



Fact Sheet

Conda/Woodall Mountain Mine Pedro Creek Overburden Disposal Area



Idaho Department of Environmental Quality

January 2011

U.S. Environmental Protection Agency

DEQ and EPA Invite Your Comments on Cleanup Plan 30-Day Public Comment Period to Begin January 10, 2011

You are invited to comment on a cleanup plan designed to address the Pedro Creek Overburden Disposal Area (ODA), one of the disposal areas of the Conda/Woodall Mountain Mine. The cleanup will stabilize the dump and reduce releases of contaminants to groundwater and surface water. In turn, this will reduce potential risks to human health and the environment. The mine is located near Soda Springs, Idaho.

Comments are due February 9, 2011.

Read the Entire Cleanup Plan

Copies of the supporting documents including an Engineering Evaluation/Cost Analysis (EE/CA) are available at the information repositories (listed on page 5) and on DEQ's Web site at www.deq.idaho.gov/PedroCreekODA.

Additional services can be made available to persons with disabilities by contacting one of the individuals listed below.

Location

The Pedro Creek Overburden Disposal Area (ODA) is a part of the Conda-Woodall Mountain Mine, an inactive phosphate mine located approximately six miles northeast of the City of Soda Springs in Caribou County, Idaho (Figure 1). The mine was active from 1906 to 1984. It is currently owned by The J. R. Simplot Company (Simplot).

How to Comment

Written comments may be submitted at any time during the 30-day public comment period. To submit comments, receive additional information, or request a briefing or public meeting, please contact:

Margie English, DEQ Project Manager
208-373-0306

Margaretha.English@deq.idaho.gov

Fran Allans, EPA Project Manager
208-378-5775

allans.fran@epamail.epa.gov

**Caryn Sengupta, EPA Community Involvement
Coordinator**
(206) 553-1275

sengupta.caryn@epa.gov

**Carol Cole, Public Involvement &
Communications Manager for DEQ**
(208) 557-7897

ccole@northwind-inc.com

What Will be Done With the Comments?

After the close of the public comment period, DEQ and EPA will review and consider the comments in selecting a cleanup alternative. All public comments will be addressed in a responsiveness summary that will be added to the Administrative Record for the site.

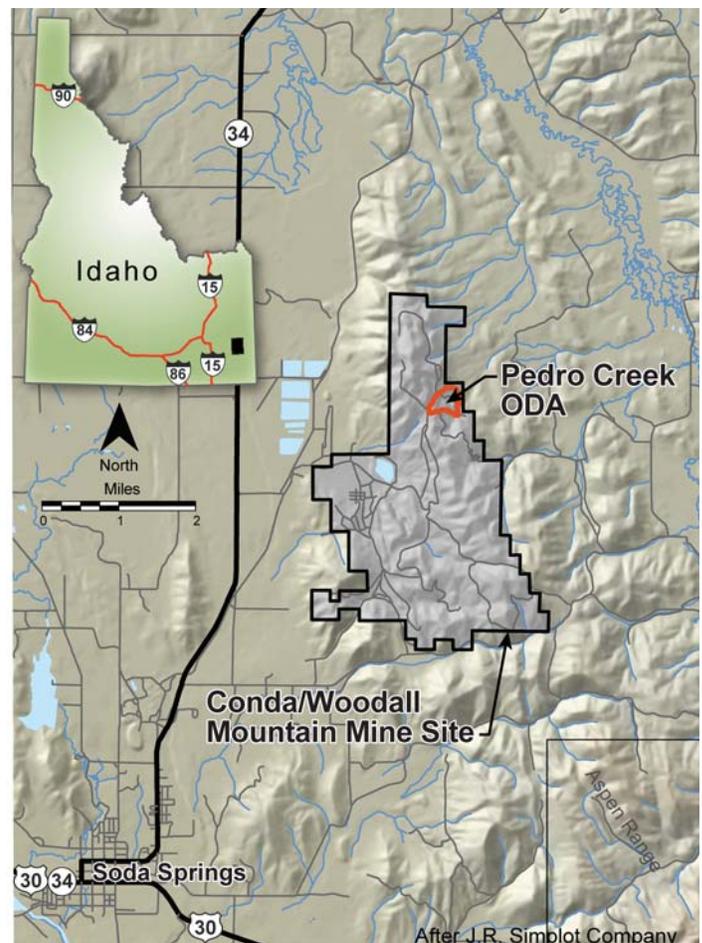


Figure 1: Vicinity Map

Site Overview

The Conda-Woodall Mountain Mine site includes several Overburden Disposal Areas (ODAs). During open-pit mining activities along Woodall Mountain, overburden, which is waste rock, was excavated from the mining pits to expose the phosphate ore. Rain and snowmelt infiltrates through the overburden/waste rock in these ODAs and releases high levels of selenium and other contaminants to shallow groundwater and surface water.

The Pedro Creek ODA is one of the most significant ODAs in terms of potential impacts to the human health and the environment because it is both unstable and has contaminated groundwater and surface water. It is located on both private and U.S. Bureau of Land Management (BLM) lands at the upper end of the Pedro Creek drainage (Figure 2).

How the ODA Was Created

During the mining operations, several million cubic yards of overburden materials were dumped directly from haul trucks into the Pedro Creek ODA. This practice resulted in a dump with 32 relatively flat acres that are bordered on the east by 28 acres of very steep side slopes. The relatively flat top area tends to pool and collect water. (Figure 3).



Figure 3

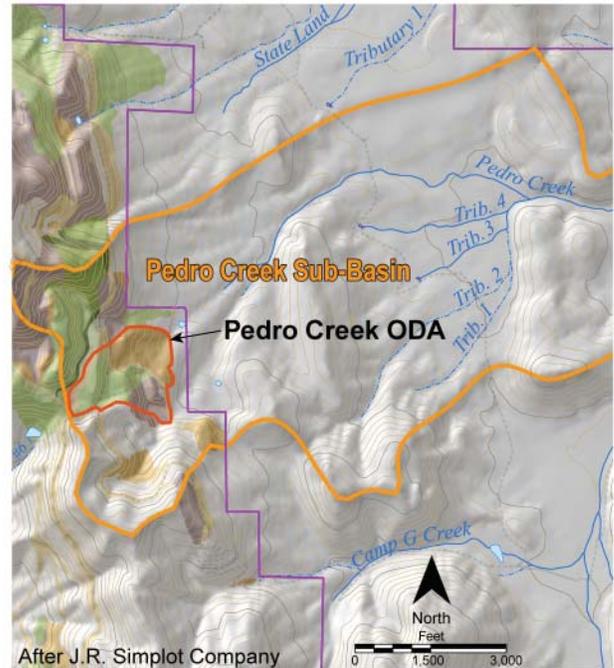


Figure 2: Pedro Creek ODA Site Map

Why a Cleanup Action Is Being Proposed for the ODA

The materials placed on the steep side slopes are unstable and are subject to erosion as well as movement of large quantities of overburden/waste rock down slope. A similarly constructed ODA failed to the north of the Pedro Creek ODA during the 1970s, resulting in a large quantity of waste rock moving down slope. Waste rock is visible beyond the toe of the Pedro Creek ODA indicating some down slope movement has already occurred.

In addition, rain and snow falling on the top of the ODA infiltrates through the ODA and becomes contaminated with selenium and other contaminants. These contaminants have been found in the surface water and shallow groundwater downgradient from the ODA. Selenium has been found at levels above state water quality standards to protect fish and the insects upon which they feed in Pedro Creek and above federal drinking water standards for humans in groundwater.

Cleanup of the Pedro Creek ODA

The cleanup of the Pedro Creek ODA is only a portion of the cleanup work that will be done at the Conda-Woodall Mountain Mine site. In response to the instability and potential risks associated with releases of selenium and other contaminants to surface water and groundwater from the Pedro Creek ODA, DEQ and EPA have decided to cleanup the ODA as an “early action.”

Early actions are also called Non Time-Critical Removal Actions under the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). DEQ and EPA, as lead agencies, and the U.S. Bureau of Land Management (BLM), as a cooperating agency, are proposing this action to stabilize the dump and reduce releases of contaminants to groundwater and surface water.

Remedial Investigation/Feasibility Study of the Conda-Woodall Mountain Mine Site

A Remedial Investigation/Feasibility Study (RI/FS) is currently underway to determine what cleanup actions are necessary to address any contamination resulting from mining at the entire Conda-Woodall Mountain Mine site. The RI and a baseline risk assessment will document where selenium or other contaminants have been released by mining activities at the mine site. It will also evaluate any potential threat to human health or the environment posed by the release of the contaminant(s).

The FS will evaluate cleanup alternatives for the mine site. The cleanup will be done under CERCLA and appropriate state law. The RI/FS is estimated to be completed in 2013.

Cleanup Alternatives for the Pedro Creek ODA

Six cleanup alternatives have been developed for the Pedro Creek ODA. These are documented in an EE/CA. The EE/CA presents an evaluation of the six alternatives in terms of effectiveness, implementability, and costs. It summarizes existing environmental data, estimates human health and environmental risks, evaluates cleanup alternatives, and identifies the alternative preferred by DEQ, EPA, and BLM.

The cleanup alternative selected after the comment period may be the same as the Preferred Alternative or may change based on public comments. Therefore, the public is encouraged to review and comment on all of the alternatives and the cleanup actions presented in the EE/CA.

Alternative 1 – No Action.

This alternative is included as a basis for comparison with the other alternatives. Consideration of the No-Action alternative is required by EPA regulations. No costs would be associated with this alternative.

Alternative 2 - In-Place Consolidation/Re-grading in Side Slope and Top Slope Areas, with Direct Revegetation on Amended Overburden Materials on the ODA.

Alternative 2 includes consolidating and re-grading of the overburden/waste rock on the steep side slopes to make them less steep. The top of the ODA would be re-graded to eliminate flat spots and pooling areas. Organic materials (mostly manure) would be used to amend the ODA surfaces for re-vegetation.

To reduce infiltration of water into the ODA and to control erosion, diversion ditches would be installed to capture water. This water would drain into a sediment basin. The sediment basin would be fenced and range management controls used to preclude livestock access to the ODA. The estimated cost for Alternative 2 is \$2.5 million.

Alternative 3 – In-Place Consolidation/Re-grading of the Side Slope and Top Slope Areas, with 6-inch Soil Cover and Revegetation on the ODA.

Alternative 3 includes consolidating and re-grading of the overburden/waste rock on the steep side slopes to make them less steep than in Alternative 2. The top of the ODA would also be re-graded to eliminate flat spots and pooling areas. Another difference from Alternative 2 is that a 6-inch soil cover would be placed on the ODA. This soil cover would then be re-vegetated.

To reduce infiltration of water into the ODA and to control erosion, diversion ditches to capture water would be installed that drain into a sediment basin. The sediment basin would be fenced and range management controls used to preclude livestock access to the ODA. The estimated cost for Alternative 3 is \$5.2 million.

Alternative 4 – In-Place Consolidation/Re-grading of the Side Slope and Top Slope Areas with 12 to 18-inches Soil Cover and Revegetation on the ODA.

Alternative 4 is similar to Alternative 3 in consolidating and re-grading of the overburden/waste rock on the steep side

slopes to make them less steep than in Alternative 2. The top of the ODA would also be re-graded to eliminate flat spots and pooling areas. The primary difference between Alternative 3 and 4 is that Alternative 4 includes a cover that is 12 to 18 inches thick over the ODA. As in Alternative 3, this soil cover would then be re-vegetated.

To reduce infiltration of water into the ODA and to control erosion, diversion ditches would be installed to capture water. This water would drain into a sediment basin. The sediment basin would be fenced and range management controls used to preclude livestock access to the ODA. The estimated cost for Alternative 4 is \$6.9 million.

Alternative 5 – In-Place Consolidation/Re-grading of the Side Slope and Top Slope Areas with 48-inch Evapo-transpiration (ET) Soil Cover and Revegetation on the ODA.

Alternative 5 includes in-place consolidation and the same re-grading of the overburden/waste rock on the steep side slopes as in Alternative 4 to make them less steep. The top of the ODA would be re-graded to eliminate flat spots and pooling areas.

The primary difference in this Alternative from Alternative 4 is in placement of a soil cover that is 48-inches thick and placement of a 6-inch thick layer of gravels beneath the soil cover. This cover is called as an Evapo-Transpiration (ET) cover. The thicker cap stores more clean water that infiltrates from precipitation until it is removed through evaporation and/

or from transpiration (plant uptake). The gravel layer reduces any downward movement of infiltrated water and upward movement of potentially contaminated groundwater into the soil cover. As in Alternatives 2, 3 and 4 the soil cover would be re-vegetated and diversion ditches to capture water would be installed that drain into a sediment basin. The sediment basin would be fenced and range management controls used to preclude livestock access to the ODA. The estimated cost for Alternative 5 is \$11.8 million.

Alternative 6 – In-Place Consolidation/Re-grading of the Side Slope and Top Slope Areas with Geosynthetic-Soil Cover System and Revegetation on the ODA.

Alternative 6 also includes in-place consolidation and re-grading of the overburden/waste rock on the steep side slopes to make them less steep, re-grading of the top of the ODA to eliminate flat spots and pooling areas. The difference between this Alternative and the other Alternatives is placement of a geosynthetic liner system on the ODA surface. This liner system is an impervious plastic and fabric like material similar to what is used in landfills. A 6-inch thick layer of gravels and a 12-inch thick layer of soil would be placed on top of the geosynthetic liner. As in Alternatives 2, 3, 4 and 5 the soil cover would be re-vegetated. In addition, diversion ditches would be installed to capture water. The water would drain into a sediment basin. The sediment basin would be fenced and range management controls used to preclude livestock access to the ODA. The estimated cost for Alternative 6 is \$18.2 million.

Comparison of Alternatives

Each of the alternatives was evaluated for effectiveness, ease of implementation and cost. All of the action alternatives can be readily implemented, both from a technical and administrative standpoint. The costs for the action alternatives range from \$2.5 million to \$18.2 million. The table below summarizes the effectiveness of the alternatives in protecting human health and the environment. More detailed information on the comparison of alternatives can be found in the EE/CA.

Alternative	Protective of Human Health and the Environment	Increase Stability of ODA	Reduce Infiltration through ODA	Disruption of the Environment during Implementation	Approximate Time	Implementability
Alternative 1 (No action)	No	No	No	n/a	n/a	n/a
Alternative 2	Least protective	No	Least effective	Least disruption of action alternative	One year for construction	Alternatives 2 and 3 are easiest to implement
Alternative 3	Slightly more protective than alternative 2	Yes	More effective than alternative 2	Slightly more disruption than alternative 2	One to two years for construction	Alternatives 2 and 3 are easiest to implement
Alternative 4	Protective	Yes	More effective than alternative 2 or 3	Slightly more disruption than alternative 3	One to two years for construction	Slightly harder to implement than alternatives 2 and 3
Alternative 5	Protective	Yes	Somewhat more effective than alternative 4 at a significantly higher cost	More disruption than alternative 4	Two to three years for construction	More difficult to implement than alternative 4
Alternative 6	Protective	Yes	Slightly more effective than alternative 5 at a significantly higher cost	Similar disruption as alternative 5	Three years for construction	More difficult to implement than alternative 5

Preferred Alternative

The alternative preferred by DEQ, EPA and BLM as a cooperating agency is Alternative 4 (Figure 4). This alternative includes:

- consolidation and re-grading of unstable side slopes,
- re-grading of the areas on top of the ODA,
- diversion ditches (water run-on/runoff controls),
- covering with soil, and
- re-vegetation.

These actions will improve slope stability, reduce the risk of erosion and movement of large quantities of overburden/waste rock down slope and reduce infiltration into the ODA which is expected to reduce releases of metals into downgradient surface water and groundwater.

Alternative 4 is protective of human health and the environment, and will contribute toward meeting water quality standards for both surface water and groundwater. This alternative is effective in both the long term and short term, is implementable from both a technical and administrative standpoint and is the most cost-effective at reducing infiltration. Alternative 4 is expected to be consistent with the final action for the Pedro Creek area. The agencies will determine in a final Record of Decision whether additional cleanup actions are necessary to address surface water, groundwater, and/or vegetation on the basis of monitoring conducted after completion of the early action, and information generated during the RI/FS.

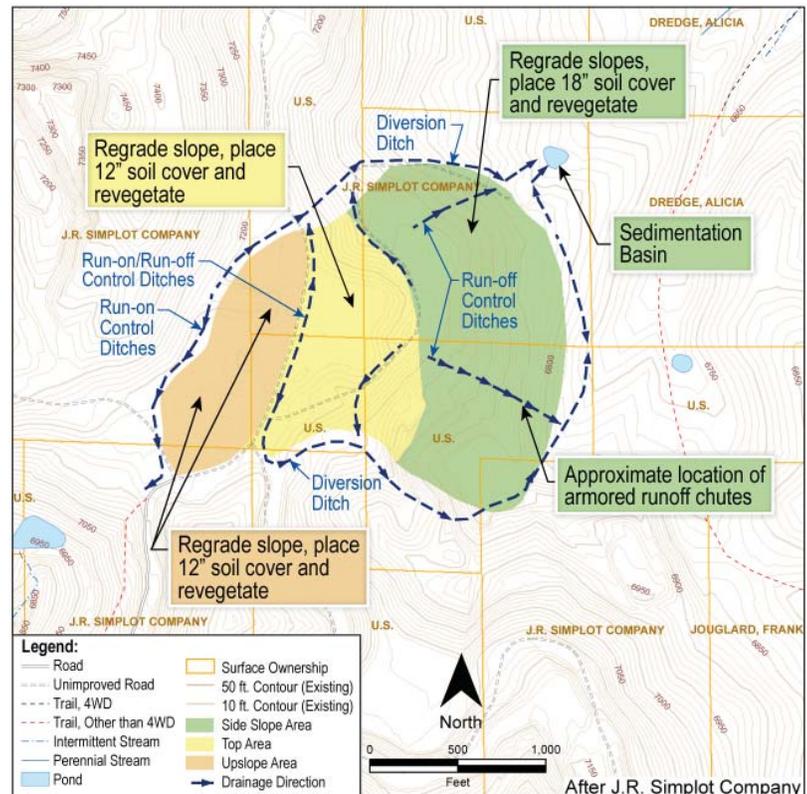


Figure 4: Preferred Alternative

Information Repositories

Copies of the Administrative Record for the EE/CA and other documents relevant to the Pedro Creek EE/CA are available for review at the following locations:

Soda Springs Public Library

149 South Main Street
Soda Springs, ID 83276
(208) 547-2606

Note: Because of space limitations, documents in this information repository are available in electronic format only. The library has a printer onsite. You may also make electronic copies of the files.

DEQ Pocatello Regional Office

444 Hospital Way #300
Pocatello, ID 83201
(208) 236-6160
8:00 a.m. - 5:00 p.m., Monday through Friday

EPA Idaho Operations Office

1435 N. Orchard
Boise, Idaho.
(208) 378-5746
8:00 a.m. - 4:30 p.m., Monday through Friday

EPA Superfund Records Center

1200 Sixth Avenue, Suite 900, 7th Floor
Seattle, WA 98101
8:30 a.m. - 4:30 p.m., Monday through Friday
Call for an appointment: (206) 553-4494

Online Access to EE/CA: www.deq.idaho.gov/PedroCreekODA

**30-Day Public Comment Period:
January 10 to February 9, 2011**

Your comments are invited!

***Fact Sheet Enclosed:
Conda/Woodall Mountain Mine
Pedro Creek Overburden Disposal Area***



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