

**REVIEW OF THE IMPLEMENTATION OF INTERIM ACTIONS IN THE
CENTRAL IMPACT TARGET AREA LOCATED WITHIN CAMP
BONNEVILLE, WASHINGTON. REQUIRED BY THE PROSPECTIVE
PURCHASER CONSENT DECREE (PPCD) IN COMPLIANCE WITH THE
SEPA ENVIRONMENTAL CHECKLIST**

Executive Summary

The Proposed Action, for purposes of this SEPA environmental checklist, is to conduct an Interim Action within the Central Impact Target Area (CITA) associated with Remedial Action Unit (RAU) 3 at Camp Bonneville (the Property). The Cleanup is overseen by the Washington Department of Ecology (WDOE) to enable the cleanup and ultimate reuse of the Property made available by the closure of Camp Bonneville.

The CITA, which covers approximately 465 acres, is located centrally within the Property (see Figure 1). The Proposed interim actions (surface and subsurface clearance of Munitions of Explosive Concern) within the CITA are aimed at reducing the threat to human health and safety associated with Military Munitions.

The Interim Action Work Plan (IAWP) for RAU 3 – Addendum 5 (Attachment 2), provides specifics of the interim actions selected for the CITA.

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A. Background

1. *Name of proposed project:*

Implementation of Interim Actions in the Central Impact Target Area (CITA) located within Camp Bonneville, Washington.

2. *Name of applicant:*

Clark County Department of Public Works

3. *Address and phone number of applicant and contact person:*

Mr. Jerry Barnett, Project Manager
Clark County Public Works
1300 Franklin Street
Vancouver, WA 98660
(360) 397-6118 x4969

4. *Date checklist prepared:*

May 2009

5. *Agency requesting checklist:*

Clark County

6. *Proposed timing or schedule*

The action will be implemented as soon as possible after all required permits have been issued.

7. *Additions and Expansions*

Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal?

None.

8. *Environmental Information*

List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

A number of reports and studies have been prepared for the cleanup and ultimate reuse of Camp Bonneville. During the completion of this SEPA environmental checklist for the implementation of interim actions within the CITA, the Environmental Assessment (EA) for Disposal and Reuse of Camp Bonneville (United States Army Corps of Engineers [USACE] 2001) was reviewed for existing site information, and the Prospective Purchaser Consent Decree (PPCD; Attachment 1) was reviewed for specific information regarding the interim actions. Both documents incorporate by reference a number of other documents previously prepared for the project (see references under the EA and PPCD). Due to the number of reports and studies, they have not been listed. In

summary, reports and studies reviewed in conjunction with this checklist include NEPA/ESA compliance documentation, survey reports, investigation reports, remedial investigation/feasibility studies (RI-FS), sampling and analysis reports, and clean-up action plans. Copies of these reports are available in public repositories. The library at Washington State University's Vancouver campus is the location of one of the Repositories.

9. *Other proposals affecting current proposal*

Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal?

Pending approvals specific to the activities included under the Proposed Action include Department of the Army approval of the Explosives Safety Submittal (ESS) – Amendment 3

10. *Permits*

List any government approvals or permits that will be needed for your proposal

The proposed action is being conducted under a MTCA Consent Decree therefore procedural requirements do not need to be done. However, substantive requirements for required permits will be adhered to.

11. *Proposal Description*

Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The Proposed Action, for purposes of this SEPA environmental checklist, is to conduct Interim Actions within the Central Impact Target Area (CITA) associated with RAU 3 at Camp Bonneville (the Property). The Cleanup is overseen by the Washington Department of Ecology to enable the cleanup and ultimate reuse of the Property made available by the closure of Camp Bonneville.

The Proposed Action is to conduct Interim Actions (surface and subsurface clearance of Munitions of Explosive Concern (MEC)) to reduce the threat to human health and safety associated with military munitions within the CITA. The CITA, which covers approximately 465 acres, is located centrally within the Property (See Figure 1). The MEC clearance that will be conducted as part of the overall interim actions will be used to increase the understanding of the presence of MEC across the property. The Interim Action Work Plan (IAWP) for RAU 3 – Addendum 5, provides specifics of the interim actions selected for the CITA.

To facilitate the MEC surface and subsurface clearance, brush removal will be conducted on all access roads leading up to the hard-target areas and in a 200-foot by 200-foot area centered on each hard-target area (See Figure 2). All areas designated for clearance will be subject to anomaly avoidance prior to brush removal activities. Anomaly avoidance will be conducted by an unexploded ordnance (UXO) team which will be composed of four people: one UXO Tech III, one UXO Tech II, and two UXO Tech Is. Multiple teams may be used if needed to meet the timeline listed in the project schedule. The teams will adhere to the minimum separation distance (MSD) of 112 feet, as recommended in ESS Amendment 3.

All brush removal along the designated access roads and within the hard-target areas will be performed using handheld brush cutting tools. The manual crews will use a variety of brush cutting equipment including, but not limited to, chainsaws, weed whackers, and pole saws. All brush removed from within the hard-target area and access roads will be staged in a designated

area outside the boundary of the investigation area. Vegetation will be allowed to regrow.

Surface and subsurface clearance will be conducted on all access roads (12 inches bgs) and in a 200-foot square area (14 inches bgs) centered on each hard-target area. This activity will be accomplished only after approval of the ESS is obtained. The following general procedures will be followed for MEC surface clearance unless required to be changed by the approved ESS. In that case, an amendment to the Interim Action Work Plan will be prepared.

- Geophysical surveys will be conducted on all access roads (12 inches bgs) and in a 200-foot square area (14 inches bgs) centered on each hard-target area. The equipment will consist of a combination of analog and digital instrumentation. The following instruments have been selected based on the results of equipment tests performed by MKM and WDOE:
 - Geonics EM61-MK2 metal detector (digital)
 - Schonstedt 52-cx flux gate magnetometer (analog)
- Where digital data collection is not possible, qualified UXO technicians will traverse 100% of those areas using magnetometers ensuring that all MEC items that are on the surface of the ground, or penetrate the plane of the ground surface, are located.
- At each subsurface anomaly/target location, investigations will be conducted in an area one (1) meter in diameter centered on the anomaly/target to a depth of 14 inches bgs using magnetometers. The subsurface anomaly/target retrieval invasive activities will generally consist of small, hand dug excavations to the depth of the anomaly with a maximum depth of 14 inches. Soil removed from the hole will be placed back into the excavation to reduce the potential for erosion.
- If any member of the Remediation Team believes that any archaeological object, archaeological site, or human remains has been discovered, that person will stop work in the vicinity of the discovery and notify the Environmental Compliance Officer (ECO). The ECO will investigate, and if the discovery is confirmed, the ECO will immediately stop all ground-disturbing activity within 100 feet of the discovery and implement the steps detailed in the Camp Bonneville Cultural and Historical Resources Protection Plan (CHRPP; Baker 2006) was updated in May 2009 to include this undertaking.
- All MEC items will be verified by team leader and the Senior Unexploded Ordnance Supervisor (SUXOS) for determination of MEC type and fuzing. If the item is determined “safe-to-move,” it will be transported to a secure on-site storage facility for disposition in accordance with the approved ESS. If items are not “safe-to-move,” a disposition plan will be prepared and coordinated with BCRRT, WDOE, and Clark County. Disposal of MEC items will be conducted according to the approved procedures in the ESS and the PIKA Environmental Safety and Health Procedure (ESH) No. 207 (Attachment B of IAWP Addendum 5).
- Grid teams will maintain a safety separation distance of 112 feet.
- A description of all MEC items will be documented per requirements set forth in Section 3.6 of the IAWP Addendum 5. All MEC items and materials potentially presenting explosive hazard (MPPEH) discovered will be recorded in the daily reports. All MD and metal scrap will be consolidated on the SW corner grid stake and removed upon completion of the quality assurance/quality control (QA/QC) process within that grid.

In addition, the hard targets will be demilitarized, dismantled and recycled as scrap metal. This action will eliminate the 'attractive nuisance' that the targets might potentially create. The targets will be partially dismantled using a cut-off saw or similar tool. These actions will be conducted under a hot works permit with all appropriate fire suppression measures in place. The dismantled pieces/ parts of these targets will then be hauled away from the CITA for recycle off-site.

12. *Location of the proposal*

Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

Camp Bonneville is located on the western slopes of the Cascade Mountains in the Lacamas Creek Valley in Clark County, Washington, approximately 15 miles northeast of Portland, Oregon and approximately 10 miles northeast of Vancouver, Washington (see Figure 1). The installation occupies approximately 3,840 acres in sections 34 and 35, Township 3 North, Range 3 East, and sections 1, 2, 3 and 10, Township 2 North, Range 3 East of the Willamette Meridian

B. Environmental elements

1. *Earth*

a. General description of the site (circle one):

Flat, rolling, hilly, steep slopes, mountainous, other.

Mountainous with steep slopes and general hilly terrain. The majority of the Camp Bonneville area is located in the western slope foothills of the Cascade Mountains in southeastern Clark County, Washington. The western edge of the installation is within the Fifth Plain area, which is generally flat. The elevation at the installation ranges from approximately 300 feet above sea level (along Lacamas Creek) to about 1,640 feet in the southeastern corner of the Property.

b. What is the steepest slope on the site (approximate percent slope)?

Steep slopes are generally located in the eastern and central portions of Camp Bonneville. Based on review of topographic maps the percent slope can be in excess of 30 percent in these areas.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Soil types and classification vary across the site. Soils in the eastern and central portion of Camp Bonneville, which is where the CITA is located are mainly Olympic series soils, specifically Olympic stony clay loam on areas between a 30 and 60 percent slope and Olympic clay loam on slopes between eight and 30 percent.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

Indications or history of unstable soils in the immediate vicinity of the CITA have not been

observed. Steep slopes are generally located in the eastern and central portions of Camp Bonneville, but there is no reference to slope stability issues in the EA (USACE 2001).

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

No filling or grading operations will be conducted.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Implementation of the Proposed Action may include some ground disturbance activities associated with clearing grubbing, and subsurface MEC clearance. Grubbing is the removal of vegetation in order to expose the ground and allow for a visual corridor that is easily maintained around roads, fences, obstacles, etc. Subsurface MEC clearance is expected to be of a very limited nature with return of the removed material to the temporary excavation. These activities are expected to be a minimal increase in effort from the ongoing maintenance already occurring onsite. The likelihood of erosion occurring as a result of clearing and MEC clearance is minimal.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

There will be no change to the percentage of the site covered by impervious surfaces as a result of the proposed action. Likewise, no grading or filling is proposed

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Although impacts to soils as a result of the emergency actions, step-out procedures, and subsurface MEC clearance are expected to be low or negligible, the use of some standard construction BMPs (phased construction techniques, avoidance of earth moving activities during the wet season) are proposed to minimize effects of soil disturbance. In addition, if clearing activities are occurring in close proximity to surface waters, buffers could be established along riparian corridors to help retain the function of ecosystems and reduce erosive storm water flows

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, and industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Air quality at the Camp Bonneville site complies with air quality standards. Current air emission sources at and around Camp Bonneville include vehicle traffic, ordnance emissions, and building space heaters. Impacts to air quality at the site, as a result of the proposed action, are expected to be low or negligible.

Implementation of interim actions may result in the temporary release of emissions of dust or debris during brush and vegetation clearing activities. When more concentrated clearing is required, step-out procedures would be initiated and that may result in further temporary release of dust or vegetation debris.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

There are no known sources of off-site odors that are likely to affect the proposed actions. The

surrounding land use is predominantly agricultural, residential, and forest; any air emissions would be associated with respective usage and are expected to be low or negligible.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Not Applicable

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

Parts of Lacamas Creek and its tributaries are located within the Property boundary. Wetlands present at the site are located along Lacamas Creek and its tributaries. Per the EA (USACE 2001), there are no significant flood prone areas within the installation, although minor flooding is reported to occur. The EA does not indicate any designated floodplains within the site. Clearance activities under the proposed action are not in the vicinity of Lacamas Creek or associated Wetlands.

The primary source of discharge into Lacamas Creek is and will continue to be (following Proposed Actions) storm water runoff. Runoff is currently conveyed by a system of drainage ditches to Lacamas Creek. Lacamas Creek flows approximately 12.5 miles from headwaters near Camp Bonneville to Lacamas Lake and Round Lake in Camas, and eventually into the Washougal River.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Yes, brush clearing and MEC surface/subsurface clearance will occur within 200 feet of the above described water bodies that lie within the CITA. The details of the actions in these areas are included in the IAWP Addendum 5 (Attachment 2).

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

No fill and dredge material will be placed or removed as part of this proposed action. Best management practices (BMPs) will be followed during clearance activities to minimize any potential impacts to wetlands or water bodies.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

No surface water withdrawals or diversions will be required

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

The project action may include work in the 100 year floodplain, and any substantive requirements will be met

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

Storm water runoff is currently conveyed by a series of drainage ditches to Lacamas Creek. Projected pollutants associated with storm water runoff may include bacteria, sediment, trash and debris, metals, hydrocarbons and nutrients.

b. Groundwater:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

No groundwater will be withdrawn as a direct result of Proposal. Potable water is currently supplied by outside contractors and non-potable water is currently supplied to the two cantonment areas via groundwater wells located on each cantonment. The wells pump water to concrete, unlined water reservoirs where it then enters the distribution system. The existing wells at the Bonneville and Killpack cantonments would be used only as an emergency source of water.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any.

No waste materials will be discharged into the ground from septic tanks or other sources as part of the proposed actions. Currently, sanitary sewer effluent is treated in two separate systems located at each cantonment installed in January 2007. The Killpack cantonment sanitary sewer system incorporates a portion of the former gravity flow drainage sewer lines, a septic tank, force main and gravity drain field. The septic tank located south of building T-4389 intercepts the former gravity flow sewer. The remainder of the former gravity flow sewer was abandoned. The septic tank includes a pump chamber and lift station to transfer the wastewater to the conventional gravity drain field located between buildings T-4316 and T-4327 for treatment. The Bonneville cantonment sanitary sewer system is a completely new system comprised of a gravity sewer, septic tank, force main and pressure distribution drain field. The current system does not utilize any of the former sewer system components. Wastewater from building T-1980 gravity flows to a septic tank located on the east side of the building. The septic tank includes a pump chamber and lift station to transfer the wastewater to pressure distribution drain field located between buildings T-1942 and T-1932 for treatment. Both systems have been maintained and operating within design parameters. Implementation of the Proposed Action is not expected to affect or modify either of the wastewater collection systems.

c. Water runoff (including storm water):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

The primary source of discharge into Lacamas Creek is and will continue to be (following Proposed Actions) storm water runoff. Runoff is currently conveyed by a system of drainage ditches to Lacamas Creek. Projected pollutants associated with storm water runoff may include bacteria, sediment, trash and debris, metals, hydrocarbons and nutrients.

2) Could waste materials enter ground or surface waters? If so, generally describe.

Impacts to surface and groundwater would be low as a result of the Proposed Action. Clearing of brush and MEC surface/subsurface clearance may result in minor impacts to surface waters if activities are conducted in close proximity to a surface water body. There are no anticipated impacts to groundwater sources

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

Best management practices (BMPs) will be followed during clearance activities to minimize any potential impacts to wetlands or water bodies. As impacts are expected to be minimal, no mitigation measures are proposed for the interim actions. Vegetative buffers would be maintained to the extent practicable along riparian corridors to retain the functions of the aquatic ecosystem. **Any cut vegetation will be allowed to grow back.**

4. Plants

a. Check or circle types of vegetation found on the site.

- deciduous tree: alder, maple, aspen, other**
- evergreen tree: fir, cedar, pine, other**
- shrubs**
- grass**
- pasture**
- crop or grain**
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other**
- water plants: water lily, eelgrass, milfoil, other**
- other types of vegetation**

Camp Bonneville is comprised of forested, undeveloped land, specifically coniferous forest and mixed coniferous and deciduous forest. Shrub communities are found primarily along drainages and wetland depressions and consist of red alder, hardhack, willows, red osier dogwood, and softstem bulrush, in addition to non-native species such as Himalayan blackberry and scotch broom. There are meadows scattered throughout the upland and wetland portions of the site, and wetlands and riparian areas as well.

b. What kind and amount of vegetation will be removed or altered?

The clearing of vegetation may impact the plant species in the area of the Proposed Action on a localized basis, as vegetation and habitat would be either removed or altered. However, it should be noted that clearing and removal activities have historically occurred on the Property, therefore, additional impacts would be low or negligible. Vegetation is expected to grow back in one year.

c. List threatened or endangered species known to be on or near the site.

Endangered plant species are listed in Appendix D of the EA (USACE 2001). Two threatened/sensitive plant species have been observed on the site. The small-flowered trillium (sensitive) and hairy-stemmed checker-mallow (threatened) were observed near Lacamas creek, however, this area is not anticipated to be impacted by the proposed activities. Field Personnel are routinely briefed on the nature, appearance and presence of the plant species and instructed that if they encounter the plant in a previously undiscovered location to stop work activities and

notify BCRRT. These areas are then closed off to foot traffic and no mechanical brush clearance is allowed. More diverse plant communities generally surround the Lacamas Creek drainage.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

No major impacts have been identified resulting from the Proposed Action, and thus no mitigation measures are required.

5. *Animals*

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

Birds: hawk, heron, eagle, songbirds, other:

Mammals: deer, bear, elk, beaver, other:

Fish: bass, salmon, trout, herring, shellfish, other:

Wildlife inhabiting the Camp Bonneville site includes various species of invertebrates, fish, amphibians, reptiles, birds, and mammals. Specific species currently inhabiting the Camp Bonneville site are listed on page 4-29 to 4-30 of the EA (USACE 2001).

b. List any threatened or endangered species known to be on or near the site.

In 2001, the US Fish and Wildlife Service stated that no listed species and one proposed species (coastal cutthroat trout) were within the project area. Documentation is included as Attachment A of the EA (USACE 2001), and a biologic evaluation addressing coastal cutthroat trout, for disposal of Camp Bonneville has also been prepared. The letter from USFW suggests that impacts to proposed species should also be addressed. In 1998, a letter from National Marine Fisheries Service (NMFS) was received that stated that Columbia River steelhead (threatened), Lower Columbia River Chinook salmon (proposed threatened), and Columbia River chum (proposed threatened) may be present within the study area.

c. Is the site part of a migration route? If so, explain.

Lacamas Dam, approximately 10 miles downstream of Camp Bonneville blocks upstream fish passage, thus Columbia River steelhead, Lower Columbia River Chinook salmon, and Columbia River chum are not found above the dam. However, coastal cutthroat trout, which can become resident above a dam, have been found in electroshocking surveys of Lacamas Creek, above Lacamas Dam. There is no other reference to migration routes in the EA (USACE 2001).

The project area is within the Pacific flyway, a migration route for birds. Because of the size of the site, and the extent of existing wildlife use, local migration of wildlife likely occurs in the project area, however, impacts or restrictions to this migration is not anticipated as part of this action.

d. Proposed measures to preserve or enhance wildlife, if any:

No major impacts have been identified resulting from the Proposed Action, and thus no mitigation measures are required.

6. Energy and natural resources

- a. **What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.**

The completed project does not have any energy needs. It is only a cleanup action. Electrical power is supplied to the installation area by overhead service lines and an underground cable from Clark County Public Utility District No. 1. Heat is provided to buildings in the cantonment area by either individual oil furnaces (not currently in use) or electrical heaters in each building. Existing sources of power and heat would be maintained during implementation of interim actions.

- b. **Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.**

The proposed action does not have the potential to impact solar energy use on adjacent properties. No impacts are expected because no modifications are proposed for the existing energy sources during the Proposed Action.

- c. **What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:**

BMPs will be employed to minimize use of energy and no impacts are expected for the existing energy sources during the Proposed Action.

7. *Environmental health*

- a. **Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.**

Although several environmental health hazards exist within Camp Bonneville, the environmental health hazard associated with the Proposed Action is the presence of surface and subsurface military munitions within the CITA. As a result of the Proposed Action, surface and subsurface clearing of MEC would occur in order to lessen or remove environmental health hazards.

An archive search report in 1997 indicates that throughout approximately 3,200 acres of the Camp Bonneville site, there is a potential for unexploded ordnance (UXO), ranging from small arms ammunition to mortars, rockets, and grenades, due to the onsite activities from 1910 to the 1970's. Ordnance and explosives sampling conducted in 1998 led to the identification, detonation, and removal of UXO items and scrap metal, although the current clean up team with Ecology is currently preparing a report to determine actions regarding further investigations and remediation.

In addition to the hazards listed above, there is reported presence of asbestos in some of the buildings in Camp Bonneville, potential presence of polychlorinated biphenyls (PCBs), and the use of lead-based paint on buildings. With regards to the lead based paint, a soil-metals survey was conducted in 1996 at specified locations (adjacent to buildings), and the lead concentrations exceeded the cleanup threshold for residential soils of 250 mg/kg.

Petroleum hydrocarbons related to vehicle and equipment usage during the Proposed Action will be addressed by BMPs and adherence to the project/Property work plans. Potential residual soil and groundwater contamination are addressed separately under other RAU Work Plans/actions.

1) Describe special emergency services that might be required.

The Vancouver Fire Department provides all emergency response including advanced and basic life support, and fire response at Camp Bonneville and Camp Killpack cantonments. The Washington Department of Natural Resources (WADNR) provides fire response for non-structures at Camp Bonneville overall.

2) Proposed measures to reduce or control environmental health hazards, if any:

Specific to the Proposed Action, implementation of interim actions would result in beneficial direct and indirect impacts on environmental health hazards from military munitions. These interim actions will reduce the threat to human health and safety as a result of the investigation and cleanup of the CITA, including the MEC clearance and vegetation removal within the investigation areas in the CITA.

b. Noise

1) What types of noise exist in the area which may affect your project (traffic, equipment, operation, other)?

Current sources of noise at Camp Bonneville are associated with vehicle traffic and heavy equipment operated during construction and brush removal activity. Existing cleanup activities, such as planned unexploded ordnance detonation will also temporarily produce high noise levels.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Implementation of the Proposed Action could result in low impacts related to noise levels. Vegetation removal will be performed using hand held tools and could result in increased noise levels. Any MEC discovered during surface/subsurface clearance will be evaluated to determine whether or not they are safe to move. If so, they will be transported to a secure storage facility. If not, the item will be exploded in place. The impact of this action will temporarily increase noise levels in the vicinity of the operation. These impacts will be temporary and will be minimized through the use of sandbag mitigation. The sandbag mitigation requirements are outlined in the ESS (Attachment 3).

3) Proposed measures to reduce or control noise impacts, if any:

Although not required, there are proposed mitigation measures for noise described in the EA (USACE 2001). As related to Proposed Action, mitigation measures could include limitations on the hours of operation to reduce off-site noise effects.

8. *Land and shoreline use*

a What is the current use of the site and adjacent properties?

At present, a location within the CITA is being used for controlled demolition procedures for MEC recovered during investigations being conducted under the interim remediation actions. The demolition area and the buffer zone around it are described in the ESS.

b. Has the site been used for agriculture? If so, describe.

The facility was a military training facility and was not used for agriculture.

c. Describe any structures on the site.

Although there are structures on site, there are no structures within the CITA.

d. Will any structures be demolished?

No, structures will not be demolished as a part of this action.

e. What is the current zoning classification of the site?

The zoning and comprehensive designation of the Property site is Forest Tier I-80 and Forest Tier I (large land parcels that can produce forest and mineral products), respectively.

f. What is the current comprehensive plan designation of the site?

All of Camp Bonneville is within the planning jurisdiction of Clark County, Washington. The Clark County Department of Community Development carries out comprehensive planning. The zoning and comprehensive designation of the Property site is Forest Tier I-80 and Forest Tier I (large land parcels that can produce forest and mineral products), respectively.

g. If applicable, what is the current shoreline master program designation of the site?

Rural Environmental

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

There are no federally designated critical habitats on Camp Bonneville, although there is habitat for threatened and endangered species. There are wetlands (as identified by the Army Corp of Engineers and the National Wetland Inventory) and a surface water body (Lacamas Creek) present onsite. The EA (USACE 2001) does not identify any specific environmentally sensitive areas.

i. Approximately how many people would reside or work in the completed project?

Subsequent to these interim actions, access to the CITA will be restricted to maintenance and possibly law enforcements personnel. The CITA will have no new residents as a result of the proposed action.

Currently there are approximately 25 employees at Camp Bonneville (22 field personnel engaged in the cleanup, site maintenance and security. Additionally there are three employees temporarily residing on-site, however their residences are in the valley floor, and well removed from the CITA).

Following reuse of the site (medium-low intensity), there are expected to be 15-30 employees at any one time and approximately 540 visitors daily, on average. However no visitors will be allowed access to the CITA which will be off limits.

j. Approximately how many people would the completed project displace?

Camp Bonneville was an inactive military base and would not displace any permanent residents.

k. Proposed measures to avoid or reduce displacement impacts, if any:

Not Applicable

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

The implementation of interim actions per the Proposed Action are consistent with past and current maintenance activities, thus they would not result in any additional impacts to land use as a result of the clearing activities

9. *Housing*

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

Camp Bonneville is a military training center and provided temporary housing (via barracks). The barracks are wood structures with either wood or concrete floors and were constructed in the 1920's and 1930's. The barracks have been inactive since 1996, and since 1996, no military personnel have been housed onsite. No new housing units are proposed.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None

c. Proposed measures to reduce or control housing impacts, if any:

Any cut vegetation will be allowed to grow back. Vegetation regrow is expected within one year.

10. *Aesthetics*

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

Not Applicable

b. What views in the immediate vicinity would be altered or obstructed?

None since the area is heavily forested.

c. Proposed measures to reduce or control aesthetic impacts, if any:

Not Applicable

11. *Light and glare*

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

The proposal would not produce light or glare.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?**

Not Applicable

- c. What existing off-site sources of light or glare may affect your proposal?**

No off-site sources of light are expected to impact proposal.

- d. Proposed measures to reduce or control light and glare impacts, if any:**

Limits on the time of day for which construction could occur is a proposed mitigation measure that will be implemented for this Proposed Action, to minimize any temporary impacts associated with light and glare.

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?**

There are numerous recreational opportunities within Clark County, in areas surrounding Camp Bonneville. Past use of Camp Bonneville was not recreational in nature, as it was a military training ground and firing range that has since been inactivated.

- b. Would the proposed project displace any existing recreational uses? If so, describe.**

Implementation of the Proposed Action would have a negligible impact to recreation, as the site is not currently used for recreational purposes. However, by conducting the interim actions, the recreational potential of the site is increased.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:**

None

13. Historic and cultural preservation

- a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.**

Camp Bonneville buildings and structures have been evaluated twice for National Register of Historic Places (NRHP) eligibility, in 1986 and 1997. During both inspections, Camp Bonneville buildings were determined to be ineligible for the NHRP. The EA (USACE 2001) contains an overview of the Camp Bonneville area including prehistory, ethnohistory, and history in Appendix H. Four archeological investigations have been conducted at the Camp Bonneville site from 1979 to 1998, although none of the investigations have been a systematic, system-wide survey because of the potential safety issues associated with the unexploded ordnance. Per the archeological investigations, there were some areas of cultural relevance discovered (see EA Section 4.11.1; USACE 2001).

- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.**

There have been no Native American resources reported at Camp Bonneville. However, the Cowlitz Tribe has located, documented and forwarded to the Army both oral history and other facts that characterize the types of cultural resources likely to occur on the Camp Bonneville Site. Because of this, Ecology intends to involve the Tribe in development of cultural protection measures to be taken during this action.

During the first investigation, two prehistoric isolated finds and three historic land use areas were discovered. The finds, however, only contained individual artifacts and thus were not eligible for the NHRP. The three historic land uses contained limited assemblages and lack of association with significant persons or history, such that if evaluated, would unlikely meet the criteria of NHRP. During the second investigation, remains of 10 aligned fruit trees were discovered, which are shown on a 1916 map of the area.

The third investigation uncovered one small prehistoric campsite, but the site was too disturbed by construction and training activities to be eligible for NHRP. Finally, the fourth investigation identified the historic remains of an orchard, fruit trees, homestead foundation, and various other prehistoric artifacts, but based on preliminary examination, these artifacts do not appear to meet the criteria for NHRP either.

c. Proposed measures to reduce or control impacts, if any:

As a result of Proposed Action, there are no direct or indirect impacts expected because there are no eligible NRHP archeological sites or buildings found onsite. There is no known Native American traditional cultural properties so there would not be any impacts expected for those type resources either. In addition, as required by the PPCD (Attachment 1, page 18, paragraph 113) a Cultural Resource Protection Plan has been developed (see Attachment 2, Appendix D of the CAP). Furthermore, The Finding of Suitability for early Transfer and the Programmatic Agreement between the Army, State, County and Tribe also describes and controls cultural resource protection. Finally, all individuals conducting vegetation or MEC clearance are required to attend a Cultural and Archaeological Training.

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

The primary roads servicing the Camp Bonneville location are Fourth Plain Road, 182nd Avenue, 83rd Street, 222nd Avenue, 88th Street, and Pluss Road (main access road). Based on traffic studies, the roads to the west of Camp Bonneville (182nd Avenue, Ward Road, 88th Street) are operating at a level of service (LOS) C while the minor roads to the east of the three roads previously referenced are operating at a LOS B. Average daily traffic counts show a general reduction in vehicles as a result of the closure of Camp Bonneville in 1996.

Internal roads in Camp Bonneville include approximately 1.5 miles of 20-foot wide paved roads and 14 miles of 12-foot wide primary and secondary use compacted gravel roads. There are also approximately 40 miles of narrow dirt roads on the installation, some of which fall within the CITA. The EA (USACE 2001) does not reference public transportation available onsite or in close proximity to the installation.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

No public transportation is available onsite or in close proximity to the installation.

- c. How many parking spaces would the completed project have? How many would the project eliminate?**

The Proposed Action would neither eliminate nor generate any parking spaces.

- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).**

No

- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

No water rail or air transportation is available onsite or in close proximity to the installation.

- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.**

Two to four trips per day are anticipated. The peak volumes would occur between 7 am and 6 pm.

- g. Proposed measures to reduce or control transportation impacts, if any:**

There are no direct or indirect impacts expected as a result of the implementation of Proposed Action, as interim actions are similar to the ongoing maintenance activities already conducted at the site. Clearing of MEC and initiation of step-out procedures would only impact traffic within the Camp Bonneville property. There are no measures proposed to reduce or control transportation impacts.

15. *Public services*

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.**

The Vancouver Fire Department provides all emergency response including advanced and basic life support, hazardous material cleanup, and fire response at Camp Bonneville. For law enforcement, the Clark County Sheriffs Office would be the first to respond, followed by the Vancouver Police Department and/or FBI if a major disturbance occurs. The Washington Department of Natural Resources (WADNR) responds in the case of a forest fire at Camp Bonneville. American Medical Response provides transportation in case of medical emergencies and the closest hospital is the Southwest Washington Medical Center, located in Vancouver.

The project would not result in an increased need for public services.

- b. Proposed measures to reduce or control direct impacts on public services, if any.**

None.

16. *Utilities*

- a. **Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.**

Currently, Camp Bonneville has potable water delivered, a non-potable potable water supply, fire protection, sanitary wastewater collection, storm water collection, power, heat, solid waste collection, and telecommunications. Description of the existing public service conditions is included in Section 4.7 of the EA (USACE 2001).

- b. **Describe the utilities that are proposed for the project, the utility providing the service and the general construction activities on the site or in the immediate vicinity which might be needed.**

As a result of the Proposed Action, there would be no direct impacts to utilities. Interim actions, including the removal of vegetation and MEC surface clearance would only result in an indirect impact to utilities if the clearing activity inadvertently caused disruption to the utility (e.g., power lines, telecommunication lines, etc).

Based on the description of existing site conditions documented in the EA (USACE 2001) and description of interim actions (the Proposed Action) in the PPCD (Attachment 1), it was determined that implementation of the Proposed Action would have little to no significant impact on the quality of natural or human environment. The interim actions, specifically vegetation removal and MEC surface/subsurface clearance and the potential for initiation of the step-out actions are considered to be minor activities in magnitude, and the associated impacts would be low and considered non-significant. This document has been reviewed and submitted to Ecology.

C. Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: 
Heath H. Henderson, PE, Engineering Program Manager, Clark County Public Works

Date Submitted: 5/20/2009

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