PUBLIC WORKS
AFZH-PWE MS 17
BOX 339500
FORT LEWIS, WASHINGTON 98433-9500

WAC 197-11-960 Environmental checklist.

ENVIRONMENTAL CHECKLIST

Purpose of checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A. **BACKGROUND**

1. Name of proposed project, if applicable:
   Interim cleanup action of Landfill 4/Demolition Area 1
   Camp Bonneville, WA

2. Name of applicant:
   Department of the Army

3. Address and phone number of applicant and contact person:
   Fort Lewis Public Works
   AFZH-PWE MS-17
   Box 339500
   Fort Lewis, WA 98433-9500

   Contact: Eric Waehling (253-966-1732)

4. Date checklist prepared:
   March 18, 2004

5. Agency requesting checklist:
   Department of Ecology (DOE)

6. Proposed timing or schedule (including phasing, if applicable):
   The Department of the Army plans to conduct interim cleanup activities in 2004. Below are the major milestones for the first phase of the interim cleanup activities.

Mobilization	**May 2004**
Site Improvements	**June 2004**
UXO Clearance	**July 2004**
Begin Excavation	**August 2004**
Confirmation Sampling	**August 2004**
Backfill Excavation	**September 2004**
Site restoration & demobilization	**October 2004**
Closure Report	**November 2004**

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.
   The second phase of the interim activity will be based on the findings of this proposal (first phase) and may include soil and groundwater cleanup.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.
   - **Initial Draft: Corrective Action Work Plan for Landfill 4/Demolition Area 1, Interim Cleanup Action, Camp Bonneville, WA. December 2003. Prepared by Tetra Tech Inc. for the Department of the Army.**

   - **Summary of WA Department of Ecology comments to Camp Bonneville Landfill 4/Demolition Area 1 Corrective Action Work Plan Draft.**

- **Camp Bonneville Endangered Species Survey Final Report. Submitted by Pentec Environmental Inc. to the US Army Corps of Engineers. February 23, 1995.**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

   No.

10. List any government approvals or permits that will be needed for your proposal, if known.

    This remedial action is being conducted in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) National Contingency Plan (NCP) and the Washington State Model Toxics Control Act (MTCA). In addition, the remediation will comply with all applicable or relevant and appropriate requirements (ARARs) established by the State of Washington and local agencies. The Final Corrective Action Work Plan (CAWP) for Landfill 4/Demoliation Area 1 (April 2004) includes a complete list of ARARs for the cleanup as well as the regulatory authority for this action.

11. 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.)

    In February 2003, the State of Washington, Department of Ecology (DOE), issued Enforcement Order (EO) 03TCPHQ-5286, pursuant to Washington Administrative Code (WAC) 173-303-646(3)(a) and 70.105 RCW, for the entire Camp Bonneville Military Reservation, including Landfill 4/Demolition Area 1 (the Site). The Site is referred to as Remedial Action Unit 2C in the EO. The EO stipulated that the interim action for the Site shall be to "excavate and appropriately dispose of materials contained in and contaminated soils associated with Landfill 4/Demoltion Area 1." This proposal focuses on the first phase of the restoration of the Site, to meet the regulatory requirements to gain a no further action for the Landfill debris/soil to support early transfer of the property to Clark County.

    The Army proposes to use risk-based cleanup to close the Site. The Landfill reportedly received building demolition debris during the mid-1960s and later was used as an Open Burn/Open Detonation area as described in the CAWP.

    The area of the Site is reported to be 120 by 200 feet (0.6 acre) and the depth appears to extend beyond 11 feet below ground

surface. Site preparation activities include: the preparation of soil stockpile areas, the equipment staging area, and the equipment decontamination station; improvements to the existing roadway and bridge; and the preparation of the Landfill buffer and work area. Cleanup activities will consist of excavation of the Landfill, confirmation sampling, onsite handling of waste, transportation and disposal of waste, backfilling the excavation, and site maintenance and restoration.

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 a military reservation situated in the southeastern region of Clark County, Washington. The camp is located along the western foothills of the Cascade Mountain Range within unincorporated Clark County approximately 12 miles northeast of the City of Vancouver. The Site is located in the northern part of the Camp Bonneville Military Reservation approximately one mile northeast of the Cantonment Area.

B. **ENVIRONMENTAL ELEMENTS**

1. **Earth**

a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other . . . . . .

   Generally flat – one corner of the Site has a steep slope downwards.

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

   About 60% at the corner of the Site.

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.

   Soils found on the Site are primarily silts and clays.

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

   No.

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

Approximately 18,000 tons of material will be required to backfill the Landfill excavation. Suitable fill from off-site will be delivered to the Site. The Landfill will be backfilled and graded to blend into the surrounding topography.

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

Erosion could result from activities related to clearing and grubbing, roadway and bridge improvements, Landfill excavation, and filling and grading of the Site.

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

None.

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

Siltation from the excavation will be controlled with a combination of silt fences and catch basins. Haul roads on the Site will be patrolled routinely to ensure that waste has not inadvertently fallen off any trucks. In addition roads will be routinely graded to maintain a safe operating surface. The waste stockpile area will be constructed with a liner and sufficient soil cover to protect the liner during stockpiling activities.

2. **Air**

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

There would be dust generated from unpaved surfaces, exhaust fumes from loaders and trucks, and odors stirred up by disturbing the Landfill.

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

No.

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

In the event that dust control is necessary, water trucks will be available for dust suppression. In addition, any trucks departing the site hauling soil or debris that could emit dust or falling debris will be covered and secured with tarps.

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,

sltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.
The Site is approximately 200 feet east of the north fork of Lacamas Creek. The staging and stockpiling area is approximately 100 feet northeast of Lacamas Creek.

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. The existing access road and creek crossing were not designed to handle the increased traffic associated with the removal of the Landfill and may require some improvements. The ½ - ¾ mile long single lane road will be graded and smoothed and two turnouts may be constructed along the access road. A temporary bridge crossing, adequate to support the increased traffic, will be installed over the creek.

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.
None.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.
No.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
The area of proposed road improvement lies in the 100-year flood plain. The area is labeled as "unpaved haul road" and "stream crossing" on the attached map titled "Staging/Stockpile Area"

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.
No.

b. Ground:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.
Groundwater will not be withdrawn. However, pore water samples at the bottom of the excavation may be collected and analyzed for the purpose of comparison to the results of the soil samples. All water used during decontamination and dust abatement operations will be clean water from the Site or supplied by tanker trucks. Water used for decontamination

purposes will be stored in portable aboveground storage tanks pending receipt of analytical results. Disposal will be based on the results of these analyses.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.
None.

c. Water runoff (including stormwater):

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.
Storm water at the Site will be controlled with upstream trenches and sand bags around the perimeter. The creek will be protected from siltation from the excavation with a combination of silt fences and catch basins.

2) Could waste materials enter ground or surface waters? If so, generally describe.
Landfill materials have already contaminated the ground water. The extent of contamination and remediation efforts will be addressed in phase 2 of the clean up.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
None proposed.

4. **Plants**

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

X deciduous tree: (alder) maple, aspen, other: **red alder, Oregon ash, Garry oak, cottonwood, crabapple, willow**

X evergreen tree: (fir) cedar, pine, other: **red cedar, western hemlock**

X shrubs: **salmonberry, elderberry, hazelnut, salal, sword fern**

——— 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

b. What kind and amount of vegetation will be removed or altered?
A buffer around the Landfill for equipment to maneuver and a small working area adjacent to the Landfill to load and maneuver trucks will be required. Both the buffer area around the Landfill and the working area adjacent to the Landfill, approximately 60,000 feet squared (1.4 acres), will be cleared of vegetation. Native vegetation will also be removed from the stockpile and staging area, which includes approximately 160,000 feet squared (3.7 acres).

c. List threatened or endangered species known to be on or near the site.
The following have been found to exist in Camp Bonneville:
State endangered species - Hairy-stemmed checker-mallow
State sensitive species - Small-flowered trillium

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
After the site has been backfilled and graded, the entire landfill area and the area used for stockpiling material will be re-vegetated with native or grass-type species.

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): **Pileated woodpecker, Vaux's swift**
mammals: deer, bear, elk, beaver, other:
fish: bass, (salmon, trout), herring, shellfish, other: **Coho salmon, coastal resident cutthroat trout, sculpin, chiselmouth, redside shiner, western brook lamprey**

b. List any threatened or endangered species known to be on or near the site.
The following have been found to exist in Camp Bonneville:
Two federal threatened species: Coho salmon and cutthroat trout
One federal candidate species - Northern red-legged frog
Two state candidate species - Pileated woodpecker and Vaux's swift

The presence of a dam on Lacamas Creek, 12 miles downstream from the Site, does not include a fish ladder and therefore prevents anadramous fish from traveling up to the Site area.

c. Is the site part of a migration route? If so, explain.
No.

d. Proposed measures to preserve or enhance wildlife, if any:
Stormwater and construction best management practices to reduce and eliminate erosion and siltation.

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.
None.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
No.

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:
Not applicable

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.
There are potential chemical and physical hazards associated with the excavation of the landfill. The hazards include:

Chemicals of potential concerns include high explosives and organic compounds; artillery propellants (including ammonium perchlorate); VOCs; priority pollutant metals; SVOCs; TPH-(gasoline, diesel, and oil); and possibly pesticides and herbicides. The chemical exposure risk during cleanup activities at the Site is anticipated to be low.

Potential physical hazards associated with the proposed work include: construction hazards such as tripping, falling, slipping, handling of heavy equipment, noise, trenching and excavating, and stockpile operations; hazards associated with detonation (projectiles); heat and cold weather stress; waste transfer activities; traffic; electrical hazards; and UXO operations.

1) Describe special emergency services that might be required.
An emergency response plan for the proposal describes pre-planning, accident prevention, emergency communications, and injury decontamination and response procedures. Procedures for mitigating exposure to blood borne pathogen, and response and containment to spills are also discussed.

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

Measures to reduce and control environmental health hazards include worker training in accordance with OSHA requirements and UXO awareness training. Field personnel are prohibited from eating, smoking, chewing tobacco, or any other hand-to-mouth activity, which could result in the ingestion of contaminants. These activities will only be allowed outside of the work zone and after personnel have washed their hands. The minimum level of Personal Protective Equipment (PPE) required to be used by all personnel is Level D. Regular site safety inspections will be conducted.

b. **Noise**

1) What types of noise exist in the area that may affect your project (for example: traffic, equipment, operation, other)?
None.

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.
Noise from the remediation activities at the landfill site will be consistent with sound levels observed during routine construction activities (70-90 dB). Sound levels from these activities will be significantly less at the site boundary. Noise levels from detonations will vary dependant on many variables such as munitions type, cloud cover, wind direction and temperature, etc. At 400 meters from the Site the sound level from the tamped detonations is predicted not to exceed 140.5dB 85% of the time. Every effort will be made to minimize potential noise impacts through best management practices. Detonations will be heavily tamped under sand bags, and consolidated detonation will happen between 4-6pm when possible. Additionally, there is a public outreach effort to notify residents of potential noise impacts.

3) Proposed measures to reduce or control noise impacts, if any:
Engineer controls include tamping of detonation noise, detonation size limits, and activity scheduling.

8. **Land and shoreline use**

a. What is the current use of the site and adjacent properties?
Camp Bonneville was a military installation established in 1909 as a drill field and fire range. The Army used Camp Bonneville for training between 1910 and 1995. In 1995 the U.S. Government selected Camp Bonneville for transfer and reuse under the Base Realignment and Closure (BRAC) program.

b. Has the site been used for agriculture? If so, describe.
No.

c. Describe any structures on the site.
None.

d. Will any structures be demolished? If so, what?
No.

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

f. What is the current comprehensive plan designation of the site?
Current plans for future use of the Camp Bonneville property are for public recreational use only.

g. If applicable, what is the current shoreline master program designation of the site?
Not applicable.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.
The riparian buffer corridor for Lacamas Creek is approximately 50 feet wide from each bank. No federal listed species have been identified that would require potential identification of the creek as "critical habitat".

i. Approximately how many people would reside or work in the completed project?
None.

j. Approximately how many people would the completed project displace?
None.

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 proposed corrective action to excavate Landfill 4/Demolition Area 1 is expected to increase the compatibility of this Site with the surrounding land use.

9. **Housing**

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
None.

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:
Not applicable.

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.

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?
None.

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?
None.

d. Proposed measures to reduce or control light and glare impacts, if any:
Not applicable.

12. **Recreation**

a. What designated and informal recreational opportunities are in the immediate vicinity?
None.

b. Would the proposed project displace any existing recreational uses? If so, describe.
No.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
Public recreation opportunities are anticipated future uses of the Camp Bonneville property. This proposal is part of the action necessary to achieve future use goals.

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.

No.

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

None.

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

Not applicable.

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.

Please see attached maps for routes:

- **From Camp Bonneville to Hillsboro Landfill and Recycling in Hillsboro, OR**
- **From Camp Bonneville to Chemical Waste Management in Arlington, OR**

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

No.

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

None.

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).

The proposal will require about ½ - ¾ mile road improvements and a new temporary bridge.

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

No.

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

Not applicable.

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

Not applicable.

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.
       No.

    b. Proposed measures to reduce or control direct impacts on public services, if any.
       Not applicable.

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

    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.
       Utilities are not proposed for this project.

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: .....

Randall W. Hanna
Deputy Director
Public Works
Fort Lewis, WA

Date Submitted: .....

D. **SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS**

(do not use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

   Proposed measures to avoid or reduce such increases are:

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

   Proposed measures to protect or conserve plants, animals, fish, or marine life are:

3. How would the proposal be likely to deplete energy or natural resources?

   Proposed measures to protect or conserve energy and natural resources are:

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

   Proposed measures to protect such resources or to avoid or reduce impacts are:

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

   Proposed measures to avoid or reduce shoreline and land use impacts are:

6. How would the proposal be likely to increase demands on transportation or publicservices and utilities?

   Proposed measures to reduce or respond to such demand(s) are:

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

End of SEPA Checklist.