

Camp Bonneville

Military Reservation Cleanup



Public comment sought on Draft Remedial Investigation and Feasibility Study Report

The Washington State Department of Ecology invites you to review and comment on a document received from the US Army for the site cleanup at Camp Bonneville.

You are encouraged to comment on this document during the public comment period, from August 15 to October 15, 2005.

Document Available for Review

Draft Remedial Investigation and Feasibility Study Report

Site investigation work has been ongoing at Camp Bonneville since 1998. Results of these investigations showed that munitions and explosives of concern (MEC) were present in soil at the site. The areas of the site where MEC were present are collectively referred to as Remedial Action Unit 3 (RAU 3).

The draft Remedial Investigation and Feasibility Study Report for RAU 3 describes the following:

- The site characterization work that has been completed.
- Provides the methods used and results of a qualitative risk

analysis of the MEC present on the site.

- An evaluation of cleanup action alternatives evaluated for the MEC source types and proposed reuse areas of the site.
- And the recommended cleanup actions for the site based on this evaluation.

RAU 3 Characterization

The report gives a description of all site characterization investigations conducted for MEC and their findings. The investigations were conducted in phases, so that each phase could build upon previous findings. The investigations encompassed over 2,400 acres of the 3,840-acre site, including the following areas:

- All of the known and suspected MEC source sites;
- All of the proposed future regional park reuse sites;
- All of the existing trails and roads; and,
- The entire 1,200-acre area of the proposed future regional parkland.

During this investigation parts of unexploded ordinance and MEC were discovered. These materials were removed from relatively limited areas where

Summer 2005

Public Comment Period

August 15th – October 15th 2005

Open House Meeting

September 8th 2005

4:00 p.m. – 8:00 p.m.

Presentation at 6:00 p.m.

Marshall House

1301 Officers Row

Vancouver, WA

Information Centers

Department of Ecology

Toxics Cleanup Program

300 Desmond Dr.

Lacey, Washington

By appt: (360) 407-7224

[www.wa.gov/ecology/](http://www.wa.gov/ecology/tcp/cleanup.html)

[tcp/cleanup.html](http://www.wa.gov/ecology/tcp/cleanup.html)

Vancouver Mall Public Library

8700 NE Vancouver Mall Dr.

Suite 285

Vancouver, Washington

Attn: Barbara Meisenheimer

(360) 892-8256

Send comments to:

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If you have special accommodation needs, please call (360) 407-7170 (voice) or 1-800-833-6388 or 711 (TTY).

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these devices were used during troop training. The removal was accomplished during two interim actions that were completed prior to Department of Ecology involvement at the site. A detailed description of the investigations and the materials discovered and removed from the site is provided in the report. The investigations indicated that additional clearance of MEC is still required in some areas, which is discussed in the feasibility study.

Qualitative Risk Analysis for RAU 3

A qualitative risk analysis was conducted to (1) evaluate the risk posed by the MEC, (2) aid in evaluating potential cleanup alternatives, and (3) establish acceptable remediation levels for use in the feasibility study. The risk analysis was performed in two steps. In the first step, the type of explosive hazard that was present at the site was evaluated. In the second step, the Army evaluated likelihood of a person contacting the explosive hazard based on future land reuse. The second phase of the evaluation considered information about planned future use of the site by Clark County that was used to develop a conceptual site model. This model identifies how the site will be used in the future, by whom, and the type of planned activities that could bring site users in contact with the MEC. A risk analysis was conducted for each of the following planned reuse areas:

- Roads and trails;
- High-intensity reuse areas;
- Highly accessible but medium-intensity reuse areas;
- All remaining medium-intensity reuse areas; and,
- Wildlife management areas.

Based on this analysis, the Army developed a series of cleanup alternatives to address various portions of the site.

Feasibility Study for RAU 3

A feasibility study was conducted for RAU 3 to identify and evaluate potential cleanup action alternatives to use in addressing the MEC. The following cleanup action alternatives were evaluated for each of the MEC types and proposed reuse areas:

- No further action;
- Use of institutional controls to limit access to the site;
- Surface clearance of MEC with institutional controls;
- Clearance of MEC in soil to a depth of 14 inches (which is the assumed frost depth) with institutional controls;
- Clearance of MEC in soil to a depth determined based on projected end land use, with institutional controls; and,
- Excavation and restoration.

Based on the evaluation, the Army recommended the following cleanup action alternatives for RAU 3:

- Clear MEC in soil from two areas of the site (the former Target Areas and the Firing Points) to a depth of 14 inches;
- Clear MEC in soil from the former Open Burn/Open Demolition areas of the site to a depth of 4 feet, and clear MEC from soil to a depth of 14 inches in the buffer areas around these sites;
- For all identified high intensity reuse areas, clear MEC from soil to a depth of 4 feet or 14 inches, depending on proposed reuse for the specific area; and,
- For all highly accessible but medium-intensity reuse areas, clear MEC from soil to a depth of 14 inches.

In addition to these recommended cleanup action alternatives, the report recommends a range of institutional controls specific to certain areas of the site, including signs and fencing, an educational awareness program, and land use controls. The purpose of land use controls is to ensure that the Camp Bonneville regional park, which is planned for the future, remains as a park, and the wildlife management area continues to be used only for wildlife management and forestry. It was also recommended that an exhibit and display depicting the history of the site and munitions used for troop training at the site be available for viewing.

Public Comment Period

Ecology is holding a 60-day comment period from August 15 to October 15, 2005. During this time, you may comment on the draft Remedial Investigation and Feasibility Study and Report, which is available at the information centers listed in the box on page 1.

After the comment period ends, Ecology will review and consider the comments received as it writes the draft Cleanup Action Plan for RAU 3.

Open House Meeting

Ecology and the Army will hold an open house meeting to discuss these documents on September 8, 2005, at the Marshall House, starting at 4:00 p.m. with a presentation by Ecology at 6:00 p.m.

Ecology would like your input!

Please make your comments by October 15, 2005, to Ecology's Project Manager, Ben Forson, at the address in the box in page 1 of this fact sheet. Comments may be sent by mail or e-mail.

What Happens Next?

The Department of Ecology and the Army are still discussing the proposed cleanup action alternatives presented in the report. Once a cleanup action alternative has been agreed upon, a draft Cleanup Action Plan will be developed by Ecology and made available for review and public comment. After the draft Cleanup Action Plan has undergone public review, the Plan will be finalized and cleanup actions for this area of the site will proceed.

A **public participation plan** has been prepared that describes the site cleanup process and strategy to keep the public informed during the cleanup process. The Plan and other information about the site is available on the Ecology web page for Camp Bonneville:

http://www.ecy.wa.gov/programs/tcp/sites/camp_bonneville/camp_bonneville_hp.htm

Site Background

The Camp Bonneville Military Reservation site (Camp Bonneville) is approximately 3,840 acres in size, including 800 acres of state-owned land. Camp Bonneville is located approximately five miles from the Vancouver City limits in Clark County. It borders both sides of Lacamas Creek and is approximately seven miles north of the Columbia River. Over half of the site is forested.

The Department of Defense owned and operated Camp Bonneville for firing range practice and training from 1910 to 1995. During that time, military ammunitions were stored or used at the site—including artillery ammunition, mortar ammunition, air-launched rockets, shoulder-fired rockets, guided missiles, bombs, land mines practice grenades, fuses, and small arms ammunition.

The camp was officially closed in 1995. Since then, investigations have been ongoing to characterize the contamination and develop plans for cleaning up the site. Identified contaminants include unexploded ordnance, explosive compounds, lead, petroleum products, pesticides and volatile organic compounds in the soil, and perchlorate and explosive chemicals in the ground water.

Camp Bonneville Cleanup: Public Notice

How Can You Get Involved?

- ▶ View websites that have information.
 - Ecology's Site Information:
http://www.ecy.wa.gov/programs/tcp/sites/camp_bonneville/camp_bonneville_hp.htm
 - Clark County Site Information: <http://www.clark.wa.gov/public-works/campbonn/>
 - EPA's Site Information: <http://yosemite.epa.gov/r10/cleanup.nsf/sites/CB>
- ▶ Attend the open house to learn more or to ask questions.
- ▶ Submit comments via mail or email.
- ▶ Attend Restoration Advisory Board meetings.



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