

**STATE OF WASHINGTON
Klickitat County Superior Court**

STATE OF WASHINGTON,
DEPARTMENT OF ECOLOGY,

Plaintiff,

v.

FFP Project 101, LLC,

Defendant.

NO. _____

PROSPECTIVE PURCHASER
CONSENT DECREE

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I. INTRODUCTION

1. The mutual objectives of the State of Washington, Department of Ecology (Ecology) and FFP Project 101, LLC (FFP) under this Prospective Purchaser Consent Decree (PPCD or Decree) are to (1) resolve the potential liability of FFP for contamination at the former Columbia Gorge Aluminum Smelter Site (Site) arising from releases or threatened releases of hazardous substances, in advance of FFP obtaining an ownership interest in real property at the Site; and (2) to facilitate the implementation of remedial action at a portion of the Site (the Property, as defined further below), where there has been a release or threatened release of hazardous substances so that redevelopment may occur by FFP at a portion of the Site for part of a pumped-storage energy generation facility (the Project). This Decree requires FFP to implement the Project-specific Cleanup Action Plan (CAP) (Exhibit D) for only the portion of the Site that FFP will redevelop for the Project (the Property).

2. Ecology has determined that these actions are necessary to protect human health and the environment.

3. The Complaint in this action is being filed simultaneously with this Decree. An Answer has not been filed, and there has not been a trial on any issue of fact or law in this case. However, the Parties wish to resolve the issues raised by Ecology's Complaint. In addition, the Parties agree that settlement of these matters without litigation is reasonable and in the public interest, and that entry of this Decree is the most appropriate means of resolving these matters.

4. By signing this Decree, the Parties agree to its entry and agree to be bound by its terms.

5. By entering into this Decree, the Parties do not intend to discharge non-settling parties from any liability they may have with respect to matters alleged in the Complaint. The Parties retain the right to seek reimbursement, in whole or in part, from any liable persons for sums expended under this Decree.

6. This Decree shall not be construed as proof of liability or responsibility for any releases of hazardous substances or costs for remedial action nor an admission of any facts; provided, however, that FFP shall not challenge the authority of the Attorney General and Ecology to enforce this Decree.

7. The Court is fully advised of the reasons for entry of this Decree, and good cause having been shown:

Now, therefore, it is HEREBY ORDERED, ADJUDGED, AND DECREED as follows:

II. JURISDICTION

1. This Court has jurisdiction over the subject matter and over the Parties pursuant to the Model Toxics Control Act (MTCA), RCW 70A.305.

2. Authority is conferred upon the Washington State Attorney General by RCW 70A.305.040(4)(a) to agree to a settlement with any potentially liable person (PLP) if, after public notice and any required hearing, Ecology finds the proposed settlement would lead to a more expeditious cleanup of hazardous substances. In addition, under RCW 70A.305.040(5), the Attorney General may agree to a settlement with a person not currently liable for remedial action at a site who proposes to purchase, redevelop, or reuse the site, provided: the settlement will yield substantial new resources to facilitate cleanup; the settlement will expedite remedial action consistent with the rules adopted under MTCA; and Ecology determines based upon available information that the redevelopment or reuse of the site is not likely to contribute to the existing release or threatened release, interfere with remedial actions that may be needed at the site, or increase health risks to persons at or in the vicinity of the site. RCW 70A.305.040(4)(b) requires that such a settlement be entered as a consent decree issued by a court of competent jurisdiction.

3. Ecology has determined that a release or threatened release of hazardous substances has occurred at the Property, which comprises a portion of the Site, that is the subject of this Decree.

4. The actions to be taken pursuant to this Decree are necessary to protect public health and the environment.

5. This Decree has been subject to public notice and comment. The public comment period is scheduled to start on April 16, 2026. A public hearing is scheduled for May 19, 2026.

6. FFP has not been named as a PLP for the Site, and FFP has certified under Section IX (Certification of Defendant) that it is not currently liable for the Site under MTCA. FFP holds an option to purchase the Property at the Site. The Property comprises a portion of the Site. FFP will incur potential liability under RCW 70A.305.040(1) at the time it acquires an interest in the Property at the Site for performing remedial actions or paying remedial costs incurred by Ecology or third parties resulting from past releases or threatened releases of hazardous substances at the Site. This Decree settles FFP's liability as described herein for the Site upon it obtaining an ownership interest in the Property.

7. FFP intends to redevelop the Property at the Site for the Project, as described in this Decree, the 2019 Prospective Purchaser Consent Decree Application and the 2021 *Prospective Purchaser Agreement Detailed Proposal*. Collectively, the 2019 PPCD Application and 2021 Detailed Proposal are referred to as the "2019/2021 PPCD Application".

8. Ecology finds that this Decree will: yield substantial new resources to facilitate cleanup of the Site; will lead to a more expeditious cleanup of hazardous substances at the Facility in compliance with the cleanup standards established under RCW 70A.305.030(2)(e) and WAC 173-340; will promote the public interest by facilitating the redevelopment or reuse of a portion of the Site for the Project; and, will not be likely to contribute to the existing release or threatened release at the Site, interfere with remedial actions that may be needed at the Site, or increase health risks to persons at or in the vicinity of the Site. This Decree also satisfies the requirements of WAC 173-303-646 through -64630.

9. FFP has agreed to undertake the actions specified in this Decree and consents to the entry of this Decree under MTCA.

III. PARTIES BOUND

1. This Decree shall apply to and be binding upon the Parties to this Decree, their successors and assigns. The undersigned representative of each party hereby certifies that he or she is fully authorized to enter into this Decree and to execute and legally bind such party to comply with this Decree. FFP agrees to undertake all actions required by the terms and conditions of this Decree. No change in ownership or corporate status of FFP shall alter FFP's responsibility under this Decree. FFP shall provide a copy of this Decree to all agents, contractors, and subcontractors retained to perform work required by this Decree, and shall ensure that all work undertaken by such agents, contractors, and subcontractors complies with this Decree.

IV. DEFINITIONS

1. Unless otherwise specified herein, all definitions in RCW 70A.305.020 and WAC 173-340 shall control the meanings of the terms in this Decree.

A. Area of Concern (AOC): Refers to any area of the Site where a release of dangerous constituents (including dangerous waste and hazardous substances) has occurred, is occurring, is suspected to have occurred, or threatens to occur.

B. Cleanup Action Plan (CAP): Refers to the Project-specific CAP document issued by Ecology under WAC 173-340-380 which selects Project-specific corrective measures and specifies cleanup standards (cleanup levels, points of compliance, and other requirements for the corrective measures), attached as Exhibit D to this Decree. CAP as used herein means the Project-specific CAP (Exhibit D) unless this Decree specifically references the "Site-wide CAP," defined below.

C. Cleanup Standards: Refers to the standards promulgated under RCW 70A.305.030(2)(e) and includes (1) hazardous substance concentrations (cleanup levels) that protect human health and the environment, (2) the location at the Site where those cleanup levels must be attained (points of compliance), and (3) additional

regulatory requirements that apply to a cleanup because of the type of action and/or the location of the Site.

D. Corrective Action: Refers to any activities including investigations, studies, characterizations, and corrective measures, including actions taken pursuant to RCW 70A.305 and WAC 173-340, undertaken in whole or in part to fulfill the requirements of WAC 173-303-64620.

E. Corrective Measure: Refers to any measure or action to control, prevent, or mitigate release(s) and/or potential release(s) of dangerous constituents (including dangerous waste and hazardous substances) reviewed and approved by Ecology for the Site and set forth in a Site-wide CAP and the Project-specific CAP prepared in compliance with the requirements of WAC 173-340, including WAC 173-340-360. Corrective measures may include interim actions as defined by WAC 173-340. Interim actions will not necessarily be set forth in a Site-wide CAP or the Project-specific CAP.

F. Dangerous Constituent or Dangerous Waste Constituent: Refers to any constituent identified in WAC 173-303-9905 or 40 C.F.R. part 264, appendix IX; any constituent that caused a waste to be listed or designated as dangerous under the provisions of WAC 173-303; and any constituent defined as a hazardous substance under RCW 70A.305.020(13).

G. Dangerous Waste: Refers to any solid waste designated in WAC 173-303-070 through -100 as dangerous or extremely hazardous or mixed waste. Dangerous wastes are considered hazardous substances under RCW 70A.305.020(13).

H. Dangerous Waste Management Facility: Used interchangeably in this document with the term “Facility” or the term “Site.”

I. Dangerous Waste Management Unit (DWMU): Refers to a contiguous area of land on or in which dangerous waste is placed, or the largest area in which there

is a significant likelihood of mixing dangerous waste constituents in the same area, as defined in WAC 173-303-040.

J. Facility: Refers to the former Columbia Gorge Aluminum Smelter DWMU controlled by NSC Smelter, LLC (NSC) located at 85 John Day Dam Road; all property contiguous to the DWMU also controlled by NSC Smelter, LLC; and all property, regardless of control, affected by release(s) or threatened release(s) of hazardous substances, including dangerous wastes and dangerous constituents, at and from these areas. “Facility” also includes the definition found in RCW 70A.305.020(8). The term “Facility” is used interchangeably with the term “Site.”

K. Parties: Refers to the State of Washington, Department of Ecology and FFP.

L. Permit or Permitting Requirement: Unless otherwise specified, refers to the requirements of WAC 173-303 for applying for, obtaining, maintaining, modifying, and terminating Dangerous Waste Management Facility permits.

M. Project: Refers to the redevelopment of the Property into part of the pumped-storage energy generation facility as proposed by FFP as described in the 2019/2021 PPCD Application submitted to Ecology.

N. Project Start Date: Refers to the date when both of the following have occurred: (1) issuance of a “Notice to Proceed” with construction of the Project by the Federal Energy Regulatory Commission (“FERC”); and (2) FFP’s option to purchase the Property has been exercised, the Property acquisition including closing process has been completed, and the deed for the Property has been delivered to FFP and recorded with Klickitat County.

O. Property: Refers to the real property at the Site comprising a portion of the Site that FFP will obtain an ownership interest in for the Project. The Property

comprises a portion of the Site. The Property is further described in Exhibit B and is depicted in Exhibit C.

P. Prospective Purchaser Consent Decree or Decree: Refers to this Prospective Purchaser Consent Decree and each of the exhibits to this Decree. All exhibits are integral and enforceable parts of this Prospective Purchaser Consent Decree.

Q. RCRA: Refers to the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901–6992k.

R. Site: Refers to the former Columbia Gorge Aluminum Smelter Site, Facility Site ID # 95415874, Cleanup Site ID # 11797. The Site is generally located at 85 John Day Dam Road, Goldendale, Washington. The Site includes all areas where contamination has come to be located from releases during former operations and constitutes a facility under RCW 70A.305.020(8). The Site is defined by where a hazardous substance, other than a consumer product in consumer use, has been deposited, stored, disposed of, or placed, or otherwise come to be located. The term “Site” is used interchangeably with the term “Facility.”

S. Site-wide PLPs: The party or parties operating under MTCA Administrative Order Number DE 10483, Facility Site ID: 95415874, Cleanup Site ID: 11797, with Ecology and/or or the Site-wide Consent Decree for performance of remedial action at the Site (hereinafter “Site-wide PLPs”), including but not limited to NSC Smelter, LLC and Lockheed Martin Corporation, and specifically excluding FFP.

T. Site-wide Cleanup Action Plan (Site-wide CAP): Refers to the Site-wide CAP issued by Ecology under WAC 173-340-380 which selects Site-wide corrective measures and specifies cleanup standards (cleanup levels, points of compliance, and other requirements for the corrective measures) to be implemented at the Site by the Site-wide PLPs.

U. Solid Waste Management Unit (SWMU): Refers to any discernible location at the Dangerous Waste Management Facility where solid wastes have been placed at any time, irrespective of whether the location was intended for the management of solid or dangerous waste. Such locations include any area at the Dangerous Waste Management Facility at which solid wastes, including spills, have been routinely and systematically released, and include regulated units as defined by WAC 173-303.

V. FINDINGS OF FACT

1. Ecology makes the following findings of fact without any express or implied admissions of such facts by FFP. The following findings of facts have been included to provide background information regarding the Site and are not specific to the Property. Findings of facts for the Property have been included in Section V.2.

A. Based upon factors currently known to Ecology, the Site is generally located at 85 John Day Dam Road near Goldendale, Washington as shown in the Site Location Diagram (Exhibit A). The nature and extent of the releases of hazardous substances at the Site are described in the Site-wide Remedial Investigation (RI) Report and Facility Study (FS) Report prepared by Weston, Inc. (Weston) on behalf of NSC and Lockheed Martin Corporation (LMC) (Weston 2022, Weston 2024), on file with Ecology. In addition, a Project-specific RI/FS Report was prepared by Environmental Resources Management, Inc. (ERM) on behalf of FFP that describes the nature and extent of hazardous substances released at the Site that are specific to the proposed location of the energy storage project (ERM 2024). This document is on file with Ecology. The main contaminants of concern (COCs) for the Site include fluoride, sulfate, polycyclic aromatic hydrocarbons (PAHs), cyanide, metals, polychlorinated biphenyls (PCBs), petroleum hydrocarbons, and spent potliner waste present in soil and/or groundwater

above MTCA cleanup levels or screening levels (ERM 2024). The COCs for the Property include fluoride, sulfate, aluminum, arsenic, cyanide, and lead (ERM 2024).

B. The Columbia Gorge Aluminum Smelter (Smelter) was constructed in or around 1969-70 on a site north of the Columbia River and located on the Site. Aluminum and aluminum products were produced at the Smelter for nearly 30 years. The former Smelter is located 17 miles southeast of Goldendale, Washington, one mile north of the John Day Dam on the Columbia River in Klickitat County, Washington. This area is zoned industrial and will likely remain industrial in the future. Adjacent parcels are zoned open space or extensive agriculture. The Site consists of approximately 7,000 acres, of which approximately 350 acres contained the former active aluminum smelter operations. Exhibit A shows the Site Location Diagram.

C. The Site is also within a treaty usual and accustomed area of the Confederated Tribes and Bands of the Yakama Nation and adjacent to the North Shore Treaty Fishing Access Site (TFAS). Enrolled Yakama tribal members exercise treaty reserved fishing rights for ceremonial, subsistence, and commercial purposes from numerous traditional platforms on the Washington shore of the Columbia River within a mile of the Site, and also on the Oregon shore within two miles of the Site. The TFAS, a boat launch area owned by the Army Corps of Engineers (Corps), is situated approximately one-half mile from the Site on the Washington shore upstream from the John Day Dam. This TFAS was established by the Corps as an Indian Reservation following the 1988 signing of Public Law 100-581, Title IV—Columbia River Treaty Access Sites. Pursuant to 25 CFR Part 247, the TFAS is operated and maintained under the exclusive regulatory jurisdiction of the Yakama Nation and the United States. Fisheries in the area of the main stem Columbia River (designated “zone 6”) are currently co-managed by the Yakama Nation and the states of Washington and Oregon under the 2008 U.S. v. Oregon Management Agreement.

D. Harvey Aluminum began construction of the Smelter in 1969. Martin Marietta Corporation (MMC)¹, purchased the Smelter from Harvey Aluminum via several stock transactions. Once the stock transactions were complete in 1971 and Harvey Aluminum became a subsidiary of MMC, it was renamed Martin Marietta Aluminum (MMA). MMA owned and operated the Smelter until September 30, 1984.

E. MMA owned and operated the Smelter as a Dangerous Waste Management Facility on or after November 19, 1980, the date which subjects facilities to RCRA permitting requirements, including interim status requirements pursuant to RCRA, 42 U.S.C. § 6925, and implementing regulations thereunder, and including authorized state regulations promulgated in WAC 173-303.

F. On January 14, 1981, MMA submitted to the Environmental Protection Agency (EPA) Part A of the RCRA permit application. In the Part A application, MMA identified itself as managing dangerous waste, Spent Pot Liner (SPL), at the Smelter.

G. Pursuant to the January 14, 1981 notification, MMA was issued identification number WAD 990828642 by EPA. On August 6, 1982, MMA submitted to Ecology Part A of the RCRA permit application and notified Ecology of MMA's storage of dangerous waste at the Site.

H. SPL was listed as a RCRA hazardous waste in 1980 due to cyanide content. On July 16, 1980, EPA published an interim final rule that made SPL a listed hazardous waste with code K088. In EPA's interim final amendment to its hazardous waste regulations on November 19, 1980, SPL was removed from the rule. SPL was then removed as a listed RCRA hazardous waste on January 16, 1981, due to a congressional mandate which excluded mineral processing wastes.

I. In 1982, Ecology tested SPL at the Site for extraction procedure (EP) toxicity and fish bioassay toxicity. MMA tested SPL at the Site in 1984 for fish and rat

¹ Lockheed merged with MMC in 1995 to become Lockheed Martin Corporation.

toxicity. The SPL passed these characteristic tests and did not designate as a dangerous waste.

J. On July 3, 1984, MMA submitted a modified Part A permit application to Ecology which removed SPL and added treatment and storage of primary sulfur dioxide scrubber wastewater in its East Surface Impoundment (ESI) and West Surface Impoundment (WSI). The scrubber wastewater was designated as a Washington State Dangerous Waste due to bioassay failure (fish bioassay at 1,000 ppm level).

K. In September 1984, MMC entered into a Purchase Agreement with Comalco Holding, Inc. (Comalco) to transfer all outstanding MMA shares to Comalco. The sale, finalized in January 1985, transferred ownership of the Smelter to Comalco; Comalco then changed MMA's corporate name to Commonwealth Aluminum Corporation (Commonwealth).

L. On October 2, 1985, EPA proposed another rule that would relist SPL as K088. On October 9, 1986, EPA published a withdrawal of the proposed rule to remove SPL from the list of hazardous wastes. Commonwealth operated the Smelter until February 1987 and shut it down at that time.

M. In August 1987, the Columbia Aluminum Corporation (CAC) purchased and restarted the Smelter. CAC operated the smelter until May 1996. After purchasing the smelter, CAC submitted a modified Part A application to Ecology on August 5, 1987, to update the name and ownership of the Smelter.

N. On September 13, 1988, EPA published a final rule again making SPL a listed hazardous waste (K088). The September 13, 1988 EPA final rule was made effective on March 13, 1989. On March 7, 1991, Ecology's Dangerous Waste Regulations (WAC 173-303-9904) were modified to list SPL as a dangerous waste.

O. CAC owned and operated the Smelter as a Dangerous Waste Management Facility on or after EPA listed SPL as a hazardous waste on September 13, 1988, and the

effective rule implementation date of March 13, 1989, thereby CAC became subject to RCRA permitting requirements, including interim status requirements pursuant to RCRA, 42 U.S.C. § 6925, and implementing regulations thereunder, and including authorized state regulations in WAC 173-303.

P. On April 7, 1991, Ecology's Dangerous Waste Regulations (WAC 173-303), including the newly listed SPL waste under code K088, became effective, and the North SPL Storage Containment Building, the South SPL Storage Building and SPL Handling Containment Building became regulated DWMUs. CAC then submitted to Ecology a modified Part A of the RCRA permit application. CAC also submitted a Part B application to Ecology and EPA. The Part B application included the North and South SPL Storage Buildings, the Handling Containment Building and the WSI. The closure plan for the WSI was updated in February 1995.

Q. In April 1996, EPA adopted land disposal restrictions (Land Ban) for SPL. Under the Land Ban, CAC was required to remove its enclosed SPL waste piles or change its dangerous waste management status to an acceptable classification.

R. In May 1996, the CAC employees bought out the majority ownership and immediately resold the Smelter to a new company, Goldendale Aluminum Corporation (GAC). GAC owned and operated the Smelter as a Dangerous Waste Management Facility on or after EPA listed SPL as a hazardous waste on September 13, 1988, and the effective rule implementation date of March 13, 1989, therefore GAC became subject to RCRA permitting requirements, including interim status requirements pursuant to RCRA, 42 U.S.C. § 6925, and implementing regulations thereunder, and including authorized state regulations in WAC 173-303.

S. Prior to the Land Ban effective date of October 1997, GAC chose to convert its enclosed waste pile buildings to containment buildings. GAC submitted a modified Part A application to include the change. Ecology approved the revised

application on January 2, 1997. In 1997, GAC submitted a modified Part B application for the SPL Containment Buildings.

T. In 2004, GAC began the RCRA closure process for the WSI. GAC submitted a revised Part B application in August 2004 to reflect the closure of the WSI. Shortly after the Part B was submitted, the Smelter temporarily suspended production operations. Ecology approved the closure of the WSI and it was closed on November 30, 2005. Aluminum smelter operations were never restarted and the Smelter permanently shut down on March 30, 2003 when all cell operations ceased.

U. Pursuant to a Chapter 11 bankruptcy plan or reorganization (administered under Case No. 303-44107) presented to the United States Bankruptcy Court for the District of Oregon on or about January 12, 2005, GAC transferred all assets and liabilities to NSC (doing business as Columbia Gorge Aluminum). NSC is and has been the owner and operator of the Facility since on or about April 2005.

V. NSC owned the Facility on or after EPA relisted SPL as a hazardous waste on September 13, 1988, and the effective rule implementation date of March 13, 1989, therefore NSC became subject to RCRA permitting requirements, including interim status requirements pursuant to RCRA, 42 U.S.C. § 6925, and implementing regulations thereunder, and including authorized state regulations in WAC 173-303.

W. A final status permit has not been issued, and the Site continues as a RCRA interim status Facility.

X. The Ecology Hazardous Waste Investigations and Cleanup Program performed a Preliminary Assessment/Site Investigation (PA/SI) at the Site beginning in August 1987. The purpose of the PA/SI is to identify those areas at the Facility where release(s) of hazardous substances, as defined in RCW 70A.305.020(13), may have occurred or may be occurring. The inspection is used to determine if a site should be placed on the Superfund National Priorities List (NPL).

Y. Ecology's final Site Inspection Report was completed in May 1989. The Site did not rank high enough to be placed on the NPL. The PA/SI was converted to a MTCA Site Hazard Assessment (SHA) during the summer of 1990. The Site was listed on Ecology's Hazardous Sites List (Site Register) on August 28, 1990 with a ranking of 3.

Z. During the 35-year span of operations at the Smelter, the various owners have managed hazardous and non-hazardous solid wastes at several locations onsite. Information concerning the active life, size, and type of these solid waste management units (SWMUs) varies from extensive to none depending on the specific unit.

AA. Pursuant to the SHA Report and other information, Ecology has identified 32 SWMUs and 4 Areas of Concern (AOC), which are further discussed in the Site-wide RI Report (Weston 2022) and the Project-specific RI/FS Report (ERM 2024), both on file with Ecology.

AB. Release(s) and/or potential release(s) of hazardous substances including but not limited to polycyclic aromatic hydrocarbons (PAHs), arsenic, aluminum, total cyanide, fluoride, sulfate, polychlorinated biphenyls (PCBs), and volatile organic compounds (VOCs) from SWMUs and AOCs at the Facility are documented in the PA/SI Report, the RCRA Part B application, Project-specific RI/FS Report, and the Site-wide RI Report, all on file with Ecology.

AC. Hazardous substances have been released from the Facility into the environment including surface water drainage areas; unconsolidated soil; groundwater beneath and beyond the Facility; air; human work areas; and floral and faunal habitats.

AD. Since 1993, NSC and/or Lockheed Martin have conducted independent investigations and remedial actions at the Site. NSC and Lockheed Martin have each conducted work at locations at the Site in accordance with their responsibilities as identified in a November 3, 1993 Settlement Agreement, filed in the U.S. District Court,

Western District of Washington. With technical assistance from Ecology, independent investigations and remedial actions were conducted at SWMUs 1, 5, 14, 15 and 16.

AE. NSC and Lockheed Martin entered into Agreed Order No. 10483 with Ecology on May 1, 2014. Under the Agreed Order, NSC and Lockheed have conducted a Site-wide RI. A final draft Site-wide RI was presented to Ecology on June 14, 2022. A final draft Site-wide FS was presented to Ecology on May 16, 2024. The final draft Site-wide FS is pending review and comment by Ecology and the Yakama Nation, and will be issued for public comment upon completion of that review and comment period.

AF. The Site-wide RI identified areas of soil and groundwater contamination resulting from releases at the Smelter. COCs found in soil and groundwater include: fluoride, sulfate, cyanide, PAHs, metals, PCBs, and petroleum hydrocarbons. Soil contamination was found in the former operations area, the former waste dumping areas and within the current and former wastewater management features. Three areas of fluoride and sulfate groundwater contamination were found to exist at the Site: a comingled plume underlying the ESI (RCRA regulated unit) and adjacent waste dumping areas, a plume underlying the former plant footprint, and comingled plume underlying the WSI (RCRA regulated unit) and the adjacent West SPL Storage Area (SWMU 13). These RCRA regulated units are situated among other solid waste management units, a release has occurred, and both the RCRA/dangerous waste units and one or more of the solid waste management units are likely to have contributed to the release at the Site.

2. Ecology makes the following findings of fact without any express or implied admissions of such facts by FFP. The following findings of facts have been included to provide information relevant to the Property.

A. The Property is an approximately 529.6-acre portion of the Site subject to the option to purchase by FFP. The Property is described in Exhibit B and further depicted in Exhibit C.

B. FFP submitted a 2019 Prospective Purchaser Consent Decree Application to Ecology, and an update in the 2021 Prospective Purchaser Agreement Detailed Proposal.

C. The Project-specific RI/FS Report (Goldendale Remedial Investigation/Feasibility Study Report, Rev. 2) was prepared by ERM on behalf of FFP in support of the Project. The Project-specific RI/FS Report assessed cleanup action alternatives for the Property. This Project-specific RI/FS Report was approved by Ecology as “Final Draft” on December 23, 2024. The Project-specific RI/FS Report went through Ecology, EPA, and Yakama Nation review and comment and was then issued for public review and comment on April 16, 2026. Following review of public comments, Ecology accepted the final Project-specific RI/FS Report on [insert date].

D. The Project-specific RI/FS report identified areas of soil and groundwater contamination within and adjacent to the Project area resulting from historical waste management activities at the Smelter. Soil COCs identified within the Project area include fluoride, sulfate, aluminum, cyanide, and lead based on groundwater results and site history. Groundwater COCs include fluoride and sulfate according to recent groundwater monitoring results. Groundwater impacts are associated with the closed WSI within the Project area and the adjacent West Spent Pot Liner Storage Area (SWMU 13) which is located outside the Project area. The WSI is regulated under RCRA, and evidence indicates that releases have occurred, with both the RCRA-regulated unit and one or more adjacent waste areas likely to have contributed to the observed groundwater impacts.

E. The Project-specific CAP was submitted to Ecology on April 4, 2025. Ecology reviewed and provided comments for FFP to revise the CAP. The Project-specific CAP was reviewed by EPA and will be part of the public review and comment process for this PPCD.

F. Pursuant to WAC 173-303-610(1)(e), the requirements in the Project-specific CAP and Site-Wide CAP established under WAC 173-340 will serve to meet the alternative requirements for closure and post-closure for the permitted unit (WSI) at the Facility.

G. Pursuant to WAC 173-303-620(1)(d), the financial assurance requirements established in the PPCD and Site-Wide CD will serve to meet the alternative requirements for financial assurance for the permitted unit (WSI) at the Facility. These requirements are consistent with WAC 173-303-64620(5).

H. Pursuant to WAC 173-303-645(1)(e), the groundwater monitoring requirements in the Project-specific CAP and Site-wide CAP established under WAC 173-340 will serve to meet the alternative groundwater monitoring requirements for the permitted units (WSI) at the Facility.

VI. WORK TO BE PERFORMED

1. This Decree contains a program designed to protect human health and the environment from the known release, or threatened release, of hazardous substances or contaminants at, on, or from the Site. All remedial action(s) conducted by FFP at the Site shall be done in accordance with WAC 173-340.

2. Under this Decree, FFP is not required to conduct remedial actions at the Property or the Site prior to the Project Start Date.

3. After the Project Start Date, FFP shall implement the CAP (Exhibit D) in accordance with the Schedule (Appendix C of the CAP). This includes but is not limited to:

A. Excavation of WSI (SWMU 4) to an estimated maximum depth of 18 feet or to the existing WSI bottom liner, and over-excavation of underlying contaminated soil exceeding established cleanup levels (CULs) to a maximum depth of 15 feet beneath the existing WSI bottom liner or until the groundwater table or bedrock is encountered, whichever is shallower.

B. Confirmation soil sampling below the WSI bottom liner to determine areas needed for over-excavation. Over-excavation is assumed to be required beneath 20 percent of the WSI footprint area. If confirmational sampling determines that over-excavation is required beyond 20 percent of the WSI footprint area, the findings will be reported to Ecology and a focused FS will be prepared to evaluate the appropriate remedial action.

C. Off-Property disposal of contaminated materials and soil to a permitted landfill acceptance facility in accordance with local, State, and Federal laws and regulations.

D. Decommissioning and replacement of groundwater monitoring wells through the Project footprint in accordance with WAC 173-160-381. Groundwater monitoring wells will be installed to replace decommissioned wells during construction of the lower reservoir for use by the Site-wide PLPs for compliance groundwater monitoring.

E. Implementing institutional controls (IC) in the form of restrictive Environmental Covenants (EC) to be recorded with Klickitat County as required in the CAP.

5. All plans or other deliverables submitted by FFP for Ecology's review and approval under this Decree shall, upon Ecology's approval, become integral and enforceable parts of this Decree.

6. If FFP learns of a significant change in conditions at the Site, including but not limited to a statistically significant increase in contaminant and/or chemical concentrations in soil, groundwater, surface water, and/or sediments, FFP, within seven (7) days of learning of the change in condition, shall notify Ecology in writing of said change and provide Ecology with any reports or records (including laboratory analyses, sampling results) relating to the change in conditions.

7. As detailed in the Project-specific CAP, institutional controls are required at the Property. Environmental (Restrictive) Covenants will be used to implement the institutional controls.

A. In consultation with FFP, Ecology will prepare the Environmental (Restrictive) Covenants consistent with WAC 173-340-440, RCW 64.70, and any policies or procedures specified by Ecology. The Environmental (Restrictive) Covenants shall restrict future activities and uses of the Property as agreed to by Ecology and FFP.

B. After approval by Ecology, FFP shall record the Environmental (Restrictive) Covenant for the Property with the office of the Klickitat County Auditor as detailed in the CAP Schedule (CAP Appendix C). FFP shall provide Ecology with the original recorded Environmental (Restrictive) Covenants within thirty (30) days of the recording date.

C. As detailed in the Project-specific CAP, as part of the remedial action for the Site, institutional controls may be required on properties owned and not owned by FFP. Upon assuming ownership of the Property, FFP will ensure that Ecology-approved Environmental (Restrictive) Covenants pertaining to the Property are recorded in the relevant Property records and will make all reasonable efforts to facilitate recording of any Project-specific required ECs, as detailed in the Schedule, in the property records of non-FFP owned properties. Upon a showing that FFP has made a good faith effort to secure an Environmental (Restrictive) Covenant for an affected property and failed to do

so, Ecology may provide assistance to FFP to assist with those efforts. FFP shall provide Ecology with the original recorded Environmental (Restrictive) Covenants for the Property within thirty (30) days of the recording date.

8. Unless otherwise directed by Ecology, FFP shall submit to Ecology written quarterly Progress Reports that describe the actions taken during the previous 3 months to implement the requirements of this Decree. FFP shall submit all Progress Reports by the tenth (10th) day of the month in which they are due after the Project Start Date. Unless otherwise specified in writing by Ecology, FFP shall send Progress Reports and any other documents submitted pursuant to this Decree by email to Ecology's project coordinator. The Progress Reports shall include the following:

- A. A list of activities that have taken place at the Property during the month.
- B. Description of any sample results which deviate from the norm.
- C. Detailed description of any deviations from required tasks not otherwise documented in project plans or amendment requests.
- D. Description of all deviations from the Scope of Work and Schedule in the CAP (Exhibit D) during the current month and any planned deviations in the upcoming month.
- E. For any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule.
- F. All raw data (including laboratory analyses) received during the previous quarter (if not previously submitted to Ecology), together with a detailed description of the underlying samples collected.
- G. A list of planned activities for the upcoming month.

9. Financial Assurance

A. Financial assurance for corrective action at the Property is required by WAC 173-303-64620. Ecology's Financial Assurance Officer shall determine when FFP's actions and submissions meet the requirements of WAC 173-303-64620.

B. Ecology's Financial Assurance Officer is:

Joanna Richards
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600
Phone: 360-407-7220
Fax: 360-407-6715
Email: joar461@ecy.wa.gov

10. Except in the case of an emergency, FFP agrees not to perform any remedial actions at the Site outside the scope of this Decree without prior written approval of Ecology. In the case of an emergency, FFP must notify Ecology of the event and remedial action(s) as soon as practical, but no later than twenty-four (24) hours after discovery of the emergency.

VII. DESIGNATED PROJECT COORDINATORS

1. The project coordinator for Ecology is:

Dave Johnson
P.O. Box 47600, Olympia, WA 98504-7600
(360) 338-2638
dave.johnson@ecy.wa.gov

2. The project coordinator for FFP is:

Brian Wright
412 W 15th Street, New York, NY 10011
(646) 864-4951
Bwr@cip-tt.com

3. Each project coordinator shall be responsible for overseeing the implementation of this Decree. Ecology's project coordinator will be Ecology's designated representative for the Site, and for work on the Property under this Decree. To the maximum extent possible, communications between Ecology and FFP and all documents, including reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions

of this Decree shall be directed through the project coordinators. The project coordinators may designate, in writing, working level staff contacts for all or portions of the implementation of the work to be performed required by this Decree.

4. Any party may change its respective project coordinator. Written notification shall be given to the other party at least ten (10) calendar days prior to the change.

VIII. PERFORMANCE

1. Except as otherwise provided for by RCW 18.43 and 18.220, all geologic and hydrogeologic work performed pursuant to this Decree shall be under the supervision and direction of a geologist or hydrogeologist licensed by the State of Washington or under the direct supervision of an engineer registered by the State of Washington.

2. Except as otherwise provided for by RCW 18.43.130, all engineering work performed pursuant to this Decree shall be under the direct supervision of a professional engineer registered by the State of Washington.

3. Except as otherwise provided for by RCW 18.43.130, all construction work performed pursuant to this Decree shall be under the direct supervision of a professional engineer registered by the State of Washington or a qualified technician under the direct supervision of a professional engineer registered by the State of Washington.

4. As required by RCW 18.43 and 18.220, any documents submitted containing geologic, hydrogeologic, or engineering work shall be under the seal of an appropriately licensed professional.

5. FFP shall notify Ecology in writing of the identity of any engineer(s) and geologist(s), contractor(s) and subcontractor(s), and others to be used in carrying out the terms of this Decree, in advance of their involvement at the Site.

IX. ACCESS

1. Ecology or any Ecology authorized representative shall have access to enter and freely move about all property at the Site that FFP either owns, controls, or has access rights to

at all reasonable times for the purposes of, *inter alia*: inspecting records, operation logs, and contracts related to the work being performed pursuant to this Decree; reviewing FFP's progress in carrying out the terms of this Decree; conducting such tests or collecting such samples as Ecology may deem necessary; using a camera, sound recording, or other documentary type equipment to record work done pursuant to this Decree; and verifying the data submitted to Ecology by Defendant(s).

2. Nothing in this Decree is intended by FFP to waive any right it may have under applicable law to limit disclosure of documents protected by the attorney work-product privilege and/or the attorney-client privilege. If FFP withholds any requested records based on an assertion of privilege, it shall provide Ecology with a privilege log specifying the records withheld and the applicable privilege. No Site related data collected pursuant to this Decree shall be considered privileged.

3. FFP shall make all reasonable efforts to secure access rights for those properties within the Site not owned or controlled by FFP where remedial activities or investigations will be performed pursuant to this Decree.

4. Ecology or any Ecology-authorized representative shall give reasonable notice before entering any Site property owned or controlled by FFP unless an emergency prevents such notice. All Parties who access the Site pursuant to this section shall comply with any applicable health and safety plan(s). Ecology employees and their representatives shall not be required to sign any liability release or waiver as a condition of Site property access.

5. When FFP obtains record title to the Property, FFP shall provide Site-wide PLPs and their representatives, contractors, and subcontractors with access at all reasonable times to the Property to conduct any remedial actions for the Site required under the Site-wide Administrative Order Number DE 10483 or Site-wide Consent Decree. The Site-wide PLPs shall give reasonable notice before entering the Property owned by FFP unless an emergency prevents such notice. The Site-wide PLPs who access the Property pursuant to this section of

this Decree shall comply with any applicable health and safety plan(s). FFP agrees not to interfere with remedial actions required by Ecology to be performed at the Property by the Site-wide PLPs. Ecology agrees, consistent with its responsibilities under applicable law, to use reasonable efforts to minimize interference with FFP's ownership and operations by such entry and remedial actions.

X. SAMPLING, DATA SUBMITTAL, AND AVAILABILITY

1. With respect to the implementation of this Decree, FFP shall make the results of all sampling, laboratory reports, and/or test results generated by it or on its behalf available to Ecology by submitting data as detailed in this section. Pursuant to WAC 173-340-840(5), all sampling data shall be submitted to Ecology in electronic formats in accordance with paragraph 7 of Section VI (Work to be Performed), Ecology's Toxics Cleanup Program Policy 840 (Data Submittal Requirements), and/or any subsequent procedures specified by Ecology for data submittal.

2. If requested by Ecology, FFP shall allow Ecology and/or its authorized representative to take split or duplicate samples of any samples collected by FFP pursuant to the implementation of this Decree. FFP shall notify Ecology seven (7) days in advance of any sample collection or work activity at the Site. Ecology shall, upon request, allow FFP and/or its authorized representative to take split or duplicate samples of any samples collected by Ecology pursuant to the implementation of this Decree, provided that doing so does not interfere with Ecology's sampling. Without limitation on Ecology's rights under Section IX (Access), Ecology shall notify FFP prior to any sample collection activity unless an emergency prevents such notice.

3. In accordance with WAC 173-340-830(5)(a), all hazardous substance analyses shall be conducted by a laboratory accredited under WAC 173-50 for the specific analyses to be conducted, unless otherwise approved by Ecology.

XI. ACCESS TO INFORMATION

1. FFP shall provide to Ecology, upon request, copies of all records, reports, documents, and other information (including records, reports, documents, and other information in electronic form) (hereinafter referred to as “Records”) within FFP’s possession or control or that of their contractors or agents relating to activities at the Site or to the implementation of this Decree, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information regarding the work. FFP shall also make available to Ecology, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the work.

2. Nothing in this Decree is intended to waive any right FFP may have under applicable law to limit disclosure of Records protected by the attorney work-product privilege and/or the attorney-client privilege. If FFP withholds any requested Records based on an assertion of privilege, FFP shall provide Ecology with a privilege log specifying the Records withheld and the applicable privilege. No Site-related data collected pursuant to this Decree shall be considered privileged, including: (1) any data regarding the Site, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, radiological, biological, or engineering data, or the portion of any other record that evidences conditions at or around the Site; or (2) the portion of any Record that FFP is required to create or generate pursuant to this Order.

3. Notwithstanding any provision of this Order, Ecology retains all of its information gathering and inspection authorities and rights, including enforcement actions related thereto, under any other applicable statutes or regulations.

XII. RETENTION OF RECORDS

1. During the pendency of this Decree, and for ten (10) years from the date this Decree is no longer in effect as provided in Section XXVI (Duration of Decree), FFP shall

preserve all records, reports, documents, and underlying data in its possession relevant to the implementation of this Decree and shall insert a similar record retention requirement into all contracts with project contractors and subcontractors. Upon request of Ecology, FFP shall make all records available to Ecology and allow access for review within a reasonable time.

XIII. TRANSFER OF INTEREST IN PROPERTY

1. No voluntary conveyance or relinquishment of title, easement, leasehold, or other interest in any portion of the Site shall be consummated by FFP without provision for continued operation and maintenance of any containment system, treatment system, and/or monitoring system installed or implemented pursuant to this Decree.

2. Prior to FFP's transfer of any interest in all or any portion of the Property, and during the effective period of this Decree, FFP shall provide a copy of this Decree to any prospective purchaser, lessee, transferee, assignee, or other successor in said interest; and at least thirty (30) days prior to any transfer, FFP shall notify Ecology of said transfer. Upon its transfer of any interest, FFP shall notify all transferees of the restrictions on the activities and uses of the Property under this Decree and incorporate any such use restrictions into the transfer documents.

XIV. RESOLUTION OF DISPUTES

1. In the event that FFP elects to invoke dispute resolution arising out of or concerning this Decree, FFP must utilize the procedures set forth below.

A. Upon the triggering event (receipt of Ecology's project coordinator's written decision or an itemized billing statement), FFP has fourteen (14) calendar days within which to notify Ecology's project coordinator in writing of its dispute (Informal Dispute Notice).

B. The Parties' project coordinators shall then confer in an effort to resolve the dispute informally. The parties shall informally confer for up to fourteen (14) calendar days from receipt of the Informal Dispute Notice. If the project coordinators cannot resolve the dispute within those 14 calendar days, then within seven (7) calendar

days Ecology's project coordinator shall issue a written decision (Informal Dispute Decision) stating: the nature of the dispute; FFP's position with regards to the dispute; Ecology's position with regards to the dispute; and the extent of resolution reached by informal discussion.

C. FFP may then request regional management review of the dispute. FFP must submit this request (Formal Dispute Notice) in writing to the Solid Waste Management Program, Industrial Section Manager within seven (7) calendar days of receipt of Ecology's Informal Dispute Decision. The Formal Dispute Notice shall include a written statement of dispute setting forth: the nature of the dispute; the disputing Party's position with respect to the dispute; and the information relied upon to support its position.

D. The Industrial Section Manager shall conduct a review of the dispute and shall issue a written decision regarding the dispute (Decision on Dispute) within thirty (30) calendar days of receipt of the Formal Dispute Notice.

E. If FFP finds Ecology's Industrial Section Manager's decision unacceptable, FFP may then request final management review of the decision. FFP shall submit this request (Final Review Request) in writing to the Solid Waste Management Program Manager within seven (7) calendar days of FFP's receipt of the Decision on Dispute. The Final Review Request shall include a written statement of dispute setting forth: the nature of the dispute; the disputing Party's position with respect to the dispute; and the information relied upon to support its position.

F. Ecology's Solid Waste Management Program Manager shall conduct a review of the dispute and shall issue a written decision regarding the dispute (Final Decision on Dispute) within thirty (30) calendar days of receipt of the Final Review Request. The Solid Waste Management Program Manager's decision shall be Ecology's final decision on the disputed matter.

2. If Ecology's Final Decision on Dispute is unacceptable to FFP, FFP has the right to submit the dispute to the Court for resolution. The Parties agree that one judge should retain jurisdiction over this case and shall, as necessary, resolve any dispute arising under this Decree. Under RCW 70A.305.070, Ecology's investigative and remedial decisions shall be upheld unless they are arbitrary and capricious.

3. The Parties agree to only utilize the dispute resolution process in good faith and agree to expedite, to the extent possible, the dispute resolution process whenever it is used. Where either party utilizes the dispute resolution process in bad faith or for purposes of delay, the other party may seek sanctions.

4. Implementation of these dispute resolution procedures shall not provide a basis for delay of any activities required in this Decree, unless Ecology agrees in writing to a schedule extension or the Court so orders.

5. In case of a dispute, failure to either proceed with the work required by this Decree or timely invoke dispute resolution may result in Ecology's determination that FFP is making insufficient progress in preparation of a deliverable, and may result in Ecology undertaking the work under Section XXIII (Implementation of Remedial Action).

XV. AMENDMENT OF DECREE

1. The Parties may agree to minor changes to the work to be performed under this Decree without formally amending this Decree. Minor changes will be documented in writing by Ecology.

2. Substantial changes to the work to be performed under this Decree shall require formal amendment of this Decree. This Decree may only be formally amended by a written stipulation among the Parties that is entered by the Court, or by order of the Court. Ecology will provide its written consent to a formal amendment only after public notice and opportunity to comment on the formal amendment. Such amendment shall become effective upon entry by the Court. Agreement to amend the Decree shall not be unreasonably withheld by any party.

3. When requesting a change to the Decree, FFP shall submit a written request to Ecology for approval. Ecology shall indicate its approval or disapproval in writing and in a timely manner after the written request is received. If Ecology determines that the change is substantial, then the Decree must be formally amended. Reasons for the disapproval of a proposed change to this Decree shall be stated in writing. If Ecology does not agree to the requested change, the disagreement may be addressed through the dispute resolution procedures described in Section XII (Resolution of Disputes).

XVI. EXTENSION OF SCHEDULE

1. FFP's request for an extension of schedule shall be granted only when a request for an extension is submitted in a timely fashion, generally at least thirty (30) days prior to expiration of the deadline for which the extension is requested, and good cause exists for granting the extension. All extensions shall be requested in writing. The request shall specify:

- A. The deadline that is sought to be extended.
- B. The length of the extension sought.
- C. The reason(s) for the extension.
- D. Any related deadline or schedule that would be affected if the extension were granted.

2. The burden shall be on FFP to demonstrate to the satisfaction of Ecology that the request for such extension has been submitted in a timely fashion and that good cause exists for granting the extension. Good cause may include, but may not be limited to:

- A. Circumstances beyond the reasonable control, and despite the due diligence, of FFP including delays caused by unrelated third parties or Ecology, such as (but not limited to) delays by Ecology in reviewing, approving, or modifying documents submitted by FFP.
- B. Acts of God, including fire, flood, blizzard, extreme temperatures, storm, or other unavoidable casualty.

C. Endangerment as described in Section XVII (Endangerment).

3. However, neither increased costs of performance of the terms of this Decree nor changed economic circumstances shall be considered circumstances beyond the reasonable control of FFP.

4. Ecology shall act upon FFP's written request for extension in a timely fashion. Ecology shall give FFP written notification of any extensions granted pursuant to this Decree. A requested extension shall not be effective until approved by Ecology or, if required, by the Court. Unless the extension is a substantial change, it shall not be necessary to amend this Decree pursuant to Section XV (Amendment of Decree) when a schedule extension is granted.

5. At FFP's request an extension shall only be granted for such period of time as Ecology determines is reasonable under the circumstances. Ecology may grant schedule extensions exceeding ninety (90) days only as a result of one of the following:

- A. Delays in the issuance of a necessary permit which was applied for in a timely manner.
- B. Other circumstances deemed exceptional or extraordinary by Ecology.
- C. Endangerment as described in Section XVII (Endangerment).

XVII. ENDANGERMENT

1. In the event Ecology determines that any activity being performed at the Site under this Decree is creating or has the potential to create a danger to human health or the environment, Ecology may direct FFP to cease such activities for such period of time as it deems necessary to abate the danger. FFP shall immediately comply with such direction.

2. In the event FFP determines that any activity being performed at the Site under this Decree is creating or has the potential to create a danger to human health or the environment, FFP may cease such activities. FFP shall notify Ecology's project coordinator as soon as possible, but no later than twenty-four (24) hours after making such determination or ceasing such activities. Upon Ecology's direction, FFP shall provide Ecology with documentation of the

basis for the determination or cessation of such activities. If Ecology disagrees with FFP's cessation of activities, it may direct FFP to resume such activities.

3. If Ecology concurs with or orders a work stoppage pursuant to this section, FFP's obligations with respect to the ceased activities shall be suspended until Ecology determines the danger is abated, and the time for performance of such activities, as well as the time for any other work dependent upon such activities, shall be extended, in accordance with Section XVI (Extension of Schedule), for such period of time as Ecology determines is reasonable under the circumstances.

4. Nothing in this Decree shall limit the authority of Ecology, its employees, agents, or contractors to take or require appropriate action in the event of an emergency.

XVIII. COVENANT NOT TO SUE

1. Covenant Not to Sue: In consideration of FFP's compliance with the terms and conditions of this Decree, Ecology covenants not to institute legal or administrative actions against FFP regarding the release or threatened release of hazardous substances at the Site, as defined in Section IV.R and depicted in Exhibit A. This Covenant Not to Sue does not cover any other hazardous substance(s) or area. Ecology retains all of its authority relative to any hazardous substance(s) or area not covered by this Decree.

This Covenant Not to Sue shall have no applicability whatsoever to:

- A. Criminal liability.
- B. Liability for damages to natural resources.
- C. Any Ecology action, including cost recovery, against PLPs not a party to this Decree.

2. Pursuant to RCW 70A.305.040(4)(c), the Court shall amend this Covenant Not to Sue if factors not known at the time of entry of this Decree are discovered and present a previously unknown threat to human health or the environment.

3. Reopeners: Ecology specifically reserves the right to institute legal or administrative action against FFP to require it to perform additional remedial actions at the Property and to pursue appropriate cost recovery, pursuant to RCW 70A.305.050, under any of the following circumstances:

A. Upon FFP's failure to meet the requirements of this Decree.

B. Failure of the remedial action to meet the cleanup standards identified in the CAP for the Property.

C. Upon Ecology's determination that remedial action beyond the terms of this Decree is necessary at the Property to abate an imminent and substantial endangerment to human health or the environment.

D. Upon the availability of information previously unknown to Ecology regarding Property factors including the nature, quantity, migration, pathway, or mobility of hazardous substances, and Ecology's determination, in light of this information, that further remedial action is necessary at the Property to protect human health or the environment.

E. Upon Ecology's determination that additional remedial actions are necessary to achieve cleanup standards within the reasonable restoration time frame set forth in the CAP for the Property.

4. Except in the case of an emergency, prior to instituting legal or administrative action against FFP pursuant to this section, Ecology shall provide FFP with fifteen (15) calendar days' notice of such action.

XIX. CONTRIBUTION PROTECTION

1. With regard to claims for contribution against FFP, the Parties agree that FFP is entitled to protection against claims for contribution for matters addressed in this Decree as provided by RCW 70A.305.040(4)(d).

XX. INDEMNIFICATION

1. FFP agrees to indemnify and save and hold the State of Washington, its employees, and agents harmless from any and all claims or causes of action (1) for death or injuries to persons, or (2) for loss or damage to property to the extent arising from or on account of acts or omissions of FFP, its officers, employees, agents, or contractors in entering into and implementing this Decree. However, FFP shall not indemnify the State of Washington nor save nor hold its employees and agents harmless from any claims or causes of action to the extent arising out of the negligent acts or omissions of the State of Washington, or the employees or agents of the State, in entering into or implementing this Decree.

XXI. COMPLIANCE WITH APPLICABLE LAWS

1. *Applicable Law.* All actions carried out by FFP pursuant to this Decree shall be done in accordance with all applicable federal, state, and local requirements, including requirements to obtain necessary permits, except as provided in RCW 70A.305.090. The federal, state, or local requirements which have been identified as being applicable to the actions required by this Decree are listed in the CAP. FFP has a continuing obligation to identify additional applicable federal, state, and local requirements which apply to actions carried out pursuant to this Decree, and to comply with those requirements. As additional federal, state, and local requirements are identified by Ecology or FFP, Ecology will document in writing if they are applicable to actions carried out pursuant to this Decree, and FFP must implement those requirements as directed by Ecology.

2. *Relevant and Appropriate Requirements.* All actions carried out by FFP pursuant to this Decree shall be done in accordance with relevant and appropriate requirements identified by Ecology. The relevant and appropriate requirements identified as being applicable to the actions required by this Decree are listed in the CAP. If additional relevant and appropriate requirements are identified by Ecology or FFP, Ecology will document in writing if they are

applicable to actions carried out pursuant to this Decree and FFP must implement those requirements as directed by Ecology.

3. Pursuant to RCW 70A.305.090(1), FFP may be exempt from the procedural requirements of RCW 70A.15, 70A.205, 70A.300, 77.55, 90.48, and 90.58 and of any laws requiring or authorizing local government permits or approvals. However, FFP shall comply with the substantive requirements of such permits or approvals. For permits and approvals covered under RCW 70A.305.090(1) that have been issued by local government, the Parties agree that Ecology has the non-exclusive ability under this Decree to enforce those local government permits and/or approvals. At this time, no state or local permits or approvals have been identified as being applicable but procedurally exempt under this section.

4. FFP has a continuing obligation to determine whether additional permits or approvals addressed in RCW 70A.305.090(1) would otherwise be required for the remedial action under this Decree. In the event either Ecology or FFP determines that additional permits or approvals addressed in RCW 70A.305.090(1) would otherwise be required for the remedial action under this Decree, it shall promptly notify the other party of its determination. Ecology shall determine whether Ecology or FFP shall be responsible to contact the appropriate state and/or local agencies. If Ecology so requires, FFP shall promptly consult with the appropriate state and/or local agencies and provide Ecology with written documentation from those agencies of the substantive requirements those agencies believe are applicable to the remedial action. Ecology shall make the final determination on the additional substantive requirements that must be met by Defendant(s) and on how FFP must meet those requirements. Ecology shall inform FFP in writing of these requirements. Once established by Ecology, the additional requirements shall be enforceable requirements of this Decree. FFP shall not begin or continue the remedial action potentially subject to the additional requirements until Ecology makes its final determination.

5. Pursuant to RCW 70A.305.090(2), in the event Ecology determines that the exemption from complying with the procedural requirements of the laws referenced in RCW 70A.305.090(1) would result in the loss of approval from a federal agency that is necessary for the state to administer any federal law, the exemption shall not apply and FFP shall comply with both the procedural and substantive requirements of the laws referenced in RCW 70A.305.090(1), including any requirements to obtain permits or approvals.

XXII. REMEDIAL ACTION COSTS

1. FFP shall pay to Ecology costs incurred by Ecology pursuant to this Decree and consistent with WAC 173-340-550(2). These costs shall include work performed by Ecology or its contractors for, or on, the Property under RCW 70A.305, including remedial actions and Decree preparation, negotiation, oversight, and administration. These costs shall include work performed both prior to and subsequent to the entry of this Decree. Ecology's costs shall include costs of direct activities and support costs of direct activities as defined in WAC 173-340-550(2). FFP shall pay the required amount within thirty (30) days of receiving from Ecology an itemized statement of costs that includes a summary of costs incurred, an identification of involved staff, and the amount of time spent by involved staff members on the project. A general statement of work performed will be provided upon request. Itemized statements shall be prepared quarterly. Pursuant to WAC 173-340-550(4), failure to pay Ecology's costs within ninety (90) days of receipt of the itemized statement of costs will result in interest charges at the rate of twelve percent (12%) per annum, compounded monthly.

2. In addition to other available relief, pursuant to RCW 19.16.500, Ecology may utilize a collection agency and/or, pursuant to RCW 70A.305.060, file a lien against real property subject to the remedial actions to recover unreimbursed remedial action costs.

XXIII. IMPLEMENTATION OF REMEDIAL ACTION

1. If Ecology determines that FFP has failed to make sufficient progress or failed to implement the remedial action required by this Decree, in whole or in part, Ecology may, after

notice to FFP, perform any or all portions of the remedial action or at Ecology's discretion allow FFP opportunity to correct. In an emergency, Ecology is not required to provide notice to FFP, or an opportunity for dispute resolution. FFP shall reimburse Ecology for the costs of doing such work in accordance with Section XXII (Remedial Action Costs).

2. Except where necessary to abate an emergency situation or where required by law, FFP shall not perform any remedial actions at the Site outside those remedial actions required by this Decree to address the contamination that is the subject of this Decree, unless Ecology concurs, in writing, with such additional remedial actions pursuant to Section XV (Amendment of Decree). In the event of an emergency, or where actions are taken as required by law, FFP must notify Ecology in writing of the event and remedial action(s) planned or taken as soon as practical but no later than within twenty-four (24) hours of the discovery of the event.

XXIV. PERIODIC REVIEW

If the CAP for the Property requires implementation of a cleanup action that requires a periodic review under WAC 173-340-420(2), the following will apply:

1. So long as remedial action required under this Decree continues at the Property, the Parties agree to review the progress of remedial action at the Property, and to review the data accumulated as a result of monitoring the Property as often as is necessary and appropriate under the circumstances. Unless otherwise agreed to by Ecology, at least every five (5) years after the initiation of cleanup action at the Property the Parties shall confer regarding the status of the Property and the need, if any, for further remedial action at the Property. At least ninety (90) days prior to each periodic review, FFP shall submit a report to Ecology that documents whether human health and the environment are being protected based on the factors set forth in WAC 173-340-420(4). Under Section XVIII (Covenant Not to Sue), Ecology reserves the right to require further remedial action at the Property under appropriate circumstances. This provision shall remain in effect for the duration of this Decree.

XXV. PUBLIC PARTICIPATION

1. Ecology shall maintain the responsibility for public participation at the Site. However, FFP shall cooperate with Ecology, and shall:

A. If agreed to by Ecology, develop appropriate mailing lists, prepare drafts of public notices and fact sheets at important stages of the remedial action, such as the submission of work plans, remedial investigation/feasibility study reports, cleanup action plans, and engineering design reports. As appropriate, Ecology will edit, finalize, and distribute such fact sheets and prepare and distribute public notices of Ecology's presentations and meetings.

B. Notify Ecology's project coordinator prior to the preparation of all press releases and fact sheets, and before meetings related to remedial action work to be performed at the Site with the interested public and/or local governments. Likewise, Ecology shall notify FFP prior to the issuance of all press releases and fact sheets related to remedial action work to be performed at the Site, and before meetings related to remedial action work to be performed at the Site with the interested public and/or local governments. For all press releases, fact sheets, meetings, and other outreach efforts by FFP that do not receive prior Ecology approval, FFP shall clearly indicate to its audience that the press release, fact sheet, meeting, or other outreach effort was not sponsored or endorsed by Ecology.

C. When requested by Ecology, participate in public presentations on the progress of the remedial action at the Site. Participation may be through attendance at public meetings to assist in answering questions, or as a presenter.

D. When requested by Ecology, arrange and/or continue information repositories at the following locations:

- i. Goldendale Public Library
131 West Burgen
Goldendale, WA 98620

(509) 773-4487

- ii. Industrial Section
Department of Ecology
300 Desmond Drive SE
Lacey, WA 98503
(360) 407-6916

At a minimum, copies of all public notices, fact sheets, and documents relating to public comment periods shall be promptly placed in these repositories. A copy of all documents related to this Site shall be maintained in the repository at Ecology's Industrial Section and Headquarters office in Lacey, Washington.

XXVI. DURATION OF DECREE

1. The remedial program required pursuant to this Decree shall be maintained and continued until FFP has received written notification from Ecology that the requirements of this Decree have been satisfactorily completed. This Decree shall remain in effect until dismissed by the Court. When dismissed, Section XII (Retention of Records), Section XVIII (Covenant Not to Sue), Section XIX (Contribution Protection), Section XX (Indemnification), and Section XXVII (Claims Against the State) shall survive.

2. This Decree shall be subject to dismissal upon stipulation of the Parties prior to the Project Start Date.

XXVII. CLAIMS AGAINST THE STATE

1. FFP hereby agrees that it will not seek to recover any costs accrued in implementing the Remedial Action required by this Decree from the State of Washington or any of its agencies; and further, that FFP will make no claim against the State Toxics Control Account, the Local Toxics Control Account, the Environmental Legacy Stewardship Account, or a MTCA Cleanup Settlement Account for any costs incurred in implementing this Decree. Except as provided above, however, FFP expressly reserves its right to seek to recover any costs

incurred in implementing this Decree from any other PLP. This section does not limit or address funding that may be provided under WAC 173-322A.

XXVIII. EFFECTIVE DATE

1. This Decree is effective upon the date it is entered by the Court. FFP’s obligations under this Decree, including but not limited to performance of remedial action under the CAP, but specifically excluding the provisions for Access provided for in Section IX of this Decree, shall commence no earlier than the Project Start Date.

XXIX. WITHDRAWAL OF CONSENT

1. If the Court withholds or withdraws its consent to this Decree, it shall be null and void at the option of any Party and the accompanying Complaint shall be dismissed without costs and without prejudice. In such an event, no Party shall be bound by the requirements of this Decree.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

NICHOLAS W. BROWN
Attorney General

Peter Lyon
Acting Program Manager

Ivy Anderson, WSBA# 30652
Senior Counsel
(360) 586-4619

Solid Waste Management Program
(360) 407-6900

Date: _____

Date: _____

[FFP Signature]

Date: _____

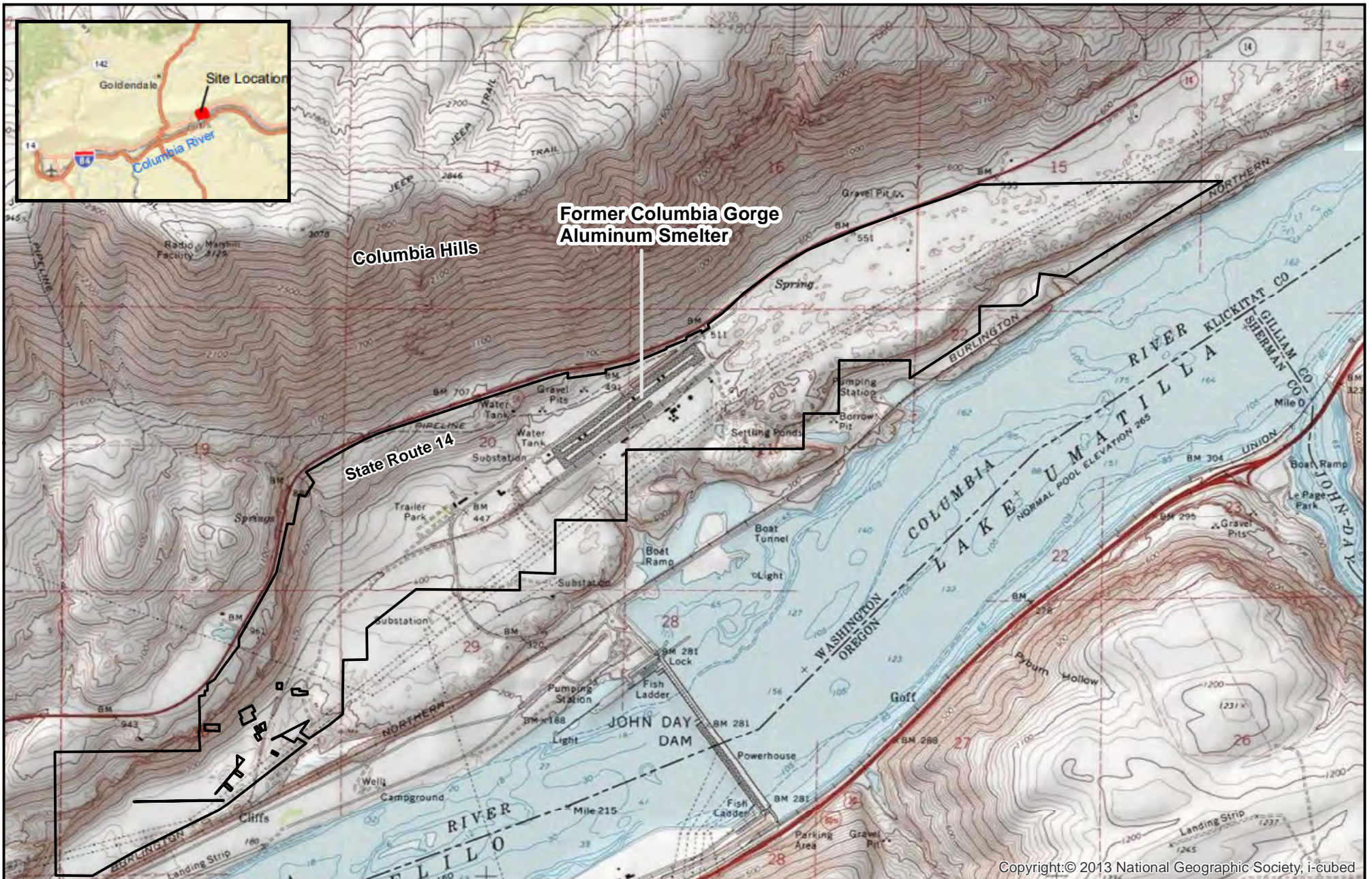
ENTERED this ____ day of _____ 20 ____.

JUDGE

DRAFT ISSUED FOR PUBLIC COMMENT

Klickitat County Superior Court

EXHIBIT A



Copyright: © 2013 National Geographic Society, i-cubed

Legend

 NSC Smelter LLC Parcels Boundary

Notes:

1. This figure presents historical features that may not be present today.

Topographic Map Data Source: USGS 24k Topographic Quadrangles, 1973.

Source: Final Draft Remedial Investigation Report, Volume 1 (Tetra Tech et al. 2022)

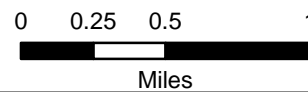


Figure 1-1
Project Location Topographic Map

Columbia Gorge Aluminum Smelter Site
Goldendale, Washington



Legend

 Wetlands

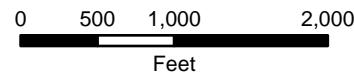
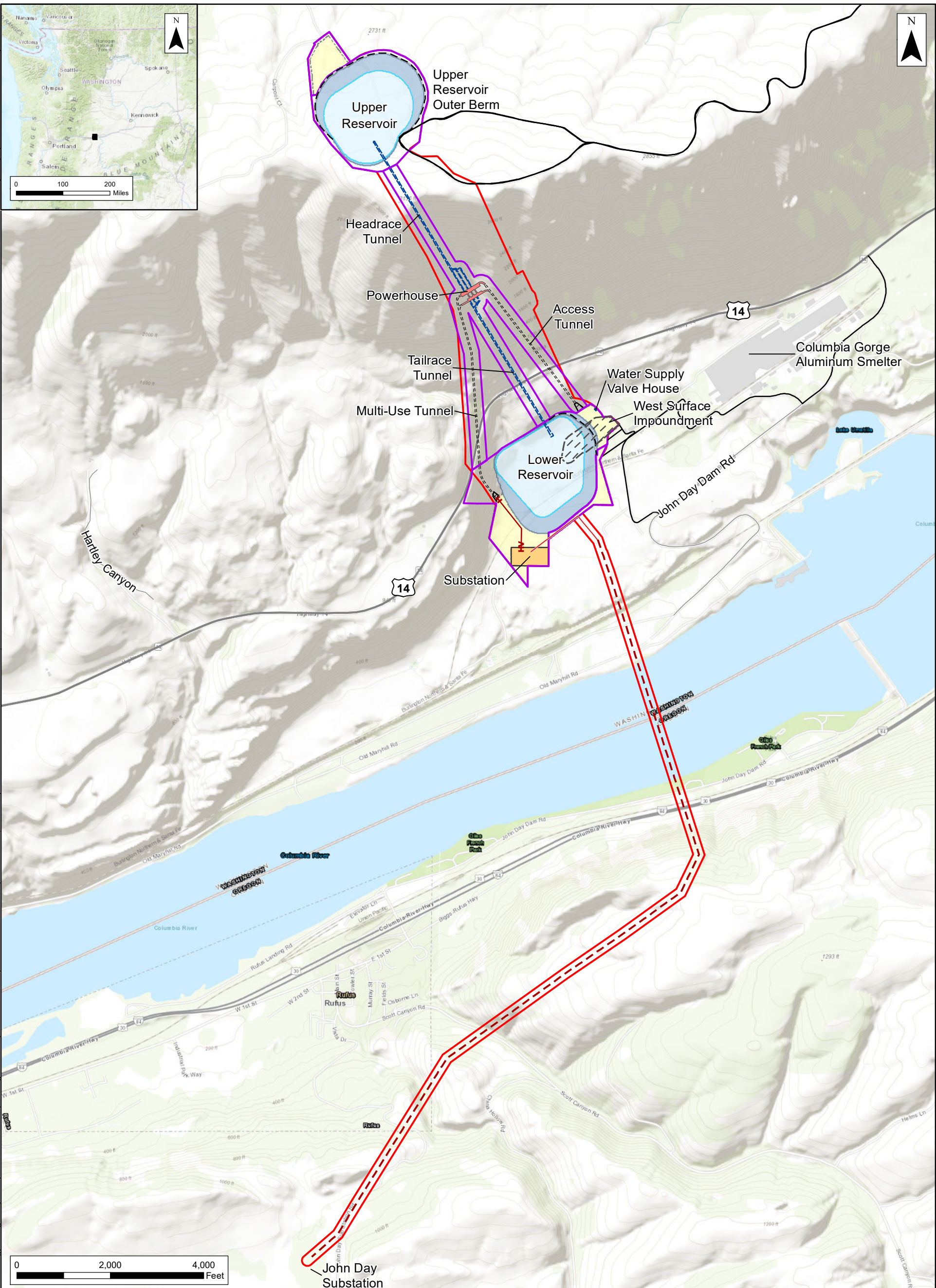


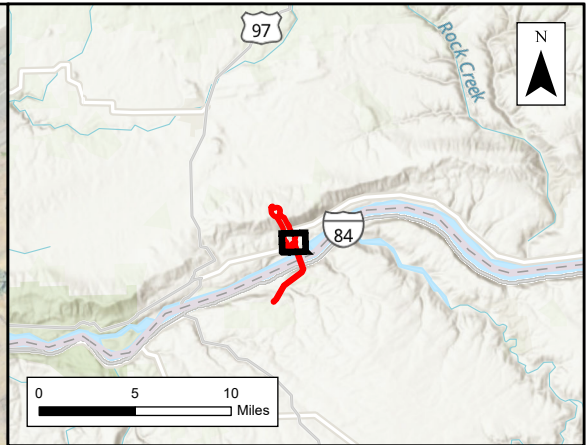
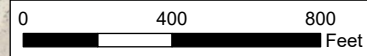
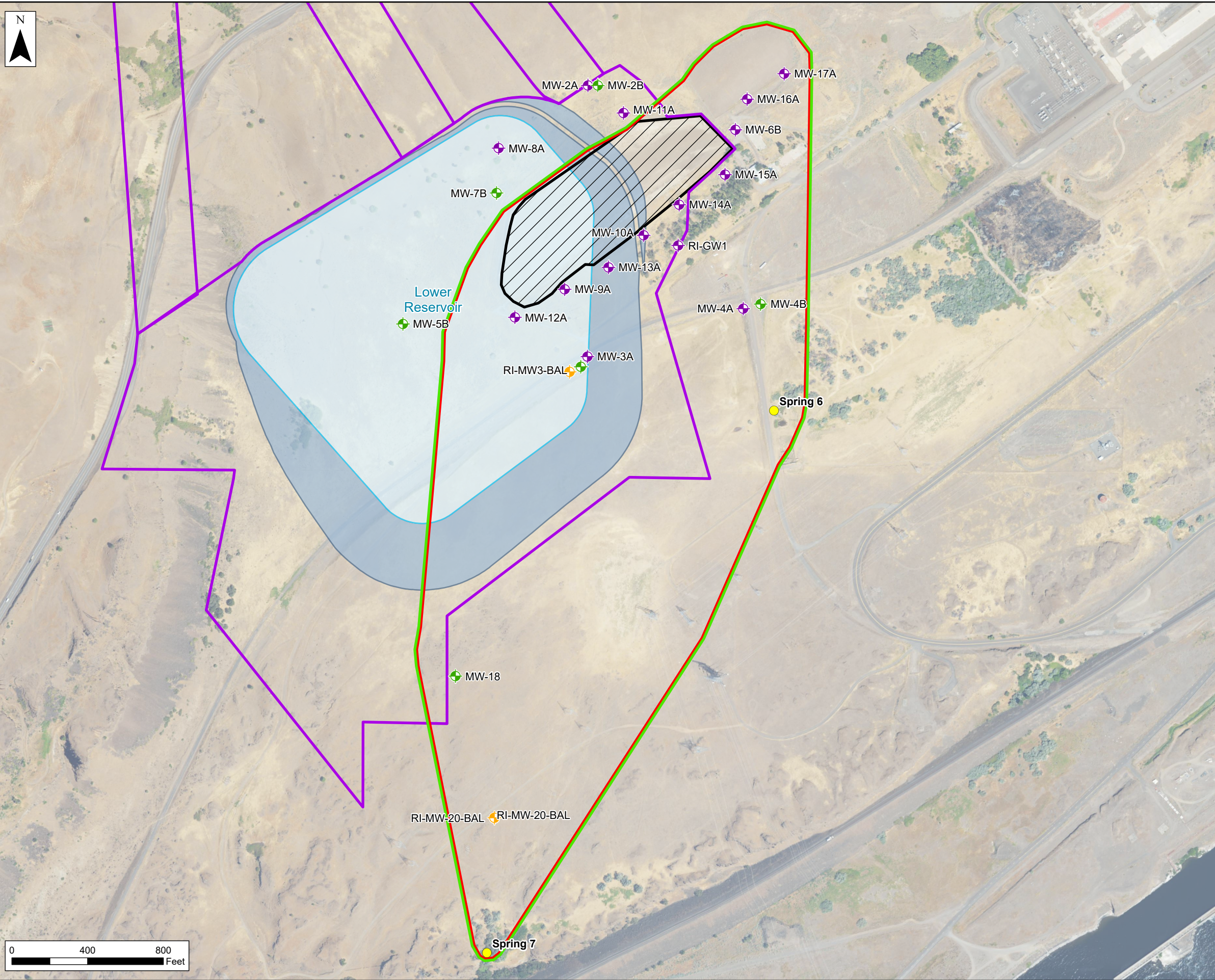
Figure 2-1
Primary Site and Vicinity
Features Map

Columbia Gorge Aluminum Smelter Site
Goldendale, Washington



- Legend**
- West Surface Impoundment (WSI)
 - FERC Project Boundary
 - Property Boundary
 - Reservoir
 - Reservoir Berm Outer Slope
 - Laydown Area
 - Powerhouse
 - Substation
 - Water Supply Valve House
 - Access Tunnel
 - Access Tunnel Portal
 - Headrace/Tailrace Tunnel

Figure 1-1
Project Location
 Draft Cleanup Action Plan
 Goldendale Energy Storage Project
 at the Former Columbia Gorge Aluminum Smelter Site
 Goldendale, Washington



- Legend**
- Existing Well
- ◆ Unconsolidated Aquifer Well
 - ◆ Uppermost Basalt Aquifer Well
- Proposed Well
- ◆ Deep Well with Coring (BAL)
 - ◆ Temporary Shallow Well
 - Springs
- ▨ West Surface Impoundment (WSI)
 ■ Western GW AOC
 ■ Reservoir
 ■ Reservoir Berm Outer Slope
 ■ Property Boundary
 ■ Project Cleanup Area

Notes:
 All well locations approximate, no survey data available.
 CAP area includes impacts within the WSI (i.e., SWMU 4) and CGA Smelter Site groundwater impacts within the property boundary.

Figure 2
Project Cleanup Detail
 Draft Cleanup Action Plan
 Goldendale Energy Storage Project
 at the Former Columbia Gorge
 Aluminum Smelter Site
 Goldendale, Washington



EXHIBIT B

Exhibit B

LEGAL DESCRIPTION

Parcel No. 03-17-1700-0000/00

All Section 17, Township 3 North, Range 17 East, of the Willamette Meridian, in the County of Klickitat and State of Washington.

Parcel No. 03-17-0900-0002/00

The South half of Section 9, Township 3 North, Range 17 East, of the Willamette Meridian, in the County of Klickitat and State of Washington.

Parcel No. 03-17-2900-0002/00

The Northeast quarter of the Northeast quarter of the Northwest quarter; the West half of the Northeast quarter of the Northwest quarter and the Northwest quarter of the Northwest quarter, all in Section 29, Township 3 North, Range 17 East, of the Willamette Meridian, in the County of Klickitat and State of Washington.

EXCEPT those portions acquired by the United States of America for John Day Lock and Dam by instruments recorded July 17, 1958, in Auditor's File No. 87034 and recorded August 14, 1959, in Auditor's File No. 92124, Klickitat County Deed Records.

Parcel No. 03-17-1800-0000/00

ALL FRAC'L; 18-3-17

Parcel No. 03-17-1900-0003/00

ALL LESS PTN BY AF #1103427 & RW; 19-3-17

Parcel No. 03-17-2000-0001/00

ALL LESS R/W'S; LESS SESE; LESS PTN SWSE; 20-3-17

Parcel No. 03-17-3000-0013/00

N2NE LYING E OF HWY 14 LESS RW; NESENE; TLS 20A,21A1,23C IN NWSE4; PTN OF VACATED CLIFFS IN SWNE; 30-3-17

EXHIBIT C

Exhibit C

MAP OF PROPERTY

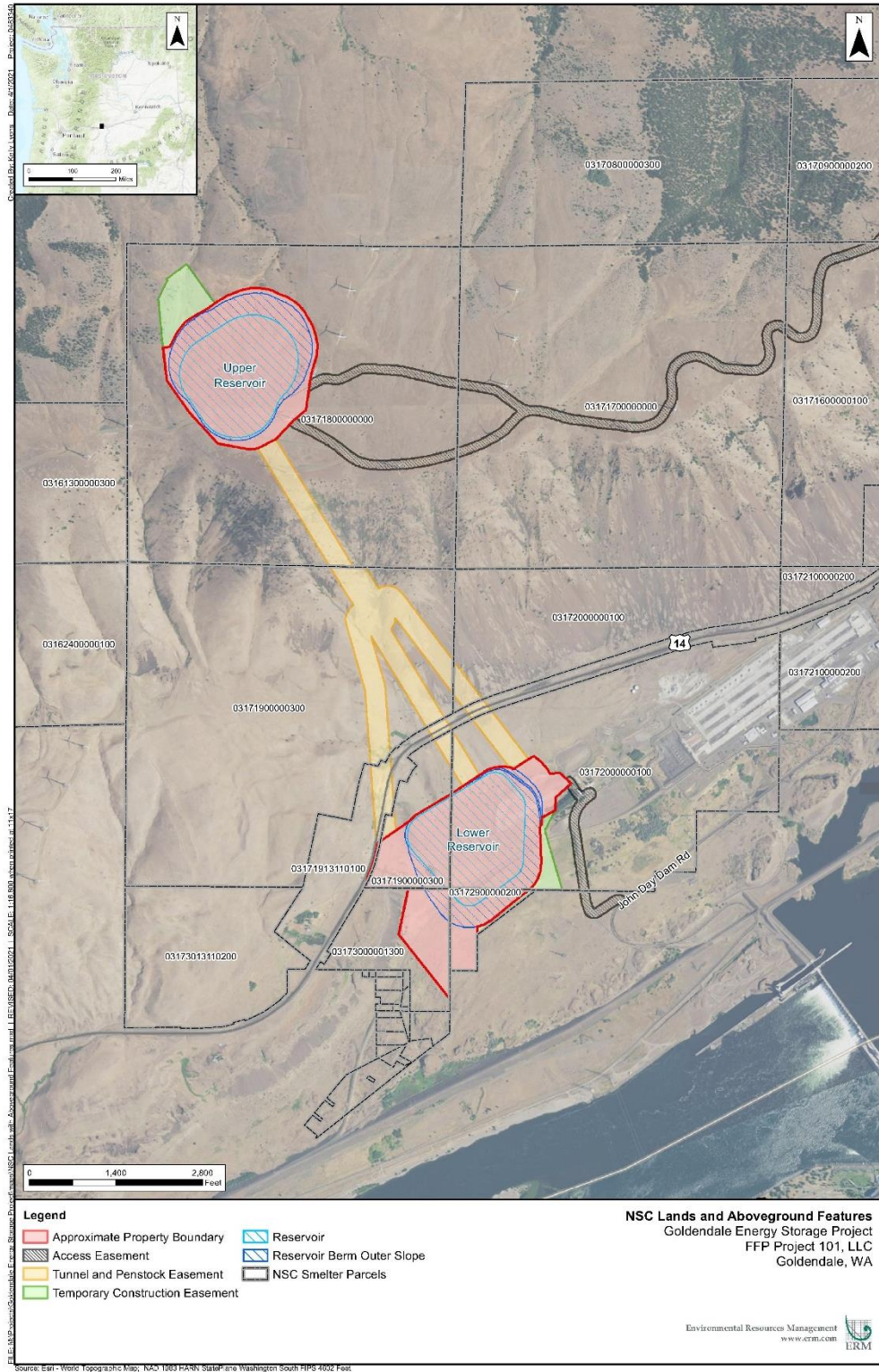


EXHIBIT D



Draft Cleanup Action Plan

Goldendale Energy Storage Project

Columbia Gorge Aluminum Site

By

ERM on behalf of FFP Project 101, LLC

For the

Industrial Section

Washington State Department of Ecology

Olympia, Washington

January 2026

Publication Information

This document is available on the Department of Ecology's website at: [Columbia Gorge Aluminum - \(11797\)](#)

Cover photo credit

- Standard Ecology image, 2019

Related Information

- Clean-up site ID: 11797
- Facility site ID: 95415874
- EPA/State ID: WAD990828642
- Data for this project is available in Ecology's [EIM Database](#),¹ Study ID: AODE10483

Contact Information

Industrial Section

Industrial Section-Solid Waste Management Program
P.O. Box 47600
Olympia, WA 98504-7600
Phone: 360-280-4325

Website²: [Washington State Department of Ecology](#)

ADA Accessibility

The Department of Ecology is committed to providing people with disabilities access to information and services by meeting or exceeding the requirements of the Americans with Disabilities Act (ADA), Section 504 and 508 of the Rehabilitation Act, and Washington State Policy #188.

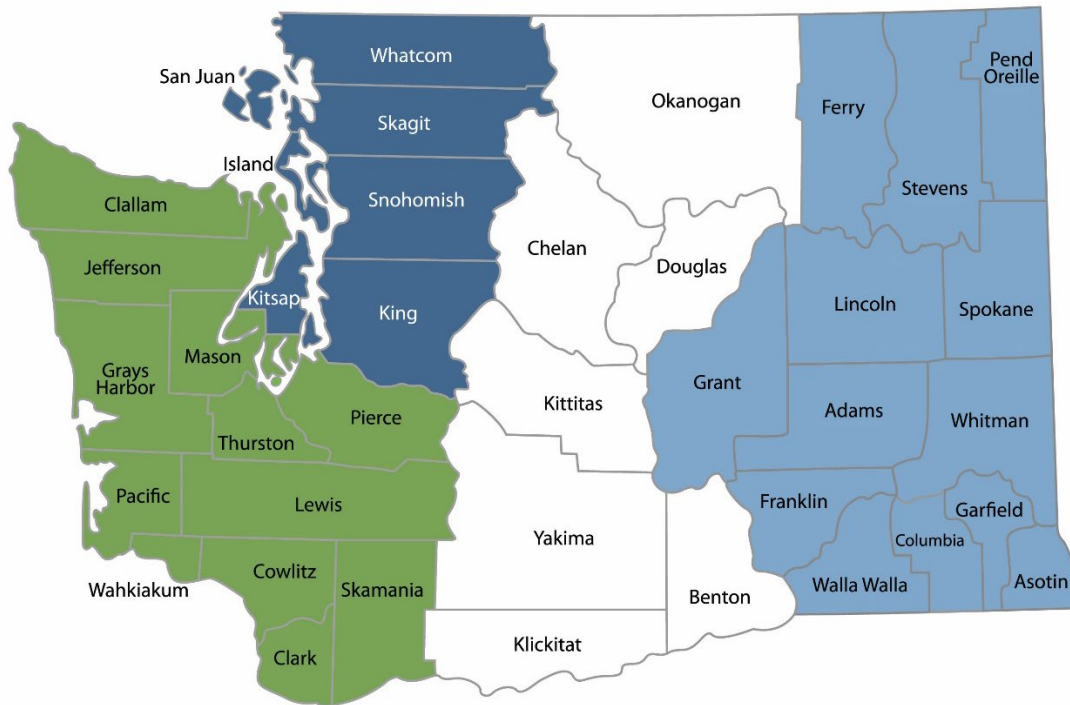
To request an ADA accommodation, contact Ecology by phone at 360-280-4325 or email at tara.roberts@ecy.wa.gov. For Washington Relay Service or TTY call 711 or 877-833-6341. Visit Ecology's website for more information.

¹ www.ecology.wa.gov/eim

² www.ecology.wa.gov/contact

Department of Ecology's Regional Offices

Map of Counties Served



Southwest Region 360-407-6300	Northwest Region 206-594-0000	Central Region 509-575-2490	Eastern Region 509-329-3400
---	---	---------------------------------------	---------------------------------------

Region	Counties served	Mailing Address	Phone
Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	PO Box 47775 Olympia, WA 98504	360-407-6300
Northwest	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	PO Box 330316 Shoreline, WA 98133	206-594-0000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 W Alder St Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 N Monroe Spokane, WA 99205	509-329-3400
Headquarters	Across Washington	PO Box 46700 Olympia, WA 98504	360-407-6000

Draft Cleanup Action Plan

Goldendale Energy Storage Project, FERC No. 14861

Columbia Gorge Aluminum Site, CSID 11797

85 John Day Dam Road, Goldendale, Washington

Industrial Section
Washington State Department of Ecology
Headquarters
Olympia, WA

January 2026 | Publication ##-##-###



DEPARTMENT OF
ECOLOGY
State of Washington

Draft Cleanup Action Plan

Goldendale Energy Storage Project, FERC No. 14861
No. 14861



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Partner-In-Charge



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 APPENDIX C SCHEDULE
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ACRONYMS AND ABBREVIATIONS

Acronym	Description
AOC	area of concern
Applicant	FFP Project 101, LLC
CAP	Cleanup Action Plan
CAP Area	CGA Smelter Site environmental impacts addressed by this CAP
CGA	Columbia Gorge Aluminum
CGA Smelter Site	Former Columbia Gorge Aluminum site in its entirety
COC	contaminant/chemical of concern
CUL	cleanup levels
DCAP	Draft Cleanup Action Plan
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
ERM	Environmental Resources Management, Inc. or ERM-West
FERC	Federal Energy Regulatory Commission
FS	Feasibility Study
LMCO	Lockheed Martin Corporation
MCL	maximum contaminate levels
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MTCA	Model Toxics Control Act
NSC	NSC Smelter, LLC
Order	Agreed Order No. DE 10483
PAH	Polycyclic Aromatic Hydrocarbons

Acronym	Description
PGG	Plateau Geoscience Group, LLC
POC	Point of Compliance
PLPs	potentially liable persons
PPCD	prospective purchaser consent decree
Project	Goldendale Energy Storage Project
Project Area	area of the site to be developed for the Project
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
Smelter PLPs	potentially liable persons for the CGA Smelter Site (LMCO and NSC)
SWMU	solid waste management unit
WAC	Washington Administrative Code
WSI	West Surface Impoundment

EXECUTIVE SUMMARY

This is the Draft Cleanup Action Plan (DCAP) for the Goldendale Energy Storage Project (the "Project") near Goldendale, Washington. The Washington State Department of Ecology (Ecology) will use this DCAP in collaboration with FFP 101, LLC (the "Applicant") to develop the final Cleanup Action Plan (CAP) for the Project. This DCAP has been prepared to meet the requirements of the Model Toxics Control Cleanup Act (MTCA) administered by the Ecology under Chapter 173-340-380 of the Washington Administrative Code (WAC). This CAP describes Ecology's proposed cleanup action for this site and sets forth the requirements that the cleanup must meet.

The Project is a proposed closed-loop, pumped-storage energy generation facility currently in the licensing process administered by the Federal Energy Regulatory Commission (FERC). The Applicant holds an option to develop the Project on 652 acres (the "Project Area") on the western side of the approximately 7,000-acre former Columbia Gorge Aluminum (CGA) Plant property (the "CGA Smelter Site") near Goldendale, Klickitat County, Washington (Figure 1). The Project will be constructed on a 529.6-acre tract of land currently owned by NSC Smelter, LLC (NSC; the "Property Boundary"). The CGA Smelter Site is a Resource Conservation and Recovery Act (RCRA) corrective action site being managed by Ecology as an active cleanup site, Cleanup Site ID 11797, under Agreed Order No. DE 10483 (the Order) with Lockheed Martin Corporation (LMCO) and the current owner, NSC. LMCO and NSC, collectively the Smelter potentially liable persons (PLPs), have completed a *Final Draft Remedial Investigation* (RI) (Tetra Tech 2022) and *Pre-Final Feasibility Study* with attached *Ecological Risk Assessment* (Weston 2025) to address the requirements of the order and pursuant to Chapter 70A.305 Revised Code of Washington.

A portion of the Project, the Lower Reservoir, will be constructed over Solid Waste Management Unit 4 (SWMU 4) (also known as the West Surface Impoundment [WSI]), an area formerly used for waste disposal and impacted by contamination from past smelter operations associated with the CGA Smelter Site. The WSI was closed in 2004 in accordance with applicable regulatory criteria under review and approval of Ecology with concurrence of the U.S. Environmental Protection Agency (EPA) RCRA program. The closed WSI will not provide a geotechnically stable foundation for the Lower Reservoir, therefore, must be removed to construct the Project. Therefore, this DCAP has been developed by the Applicant in collaboration with Ecology and the Smelter PLPs to detail cleanup actions to be undertaken by the Applicant for portions of the Project that overlap with the WSI.

The Applicant prepared *Remedial Investigation/Feasibility Study Report, Rev 2* that assessed cleanup action alternatives to remove the WSI (ERM 2024). The selected actions for the WSI consist of excavation of the WSI wastes and associated impacted soil and offsite disposal of the materials at an appropriate landfill. The selected action for the management of the groundwater plume consists of monitored natural attenuation with contingency. The PLPs will implement all groundwater remediation. This RI/FS was approved by Ecology as Final Draft on 23 December 2024, pending forthcoming EPA and public review and comment periods.

This DCAP describes the proposed cleanup action for the Project Area and establishes the cleanup requirements. Ecology will make a preliminary determination that a cleanup conducted in



conformance with this DCAP will comply with the requirements for selection of a remedy under WAC 173-340-360.



1. INTRODUCTION

This is the Draft Cleanup Action Plan (DCAP) for the Goldendale Energy Storage Project (the “Project”) near Goldendale, Washington. The Washington State Department of Ecology (Ecology) will use this DCAP in collaboration with FFP 101, LLC (the “Applicant”) to develop the final Cleanup Action Plan (CAP) for the Project. This DCAP meets the requirements of the Model Toxics Control Act (MTCA) administered by the Washington Department of Ecology (Ecology) under Chapter 173-340-380 of the Washington Administrative Code (WAC).

The Project is a proposed closed-loop, pumped-storage energy generation facility currently in the licensing process administered by the Federal Energy Regulatory Commission (FERC). The Applicant holds an option to purchase 652 acres on the western side of the approximately 7,000-acre former Columbia Gorge Aluminum (CGA) Smelter Site (CGA Smelter Site) near Goldendale, Klickitat County, Washington to develop the Project (see Figure 1) The Project will be constructed on a 529.6-acre tract of land currently owned by NSC Smelter, LLC (NSC). The Lower Reservoir will be constructed over environmental impacts associated with the CGA Smelter Site including the West Surface Impoundment (WSI) and impacted groundwater (see Figure 2).

The CGA Smelter Site is a Resource Conservation and Recovery Act (RCRA) corrective action site being managed by Ecology as an active cleanup site under Agreed Order No. DE 10483 (the Order) with Lockheed Martin Corporation (LMCO) and the current owner, NSC. LMCO and NSC, collectively the Smelter potentially liable persons (PLPs; Smelter PLPs), have completed a *Final Draft RI* (Tetra Tech 2022) and *Pre-Final Feasibility Study* (Weston 2025) to address the requirements of the order and pursuant to Chapter 70A.305 of the Revised Code of Washington.

The Applicant prepared *Remedial Investigation/Feasibility Study Report, Rev 2 (Final Draft RI/FS)* that assessed cleanup action alternatives to remove the WSI (ERM 2024). This RI/FS was approved by Ecology as “Final Draft” on 23 December 2024, pending forthcoming EPA and public review and comment periods.

This DCAP specifies cleanup actions associated with the CGA Smelter Site Solid Waste Management Unit 4 (SWMU 4), a landfill designated as the WSI and associated groundwater contamination (the “CAP Area”). The WSI was closed in 2004 but historically received state-only designated dangerous waste based on bioassay criteria in place at the time of waste interment. The Site including the WSI is regulated under RCRA as an interim-status facility. The WSI is currently in a long-term monitoring program required by Ecology as a condition of the closure. The WSI consists of an engineered liner system, the contents of the WSI, and an approved RCRA-engineered cover system. The Project Area is a 652-acre tract of land on the western side of the approximately 7,000-acre former CGA Plant property and includes the WSI and groundwater monitoring wells owned by the Smelter PLPs to monitor groundwater impact attributable to other historical CGA Smelter operations.

Figure 2 shows the 529.6-acre tract of land currently owned by NSC Smelter, LLC (NSC; the “Property Boundary”), including the closed WSI, groundwater monitoring wells owned by the Smelter PLPs, and the approximate extent of impacted groundwater located within the CAP Area.

The closed WSI will not provide a geotechnically stable foundation for the Lower Reservoir, therefore, the WSI must be removed to construct the Project.

1.1 PURPOSE

This DCAP has been prepared in accordance with the Washington State Department of Ecology's updated requirements under Chapter 173-340-380 WAC, as revised in August 2023. The DCAP outlines the proposed cleanup action for the Goldendale Energy Storage Project and is intended to meet the current standards for cleanup action plans under MTCA. This document also serves to inform the public and stakeholders, including tribal governments, by providing a clear explanation of the proposed remedy and its rationale, in accordance with WAC 173-340-620 and WAC 173-340-600. Figure 1 shows the general location and layout of the Project and Project Area.

In accordance with WAC 173-340-380(5), this plan includes the following required elements:

- A general description of the cleanup action selected;
- A summary of the rationale for selecting the cleanup action;
- A summary of how impacts on likely vulnerable populations and overburdened communities were considered when selecting the cleanup action and developing the plan;
- For ecology-conducted or ecology-supervised remedial actions, a brief summary of how ecology considered the following when selecting the cleanup action:
 - Public concerns identified;
 - Indian tribes' rights and interests identified;
- A brief summary of the other cleanup action alternatives evaluated in the remedial investigation/feasibility study;
- Cleanup standards and, where applicable, remediation levels, for each hazardous substance and for each environmental medium of concern at the site;
- Any changes to the default assumptions or reasonable maximum exposure scenarios used to establish cleanup standards or to demonstrate the protectiveness of the cleanup action;
- The schedule for implementing the cleanup action plan including, if known, the restoration time frame;
- Any institutional controls required as part of the cleanup action;
- Any applicable state and federal laws for the cleanup action known at this step in the cleanup process. This does not preclude subsequent identification of applicable state and federal laws; and,
- A preliminary determination by ecology that the cleanup action will comply with WAC 173-340-360.

The DCAP supports Ecology's determination that a cleanup conducted in conformance with this DCAP will comply with the requirements for selection of a remedy under WAC 173-340-360.

1.2 PREVIOUS STUDIES

The Order requires the Smelter PLPs to perform a remedial investigation (RI) and feasibility study (FS) on the CGA Smelter Site, which includes the CAP Area. Previous investigations describe the



nature and extent of contamination on the CGA Smelter Site. Reports that provide background information on the CGA Smelter Site and CAP Area pertinent to this DCAP include the following:

- *Draft Risk Assessment Problem Formulation*, Plateau Geoscience Group LLC (PGG), May 2014
- *Columbia Gorge Aluminum Smelter Site Final Remedial Investigation Work Plan Volumes 1 & 2*, Tetra Tech, Inc., (Tetra Tech), August 2015
- *Columbia Gorge Aluminum Smelter Site 2017 Groundwater Monitoring Report West Surface Impoundment*, Tetra Tech, September 2017
- *Columbia Gorge Aluminum Smelter Site Final Work Plan Addendum*, Tetra Tech, September 2020
- *Prospective Purchaser Agreement – Detailed Proposal*, Environmental Resources Management (ERM), August 2021
- *Remedial Investigation/Feasibility Study Report, Rev 0* for the Project Area, ERM, November 2021
- *Final Draft Remedial Investigation Report*, Tetra Tech, June 2022
- *Remedial Investigation/Feasibility Study Report, Rev 1* for the Project Area, ERM, June 2022
- *Final Draft Site Wide Feasibility Study*, Weston Solutions, Inc. (Weston), 2024
- *2024 Annual Groundwater Monitoring Report and Surface Maintenance Report West Surface Impoundment*, Blue Mountain Environmental Consulting, Inc. (BMEC), October 2024
- *Remedial Investigation/Feasibility Study Report, Rev 2* for the Project Area, ERM, November 2024
- *Pre-Final Feasibility Study*, Weston, May 2025

1.3 REGULATORY FRAMEWORK

The Project will be a closed-loop hydroelectric facility licensed by FERC. The FERC application requires the following.

- A State Environmental Policy Act analysis to assess potential environmental impacts associated with the Project. Ecology published the final Environmental Impact Statement in December 2022 (Ecology 2022).
- A signed Prospective Purchaser Consent Decree (PPCD). The Project Area is within the CGA Smelter Site property owned by NSC. The Applicant worked with Ecology and the Washington Office of the Attorney General and has a pending PPCD under MTCA for the Property Boundary to support purchase and redevelopment of the Project Area. The pending PPCD requires the Applicant to complete certain cleanup actions under requirements of MTCA.

The sections below describe requirements for cleanup actions within the Project Area and stakeholders in the PPCD.

1.3.1 MODEL TOXICS CONTROL ACT

Cleanup conducted under MTCA requires potentially liable parties or Ecology to prepare specific documents. The procedural tasks and resulting documents, along with the relevant MTCA reference, are listed below with a brief description of each.

- Remedial Investigation and Feasibility Study (RI/FS) (WAC 173-340-350). The RI/FS documents the investigations and evaluations conducted at the Site from the discovery phase to the RI/FS report. The RI collects and presents information on the nature and extent of contamination and the risks posed by the contamination. The FS evaluates cleanup alternatives and proposes a cleanup alternative. The documents are usually prepared by the responsible parties, accepted by Ecology, and provided to the public for comment.
- Cleanup Action Plan (CAP) (WAC 173-340-380): sets cleanup standards for the site, and selects the cleanup actions intended to achieve the cleanup standards. The DCAP and Final CAP may be prepared by either Ecology or the responsible party. Ecology is ultimately responsible for these documents and makes the final determination on the content. Ecology issues the Final CAP following public comment.
- Public Participation Plan (WAC 173-340-600): coordinates and encourages public involvement. Ecology prepares this document.
- Engineering Design Report, Construction Plans and Specifications (WAC 173-340-400): details the selected cleanup, including engineered systems and design components described in the CAP. The design is usually prepared by the responsible parties and accepted by Ecology. Public comment is optional.
- Health and Safety Plan (WAC 173-340-400): describes measures to meet safety and health requirements of WAC 173-340-810. The document is usually prepared by the responsible parties and accepted by Ecology.
- Cleanup Action Report (WAC 173-340-400): details the completed cleanup and documents adherence to or variance from the CAP and design. The document is usually prepared by the responsible parties and accepted by Ecology.
- Compliance Monitoring Plan (WAC 173-340-410): details monitoring required to demonstrate that the cleanup is implemented as intended and describes sampling and analysis to meet the requirements of WAC 173-340-820. The document is usually prepared by the responsible parties and accepted by Ecology.

The ERM *Remedial Investigation/Feasibility Study Report, Rev 2 (Final Draft RI/FS)* for the Project Area was approved as "Final Draft" by Ecology on 23 December 2024. The Final Draft RI/FS, PPCD, and DCAP will be provided for public comment.

1.3.2 RESOURCE CONSERVATION AND RECOVERY ACT

The Project will be constructed on part of the CGA Smelter Site identified as a RCRA site in 1981, identification number WAD990828642. The WSI received state-only designated dangerous waste based on bioassay criteria in place during waste interment. The RCRA closure process for the WSI began in 2004. A revised RCRA Part B application was submitted in August 2004 (Golder 2004) to reflect closure of the WSI. Ecology approved the WSI Closure Plan in October 2004, and the WSI was closed in November 2005. A final status permit has not been issued and the smelter CGA Smelter Site continues as a RCRA interim-status facility.

The Environmental Protection Agency's (EPA's) Post-Closure Care Final Rule provides the regulatory agency discretion to impose alternative requirements developed for corrective action in

lieu of the requirements of 40 CFR Parts 264 and 265, Subparts F, G, and H, where a regulated unit and another unregulated solid waste unit have contributed to the same release (Section 6). The alternative requirements for corrective action for this facility will be those developed in accordance with MTCA under Washington's authorized program.

If approved as part of an authorized program, Ecology may use enforceable documents developed under MTCA as an alternate administrative mechanism to require corrective action and implementation of ongoing controls/requirements in lieu of the RCRA post-closure permit for the WSI. The Applicant and Smelter PLPs propose to use the PPCD for this Project to serve this function for the WSI. The current Agreed Order together with the pending site-wide consent decree could serve this function for the remainder of the Project Area.

The Applicant proposes to use the Cleanup Action Plan for the Project implemented under the PPCD as an amended closure plan for the WSI, specifying the removal of wastes, liners and impacted soils above applicable, risk-based cleanup levels. Public notice requirements for closure plan amendment will be incorporated in the administrative process for the PPCD.

1.3.3 STAKEHOLDERS

Ecology will consult with the following key stakeholders during development and implementation of the RI/FS, CAP, and PPCD.

1.3.3.1 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

The CGA Smelter Site is a RCRA Corrective Action site. Ecology must provide the EPA opportunity to provide input on the project at key decision points in accordance with the Memorandum of Understanding between Ecology and EPA for Corrective Action sites. Ecology plans to solicit EPA input on the DCAP, and PPCD after the documents have been prepared and before public comment is solicited.

1.3.3.2 YAKAMA NATION

The CGA Smelter Site is located within a treaty-defined "usual and accustomed fishing area" of the Confederated Tribes and Bands of the Yakama Nation (the Tribe). The North Shore Treaty Fishing Access Site is located approximately 1 mile from the CGA Smelter Site adjacent to the Columbia River immediately upstream of the John Day Dam (Ecology 2014). The Tribe has significant interest as custodians of ancestral lands and shared resources. They are crucial stakeholders due to potential impacts on treaty rights, cultural resources, and the health of their communities. Ecology will continue to engage and collaborate with the Tribe throughout the cleanup process.

Ecology has a Memorandum of Understanding with the Tribe for governmental coordination on state-led cleanup sites of interest to the Tribe. Ecology is currently receiving comments from the Tribe on the sitewide cleanup work at the CGA Smelter Site. Ecology and the Tribe share technical information for the CGA Smelter Site as it is developed and reviews and responds to comments from the Tribe on cleanup studies, plans, and documents. Ecology anticipates that the same approach will be used for cleanup actions within the Project Area. At the time of this report, a

Yakima Nation specific Tribal Engagement Plan is being prepared by Ecology. Ongoing and future engagement with the Tribe will be in accordance with the adopted plan and revised as needed.

1.3.3.3 LOCAL GOVERNMENT

Klickitat County is a key stakeholder in the Project due to its jurisdiction over land use, permitting, and solid waste handling. The County's role includes reviewing and issuing permits that may be required for implementing the CAP. The Applicant will coordinate with Klickitat County to comply with local requirements, as applicable.

1.3.3.4 GENERAL PUBLIC AND AFFECTED COMMUNITIES

Ecology will prepare a Public Participation Plan (PPP) under WAC 173-340-600 to support transparency and community involvement in the cleanup process. The PPP will describe how Ecology will share information and provide opportunities for public input. This may include public notices, fact sheets, meetings, and updates on Ecology's website. In accordance with WAC 173-340-380(5)(c), Ecology will hold a public comment period on the DCAP, the Final Draft RI/FS, and the PPCD. Comments received will be reviewed and considered before finalizing the CAP.

The Goldendale Energy Storage Project is located on private land zoned for energy development and presents an opportunity to remediate a brownfield site for development of renewable energy infrastructure. The project is expected to provide long-term environmental and economic benefits to the region. A low-carbon energy resource designed to last 100 years or longer, it will provide good-paying jobs and millions in annual tax revenue to Klickitat County while helping the state of Washington meet its clean energy mandate.

2. SITE DESCRIPTION

The former CGA Smelter facility is located at 85 John Day Dam Road, Goldendale, Washington (Figure 1). The CGA Smelter Site is located north of the Columbia River approximately 9 miles southeast of the city of Goldendale in Klickitat County. The CGA Smelter Site includes portions of Sections 20 and 21 in T3N, R17E, Willamette Meridian.

2.1 SITE HISTORY

Harvey Aluminum Company built the CGA Smelter in 1969 and 1970. There was one major expansion in 1971. Martin Marietta (later LMCO) owned the facility from 1971 to 1985. Other owners included Commonwealth Aluminum from 1985 through 1987, Columbia Aluminum from 1987 through 1996, and Goldendale Aluminum from 1996 through closure in 2003. NSC is the current owner of the CGA Smelter Site and surrounding land.

The smelter operated as a primary aluminum smelter from approximately 1970 until 2003, when smelting ceased. Since 2003, the site owners have demolished structures, except for a few office and storage buildings and a small active wastewater treatment plant permitted under the National Pollutant Discharge Elimination System permit WA0000540. Figures 1 and 2 show the Project Area and the overlap with CGA Smelter Site and the WSI.

2.1.1 WEST SURFACE IMPOUNDMENT (SMWU-04)

The WSI is the only SWMU that is within the Project Area. The smelter operators constructed the approximately 10-acre WSI in 1981 as an earthen impoundment with a maximum depth of approximately 18 feet. The wastes in the WSI include the following (Parametrix 2004).

- Sludge from plant process, as designed, included:
 - Tertiary plant waste solids underflow
 - Sulfur dioxide scrubbers underflow
 - Thickener and reaction clarifier filter press cake
- Basement cleanup and cell line sweepings
- Dormer dust
- Paving cleanup
- Sludge from auto shop wash station
- Sludge from paste plant cooling water
- Cleanup soil from paste plant
- Filter cake

The WSI managed waste through evaporation of wastewater and disposal of emission control sludge. The WSI contained approximately 89,000 cubic yards of material at the time of closure in 2004 (Parametrix 2004).

During the initial years of operation, the CGA Smelter operator managed the WSI under the operational and monitoring requirements of RCRA. In August 2004, Goldendale Aluminum Company submitted a revised Part A and Part B Dangerous Waste Permit Application for the WSI.

The revised application was necessary because the operator closed the WSI as a RCRA facility, although Ecology classified the WSI sludge as a solid waste. Originally, Ecology designated the WSI sludge as a state dangerous waste under WAC 173-303 until the regulations were amended in 1997, at which time the sludge was designated as a solid waste. Five composite WSI sludge samples passed a bioassay test (Goldendale Aluminum Company 1997; Ecology 1997), confirming that the WSI sludge was subsequently classified as a non-hazardous, non-dangerous, solid waste.

Although WSI wastes were designated as solid waste only, the WSI was closed by the operator in 2004 in accordance with applicable dangerous waste requirements under WAC 173-303 and federal RCRA regulations. NSC and LMCO have conducted site inspections and groundwater monitoring, under the oversight and review of Ecology and the EPA, as required by the RCRA closure plan.

Closure of the WSI included the following elements:

- Blending site borrow material with the landfill contents such that they will support construction equipment and consolidation of the landfill contents to reduce the impoundment footprint.
- Installing a ventilation system consisting of 12-inch wide strip drains, below the liner system that leads to three vertical ventilation pipes.
- Covering the landfill contents with an engineered RCRA cap that consists of geosynthetic clay liner, 30-millimeter thick polyvinyl chloride geomembrane, and an 8-ounce nonwoven geotextile.
- Placing a 2-foot thick layer of cover soil consisting of soil from the onsite borrow pit and soils from the existing south berm road.
- Hydroseeding the final cover system.

Appendix A includes details of the approximate location of each type of waste within the WSI and at the time of closure (see Figure A1 adapted from Parametric [2004]); figures showing the final grading plan for the WSI after closure (Figure A2); and a recent aerial photograph (Figure A3); Plan view maps with cross section locations (A4 and A5), and geological cross sections of the WSI (Figures A6-A8).

To avoid penetrating the WSI and potentially creating preferential downward contaminant migration pathways, soil samples have not been collected from beneath the WSI to delineate the potential soil contamination for WSI leaching. However, historical groundwater monitoring associated with the WSI has included analysis of some or all of the following: pH, conductivity, total organic carbon, sulfate, fluoride, chloride, sodium, iron, manganese, free cyanide, total cyanide, and total phenols. The Closure and Post-Closure Plan monitoring well locations include MW-8A, MW-10A, MW-12A, MW-14A, MW-3B, and MW-18. Sample results identified fluoride, chloride, sulfate, and cyanide as chemicals that had affected groundwater in the area of the WSI and thus became the main analytes monitored since closure. Figure 2 shows the location of groundwater monitoring wells near the WSI. Appendix B includes monitoring well construction details (Table B1) and sampling results from the 2024 annual groundwater monitoring report (Table B2) (BMEC 2024).

2.2 HUMAN HEALTH AND ENVIRONMENTAL CONCERNS

2.2.1 CONTAMINANTS OF CONCERN

Contaminants of potential concern (COPCs) in the Project Area, as identified in the Final Draft Remedial Investigation Report (Tetra Tech 2022), included chemicals associated with the former aluminum reduction facility and wastes formerly disposed of in the WSI. These COPCs included cyanide, fluoride, sulfate, and poly aromatic hydrocarbons (PAHs). In addition, polychlorinated biphenyls (PCBs), some metals (e.g., arsenic, cadmium, nickel, and lead), volatile organic compounds (VOCs) related to fuels and solvents, and total petroleum hydrocarbons (TPH) represented COPCs for some areas and media at the CGA Smelter Site.

Cyanide, fluoride, and sulfate are related to smelter operations and used pot liners at the site. Fluoride is present in the cryolite bath material, in spent pot liners, and air pollution control byproducts. PAHs and sulfates are present in the coke and pitch for the manufacture of briquettes used to line the pots. Cyanide is produced in trace amounts within spent pot liner during the aluminum reduction process. PCBs were historically used in oils in the capacitors and transformers at the site.

PAH particulates from the aluminum processing cells became entrained in gaseous emissions and removed by the scrubber air pollution control system (in particular the wet air scrubber system), which then generated a PAH-containing wastewater stream and sludges.

Contaminants of concern (COCs) addressed in this DCAP are based on the evaluation of the nature and extent of contamination data presented in the *Final Draft RI/FS* (ERM 2024), potential risks to human health and the environment, and Applicable or Relevant and Appropriate Requirements (ARARs). This DCAP assumes groundwater conditions following the implementation of the remedy will not substantially deteriorate from the conditions as documented in the RI (Tetra Tech 2022). COCs are summarized in the following sections.

2.2.1.1 SOIL

As there has been no sampling of the soil beneath the WSI, soil COCs are inferred based on their presence in groundwater above federal and state primary or secondary maximum contaminant levels (MCLs). The soil COCs include fluoride, sulfate, aluminum, arsenic, cyanide, and lead. Groundwater monitoring results indicate that selenium, cadmium, VOCs, PAHs, and petroleum hydrocarbons are not a concern for the soil-to-groundwater pathway as they have not been observed in groundwater above federal and state primary or secondary MCLs.

Fluoride and sulfate have consistently been found above MCLs in groundwater downgradient of the WSI. Although there is limited groundwater impacts of aluminum, arsenic, cyanide, and lead, these soil COCs have been retained in this CAP based on the potential soil-to-groundwater pathway (ERM 2024).

There are no known areas of contaminated soil associated with the CGA Smelter Site within the Project Area outside of the WSI footprint. If there is soil contamination outside of the WSI but within the Project Area, it is expected to be below the cleanup levels protective of groundwater since separate plumes have not been observed nor are there additional known sources.



2.2.1.2 GROUNDWATER

Historically the WSI groundwater monitoring network has consisted of six monitoring wells with additional wells added during the remedial investigation to supplement the dataset. Figure 2 shows the location of groundwater monitoring wells in and near the Project Area. Monitoring data reported in the RI prepared by the Smelter PLPs (Tetra Tech 2022) and recent monitoring data (BMEC 2024) indicate groundwater concentrations of fluoride and sulfate are consistently above screening levels in groundwater downgradient of the WSI. Aluminum, arsenic, cyanide, and lead have been detected at concentrations above screening levels but below cleanup levels (CULs) with limited frequency at select monitoring wells in this same area. VOCs, PAHs, and petroleum hydrocarbons have not been detected in this area (Tetra Tech 2022; BMEC 2024).

Groundwater COCs may be added pending results of soil samples beneath the WSI (e.g., multiple detections of a constituent in soil samples from beneath the WSI that are above its soil CUL for the protection of groundwater may warrant addition to the COC list). Soil results will be shared with Ecology and the PLPs with recommendations for additional groundwater COCs following completion of WSI excavation and confirmation sampling.

2.2.1.3 CONCEPTUAL SITE MODEL

A site conceptual model (CSM) integrates understanding of sources, nature, and extent of contamination; fate and transport mechanisms; and potential receptors and exposure pathways to environmental contamination. Figures 3-1 and 3-2 present the CSM schematic for the Project Area. This CSM is adapted from the Final Draft RI (Tetra Tech 2022) to be focused on the Project Area.

2.2.2 HUMAN AND ECOLOGICAL EXPOSURE

Potential exposure to COCs in soil and/or groundwater and/or physical stresses (e.g., destruction of habitat and disturbance) during the proposed Project construction and operation represent the primary effects to potential ecological and human receptors in the Project Area.

2.2.2.1 ECOLOGICAL RECEPTORS

Ecological exposure to COCs within the WSI is unlikely given the location of soil impacts are limited to the WSI which is capped, a low-quality habitat, and secured with fencing. As a result, wildlife is not considered a potential receptor. The WSI is a landfill with an engineered RCRA cap consisting of soil and geosynthetic materials. Quarterly inspections and maintenance are completed to maintain integrity of the cap including removal of rodent holes and vegetation clearance (BMEC 2024). According to MTCA WAC 173-340-7491(b), the WSI is exempted from Terrestrial Ecological Evaluation requirements as it was closed under RCRA program requirements and is undergoing long-term post-closure groundwater monitoring.

There is potential for ecological exposure to livestock and terrestrial wildlife at Spring 6 and 7 as it is suspected they are connected to the groundwater adjacent to the Project Area. These locations do not exceed the protective of livestock screening levels for sulfate (500 milligrams per liter [mg/L]) and fluoride (2 mg/L) and there is no established terrestrial wildlife screening level (Weston 2025). Additionally, both springs appear to be at the leading edge of the plume for their

respective aquifers where COPCs have primarily attenuated (i.e., low concentrations relative to the groundwater immediately downgradient from the WSI).

2.2.2.2 HUMAN RECEPTORS

The majority of the CGA Smelter Site is currently zoned for industrial use. In the eastern portion of the CGA Smelter Site an area zoned for extensive agriculture is present. In addition, south of main plant area there is an area zoned as Open Space. Land use surrounding the CGA Smelter Site includes livestock grazing, primarily cattle, in the sagebrush/grassland habitat (Tetra Tech 2022). Access to CGA Smelter Site and the Project Area is restricted, with most of the area fenced with locked gates.

Exposures by humans could occur through contact, ingestion, or inhalation of contaminated subsurface soil, dust entrained in air during construction, or use of contaminated groundwater. The Weston *Pre-Final Feasibility Study* describes possible exposure to CGA Smelter Site related contaminants (Weston 2025). Potential human receptors at the CAP Area include current and future users of the area, potential trespassers, and potential future users of groundwater. Current water rights identify drinking water as a possible beneficial use (PGG 2014); however, there are currently no drinking water wells located in the Project Area.

There are potential human receptors at Spring 6 and 7 as it is suspected they are connected to groundwater. However, these locations are primarily used for livestock watering (cattle) and human exposure can be eliminated/reduced through institutional controls.

2.3 CLEANUP STANDARDS

Remedial actions must comply with cleanup standards set forth in WAC 173-340-700 through 173-340-760. Cleanup standards include CULs for site COCs, the point of compliance (POC) (i.e., location where these CULs must be met), and other regulatory requirements that potentially apply to the site due to the remedial action type and/or site location. Cleanup standards are based on federal and state primary or secondary MCLs. Detailed rationales for the selection of COCs and CULs are presented in the *Final Draft RI/FS* (ERM 2024) and summaries are presented in the sections below.

2.3.1.1 SOIL CLEANUP LEVELS

Soil CULs are based on the most protective level between protection of groundwater and human health. Soil CULs are summarized below and detailed in Table 1.

- Proposed Cleanup Levels: Soil CULs protective of groundwater and human direct contact. The lowest soil CUL (most protective) will be used. All values are consistent with the most recent updates to Ecology's Cleanup Levels and Risk Calculation (CLARC) tables, published in February 2025.
 - Protection of groundwater CULs are based on the Ecology soil concentrations calculated using Equation 747-1 under WAC 173-340-747.
 - For constituents where protection of human health is more limiting, such as lead in shallow soil, cleanup levels are based on MTCA Method A Industrial soil values.

- For arsenic, the cleanup level reflects the Eastern Washington regional background concentration, consistent with Ecology guidance.
- Soil COCs based on groundwater results that exceeded the CULs are fluoride and sulfate.
 - The cleanup level of 2,150 milligrams per kilogram (mg/kg) for sulfate is proposed for protection of groundwater (Tetra Tech 2022).
 - The cleanup level of 148 mg/kg for fluoride is proposed for the protection of groundwater based on the screening level calculated in the *Final Draft RI* (Tetra Tech 2022) for the protection of groundwater using site-specific data. The protective soil concentration was derived based on the groundwater screening level concentration of 0.96 mg/L, a soil/water soil adsorption coefficient (Kd) value of 153 liters per kilogram, and a dilution factor of 1 (Tetra Tech 2022).
- Although there were limited detections and MCL exceedances of aluminum, arsenic, cyanide, and lead in groundwater during the RI, these constituents will be included as soil COCs for screening and verification that they are not present in concentrations above the soil to groundwater pathway or background levels.

TTEC PAHs did not exceed the state and federal primary MCL of 0.2 microgram per liter in wells sampled during the RI (Tetra Tech 2022). Because the groundwater data for TTEC PAHs do not indicate significant impacts at the site, PAHs are not selected as soil COCs based on the protection of groundwater (Weston 2025).

TABLE 1 SOIL CLEANUP LEVELS

Analyte	Cleanup Level (mg/kg)	Basis for Cleanup Level
Aluminum	480,000	Protection of Groundwater
Arsenic ^a	7.61	Eastern Washington Regional Background
Cyanide (Free)	1	Protection of Groundwater
Fluoride ^b	148	Protection of Groundwater
Sulfate ^c	2,150	Protection of Groundwater
Lead	1,000 (0-15' bgs); 3,000 (<15' bgs)	Industrial Method A; Protection of Groundwater

Notes:

mg/kg = milligrams per kilogram

a= Natural background based on Ecology (1994; Publication #94-115) Natural Background Soil Metals Concentrations in Washington State study. Value represents 90th percentile of eastern Washington dataset.

b = Fluoride soil screening level for protection of groundwater based on empirical demonstration consistent with WAC 173-340-747.

c = Sulfate screening level for protection of groundwater based on literature distribution coefficient, secondary MCL, and fixed parameter three-phase partitioning model

2.3.1.2 GROUNDWATER CLEANUP LEVELS

The *Final Draft RI/FS* identified groundwater screening levels as drinking water MCLs, MTCA Method A formula values, or secondary MCLs (ERM 2024). Groundwater at this site is considered a potential source of drinking water as that represents its highest beneficial use consistent with MTCA requirements.

- Groundwater COCs for the Western AOC (i.e., groundwater contamination associated with the WSI): fluoride and sulfate.
- Proposed CULs:
 - The cleanup level for fluoride is set at the MTCA Method B CUL of 0.96 mg/L.
 - The cleanup level for sulfate is set at the secondary MCL of 250 mg/L.

As the Smelter PLPs are responsible for risks associated with groundwater and Springs 6 and 7, the final groundwater CULs as established in the pending sitewide CAP for the CGA Smelter Site will take precedent over the CULs listed herein. If there are any differences between the CULs established in this document and those in the final sitewide CAP, the CULs in the sitewide CAP will govern.

TABLE 2 PROPOSED GROUNDWATER CLEANUP LEVELS

Analyte	Proposed Cleanup Level (mg/L)	Basis for Cleanup Level
Fluoride	0.96	MTCA Method B
Sulfate	250	WA MCL

Notes:

mg/L = micrograms per liter

MTCA = Model Toxics Control Act

WA MCL = Washington Maximum Contaminant Level

3. DESCRIPTION OF SELECTED REMEDY

ERM completed an initial screening of cleanup alternatives as part of the *Final Draft RI/FS* (ERM 2024). The FS proposed a soil remedy according to requirements and procedures for selecting cleanup actions under MTCA (WAC 173-340-360(2)(a),(b),(c), and (d)) and was approved by Ecology on 23 December 2024.

3.1 SITE DESCRIPTION

The cleanup action location is the WSI itself, the soil below the WSI with concentrations of COCs exceeding the CULs, and the western groundwater AOC (Figure 2).

3.2 DESCRIPTION OF CLEANUP ACTION

The selected cleanup action for the WSI includes the excavation of the WSI to the bottom liner and over-excavation of the underlying contaminated soil exceeding CULs to a maximum depth of 15 feet beneath the bottom liner or until the groundwater table or bedrock is encountered, whichever is shallower. Confirmation soil sampling will be conducted below the WSI bottom liner to determine where over-excavation is required. The contaminated materials and soil will be disposed of at a landfill permitted to accept the waste. For costing purposes in the *Final Draft RI/FS* (ERM 2024), over-excavation was assumed to be required beneath 20 percent of the WSI footprint. If sampling determines that over-excavation to 15 feet beneath the bottom liner is required for more than 20 percent of the WSI area, the findings will be reported to Ecology and a focused FS will be prepared to evaluate the appropriate additional remedial actions at the site.

Groundwater monitoring wells in the Project footprint will be decommissioned in accordance with Washington regulations (WAC 173-160-381) as a part of the construction of the Lower Reservoir. Groundwater monitoring wells will be installed, as needed, to replace the decommissioned wells for use by the Smelter PLPs to meet the requirements of the Order.

As the Smelter PLPs are responsible for risks associated with groundwater and Springs 6 and 7, the final groundwater cleanup action as established in the pending sitewide CAP for the CGA Smelter Site will take precedent over the action presented herein. If there are any differences between the cleanup action in this document and that in the final sitewide CAP, the cleanup action in the sitewide CAP will govern. Remedial actions being considered in the sitewide FS (Weston 2025) include establishing a monitoring well network. The monitoring plan will be reassessed and updated as necessary in conjunction with five-year reviews. During each five-year review, trend analysis will be performed for fluoride and sulfate in groundwater and assess the remedy effectiveness. If necessary to achieve groundwater remedial action objectives, evaluation of contingency measures will be triggered. It is expected that a minimum of 10 years of data collection after remedy implementation will be required to evaluate trends and remedy effectiveness (Weston 2025).

The Weston *Pre-Final Feasibility Study* states that post-remedy implementation activities will include reporting the findings to Ecology and if necessary, a focused feasibility study will be performed to evaluate appropriate additional remedial actions at the site (Weston 2025). Potential

additional remedial actions that would be considered include refined stormwater management, additional soil removal, and hydraulic containment.

An environmental covenant on groundwater use will be recorded at the Klickitat County Auditor's Office to provide long-term protection of human health and the environment. The covenant will specify institutional controls to limit, restrict, or prohibit activities that would interfere with the integrity of the cleanup action or result in exposure to contaminated groundwater. The covenant will be executed by the property owner and recorded with the register of deeds for Klickitat County. Interim controls will protect workers from exposure to contaminated soil or groundwater during construction.

3.2.1 PROTECTIVENESS

Removing waste in the WSI and associated impacted soil will be protective of human health and the environment. The WSI wastes and associated soil will be excavated and transported offsite. The waste and soil removal will eliminate potential human and ecological exposure and eliminate a potential source of COCs to groundwater.

3.2.2 COMPLIANCE WITH CLEANUP STANDARDS

Removing waste in the WSI and associated impacted soil will achieve soil CULs protective of groundwater and human direct contact. The lowest soil CUL (most protective) will be used. All values are consistent with the most recent updates to Ecology's CLARC tables, published in February 2025.

3.2.3 COMPLIANCE WITH ARARS

The proposed cleanup action will comply with all applicable relevant and appropriate requirements, which are summarized in Table 3.

3.2.4 PROVIDE FOR COMPLIANCE MONITORING

The Applicant will prepare a compliance monitoring plan to describe confirmation sampling of the WSI excavation to document that the excavation achieves the soil CULs. The Smelter PLPs will develop and implement groundwater compliance monitoring at the CGA Smelter Site, including the western groundwater AOC, in accordance with the requirements of the Order.

3.2.5 USE OF PERMANENT SOLUTIONS

The proposed cleanup action is a permanent solution because excavation and offsite disposal will permanently remove the WSI source materials, thereby removing a potential contamination source to groundwater.

3.2.6 REASONABLE RESTORATION TIMELINE

The timeline for excavation of the WSI and soils above the CULs, mitigating direct contact exposure and groundwater pathway from impacted soil, is up to 2 years.

For groundwater, the timeline is longer due to reliance on monitored natural attenuation but is expected to be reasonable given the removal of the primary source and the implementation of

long-term monitoring and contingency measures (if needed). The remedy includes five-year reviews and trend analysis to evaluate progress and determine if additional actions are needed.

3.2.7 CONSIDERATION OF PUBLIC CONCERNS AND TRIBAL RIGHTS AND INTERESTS.

This DCAP has been developed in accordance with the requirements of WAC 173-340-360(4)(d)(i) and (ii), which call for consideration of public concerns and tribal rights and interests in selecting a cleanup action.

Ecology and the Applicant have coordinated with the Tribe. The CGA Smelter Site is located within the Tribe's treaty-defined usual and accustomed fishing area. Ecology has shared technical information with the Tribe and received input on the sitewide remedial investigation and feasibility study. A Tribal Engagement Plan is being prepared to guide future coordination.

In accordance with WAC 173-340-600(13) and (14), Ecology will prepare a PPP to support community involvement and provide opportunities for input. The PPP will be finalized before the public comment period on the DCAP, the Final Draft RI/FS, and PPCD.

The selected cleanup action also meets the intent of WAC 173-340-620, which outlines the process for selecting a cleanup action. The remedy reflects tribal input received to date, supports long-term protection of human health and the environment, and includes institutional controls to manage residual contamination. The action is compatible with future land use and considers the interests of affected communities and the Tribe.

3.3 CLEANUP STANDARDS AND POINT OF COMPLIANCE

3.3.1 SOIL POINT OF COMPLIANCE

Soil POCs are protective of groundwater, human health, surface water and are consistent with MTCA. Construction of the Project will entail excavation of the WSI and impacted soil beneath the WSI with COC concentrations that exceed the CULs. Soil below the WSI excavation with residual concentrations of COCs lower than the soil CULs does not present an unacceptable risk to humans and will not adversely impact groundwater. Confirmation sampling after excavation will demonstrate concentrations of COCs at the excavation limits.

3.3.1.1 PROTECTION OF GROUNDWATER AND SURFACE WATER

In accordance with WAC 173-340-740, the POC based on soil cleanup levels for protection of groundwater will be soils throughout the CAP Area.

3.3.1.2 GROUNDWATER POINT OF COMPLIANCE

For purposes of assessing groundwater quality within the Project Area and the need to protect potential human exposure to contaminated groundwater, this DCAP identifies Springs 6 and 7 as a conditional POC for groundwater. As the Smelter PLPs are responsible for risks associated with groundwater and Springs 6 and 7, the final groundwater point of compliance as established in the pending sitewide CAP for the CGA Smelter Site will take precedent over the POCs presented herein. If there are any differences between the POCs established in this document and those in

the final sitewide CAP, the POCs in the sitewide CAP will govern. The *Weston Pre-Final Feasibility Study* identifies proposed points of compliance for groundwater, included select springs (Weston, 2025). Groundwater monitoring for COCs (fluoride and sulfate) in the western groundwater AOC will be conducted by the Smelter PLPs to confirm concentration reductions following WSI source removal.

3.4 APPLICABLE, RELEVANT, AND APPROPRIATE REQUIREMENTS

WAC 173-340-710 provides that MTCA cleanup actions must comply with applicable state and federal laws. Potentially applicable federal, state, and local laws that may apply during the implementation of remedial actions at the site are summarized in Table 3. Ecology will confirm the listed applicable relevant and appropriate requirements and/or amend as needed.

TABLE 3 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS)

Jurisdiction	Summary of ARARs	
State of Washington Regulations	Ch. 173- 340 WAC	MTCA soil and groundwater cleanup levels and cleanup levels based on estimates of the reasonable maximum exposure.
	Ch. 18.104 RCW & Ch. 173-160 WAC	Establishes minimum standards for the construction and decommissioning of all wells in the state of Washington.
	Ch. 173-162 WAC	Rules & Regulations Governing the Licensing of Well Contractors & Operators
	Ch. 173-303 WAC	Dangerous Waste Management
	Ch. 173-304 WAC	Solid Waste Handling Standards
	Ch. 70A.300 RCW	Establishes framework for planning, regulation, control, and management of hazardous waste.
	Ch. 70A.305 RCW	Hazardous Waste Cleanup Model Toxics Control Act.
	Ch. 173-340 WAC	MTCA Cleanup Regulation
	Ch. 70A.205 RCW	Solid Waste Management - Reduction and Recycling
	Ch. 173-350 WAC	Solid Waste Handling Standards
	Ch. 43.21C RCW	State Environmental Policy Act
	Ch. 49.17 RCW	Washington Industrial Safety and Health Act requires employers to maintain work practices and work environments which do not endanger health and safety of employees.
Ch. 197-11 WAC	SEPA Rules	

Jurisdiction	Summary of ARARs	
	Ch. 70.94 RCW and Ch. 70A.15 RCW	Washington Clean Air Act - Regulates Air Emissions and Fugitive Dust
	Ch. 70.119A RCW & Ch. 246-290 WAC	Establishes MCLs for drinking water
	Ch. 90.48 RCW	Establishes NPDES permit requirements for discharging pollutants into water of the United States
Federal Regulations	29 CFR 1910	Occupational Safety and Health Act
	36 CFR 800	National Historic Preservation Act
	42 USC 6921-22	Identification and Listing of Hazardous Waste
	42 USC 7401	Clean Air Act of 1977
	40 CFR 50	National Ambient Air Quality Standards
	40 CFR 141	Drinking Water Regulations
	40 CFR 260-268	Hazardous Waste Regulations (RCRA)
	50 CFR Part 17	Endangered Species Act
County Regulations	KCMC, Title 8, Chapter 8.14	Solid Waste Handling

Notes:

ARAR = applicable or relevant and appropriate requirement

CFR = Code of Federal Regulations

MTCRA = Model Toxics Control Act

RCRA = Resource Conservation and Recovery Act

RCW = Revised Code of Washington

SEPA = State Environmental Policy Act

TESC = Temporary Erosion and Sediment Control

USC = U.S. Code

WAC = Washington Administrative Code

NPDES = National Pollutant Discharge Elimination System

KCMC = Klickitat County Municipal Code

3.5 RESTORATION TIMEFRAME

The timeframe for mitigating direct contact exposure and groundwater pathway from impacted soil is up to 2 years as the WSI excavation, excavation of soil above CULs, and/or ISS will occur in a continuous sequence.

Groundwater cleanup actions required for the CGA Smelter Site including groundwater within the Project Area are the responsibility of Smelter PLPs under the Order No. DE 10483. The Applicant will implement institutional controls via an environmental covenant to limit, restrict, or prohibit activities that could result in exposure to contaminated groundwater within the CAP Area. The institutional controls will be immediately effective to limit exposure to groundwater.



3.6 COMPLIANCE MONITORING

The Applicant will prepare a compliance monitoring plan (WAC 173-340-410) to describe confirmation sampling of the WSI excavation to document the excavation achieves CULs.

The Smelter PLPs will implement long-term groundwater monitoring at the CGA Smelter Site in accordance with requirements of the Order. The groundwater compliance monitoring program is expected to align with the existing post-closure requirements for the RCRA-closed WSI and enforced through the post-CAP Administrative Order with Ecology.

3.7 SCHEDULE FOR IMPLEMENTATION

The preliminary schedule for implementing the proposed cleanup action is shown in Appendix C. The schedule start is assumed to be the date that the CAP and PPCD are finalized. The start date depends on the Applicant's attainment of a FERC license and purchase of the land within the Property Boundary from NSC. A more detailed schedule will be prepared as part of the Engineering Design Report.

3.8 INSTITUTIONAL/ENGINEERING CONTROLS

Institutional controls will include restrictions (e.g., restrict livestock watering and/or human consumption at springs) or procedures to limit exposure to residual contaminated soil or groundwater after the WSI is removed. For example, the institutional controls at the springs will eliminate exposure to ecological (cattle) and human receptors at those locations. The covenant will be executed by the property owner and recorded with the register of deeds for Klickitat County.

3.9 TRIBAL ENGAGEMENT

Tribal engagement is an integral part of this MTCA cleanup action. Ecology has engaged the Tribe throughout the cleanup process and will continue to work directly with the Tribe throughout implementation of the cleanup action discussed herein. A Tribal Engagement Plan will be created by Ecology in accordance with WAC 173-340-620. Tribal engagement will be in addition to and independent of any public participation requirements.

3.10 PUBLIC PARTICIPATION

Ecology will prepare a public participation plan to meet the state and federal public participation requirements and to inform the public of the cleanup actions. The Applicant will assist Ecology to prepare and implement the public participation plan as requested, which may include the preparation of mailing lists, fact sheets, public notices, public meetings, Ecology's website, and other outreach tools.

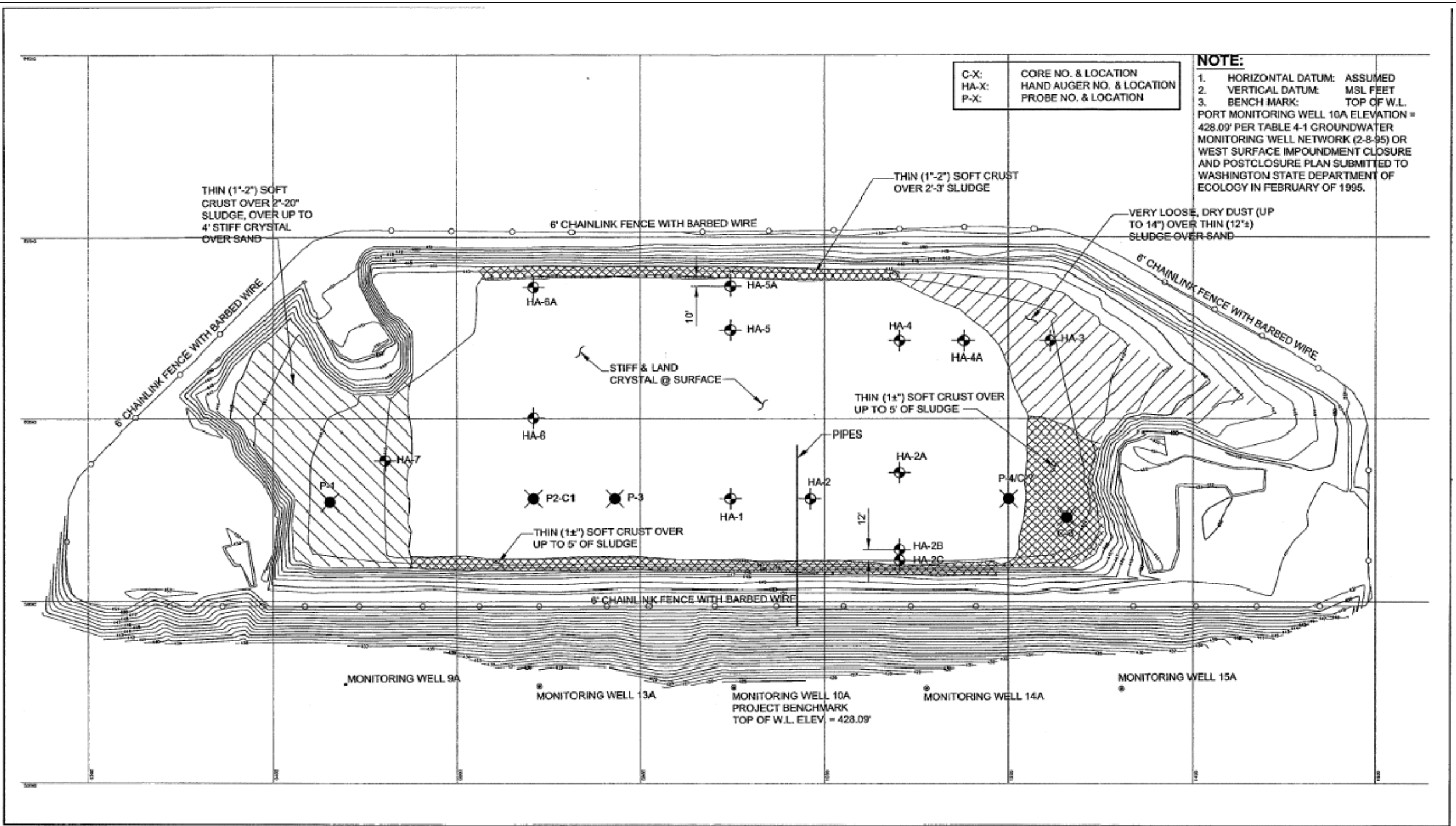
4. REFERENCES

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APPENDIX A

WSI DETAIL



Parametrix DATE: 08/05/04 09:00am FILE: 53244801P01171F-10

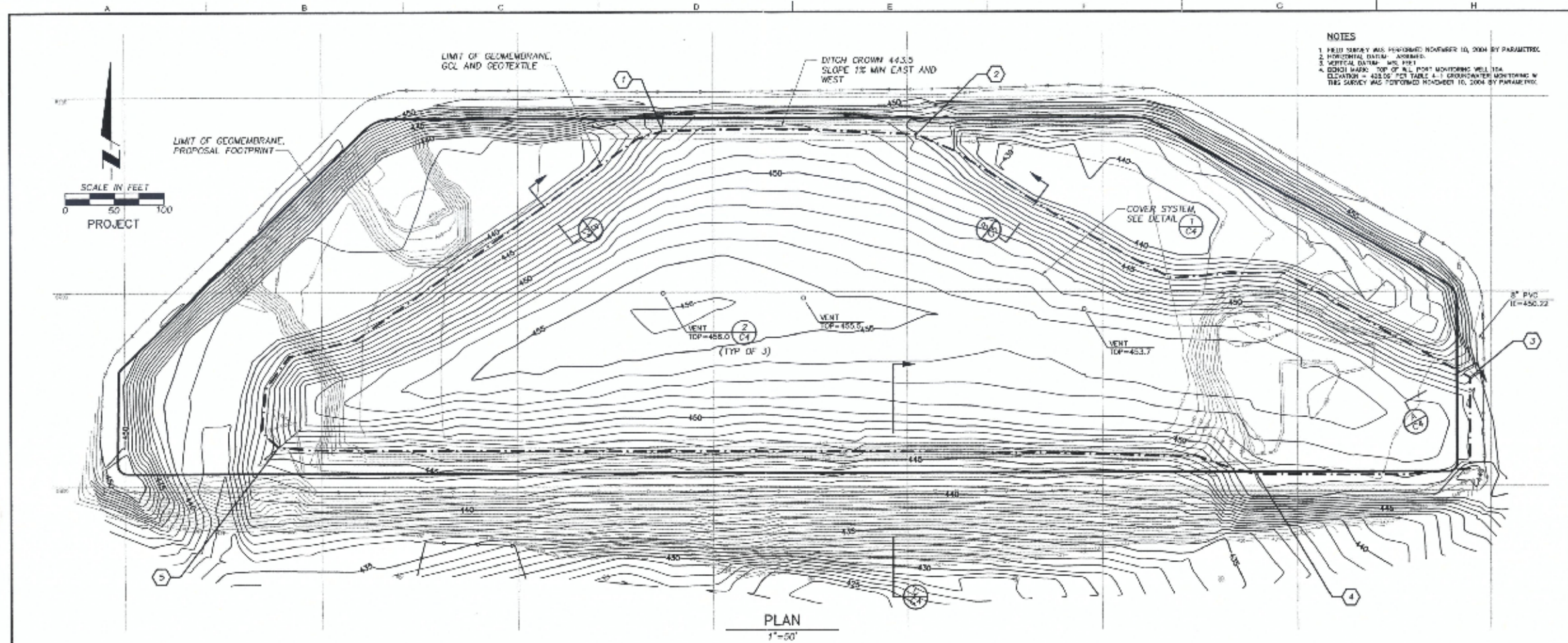


**Figure 2-2
Waste Types & Locations
July 2004
Goldendale Aluminum**

**Figure A1
Waste Types**
Draft Cleanup Action Plan
Goldendale Energy Storage Project
Goldendale, Washington

Source: Parametrix, Construction Quality Assurance Report, 2004.





NOTES

1. FIELD SURVEY WAS PERFORMED NOVEMBER 10, 2004 BY PARAMETRIX.
2. HORIZONTAL DATUM: NAD83/84.
3. VERTICAL DATUM: MSL (FEET).
4. BORIS MARK: TOP OF ALL POINT MONITORING WELLS 104 ELEVATION = 432.00 PER TABLE 4.1. GROUNDWATER MONITORING W THIS SURVEY WAS PERFORMED NOVEMBER 10, 2004 BY PARAMETRIX.

NOTES:

1. SEE AFTER PHOTOGRAPH ON C1 FOR WHAT THE SITE VISUALLY LOOKED LIKE AFTER CONSTRUCTION WAS COMPLETED.

GEOMEMBRANE	ACRES
PROPOSAL FOOTPRINT	10.05
FINAL FOOTPRINT	6.53
DIFFERENCE	3.52



REVISED TO CONFORM WITH CONSTRUCTION RECORDS
BY: G. NICOLL DATE: NOV 2004

REVISIONS	DATE	BY	DESCRIPTION

ONE INCH AT FULL SCALE
P. 0010 - 0010 - 0010
DATE: SEPTEMBER 2004

EXPIRES 06/30/2006



PROJECT NAME
GOLDEN NORTHWEST ALUMINUM, INC.
WEST SURFACE IMPOUNDMENT CLOSURE
GOLDENDALE, WASHINGTON

FINAL GRADING PLAN

DRAWING NO.
3 OF 4
C3

Figure A2
WSI 2004 Closure Final Grading Plan
Draft Cleanup Action Plan
Goldendale Energy Storage Project
Goldendale, Washington

Source: Parametrix, Construction Quality Assurance Report, 2004.





Legend
Project Boundary

Figure A3
Aerial Photograph
Project Boundary
Draft Cleanup Action Plan
Goldendale Energy Storage Project
Goldendale, Washington



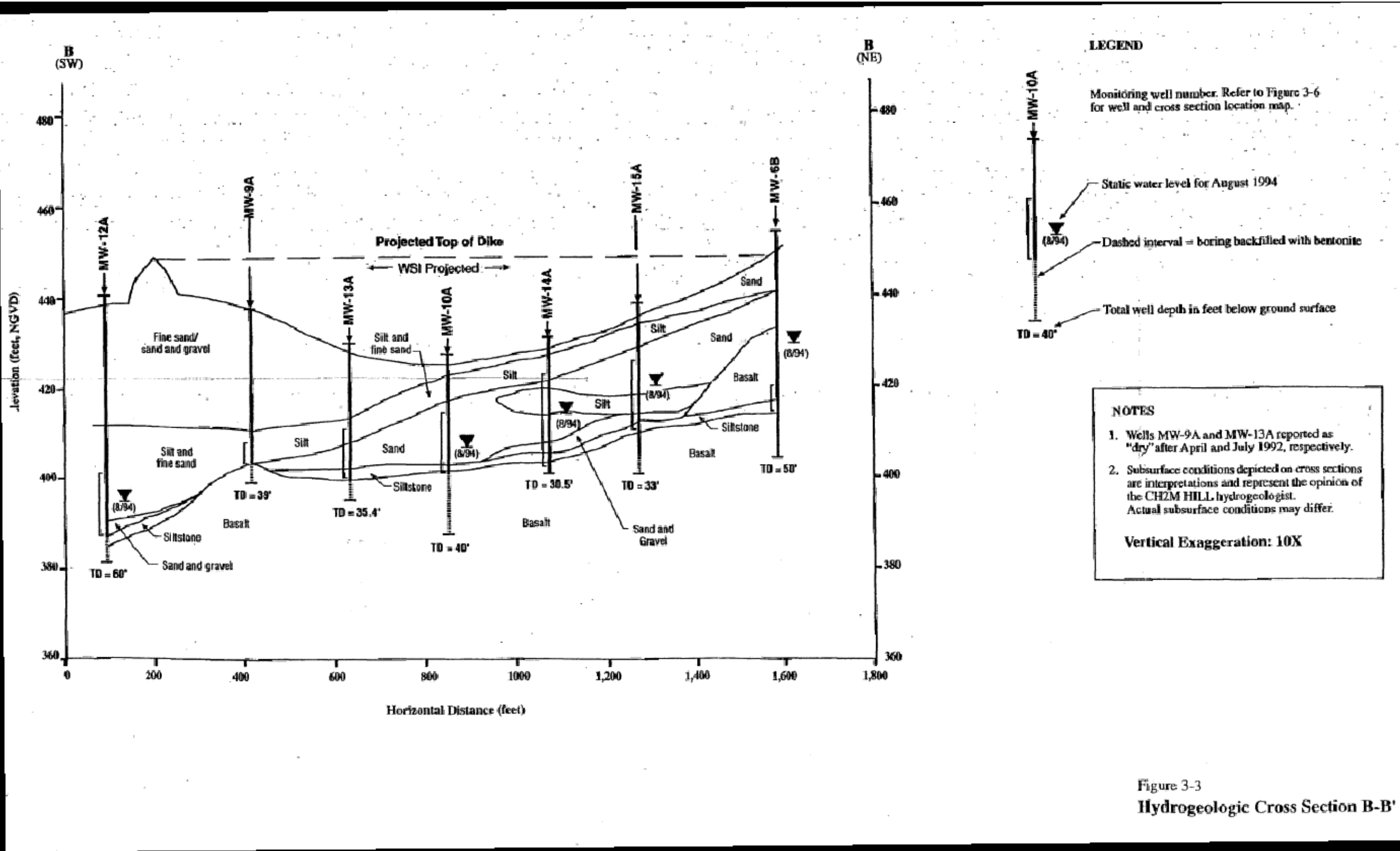


Figure 3-3
 Hydrogeologic Cross Section B-B'

Figure A4
 West Surface Impoundment Cross Section
 Draft Cleanup Action Plan
 Goldendale Energy Storage Project
 Goldendale, Washington

Source: Parametrix, Construction Quality Assurance Report, 2004.



APPENDIX B

GROUNDWATER CONDITIONS

Table B1
Monitoring Well Construction Information
Draft Cleanup Action Plan
Goldendale Energy Storage Project, Goldendale, WA

Well ID	Construction Date	Well Material	Well Diameter (in)	Screen Interval (ft bgs)	Total Depth of Well (ft bgs)
MW-02A	4/5/1984	PVC Schedule 40	2	50 - 55	55
MW-02B	4/5/1984	PVC Schedule 40	4	104 - 109	109
MW-03A	4/13/1984	PVC Schedule 40	2	19.5 - 24.5	24.5
MW-03B	4/7/1984	PVC Schedule 40	4	46 - 51	51
MW-04A	4/17/1984	PVC Schedule 40	4	16 - 21	21
MW-04B	NA	NA	4	35 - 40	50
MW-05B	NA	NA	4	97 - 102	110
MW-06B	4/20/1984	PVC Schedule 40	4	35 - 40	50
MW-07B	4/25/1984	PVC Schedule 40	2	104 - 109	109
MW-08A	5/7/1989	PVC Schedule 40	4	21.5 - 31.5	32
MW-09A	4/18/1989	PVC Schedule 40	4	30.5 - 35.5	35.5
MW-10A	4/20/1989	PVC Schedule 40	4	13 - 25.5	26
MW-11A	4/28/1989	PVC Schedule 40	4	19 - 29	29.5
MW-12A	5/2/1989	PVC Schedule 40	4	40 - 54	55
MW-13A	5/4/1989	PVC Schedule 40	4	18.5 - 30.5	31
MW-14A	5/6/1989	PVC Schedule 40	4	8.5 - 29.5	30.5
MW-15A	5/6/1989	PVC Schedule 40	4	12.5 - 28	29
MW-16A	1/10/1990	PVC Schedule 40	4	22 - 42	43
MW-17A	1/10/1990	PVC Schedule 40	4	15 - 35	35
MW-18	10/1/2004	NA	4	35 - 50	51

Notes:

in = inches

ft = ft

bgs = below ground surface

NA = Not available.

MW-4B and MW-5B were abandoned in 1989.

Table B2
 Groundwater Analysis Summary (mg/L)
 Draft Cleanup Action Plan
 Goldendale Energy Storage Project, Goldendale, WA

Analyte			Sulfate	Fluoride	Chloride	Total Cyanide
Lowest Groundwater Protection Standard			250	0.96	250	0.2
Monitoring Well ID	Location to WSI	Date Collected				
MW-8A	Up-Gradient	2/16/05	10	0.9	5.6	< 0.01
		5/11/05	9.8	0.3	4.6	< 0.01
		8/29/05	8.9	0.4	4.2	< 0.01
		11/1/05	9.6	0.9	4.7	< 0.01
		2/27/06	9.27	2.8	4.2	< 0.01
		6/5/06	9.8	0.2	4.9	< 0.05
		7/31/06	9.8	0.1	4.6	< 0.01
		10/9/06	9.7	< 0.2	4.5	< 0.01
		3/13/07	10	< 0.1	6.6	< 0.01
		6/22/07	1	< 10	4.9	< 0.01
		9/24/07	10	< 1	4.2	< 0.01
		11/14/07	-	-	-	-
		5/8/08	10	< 1	4	< 0.01
		10/14/08	10	0.1	4.5	< 0.01
		5/29/09	9	< 1	3	< 0.02
		10/27/09	10	< 1	5.5	< 0.02
		5/26/10	9.3	< 1	4.4	< 0.02
		10/6/10	8.9	< 1	3.6	< 0.02
		7/26/11	7.8	< 1	3.6	< 0.02
		4/19/12	10	0.18	3.8	< 0.005
		6/20/13	9.4	0.16	4.8	< 0.005
		4/25/14	9.5	0.19	4.9	< 0.005
		7/20/15	9.5	0.16	4.2	< 0.005
		8/2/16	9.3	0.13	4.1	< 0.005
8/9/17	9.6	0.15	4.1	< 0.005		
7/26/18	9.5	0.15	3.2	< 0.005		
7/24/19	5.4	0.14	4.1	< 0.005		
6/20/20	11	0.16	3.9	< 0.005		
7/28/21	9	0.15	4.4	< 0.004		
6/30/22	9.2	0.15	3.7	< 0.005		
7/20/23	7.4	0.15	5	< 0.005		
7/23/24	10	0.15	5.9	<0.005		
MW-3B	Down-Gradient	2/16/05	2300	0.6	130	< 0.01
		5/11/05	2500	0.4	140	< 0.01
		8/29/05	2700	0.6	120	< 0.01
		11/1/05	2600	0.9	130	< 0.01
		2/27/06	2610	0.7	118	< 0.01
		6/5/06	2220	0.2	113	< 0.01
		7/31/06	2000	3.7	110	< 0.01
		10/9/06	2500	3.8	110	< 0.01
		3/13/07	2500	3.8	110	< 0.01
		6/22/07	2500	< 10	97	< 0.01
		9/24/07	2200	< 1	125	< 0.01
		11/14/07	-	-	-	-
		5/8/08	2200	< 50	100	< 0.01
		10/14/08	2600	< 10	100	< 0.01
		5/29/09	2200	< 1	96	< 0.01
		10/27/09	2606	< 1	110	< 0.02
		5/26/10	2300	2.3	120	< 0.02
		10/6/10	2400	< 1	120	< 0.02
		7/26/11	2000	< 1	98	< 0.02
		4/19/12	2200	0.16	90	< 0.005
		6/20/13	1900	0.16	91	0.006
		4/25/14	2000	0.18	91	< 0.006
		7/20/15	1900	0.14	80	< 0.005
		8/2/16	1900	0.12	98	< 0.005
8/9/17	1700	0.15	95	0.01		
7/26/18	1800	0.16	95	< 0.005		
7/24/19	1500	0.15	93	< 0.005		
6/20/20	1700	0.14	88	< 0.005		
7/28/21	1500	0.17	93	< 0.005		
6/30/22	1600	0.17	99	< 0.005		
7/20/23	1400	0.13	86	< 0.005		
7/23/24	2100	0.17	89	<0.005		

Analyte			Sulfate	Fluoride	Chloride	Total Cyanide
Lowest Groundwater Protection Standard			250	0.96	250	0.2
Monitoring Well ID	Location to WSI	Date Collected				
MW-10A	Down-Gradient	6/5/06	1650	3.2	48	0.03
		7/31/06	860	2.3	35	0.08
		10/9/06	850	1.9	30	0.03
		3/13/07	1100	3.4	45	0.04
		6/22/07	1100	< 10	36	< 0.01
		9/24/07	760	1.2	30	0.04
		11/14/07	-	-	-	0.04
		5/8/08	2700	< 50	100	0.05
		10/14/08	860	< 10	30	0.04
		5/29/09	2000	2	68	0.03
		10/27/09	760	< 1	79	< 0.02
		5/26/10	2200	4.4	83	0.032
		10/6/10	710	1	23	0.022
		7/26/11	1800	3.3	62	0.028
		4/19/12	5800	1.9	180	0.007
		6/20/13	4700	3.1	99	0.008
		4/25/14	6100	2	190	< 0.005
		7/20/15	1900	2	58	< 0.005
		8/2/16	3500	2.1	82	< 0.005
		8/9/17	2900	3.2	170	< 0.005
		7/26/18	4800	4.1	71	< 0.005
		7/24/19	4000	3.7	82	< 0.006
		6/20/20	5700	4.4	77	< 0.006
		7/28/21	DRY	DRY	DRY	DRY
6/30/22	2100	3.2	47	< 0.005		
7/20/23	1400	4	38	< 0.005		
7/23/24	3550	5	50	< 0.005		
MW-12A	Down-Gradient	2/16/05	DRY	DRY	DRY	DRY
		5/11/05	DRY	DRY	DRY	DRY
		8/29/05	DRY	DRY	DRY	DRY
		11/1/05	DRY	DRY	DRY	DRY
		2/27/06	DRY	DRY	DRY	DRY
		6/5/06	DRY	DRY	DRY	DRY
		7/31/06	DRY	DRY	DRY	DRY
		10/9/06	DRY	DRY	DRY	DRY
		3/13/07	1800	6.3	150	< 0.01
		6/22/07	DRY	DRY	DRY	DRY
		9/24/07	DRY	DRY	DRY	DRY
		11/14/07	DRY	DRY	DRY	DRY
		5/8/08	DRY	DRY	DRY	DRY
		10/14/08	DRY	DRY	DRY	DRY
		5/29/09	DRY	DRY	DRY	DRY
		10/27/09	DRY	DRY	DRY	DRY
		5/26/10	DRY	DRY	DRY	DRY
		10/6/10	DRY	DRY	DRY	DRY
		7/26/11	DRY	DRY	DRY	DRY
		4/19/12	DRY	DRY	DRY	DRY
		6/20/13	DRY	DRY	DRY	DRY
		4/25/14	DRY	DRY	DRY	DRY
		7/20/15	DRY	DRY	DRY	DRY
		8/2/16	DRY	DRY	DRY	DRY
8/9/17	DRY	DRY	DRY	DRY		
7/26/18	DRY	DRY	DRY	DRY		
7/24/19	DRY	DRY	DRY	DRY		
6/20/20	DRY	DRY	DRY	DRY		
7/28/21	DRY	DRY	DRY	DRY		
6/30/22	DRY	DRY	DRY	DRY		
7/20/23	DRY	DRY	DRY	DRY		
7/23/24	510	1.9	37	<0.005		

Analyte			Sulfate	Fluoride	Chloride	Total Cyanide
Lowest Groundwater Protection Standard			250	0.96	250	0.2
Monitoring Well ID	Location to WSI	Date Collected				
MW-14A	Down-Gradient	6/5/06	2380	27	63	0.2
		7/31/06	3300	30	98	0.17
		10/9/06	3900	24	130	0.01
		3/13/07	4400	16	140	0.12
		6/22/07	7900	19	170	< 0.01
		9/24/07	6400	< 50	200	0.03
		11/14/07	-	-	-	-
		5/8/08	5500	< 50	100	0.19
		10/14/08	6500	20	180	0.12
		5/29/09	7000	30	210	0.14
		10/27/09	5900	24	160	0.044
		5/26/10	5200	32	170	0.14
		10/6/10	4000	18	120	0.086
		7/26/11	3900	23	130	0.066
		4/19/12	DRY	DRY	DRY	DRY
		6/20/13	2300	17	66	0.028
		4/25/14	2100	18	61	0.037
		7/20/15	1100	6.8	47	0.008
		8/2/16	1400	3.5	61	0.019
		8/9/17	1700	2.5	68	0.017
		7/26/18	1800	3.6	66	< 0.005
		7/24/19	1700	2.8	64	0.018
		6/20/20	2000	7	49	0.018
		7/28/21	1100	7.8	36	< 0.004
6/30/22	990	7.8	32	0.008		
7/20/23	1100	2.9	50	< 0.005		
7/23/24	1700	1.8	64	<0.005		
MW-18	Down-Gradient	2/16/05	1500	0.6	86	< 0.01
		5/11/05	1300	0.4	91	< 0.01
		8/29/05	1500	0.4	75	< 0.01
		11/1/05	1300	1.8	84	< 0.01
		2/27/06	1520	0.9	83	< 0.01
		6/5/06	1490	0.2	91	< 0.01
		7/31/06	1500	2.6	89	< 0.01
		10/9/06	1600	2.4	80	< 0.01
		3/13/07	1600	2.6	93	< 0.01
		6/22/07	1700	< 1	77	< 0.01
		9/24/07	1400	< 50	100	< 0.01
		11/14/07	-	-	-	-
		5/8/08	1300	< 50	70	< 0.01
		10/14/08	1600	< 1	80	< 0.01
		5/29/09	1500	1	81	< 0.01
		10/27/09	1200	< 1	70	< 0.01
		5/26/10	1500	2	100	< 0.02
		10/6/10	1600	< 1	84	< 0.02
		7/26/11	1600	< 1	89	< 0.02
		4/19/12	1700	0.2	79	< 0.005
		6/20/13	1500	0.13	84	< 0.005
		4/25/14	1700	0.12	79	< 0.005
		7/20/15	1300	0.11	86	< 0.005
		8/2/16	1700	0.12	79	< 0.005
8/9/17	1300	0.11	59	0.086		
7/26/18	1400	0.11	69	< 0.005		
7/24/19	1200	0.12	68	< 0.005		
6/20/20	1400	0.13	67	< 0.005		
7/28/21	1200	0.11	71	< 0.004		
6/30/22	1300	0.15	72	< 0.005		
7/20/23	1100	0.16	69	< 0.005		
7/23/24	1100	0.14	66	<0.005		

Notes:

Data compiled from the BMEC 2024 Annual Groundwater Monitoring and Surface Maintenance Report, October 2024

mg/L = milligrams per liter or parts per million

< = not detected above laboratory practical quantitation limit (PQL)

BOLD = detected at concentration above PQL

- = not analyzed

= above Lowest Groundwater Protection Standard

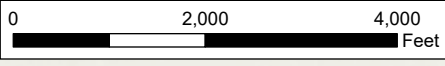
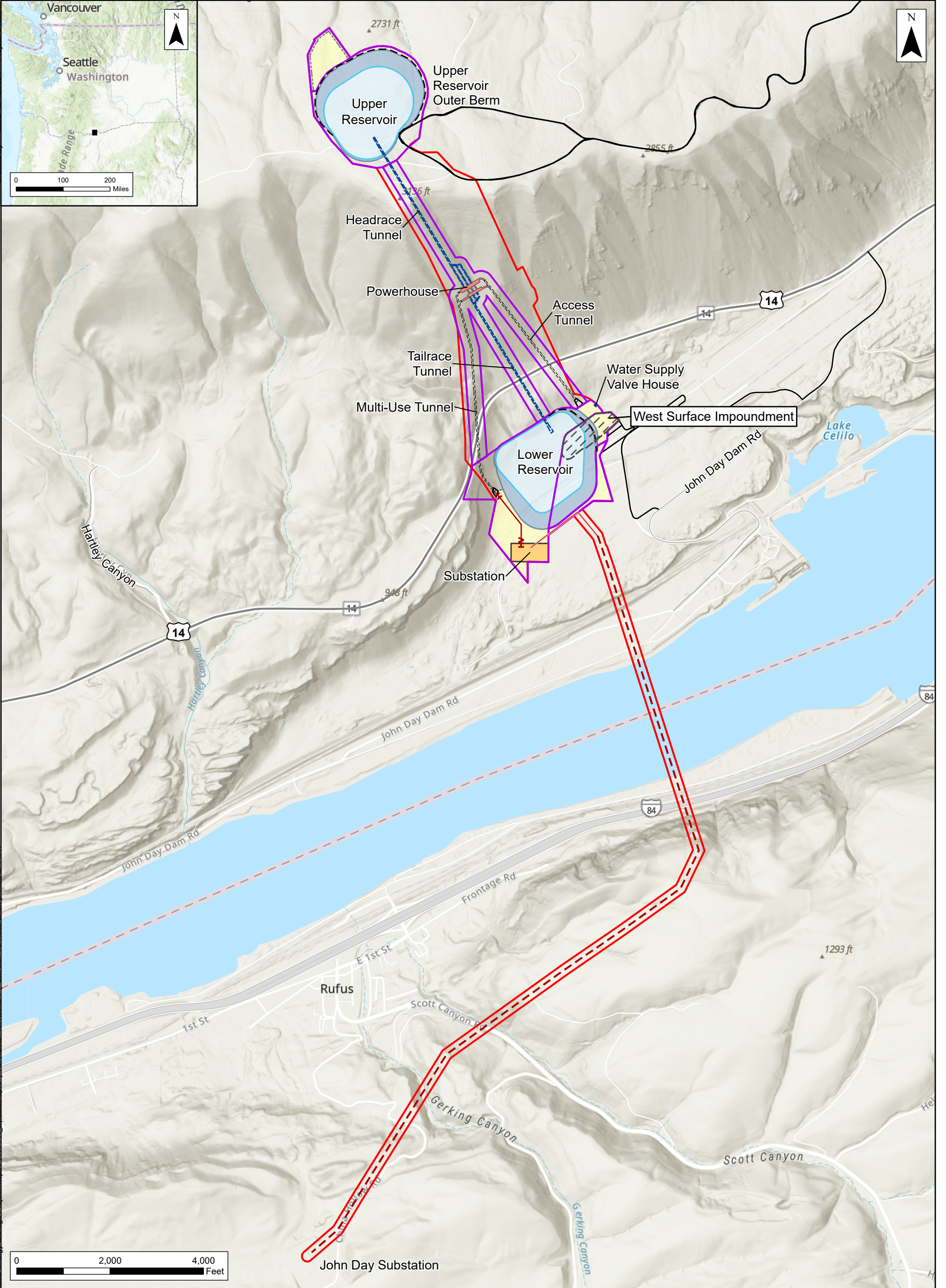


APPENDIX C

SCHEDULE



FIGURES



Legend

- | | | | |
|--|--------------------------------|--|--------------------------|
| | West Surface Impoundment (WSI) | | Powerhouse |
| | FERC Project Boundary | | Substation |
| | Property Boundary | | Water Supply Valve House |
| | Reservoir | | Access Tunnel |
| | Reservoir Berm Outer Slope | | Access Tunnel Portal |
| | Laydown Area | | Headrace/Tailrace Tunnel |

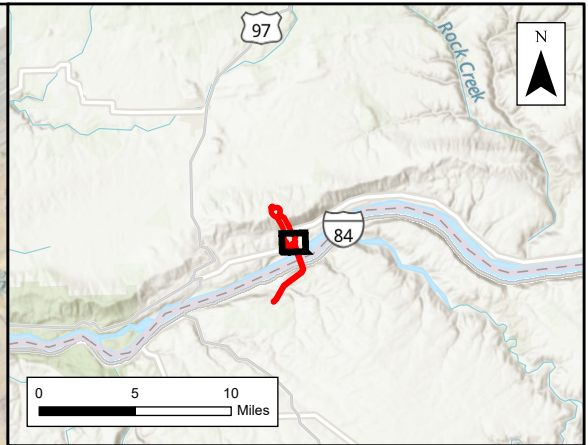
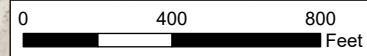
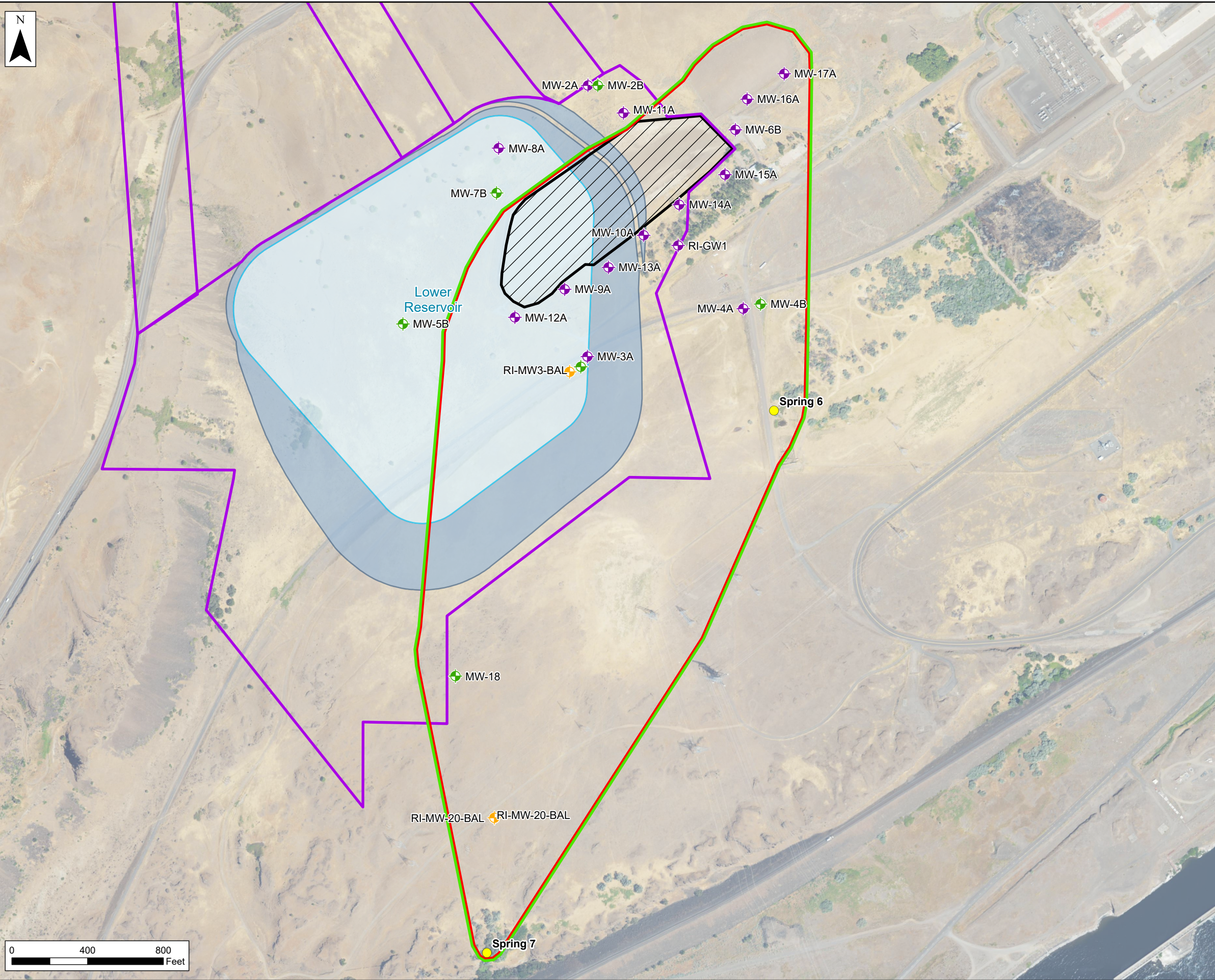
Figure 1
Project Location
 Draft Cleanup Action Plan
 Goldendale Energy Storage Project
 at the Former Columbia Gorge Aluminum Smelter Site
 Goldendale, Washington



Source: Esri - World Topographic Map; NAD 1983 HARN StatePlane Washington South FIPS 4602 Feet

FILE: M:\US\Projects\A\A\Copernhagan\Infra\Goldendale_Energy_Storage\Project\maps\PPA\PPA_Updates.aprx | REVISED - 12/16/2024 | SCALE: 1:24,000 when printed at 11x17

Created By: Date: 12/16/2024 | Project: 0483340

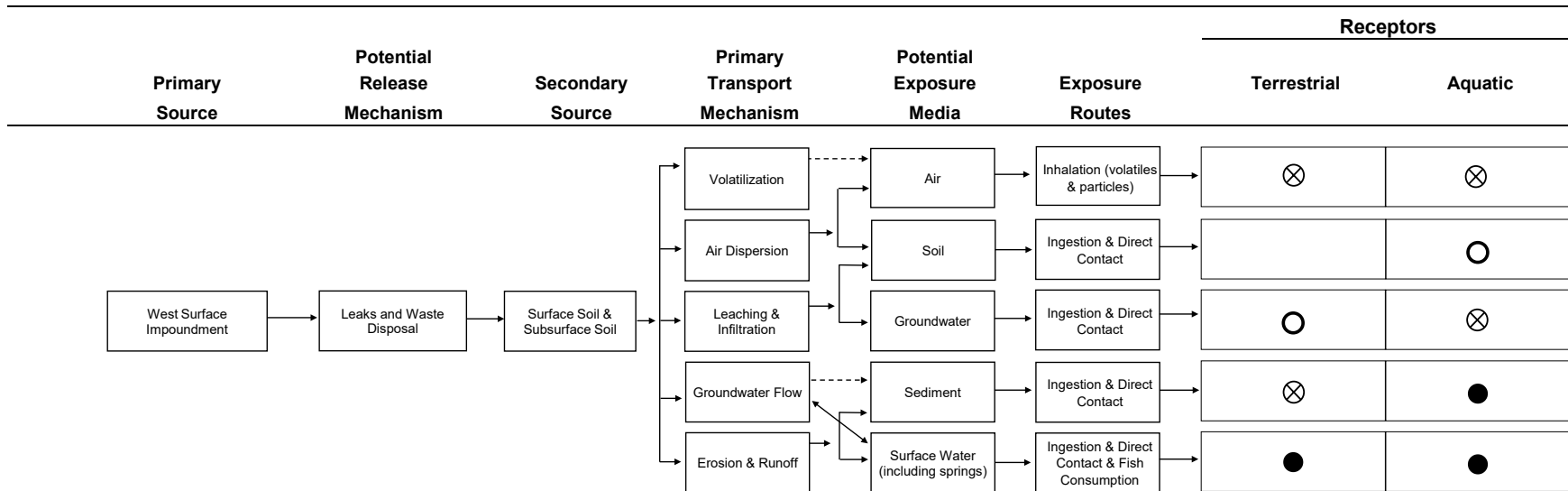


- Legend**
- Existing Well
- ◆ Unconsolidated Aquifer Well
 - ◆ Uppermost Basalt Aquifer Well
- Proposed Well
- ◆ Deep Well with Coring (BAL)
 - ◆ Temporary Shallow Well
 - Springs
- ▨ West Surface Impoundment (WSI)
 ■ Western GW AOC
 ■ Reservoir
 ■ Reservoir Berm Outer Slope
 ■ Property Boundary
 ■ Project Cleanup Area

Notes:
 All well locations approximate, no survey data available.
 CAP area includes impacts within the WSI (i.e., SWMU 4) and CGA Smelter Site groundwater impacts within the property boundary.

Figure 2
Project Cleanup Detail
 Draft Cleanup Action Plan
 Goldendale Energy Storage Project
 at the Former Columbia Gorge
 Aluminum Smelter Site
 Goldendale, Washington



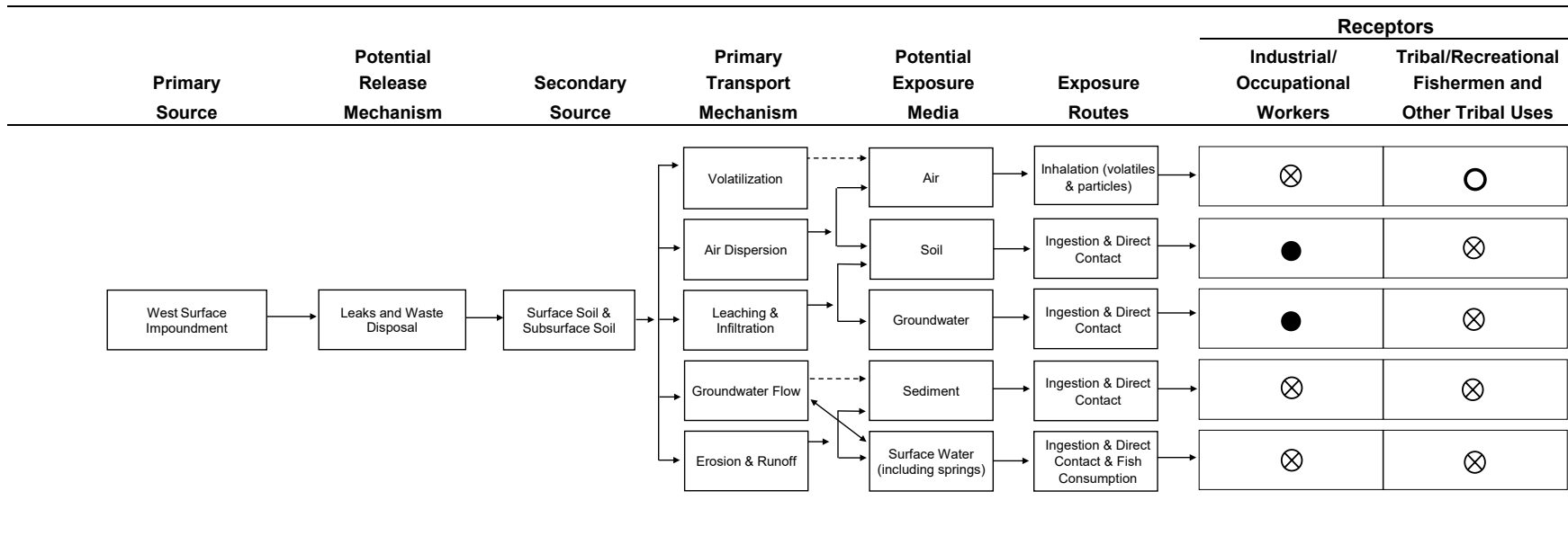


Legend

- = Complete Exposure
- ⊗ = Potentially Complete but Insignificant/Indirect Exposure
- = Incomplete Exposure
- = Complete Pathway or Medium
- > = Incomplete or Insignificant Pathway or Medium

Figure 3-1
Conceptual Ecological Exposure Site Model
Ecological Risk Assessment
 Draft Cleanup Action Plan
 Goldendale Energy Storage Project
 at the Former Columbia Gorge Aluminum Smelter Site
 Goldendale, Washington





Legend

- = Complete Exposure
- ⊗ = Potentially Complete but Insignificant/Indirect Exposure
- = Incomplete Exposure
- = Complete Pathway or Medium
- > = Incomplete or Insignificant Pathway or Medium

Note: This exposure model does not include potential municipal water use considerations for surface water and groundwater exposure media.

Figure 3-2
Conceptual Human Health Exposure Model
Human Health Risk Assessment
 Draft Cleanup Action Plan
 Goldendale Energy Storage Project
 at the Former Columbia Gorge Aluminum Smelter Site
 Goldendale, Washington

