

**STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY**

In the Matter of Remedial Action by:

Reserve Silica Corporation

Holcim (US) Inc.

AGREED ORDER

No. DE 16052

TO: Marisa Floyd  
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## **I. INTRODUCTION**

The mutual objective of the State of Washington, Department of Ecology (Ecology), Reserve Silica Corporation (Reserve Silica), and Holcim (US) Inc. (Holcim) under this Agreed Order (Order) is to provide for remedial action at a facility where there has been a release or threatened release of hazardous substances. This Order requires Reserve Silica and Holcim to complete a Remedial Investigation (RI), Feasibility Study (FS), and prepare a preliminary Draft Cleanup Action Plan (DCAP) for the Site generally located on King County Tax Parcel Nos. 362206-9138, 012106-9011, and 352206-9046. Ecology believes the actions required by this Order are in the public interest.

In January 2016, Ecology completed a Site Hazard Assessment (SHA) of Facility Site ID No. 2041 located on land owned by Reserve Silica Corporation in Ravensdale, Washington. The SHA focused on two areas of interest that contain cement kiln dust (CKD):

- The lower disposal area (LDA), which is 7 acres, located in the western portion of what is now King County Tax Parcel No. 362206-9138.
- The Dale strip pit (DSP), which is 6 acres, located mostly in the eastern portion of what is now King County Tax Parcel No. 362206-9138.

The Site, defined as the area where hazardous substances have come to be located, will be delineated by the results of the RI conducted under this Order.

## **II. JURISDICTION**

This Agreed Order is issued pursuant to the Model Toxics Control Act (MTCA), RCW 70.105D.050(1).

## **III. PARTIES BOUND**

This Agreed Order shall apply to and be binding upon the Parties to this Order, their successors and assigns. The undersigned representative of each Party hereby certifies that he or she is fully authorized to enter into this Order and to execute and legally bind such Party to comply with this Order. Reserve Silica and Holcim, collectively referred to as the Potentially Liable Persons (PLPs), agree to undertake all actions required by the terms and conditions of this Order.

No change in ownership or corporate status shall alter the PLPs' responsibility under this Order. The PLPs shall provide a copy of this Order to all agents, contractors, and subcontractors retained to perform work required by this Order and shall ensure that all work undertaken by such agents, contractors, and subcontractors complies with this Order.

#### **IV. DEFINITIONS**

Unless otherwise specified herein, the definitions set forth in RCW 70.105D, WAC 173-204, and WAC 173-340 shall control the meanings of the terms in this Order.

A. Site: The Site constitutes a facility under RCW 70.105D.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. Based upon factors currently known to Ecology, the Site is generally located at 26000 Black Diamond & Ravensdale Road, Ravensdale, Washington, as shown in the Preliminary Site Diagram (Exhibit A). Data collected prior to the implementation of this Order indicate the Site may be contained on Parcel No. 362206-9138, owned by Ravensdale 6 LLC, Parcel No. 012106-9011, owned by Reserve Silica Corporation, and Parcel No. 352206-9046, owned by Baja Properties L.L.C. The boundaries of the Site, however, will be delineated following the completion of a RI conducted under this Order and approved by Ecology. The Site does not include the area where coal and sand processing facilities were historically located on Parcel No. 352206-9018 ("plant site"). Hazardous substance releases at the plant site constitute a separate site, not addressed under this Order, because the sources and types of contamination at that location are distinct from, and do not overlap with, the CKD-related hazardous substance releases.

B. Parties: Refers to the Parties to this Agreed Order: the State of Washington, Department of Ecology, Reserve Silica Corporation, and Holcim (US) Inc. and any other PLP that subsequently executes this Order.

C. Potentially Liable Persons (PLPs): Refers to two of the three named PLPs: Reserve Silica Corporation and Holcim (US) Inc. Ecology also notified BNSF Railway of its status as a PLP at the Site, but BNSF Railway declined to participate in this Order.

D. Agreed Order or Order: Refers to this Order and each of the exhibits to this Order.

All exhibits are integral and enforceable parts of this Order.

## V. FINDINGS OF FACT

Ecology makes the following findings of fact, without any express or implied admissions of such facts by the PLPs:

A. The LDA and DSP are located on King County Tax Parcel No. 362206-9138, formerly owned by Reserve Silica Corporation, but now held by its subsidiary Ravensdale 6 LLC. Infiltration ponds that receive leachate from the LDA cross the property boundary onto King County Tax Parcel No. 352206-9046, owned by Baja Properties L.L.C.

B. The Reserve Silica property was used for coal and sand mining until 2007. Reserve Silica is currently filling the final surface mine area at the Lower Pit and Middle Pit under a grading permit issued by King County Department of Permitting and Environmental Review, an Inert Waste Landfill Permit issued by Public Health – Seattle & King County, and the Sand and Gravel General Permit issued by the Department of Ecology.

C. The LDA was an open pit sand mine that was reclaimed between 1979 and 1982 by placing approximately 175,000 tons of CKD and other material into the excavation. A coal seam below the DSP was mined via tunnels until 1946 when the DSP was constructed as an open pit coal mine. The DSP was reclaimed in the 1980s with approximately 250,000 cubic yards of material including CKD. Water in contact with CKD is known to result in high pH (basic) leachate, which may contain metals such as arsenic and other hazardous substances, and can cause metals in native soils to dissolve into surface or groundwater. Additional sand-mining pits, the North Pit, Tan Sand Pit, Upper Pit, Lower Pit, and Middle Pit located on other portions of the property, were filled with materials that are not suspected to be CKD. Reserve Silica continues to reclaim the Lower Pit and Middle Pit; the remaining sand pits have been reclaimed.

D. A Holcim predecessor company generated the CKD and arranged for its disposal at the Reserve Silica property in the 1970s and 1980s. The CKD disposal was conducted under a solid waste management permit issued by the King County Public Health Department. Since 2002,

under contractual and easement agreements with Reserve Silica, Holcim has conducted activities at the property with the intent of reducing and controlling leachate seeps. To support the environmental activities involving CKD, in 2011 Holcim acquired an “Easement Agreement Involving Site Environmental Activities” (Easement Agreement) from Reserve Silica (King County Recording No. 2011027000636). The Easement Agreement included the areas of the LDA and DSP, a Seep and Facilities area adjacent to the LDA, and roads for access to all areas and monitoring wells.

E. The LDA and DSP were filled and closed under solid waste permits issued by the King County Public Health Department, currently known as Public Health – Seattle & King County (Public Health). The LDA and DSP are currently maintained under a Post Closure Maintenance Permit issued by Public Health.

F. Seeps of leachate from the LDA were documented in Public Health inspection reports as early as 1986. Interceptor trenches were installed during that time frame to control the seeps but were not effective. Further attempts have been made to reduce the volume of leachate seepage, including:

- Beginning in 2002, development of a monitoring well system and quarterly reporting to Ecology and Public Health.
- Installation of bedrock monitoring wells in December 2006 followed by quarterly monitoring and reporting. The wells were installed in accordance with a work plan that included a sampling and analysis plan and quality assurance project plan. These plans were reviewed and approved by Ecology and Public Health.
- In 2007, Holcim upgraded the soil cover on the LDA to a minimum thickness of two feet to reduce infiltration, the cover was regraded to improve surface water runoff, and a surface water diversion ditch was constructed around the up-slope boundary of the cover.
- In 2008, Holcim constructed and monitored a seep collection test trench system to evaluate the feasibility of installing a full-scale trench system to collect high pH seepage from the LDA.

- In November 2010 to early 2011, the DSP cover was upgraded to ensure a minimum thickness of two feet of soil cover, positive drainage, and a vegetated cover surface.
- In February 2013, Holcim installed a surface water collection ditch and concrete catch basin to capture leachate seeps from the LDA and direct them from the catch basin via a 1,000-foot tightline pipe to the infiltration ponds.
- In September 2013, Holcim installed a gravel-filled groundwater interceptor trench upgradient of the LDA to capture and redirect groundwater before it flowed through the LDA.
- During 2013/2014, Holcim conducted LDA hydrological investigations and groundwater and surface water statistical evaluations.

These measures did not eliminate the leachate seeps.

G. Currently, leachate continues to be collected in a trench and ditch system on the west side of the LDA and directed from the catch basin by pipeline to infiltration ponds on the north side of the property.

H. Surface water and groundwater samples are routinely sampled, analyzed, and reported for dissolved metals, general chemistry and field parameters. Maximum concentrations of arsenic detected in surface water, shallow groundwater, and bedrock groundwater exceed the MTCA Method A cleanup level of 5 µg/L. The maximum concentration of lead detected in surface water exceeds the MTCA Method A cleanup level of 15 µg/L. The pH of surface water samples routinely exceeds 12 standard units for pH.

I. In February 2016, Ecology completed a Site Hazard Assessment of Facility Site ID No. 2041 owned by Reserve Silica. The overall rank was 1, indicating the highest priority. The ranking was based on sampling data exceedances of cleanup levels for arsenic and lead in surface water and shallow groundwater around the LDA and DSP.

J. In June 2016, Ecology's Water Quality Program issued a Notice of Violation (NOV) for the Reserve Silica property for causing high pH water to leach out of the mine area and into the infiltration ponds at pH levels in excess of limits set forth in the Sand and Gravel General

Permit. On April 27, 2016, Ecology measured pH as high as 12.75 in the infiltration ponds and 12.86 at the seep control ditch.

K. On July 29, 2016, Holcim filed a Technical Memorandum with Ecology as its required response to the NOV. Holcim also installed chain-link fences with locking gates around the infiltration pond, the seep collection area, and the South Pond.

L. In further response to the NOV, in 2017/2018 Holcim designed and installed a system to treat the CKD seepage before it enters the infiltration ponds. The treatment system includes a carbon dioxide treatment unit to lower the pH of the leachate and an iron filings adsorption unit to remove arsenic from the leachate. The work included extending the existing collection trench to the north to capture additional leachate. Ecology and Public Health reviewed and approved the system design before construction. The treatment system began treating leachate on September 28, 2018.

M. In December 2017 Holcim conducted a Lower Disposal Area Trench Borehole Investigation in accordance with a work plan approved by Ecology and Public Health. The purpose of the investigation was to evaluate the feasibility of extending the existing groundwater interception trench.

N. At the time of the Site Hazard Assessment, the Reserve Silica property consisted of three legal parcels: 012106-9002 (now Lot 3), 362206-9065 (now Lot 1), and 352206-9018 (plant site). In 2017, King County approved a further division of the property, creating four additional legal parcels: 012106-9010 (Lot 2), 012106-9011 (Lot 5), 012106-9012 (Lot 4), and 362206-9138 (Lot 6). The boundaries of King County Parcel No. 362206-9138 are coterminous with the easement area granted Holcim in 2011. On November 21, 2017, Reserve Silica granted Parcel No. 362206-9138 to Ravensdale 6 LLC, a wholly-owned subsidiary of Reserve Industries (King County Recording No. 20180105000921).

O. In 2017, Reserve Silica completed an independent (i.e., not under a MTCA order) Remedial Investigation of its property. The RI report was received by Ecology on November 21,



2017. The focus of the RI was on the Reserve Silica property (i.e., the plant site parcel) outside of the areas known or suspected to be affected by releases from the LDA and DSP.

P. After reviewing the independent RI report submitted by Reserve Silica, Ecology shared a list of preliminary data gaps with the PLPs on January 30, 2018.

Q. In September 2018, on behalf of Reserve Silica, Aspect Consulting submitted a memorandum regarding a technical justification for the definition of the Site at the Reserve Silica properties in Ravensdale.

R. The Site remediation process and a draft of this Agreed Order were discussed during a public meeting on November 16, 2018. Ecology received public comments from Michael and Donna Brathovde on November 21, 2018, from the Greater Maple Valley Unincorporated Area Council on December 7, 2018, and from Hendrick “Hank” Haynes on December 7, 2018. Michael and Donna Brathovde also reference and provided previously submitted comments to Ecology, including comments on the independent Reserve Silica RI report (November 21, 2017) and the Ecology preliminary data gaps memorandum (January 30, 2018), and an independent report entitled “Assessment of Reserve Silica’s Proposed Mining Site Conversion Demonstration Project” prepared by Friends for Rock Creek Valley in August 2016. Michael Brathovde sent supplemental historical photographs and documents to Ecology by email on January 28 and 30, 2019. Ecology will respond to these public comments in a Responsiveness Summary letter.

S. On May 9, 2019, Aspect Consulting, on behalf of Reserve Silica, submitted a Summary of RI Data Gaps Investigation Results: Plant Site and Lower Haul Road, Reserve Silica, Ravensdale, Washington, dated May 8, 2019.

## **VI. ECOLOGY DETERMINATIONS**

Ecology makes the following determinations, without any express or implied admissions of such determinations (and underlying facts) by the PLPs.

A. Reserve Silica is an “owner or operator” as defined in RCW 70.105D.020(22) of a “facility” as defined in RCW 70.105D.020(8).

B. A Holcim predecessor company arranged for disposal of hazardous substances under RCW 70.105D.040(1)(c) at the “facility” as defined in RCW 70.105D.020(8) in two areas known as the LDA and the DSP.

C. Based upon all factors known to Ecology, a “release” or “threatened release” of “hazardous substance(s)” as defined in RCW 70.105D.020(32) and (13), respectively, has occurred at the Site. Ecology expects to determine the boundaries of the Site, that is, the area where hazardous substances have come to be located, based on the findings of the Remedial Investigation conducted under VII of this Agreed Order.

D. Based upon credible evidence, Ecology issued PLP status letters to Reserve Silica and Holcim dated July 14, 2017, pursuant to RCW 70.105D.040, .020(26), and WAC 173-340-500. After providing for notice and opportunity for comment, reviewing any comments submitted, and concluding that credible evidence supported a finding of potential liability, Ecology issued a determination that Reserve Silica and Holcim are PLPs under RCW 70.105D.040 and notified Reserve Silica and Holcim of this determination by letters dated September 5, 2017.

E. Based upon credible evidence, Ecology issued a PLP status letter to BNSF Railway dated January 23, 2018, pursuant to RCW 70.105D.040, .020(26), and WAC 173-340-500. After providing for notice and opportunity for comment, reviewing any comments submitted, and concluding that credible evidence supported a finding of potential liability, Ecology issued a determination that BNSF Railway is a PLP under RCW 70.105D.040 and notified BNSW Railway of this determination by letter dated March 5, 2018,

F. Pursuant to RCW 70.105D.030(1) and .050(1), Ecology may require PLPs to investigate or conduct other remedial actions with respect to any release or threatened release of hazardous substances, whenever it believes such action to be in the public interest. Based on the foregoing facts, Ecology believes the remedial actions required by this Order are in the public interest.

G. Under WAC 173-340-430, an interim action is a remedial action that is technically necessary to reduce a threat to human health or the environment by eliminating or substantially

reducing one or more pathways for exposure to a hazardous substance, that corrects a problem that may become substantially worse or cost substantially more to address if the remedial action is delayed, or that is needed to provide for completion of a site hazard assessment, remedial investigation, feasibility study, or design of a cleanup action plan. Either party may propose an interim action under this Order. If the Parties are in agreement concerning the interim action, the Parties will follow the process in Section VII.D. If the Parties are not in agreement, Ecology reserves its authority to require interim action(s) under a separate order or other enforcement action under RCW 70.105D, or to undertake the interim action itself.

## **VII. WORK TO BE PERFORMED**

Based on the Findings of Fact and Ecology Determinations, it is hereby ordered that the PLPs take the following additional remedial actions at the Site.

A. The PLPs will complete a Remedial Investigation and Feasibility Study and submit an Ecology Review preliminary draft Cleanup Action Plan for the Site in accordance with the schedule and terms of the Scope of Work and Schedule, Exhibit B, and all other requirements of this Order.

B. The PLPs shall submit to Ecology written quarterly Progress Reports that describe the actions taken during the previous quarter to implement the requirements of this Order. All Progress Reports shall be submitted by the tenth (10th) day of the month in which they are due after the effective date of this Order. Unless otherwise specified by Ecology, Progress Reports and any other documents submitted pursuant to this Order shall be sent by certified mail, return receipt requested, to Ecology's project coordinator. The Progress Reports shall include the following:

- a. A list of on-site activities that have taken place during the quarter;
- b. Detailed description of any deviations from required tasks not otherwise documented in project plans or amendment requests;
- c. Description of all deviations from the Scope of Work and Schedule (Exhibit B) during the current quarter and any planned deviations in the upcoming quarter;

- d. For any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule;
  - e. All raw data (including laboratory analyses) received by the PLPs during the past quarter and an identification of the source of the sample; and
  - f. A list of deliverables for the upcoming quarter if different from the schedule.
- C. All plans or other deliverables submitted by the PLPs for Ecology's review and approval under the Scope of Work and Schedule (Exhibit B) shall, upon Ecology's approval, become integral and enforceable parts of this Order.
- D. If the Parties agree on an interim action under Section VI.E, the PLPs shall prepare and submit to Ecology an Interim Action Work Plan, including a scope of work and schedule, by the date determined by Ecology. Ecology will provide public notice and opportunity to comment on the Interim Action Work Plan in accordance with WAC 173-340-600(16). The PLPs shall not conduct the interim action until Ecology approves the Interim Action Work Plan. Upon approval by Ecology, the Interim Action Work Plan becomes an integral and enforceable part of this Order, and the PLPs are required to conduct the interim action in accordance with the approved Interim Action Work Plan.
- E. If Ecology determines that the PLPs have failed to make sufficient progress or failed to implement the remedial action, in whole or in part, Ecology may, after notice to the PLPs, perform any or all portions of the remedial action or at Ecology's discretion allow the PLPs opportunity to correct. The PLPs shall reimburse Ecology for the costs of doing such work in accordance with Section VIII.A (Remedial Action Costs). Ecology reserves the right to enforce requirements of this Order under Section X (Enforcement).
- F. Except where necessary to abate an emergency situation, the PLPs shall not perform any remedial actions at the Site outside those remedial actions required by this Order, unless Ecology concurs, in writing, with such additional remedial actions.
- G. Reports shall be provided in an Americans with Disability Act (ADA) accessible format as identified by Ecology under developing guidance.

## **VIII. TERMS AND CONDITIONS**

### **A. Payment of Remedial Action Costs**

The PLPs shall pay to Ecology costs incurred by Ecology pursuant to this Order and consistent with WAC 173-340-550(2). These costs shall include work performed by Ecology or its contractors for, or on, the Site under Chapter 70.105D RCW, including remedial actions and Order preparation, negotiation, oversight, and administration. These costs shall include work performed both prior to and subsequent to the issuance of this Order. Ecology's costs shall include costs of direct activities and support costs of direct activities as defined in WAC 173-340-550(2). Ecology has accumulated \$24,017.89 in remedial action costs related to this Site as of June 2018. For all Ecology costs incurred, the PLPs shall pay the required amount within 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 90 days of receipt of the itemized statement of costs will result in interest charges at the rate of 12 percent per annum, compounded monthly.

In addition to other available relief, pursuant to RCW 19.16.500, Ecology may utilize a collection agency and/or, pursuant to RCW 70.105D.055, file a lien against real property subject to the remedial actions to recover unreimbursed remedial action costs.

### **B. Designated Project Coordinators**

The project coordinator for Ecology is:

Alan Noell  
Department of Ecology, Northwest Regional Office  
3190 160<sup>th</sup> Ave. SE  
Bellevue, WA 98008  
Office: 425-649-7015  
Email: alan.noell@ecy.wa.gov

The project coordinator for Reserve Silica is:

Marisa Floyd  
20 First Plaza Ctr NW  
Suite 308  
Albuquerque, NM 87102  
Office: 505-247-2384  
Cell: 505-453-6932  
Email: mlloyd@swcp.com

The project coordinator for Holcim is:

Travis Bennett  
Holcim (US) Inc.  
14500 C.R. 1550  
Ada, OK 74820  
Office: 580-421-8926  
Cell: 580-421-2057  
Email: travis.bennett@lafargeholcim.com

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

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

**C. Performance**

All geologic and hydrogeologic work performed pursuant to this Order 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, except as otherwise provided for by Chapter 18.43 and 18.220 RCW.

All engineering work performed pursuant to this Order shall be under the direct supervision of a professional engineer registered by the State of Washington, except as otherwise provided for by Chapter 18.43.130 RCW.

All construction work performed pursuant to this Order shall be under the direct supervision of a professional engineer or a qualified technician under the direct supervision of a professional engineer. The professional engineer must be registered by the State of Washington, except as otherwise provided for by RCW 18.43.130.

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

The PLPs 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 Order, in advance of their involvement at the Site.

**D. Access**

Ecology or any Ecology authorized representative shall have access to enter and freely move about all property at the Site that the PLPs either own, control, or have 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 Order; reviewing the PLPs' progress in carrying out the terms of this Order; 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 Order; and verifying the data submitted to Ecology by the PLPs. The PLPs shall make all reasonable efforts to secure access rights for those properties within the Site not owned or controlled by the PLPs where remedial activities or investigations will be performed pursuant to this Order. Ecology or any Ecology authorized representative shall give reasonable notice before entering any Site property owned or controlled by the PLPs unless an emergency prevents such notice. All persons 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.

**E. Sampling, Data Submittal, and Availability**

With respect to the implementation of this Order, the PLPs shall make the results of all sampling, laboratory reports, and/or test results generated by it or on its behalf available to Ecology. Pursuant to WAC 173-340-840(5), all sampling data shall be submitted to Ecology in both printed and electronic formats in accordance with Section VII (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.

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

In accordance with WAC 173-340-830(2)(a), all hazardous substance analyses shall be conducted by a laboratory accredited under Chapter 173-50 WAC for the specific analyses to be conducted, unless otherwise approved by Ecology.

**F. Public Participation**

Ecology shall maintain the responsibility for public participation. However, the PLPs shall cooperate with Ecology, and shall:

1. If agreed to by Ecology, develop appropriate mailing lists and prepare drafts of public notices and fact sheets at important stages of the remedial action, such as the submission of work plans, remedial investigation reports, 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.

2. 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 the PLPs prior to the issuance of all press releases and fact sheets related to the Site, and before meetings related to the Site with the interested public and local governments. For all press releases, fact sheets, meetings, and other outreach efforts by the PLPs that do not receive prior Ecology approval, the PLPs shall clearly indicate to its audience that the press release, fact sheet, meeting, or other outreach effort was not sponsored or endorsed by Ecology.

3. 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.

4. When requested by Ecology, arrange and/or continue information repositories to be located at the following locations:

- a. Maple Valley Public Library  
21844 SE 248<sup>th</sup> Street  
Maple Valley, WA 98038
- b. Ecology's Northwest Regional Office  
3190 160<sup>th</sup> Ave SE  
Bellevue, WA 98008

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 Northwest Regional Office in Bellevue, Washington.

**G. Retention of Records**

During the pendency of this Order, and for 10 years from the date of completion of work performed pursuant to this Order, the PLPs shall preserve all records, reports, documents, and underlying data in its possession relevant to the implementation of this Order and shall insert a similar record retention requirement into all contracts with project contractors and subcontractors. Upon request of Ecology, the PLPs shall make all records available to Ecology and allow access for review within a reasonable time.

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

**H. Resolution of Disputes**

1. In the event that the PLPs elect to invoke dispute resolution the PLPs must utilize the procedure set forth below.

a. Upon the triggering event (receipt of Ecology's project coordinator's written decision or an itemized billing statement), the PLPs have 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 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 7 calendar days Ecology's project coordinator shall issue a written decision (Informal Dispute Decision) stating: the nature of the dispute; the PLPs' position with regards to the dispute; Ecology's position with regards to the dispute; and the extent of resolution reached by informal discussion.

c. The PLPs may then request regional management review of the dispute. This request (Formal Dispute Notice) must be submitted in writing to the Northwest Region Solid Waste Management Section Manager within 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 Section Manager shall conduct a review of the dispute and shall issue a written decision regarding the dispute (Decision on Dispute) within 30 calendar days of receipt of the Formal Dispute Notice. The Decision on Dispute shall be Ecology's final decision on the disputed matter.

2. 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.

3. Implementation of these dispute resolution procedures shall not provide a basis for delay of any activities required in this Order, unless Ecology agrees in writing to a schedule extension.

4. In case of a dispute, failure to either proceed with the work required by this Order or timely invoke dispute resolution may result in Ecology's determination that insufficient progress is being made in preparation of a deliverable, and may result in Ecology undertaking the work under Section VII.E (Work to be Performed) or initiating enforcement under Section X (Enforcement).

#### **I. Extension of Schedule**

1. The PLPs' 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 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; and
- d. Any related deadline or schedule that would be affected if the extension were granted.

2. The burden shall be on the PLPs 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 the PLPs 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 the PLPs;
- b. Acts of God, including fire, flood, blizzard, extreme temperatures, storm, or other unavoidable casualty; or
- c. Endangerment as described in Section VIII.K (Endangerment).

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

3. Ecology shall act upon any PLPs' written request for extension in a timely fashion. Ecology shall give the PLPs written notification of any extensions granted pursuant to this Order. A requested extension shall not be effective until approved by Ecology. Unless the extension is a substantial change, it shall not be necessary to amend this Order pursuant to Section VIII.J (Amendment of Order) when a schedule extension is granted.

4. At the PLPs' 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 90 days only as a result of:

- 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; or
- c. Endangerment as described in Section VIII.K (Endangerment).

**J. Amendment of Order**

The project coordinators may verbally agree to minor changes to the work to be performed without formally amending this Order. Minor changes will be documented in writing by Ecology within 7 days of verbal agreement.

Except as provided in Section VIII.L (Reservation of Rights), substantial changes to the work to be performed shall require formal amendment of this Order. This Order may only be formally amended by the written consent of both Ecology and the PLPs. Ecology will provide its written consent to a formal amendment only after public notice and opportunity to comment on the formal amendment.

When requesting a change to the Order, the PLPs 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 Order must be formally amended. Reasons for the disapproval of a proposed change to this Order shall be stated in writing. If Ecology does not agree to a proposed change, the disagreement may be addressed through the dispute resolution procedures described in Section VIII.H (Resolution of Disputes).

**K. Endangerment**

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

In the event the PLPs determine that any activity being performed at the Site under this Order is creating or has the potential to create a danger to human health or the environment, the PLPs may cease such activities. The PLPs shall notify Ecology's project coordinator as soon as possible, but no later than 24 hours after making such determination or ceasing such activities. Upon Ecology's direction, the PLPs shall provide Ecology with documentation of the basis for the

determination or cessation of such activities. If Ecology disagrees with the PLPs' cessation of activities, it may direct the PLPs to resume such activities.

If Ecology concurs with or orders a work stoppage pursuant to this section, the PLPs' 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 VIII.I (Extension of Schedule) for such period of time as Ecology determines is reasonable under the circumstances.

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

**L. Reservation of Rights**

This Order is not a settlement under Chapter 70.105D RCW. Ecology's signature on this Order in no way constitutes a covenant not to sue or a compromise of any of Ecology's rights or authority. Ecology will not, however, bring an action against the PLPs to recover remedial action costs paid to and received by Ecology under this Order. In addition, Ecology will not take additional enforcement actions against the PLPs regarding remedial actions required by this Order, provided the PLPs comply with this Order.

Ecology nevertheless reserves its rights under Chapter 70.105D RCW, including the right to require additional or different remedial actions at the Site should it deem such actions necessary to protect human health or the environment, and to issue orders requiring such remedial actions. Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the release or threatened release of hazardous substances at the Site.

By entering into this Order, the PLPs do not admit to any liability for the Site. Although the PLPs are committing to conducting the work required by this Order under the terms of this Order, the PLPs expressly reserve all rights available under law, including but not limited to the right to seek cost recovery or contribution against third parties, and the right to assert any defenses to liability in the event of enforcement.

**M. Transfer of Interest in Property**

No voluntary conveyance or relinquishment of title, easement, leasehold, or other interest in any portion of the Site shall be consummated by the PLPs without provision for continued implementation of all requirements of this Order and implementation of any remedial actions found to be necessary as a result of this Order.

Prior to the PLPs' transfer of any interest in all or any portion of the Site, and during the effective period of this Order, the PLPs shall provide a copy of this Order to any prospective purchaser, lessee, transferee, assignee, or other successor in said interest; and, at least 30 days prior to any transfer, the PLPs shall notify Ecology of said transfer. Upon transfer of any interest, the PLPs shall notify all transferees of the restrictions on the activities and uses of the property under this Order and incorporate any such use restrictions into the transfer documents.

**N. Compliance with Applicable Laws**

1. All actions carried out by the PLPs pursuant to this Order shall be done in accordance with all applicable federal, state, and local requirements, including requirements to obtain necessary permits or approvals, except as provided in RCW 70.105D.090. At this time, no federal, state, or local requirements have been identified as being applicable to the actions required by this Order. The PLPs have a continuing obligation to identify additional applicable federal, state, and local requirements which apply to actions carried out pursuant to this Order, and to comply with those requirements. As additional federal, state, and local requirements are identified by Ecology or the PLPs, Ecology will document in writing if they are applicable to actions carried out pursuant to this Order, and the PLP must implement those requirements.

2. All actions carried out by the PLPs pursuant to this Order shall be done in accordance with relevant and appropriate requirements identified by Ecology. At this time, no relevant and appropriate requirements have been identified as being applicable to the actions required by this Order. If additional relevant and appropriate requirements are identified by Ecology or the PLPs, Ecology will document in writing if they are applicable to actions carried out pursuant to this Order and the PLP must implement those requirements.

3. Pursuant to RCW 70.105D.090(1), the PLPs may be exempt from the procedural requirements of Chapters 70.94, 70.95, 70.105, 77.55, 90.48, and 90.58 RCW and of any laws requiring or authorizing local government permits or approvals. However, the PLPs shall comply with the substantive requirements of such permits or approvals. For permits and approvals covered under RCW 70.105D.090(1) that have been issued by local government, the Parties agree that Ecology has the non-exclusive ability under this Order 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. The PLPs have a continuing obligation to determine whether additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order. In the event either Ecology or the PLPs determine that additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order, it shall promptly notify the other party of its determination. Ecology shall determine whether Ecology or the PLPs shall be responsible to contact the appropriate state and/or local agencies. If Ecology so requires, the PLPs 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 the PLPs and on how the PLPs must meet those requirements. Ecology shall inform the PLPs in writing of these requirements. Once established by Ecology, the additional requirements shall be enforceable requirements of this Order. The PLPs shall not begin or continue the remedial action potentially subject to the additional requirements until Ecology makes its final determination.

Pursuant to RCW 70.105D.090(2), in the event Ecology determines that the exemption from complying with the procedural requirements of the laws referenced in RCW 70.105D.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 the PLPs shall comply with both the



procedural and substantive requirements of the laws referenced in RCW 70.105D.090(1), including any requirements to obtain permits or approvals.

**O. Indemnification**

The PLPs agree 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 the PLPs, their officers, employees, agents, or contractors in entering into and implementing this Order. However, the PLPs 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 Order.

**IX. SATISFACTION OF ORDER**

The provisions of this Order shall be deemed satisfied upon the PLPs' receipt of written notification from Ecology that the PLPs have completed the remedial activity required by this Order, as amended by any modifications, and that the PLPs have complied with all other provisions of this Agreed Order.

**X. ENFORCEMENT**

Pursuant to RCW 70.105D.050, this Order may be enforced as follows:

A. The Attorney General may bring an action to enforce this Order in a state or federal court.

B. The Attorney General may seek, by filing an action, if necessary, to recover amounts spent by Ecology for investigative and remedial actions and orders related to the Site.

C. A liable party who refuses, without sufficient cause, to comply with any term of this Order will be liable for:

1. Up to three times the amount of any costs incurred by the State of Washington as a result of its refusal to comply.

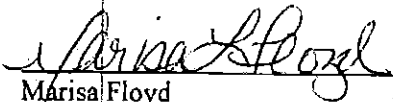
2. Civil penalties of up to \$25,000 per day for each day it refuses to comply.

D. This Order is not appealable to the Washington Pollution Control Hearings Board.

This Order may be reviewed only as provided under RCW 70.105D.060.

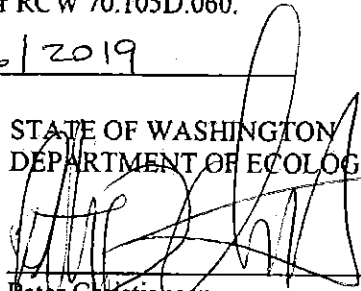
Effective date of this Order: 12/16/2019

RESERVE SILICA CORPORATION



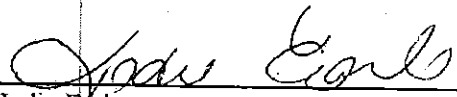
Marisa Floyd  
Vice President  
Albuquerque, NM  
505-453-6932

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

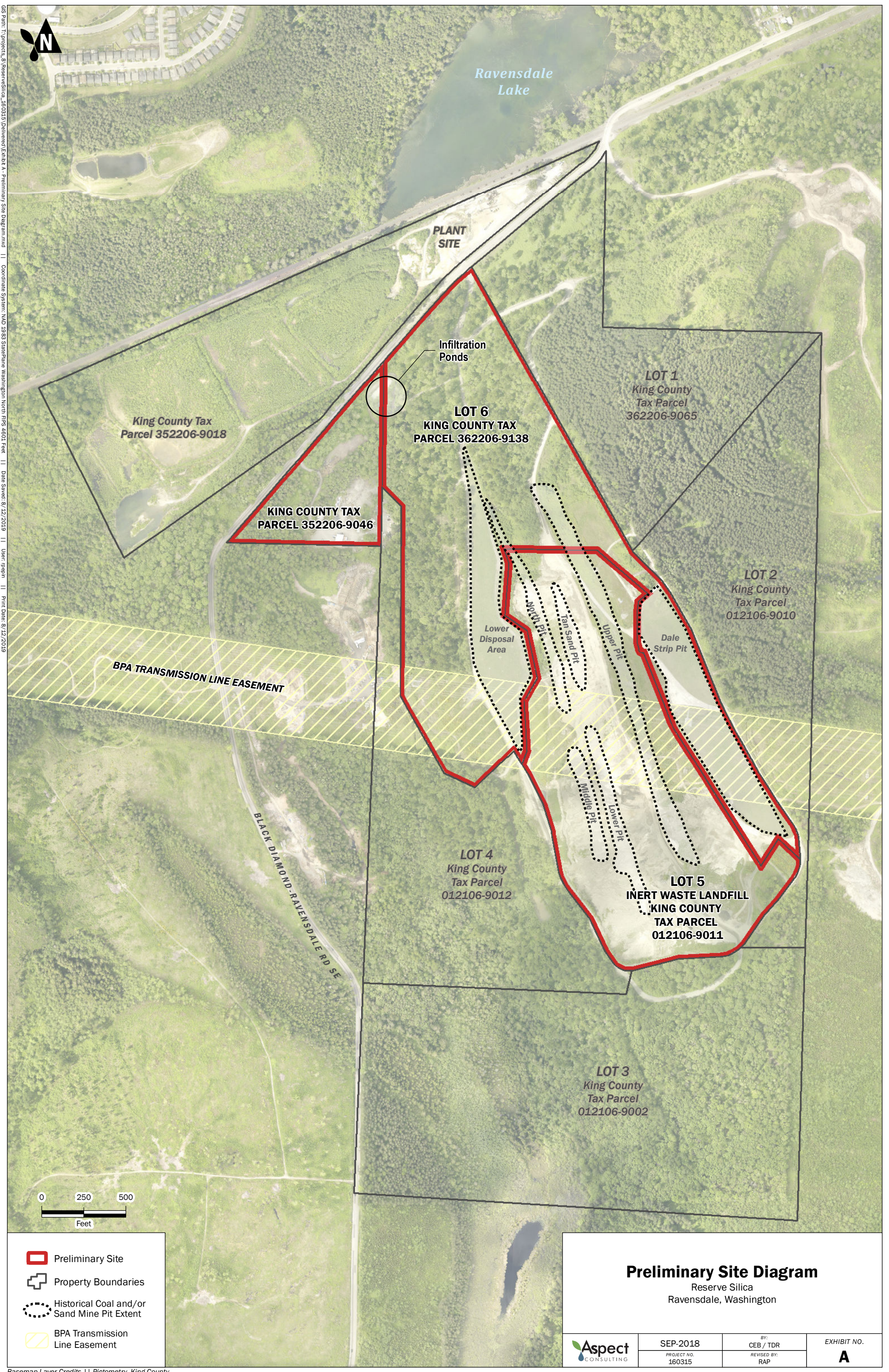


Peter Christiansen  
Section Manager  
Solid Waste Management Program  
Northwest Regional Office  
425-649-7076

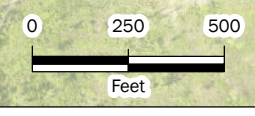
HOLCIM (US) INC.



Jodie Earle  
Director, Litigation and Asst. Corporate Secretary  
Dundee, MI  
734-529-4360



GIS Path: I:\projects\_8\ReserveSilica\_160315\Delivered\Exhibit A - Preliminary Site Diagram.mxd | Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet | Date Saved: 9/12/2019 | User: rapan | Print Date: 9/12/2019



- Preliminary Site
- Property Boundaries
- Historical Coal and/or Sand Mine Pit Extent
- BPA Transmission Line Easement

### Preliminary Site Diagram

Reserve Silica  
Ravensdale, Washington

	SEP-2018	BY: CEB / TDR	EXHIBIT NO. <b>A</b>
	PROJECT NO. 160315	REVISED BY: RAP	

# **EXHIBIT B – SCOPE OF WORK AND SCHEDULE**

Agreed Order No. DE 16052

## **SCOPE OF WORK**

### **PURPOSE**

The work under this Agreed Order (AO) involves conducting a Remedial Investigation (RI) and Feasibility Study (FS), conducting interim actions if required or agreed to by Ecology, and preparing a preliminary Draft Cleanup Action Plan (DCAP) to select a cleanup alternative. The purpose of the RI, FS, and preliminary DCAP for the Site is to provide sufficient data, analysis, and evaluations to enable Ecology to select a cleanup alternative for the Site.

The Scope of Work is divided into seven major tasks as follows:

- Task 1. RI Work Plan
- Task 2. Remedial Investigation
- Task 3. Interim Action(s) (if required)
- Task 4. Feasibility Study
- Task 5. State Environmental Policy Act (SEPA) Compliance
- Task 6. Public Participation
- Task 7. DCAP

To assist with preparation of these documents, Ecology's Toxics Cleanup Program (TCP) has developed checklists. The PLPs shall use the most current version of the following remedial action checklists (as modified by more specific requirements in this Scope of Work).

- Remedial Investigation Report Checklist
- Feasibility Study Report Checklist
- Cleanup Action Plan Checklist

The PLPs can download the checklists directly from the following website:  
<http://www.ecy.wa.gov/programs/tcp/policies/checklists.html>

Policy 840 Environmental Information Management System (EIM) (April 2016)

In April 2016, Ecology updated Policy 840 related to data submittal requirements for TCP sites. Policy 840 requires environmental monitoring data collected at TCP sites as part of site investigations and cleanups to be submitted into the EIM database at the time of submittal for Ecology review of any report containing this data.

## Exhibit B Scope of Work

The PLPs shall coordinate with Ecology throughout the development of the Interim Action (if deemed necessary), RI, FS, and preliminary DCAP and shall keep Ecology informed of changes to any Work Plan or other project plans, and of any issues or problems as they develop.

### **TASK 1. RI WORK PLAN**

The PLPs shall prepare a Remedial Investigation Work Plan (Work Plan). The Work Plan shall include an overall description and schedule of all RI activities. The Work Plan shall clearly describe the project management strategy for implementing and reporting on RI activities. The responsibility and authority of all organizations and key personnel involved in conducting the RI will be outlined.

A RI planning and scoping meeting will be held prior to submittal of the RI Work Plan. The purpose of the RI Planning and Scoping Meeting is to review requirements for the Work Plan and plan Remedial Investigation field work, discuss the Conceptual Site Model, and identify project data needs and possible interim actions.

The Work Plan shall describe general facility information; site history and conditions, including a summary of previous operations and an evaluation of available evidence of activities of former owners or operators that may have resulted in the release of hazardous substances; past field investigations, including any data collection and analysis of soils, air, groundwater, surface water, and sediments; a Conceptual Site Model showing contaminants, migration pathways in all environmental media, potential receptors, and screening levels based on the Conceptual Site Model; geology and groundwater system characteristics; past, current, and future land use; identification of natural resources and ecological receptors; hazardous substances and their sources, etc., in compliance with WAC 173-340-350 and WAC 173-204-560.

As part of the project background, existing environmental data on site soil, groundwater, surface water, and sediments will be compiled and evaluated for data gaps. The data gaps will be used as the basis for conducting additional site investigations, if necessary. The Work Plan will also identify specific data collection procedures in a Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP) as part of the Work Plan in compliance with WAC 173-340-820 and WAC 173-204-600 for defining the nature and extent of contamination. The PLPs will also submit a copy of the Health and Safety Plan (HASP) for the project. Ecology anticipates that the PLPs' consultants may develop company-specific SAPs, QAPPs, and HASPs.

The SAP identifies the proposed number, location, and depth of all environmental samples and methods, including soil borings, groundwater monitoring wells, soil, groundwater, stormwater, seep, catch basin, and sediment samples. The SAP will describe the sampling objectives, the rationale for the sampling approach (based upon the identified data gaps), and plans for data use, and shall provide a detailed description of sampling tasks. The SAP shall describe specifications for sample identifiers; sampling equipment; the type, number,

## Exhibit B Scope of Work

and location of samples to be collected; the analyses to be performed; descriptions of sampling equipment and methods to be used; sample documentation; sample containers, collection and handling; data and records management; and schedule.

The Quality Assurance Project Plan (QAPP) will be prepared in accordance with the Guidance for Preparation of Quality Assurance Project Plans, EPA Region 10, Quality Data Management Program, QA/R-5 and requirements of the EPA Contract Laboratory Program. The QAPP will also follow Ecology's Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies (July 2004)<sup>1</sup> and Sediment Sampling and Analysis Plan Appendix (February 2008).<sup>2</sup> Laboratories must meet the accreditation standards established in WAC 173-50. Data quality objectives will reflect the criteria or threshold values used for the source control evaluation.

The SAP, including the QAPP, will be submitted to Ecology for review and approval. As with all environmental work at the site, work may not begin without written approval from Ecology. The plan shall provide 7 days of notice to Ecology prior to beginning sampling. Ecology may obtain split samples.

The PLPs or their contractors shall submit all new sampling data generated under this SAP and any other recently collected data to Ecology for entry into the EIM database in accordance with WAC 173-340-840(5) and Ecology's Toxics Cleanup Program Policy 840: Data Submittal Requirements. Validated data will be entered into the EIM database within 30 days of submittal.

RI tasks and subtasks will include, but is not limited to soil, groundwater, seep, surface water, sediment, and catch basin sampling and analysis, as necessary to address data gaps identified in the Work Plan. In addition, the following must be included in the Work Plan:

- Develop a Conceptual Site Model for the Site including evaluation of all potential pathways and potential receptors that may exist for contaminants of concern at the Site.
- Define the nature and extent of contamination based on screening levels protective of all receptors at and downgradient of the Site.

The PLPs will provide Ecology with an Agency Review Draft RI Work Plan. Once Ecology reviews and approves the Work Plan, it will be considered the Final Work Plan. The Final Work Plan will be made available to the public prior to being implemented by the PLPs. While not a formal comment period, Ecology will consider comments received and may request a revision to the Final RI Work Plan before implementation. The Work Plan shall not be implemented until approved by Ecology. Once approved by Ecology, the PLPs will implement the Final Work Plan according to the schedule contained in this Exhibit.

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<sup>1</sup> Found at <http://www.ecy.wa.gov/biblio/0403030.html>

<sup>2</sup> Found at <http://www.ecy.wa.gov/biblio/qapp.html>

## Exhibit B Scope of Work

The PLPs shall prepare two copies of the Agency Review Draft RI Work Plan and submit them, including one electronic copy each in Word (.doc) and Adobe (.pdf) formats, to Ecology for review and comment. After incorporating Ecology's comments on the Agency Review Draft RI Work Plan and after Ecology approval, the PLPs shall prepare three copies of the Final RI Work Plan and submit them, including one electronic copy each in Word (.doc) and Adobe (.pdf) formats, to Ecology.

### **TASK 2. REMEDIAL INVESTIGATION**

The PLPs shall conduct an RI that meets the requirements of WAC 173-340-350(7) and WAC 173-204-560 according to the Work Plan as approved by Ecology. The RI will determine the nature and extent of contamination exceeding preliminary Model Toxics Control Act (MTCA) cleanup levels, preliminary Sediment Management Standards (SMS) cleanup standards, and other regulatory requirements. The RI must provide sufficient data and information to define the nature and extent of contamination and to develop and evaluate cleanup action alternatives.

Field sampling and analysis will be completed in general accordance with the SAP and QAPP. Deviation(s) from the approved SAP and QAPP must be communicated to Ecology immediately and documented as required by Ecology.

The PLPs shall provide interim data reports and updates to Ecology as new site data and information become available. Laboratory analysis data shall also be provided in electronic format when it has been validated. Raw laboratory data will be provided to Ecology upon request.

Prior to submittal of the Agency Review Draft RI Report, a RI pre-report meeting will be held. During the Remedial Investigation Pre-Report Check-In, Ecology and the PLPs will review available data and an updated Conceptual Site Model and discuss the content and organization of the Draft RI Report.

The PLPs shall compile the results of the Site investigation into an Agency Review Draft RI Report. The PLPs shall prepare two copies of the Agency Review Draft RI Report and submit them, including one electronic copy each in Word (.doc) and Adobe (.pdf) formats, to Ecology for review and comment.

After incorporating Ecology's comments on the Agency Review Draft RI Report, the PLPs shall prepare three copies of a Public Review Draft RI Report and submit them, including one electronic copy each in Word (.doc) and Adobe (.pdf) formats, to Ecology for distribution and public comment. Electronic survey data for monitoring locations, electronic lab data, and GIS maps of contaminant distribution shall also be provided for both the Agency Review Draft RI Report and Public Review Draft RI Reports either in the report or as attachments. The RI Report will not be considered Final until after a public review and comment period.

## Exhibit B Scope of Work

If the data collected during this investigation is insufficient to define the nature and extent of contamination, and/or to select a cleanup action plan an additional phase of investigation shall be conducted.

### **TASK 3. INTERIM ACTIONS (if required)**

Remedial actions implemented prior to completion of the RI and FS will be considered interim actions. Interim actions are performed to:

- Reduce a threat to human health or the environment by eliminating or substantially reducing one or more pathways for exposure to a hazardous substance;
- Correct a problem that may become substantially worse or cost substantially more to address if the remedial action is delayed; or
- Provide for completion of the remedial investigation, feasibility study, or design of the cleanup action.

Interim actions will be implemented in accordance with WAC 173-340-430 and the AO, and will be designed in a manner that will not foreclose reasonable alternatives for any final cleanup action that may be required. Remedial actions for contaminated sediments will be designated partial cleanup actions and will be implemented pursuant to WAC 173-204-550(3)(d).

As detailed in the AO, if required by Ecology, or if proposed by the PLPs and approved by Ecology, the PLPs will implement an interim action. Based upon information in the Agency Review Draft RI Report, interim action(s) may be needed to expedite control of releases to sediments or other environmental media pursuant to WAC 173-340-430.

The scope of the interim actions may include, but not be limited to, typical source control or containment elements such as:

- Soil or sediment removal.
- Groundwater remediation.
- Repair, slip lining, replacement, or closure of stormwater conveyances or other structures such as conduit, vaults, catch basins, etc.
- Removal of underground storage tanks and pipes.
- Removal of old drain fields or former surface impoundments.
- Proper abandonment of old wells.
- Removal of contaminated building or other structural material.
- Construction of a treatment facility.
- Shoreline stabilization such as bulkhead repair, erosion or seepage control, and grading or clearing.

If an interim action is to be performed, the PLPs will prepare and submit for Ecology approval an Agency Review Draft Interim Action Work Plan (IAWP) with detail



## Exhibit B Scope of Work

commensurate with the work to be performed. The Agency Review Draft IAWP shall include, as appropriate:

- Description of the interim action including its purpose, general requirements, and relationship to the (final) cleanup action (to the extent known);
- Summary of relevant RI and FS information, including at a minimum existing site conditions and alternative interim actions considered;
- Information regarding design and construction requirements, including a proposed schedule and personnel roles and responsibilities;
- Compliance Monitoring Plan;
- SAP/QAPP; and
- Permits required.

The PLPs will also submit a copy of the HASP for the project. The PLPs will be responsible for complying with the SEPA Rules including preparing and submitting an environmental checklist for the interim action, and will assist Ecology with presentations at any additional meetings that might be necessary for SEPA compliance or as part of the Public Participation Plan.

The PLPs shall prepare two copies of the Agency Review Draft Interim Action Work Plan and submit them, including one electronic copy each in Word (.doc) and Adobe (.pdf) formats, to Ecology for review. The PLPs shall incorporate Ecology's comments and then prepare two copies of the Public Review Draft Interim Action Work Plan and submit them, including one electronic copy each in Word (.doc) and Adobe (.pdf) formats, to Ecology. After a public notice and comment period for the Public Review Draft IAWP (and SEPA determination), Ecology will approve the IAWP (if appropriate) and the document will be considered Final. The PLPs shall prepare three copies of the Final Interim Action Work Plan submit them, including one electronic copy each in Word (.doc) and Adobe (.pdf) formats. Once approved by Ecology, the PLPs will implement the interim action according with the approved schedule.

Upon successful completion of the work, an Agency Review Draft Interim Action Report will be prepared as a separate deliverable. The PLPs shall prepare two copies of the Agency Review Draft Interim Action Report and submit them, including one electronic copy each in Word (.doc) and Adobe (.pdf) formats, to Ecology for review and approval. After incorporating Ecology's comments on the Agency Review Draft Interim Action Report and after Ecology approval, the PLPs shall prepare three copies of the Final Interim Action Report and submit them, including one electronic copy each in Word (.doc) and Adobe (.pdf) formats, to Ecology.

### **TASK 4. FEASIBILITY STUDY**

The PLPs shall use the information obtained in the RI to prepare an Agency Review Draft Feasibility Study (FS) that meets the applicable requirements of WAC 173-340-350(8) according to the Schedule in this exhibit. The Agency Review Draft FS will evaluate remedial alternatives for site cleanup, consistent with MTCA and SMS requirements to

## Exhibit B Scope of Work

ensure protection of human health and the environment by eliminating, reducing, or otherwise controlling risk posed through each exposure pathway and migration route.

Prior to beginning the FS, a FS planning meeting will be held to review applicable or relevant and appropriate requirements (ARARs), potential remedial alternatives and establish points of compliance.

The Agency Review Draft FS will provide a detailed analysis of each remedial alternative according to the applicable requirements of WAC 173-340-350, MTCA Remedial Investigation and Feasibility Study, and WAC 173-204-560, SMS Cleanup Study. The remedial alternatives will be evaluated for compliance with the applicable requirements of WAC 173-340-360, Selection of Cleanup Actions, and WAC 173-204-560(4), including a detailed evaluation of remedial alternatives relative to the following criteria:

- Compliance with cleanup standards and applicable laws.
- Protection of human health.
- Protection of the environment.
- Provision for a reasonable restoration time frame.
- Use of permanent solutions to the maximum extent practicable.
- Degree to which recycling, reuse, and waste minimization are employed.
- Short-term effectiveness.
- Long-term effectiveness.
- Net environmental benefit.
- Implementability.
- Provision for compliance monitoring.
- Cost-effectiveness.
- Prospective community acceptance.

The remedial alternative that is judged to best satisfy the evaluation criteria will be identified. Justification for the selection will be provided, and the recommended remedial alternative further developed, in the FS Report.

The PLPs shall prepare two copies of the Agency Review Draft FS and submit them, including one electronic copy in Word (.doc) and Adobe (.pdf) formats, to Ecology for review. After addressing Ecology's comments on the Agency Review Draft FS, the PLPs shall prepare three copies of the Public Review Draft FS and submit them, including one electronic copy each in Word (.doc) and Adobe (.pdf) formats, to Ecology for distribution and public comment. The FS will not be considered Final until after a public review and comment period.

### **TASK 5. SEPA COMPLIANCE**

The PLPs shall be responsible for complying with the SEPA Rules including preparing and submitting an environmental checklist. If the result of the threshold determination is a determination of significance (DS), the PLPs shall be responsible for the preparation of

## Exhibit B Scope of Work

draft and final environmental impact statements. The PLPs shall assist Ecology with coordinating SEPA public involvement requirements with MTCA public involvement requirements whenever possible, such that public comment periods and meetings can be held concurrently.

### **TASK 6. PUBLIC PARTICIPATION**

The PLPs shall support Ecology in presenting the Public Review Draft RI Report, and the Public Review Draft FS Reports and SEPA evaluations, at two public meetings. The PLPs will assist Ecology with presentations at any additional meetings that might be necessary for SEPA compliance or as part of the Public Participation Plan.

After the public comment periods are completed, the PLPs shall prepare an Agency Review Draft Responsiveness Summary that addresses public comments. The PLPs shall prepare two copies of the Agency Review Draft Responsiveness Summary and submit them to Ecology for review and approval, including one electronic copy each in Word (.doc) and Adobe (.pdf) formats, to Ecology for distribution and public comment.

After addressing Ecology's comments and after Ecology approval, the PLPs shall prepare five copies of the Final Responsiveness Summary and submit them to Ecology for distribution, including one electronic copy each in Word (.doc) and Adobe (.pdf) formats.

### **TASK 7. PRELIMINARY DRAFT CLEANUP ACTION PLAN**

Upon Ecology approval of the Public Review Draft Remedial Investigation Report and Public Review Draft Feasibility Study, a Cleanup Action Plan meeting will be held. The Cleanup Action Plan meeting will be used to review plans for developing the Agency Review preliminary Draft Cleanup Action Plan (DCAP).

The PLPs shall prepare an Agency Review preliminary DCAP in accordance with WAC 173-340-380 that provides a proposed remedial action to address the contamination present on the Site. Where contaminated sediments are included in the remedial action, the cleanup plan will comply with WAC 173-204-580, in addition to the MTCA requirements cited above. The preliminary DCAP shall include a general description of the proposed remedial actions, cleanup standards developed from the RI and FS and rationale regarding their selection, a schedule for implementation, description of any institutional controls proposed, and a summary of applicable local, state, and federal laws pertinent to the proposed cleanup actions.

The PLPs will submit an Agency Review preliminary DCAP for Ecology's review and approval. The Agency Review preliminary DCAP will include, but not be limited to, the information listed under WAC 173-340-380. The PLPs shall prepare two copies of the Agency Review preliminary DCAP and submit them, including one electronic copy each in Word (.doc) and Adobe (.pdf) formats, to Ecology for review and approval.

Exhibit B Scope of Work

After receiving Ecology’s comments on the Agency Review preliminary DCAP, if any, the PLPs shall revise the preliminary DCAP to address Ecology’s comments and submit five copies of the Public Review DCAP including one electronic copy each in Word (.doc) and Adobe (.pdf) formats.

**SCHEDULE OF DELIVERABLES**

The schedule for deliverables described in the Agreed Order and the Scope of Work is presented below. If the date for submission of any item or notification required by this Schedule of Deliverables occurs on a weekend, state or federal holiday, the date for submission of that item or notification is extended to the next business day following the weekend or holiday. Where a deliverable due date is triggered by Ecology notification, comments or approval, the starting date for the period shown is the date the PLPs received such notification, comments or approval by certified mail, return receipt requested, unless otherwise noted below. Where triggered by Ecology receipt of a deliverable, the starting date for the period shown is the date Ecology receives the deliverable by certified mail, return receipt requested, or the date of Ecology signature on a hand-delivery form.

<b>Deliverables</b>	<b>Due Dates <sup>a</sup></b>
Agency Review Draft RI Work Plan	90 calendar days following effective date of the Agreed Order <sup>b</sup>
Final RI Work Plan	30 calendar days following receipt of Ecology comments
Commencement of RI Field Work	60 calendar days following Ecology approval of the Final RI Work Plan.
Agency Review Draft RI Report	90 calendar days following receipt of validated data
Public Review Draft RI Report	45 calendar days following receipt of Ecology comments on Agency Review Draft RI Report
Final RI Report	30 calendar days following receipt of Ecology comments, subsequent to public comment
Agency Review Draft FS Report	90 calendar days following Ecology approval of Public Review Draft RI Report
Public Review Draft FS Report	45 calendar days following receipt of Ecology’s comments on the Agency Review draft FS Report
Final FS Report	30 calendar days following receipt of Ecology comments, subsequent to public comment
Agency Review preliminary Draft Cleanup Action Plan (DCAP)	90 calendar days following approval of Final FS Report

## Exhibit B Scope of Work

*<sup>a</sup> Due dates shown are for initial draft and final deliverables. This schedule assumes only a single revised document will be submitted following receipt of comments from Ecology. Documents become final only upon approval by Ecology.*

*<sup>b</sup> Agreed Order is effective upon signature by both Ecology and PLPs.*