

## Results of Investigation and Proposed Cleanup Alternatives Available for Comment

Teck Cominco American Incorporated (Teck) entered into a legal agreement with the Washington State Department of Ecology in 2005. The agreement required Teck to conduct a Remedial Investigation and Feasibility Study (RI/FS). The RI/FS focused on two areas known as Tailings Disposal Facilities 1 and 2 which are associated with the Pend Oreille Mine and Mill. The site is located two miles north of Metaline Falls on the east side of the Pend Oreille River in Pend Oreille County, Washington.

The Remedial Investigation Report provides the findings of the investigation. The purpose of the investigation was to determine the extent of metals contamination at Tailings Disposal Facilities 1 and 2. Tailings are a fine-grained material produced during ore processing and metal extraction. The contaminants being evaluated included arsenic, cadmium, copper, lead, manganese, mercury, selenium, and zinc as well as other metals in soils, groundwater and surface water.

The Feasibility Study Report provides detailed evaluation of three cleanup options.

### Documents for Review

You are invited to

- **Review** the draft Remedial Investigation and Feasibility Study Reports and Supplemental RI/FS Report.
- **Send** your comments to Ecology for consideration from **June 21 through July 22, 2010.**

The box on the right provides information about where to review documents and send comments. Ecology will hold a public meeting to discuss the reports and proposed cleanup options if ten or more people request such a meeting. Please contact Carol Bergin to request a meeting. Her contact information is in the shaded box on the right.

### Site Background

Mine operations in the area began as early as 1904. Mining in the early years began on the west side of the Pend Oreille River. Underground mining began around 1952 on the east side of the river, at the current site. The mine was closed in 1977. Various owners operated the facility until 1996 when Cominco American Incorporated acquired it. In 2001, Cominco American Incorporated changed its name to Teck Cominco American Incorporated and reopened the mine in 2004 for production. The mill and mine are currently operated by Teck Washington Incorporated.

### Fact Sheet June 2010

#### Comments Accepted

June 21 through July 22, 2010

#### Para asistencia en Español

Richelle Perez 360/407-7528

#### Если вам нужно помощь по русский, звоните

Tatyana Bistrevsky 509/928-7617

#### Send Comments and Technical Questions to

William J. Fees, P.E., Site Manager  
WA Department of Ecology  
4601 N. Monroe St.  
Spokane WA 99205-1295  
509/329-3589

#### Send Questions about Public Meetings, Public Involvement, and Getting on the Mailing List to

Carol Bergin  
Public Involvement Coordinator  
WA Department of Ecology  
4601 N. Monroe St.  
Spokane, WA 99205-1295  
509/329-3546 or [cabe461@ecy.wa.gov](mailto:cabe461@ecy.wa.gov)

#### Document Review Locations

**WA Department of Ecology**  
Kari Johnson, Public Disclosure  
WA Department of Ecology  
4601 N. Monroe St.  
Spokane, WA 99205-1295  
Call for an appointment 509/329-3415

#### Metaline Falls Public Library

Cutter Theatre Building  
302 Park Street  
Metaline Falls, WA 99153  
509/446-3232

#### Ecology's Toxics Cleanup Website

[http://www.ecy.wa.gov/programs/tcp/sites/Pend\\_Or\\_Mine/POM\\_hp.htm](http://www.ecy.wa.gov/programs/tcp/sites/Pend_Or_Mine/POM_hp.htm)

**Facility Site ID No.** 15428546

The purpose of mining at the site is to remove ore-bearing rock from the underground mine and process it in facilities above ground. Zinc and lead are the primary metals recovered in the mining process.

### **Tailings Disposal Facilities**

Prior to Teck's ownership, tailings were discharged directly into the Pend Oreille River until 1967. Between 1967 and 1977 three areas were used to dispose of mine tailings at the site. These disposal areas are called Tailings Disposal Facilities (TDF) 1, 2 and 3 (see Figures 1 & 2).

TDF-1 and 2 cover approximately 49 acres and are located northwest of the Pend Oreille Mine Golf Course and east of the Pend Oreille River. Both TDF-1 and 2 are located on Pend Oreille Mine property now owned by Teck Washington Incorporated and are no longer active. TDF-3 is about 20 acres in size and lies under the newly permitted tailings collection facility used by Teck Washington Incorporated. The facility is managed as part of the current mine and mill operations.

TDF-1 and 2 are the focus of the RI/FS. Teck has an approved plan that addresses TDF-3's future closure. The closure is not part of this RI/FS.

### **Remedial Investigation Report**

The Remedial Investigation Report indicates there are no impacts to drinking water from site-related contaminants. It does show elevated levels of iron in groundwater in TDF-2 and elevated manganese in groundwater downgradient of TDF-1. Groundwater in these areas flows toward the Pend Oreille River. One of the primary purposes of the work to be done at the site is to protect the river and local streams.

Soils from the tailing piles showed elevated levels of arsenic, cadmium, copper, lead, mercury, and zinc. These elevated levels are based on ecological risk factors. Lead and arsenic were metals that exceeded standards for human health.

The tailings piles are on private property and off limits to the public. You may reduce exposure risks by staying outside of the tailings area. If you go into the tailings area, take precautions by washing face, hands, hair, clothing, or other items that might have been exposed to tailings dust.

### **Why This Work Matters**

- Metals in soil and groundwater may be harmful to human health and the environment.
- The Remedial Investigation determined where and how much contamination is present at the site.
- The Feasibility Study identifies and evaluates cleanup options.
- Information from the investigation and study will help Ecology select the best option to clean up the site.

### **Feasibility Study Report**

The original Feasibility Study Report evaluated six cleanup alternatives that could be used at the site. These alternatives consider effectiveness, potential for implementation, and cost factors. Also considered are protection to human health and the environment, compliance with all applicable laws, and monitoring.

The original report was revised, and Alternatives 2, 3 and 4 were further evaluated. Alternatives 1, 5 and 6 were eliminated as possible options. Teck proposes Alternative 3 as their preferred alternative.

The following are the three proposed cleanup alternatives:

- Alternative 2 – Eliminate possible site-related risks by putting deed restrictions on the tailings facilities to prevent residential use. Included is construction of a sedimentation basin for Creek #2 to prevent migration of contaminants toward the Pend Oreille

River. This option would not reduce risks associated with TDF-1 slope stability.

- Alternative 3 – Includes the deed restrictions and actions from Alternative 2. Additionally, it reduces the slope on TDF-1 and accelerates vegetation on TDF-1 and TDF-2.
- Alternative 4 – Includes all of the actions in Alternative 3 except TDF-2 would be covered with six inches of soil and six inches of vegetative soils including soil amendments designed to sustain vegetation.

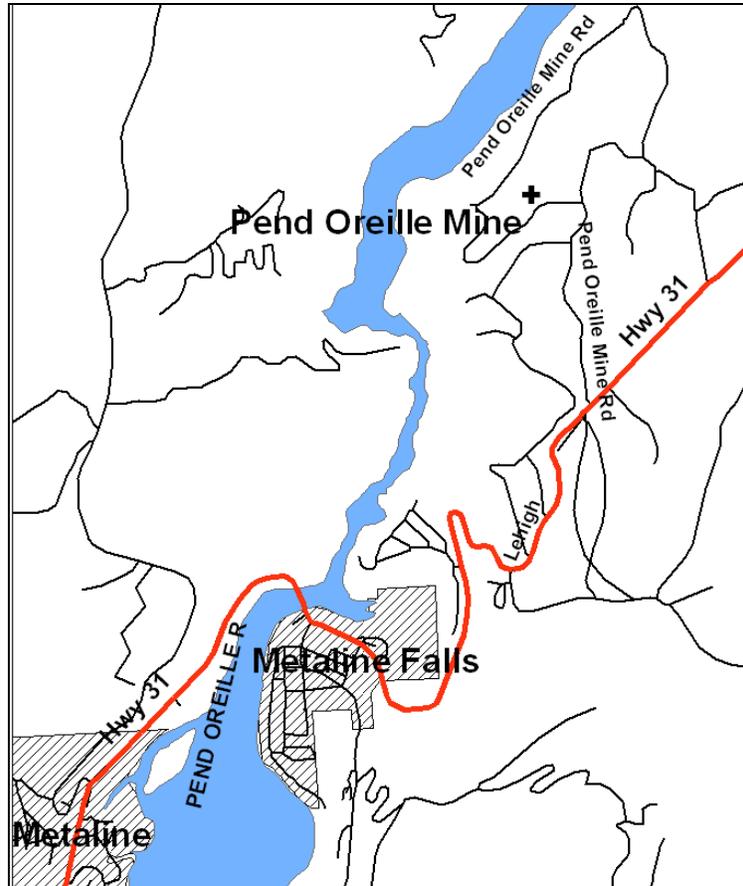
**What Happens Next?**

Ecology will review and respond to all comments received by **July 22, 2010**. Modifications may be made to the reports if appropriate. If no modifications are made, the reports will become final.

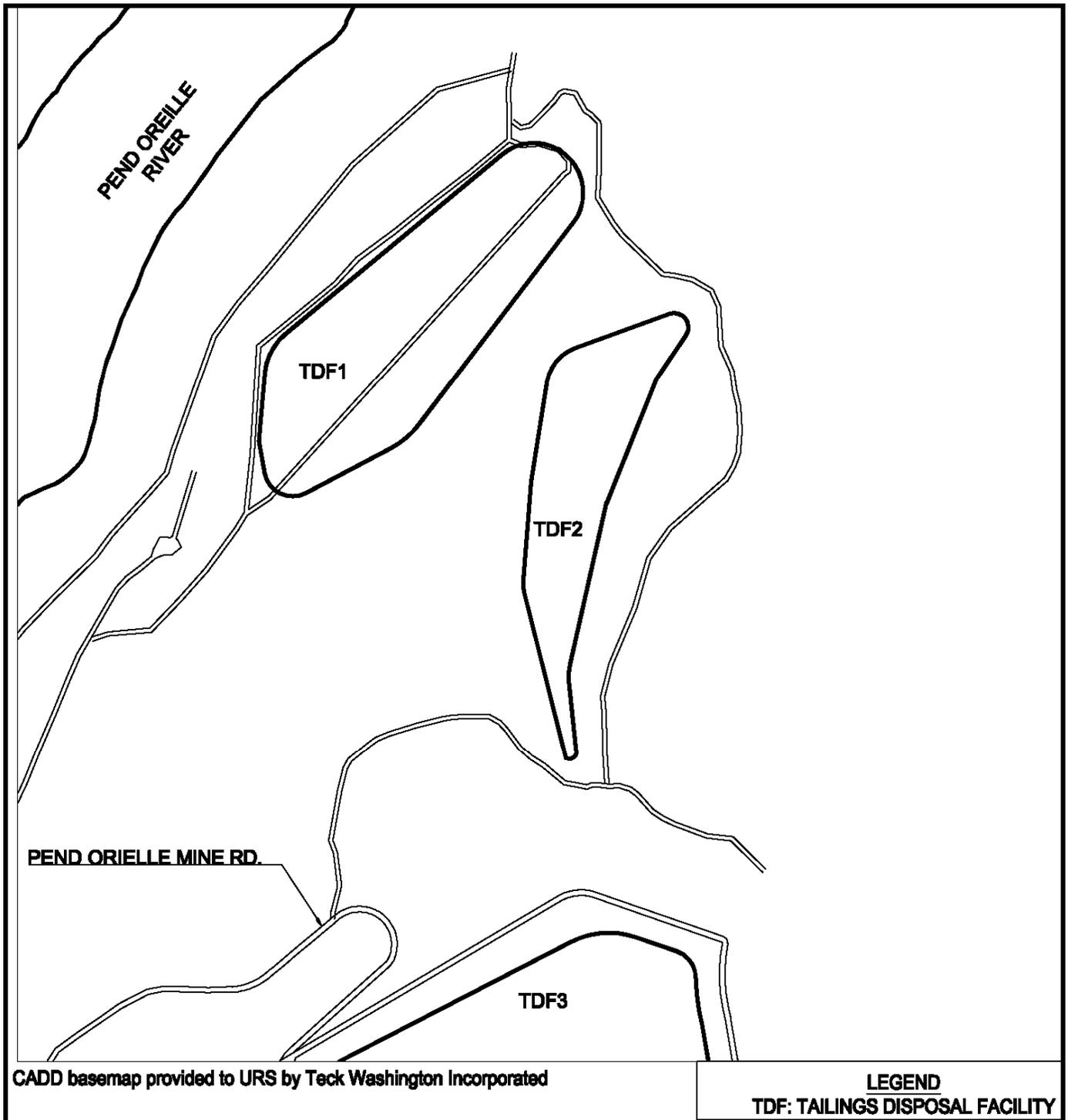
Next, Ecology will prepare a draft Cleanup Action Plan (CAP) for the site and identify the selected cleanup. Ecology may select Teck’s preferred alternative, a combination of the alternatives presented, or an alternative not presented in the Feasibility Study Report.

The CAP also includes other requirements necessary to complete the work. The public will have an opportunity to review and comment on the draft CAP before it becomes final.

Ecology will hold a public meeting to discuss the draft CAP and selected cleanup if ten or more people request such a meeting. Please contact Carol Bergin to request a meeting. Her contact information is in the shaded box on page one.



**Figure 1**



Map courtesy of URS

**Tailings TDF-1, TDF-2, TDF-3**

If you need this publication in an alternative format, call Carol Bergin at 509/329-3546. Persons with hearing loss, call 711 for Washington Relay Service. Persons with speech disability call 877/833-6341



4601 N. Monroe  
Spokane, WA 99205-1295

**Pend Oreille Mine Site  
Reports Available for Review and Comment**