

DEPARTMENT OF  
**ECOLOGY**  
State of Washington

# Camp Bonneville

## Military Reservation Cleanup

April 2009

### Spring Cleaning at Camp Bonneville!

The Washington State Department of Ecology (Ecology) and the Bonneville Conservation Restoration and Renewal Team (BCRRT) have been busy in cleaning-up the site. In 2009, the cleanup will continue in several areas. This will be an important time for YOU to:

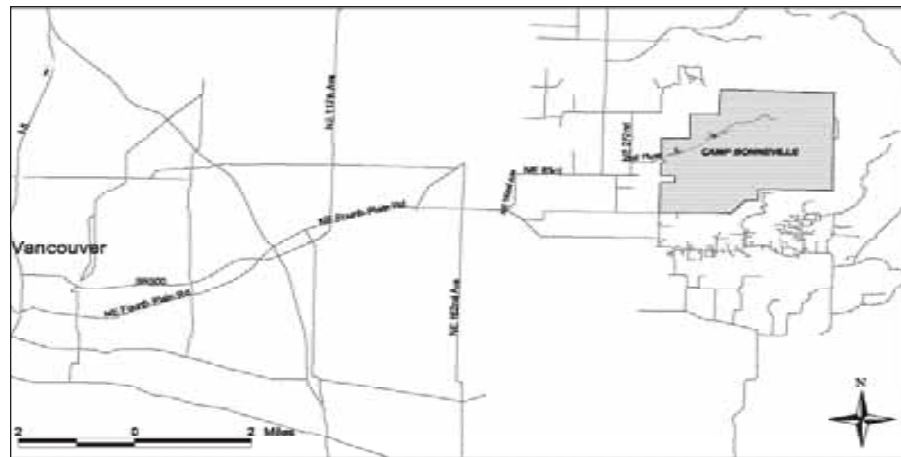
- ▶ Learn more about the contamination at the site
- ▶ Find out the status of the cleanup
- ▶ Be aware of upcoming opportunities to comment on draft cleanup documents

For more information:

Ben Forson  
Ecology Project  
Coordinator  
Department of Ecology  
Toxics Cleanup Program  
P.O. Box 47600  
Olympia, WA 98504-7600  
Phone: (360) 407-7227  
E-mail: [bfor461@ecy.wa.gov](mailto:bfor461@ecy.wa.gov)

### About Camp Bonneville

Camp Bonneville Military Reservation site is located in Clark County about five miles east of Vancouver City limits. It is almost 4,000 acres of forested land, previously owned by the U.S. Army and the State Department of Natural Resources. It was used from 1910 to 1995 for troop training and firing range practice, after which all active military operations ended. In 2006, the site underwent an Early Transfer Process, where facility ownership was temporarily transferred from the U.S. Army to Clark County, which then transferred ownership to the Bonneville Conservation Restoration and Renewal Team (BCRRT), a cleanup contractor. The BCRRT will maintain temporary ownership while it completes the investigation for contamination and facility cleanup. The Department of Ecology (Ecology) will determine when the facility meets their cleanup requirements, after which point, ownership will be transferred back to Clark County for use as a park and wilderness conservation area.



## Contaminated Areas and Cleanup Status

Contamination is found at specific locations throughout Camp Bonneville, which are referred to as “remedial action units” (RAU). These units were created as a way to define the locations that need to be investigated and cleaned-up. Camp Bonneville has five RAUs as well as a separate site-wide groundwater investigation. A significant amount of investigation and cleanup has occurred at Camp Bonneville, much of it in the past two years. The nature of contamination and activities completed in each of the RAUs to-date are shown in the table, below. Additional information on future cleanup activities are described on the next page under “2009 Schedule for Investigation and Cleanup Actions.”

Area	Nature of Contamination	Current Status of Cleanup
RAU 1	Various locations throughout the site with releases of hazardous toxic waste.	RAU 1 has undergone confirmational sampling of the Army’s cleanup efforts and closeout of 20 “conventional” chemical contamination sites were completed. No further action is needed.
RAU 2A	The small arms ranges where military munitions were used.	RAU 2A has undergone cleanup of 21 small arms ranges, including removal of 678 tons of lead-contaminated soil. Excavation of this area is complete, with the exception of the 1000” range which will require an additional 2’ clearance and a geo-membrane cap.
RAU 2B	Demolition areas 2 & 3 where military munitions were disposed.	RAU 2B cleanup and confirmational sampling are complete. These demolition areas were both a potential munitions and chemical contamination concern.
RAU 2C	Demolition area 1 and Landfill 4 where military munitions and solid waste were disposed.	Landfill 4 was excavated and contaminated soils and munitions removed.
RAU 3	Addresses all munitions, UXO, and munitions fragments throughout the site.	<p>Extensive munitions cleanup has occurred within RAU 3, including:</p> <ul style="list-style-type: none"> <li>• Perimeter brush removal and MEC surface clearance around the entire 3,800 acre site boundary.</li> <li>• Perimeter brush removal and MEC surface clearance around the Central Impact Target Area (an area comprising the primary artillery target area at Camp Bonneville).</li> <li>• Repaired fencing and signs to restrict access to the site while cleanup continues.</li> <li>• Discovery and destruction of over 650 munitions items.</li> <li>• Discovery and disposal of over 1,600 munitions debris items (metal fragments, etc.)</li> <li>• Clearance of 46 miles of roads and trails and a 20 foot buffer on either side of the roads and trails.</li> <li>• Surface clearance of the Environmental Study area.</li> <li>• Surface clearance of over 80% the Central Valley Floor (over 300 acres).</li> </ul> <p>A Cleanup Action Plan will be developed to direct additional cleanup throughout RAU 3 in 2009. Information on the proposed cleanup activities and schedule is discussed on the next page.</p>
Groundwater Study	Various locations throughout the site.	Continued groundwater monitoring at Landfill 4 and site-wide to ensure that all potential sources of contamination are identified and characterized and that public drinking wells and surface water are not harmed.

## 2009 Schedule for Investigation and Cleanup Actions

Despite the significant cleanup actions that have occurred to-date, further cleanup is needed at Camp Bonneville. Furthermore, the work that has already taken place has provided information that is leading to better approaches for remediation of contaminated areas. Ecology is committed to using this information to require additional investigation and cleanup and ensure the long-term safety of the residents of Clark County and the state. Investigation and cleanup actions that are anticipated in 2009, including their estimated completion dates, are described below. Information on cleanup activity to-date, as well as descriptions of contamination in each of the RAUs is provided in the previous page under the section titled “*Contaminated Areas and Cleanup Status.*”

Area	Cleanup Activities Anticipated in 2009
RAU 2A	<p>Excavation of small arms ranges has occurred, soil has been sifted, treated, and is awaiting drier conditions prior to final disposition.</p> <p><i>Estimated completion date: July 2009</i></p>
RAU 2C	<p>Groundwater monitoring data evaluation from Landfill 4 and Lacamas Creek wells within RAU 2C is ongoing in order to determine if the contamination is likely to move from its current location. Based on this information, Ecology has determined that continued groundwater assessment data is needed before appropriate remediation actions can be identified. Several types of groundwater measurements are being collected in RAU 2C. Some measurements will continue on a quarterly basis and others on an annual basis, depending on the information needed to select the remedy. Groundwater monitoring will result in submittal of a RAU 2C Remedial Investigation/Feasibility Study document for Ecology review.</p> <p><i>Estimated draft completion date: Spring 2010</i></p>
RAU 3	<p>Several cleanup actions will be proposed to Ecology in the Draft RAU 3 Cleanup Action Plan and will be available for public comment in Summer 2009 (see <i>How the Public Can Get Involved</i>, next page).</p> <p><b>Central Valley Floor Ordnance Clearance</b> - Just ten percent of the originally-identified Lacamas Creek Valley (Central Valley Floor) area remains for surface clearance to be complete. Some of these remaining areas include wetlands that will need to be cleared during the summer dry season to prevent environmental damage by heavy equipment. In addition to these areas, the results of cleanup across RAU 3 have indicated the potential for additional munitions contamination beyond what was originally thought to exist, both on the surface in the Western Slopes area and subsurface in the Central Valley Floor.</p> <p><i>Estimated completion date: July 2009 (September 2009 for wetland areas)</i></p> <p><b>Roads and Trails Brush Clearance</b> - Brush removal and munitions and explosives of concern (MEC) clearance has been completed during this investigation. During this investigation, several MEC step out grids were identified and are currently being investigated.</p> <p><i>Estimated completion date: May 2009</i></p> <p><b>Central Impact Target Area (CITA) Ordnance Clearance</b> - Ecology has received and is reviewing the workplan for the CITA target removal. Once review and comment is complete, the clearance in the CITA will begin.</p> <p><i>Estimated completion date: November 2009</i></p>

## How the Public Can Get Involved

A Public Participation Plan outlines the history of the site, the cleanup process, and how you can be involved in review on cleanup plans for the site. A 30-day public comment period is required under the state's cleanup law, the Model Toxics Control Act, for all major decision-making documents. This includes remedial investigation and feasibility study reports; interim action reports; and cleanup action plans. The Public Participation Plan is available at site information repositories and Ecology's website. Ecology will continue to post notice of meetings and opportunities for comment on its website as described in the Public Participation Plan.

As a result of studies, a Draft RAU 3 Cleanup Action Plan will describe the selected cleanup action focused on unexploded ordnance clearance throughout the site. An upcoming public meeting will be held in the area where you can learn more about cleanup activities and comment on the Draft RAU Cleanup Action Plan. More information about the public meeting and the comment period will be mailed to those on the site mailing list, advertised in local newspapers, and posted on Ecology's website. Contact Ben Forson, Ecology Program Coordinator, to get on the Camp Bonneville mailing list. For more Camp Bonneville information you can also:

- ▶ View websites that have information about Camp Bonneville:
  - Ecology: [http://www.ecy.wa.gov/programs/tcp/sites/camp\\_bonneville/camp\\_bonneville\\_hp.htm](http://www.ecy.wa.gov/programs/tcp/sites/camp_bonneville/camp_bonneville_hp.htm)
  - Clark County: <http://www.campbonneville.org>
  - BCRRT: <http://www.bcrct.org/>
- ▶ Attend future public meetings to learn more or to ask questions.
- ▶ Submit comments via mail or email.
- ▶ Attend Clark County Camp Bonneville Citizens Advisory Committee meetings.