goals were attained, and Site use is currently restricted as intended by the remedy.

VIII. NEXT REVIEW

The next FYR Report for the Allied Plating, Inc. Superfund Site is required five years from the completion date of this review.

APPENDIX A – REFERENCE LIST

Balogh, K. 2022. Personal Email Communication. FW: Allied Plating Site ECSI#6 – Pacific Coast Fruit Inspection 8235 NE MLK Blvd. Forwarded by S. Miller. September 8.

Draft Feasibility Study, Allied Plating Site, Portland, Oregon. Prepared by URS Consultants, Inc. for EPA Region 10. May 1992.

First Five-Year Review Report for Allied Plating, Inc. Superfund Site, Portland, Oregon. Prepared by EPA Region 10. July 1998.

Fourth Five-Year Review Report for Allied Plating, Inc. Superfund Site, Portland, Oregon. Prepared by EPA Region 10. September 2013.

Fifth Five-Year Review Report for Allied Plating, Inc. Superfund Site, Portland, Oregon. Prepared by EPA Region 10. July 2018.

Oregon Department of Environmental (DEQ). 2017. Risk-Based Decision Making for the Remediation of Contaminated Sites. September 22, 2003, updated September 7, 2016 and October 2.

Portland Maps Website. City of Portland, Oregon. <https://www.portlandmaps.com/>, Accessed: May 16, 2023.

Record of Decision, Decision Summary, and Responsiveness Summary for No Further Action, Allied Plating Superfund Site. Prepared by EPA Region 10. June 1993.

Request for Removal Action at Allied Plating NPL Site, Portland, Multnomah County, Oregon. Prepared by EPA Region 10. October 1992.

Second Five-Year Review Report, Allied Plating, Inc. Superfund Site, Portland, Oregon. Prepared by EPA Region 10. September 2003.

Third Five-Year Review Report for Allied Plating, Inc. Superfund Site, Portland Oregon. Prepared by EPA Region 10. September 2008.

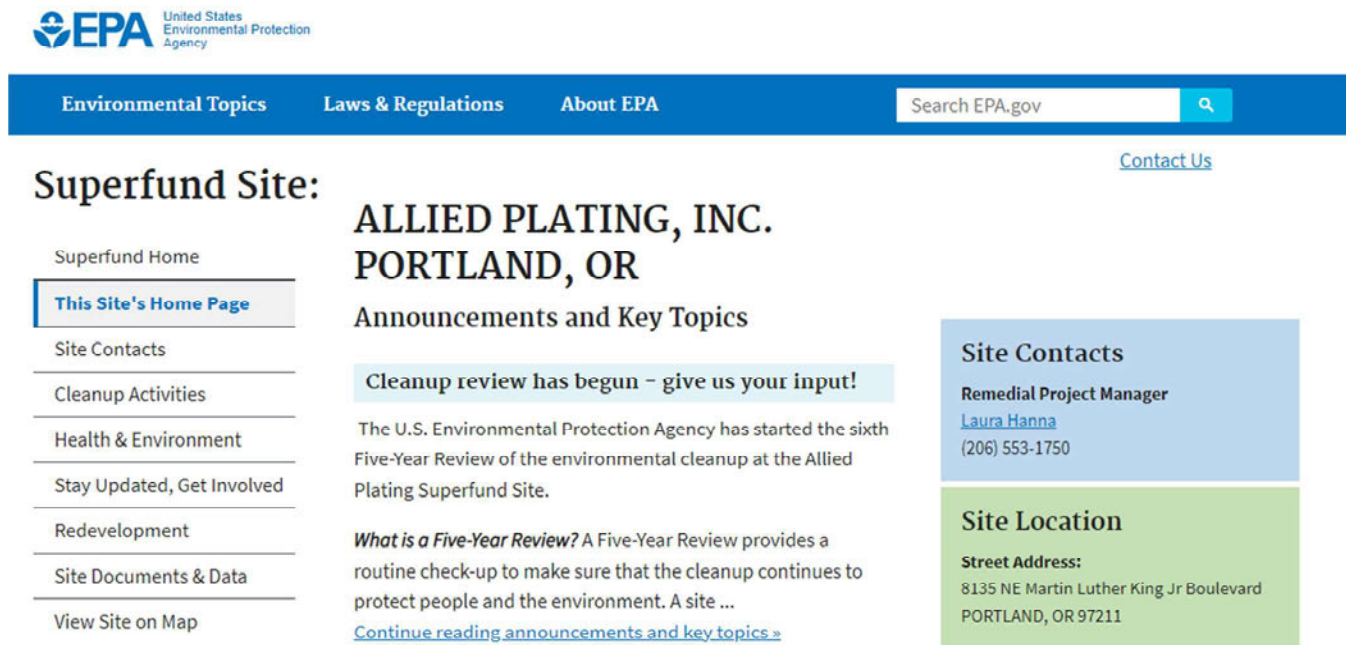
APPENDIX B – SITE CHRONOLOGY

Table B-1: Site Chronology

Event	Date
Allied Plating operated at the Site	1957 - 1984
Allied Plating discharged wastes to the Slough via the outfall swale	1957-1969
Allied Plating abandoned the outfall swale and created the impoundment area pond	1969
EPA and Oregon DEQ jointly requested closure and post-closure plans from the current Site owner as part of a requirement of a RCRA permit	September 1984
EPA and Oregon DEQ reached an agreement transferring program jurisdiction from RCRA to Superfund	November 1986
EPA listed the Site on the NPL	February 21, 1990
EPA began the Site's RI	November 1990
EPA finalized the Site's feasibility study	May 13, 1992
EPA signed an Action Memorandum	October 16, 1992
EPA conducted a removal action at the Site to remove metals waste from the impoundment area	October – November 1992
Site owner placed a deed restriction on impoundment parcels	April 23, 1993
EPA signed the Site's No Further Action ROD	June 29, 1993
EPA deleted the Site from the NPL	November 14, 1994
EPA remanded the MCL for nickel	February 9, 1995
EPA issued the Site's first FYR Report	July 1, 1998
EPA issued the Site's second FYR Report	September 8, 2003
EPA issued the Site's third FYR Report	September 30, 2008
EPA issued the Site's fourth FYR Report	September 17, 2013
EPA issued the Site's fifth FYR Report	July 25, 2018

APPENDIX C – PUBLIC NOTICE

Figure C-1: EPA Website Notice



EPA United States Environmental Protection Agency

Environmental Topics Laws & Regulations About EPA Search EPA.gov

Superfund Site: **ALLIED PLATING, INC. PORTLAND, OR**

[Contact Us](#)

Superfund Home

This Site's Home Page

Site Contacts

Cleanup Activities

Health & Environment

Stay Updated, Get Involved

Redevelopment

Site Documents & Data

View Site on Map

Announcements and Key Topics

Cleanup review has begun – give us your input!

The U.S. Environmental Protection Agency has started the sixth Five-Year Review of the environmental cleanup at the Allied Plating Superfund Site.

What is a Five-Year Review? A Five-Year Review provides a routine check-up to make sure that the cleanup continues to protect people and the environment. A site ...

[Continue reading announcements and key topics >](#)

Site Contacts

Remedial Project Manager
[Laura Hanna](#)
(206) 553-1750

Site Location

Street Address:
8135 NE Martin Luther King Jr Boulevard
PORTLAND, OR 97211

Website: www.epa.gov/superfund/allied-plating

Figure C-2: Five-Year Review Listserv Notice

See Item Number 3 in the email below.

From: Knudsen, Laura <Knudsen.Laura@epa.gov>

Sent: Wednesday, November 30, 2022 7:54 AM

To: Knudsen, Laura <Knudsen.Laura@epa.gov>

Subject: December 7 Virtual Portland Harbor Collaborative || And Other Information || Thank You!



Portland Harbor Superfund Site



From the U.S. Environmental Protection Agency - Please share with your networks!

Note: You are receiving this email from the U.S. Environmental Protection Agency because you have expressed an interest in our work at the Portland Harbor Superfund Site. We will not share your contact information with any third party. All recipients are blind copied. If you would like to unsubscribe, please reply to this message.

Hello everyone! Please read below for more information about:

- ✓ **This Sunday's (December 4th) In-Person River's Lament Walk (12:45pm – 3pm)** in partnership with the Portland Harbor Collaborative, Ecumenical Ministries of Oregon, University of Portland, and EcoFaith Recovery.
 - If you would like to attend, please RSVP via email to phcollaborative@triangleassociates.com or call/text 206-458-5710.
- ✓ **Next week's** virtual Portland Harbor Collaborative meeting on **Wednesday, December 7 (5pm – 7pm Pacific)** via [Triangle's Zoom link](#).
- ✓ **Five-Year Review for the Allied Plating, Inc. Superfund Site** (not related to the Portland Harbor Superfund Site but located in northeast Portland). Input requested by March 1, 2023.
- ✓ **Environmental Justice updates** from EPA (including grant announcements).

1. *Sunday, December 4 – Please RSVP* December 4 In-Person River's Lament Walk, 12:45 – 3:00pm (Pacific) with Ecumenical Ministries of Oregon, University of Portland, and EcoFaith Recovery

The Portland Harbor Collaborative is partnering with Ecumenical Ministries of Oregon, University of Portland, and EcoFaith Recovery to host an *in-person River's Lament outdoor walk*. The River's Lament is a walk to seven stations

along the perimeter of the University of Portland campus where faith leaders will tell the story of the Willamette River from the river's perspective. This walk was first sponsored by EcoFaith Recovery in 2011 and has now become a regular event where many groups have participated.

- **RSVP?** An RSVP is kindly requested for this in-person event. If you would like to attend, please RSVP via email to phcollaborative@triangleassociates.com or call/text 206-458-5710.
- **Who:** Cherice Bock, Ecumenical Ministries of Oregon, will lead the walk and EPA Remedial Project Managers, Josie Clark and Rich Francis, will also attend. All Collaborative Group members and observers (anyone!) are encouraged to attend!
- **When:** Sunday, December 4th, 12:45 – 3:00 p.m. The walk should take approximately two hours.
- **Where:** Meet-up location is on a footpath at the University of Portland, near the Chiles Center. Directions are provided below:
 - **Travel to** the University of Portland, located at 5000 N Willamette Blvd, Portland, OR 97203.
 - **If you drive**, please park at the Main Parking Lot. Carpooling is encouraged!
 - **Then** walk to the northeast end of the Main Parking Lot and begin walking on the footpath towards the Chiles Center.
 - There will be signage at the meeting spot until 1:00 p.m., when the walk will begin.
 - A pin marking the exact meetup location can be found on the attached map and on page 2 of the flyer attached to this email.
- **Length/Mobility:** The walk is approximately one mile in length and requires walking on some non-paved surfaces and standing for the full two hours. If you have mobility concerns, please let Triangle Associates know when you RSVP and they will provide a modified path.

2. ***Wednesday, December 7 – No RSVP Needed* Virtual Portland Harbor Collaborative, 5:00-7:00pm (Pacific)**

Everyone is welcome to observe the next quarterly Portland Harbor Collaborative meeting! Please read below for more information on this event:

Date: Wednesday, December 7, 2022

Time: 5:00–7:00pm Pacific (with *optional* sections between 4:30-5pm and 7-8pm)

Agenda Outline: The following agenda outline is subject to change. A final agenda will be shared in advance of the December 7 meeting.

- **4:30-5pm:** Optional Meet and Greet for Collaborative Members

- **5-5:20pm:** Opening, Acknowledgments, and Community Member Storytelling
- **5:20-5:45pm:** Agenda, Introductions and Updates
 - *Collaborative Group Updates*
 - *EPA General Updates*
- **5:45-6:25pm:** Topic Spotlight: “Treatment Instead of Capping: Gasco Sediments Site”
- **6:35-6:45pm:** Consensus Recommendation on Performing Responsible Party Membership
- **7-8pm:** Optional Breakout Rooms (members and observers invited). If requested, a ‘Superfund and Portland Harbor 101’ presentation will take place in the main meeting room during this breakout session.
 - **Overall Site & Project Area Updates:** For those who want to hear status updates for all project areas and overall Site work.
 - **Portland Harbor Natural Resource Trustee Council:** For those who want to learn about the [Trustee Council’s](#) recreation planning process.
 - **Community Impacts Mitigation Plan (CIMP) Outline Update:** For those interested in seeing and providing feedback on EPA’s revised CIMP outline.

How do I Join the Online-Only Event? Please enter the virtual room at

(b) (6)

- ✓ *If prompted, please enter **Meeting ID** (b) (6)*
- ✓ *If clicking the link above does not work or you have any audio issues, please feel free to join the meeting on the phone by using the following information:*
 - **Call Number:** (b) (6) #
 - *Or use One Tap mobile:* (b) (6) # US
- ✓ **Having problems signing in?** Please contact Anna Hamilton at 206-458-5710
- ✓ **Test your system and connections online in advance** at <https://zoom.us/test> to ensure that you will be able to join us online!

Captioning & Translation: Live closed captioning will be provided in English. Please let Anna know (ahamilton@triangleassociates.com, 206-458-5710) if you or someone you know who might be attending needs any translation services.

Disclaimer on Recording: Please be aware that when you join the Zoom meeting, your name and/or video may be displayed to other meeting participants and captured in the meeting recording. The meeting sections will be recorded and posted to the [Portland Harbor Collaborative Group YouTube Page](#). By joining the Zoom meeting, you are consenting to the recording and dissemination of the recording as noted above. If you would prefer not to share your name and/or video, please email phcollaborative@triangleassociates.com.

Participation for Members vs. Observers (Public): Please note that while everyone is welcome to attend this meeting, *participation will be focused on Collaborative members*. As an observer (public), you will be viewing the meeting with Collaborative members in Triangle's Zoom room. We invite you to participate by observing the meeting among the members from 5-7pm and joining the breakout groups between 7-8pm. If you have questions during the 5-7pm portion, please hold them until we move to the breakout groups where questions from observers will be addressed.

- **If you are interested in becoming a Collaborative member**, please send an e-mail to phcollaborative@triangleassociates.com or call Triangle Associates at 206-458-5710. You may also review the Northeast Coalition of Neighborhoods [Hey Neighbor! Winter 2021](#) article and the Collaborative Group [Charter](#), both developed in collaboration with Portland-area community leaders and members.

Do You Have Limited Internet Access? Need Language Interpretation?

- Please let Anna know (ahamilton@triangleassociates.com, 206-458-5710) if you or someone you know has **limited Internet access** or **may need language interpretation**.

3. *Input Requested by March 1, 2023* Cleanup to be reviewed for the Allied Plating, Inc. Superfund Site (not related to the Portland Harbor Superfund Site, but located in northeast Portland)

What is a Five-Year Review? A Five-Year Review provides a routine check-up to make sure that the completed cleanup continues to protect people and the environment.

What is happening at the Allied Plating Superfund Site with the Five-Year Review? EPA is starting work for the 6th Five-Year Review (due in July 2023), and a Site visit is planned for December 1. In 1992, EPA removal actions included excavation and off-Site disposal of contaminated soil and sludge. Allied Plating was removed from the Superfund National Priorities List in 1994.

- **All prior Five-Year reviews have shown that the Allied Plating Superfund Site cleanup remains protective of human health and the environment.** To ensure the cleanup continues to be protective of human health and the environment, EPA performs this comprehensive review every five years.

Do you have information on how the remedy is working? Have you witnessed any damage to signage or fencing? Do you have other information? If so, EPA wants to hear from you by **March 1, 2023**. Please contact:

- **Laura Hanna**, EPA Remedial Project Manager at Hanna.Laura@epa.gov or 206-553-1750

Other Questions? Stay informed about the Allied Plating Superfund Site by visiting EPA's website for the most up-to-date information at www.epa.gov/superfund/allied-plating

4. Updates from EPA's Environmental Justice Work

Please read below for updates on EPA's Environmental Justice work, including:

- ✓ *(Past training)* **EPA's EJScreen Tool pilot hybrid training – November 10, City of Portland Water Pollution Lab.** Thank you so much to all of you who attended the EPA pilot EJScreen training on November 10 at the City of Portland's Water Pollution Laboratory and online! You can access a [recording of the training](#) on the Portland Harbor Collaborative Group's YouTube channel. The slide deck used in the recorded training is available [online](#) for your reference.
 - * Interested in future trainings? Please check the [Portland Harbor Collaborative Group Mural Calendar](#) and continue to monitor these EPA Listserv messages for updates!
- ✓ *(Reminder!)* EPA wants to hear from you on how to build the **Clean Ports funding program** via a listening session on [December 6!](#) [EPA's Ports Initiative](#) works in collaboration with the port industry, communities, and all levels of government to improve environmental performance and increase economic prosperity.
- ✓ *(Reminder! November 30-December 1, 2022)* **White House Environmental Justice Advisory Council (WHEJAC) Virtual Public Meeting.** Everyone is [welcome to register](#) to attend the next WHEJAC in-person and virtual public meeting. For more information, please visit the [WHEJAC website](#).
- ✓ *(New!)* **Prepare to apply for EPA Grants!** To better support potential EPA grant applicants, check out the new web page called '[Prepare for a Grant Application](#).'
- ✓ *(New! EJ Funding Opportunities - Anticipated to Launch Soon!)* Request for Applications for [EJ Collaborative Problem Solving Cooperative Agreements](#) and the [EJ Government-to-Government Cooperative Agreement Program](#)! Please keep checking these websites over the next few weeks, as they will be updated with the most recent funding information.
- ✓ *(Reminder!)* **EPA launched EJScreen 2.1 on October 11!** This is an update to EPA's publicly available environmental justice screening and mapping tool. Upcoming [EJScreen office hours and training opportunities](#) are available.

- ✓ *(Reminder)* Upcoming [National Environmental Justice Community Engagement Calls](#) ([registration is highly suggested](#) and the next call is currently planned for Tuesday, December 13 from 11am – 1pm Pacific).

Want up-to-date information about Environmental Justice funding opportunities, events, and webinars? Please consider following us on Twitter ([@EPAEnvJustice](#)) or subscribing to EPA's Environmental Justice listserv by sending a blank email to: join-epa-ej@lists.epa.gov

If you have any questions, suggestions, or concerns about the Portland Harbor Superfund Site, please contact Laura Knudsen (knudsen.laura@epa.gov, 206-553-1838) or visit EPA's Portland Harbor Superfund Site webpage at www.epa.gov/superfund/portland-harbor.

APPENDIX D – INTERVIEW FORMS

ALLIED PLATING, INC. SUPERFUND SITE FIVE-YEAR REVIEW INTERVIEW FORM	
Site Name: Allied Plating, Inc.	
EPA ID: ORD009051442	
Interviewer name: Sarah Miller	Interviewer affiliation: ODEQ
Subject name: 2023 FYR Allied Plating	Subject affiliation:
Subject contact information: sarah.miller@deq.oregon.gov	
Interview date: 12/7/2022	Interview time:
Interview location: email	
Interview format (circle one): In Person Phone Mail Email Other:	
Interview category: State Agency	

1. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)? **Site looked clean; some stormwater puddling in the cap area. Similar use(truck parking) and conditions as last 5YR site visit.**

2. What is your assessment of the current performance of the remedy in place at the Site?
The remedy(cap) appears to be intact.
3. Are you aware of any complaints or inquiries regarding site-related environmental issues or remedial activities from residents in the past five years?
No.
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.
No. However, the City of Portland Industrial Stormwater Program is currently investigating and addressing three unpermitted alterations to the storm sewer system at Pacific Coast Fruit, 8235 NE MLK Blvd. Information was forwarded to EPA.
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?
Yes.
7. Are you aware of any changes in projected land use(s) at the Site?
No.
8. Do you have any comments, suggestions or recommendations regarding the management or operation of the Site’s remedy?
No.
9. Do you consent to have your name included along with your responses to this questionnaire in the FYR report?
Yes.

**ALLIED PLATING, INC. SUPERFUND SITE
FIVE-YEAR REVIEW INTERVIEW FORM**

Site Name: Allied Plating, Inc.	
EPA ID: ORD009051442	
Interviewer name: Laura Hanna	Interviewer affiliation: EPA
Subject name: Redacted	Subject affiliation: Basic Fire Protection
Subject contact information: Redacted	
Interview date: 12/1/2022	Interview time: 12:10 P.M.
Interview location: Basic Fire	
Interview format (circle one): <u>In Person</u> Phone Mail Email Other:	
Interview category: Local Business	

- Are you aware of the former environmental issues at the Site and the cleanup activities that have taken place to date?
Yes.
- What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)?
I have been here for a long time, observed the cleanup and seems it that everything has worked well. [Provided some history about former owners and the I-5 installation in the area.]
- What have been the effects of the Site on the surrounding community, if any?
The effects have been mostly economic with having the restrictions on the Site. Former tenants caused issues that owners had to deal with.
- Have there been any problems with unusual or unexpected activities at the Site, such as emergency response, vandalism or trespassing?
There has been a lot of vandalism and we have been broken into and had things stolen many times, even with security measures in place.
- Has EPA kept involved parties and surrounding neighbors informed of activities at the Site? How can EPA best provide Site-related information in the future?
It doesn't really affect anyone anymore. It's fine and information is not needed.
- Do you own a private well in addition to or instead of accessing city/municipal water supplies? If so, for what purpose(s) is your private well used?
No, there was a well from the 1950s, but it was removed long ago.
- Do you have any comments, suggestions or recommendations regarding any aspects of the project?
No, unless the zoning is changed or they want to build something over there, it should all be fine. I watched the entire remediation process and there isn't anything left. The Site doesn't bother me and there is nothing anyone has to worry about.

* Laura offered to email the 2023 FYR Report when it's available.

**ALLIED PLATING, INC. SUPERFUND SITE
FIVE-YEAR REVIEW INTERVIEW FORM**

Site Name: Allied Plating, Inc.	
EPA ID: ORD009051442	
Interviewer name: Laura Hanna	Interviewer affiliation: EPA
Subject name: Redacted	Subject affiliation: Pacific Coast Fruit Co.
Subject contact information: Redacted	
Interview date: 12/1/2022	Interview time: 11:45 A.M.
Interview location: Pacific Coast Fruit Co.	
Interview format (circle one): <u>In Person</u> Phone Mail Email Other:	
Interview category: Local Business	

- Are you aware of the former environmental issues at the Site and the cleanup activities that have taken place to date?
Not fully. **Redacted** knows more but he is not here today. We don't do anything to add to the storm drains – no washing or anything.
- What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)?
I'm not really aware of the project. I know it was contaminated in the past. I just follow orders. We had made diagrams of drains for the city. Since we are the low point in the area, we get runoff from everyone around us.
- What have been the effects of the Site on the surrounding community, if any?
I don't know. There is theft here, but we are not completely fenced in. There has been vandalization of trucks.
- Have there been any problems with unusual or unexpected activities at the Site, such as emergency response, vandalism or trespassing?
We have had to fence in our garbage because of vandalism. We have had windows broken in our office and vandalization of trucks as mentioned before.
- Has EPA kept involved parties and surrounding neighbors informed of activities at the Site? How can EPA best provide Site-related information in the future?
There is nothing we can do when we get everybody's runoff. The neighbors pump out water and it gets sent our way and we can't control what is in the neighbor's parking lot.
- Do you own a private well in addition to or instead of accessing city/municipal water supplies? If so, for what purpose(s) is your private well used?
No, we are on city water.
- Do you have any comments, suggestions or recommendations regarding any aspects of the project?
No.

* Laura offered to email over the Site profile page website.

APPENDIX E – SITE INSPECTION CHECKLIST

FIVE-YEAR REVIEW SITE INSPECTION CHECKLIST																																																																													
I. SITE INFORMATION																																																																													
Site Name: <u>Allied Plating, Inc.</u>	Date of Inspection: <u>12/1/2022</u>																																																																												
Location and Region: <u>Portland, Oregon, Region 10</u>	EPA ID: <u>ORD009051442</u>																																																																												
Agency, Office or Company Leading the Five-Year Review: <u>EPA Region 10</u>	Weather/Temperature: <u>40s and partly cloudy</u>																																																																												
Remedy Includes: (check all that apply) <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Landfill cover/containment <input type="checkbox"/> Access controls <input checked="" type="checkbox"/> Institutional controls <input type="checkbox"/> Groundwater pump and treatment <input type="checkbox"/> Surface water collection and treatment <input checked="" type="checkbox"/> Other: <u>No Further Action ROD</u> </td> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Monitored natural attenuation <input type="checkbox"/> Groundwater containment <input type="checkbox"/> Vertical barrier walls </td> </tr> </table>		<input type="checkbox"/> Landfill cover/containment <input type="checkbox"/> Access controls <input checked="" type="checkbox"/> Institutional controls <input type="checkbox"/> Groundwater pump and treatment <input type="checkbox"/> Surface water collection and treatment <input checked="" type="checkbox"/> Other: <u>No Further Action ROD</u>	<input type="checkbox"/> Monitored natural attenuation <input type="checkbox"/> Groundwater containment <input type="checkbox"/> Vertical barrier walls																																																																										
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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. <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Agency <u>Oregon DEQ</u></td> <td style="width: 30%;"></td> <td style="width: 30%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td>Contact <u>Sarah Miller</u> Name _____</td> <td style="text-align: center;">Title _____</td> <td style="text-align: center;">Date <u>12/7/2022</u></td> <td style="text-align: center;">Phone _____</td> </tr> <tr> <td colspan="4">Problems/suggestions <input checked="" type="checkbox"/> Report attached: <u>Appendix D</u></td> </tr> <tr><td colspan="4"> </td></tr> <tr> <td>Agency _____</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Contact _____ 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="4">Problems/suggestions <input type="checkbox"/> Report attached: _____</td> </tr> <tr><td colspan="4"> </td></tr> <tr> <td>Agency _____</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Contact _____ 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="4">Problems/suggestions <input type="checkbox"/> Report attached: _____</td> </tr> <tr><td colspan="4"> </td></tr> <tr> <td>Agency _____</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Contact _____ 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="4">Problems/suggestions <input type="checkbox"/> Report attached: _____</td> </tr> <tr><td colspan="4"> </td></tr> <tr> <td>Agency _____</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Contact _____ 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="4">Problems/suggestions <input type="checkbox"/> Report attached: _____</td> </tr> </table>		Agency <u>Oregon DEQ</u>				Contact <u>Sarah Miller</u> Name _____	Title _____	Date <u>12/7/2022</u>	Phone _____	Problems/suggestions <input checked="" type="checkbox"/> Report attached: <u>Appendix D</u>								Agency _____				Contact _____ Name _____	Title _____	Date _____	Phone _____	Problems/suggestions <input type="checkbox"/> Report attached: _____								Agency _____				Contact _____ Name _____	Title _____	Date _____	Phone _____	Problems/suggestions <input type="checkbox"/> Report attached: _____								Agency _____				Contact _____ Name _____	Title _____	Date _____	Phone _____	Problems/suggestions <input type="checkbox"/> Report attached: _____								Agency _____				Contact _____ Name _____	Title _____	Date _____	Phone _____	Problems/suggestions <input type="checkbox"/> Report attached: _____			
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	Name	Title	Date	Phone
Problems/suggestions <input type="checkbox"/> Report attached: _____				
4. Other Interviews (optional) <input type="checkbox"/> Report attached: _____				
Two interviews of tenants were conducted on Site.				
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"/>
		<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"/>
		<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"/>
		<input type="checkbox"/>	Up to date	<input checked="" type="checkbox"/>
				N/A
Remarks: <u>No documents are kept on Site. EPA maintains the administrative record and there are no ongoing O&M activities.</u>				
2. Site-Specific Health and Safety Plan				
		<input type="checkbox"/>	Readily available	<input type="checkbox"/>
		<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"/>
		<input type="checkbox"/>	Up to date	<input checked="" type="checkbox"/>
				N/A
Remarks: <u>No documents are kept on Site. EPA maintains the Administrative Record and there are no ongoing O&M activities.</u>				
3. O&M and OSHA Training Records				
		<input type="checkbox"/>	Readily available	<input type="checkbox"/>
		<input type="checkbox"/>	Up to date	<input checked="" type="checkbox"/>
				N/A
Remarks: <u>No documents are kept on Site. EPA maintains the Administrative Record and there are no ongoing O&M activities.</u>				
4. Permits and Service Agreements				
<input type="checkbox"/>	Air discharge permit	<input type="checkbox"/>	Readily available	<input type="checkbox"/>
		<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"/>
		<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"/>
		<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"/>
		<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"/>
		<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"/>
		<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"/>
		<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"/>
		<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"/>
		<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"/>
		<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 (No O&M Required or Performed During Last Five Years)				
1.	O&M Organization	<input 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"/> EPA contractor		
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				
3.	Unanticipated or Unusually High O&M Costs during Review Period			
Describe costs and reasons: <u>No O&M activities required or performed during last five years.</u>				
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 type="checkbox"/> N/A
Remarks: <u>Industrial fencing around several areas.</u>				
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: <u>Signs unrelated to the remedy were posted to prevent trespassing.</u>				
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): <u>FYRs</u>			
	Frequency: <u>five years or as needed</u>			
	Responsible party/agency: <u>EPA</u>			
	Contact _____	_____	_____	_____
	Name	Title	Date	Phone no.
	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 type="checkbox"/> No <input checked="" 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: <u>Groundwater restrictions are in place in the impoundment area and FYRs ensure industrial use</u>				

<u>continues in the impoundment area, as required by the ROD.</u>			
D. General			
1.	Vandalism/Trespassing	<input type="checkbox"/> Location shown on Site map	<input type="checkbox"/> No vandalism evident
Remarks: <u>Trespassing and theft are issues at the Site, but they have not impacted the remedy.</u>			
2.	Land Use Changes On Site	<input checked="" type="checkbox"/> N/A	
Remarks: _____			
3.	Land Use Changes Off Site	<input checked="" type="checkbox"/> N/A	
Remarks: _____			
VI. GENERAL SITE CONDITIONS			
A. Roads <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A			
1.	Roads Damaged	<input type="checkbox"/> Location shown on Site map	<input checked="" type="checkbox"/> Roads adequate <input type="checkbox"/> N/A
Remarks: _____			
B. Other Site Conditions			
Remarks: _____			
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.			
<u>EPA issued a No Further Action ROD.</u>			
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>EPA issued a ROD that selected No Further Action after a removal action. Groundwater use restrictions are in place and the area is zoned for industrial uses. The remedy appears to be functioning as intended; there are no observable exposures of contaminated soils or groundwater.</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>There are no current O&M procedures.</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>None.</u>			
D. Opportunities for Optimization			
Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.			
<u>None observed.</u>			

APPENDIX F – 12/1/2022 SITE INSPECTION PHOTOS



From north end of former impoundment area, looking toward former layout area.



Former impoundment area, with truck storage and ponding



Fencing and vehicle storage on western part of former layout area



Fencing at former layout area building and vehicle storage along NE Martin Luther King Jr. Boulevard



Business at former administrative building area



Fenced portion of former administrative building area

APPENDIX G – SCREENING-LEVEL RISK REVIEW

Table G-1: Industrial Risk Review – Impoundment Area Cleanup Goals*

COC	Cleanup Goal (mg/kg)	EPA Industrial RSL ^a (mg/kg)		Industrial Risk Level	
		1 x 10 ⁻⁶ Risk	HQ = 1	1 x 10 ⁻⁶ Risk ^b	Noncancer HQ ^c
Antimony	200	NA	470	NA	0.4
Arsenic	150	3	480	5 x 10 ⁻⁵	0.3
Copper	20,000	NA	47,000	NA	0.4
Nickel ^d	10,000	64,000	22,000	2 x 10 ⁻⁷	0.5

Notes:
 NA = not available
 * Cleanup goals are not representative of current Site conditions after the 1992 removal action was completed and backfill material placed.
 a. Current RSLs, dated November 2022, are available at <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables> (accessed 1/26/2023).
 b. Cancer risks were calculated using the following equation, based on the fact that RSLs are derived based on 1 x 10⁻⁶ risk: cancer risk = (removal goal ÷ cancer RSL) × 10⁻⁶.
 c. The noncancer HQ was calculated using the following equation: HQ = (removal goal ÷ noncancer RSL).
 d. RSL is for nickel-soluble salts.

Table G-2: Residential Risk Review – Impoundment Area Cleanup Goals*

COC	Cleanup Goal (mg/kg)	EPA Residential RSL ^a (mg/kg)		Residential Risk Level	
		1 x 10 ⁻⁶ Risk	HQ = 1	1 x 10 ⁻⁶ Risk ^b	Noncancer HQ ^c
Antimony	200	NA	31	NA	6.5
Arsenic	150	0.68	35	2 x 10 ⁻⁴	4.3
Copper	20,000	NA	3,100	NA	6.5
Nickel ^d	10,000	15,000	1,500	7 x 10 ⁻⁷	6.7

Notes:
 NA = not available
Bold = exceeds EPA's acceptable risk range of 1 x 10⁻⁶ to 1 x 10⁻⁴ and an HQ of 1.
 * Cleanup goals are not representative of current Site conditions after the 1992 removal action was completed and backfill material placed.
 a. Current RSLs, dated November 2022, are available at <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables> (accessed 1/26/2023).
 b. Cancer risks were calculated using the following equation, based on the fact that RSLs are derived based on 1 x 10⁻⁶ risk: cancer risk = (removal goal ÷ cancer RSL) × 10⁻⁶.
 c. The noncancer HQ was calculated using the following equation: HQ = (removal goal ÷ noncancer RSL).
 d. RSL is for nickel-soluble salts.

Table G-3: Residential Risk Review – Impoundment Area Post Removal Concentrations

COC	Maximum Concentration (mg/kg)	EPA Residential RSL ^a (mg/kg)		Residential Risk Level	
		1 x 10 ⁻⁶ Risk	HQ = 1	1 x 10 ⁻⁶ Risk ^b	Noncancer HQ ^c
Antimony	37	NA	31	NA	1.2
Arsenic	41	0.68	35	6 x 10 ⁻⁵	1.2
Cadmium	5	2,100	7.1	2 x 10 ⁻⁹	0.7
Chromium III ^d	5,548	NA	120,000	NA	0.05
Chromium VI	42	0.3	230	1x10 ⁻⁴	0.2
Copper	12,000	NA	3,100	NA	3.9
Lead	234	400		<400	
Nickel ^e	5,410	15,000	1,500	4 x 10 ⁻⁷	3.6
Cyanide ^f	97	NA	23	NA	4.2

Notes:
 NA = not available
Bold = exceeds EPA’s acceptable risk range of 1 x 10⁻⁴ to 1 x 10⁻⁶ and an HQ of 1.
 a. Current RSLs, dated November 2022, are available at <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables> (accessed 1/26/2023).
 b. Cancer risks were calculated using the following equation, based on the fact that RSLs are derived based on 1 x 10⁻⁶ risk: cancer risk = (maximum concentration ÷ cancer RSL) × 10⁻⁶.
 c. The noncancer HQ was calculated using the following equation: HQ = (maximum concentration ÷ noncancer RSL).
 d. RSL is for chromium III insoluble salts.
 e. RSL is for nickel-soluble salts.
 f. RSL is for cyanide (CN-)

Table G-4: Maximum Metals Concentrations in Former Layout Area

COC	Maximum Concentration (mg/kg)	EPA Residential RSL ^a (mg/kg)		Residential Risk Level	
		1 x 10 ⁻⁶ Risk	HQ = 1	1 x 10 ⁻⁶ Risk ^b	Noncancer HQ ^c
Chromium III ^d	163.8	NA	120,000	NA	0.001
Chromium VI	1.2	0.3	230	4 x 10 ⁻⁶	0.01
Copper	794	NA	3,100	NA	0.3
Nickel ^e	1,930	15,000	1,500	1 x 10 ⁻⁷	1.3

Notes:
 NA = not available
Bold = exceeds EPA’s acceptable risk range of 1 x 10⁻⁴ to 1 x 10⁻⁶ and an HQ of 1.
 a. Current RSLs, dated November 2022, are available at <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables> (accessed 1/26/2023).
 b. Cancer risks were calculated using the following equation, based on the fact that RSLs are derived based on 1 x 10⁻⁶ risk: cancer risk = (maximum concentration ÷ cancer RSL) × 10⁻⁶.
 c. The noncancer HQ was calculated using the following equation: HQ = (maximum concentration ÷ noncancer RSL).
 d. RSL is for chromium III insoluble salts.
 e. RSL is for nickel-soluble salts.