

Reserve Silica Open House/Public Meeting

Solid Waste Management Program
Northwest Regional Office



The Agreed Order is

- A legal document that formalizes an agreement
- Between Reserve Silica Corporation, Holcim (US) Inc, and WA State Dept. of Ecology
- Because of cement kiln dust used as fill in 1970s and 80s



Our presentation will cover:

- The cleanup process
- Current property conditions and operations
- Background
- Treatment system
- Agreed Order & Next Steps





Ecology's cleanup process

Model Toxics Control Act or MTCA

- Created by voters in 1988
- Establishes a process to clean up contaminated sites





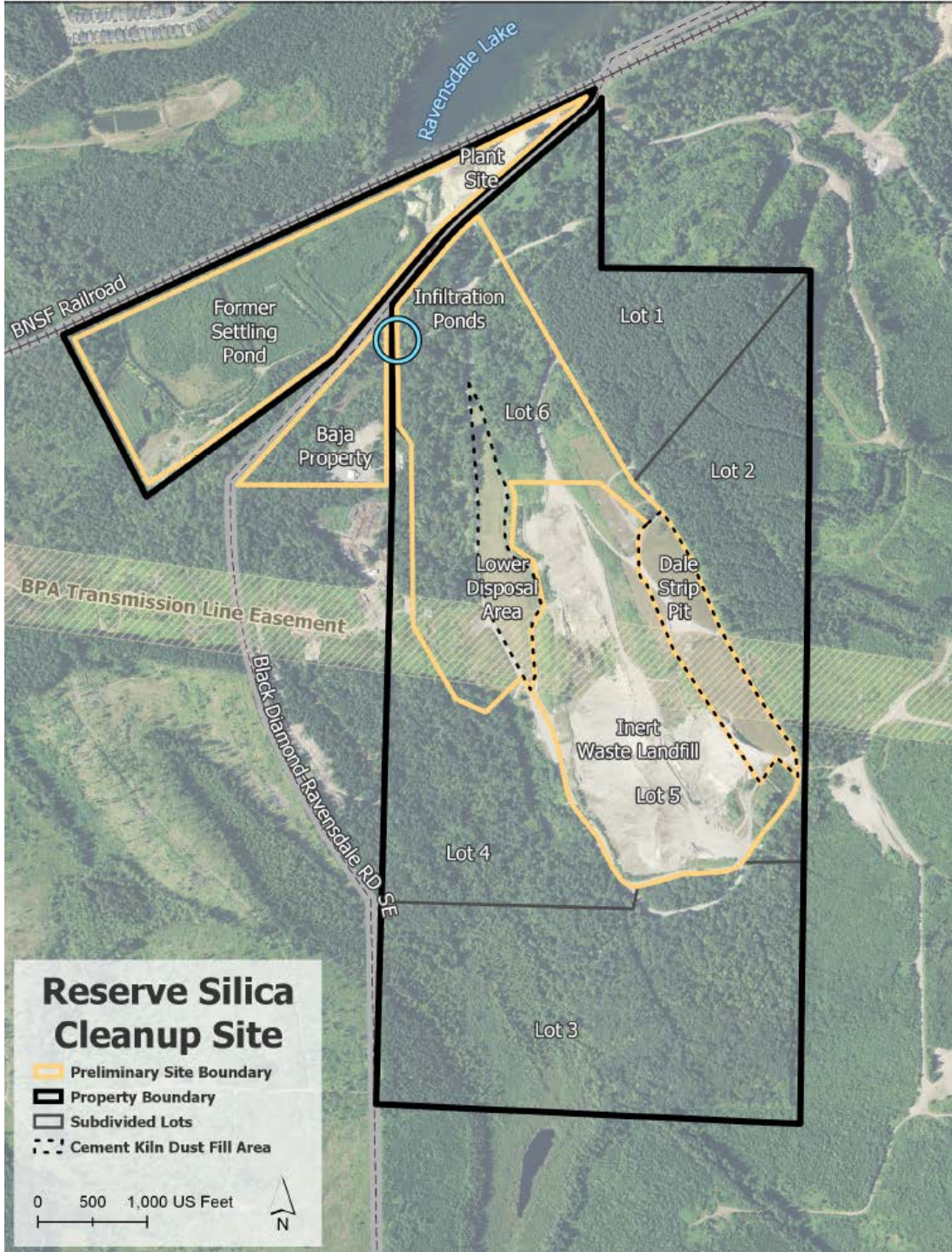
Steps in Washington's Cleanup Process



Public comment periods held at key points



Current conditions and operations



Reserve Silica Cleanup Site

- Preliminary Site Boundary
- Property Boundary
- Subdivided Lots
- Cement Kiln Dust Fill Area

0 500 1,000 US Feet





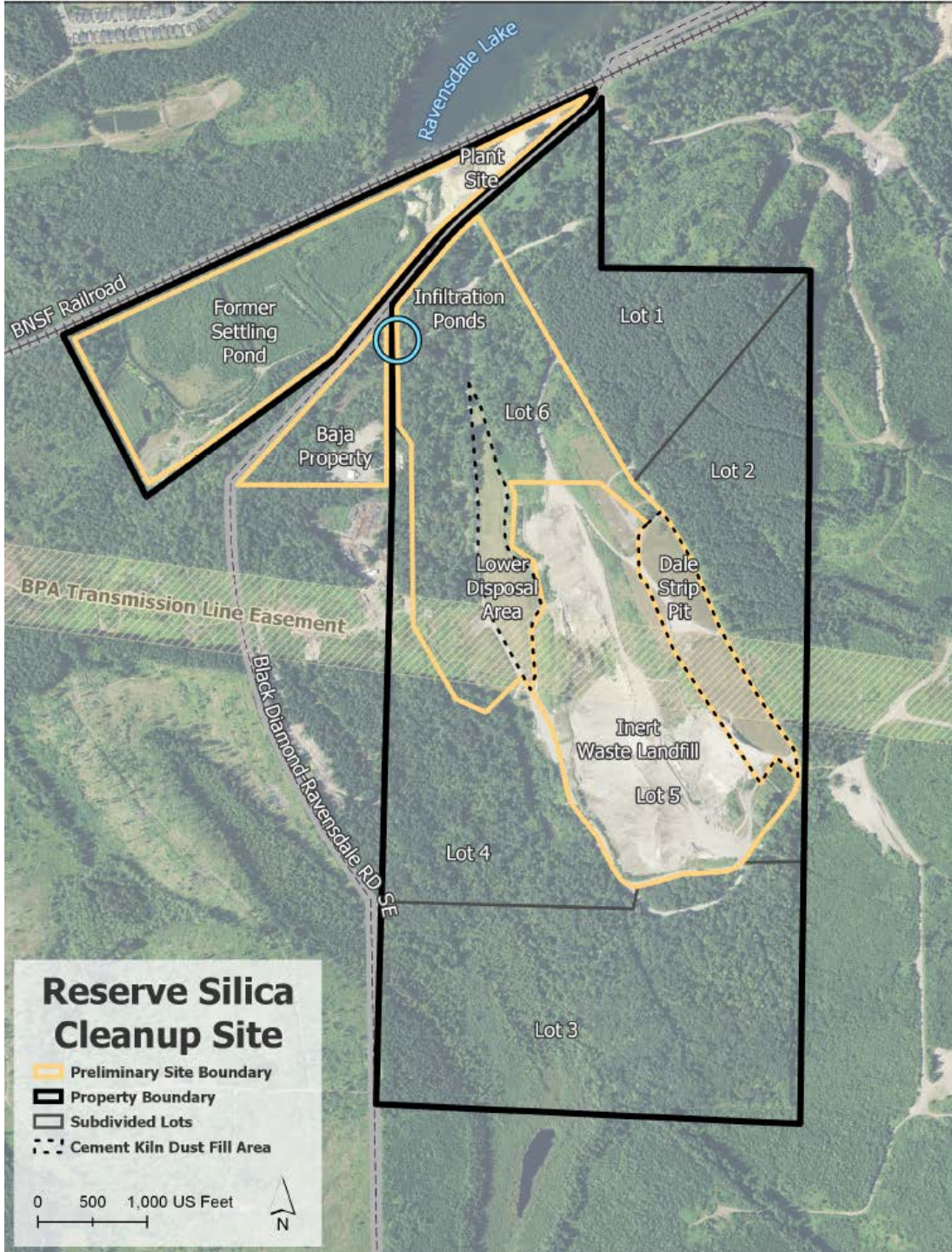
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11/08/2018 11:01



Reserve Silica Cleanup Site

- Preliminary Site Boundary
- Property Boundary
- Subdivided Lots
- Cement Kiln Dust Fill Area

0 500 1,000 US Feet





11/08/2018 11:31



11/08/2018 11:47



11/08/2018 12:16



11/08/2018 12:02



11/08/2018 11:56



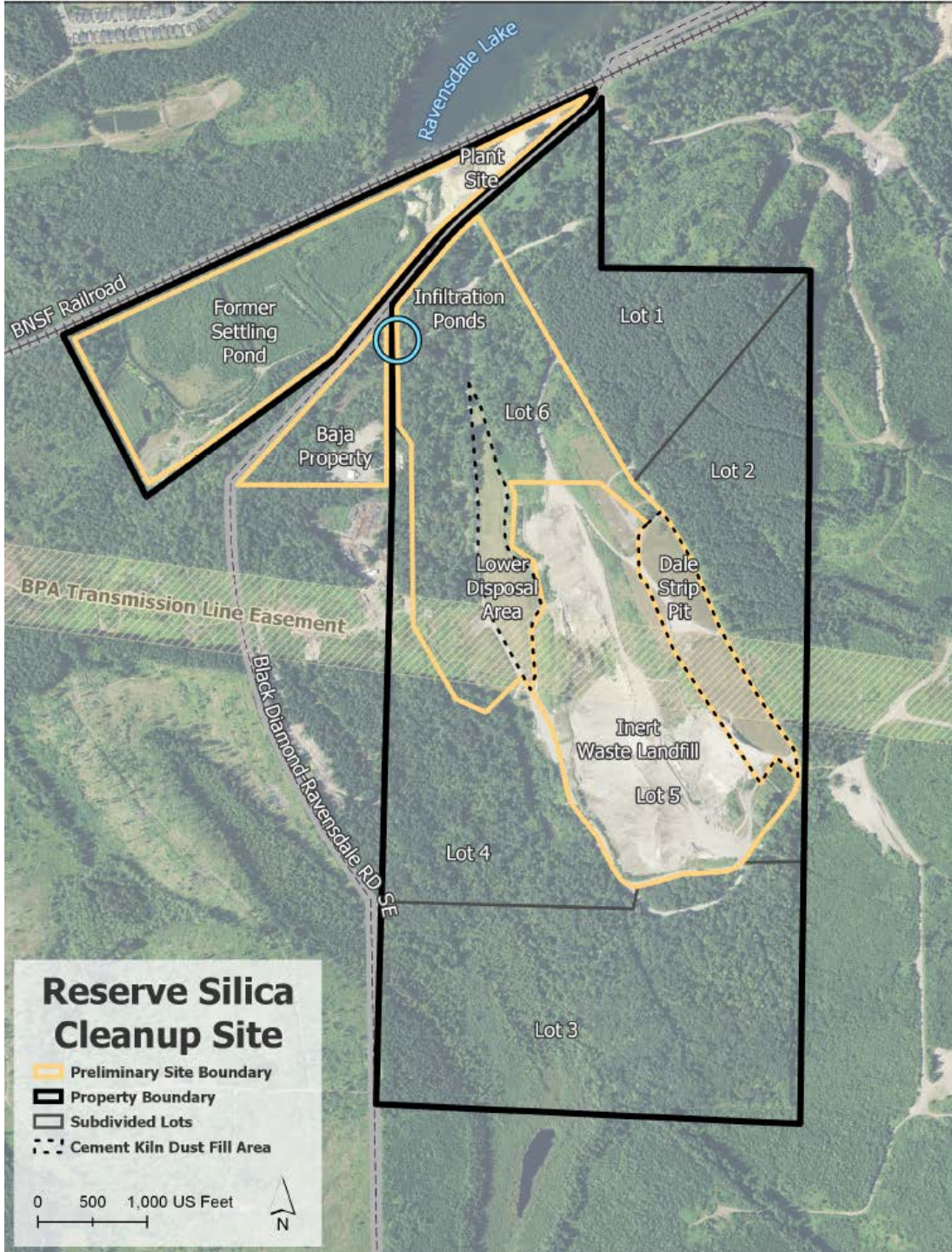
11/08/2018 11:58



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11/08/2018 13:02



Reserve Silica Cleanup Site

- Preliminary Site Boundary
- Property Boundary
- Subdivided Lots
- Cement Kiln Dust Fill Area

0 500 1,000 US Feet





11/08/2018 12:26



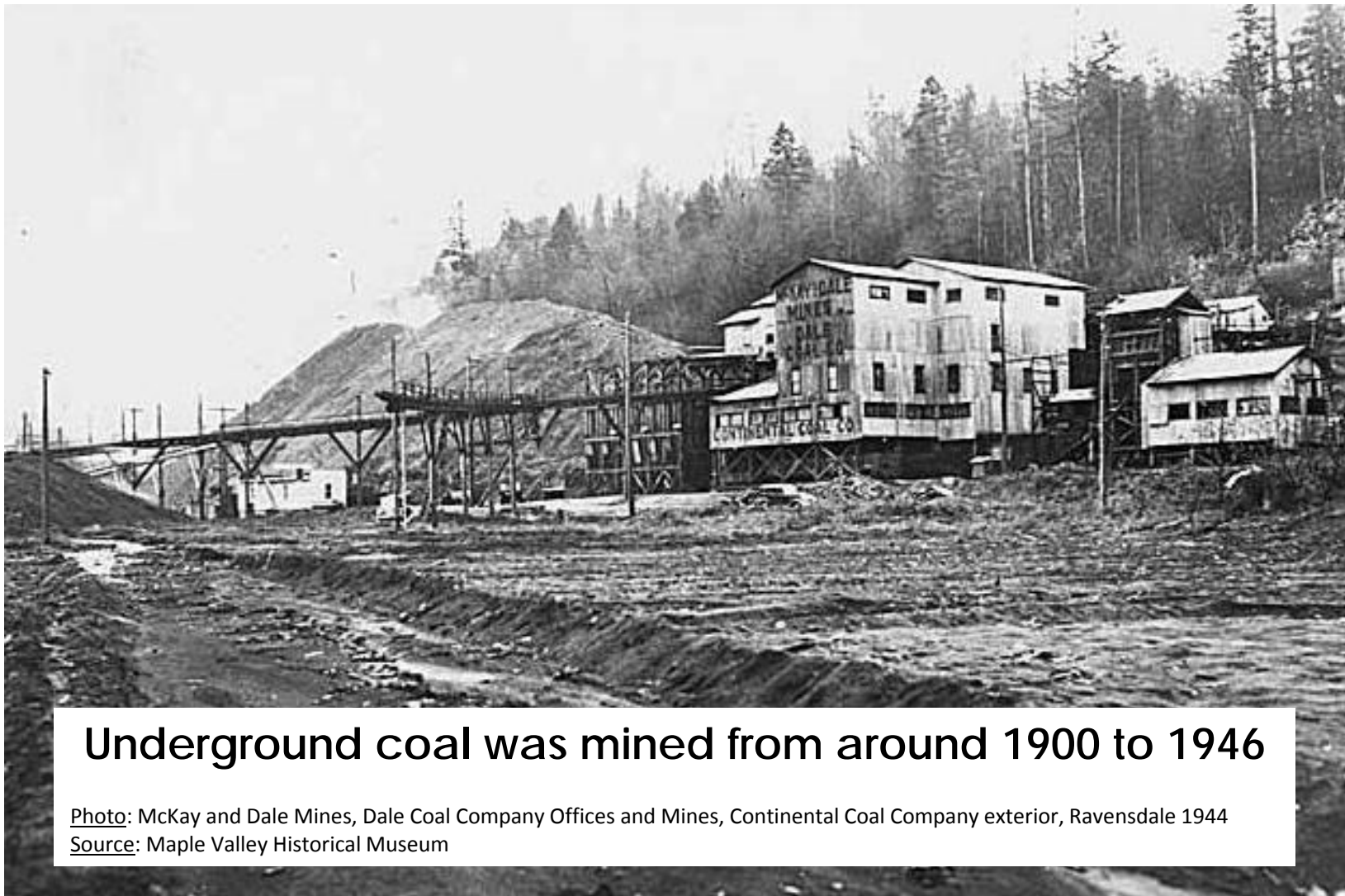
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Background



Underground coal was mined from around 1900 to 1946

Photo: McKay and Dale Mines, Dale Coal Company Offices and Mines, Continental Coal Company exterior, Ravensdale 1944
Source: Maple Valley Historical Museum



Sandstone was mined from surface pits from 1965 to 2007.

Photo source: Bennett Consulting, 2001



Surface pit reclamation from 1979 to the present.

Cement Kiln Dust





Cement kiln dust used as backfill in two pits:

1 – Lower Disposal Area (LDA)

2 – Dale Strip Pit (DSP)

1983 areal photo



1982
Cement kiln dust
Lower Disposal Area



November 1982
Cement kiln dust
Dale Strip Pit



Leachate seeps from the Lower Disposal Area

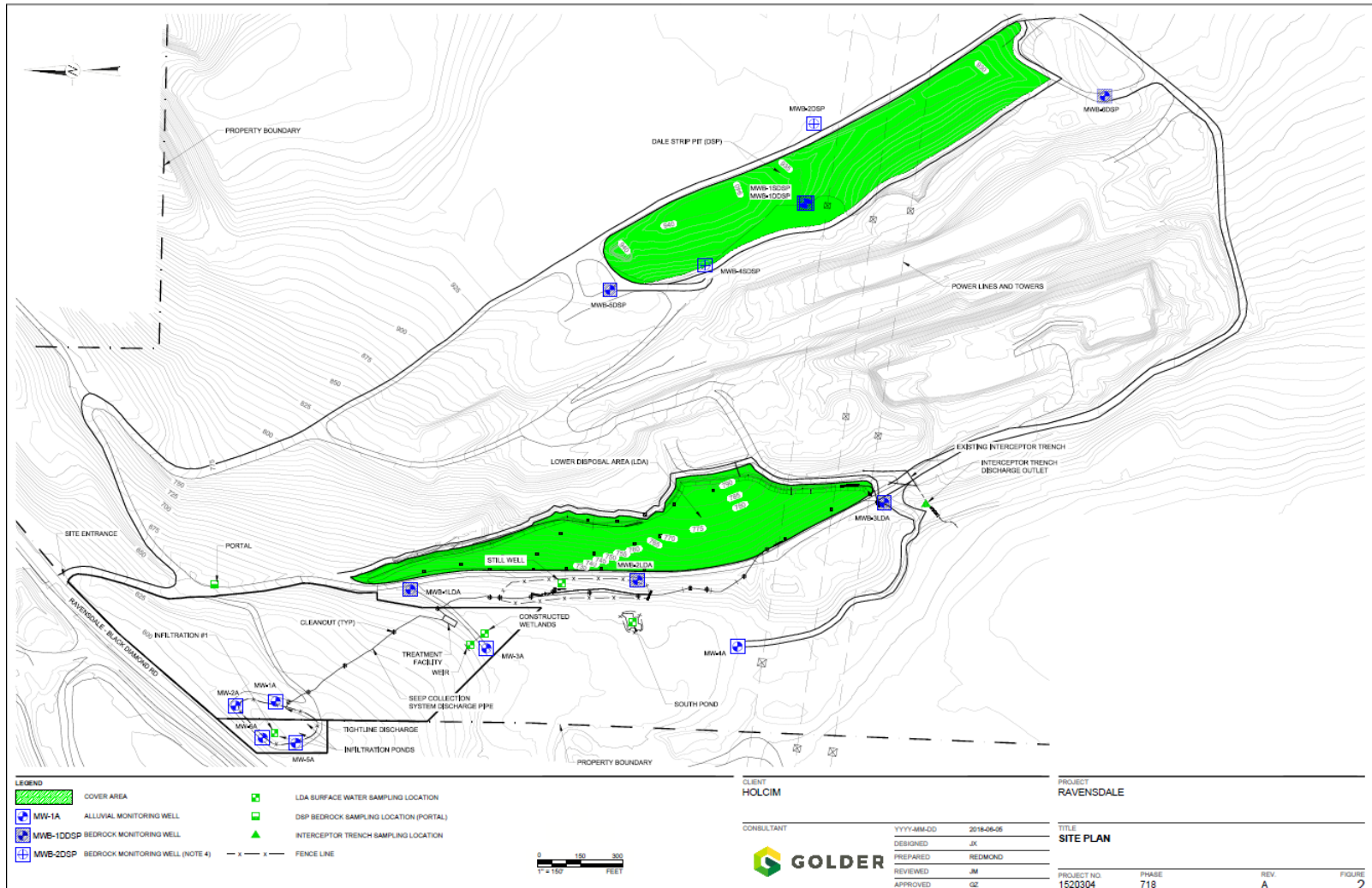
Since 1984, the Potentially Liable Parties have monitored, investigated, and worked to control leachate seeps.





Treatment system and other remedial actions

Disposal Area Low Permeability Covers



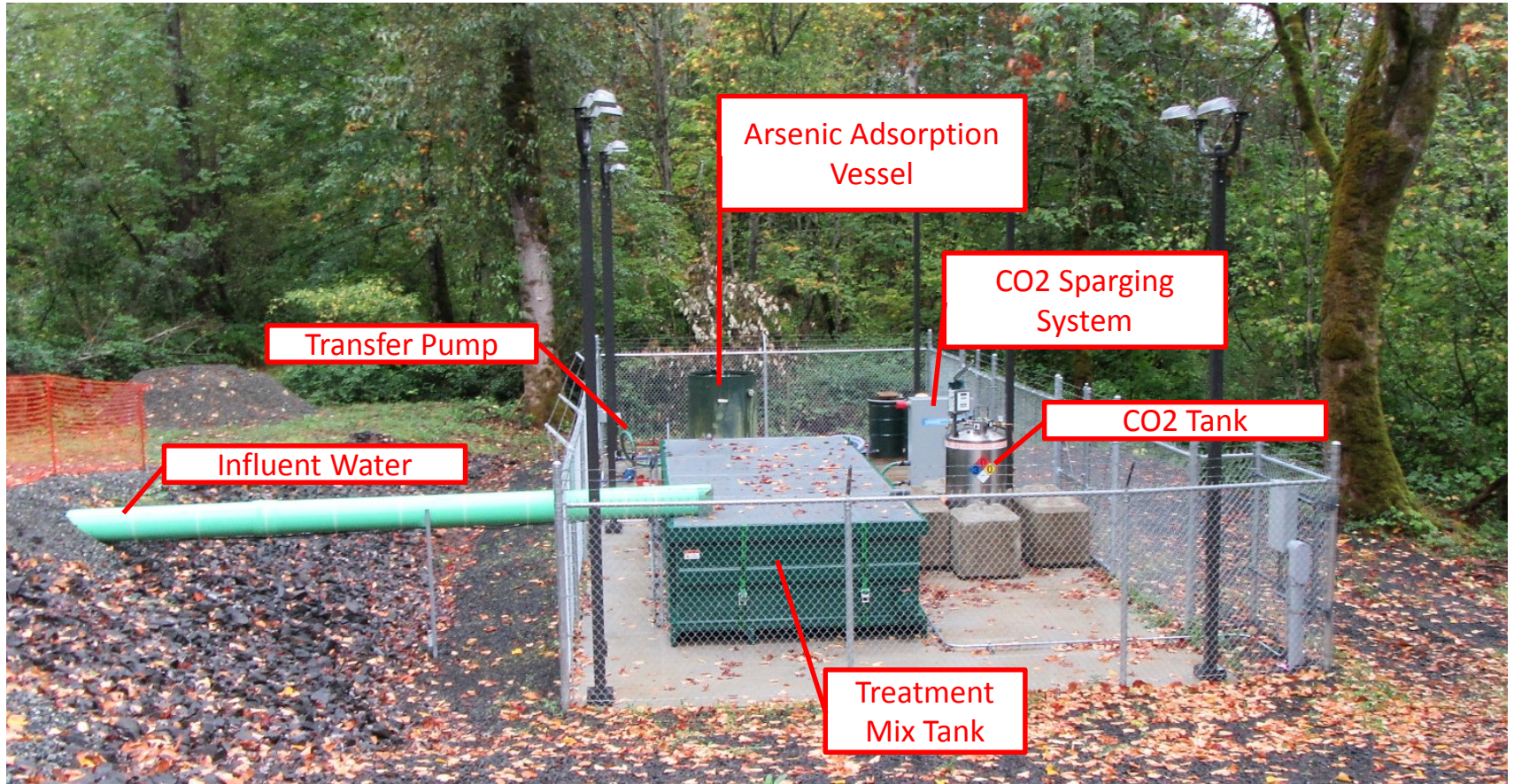
Lower Disposal Area Cover



Seepage Collection System



Treatment System





Agreed order & next steps



Steps in Washington's Cleanup Process



Public comment periods held at key points

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
Reserve Silica Corporation
20 First Plaza NW, Suite 308
Albuquerque, NM 87102

Travis Bennett
Holcim (US) Inc.
14500 C.R. 1550
Ada, OK 74820

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A legal agreement between:

- Reserve Silica Corporation
- Holcim (US) Inc.
- Dept. of Ecology

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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 SOW 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. 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.

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

The PLPs can download the checklist 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 EIM at the time of submittal for Ecology review of any report containing this data.

The work is
divided into
seven major
tasks.

Tasks to be performed are:

Task 1 – Remedial Investigation
Work Plan

Task 2 – Remedial Investigation

Task 3 – Interim Action (if required)

Task 4 – Feasibility Study



Tasks to be performed:

Task 5 – SEPA Compliance

Task 6 – Public Participation

Task 7 – Draft Cleanup Action Plan



The schedule is described in calendar days following an event:

Deliverables	Due Dates ^a
Agency Review Draft RI Work Plan	90 calendar days following effective date of the Agreed Order
Final RI Work Plan	30 calendar days following receipt of Ecology comments
Completion of RI Field Work	180 calendar days following submittal of Final RI Work Plan
Agency Review Draft RI Report	90 calendar days following receipt of RI validated data



Projected Time Line



 *Public comment periods held at key points*



Next Steps

- Ecology reviews and responds to all comments
- Agreed Order signed (unless major changes are needed)
- Begin developing the RI work plan
- [Ecology keeps you informed](#)





Questions?