



Washington State Department of Ecology

**Response to Public Comment
on the
Draft Remedial Investigation/Feasibility Study
Remedial Action Unit 3
Camp Bonneville Facility
Clark County, Washington**

February 2006

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1.0 Introduction

A draft Remedial Investigation/Feasibility Study (RI/FS) report on Remedial Action Unit (RAU) 3 of the Camp Bonneville facility was issued for public comment on August 15, 2005. The public comment period was extended at the request of the public from 60 days to 90 days, and was closed on November 15, 2005. This document summarizes the comments received from the public and provides response to these comments from Washington Department of Ecology (Ecology).

Most of the comments received were related to at least one of 14 identified comment categories, which are listed below. Many comments touched on aspects of more than one comment category. A subset of the comments submitted did not relate strongly to any of the 14 categories, and are included in the 15th comment category, “miscellaneous comments”. This document is organized into 15 document sections by these comment categories, with all public comments assigned to the category it relates to most closely. The comment categories and their corresponding sections in this document are:

1. Comments concerning site characterization of the Camp Bonneville facility (*Section 2.0, Site Characterization*)
2. Comments concerning the potential for site-related materials and contamination (including unexploded ordnance) to have migrated offsite onto land adjacent to the Camp Bonneville facility (*Section 3.0, Offsite Migration of Materials and Contamination*)
3. Comments concerning existing chemical contamination of soil and groundwater (including UXO in groundwater), and residual chemical contamination and ordnance that will remain onsite (*Section 4.0, Onsite Materials and Contamination*)
4. Comments related to the risk assessment (*Section 5.0, Risk Assessment*)
5. Comments related to the remedial actions proposed (*Section 6.0 Remedial Actions*)
6. Comments related to ecological assessment and preservation/maintenance of habitat (*Section 7.0, Ecological Assessment*)
7. Comments related to use of institutional controls at the facility in general, and the specific institutional controls proposed for the facility (*Section 8.0, Institutional Controls*)
8. Comments on the potential land transfer of the Camp Bonneville Facility to Clark County (*Section 9.0, Facility Transfer*)
9. Comments on the land use plan for the Camp Bonneville Facility proposed by Clark County (*Section 10.0, Land Use Plan*)
10. Comments related to the long-term role and responsibility of the Army at the Camp Bonneville Facility (*Section 11.0, Army Role and Responsibility*)
11. Comments related to the potential for areas of archeological significance to be present at the Camp Bonneville Facility (*Section 12.0, Areas of Archaeological Significance*)
12. Comments related to regulatory issues and the Camp Bonneville Facility (*Section 13.0, Regulatory Issues*)
13. Comments related to Camp Bonneville Facility perimeter fencing (*Section 14.0, Perimeter Fencing*)
14. Comments related to the public involvement process for the Camp Bonneville facility (*Section 15.0, Public Involvement*)
15. Miscellaneous comments (*Section 16.0, Miscellaneous Issues*)

Public comment received included both *general* comments, as well as *specific* comments on the draft RI/FS document. Each of the following document sections is organized in a similar manner. A brief introduction to the comment category is provided, followed by a list of all *general*

comments received that pertain to that comment category. Following the list of *general* comments, a summary response from Ecology to the *general* comments is provided. For some comment categories, *specific* comments were submitted that pertain to the comment category as well as the RI/FS document. In these cases, the next part of each section lists the *specific* comments submitted. Ecology's responses to these *specific* comments are presented in any of the following three manners:

1. As a response to an individual specific comment;
2. As a response to a series of specific comments on the same topic area; and
3. As a response to all specific comments included in a document section.

Public Comment and Ecology Response by Comment Category

2.0 Site Characterization

2.1 General comments concerning site characterization of the Camp Bonneville facility

Ecology had requested public comment on the RI/FS conducted for RAU 3. Numerous comments were received on the extent and adequacy of the RAU 3 site characterization. Some comments were directed at the entire site characterization process.

This section provides all general comments received that pertain to site characterization and identifies the individual who submitted the comment. After the listing of all general comments for this comment category, a general response to all comments is provided.

1. Clark County remains concerned that the Army's assumptions of past use of Camp Bonneville is incomplete and does not fully address the potential risks and public safety concerns. References to past uses of the site (noted throughout the report) should be qualified to note that they are based on records reviewed to date that may not necessarily represent all actual military activities which took place at Camp Bonneville. (Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation)
2. Clark County is also concerned that the current feasibility study places undue reliance on the Conceptual Site Model (CSM) in the evaluation and selection of remedies to address UXO clean-up at Camp Bonneville. It is our understanding that the primary purpose of the CSM was to direct site characterization efforts and that it should not be used as a basis for evaluating and selecting cleanup action alternatives. As mentioned in DOE's comments regarding the draft RI/FS (dated February 2, 2005), Clark County is also concerned that predictions of relative MEC distribution derived from the CSM must be confirmed by more specific and thorough field data collection and analysis, including consideration of the depths of penetration of munitions of interest. We also recognize that field investigations were conducted to confirm locations of MEC related activities within areas of concern (AOCs) and areas of potential concern (AOPCs), corresponding investigations to determine MEC density distribution are, to date, incomplete. We agree that the assigned qualitative MEC densities of high, medium and low and the parallel assigned explosive risks of negligible, marginal, critical and catastrophic, upon which the remedy selection was based, are subjective measures, and fail to adequately address public safety concerns. We do not agree with the Army contentions that: "the remaining site types pose a negligible explosive safety exposure hazard" (noted in section ES.6 – page ES-2); or "None of the planned reuse areas were determined to pose an appreciable explosive hazard based on an evaluation of the MEC source and receptor interaction" (noted in section ES.8 – page ES-3). These conclusions are not supportable given the insufficient site characterization work completed to date. The draft contains comments and illustrations which might lead some readers to conclude that the site has been thoroughly investigated and characterized and, as a result, would lead some readers to conclude that the site poses little risk and therefore, minimal clean-up and over reliance on institutional controls may be adequate to protect public health and safety. In addition, Clark County also recommends that all accessible areas within

the “Remaining Medium Intensity Reuse Area” must be identified for some form of additional investigation or surface clearance, at a minimum. (Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation)

3. The ordnance removal investigation at Camp Bonneville (CB) consisted of a geophysical survey (surface and subsurface) to determine distribution of munitions. Specialists conducted “statistical” MEC surveys and photo analysis of CB. Why is characterization complete when only 1% of the property has been surveyed for vertical distribution of munitions? This “statistical” sampling approach used at CB has underestimated contamination and failed to identify several MEC AOC at other sites in the United States due to distribution in homogeneity. How can the US Army select a cleanup action when their methods are biased and incomplete? (Christine Sutherland)
4. With the understanding that a probability of “lone stray” or “single event” unexploded ordnance items exist at any and all ranges at CB, determining the location would involve the entire site. I don’t feel this concept was evaluated in investigations and risk assessments and does pose an unknown explosive safety hazard for the site. How will this MEC source be addressed for our safety in the park? Considering the above statements, will an alternative be selected to include elimination of this hazard? If not, how will an institutional control be implemented for this hazard? I am not satisfied that a sign will sufficiently prevent a catastrophe. (Christine Sutherland)
5. The site background lists many different agencies utilizing the site for training and disposal exercises. A map that positions the agencies with their corresponding training areas would be helpful in visualizing the areas used heavily by them. Can a detailed map be added to this RI/FS? Air defense artillery was mentioned in the general background section (2.4.1.1). I see no planned cleanup for these AOC’s. Where will they be addressed? (Christine Sutherland)
6. The ASR has two plates dated 1957 and 1958 with an area identified west of the lower portion of Lacamas Creek as “contaminated area”. The second map has that area labeled “clear contaminated area.” Has the labeled contamination been determined to not include any MEC? Is the notion of “clear” assumed in 1958 the same as 2005? If not will this location be investigated in another action? (Christine Sutherland)
7. The ASR has an entry that calls for “chemical ammunition.” I do not see this concept addressed anywhere in the RI/FS. Will chemical ammunition be investigated for location of a training area? (Christine Sutherland)
8. The 2002 recon Figure 3.10 has a concentration of pyro signal illumination training devices in the Northwestern portion near the road to LF#4. Is this near the area that has been titled “Russian Lookout?” Why has this area not been classified and investigated? (Christine Sutherland)
9. I have great concern for the central impact target area. The Army will only conduct actions on remaining targets (3) from an 85-year-old history full of data gaps and quality. I find this theory absurd. Why is DOE allowing this assumption? Tank battalions utilized this site for training. Where are their targets? Foreign militaries utilized this site, where are their targets? (Christine Sutherland)
10. The extent of known and unknown MEC, according to the findings of the Army is still open for debate. *Only 1% of Camp Bonneville has been investigated for sub-surface MEC at this point.* THIS FACT ALONE DICTATES THAT THE REMEDIAL PLAN FOR CAMP BONNEVILLE AS OUTLINE IN THIS RIFS IS COMPLETELY UNACCEPTABLE, IRRESPONSIBLE, AND SHOULD NOT BE TOLERATED BY THE THINKING PUBLIC. (Brenda Rule)

11. It is the opinion of this writer that the Army has not adequately determined the extent of contamination throughout Camp Bonneville – soil or groundwater. Throughout this public oversight process the Army has not collected sufficient data to assure the public that they have the best remedial plan in place to provide for the safety of the public and the safety and benefit of the animals, and flora and fauna of Camp Bonneville. During remediation of Landfill 4, Army representatives stated that **all** soils removed from the contaminated areas were transported to hazardous waste sites outside Camp Bonneville. According to the LF4 Report, the soil was sifted through a screen and placed back in the landfill with only a visual inspection! (Brenda Rule)
12. How confident are you that all unexploded ordinances and other hazardous materials have been located? Are all those located going to be removed? If not, why not? (Mr. and Mrs. Robert W. Peak, Jr.)
13. Our expectation is that in order for this cleanup to be considered successful and complete, all ordinances and other hazardous materials resulting from operation of Camp Bonneville have been eliminated and properly disposed of, and that toxins in the soil, and surface and underground water systems have been eliminated and/or reduced to such a level as to no longer pose health problems to the people, their pets, and wildlife who live in this area. Anything short of that is unacceptable. (Mr. and Mrs. Robert W. Peak, Jr.)
14. The Army hasn't even surveyed the whole area to know where all the unexploded ordinances are, and they're admitting that given the range of ordinances fired, that there could easily be unexploded ordinances beyond the proposed park boundaries by as much as miles. (Daniel Swink)
15. While the issues surrounding the rehabilitation and eventual reuse of Camp Bonneville are complex and interwoven, one thing is abundantly clear: Clark County must not accept title and a settlement from the Army until the kind and degree of contamination at the site are thoroughly investigated and openly reported. The tiny fraction of the site studied for the RI/FS, and the evidently casual methodology used to determine historical range fans, point to a hurried and superficial approach to site characterization that bodes ill for remediation at Camp Bonneville. As a neighbor of the site, and a taxpayer in Clark County, I cannot comprehend any sense of urgency to the transfer that would justify accepting the Army's largely theoretical report on its condition. (Lauren Wallace)
16. We both believe it would be a mistake for Clark County or any other agency/business to take responsibility for the property until the property is cleared of munitions and explosives of concern (MEC). We further believe that the MEC studies to date have been based on an insufficient cross section of the property to make even a good "ball park" estimate of the true cleanup needs/costs. I talked to a gentleman that once spent part of his training at Camp Bonneville. I met him at one of Camp Bonneville's open houses a few years back. He stated that there was far more UXO (or as they're called now MEC) than was being discussed. I'm sorry, but I don't recall his name. I also realize that he was an older gentleman and his memory may not have been as sharp as it once was.
17. However, this adds to our fear and supports our position to sample a wider cross section of the property. We strongly urge that the transfer of the property be delayed until the property is either cleared of MEC or more studies are performed to assess and therefore limit the risk to the transferee (Clark County). We do understand that the county intends to purchase insurance to protect them (us) from cleanup cost overruns. We're very concerned that not waiting for the Military to clear the property will lead to liability problems for us as taxpayers in Clark County as the studies may

not represent a true picture of the MEC and the insurance may not fully protect the County. (Mark and Sheri Meredith)

18. The Army claims to have performed an exhaustive Archive Search Report on Camp Bonneville documentation, yet facts have come to light that show various known historical documents have not been included in this search. Of primary concern at this point are documents pertaining to Army operations under an alternate name for Camp Bonneville, known as “Camp Hathaway,” that chronicle the use of chemical substances on site. Also of concern are documents pertaining to the positioning and use of forward observation towers that existed on the slope adjacent to newly developed neighborhoods – sight lines must be established using these tower positions in order to gather more information on munitions deployment up to and beyond the perimeter of Camp Bonneville. Also absent are documents pertaining to the location and type of metal drums known to have been buried on site, documentation regarding the activities and munitions used by foreign military personnel on site, and documents pertaining to firing and target data that predates the mid 1950’s on site. The absence of these subjects in the Archive Search Report leaves important data gaps unaddressed. (Thom McConathy)
19. Section 2.3.5.1 – Does not identify the large solid metal cylinder that was apparent and photographed at LF4. The cylinder was approx. 4 x 2 feet and weighed well over 200 pounds, looking like solid steel with a polished stainless-type finish. Other points in this report note items were one pound or less. (Thom McConathy)
20. The statistical reliance on the survey of only 1% of the site (and only a quarter of that with shawnstead device as only one of the four of each team had this device.) is not a credible statistical sample. (Thom McConathy)
21. The Characterization of the basalt substrate of this site as being impermeable is not supportable as per the USGS findings with regard to these Clark County Basalts and as is supported in the Hanford Groundwater study. Because the matrix is of a smaller surface area water moves even faster than would be found in most unconsolidated soils. The ramifications for this conclusion for groundwater are that the pollutants could be entering groundwater and moving into aquifers at depths in the aquifer that are not being sampled. (Thom McConathy)
22. The stubborn refusal to site groundwater testing wells in the logical area between the contaminated test wells and Lacamas Creek in the path of surface water makes it impossible to reliably characterize the plumes originating from landfill #4. (Thom McConathy)
23. The information in the documents received so far has been helpful yet incomplete. While the various documents shed some light on the developing problems within Camp Bonneville, it provokes even more questions for those of us whose property adjoins the camp. We are left unclear as to the dangers present on our property, the dangers from UXO on our side of the fence, and what other contaminants may exist in our development. (Bruce Axten)
24. Will a complete chemical analysis of the soil, groundwater, Lackamas Creek, Troutdale Aquifer, and any other identified waterways be carried out, and viable methods of restoration required by the DOE, EPA, or existent BRAC or Environmental Law? (David Wilmot)
25. I am very concerned that the US Army is not being cooperative by properly and honestly evaluating the site thoroughly to know just how polluted the site really is. How can anyone know to what extent a clean-up plan is needed unless they know the scope and depth of the problem? The Army is refusing to ethically and honestly evaluate just how bad Camp Bonneville is, and that is just the first step! Beyond this first step, the Army must then clean up this mess and not take short-cuts. The Army

appears to be trying to escape responsibility for cleaning up a mess that they created. As a citizen of the State of Washington, I want you to make sure that they are held accountable. If we citizens must be accountable for our actions, why then, is the US Government avoiding accountability themselves? (John Felton)

26. Are there any bioaccumulative toxics such as PCBs and lead? (Laura Olah, Executive Director, Citizens for Safe Water Around Badger)
27. How can a determination of "No Further Action" be made on areas of Camp Bonneville when only minimum reconnaissance has taken place? Only a detailed search for UXO (surface and below-surface), a site-specific watershed assessment and continued, long-term monitoring of the groundwater will give any real indication as to how safe this property and community is, now or in the future. (Lynelle West Hatton)
28. I recently attended a seminar on autism. Since autism is of nearly epidemic proportions in this country, the biggest suspect is environmental contamination. National studies on the link between environmental contamination and neurological disorders need to be completed prior to exposing our children to further risks of contamination. As I understand from viewing the Sept. 8 DOE meeting on cable, the full extent of contamination at Camp Bonneville is unknown. I can't believe the DOE would purport to call the Camp Bonneville property safe for children before it knows everything there is to know about contamination on the site. In the interest of public health and safety, you must insist on further studies before this property transfers. There are no guarantees it will ever be safe enough for children to play in the water and dirt, ingesting (as children always do) even the smallest quantities of (contaminated) water and dirt. (Lynelle West Hatton)
29. Personally, I would like to see the (Camp Bonneville) property become a regional park. However, I believe the Remedial Investigation the Army conducted is inadequate. At the Marshall House meeting, I understood the DOE to say that reconnaissance had been conducted over only 1% of the site. Why only 1%? Shouldn't it be 100%? If it's not 100%, then how can we be certain our children will be safe? (Lynelle West Hatton)
30. As a concerned citizen I would propose more investigation as to the safety concerns regarding the alleged cleanup by the US Army. From what I understand there are numerous contamination issues not yet properly addressed such as: UXO's, Chemical contaminants and other dangers that could have a serious impact on anyone using the park. (Sandie Eichner)
31. The RIFS contends that "Camp Bonneville has been thoroughly characterized for the presence, location, and density of munitions (sic) that are artifacts of past troop training activities." I disagree entirely with this claim. The army used statistical based sampling to develop sampling and analyses plans for the detection of MEC and UXO as well as chemical contaminants. Although SiteStats and GridStats, OECert and UXO Calculators are used by the Army (and its contractors) to assist in site characterization, these tools are inadequate for establishing final cleanup levels as prescribed by the RIFS. It is my understanding that the Army's site characterizations assume a homogeneous distribution of ordnance in the study areas, which does not reflect actual real-life distribution within target areas. The DOE has found this sampling data to be unreliable and discredits the application, particularly in reference to the Central Impact Target Area. In light of the proximity of the Central Impact Area to private homes, I offer the position that the explosive risk assessment for this area has been underrated, especially since the site has not been secured. The RIFS claims that public exposure in the Central Impact Area is negligible. I contend that this is a false assumption because the implementation of Institutional Control such as

fencing and signage are not sufficient to remove the threat to public health and safety from the Central Impact Area. More intrusive remedial activities are required in the Central Impact Area due to the potential for imminent harm from Explosive Hazard Exposure. The Army's position that the fencing and signage alone will prevent such exposure is ludicrous. (Dvija Michael Bertish)

32. The characterization tools employed by the Army rely on the sampling of a very small portion of the overall site (approximately 1%) and are intended only to be used for screening. Extrapolating results from these small samplings in order to make global remedial decisions only introduces a great degree of uncertainty, false assumptions and error. There are superior techniques available using airborne imaging, magnetometer sweeps, and digital processing that render statistical characterizations obsolete, and I request that a more thorough assessment be employed using these superior technologies, especially to determine the extent of sub-surface explosives beyond the 14" frost depth. The re-use plan calls for the introduction of horseback riding within the regional park area. Footprints of horses can commonly reach further than 14" into the soil under certain conditions, particularly rainy weather, and therefore, it is possible that such activity could increase the likelihood of the public coming in contact with MEC. (Dvija Michael Bertish)
33. The RIFS maintains that thousands of expended 40mm subsurface rounds were detected and removed from a depth of 18" or less in various firing ranges. At the very least, the maximum search depth should be increased to the 18" level for smaller munitions. A four foot minimum depth search/sweep protocol should be implemented in all areas where larger munitions were deployed, such as Howitzer missiles and rockets. Section 4.4.8.2 of the RIFS regarding Firing Points states: "A wide variety of ordnance may have been used at the Firing Points locations. The ASR (USACE, 1997) described the munitions potentially used at each of the Firing Points. The six mortar firing points may have included 4.2 inch, 60mm, and 81mm mortars filled with either HE or pyrotechnics. The artillery firing positions included 105 mm and 155mm Howitzers and 37 mm sub-caliber devices..." Relative to Range Safety Fans, section 4.4.10 reads: "Range Safety Fans are designed to contain those single event items that fall at some distance from their intended target. These items are sometimes referred to as undershoot and overshoot. Based on the range of artillery used at Camp Bonneville, it is possible that rounds could have impacted off the installation." The site characterization seems to be based on the ideology that the firings all hit their targets, however, the potential for accidental misfiring beyond the target areas cannot be ignored. This imminent hazard calls for extended search and identification techniques and the application of more stringent oversight on prioritization criteria in all target areas, criteria that must exceed the random, computer generated search model employed as the primary site characterization tool to date. (Dvija Michael Bertish)
34. The Army claims to have performed an exhaustive Archive Search Report on Camp Bonneville documentation, yet facts have come to light that show various known historical documents have not been included in this search. Of primary concern at this point are documents pertaining to Army operations under an alternate name for Camp Bonneville, known as "Camp Hathaway," that chronicle the use of chemical substances on site. Also of concern are documents pertaining to the positioning and use of forward observation towers that existed on the slope adjacent to newly developed neighborhoods – sight lines must be established using these tower positions in order to gather more information on munitions deployment up to and beyond the perimeter of Camp Bonneville. Also absent are documents pertaining to

the location and type of metal drums known to have been buried on site, documentation regarding the activities and munitions used by foreign military personnel on site, and documents pertaining to firing and target data that predates the mid 1950's on site. The absence of these subjects in the Archive Search Report leaves important data gaps unaddressed. (Dvija Michael Bertish)

35. Section 2.2.4.4 notes the Troutdale Formation, which underlies a western portion of the camp. The Troutdale Formation is the primary source of the regional drinking water supply, and is known to be a fast moving and fast draining aquifer. Since 99.4% of all the drinking water in Clark County is obtained from this groundwater source, all threats to the groundwater must be addressed. Absent from the RIFS is any mention of the documented ammonium perchlorate/RDX plume identified at Landfill 4. The Army has repeatedly claimed that its actions have not contributed to environmental degradation or threats to public health at Camp Bonneville, a claim which is not only premature, but also is misleading. It will take years of monitoring to determine if remedial activity (removal of buried munitions and contaminated soil) will sufficiently abate the plume. The Central Impact Area is surrounded by streams that feed into a flood plain – no groundwater survey has been conducted in this area that is riddled with MEC and UXO to determine if these elements have contaminated the groundwater in areas beyond Landfill 4. Investigations need to be conducted to determine the extent of contamination from UXO/MEC, soil and groundwater contamination from the various documented demolition areas. (Dvija Michael Bertish)
36. Section 5.2.4 reads “...the potential for increased MEC exposure from erosion along Lacamas Creek is not considered to be an important factor for increased human exposures due to the lack of significant MEC source areas overlying Lacamas Creek (with low to remote likelihood of munitions contamination). Therefore, erosion along Lacamas Creek is not considered in the development of the Camp Bonneville standards.” Given the existence of the groundwater plume aside the creek, the presence of MEC/UXO in the Central Impact Area, and various firing points, open burn/burial pits near the Creek, it is a harmful not to include the hydrology of Lacamas Creek and its contiguous streams in the site clean-up standards. Since contaminants from munitions bio-accumulate in the environment, Lacamas Lake, the receiving waters, should be monitored for perchlorate and RDX. Historical water quality monitoring at Camp Bonneville should be improved to ensure that tests are conducted during rain events when groundwater swells and increases its speed in down gradient and lateral seepage into the drainage basin. (Dvija Michael Bertish)
37. I have reviewed the EPA's June 2003 letter of withdrawal, and believe the Army is still not forthcoming with information concerning contamination on this site. Historical documents implicating Camp Bonneville in groundwater contamination have recently been discovered -- documents that were not included in the Archive Search Report. Further, the Army, Army Corps and DOE agree (as I understand it) that there is no indication that further testing of soil and groundwater is necessary. (Lynelle Hatton)

2.2 Response to general comments concerning site characterization of the Camp Bonneville facility

The majority of the comments received on site characterization question whether the process of characterizing chemical contamination and the presence of ordnance and related materials has been sufficiently comprehensive and thorough. Many of the comments extended beyond the

RI/FS for Remedial Action Unit 3, which is the document for which Ecology was seeking comment, to question site characterization at other Remedial Action Units at the facility. All site characterization activities conducted at the facility are to be done according to the requirements of the Model Toxics Control Act (MTCA), which is the Washington State cleanup law. Specific requirements for site investigation and remediation are outlined in the MTCA cleanup regulations. The Public Participation Plan for the Camp Bonneville facility summarizes the overall process that is followed in conducting site investigation activities. A work plan is first developed describing how the site investigation in each RAU will be conducted. This work plan is reviewed by Ecology and is subject to public review and comment prior to its approval.

Methods used in the site investigation are based on review of available historical information for the facility. This review of historical information allows the investigator to identify where to look for contamination (soil, groundwater, surface water) and at what locations, and what type of chemicals or other materials may be present to guide testing procedures. A review of historical information was conducted prior to developing the work plan for RAU 3 to identify areas of the facility where UXO and MEC were likely to be found, and site investigation activities for this RAU were focused in these areas.

Several comments regarding “Camp Hathaway” Nuclear, Biologic Chemical (NBC) Material at Landfill 4 and the training of foreign troops within Camp Bonneville were presented. Ecology’s UXO expert has reviewed and investigated these claims over the last 4 years and has determined that there is no credible evidence to support this and that these activities would greatly affect the RI/FS document or the alternatives presented in the FS. None of these issues would negatively affect the remedy selection criteria for this site. A Google search of “Camp Hathaway” returned several documents placing it at Fort Vancouver. All items that were removed from Landfill 4 are listed and photographed and are available for viewing in the Landfill 4 Final report. The fact that foreign military exercises and training took place at Camp Bonneville is a generally accepted fact, however, this type of training is not uncommon and does not affect the RI/FS or remedy selection for the site, since the metal detection and removal technologies used for US munitions and foreign munitions would be the same.

Numerous comments were made specifically regarding the limited areas in which surveys for UXO and MEC had been conducted; i.e., Site/Stat Grid/Stat <1% of the area of the site and the relevance of this procedure today, whether or not sufficient coverage of the Central Impact Area (CIA) was made, and whether techniques used to determine how many specific locations were tested or surveyed were appropriate. Ecology, EPA and the Army combined all of the data from these investigations and developed a conceptual site model. We then implemented a phase II reconnaissance to verify the validity of the CSM and determined we had enough information to move forward to an RI/FS (knowing that it would be impossible to state that 100% of the UXO has been found and or removed completely). The CSM when combined with the additional characterization from the future remedial work and institutional controls will be sufficient characterization to move forward at this site. Ecology intends to negotiate a Prospective Purchaser Consent Decree (PPCD) for the Camp Bonneville facility with the Bonneville Conservation Restoration Trust and Clark County in 2006. This Consent Decree is a legal document that formalizes the agreement between Ecology and the potential new owners and is entered and approved by a court. The Consent Decree ensures the cleanup will proceed in accordance with all applicable laws and regulations, and is used as a legal agreement to implement a Cleanup Action Plan (CAP), which describes the selected cleanup actions and cleanup goals that will be applied to the site. A scope of work will be developed for the CAP that specifically describes additional characterization activities that will be completed at the site during remediation of RAU 3 (areas of the site suspected of containing UXO and MEC).

Additional characterization activities are expected to include geophysical digital mapping of all firing points and surface clearance of demo and target areas, the central valley area, and approximately 146 acres of the total 600 acres classified as having dense vegetation and moderate slopes (including brush removal and use of step out procedures if MEC is discovered). A helicopter magnetometer survey of the wetland area adjacent to Lacamas Creek and the Environmental Study Area proposed for the southwest corner of the regional park will be conducted, followed by surface reconnaissance of any areas identified of potential interest. This will allow for identification of potential UXO and MEC without conducting intrusive and potentially destructive activities in these sensitive areas.

However, even with these additional site characterization activities that are expected to occur in concert with remedial actions, Ecology acknowledges that it will not be possible to assure the public that all UXO and MEC have been located and remediated at the site. The size of the facility and the terrain and vegetative cover make such an assessment impracticable. Some of the comments presented in this section questioned both the site characterization as well as conclusions reached based on the findings. Additional comments on conclusions reached based on the results of site characterization activities, and Ecology's response to these comments, are provided in later sections on remedial actions selected and risk assessment.

2.3 Specific comments concerning site characterization of the Camp Bonneville facility

This section provides specific comments received that pertain both to this comment category and to specific parts of the draft RI/FS document. Specific comments are addressed in any of the following three ways:

- A response is provided to an individual specific comment;
- A response is provided to a series of specific comments in the same topic area; and
- A general response is provided to all specific comments included in this comment category at the end of the list.

2.3.1. Specific comments provided by Paul and Karen Kingston

1. Pg. ES-2:ES.4 – USAESCH investigators were not trained to identify and evaluate tree stump rot vs. crater identification. This field analysis was not sufficient, due to investigative walking routes determined by ease or ground cover. (As recorded within Camp Bonneville RAB minutes)
Response: This does not pertain to the RI/FS or a remedy selection.
2. Pg. ES-2:ES.5 – Army claims Camp Bonneville has been thoroughly characterized. This statement lacks integrity and is not based on valid information. The statistical sampling, as outlined in the RI/FS, is obsolete and invalid. MEC/UXO is random, referring to lack of patterning for kickouts and the acknowledged factor of missing target areas or specifics about targeted areas. The Army contractor, Parsons Inc., used a statistical application as computer verified data. This data was not provided by Archive Research or other documents as they pertain to actual training at Camp Bonneville. The variation of training years, such as differences between WWI and WWII and the Viet Nam era was not factored in. Nor were the differences in artillery target probabilities correlated with

data relevant to manufactured dates of both artillery and shells, and trainee capabilities for the era the training took place.

Response: The statistical survey site stat grid was only a part of the information used to determine CSM and RI/FS.

3. Section 2.2.1.2 – Inaccurate. Camp Bonneville has two entrance gates. One known as the west gate and one known as the south gate. Camp Bonneville has one facility caretaker, available 7 am until 3pm Monday thru Friday.
Response: This does not pertain to the RI/FS or a remedy selection.
4. Map Figure 2.1 – Site Location Map. This map is antiquated. This map is to define the boundary and the matrix dots representing residences does not show subdivisions post 1986, approximately.
Response: This does not pertain to the RI/FS or a remedy selection.
5. Section 2.2.4.1 – does not identify Mount St. Helens, a post active volcano. Nor does it address the large number of typical daily earthquakes centered on the volcano and effecting geology within the Camp Bonneville area.
Response: This does not pertain to the RI/FS or a remedy selection.
6. Section 2.2.4.4 – does not identify a more current study in 1989. The citation stating, “In general, the formation.....”. This terminology suggests that a formal Troutdale Aquifer modeling has been completed. This is a deceptive paragraph, as the Troutdale Formations in and around Camp Bonneville have not been studied for accurate and decisive representation.
Response: This does not pertain to the RI/FS or a remedy selection.
7. Section 2.2.5.2 – This paragraph’s purpose is to give a typical soil profile. Because there are no formal soil profiles available other than well-installer reports and presumption, the Army chose the most elementary descriptions.
8. Section 2.2.6.1 – Most of this paragraph is misleading and false. (i.e. “The existing water supply wells in the Camp Bonneville area appear to draw groundwater from volcanic rock.” “Wells drilled into the unweathered volcanic rock typically yield only enough water for limited domestic use.”) A large amount of domestic wells drilled in and around Camp Bonneville have logs that prove different. The well at our homestead is listed in the original Mundorff Report and wells in this area are listed at 50-200 gpm. The three deep wells at Camp Bonneville are rated very high and are located as Number One Recharge Sites for the Troutdale Aquifer.
9. Section 2.2.7.1.1 – The land uses around Camp Bonneville should read “predominately residential and forestry”. Zoning sizes are R-10, R-5, R-2 and a half, and cluster subdivisions.
10. Section 2.2.8.1 – The historical records team did not utilize information from the Clark County Historical Museum, located in Vancouver.
Response: This does not pertain to the RI/FS or a remedy selection.
11. Section 2.2.9.1 – The purpose of the University of Washington study was to complement the Washington forest Practice Management Act. This was not a complete study of the Camp Bonneville Ecosystem.
12. Section 2.2.9.2 – The analogy of “Forest Tier 1 Area” cannot be used. The factoring of UXO/MEC present in and around timber and deciduous trees was not identified for its potential to devaluate commercially significant forest products resulting from Camp

- Bonneville harvests. With the perpetuity of UXO/MEC in the soil, trees, and general geology of Camp Bonneville, ...one would find the Army misleading and deceptive in this claim to a new owner.
13. Section 2.2.10.2 – “Due to limitations on field research time and poor road conditions, complete coverage of Camp Bonneville was not possible....1994” This is not acceptable. Due to rational of not only limited time or vehicle choice, but also for the inaccurate declaration of wildlife migratory presence during this small and lacking investigation.
 14. Map Figure 2.2 – This map has an unauthorized mapped addition placed in and around 1-28-03 and well after the completion of the LRA. In the Key: ESA: Water Resource Center and Clark Public Utility well field. These items were not presented to the Steering Committees, the Camp Bonneville RAB, the Cowlitz Indian Tribe, the WDOE, the EPA, or anyone else associated with the Camp Bonneville Cleanup Project. Who placed this? Who Authorized this? The CPU Well Field is up gradient from Sentry Wells in that area. The Camp Bonneville adjacent lands are under heavy redevelopment residentially and CPU water availability in this area would be a prime opportunity for the CPU. This factor resolves the indiscriminant sudden addition of the CPU wells and the treatment plant as deceptive and non-transparent on the Army’s part.
Response: This does not pertain to the RI/FS or a remedy selection.
 15. Section 2.3.2.2 – Lists the primary economic resource as timber. This is a statement made prior to UXO/MEC characterization and therefore invalid.
Response: This does not pertain to the RI/FS or a remedy selection.
 16. Section 2.4.2.2.1 – should contain a map of the 1918 twenty-four targets known in the valley.
Response: This does not pertain to the RI/FS or a remedy selection.
 17. Section 2.4.2.2.2 – Does not note the Foreign Troops using and/or leasing the facility for Foreign Troop Training.
Response: The fact that foreign military exercises and training took place at Camp Bonneville is a generally accepted fact; however, this type of training is not uncommon and does not affect the RIFS or remedy selection for the site.
 18. Section 2.4.2.3 – Does not reflect the evidence of the historic films from the WWII era.
Response: This does not pertain to the RI/FS or a remedy selection.
 19. Section 2.4.2.4.1 – Does not reflect the munitions and/or training materials sent to Camp Bonneville from/or under the name Camp Hathaway.
Response: A Google search of “Camp Hathaway” returned several documents placing it at Fort Vancouver.
 20. Section 2.4.2.4.3 – Does not accurately describe the Howitzer heartstands, ranges, target area, or storage area for these munitions.
Response: This does not pertain to the RI/FS or a remedy selection.
 21. Section 2.4.2.5.1 – According to public testimony and descriptions from servicemen the statement depicting “live firing exercises about twice a year with each training session resulting in the firing of approximately 50 rounds” is an unacceptable and deceptive answer.
Response: This does not pertain to the RI/FS or a remedy selection.

22. Section 2.4.2.7 – “but the exact location of the mustard training area is unknown.” This is unacceptable for transfer of the property.
Response: This does not pertain to the RI/FS or a remedy selection.
23. Section 2.4.3.1 – this does not state the uses by foreign Governments leasing the property for foreign troop training purposes. Operational Status should also note the FBI Firing Ranges and any studies that included the FBI area.
Response: The fact that foreign military exercises and training took place at Camp Bonneville is a generally accepted fact; however, this type of training is not uncommon and does not affect the RI/FS or remedy selection for the site.
24. Section 3.2 RAU3 Site Characterization. This entire section has historically inaccurate information, incomplete information, presumptive information, poorly informed recon teams, and misleading information. None of the citations or maps within this section should stand as they are written.
Response: This does not pertain to the RI/FS or a remedy selection.
25. We will however, comment further regarding the Aerial Photograph Examination section. The Army and its contractors did not utilize the most current aerial photography available within the GIS system at Clark County. The LIDAR photography for Camp Bonneville in 2002, a product from a near \$700 thousand dollar contract, should have been included in this study, as should the other high-definition aerial photography available from 1999 to the Army’s 2004 Revision. (Site characterization)
Response: Ecology has procured and provided LIDAR data to the public.
26. Section 4.4.6 – The Central Impact Target Area has changed in dimensions over the years, historically. All of the historic maps with altered states of dimension should be included with this section. Including any maps showing the Central Impact Target Area closer or within the DNR land.
Response: The current Central Impact Area reflects the combination of all prior boundaries, therefore making it the only complete map.
27. Section 4.4.7.3 – There is lacking documentation of fireworks OB/OD and burial within Demo Site 1/1,F4. Since the LF4 closeout report states that fireworks were the most likely source of massive Perchlorate contamination, resulting in a contaminated water plume, the Army must update and include data and burial information regarding the fireworks. There is an error or typo for the 1993 date that no other OB/OD was permitted. In fact, the US Army Headquarters ordered this practice to end well before this date. Please research and correct this date.
Response: This does not pertain to the RI/FS or a remedy selection.
28. Section 4.4.12 – Firing Fans overlap within the Maneuver Areas. This is not mentioned in this section.
Response: This does not pertain to the RI/FS or a remedy selection.
29. Map Figure 4.12 should include the continuation of trails/roads that continued off site from this area to the east, north and south.
Response: This does not pertain to the RI/FS or a remedy selection.
30. Map Figure 4.14 does not include the CPU Well Site or the Waste Treatment Plant.
Response: This does not pertain to the RI/FS or a remedy selection.

31. Section 8.2.3.4 – states LF4 footprint has been totally removed. This is untrue and misleading.

Response: This should be commented on in the Landfill 4 Final Report, not here.

32. Map Figure 8.7 – Does not include CPU well fields and Waste Treatment Plant.

Response: This does not pertain to the RI/FS or a remedy selection.

2.3.2 Specific comments provided by Lynelle Hatton

1. Section 2.2.6 Hydrology - The Troutdale Aquifer, which has been identified as the recipient of water drainage from Camp Bonneville, is not mentioned in the RI/FS. Please address this omission and the significance of this aquifer in relation to Camp Bonneville.

Response: This does not pertain to the RI/FS or a remedy selection.

2. Section 2.2.7.2 Population - Please explain why there is no sub-section identifying the populations that will be affected by the re-use as stated in the Clark County Camp Bonneville Reuse Plan and Clark County Comprehensive Plan for regional parks. (These include the greater Portland area, Cowlitz County and Skamania County.)

Response: This does not pertain to the RI/FS or a remedy selection.

3. Section 2.2.7.2 Population - Please explain why there is no sub-section identifying other parties with a vested interest in Camp Bonneville (including Native Americans).

Response: This does not pertain to the RI/FS or a remedy selection.

4. Section 2.4.1 General Site Background - Please provide justification for excluding information about all known military training on this site—including foreign militaries and other entities.

Response: The fact that foreign military exercises and training took place at Camp Bonneville is a generally accepted fact; however, this type of training is not uncommon and does not affect the RI/FS or remedy selection for the site.

5. Section 2.4.1 General Site Background - Please provide information on these foreign activities, including:

1. Identification of the militaries or entities that used the site;
2. Dates of use;
3. Types of training;
4. Types of munitions used;
5. Locations of firing points and targets;
6. Protocols for training.

Response: The fact that foreign military exercises and training took place at Camp Bonneville is a generally accepted fact; however, this type of training is not uncommon and does not affect the RI/FS or remedy selection for the site.

6. Section 2.4.1 General Site Background - If you are unable to provide this information, please state why.

Response: The fact that foreign military exercises and training took place at Camp Bonneville is a generally accepted fact; however, this type of training is not uncommon and does not affect the RI/FS or remedy selection for the site.

7. Section 2.4.1 General Site Background - Because this Report omits all information about foreign militaries and other entities known to have used the site for training, the assumption will be made by the general public that all munitions contamination and training activities have been listed in this Report. That is patently false.
Response: The fact that foreign military exercises and training took place at Camp Bonneville is a generally accepted fact; however, this type of training is not uncommon and does not affect the RI/FS or remedy selection for the site.
8. Section 2.4.1 General Site Background - The RI/FS needs to be revised to include information on all militaries and other entities that used the site, their activities, and what munitions were used.
Response: The fact that foreign military exercises and training took place at Camp Bonneville is a generally accepted fact; however, this type of training is not uncommon and does not affect the RI/FS or remedy selection for the site.
9. Section 2.4.2.1 Pre-World War II Era - Please provide illustrations that show the location of the 1910 target range.
Response: This information is not essential to this document because it has been reviewed prior to the RI/FS for RAU 3.
10. Section 2.4.2.1 Pre-World War II Era - The location of the Army's 14 short-range and seven long-range small arms ranges (1910-1915).
Response: This information is not essential to this document because it has been reviewed prior to the RI/FS for RAU 3.
11. Section 2.4.2.1 Pre-World War II Era - The boundaries of the original 3,000-acre property (1918).
Response: This information is not essential to this document because it has been reviewed prior to the RI/FS for RAU 3.
12. Section 2.4.2.1 Pre-World War II Era - The location of the 24 targets (1918).
Response: This information is not essential to this document because it has been reviewed prior to the RI/FS for RAU 3.
13. Section 2.4.2.1 Pre-World War II Era - The location of the machine gun range added in 1929.
Response: This information is not essential to this document because it has been reviewed prior to the RI/FS for RAU 3.
14. Section 2.4.2.1 Pre-World War II Era - The location of all Firing Points, Targets and associated Safety Range Fans prior to 1955.
Response: This information is not essential to this document because it has been reviewed prior to the RI/FS for RAU 3.
15. Section 2.4.2.1 Pre-World War II Era - If you are unable to provide this information, please state why.
Response: This information is not essential to this document because it has been reviewed prior to the RI/FS for RAU 3.
16. Section 2.4.2.1 Pre-World War II Era - Parsons stated at the Nov 9 RAB meeting that there are no documented Firing Points, Targets or Range Fans prior to 1955.

Assumptions were therefore made by the Army as to use of the property prior to that time.

Response: This does not pertain to the RI/FS or a remedy selection.

17. Section 2.4.2.1 Pre-World War II Era - The RI/FS should include information as to assumptions concerning the location of Firing Points, Targets and Range Fans prior to 1955.

Response: This does not pertain to the RI/FS or a remedy selection.

18. Section 2.4.2.4.2 Post-World War II (1950s) Era - Please provide munitions training and recovery protocols for Camp Bonneville prior to 1959. These are relevant in order to make a more accurate determination as to MEC and MEC-related distribution on the site.

Response: This does not pertain to the RI/FS or a remedy selection.

19. Section 2.4.2.4.2 Post-World War II (1950s) Era - Please provide munitions training and recovery protocols for Camp Bonneville from 1959 on, under the authority of Fort Lewis. These are relevant in order to make a more accurate determination as to MEC and MEC-related distribution on the site.

Response: This does not pertain to the RI/FS or a remedy selection.

20. Section 2.4.2.4.2 Post-World War II (1950s) Era - Munitions training and recovery protocols have been requested many times by the RAB. These protocols would assist in assessing the accuracy of assumptions on firing procedures, the recovery of misfired munitions, etc.

Response: This does not pertain to the RI/FS or a remedy selection.

21. Section 2.4.2.4.3 Post-World War II (1950s) Era - If the locations of these ranges and demolitions areas cannot be determined even with intrusive investigation of a much larger percentage of the site, then the Report needs to include a statement to that effect.

Response: This does not pertain to the RI/FS or a remedy selection.

22. Section 2.4.2.7 Chemical Agent Training - Since the ASR indicates expenditure of two gas identification sets, please state the basis for concluding there is “no direct evidence that chemical agent training activities were conducted at Camp Bonneville.”

Response: Direct evidence is physical evidence obtained at the site; therefore, we will not have direct evidence until such evidence (physical evidence) is identified at the site.

23. Section 3.1.2 Site Characterization (Introduction) - The County has had County-wide Lidar images in its possession since 2003.

Response: Ecology has procured and provided LIDAR data to the public.

24. Section 3.1.2 Site Characterization (Introduction) - The RAB requested that Lidar imaging be performed to more accurately develop site characterization that would include ground scarring.

Response: Ecology has procured and provided LIDAR data to the public.

25. Section 3.2.6.1 2001 Instrument-Aided Field Reconnaissance - If additional AOCs and AOPCs not previously identified are discovered through examination of the 1980 photograph, please perform additional site characterization to include these areas.

Response: This does not pertain to the RI/FS or a remedy selection.

26. Section 3.2.6.1 2001 Instrument-Aided Field Reconnaissance - If no additional recon is performed, please explain why it is deemed unnecessary.
Response: This does not pertain to the RI/FS or a remedy selection.
27. Section 3.3.3 RAU-3 Site Characterization Summary - UXO has the potential to kill people who come in contact with it. Failing to characterize even the highly inaccessible areas falls short of necessary recon, considering that no permanent removal measure for UXO is proposed in these areas.
Response: This does not pertain to the RI/FS or a remedy selection.
28. Section 4.3.5 Explosive Safety Hazards - At the October 2005 RAB meeting, the Army stated that information about activities at Camp Bonneville was recorded every six months for inclusion in Fort Lewis Historical Archives. Please provide all documentation in these archives that pertains to Camp Bonneville or protocols associated with training camps such as Camp Bonneville.
Response: This does not pertain to the RI/FS or a remedy selection.
29. Section 4.3.5 Explosive Safety Hazards - Please provide documentation to support the statement that only 50 rounds were fired twice per year, since Camp Bonneville neighbors have reported that use was much heavier.
Response: This does not pertain to the RI/FS or a remedy selection.
30. Section 4.3.5 Explosive Safety Hazards - Please provide documentation regarding all military units and military activities associated with the site.
Response: The fact that foreign military exercises and training took place at Camp Bonneville is a generally accepted fact; however this type of training is not uncommon and does not affect the RI/FS or remedy selection for the site.
31. Section 4.3.5 Explosive Safety Hazards - If documentation cannot be provided, please state why and include this information in the Report.
Response: This does not pertain to the RI/FS or a remedy selection.
32. Section 4.4.13.2 Central Impact Area - The Central Impact Area is stated in this section to be 465 acres. In section 8.2.9.1 it is identified as 458 acres. In RAB meetings it was stated to be 640 acres. Please clarify.
Response: The current Central Impact Area reflects the combination of all prior boundaries, therefore making it the only complete map. To the best of our knowledge the Central Impact Area is 465 acres.
33. Section 5.2.4 Natural Processes - By declining to consider erosion along Lacamas Creek, the Army fails to acknowledge (a) the potential for contamination in the watershed (including the Troutdale Aquifer), and (b) the potential for UXO from the adjacent ranges. These public health and safety risks have been ignored in this Report.

2.3.3 Specific comments provided by Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation

1. On page 3-27: Figure 3.11 is not consistent with Figures 1.1 and 3.1.

2. Maps 1.1 and 3.1, both labeled as “Historic UXO findings” are inconsistent. Request the 3.1 version be modified to reflect current findings.

Response: This does not pertain to the RI/FS or a remedy selection.

2.4 Response to specific comments concerning site characterization of the Camp Bonneville facility

The specific comments have been reviewed and noted to fall into several groups. Many are historical or archival information about Camp Bonneville. Ecology recognizes that there are inconsistencies in the historical information at this site based on the fact that the information was gathered from many different sources (first-hand verbal accounts, second-hand accounts, historical written records, maps, photos, etc.). If this information could affect the RI/FS document and can be clarified or collected, an attempt will be made to include it in an addendum to the RI/FS document, or the draft CAP. If the information cannot be collected or clarified, Ecology believes that there is enough information currently in the RI/FS to move forward with the remedy selection process for Camp Bonneville.

The fact that foreign military exercises and training took place at Camp Bonneville is a generally accepted fact; however, this type of training is not uncommon and does not affect the RI/FS or remedy selection for the site. In addition, since the technologies used to detect and remove foreign and U.S. ordnance/munitions is the same, there is no difference in the cleanup approach.

Some of the comments are personal opinions being expressed by the writer of the comments.

3.0 Offsite Migration of Materials and Contamination

3.1 General comments concerning the potential for site-related materials and contamination (including unexploded ordnance) to have migrated offsite onto land adjacent to the Camp Bonneville facility

Several members of the public expressed concern about the potential for material originating from practices at the Camp Bonneville facility to have reached properties adjacent to the facility. Comments made concern both munitions that had been fired at the site and ended up at locations outside the facility boundaries, as well as chemical contaminants that may have migrated on to adjacent property via groundwater and surface water.

This section provides all general comments received that pertain to this comment category and identifies the individual who submitted the comment. After the listing of all general comments for this comment category, a general response to all comments is provided.

1. We fear that many of our homes are at the end of the artillery fan, and we fear that UXO's have found their way east of the Camp's official boundary. The fans on the Army's maps in the figures presented for public comment clearly represent that the fans overreached the eastern boundary. (Roger Nielsen)
2. How can Camp Bonneville be safely transferred when BRAC cannot give assurances to the Autumn Hill residences [residents] about possible UXO on their property? All the actions by the committee do nothing to guarantee UXO is not present on Autumn Hill property. There needs to be some process put in place to make this guarantee to homeowners who will have their property values directly affected by this issue. (Alan Dragon)
3. Are there any unexploded ordnances beyond the borders of Camp Bonneville (for instance, on the trails or other properties of The Summit at Autumn Hills? If so, are you going to find and remove those? How will this be accomplished, and what coordination is planned with the affected property owners? (Mr. And Mrs. Robert Peak, Jr.)
4. Is there a possibility of unexploded ordnance on my land? (J. Sullivan)
5. The tiny fraction of the site studied for the RI/FS, and the evidently casual methodology used to determine historical range fans, point to a hurried and superficial approach to site characterization that bodes ill for remediation at Camp Bonneville. (Lauren Wallace)
6. We would sincerely feel more comfortable if someone would tell us it is ok to dig on the edges of our property without the risk of running into any explosive materials or chemicals. (Donna Torres)
7. The refusal to physically explore for the presence of unexploded munitions outside of the boundaries of the reservation is not supportable through the record of the horse killed by errant shots or other oral histories. The army does not have records of these fans or the records of investigation of shots fired outside these fans to support the decision not to evaluate beyond this fence. This was a training base where people in training make training mistakes. (Thom McConathy)
8. We are left unclear as to the dangers present on our property the dangers from UXO on our sides of the fence, and what other contaminants may exist in our development. Are our water supplies contaminated? For example, many various forms of ordinance was fired into the land over our watershed. Could someone test the water

from some of the properties adjoining the camp? Why were many of us allowed to buy and build property that apparently is contained within the “firing safety fans”? Is our property contaminated with UXO? Can we not have our property surveyed to assure us that it is safe? (Bruce Axten)

9. The site characterization seems to be based on the ideology that the firings all hit their targets, however, the potential for accidental misfiring beyond the target areas cannot be ignored. (Dviya Michael Bertish)
10. As we all begin to understand the differences between target presumptions, assumed loads, and known firing positions, the ongoing quest to find factual evidence supporting firing fan extension areas (especially those extending across fence lines) we make the following request advisory. The scopes of study will predominately include Pre WWI (1910) to WWII and training years post WWII to 1979. As laypersons, we would presume the many Observation Towers at CB were used for Forward Observation during gunnery training. I therefore request the WDOE and/or the US Army provide mappings of the CB Observation Towers depicting their sight lines. I request these mappings show the range of sight from each Observation Tower graphically drawn as were the firing points and fans presented in the current Parsons maps at our presentation. I request the geographical slope and trees be factored in and documented. I request special attention be given to the direction of both Autumn and Summer Hills residential subdivisions. I request the information to specifically dedicate which of the Observation Towers would generate Forward Information to each of the heartstand firing points. I request the map key to note the years CB had logged timber within the Observation Tower sight lines. I request the map to indicate the height of each Observation Tower and define the Tower platform construction. (i.e., was the observer looking out small or large windows of an enclosure. Was the platform open on all four sides, etc.) I request the map key to indicate the type of fencing along CB boundaries during these dates. I request the map reflect roadways and camp trails exiting CB deed lines. Please provide information as to the type of visual aide the observers used. A quick Internet search provides good reference as to military binocular strengths available and typical at the times in question, pre WWI, during WWI, and WWII. This investigative tool would also include the years to and including 1979. In order for the public and the regulatory agencies to adequately assess the potentials for off range UXO/MEC, this missing data seems viable and critical during the analysis of munitions fired with the potential for landing off site or on unintended areas of Camp Bonneville. Thank you for your attention in this matter and please advise as to a date this information will be made available so that we may share it within the agenda of a future RAB meeting. Let me know immediately if this request/advisory needs to be sent via FAX or ground mail instead of Internet Email. If the Army and/or the WDOE exempt the use of the CB Observation Towers as forward observation points during gunnery training please provide this in writing for the CB Administrative Record and public reference. Please include within this exempt statement the actual historic uses of these Observation Towers. (Lynelle Hatton)
11. Member of public has made repeated requests from BRAC for written documentation that their property is void of any UXO, since it falls under facility range fan. BRAC has refused to provide such documentation. Government representative has told adjacent property owners in the past not to excavate on their property, although they now deny having made this statement. (Rand Harris)
12. Do not feel that BRAC has addressed the concerns outside the fence or under the (range) fans. (Mark Benson)

13. It has already been shown that for a great many years Camp Bonneville has not been kept safe and secure from public access to the dangers that exist and that people unawares have purchased property around this dangerous and toxic site, only to find out that there could be unexploded ordinances anywhere in the area or toxic substances that they could be exposed to. (Daniel Swink)
14. I would like assistance from DOE that BRAC put in writing that the property, under their range fan, is clean and void of any UXO and that we may proceed with our excavation plans. If not, the why not. I would like it signed by all interested parties. I look forward to your reply in this most important matter. (Rand Harris)
15. We would sincerely feel more comfortable if someone would tell us it is ok to dig on the edges of our property without the risk of running into any explosive materials or chemicals. (Donna Torres)

3.2 Response to general comments concerning the potential for site-related materials and contamination (including unexploded ordnance) to have migrated offsite onto land adjacent to the Camp Bonneville facility

A review of historical information was conducted prior to developing the work plan for RAU 3 to identify areas of the facility where UXO and MEC were likely to be found, and site investigation activities for this RAU were focused in these areas. This review identified areas where munitions were fired. Analysis of this information was the basis of the identified “range safety fans” that define where materials may be found from these firing activities. However, this RI/FS was designed as a tool to develop a range of remedy selections for the site cleanup. Although the possibility of offsite UXO contamination is a legitimate concern, this is not the forum for this discussion. Ecology intends to hold the US Army responsible for any offsite contamination.

With respect to the potential for other contaminants to have migrated from the Camp Bonneville facility to surrounding areas via groundwater or surface water, these contaminant sources are addressed through site investigation of other RAUs. Some of these investigation activities are still ongoing. All currently available information from the network of groundwater monitoring wells placed by Ecology and the Army on the property boundaries does not show that contamination is migrating in groundwater off the Camp Bonneville property. Site-wide groundwater monitoring will continue to allow regular assessment of onsite ground water contamination movement and levels. If during the course of these investigations, or at any other time, it becomes evident that contaminants have migrated offsite to surrounding properties, affected property owners will be informed of the situation.

3.3 Specific comments concerning the potential for site-related materials and contamination (including unexploded ordnance) to have migrated offsite onto land adjacent to the Camp Bonneville facility

This section provides specific comments received that pertain both to this comment category and to specific parts of the draft RI/FS document. Specific comments are addressed in any of the following three ways:

- A response is provided to an individual specific comment;
- A response is provided to a series of specific comments in the same topic area; and
- A general response is provided to all specific comments included in this comment category at the end of the list.

3.3.1 Specific comments provided by Paul and Karen Kingston

1. Section 4.4.9.9 – The archive Search report notes the off-site landing of a Stokes Mortar. Did the Army sufficiently research or include in its neighbor closeout survey any information as to where this Stokes landed? On what private property, especially since the local neighbors saw it land.

Response: This does not pertain to the RI/FS or a remedy selection.

2. Section 4.4.10 – reducing the possibility of a UXO find by using the dimensions of the firing fan itself is nothing less than criminal. This section states that it is possible that rounds could have landed off the installation and yet we cannot find inclusion of these off-site landings and their risk to public safety. Isn't the computer based math used for off-site overshoot or undershoot UXO finds within a large scaled Firing Safety Fan akin to discounting a small bullet hole on a large man? A large-scale area cannot discount risk and public health.

Response: This does not pertain to the RI/FS or a remedy selection.

3. Section 6.3.5.2-.5 – does not contain information as to the magnetometer assisted surface sweep and its settings. Will this device locate to the depth of 2 inches as the Army has done in the past?

Response: The depth of detection for UXO is driven by available technology, not by predetermined depth.

3.3.2 Specific comments provided by Lynelle Hatton

1. Section 4.4.2.2 Exposure Hazards Assessment – Current Land Use - These same (Camp Bonneville) neighbors have been cautioned not to install their own fences because of the possibility of UXO on their property.

Response: This does not pertain to the RI/FS or a remedy selection.

2. Section 4.4.8.4 Firing Points - Please provide documentation as to how corrosion and exposure to the elements affect the explosive nature of UXO.

Response: This does not pertain to the RI/FS or a remedy selection.

3.4 Response to specific comments concerning the potential for site-related materials and contamination (including unexploded ordnance) to have migrated offsite onto land adjacent to the Camp Bonneville facility

These specific comments are addressed in the general response to this comment category provided in the previous section of this document.

4.0 Onsite Materials and Contamination

4.1 General comments concerning existing chemical contamination of soil and groundwater (including UXO in groundwater), and residual chemical contamination and ordnance that will remain onsite

Numerous comments were submitted concerning the level of chemical contamination that would remain in soil and groundwater after completion of remedial actions at the site, and the potential amount of ordnance (unexploded and materials remaining after detonation) that would remain onsite.

This section provides all general comments received that pertain to this comment category and identifies the individual who submitted the comment. After the listing of all general comments for this comment category, a general response to all comments is provided.

1. The camp needs to be cleaned completely before any other entity has the responsibility. (Anonymous)
2. There is no plan in place to prevent forest fires from reaching the Autumn Hills neighborhood if it starts on Camp Bonneville property. Local fire departments will not fight a fire on land which has undetermined UXO. The best way to combat this issue is to build a firebreak at the border of Camp Bonneville and Autumn Hills property. (Alan Dragon)
3. I have heard about the plans to use citizens tax dollars to turn this ammo dump into a park for kids and residents. ARE YOU CRAZY???? How in the world do you expect to comb every square inch to sift out dangers? And how deep do you plan to go? Dogs and kids are notorious for digging – not to mention any crew digging to place utilities and services. Then there is the issue of what remains in the soil, buried deeper than the level of removal. There are serious contaminants that will continue to leach out into surrounding soil and percolate into the water table. At some point a responsible government official is going to have to dig deep and really clean this mess up so as not to harm and poison future generations. I guess what current officials are saying is, “Not on my watch.” What a bunch of shortsighted, self-interested cowards. I do not want a single penny of my tax dollars to put a party dress on a corpse. (Leslie Zega)
4. The proposed cleanup is unacceptable. A hospital, school or airport would never be allowed to be only partially safe. How is a child or person unable to read going to be safe when this plan relies on signs, video and brochure reading to maintain safety? What if a young child decides to dig a hole, even in the proposed clean up area? If he digs to deep, will there be a possibility of a UXO encounter? Is this a risk you would take with your children? Under this proposed cleanup plan could a visitor be exposed to a residual chemical from a UXO object not cleaned because the Army will not fund a sufficient cleanup for the reuse that was chosen? (Christopher Guzman, Michelle Guzman)
5. I feel the information is misleading. We have asked a number of questions, and not received answers from BRAC. We have not received answers to UXO investigation on non-governmental property. The BRAC has refused to check on our property. (Mark Benson)

6. I would like the DOE to help me secure a letter from the BRAC stating: "Dear Homeowner, you may dig, or you may not dig on your fee sample land." Circle one! (Mark Benson)
7. The nature, magnitude and extent of MEC contamination at Camp Bonneville has not been adequately determined, sufficient data has not been collected to evaluate potential risk, and without the data there are numerous human, ecological and occupational hazards. Historically statistical sampling such as that employed at Camp Bonneville has miscalculated the extent of both MEC and other contaminants. The decision to clean up this site to a less restricted use, as proposed by Clark County's existing LRA, must be balanced by the assurance that a system will be in place to safeguard human health and the environment. Only 2,400 acres of Camp Bonneville has been investigated, with just 1% of the site having been examined for the presence of subsurface MEC. I believe that the likelihood of MEC contamination is too great, with such minimal investigation, to consider a transfer of this land from the polluter. Camp Bonneville needs further characterization before cleanup action is chosen. (Coleen Broad)
8. There is a groundwater plume detected at Camp Bonneville. While I applaud the monitoring that is currently being undertaken by the DOE, there should be further research including additional well placement, testing, and analysis of groundwater for perchlorate and other detected chemicals. Due to the minimal subsurface MEC investigation and the proposed cleanup action, unknown munitions will be left submerged, continuing to contribute indefinitely to pollution plumes, known and unknown. (Coleen Broad)
9. Greg Johnson and your staff appear knowledgeable on this issue; however, because there is shrapnel from an explosive XO found in an area does not necessarily indicate there are actual unexploded UXO in that area. (Frank H. Funk)
10. Our family, which includes two small children, lives on a piece of property in the Autumn Hills subdivision that borders Camp Bonneville. We are intensely interested in the safety of this community - not only the unexploded ordnances but the quality of the water (which could affect ours and other's well water). (Alan and Julie Shibata)
11. Are all the unexploded ordnances going to be removed? If not, what are the specific exceptions and the rationale for each. Will the cleanup of toxins be sufficient to provide no danger to the neighbors, their land, and their water supplies? If not, what are the specific residual risks, and why are you not eliminating those? (Mr. and Mrs. Robert W. Peak, Jr.)
12. Is there a long-term plan for continued testing of the soil and water to insure the cleanup was successful? If not, why not? (Mr. and Mrs. Robert W. Peak, Jr.)
13. What recourse is available to neighboring property owners to address pollution of their property or water sources as a result of these hazardous materials or the processes or materials employed to remove them? (Mr. and Mrs. Robert W. Peak, Jr.)
14. Will the Army/US Government/State of Washington pay for testing of our wells to insure there is no contamination caused by these hazardous materials or the processes/materials employed to remove them? (Mr. and Mrs. Robert W. Peak, Jr.)
15. Residents living in the surrounding area of Camp Bonneville are relying on wells for their water. A plume of ammonium perchlorate, which is known to be a carcinogenic substance, has already poisoned the groundwater at Camp Bonneville in a place that abuts Lacamas Creek. This toxic substance leaked into the groundwater from landfill pits that were used to bury discarded munitions. The moving underground plume could potentially render the drinking water unsafe for consumption for many places in the area including the plans for future public water wells at the Camp Bonneville

site. Lacamas Creek is also a known habitat for endangered salmon of which the contaminants from Camp Bonneville are creating a greater and greater threat to as the contaminants continue to travel. (Daniel Swink)

16. Is there a possibility of contaminants infiltrating my water source? Will there be tests done to rule out “lead, petroleum products, pesticides and volatile organic compounds in the soil, and perchlorate and explosive chemicals in the ground water”? (J. Sullivan)

4.2 Response to general comments concerning existing chemical contamination of soil and groundwater (including UXO in groundwater), and residual chemical contamination and ordnance that will remain onsite

Because of the limitations inherent in the site investigation activities due to the facility size and terrain type, the Army cannot provide assurance that all ordnance and residual chemical contamination related to ordnance, has been located and remediated at the facility. As noted in the previous comment category response, Ecology will review methods used by the Army and its contractors in conducting the investigation for RAU 3 and conclusions drawn based on this investigation. Also as noted in the response to comments on site characterization, cleanup activities at RAU 2 and 3 will involve additional investigation and contaminant removal to achieve established cleanup goals. However, since complete identification and clearance of UXO and MEC will not be possible using currently available techniques, future site use must be planned to account for the possibility that some level of hazard from these materials is still present at the site.

With respect to chemical contaminants remaining on site, this issue is addressed through site investigation and remediation activities for other RAU at the site, and some of these activities are still ongoing. As previously noted, soil contaminated with lead at RAU 2 will be excavated if concentrations exceed the established goal. The proposed cleanup levels of 50ppm for lead are intended to be protective of the environment in particular and are lower than those that would be needed for protections of human health, since some environmental receptors are more sensitive to lead. These excavated soils will be replaced with clean fill. The results of these investigations may indicate that it is technically impractical to immediately remove all contamination. In this case, restrictions will be imposed on site use to prevent contact with these contaminants.

With respect to groundwater contamination at the site, groundwater monitoring is currently being conducted at the former sites of Landfill 4/Demo Area 1, Demo Area 2, Demo Area 3 and at those portions of the site perimeter identified as downgradient from Landfill 4/Demo Area 1. Regularly scheduled groundwater monitoring will continue at all of these areas, with the exception of Demo Area 2, for a period of time ranging from 10 to 25 years after transfer of the facility has occurred.

4.3 Specific comments concerning existing chemical contamination of soil and groundwater (including UXO in groundwater), and residual chemical contamination and ordnance that will remain onsite

This section provides specific comments received that pertain both to this comment category and to specific parts of the draft RI/FS document. Specific comments are addressed in any of the following three ways:

- A response is provided to an individual specific comment;
- A response is provided to a series of specific comments in the same topic area; and
- A general response is provided to all specific comments included in this comment category at the end of the list.

4.3.1 Specific comments provided by Lynelle Hatton

1. Section 2.2.7.2 Population – This site contains contamination (UXO) that will pose an immediate threat to public safety for everyone who visits the park.
Response: This does not pertain to the RI/FS or a remedy selection.
2. Table 3.10 Hazard Severity Ranking and Explosive Safety Hazard - Please clarify whether Munitions Residue includes the potential for Chemical Warfare contaminants.
Response: This information is not essential to this document because it has been reviewed prior to the RI/FS for RAU 3.
3. Table 3.10 Hazard Severity Ranking and Explosive Safety Hazard - If Munitions Residue includes the potential for Chemical Warfare contaminants, please explain why this was not included in the ranking.
Response: This information is not essential to this document because it has been reviewed prior to the RI/FS for RAU 3.
4. Table 3.10 Hazard Severity Ranking and Explosive Safety Hazard - If Munitions Residue does not include the possibility of Chemical Warfare contaminants, given the statements in the ASR, please state why it is deemed irrelevant.
Response: This information is not essential to this document because it has been reviewed prior to the RI/FS for RAU 3.
5. Section 4.4.13.2 Central Impact Area - Please provide rationale for leaving all of the UXO in the Central Impact Area in place.
Response: This does not pertain to the RI/FS or a remedy selection.
6. Section 5.2.2 Development of Cleanup Standards - Please address the volatility of UXO over time, considering erosion of casings.
Response: This does not pertain to the RI/FS or a remedy selection.
7. Section 5.2.2 Development of Cleanup Standards - Please state why the Chemical Agent Testing identified in the ASR and the test kits discovered at Landfill 4 are not included as possibilities for contaminating soil, plants or animals.
Response: All items that were removed from Land fill 4 are listed and photographed and are available for viewing in the Landfill 4 Final report.
8. Section 5.2.2 Development of Cleanup Standards - As a Conservation Easement in the interim, all potential contamination to the environment and wildlife should be considered and addressed.
Response: This does not pertain to the RI/FS or a remedy selection.
9. Concluding Comments - In addition to UXO in trees and the many existing MEC Sources that were not located during this limited site characterization, other contamination exists that has not yet been addressed. This includes contamination

from explosive residuals, including the potential for release of explosives into the soil through low-order detonations and the corrosion of buried munitions is not addressed in this Report.

Response: This comment is addressed as follows:

- Institutional controls will be in place to address the potential threat of any munitions constituents that are not discovered and removed from the Site.
- A thorough discussion of the potential for chemical weapons test kits to have been used at Camp Bonneville has been conducted at the Restoration Advisory Board (RAB) on several occasions. The disposal or loss of these test kits has not been confirmed at Camp Bonneville. These test kits contain small quantities of chemical agents for training purposes. The small quantities in these test kits would not result in widespread contamination if disposal or loss occurred. Procedures will be in place, so if any possibility for a test kit is discovered and appropriate response will occur.
- An option to clear portions of the Central Impact Area around the targets will be developed.
- Explosive residues will be addressed by sampling the impact area soils and other specific areas.

4.3 Response to specific comments concerning existing chemical contamination of soil and groundwater (including UXO in groundwater), and residual chemical contamination and ordnance that will remain onsite

Residual chemical contamination from UXO is being addressed primarily under other Remedial Investigations. The investigation and cleanup (as needed) of Landfill 4/Demo 1, Demo 2 and Demo 3 areas address chemical contamination from ordnance in those areas. In addition, Ecology recognizes that there may be chemical contamination from munitions fired into the Central Impact Area. This is being addressed with a specific soil sampling plan for residual contamination in this area. This study also has contingencies for groundwater sampling, if soil contamination is found in quantities that may result in groundwater contamination.

5.0 Risk Assessment

5.1 General comments related to the risk assessment

Ecology received several comments regarding the risk assessment conducted for RAU 3. These comments included questions and issues relative to the risk assessment methods used and the underlying assumptions made in assessing level of hazard for different areas of RAU 3, and the level of subjectivity involved in developing conclusions. This section provides all general comments received that pertain to the risk assessment and identifies the individual who submitted the comment. After the listing of all general comments for this comment category, a general response to all comments is provided.

1. Through approving this plan you are placing the safety of my family at risk. (Mark Benson)
2. There is a tendency in the report to minimize the dangers of the site. The minimization skews the discussion to one of more subjectivity than objectivity. Due to the questionable nature of the previous characterization, the County feels it is important to pursue additional site investigation. The area of greatest risk to the future users of the park is in what is labeled “Medium Intensity Re-Use”. The inclusion of additional transects in the “park” portion of the site could serve as validation or Quality Assurance of previous investigative work. (Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation)
3. On page ES8. Object with the categorical statement of “no appreciable risk for re-use areas”. This is too categorical a statement. Request that it be withdrawn from future documents. The previous finding of MEC in the re-use area does not support this statement. (Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation)
4. On page. 3-17: Table 3.8. Weapons training – Range Safety fan. The argument presented does not substantiate the basis for the “low” rating. Request further definitions are provided. At present these appear very subjective. While based on the theory that there SHOULD be no MEC, the finding of MEC in the safety fan has discounted this theory. (Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation)
5. On page. 3-19: Table 3.9. Same as above. (Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation)
6. On page 3-20: 3.2.7.7. The use of the term “likelihood” is totally subjective. I found no scale for which to even find a reference point. Some of the recommendations are built based on this likelihood, and is weighs heavily on the selected remediation level. At present this basis is unfounded. Recommend that some frame of reference of metric be used in lieu of subjective terms. (Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation)
7. On page 4-6: Table 4.1. Reflects a “negligible” hazard severity rating for weapons firing points. Yet several UXO items were found at non-target areas. This leads to a questionable assignment of risk. (Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation)
8. On page 4-23: section 4.4.9.5. Clark County does not agree with the Army’s position that, “The explosive safety risk posed by small arms ammunition is very small and is not further discussed in this report”. Small arms ammunition does pose a real and significant risk to public safety and should be adequately addressed in the RI/FS.

- (Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation)
9. Section 4.3.5 states, “the ASR report indicated that artillery units only conducted firing exercises about twice per year from 1969-1985.” “...Overall, the likelihood of encountering HE-filled UXO at Camp Bonneville’s training ranges is considered small as a result of (small amount of) firing exercises.” Personnel accounts, foreign military training and the historic video tape on file at Killpack prove this false. I would like these statements modified to make a correct assumption. (Christine Sutherland)
 10. The 1997 Department of Defense BRAC report “Final Archives Search Report Conclusions and Recommendations” was cited with the following. Table 1- Total Hazard Severity - On a scale of 0 to 21 with 0 being "None" and 21 or more being "Catastrophic," Camp Bonneville rates a 48. Table 2 - Total Hazard Probability Value - On a scale of 0 to 27 with 0 being "Improbable" and 27 or more being "Frequent," Camp Bonneville rates a 27. I have yet to see or hear the Army dispute this disturbing truth. (Brenda Rule)
 11. Our property borders the southeast corner of Camp Bonneville on Livingston Mountain. We would like to be assured that our living on this property will not cause us or our family and pets any greater risk of disease, health deterioration, or dangers due to unexploded ordinances and toxins than this site posed prior to Camp Bonneville’s use of this area. (Mr. and Mrs. Robert W. Peak, Jr.)
 12. What are the health risks associated with the toxins found at Camp Bonneville? Birth defects? Cancers? Etc. (Mr. and Mrs. Robert W. Peak, Jr.)
 13. How large is the danger area for each of the sites mentioned in the Cleanup Plan? (Mr. and Mrs. Robert W. Peak, Jr.)
 14. When will this clean-up project have an effect on me? (J. Sullivan)
 15. You also need to look at other routes of exposure for humans. Will there be fishing? Will there be hunting? Will there be community gardens? Ecological restoration activities that disturb soils? Agriculture? Could people be exposure through other routes of exposure? (Laura Olah, Executive Director, Citizens for Safe Water Around Badger)

5.2 Response to general comments related to the risk assessment

The RI/FS for RAU 3 was focused on site-wide UXO and MEC remaining on site. As such, it was limited to assessing the risk (defined as the explosive safety hazard) of these materials. Chemical contamination at the site is associated with other RAUs, and is addressed in other phases of the investigation. Some of these phases of the investigation have been completed, and some are still ongoing. Additional information on these other phases of investigation can be found at the Ecology website on Camp Bonneville. With respect to methods and assumptions used in the risk assessment presented in the RI/FS for RAU 3, Ecology is reviewing this document and the basis for the underlying assumptions. We will consider the comments provided by the public during our review. As noted previously, requirements for additional investigation and removal of site contamination, including UXO and MEC, will be specified in the Work to be Performed and conceptual Scope of Work that will be developed to support the Consent Decree and CAP.

5.3 Specific comments related to the risk assessment

This section provides specific comments received that pertain both to this comment category and to specific parts of the draft RI/FS document. Specific comments are addressed in any of the following three ways:

- A response is provided to an individual specific comment;
- A response is provided to a series of specific comments in the same topic area; and
- A general response is provided to all specific comments included in this comment category at the end of the list.

5.3.1 Specific comments provided by Paul and Karen Kingston

1. Pg.ES-2:ES.7 – Risk analysis in this section does not discuss the cleanup of the areas between camping sites listed in the LRA. Example: If a camper in the Yurt Village wished to visit a camper in the Tent Area. Would this visitor follow the main road out of their specific area, back to the ingress/egress Park road corridor in order to get to the Yurt Village? Or, would they have the ability to travel the few hundred feet between camping facilities by walking the forested area between?
Response: Ecology agrees that areas between planned reuse areas should be addressed. Although such areas may have been ranked relatively low risk and therefore not identified for active cleanup, MEC findings and subsequent step out cleanup during the remediation of adjacent camping sites will ensure an inclusive coverage of these areas.
2. Section 4.4.2.2 – States the property is risk negligible due to a presumption that Camp Bonneville is known to the locals and therefore the risks understood. This is a false declaration. The signs along the fence state Camp Bonneville is a Training Area and the residents that were here prior to the Camps closure mostly presume that when the Camp closed the danger closed as well. Most assume that danger is associated with actual training and munitions storage. The Camp Bonneville area is one of the most desirable residential designated areas for Clark County and growing at a high rate. (noted in most national economic magazines and trade papers. Uninformed newcomers to the area, as well as developers and people enjoying rural recreation (i.e. the many bicycling clubs and youth hikers using the area), should be included as possible receptors. Camp Bonneville is missing fencing and noticeable indications of boundary lines along approximately two (2) miles of its boundary and this alone creates an unmitigated exposure risk to an ordnance source.
Response: Ecology agrees that additional signs, fencing, and institutional controls should be implemented.
3. Section 4.4.2.2 – The risk evaluation basis for these statements are not based on current and updated national risk assessment evaluation used by the EPA, DOE or Brownfields.
4. Section 4.4.3 – This does not contain the component of factoring in the number of potential receptors via equestrian riders or equestrian eventers passing along trails and roadways with fencing that a horse can jump or throw its rider off into UXO/MEC areas. The Army analogy of not factoring for mishaps or those rare accidents cannot be maintained here. Horses typically jump fences, break free from rein control, and throw riders. Even the most well trained horses and under the most

professional control. Special attention to this factoring should be given to the number of children, handicapped, and older adults enjoying the Regional Park on horseback. (note: the wildlife area, also to include equestrian trails, will not even received surface recon) Horses, as do off-road vehicles, have different capabilities in traversing rough terrain or steep areas. For the Army to assume all horses are the same and will stay on a trail or be incapable of entering sloping or difficult larger wildlife migratory trails...is a misnomer and nullifies the Army quotients defining probability for exposure.

Response: Roads and trails were covered in the risk evaluation analysis, and an appropriate cleanup action proposed for these areas.

5. Section 4.4.3.3 – To evaluate the explosive risk factor on merely the records found which list historical UXO findings logged, is irresponsible and incomprehensible. The Army knows the operating procedure for tracking and notating by Army personnel was very different from WWI to the Viet Nam era. Lacking, missing, and incomplete Archive Records on closed BRAC sites is now a National Epidemic. To dedicate a computer evaluation based on “known” recorded historical finds should be a new factoring system that will encourage courts worldwide while considering the US Army obligation to monetary settlements and rendering Army responsibility as culpable. Culpable to the point of the risk mechanics it used while transferring UXO training bases into the use of Regional Public Parks and thereby continuing the promise of explosives exposure and death.

Response: Archival and historical information is the best basis to begin with as a working knowledge of the site. As in all cleanup investigations, risk evaluations were based on available information. Cleanup decisions based on these evaluations are therefore open to revisions if new information that may affect such decisions becomes available.

6. Section 4.4.4.1 – Should include the source type areas and risk ranking for those areas containing Firing Fans and Safety Fans that extend over the known Camp Bonneville fence lines and into Public or Private Property areas. This section should also contain the current Power Line Grid maintenance Areas. In past years, fires in trees and branches along the Camp Bonneville owned power lines have been reported and documented. This fact should require Army information contained in the section that mitigates explosive hazards and explosives exposure to maintenance of Clark Public Utility employees doing their regular duties along these power grids. There should be a separate heading for wildfire Firefighters in and around areas of UXO and MEC.

Response: This RI/FS addresses only the Camp Bonneville property proper. Ecology holds the army responsible for contamination that may have gone off the property. The county should address utility and firefighting issues primarily.

7. Section 4.4.5 – This section needs updating. The MEC source sites should have an overlay of the reuse Plan. Without this overlay, it is difficult for the public to readily understand any significance the UXO/MEC find has in correlation to future Regional Park use.

Response: Both are depicted on separate figures in the document.

8. The Army has not completed an assessment of the sewage lagoons or grid-type soil testing within the lagoons. With the consideration of Camp Bonneville being cited as a contaminate contributor to the Columbia River within a 208 Area Wide Clark

County Management Plan (a \$17 million dollar grant from the EPA in 1979) one would assume these lagoons will have further evaluation. Understanding the UXO/MEC hazard and risk rating for these lagoons, and the factored in concept that the 'old Army' in years prior to 1969 may have used these lagoons as a dumpsite for liquids or powders, would be a pertinent assessment within a UXO/MEC RI/FS. (Risk Evaluation)

Response: Confirmational sampling will be conducted in and around the sewage lagoons and they will be left in place to enhance habitat.

9. Where in this document does the Army present full risk disclosure to the public regarding explosives risk, harm, or death? Describe all public communications made with the intent to educate or warn the local neighbors (most of which are newcomers) and include photo copies of all educational and risk sharing pamphlets and documents sent to the public, the neighbors, the local schools, and local businesses, by the US Army or the US Army Corp of Engineers. (Risk Evaluation)

Response: This is not normally part of an RI/FS. However, this information should be available from the Army if requested by the public under Freedom of Information Act. Institutional controls (which will be a component of the selected cleanup action for the site) will address public communication and education of potential risk at the site.

10. Section 4.4.8.3 – “Any residual military munitions would be likely located at a close distance behind the Firing Point locations where the munitions were prepared.” At the corner point of the Howitzer heartstand firing point artillery position 3, historically and prior to the chainlink fence installed in the late 1970's, the fence did not exist or was continually down. Just behind this firing point and on private property is a historic landfill that to this date holds primarily household debris and waste. During the years Howitzers were fired from this point, there were no residences close to the area. Eric Waehling, Camp Bonneville BEC, was taken to this point for identification purposes in 2003. A responsible US Army would assess and test this area for explosives residue. The RI/FS presents the risk at these firing point locations as Medium and risk ranking three, thus requiring a full investigation.

Response: Ecology intends to have the firing positions investigated and munitions removed, if discovered. Firing points were ranked medium to high for explosive risk. An appropriate remedy will be selected for these areas.

11. Where in the RI/FS does the Army evaluate Souvenir Hunting? Several times, on record at the Camp Bonneville RAB, the Army noted the problem with Souvenir Hunting through the years...where is this noted in the hazard/risk assessments or public safety notations. The Army Acknowledges Souvenir Hunting and yet does not specifically discuss the potential for exposure to the souvenir hunters from MEC/UXO. (Risk Evaluation).

Response: The risk assessment was based on expected activities within a park. Souvenir hunting for historical artifacts or cultural artifacts should be discouraged or prohibited. It is difficult to evaluate individuals who may take deliberate risks.

12. Section 4.4.9.2.3 - I understand from past Camp Bonneville RAB meetings that Practice Grenade Ranges and Landmine Training areas continually used flares, some signaling charges, and other pyrotechnic device ground markers that may contain sustainable soil contaminants or slight safety risks. Are the tests for these excluded as well?

Response: Metal detectors would find these if there are metal parts on them. Soil sampling and testing at firing points for explosive constituent compounds is being addressed in another study.

13. Section 4.4.9.10 – Removal of UXO to a depth of two (2) feet is unacceptable for Regional Park usage. During three seasons in the Pacific Northwest, the ground is likely to allow a full-size horse to extend its hoof into the soil at or over 12 inch depth. Factoring in frost heave and continual travel by other large animals, the clearance depth of 24 inches will place riders within this area and all areas such as this, at a higher explosive risk. As will fire pit excavation, tent stakes and construction of the camping site. The depth of detection for UXO is driven by available technology not by predetermined depth.

Response: The depths of detection for UXO and cleanup are determined by available technology and the specific land use of the area, and not by predetermined depths. Ecology believes that a two-foot clearance depth is adequate for the activities described above.

14. Section 4.4.11 – One of the magazine storage bunkers was used by Tetra Tech during the LF4/LDemoSite removal. What tests for explosives waive any further action since these bunkers were re-used post Closeout.

Response: TetraTech cleaned up after using this area.

15. Section 4.4.16.2 – does not express the use of trails by full-sized horses with full-sized riders causing hoof penetration to a deeper depth.

16. Section 4.4.18 – does not include the installation of recreational nets and concrete pad construction for these recreational activities.

Response: UXO avoidance will need to be done during construction activities.

17. Section 5.2.4 – There should be further identification of MEC/UXO removal that traverses the riparian area and Lacamas Creek itself. Tetra Tech did not compensate for water rushing from the backs of hauling-trucks that crossed the Creek on their way to the soil landing area during the LF4 removal action.

Response: Water rushing from the backs of trucks would probably not cause UXO items to be spread around the creek.

18. Section 5.2.7 – “Eliminating all risk at Camp Bonneville is not practicable, even after MEC cleanup is complete.” This does not protect children and therefore violates the Executive Order protecting children from imposed environmental hazards. The Army should have better advised Clark County while it was in the LRA planning stages. Instead, the Army provided the LRA steering committees a letter dated January 16, 1990 signed by Brigadier General Pat M. Stevens IV, stating the site does not contain any remnants from Department of Defense use. This letter substantiated a claim during conception of the LRA, that the property was “pristine”.

Response: The January 16, 1990, letter may have been inaccurate. Current information indicates that cleanup will be required on the property.

5.3.2 Specific comments provided by Lynelle Hatton

1. Section 2.3.2.2 Timber Economic Resource - Please explain why the scope of this Report did not address UXO removal from trees.

2. Section 2.3.2.2 Timber Economic Resource - Please provide documentation of County awareness of UXO in trees and the hazards associated with this UXO.
3. Section 2.3.2.2 Timber Economic Resource - The RI/FS should be revised to include an assessment of UXO in trees, since this issue impacts all aspects of risk evaluation, cleanup, and the economic viability of the proposed re-use.
Response: Investigations conducted to date have not found any MEC in a tree. Timber harvest comments should be referred to Clark County.
4. Section 2.4.1 General Site Background - Please explain the risk evaluation methods used for these unidentified activities.
Response: Risk evaluations were based on both past and future known and expected activities. Should any past unknown activity, which may have either direct or indirect impact on decisions made be available, such decisions will be revised accordingly. In addition, contingencies should be included in any cleanup so that if ordnance is discovered, the investigation is expanded around that area to determine if any additional ordnance is in the area, which would then be removed.
5. Section 2.4.1 General Site Background - If no risk evaluation was performed, please explain why it was deemed irrelevant.
6. Section 2.4.1 General Site Background - An accurate Risk Assessment cannot be performed based solely on the Army's activities, when other militaries and agencies (such as the FBI) are known to have used the site for training.
7. Section 2.4.1 General Site Background - If this information cannot be obtained or verified, then a Risk Assessment methodology needs to be developed that will account for these unknowns.
8. Section 2.4.2.1 Pre-World War II Era - Please describe the risk evaluation methods for these unknown (range) areas.
9. Section 2.4.2.1 Pre-World War II Era - The Risk Assessment must be revised to include these unknowns (ranges).
10. Section 2.4.2.4.3 Post-World War II (1950s) Era - Since the actual 1959 ranges could not be located, please describe the risk assessment methods for these unknown areas.
11. Section 2.4.2.4.3 Post-World War II (1950s) Era - If these ranges were not included in the risk evaluation, please state why it was deemed irrelevant.
12. Section 2.4.2.4.3 Post-World War II (1950s) Era - Since the exact location of "demolition areas of unknown chronology" has not been determined, please describe the risk assessment methods used for these unknown areas.
13. Section 2.4.2.4.3 Post-World War II (1950s) Era - If these demolition areas were not included in the risk evaluation, please state why it was deemed irrelevant.
14. Section 2.4.2.4.3 Post-World War II (1950s) Era - There is no reference in the RI/FS as to how unverified information was used to develop Risk Assessment and Cleanup Alternatives.
15. Section 2.4.2.4.3 Post-World War II (1950s) Era - The Risk Assessment must be revised to include these unknowns.
16. Section 2.4.2.5.1 Late 1960 through 1995 - Please see (23) and (24) for information requests relevant to the "variety of military units" that used Camp Bonneville.
Response: The most effective way to deal with risk of finding ordnance during the course of an investigation or cleanup is to build in contingencies to take care of it that are triggered when this occurs.

17. Section 2.4.2.7 Chemical Agent Training - Since the exact location of the mustard training area is unknown, please describe the risk assessment methods for including this area.
18. Section 2.4.2.7 Chemical Agent Training - If the Risk Assessment did not include the unlocated mustard training area, please state why it was deemed irrelevant.
19. Section 2.4.2.7 Chemical Agent Training - Please describe the risk evaluation method used to include the potential for Chemical Agent Training activities.
20. Section 2.4.2.7 Chemical Agent Training - If the Risk Assessment did not include Chemical Agent Training, please state why it was deemed irrelevant.
21. Section 2.4.2.7 Chemical Agent Training - The Report assumes that since Chemical Agents weren't found during the Remedial Investigation, they don't exist. Given the information in the ASR, the Army must revise the Report to include the possibility of Chemical Agent Training in its risk assessment and ranking system, rather than omitting it altogether.
Response: All items that were removed from Land fill 4 are listed and photographed and are available for viewing in the Landfill 4 Final report. The ASR indicated that one chemical agent training kit may have been used at Camp Bonneville. There is no physical evidence found of improper disposal of a test kit. The amount of chemical agents in a test kit likely would not contribute to widespread contamination at Camp Bonneville
22. Table 3.1 Sector Summary - This table indicates that 11 UXO items were found in grids that underwent intrusive investigation. Five additional items were found outside the grids (via coincidental surface recon), for a total of 16 UXO items. The number found coincidentally outside the grids was nearly 50% of the total UXO found. Based on these numbers, please explain the rationale for not conducting intrusive investigation on more than 1% of the site.
Response: Additional geophysical investigation is planned which will take place during the cleanup of the property, along with built-in contingencies to address munitions discovered during cleanup.
23. Section 3.2.5.2 2000 Aerial Photograph Examination - Please identify additional AOCs and AOPCs based on review of the 1980 aerial photograph.
Response: This information is not essential to this document because it has been reviewed prior to the RI/FS for RAU 3.
24. Section 3.2.5.2 2000 Aerial Photograph Examination - Please provide findings as to your review.
25. Section 3.2.5.2 2000 Aerial Photograph Examination - An examination of this 1980 aerial photograph should be conducted to determine whether there are additional AOCs and AOPCs that were not identified in this RI/FS.
26. Section 3.2.6.1 2001 Instrument-Aided Field Reconnaissance - Additional AOCs and AOPCs, if identified in the 1980 photograph, should be investigated using the same methods as previous AOCs and AOPCs.
Response: The 1980 aerial photo information is not essential to this document because it has been reviewed prior to the RI/FS for RAU 3.
27. Table 3.5 2001 Recon Line Spacing - Please explain why no recon was performed in the Safety Fans.
28. Table 3.5 2001 Recon Line Spacing - Safety Fans are, by nature, areas where significant amounts of UXO could be found, especially at training facilities. There

was significant discussion at the Sept 8 DOE meeting, as well as many RAB meetings, concerning the accuracy of safety fans in predicting the likelihood of UXO.

Response: Reconnaissance has been performed in the safety fans, since the safety fans encompass most of the property.

29. Table 3.10 Hazard Severity Ranking and Explosive Safety Hazard - There is no reference in the RI/FS as to how information obtained but unconfirmed was used to develop Risk Assessment and Cleanup Alternatives.
30. Table 3.10 Hazard Severity Ranking and Explosive Safety Hazard - The possible or probable Chemical Warfare Training stated in the ASR to have taken place must be included in site characterization and risk assessments.
31. Section 3.2.7.10 MEC Conceptual Site Model -Please justify the determination that the Conceptual Site Model is a comprehensive evaluation of past MEC activities when there are munitions identified in the ASR that have not been included in the evaluation.
32. Section 3.2.8.7 2002 Instrument-Aided Field Reconnaissance - The Report states that no MEC-related items posing an explosive safety risk were found during surface recon (within the proposed future regional park or along the roads and trails). This statement should not imply that no MEC exists or that the probability of UXO is remote.
33. Section 3.3.1 RAU-3 Site Characterization Summary - The Army's "thorough characterization" is limited to review of historical documents, collection of data at waypoints, surface recon waypoints, and intrusive investigation of random grids encompassing only 1% of the site. This characterization is extremely inadequate for developing a cleanup plan for a high-intensity regional public park.
34. Section 3.3.1 RAU-3 Site Characterization Summary - Assumptions made in the Site Characterization conclusion are based solely on factors confirmed by the characterization. They do not include factors known to exist but unconfirmed, nor the probabilities and possibilities not yet investigated.

Response: We can base our current conclusions only upon what is known currently. There should be contingencies built into any investigation/cleanup to address new information.

35. Section 3.3.3 RAU-3 Site Characterization Summary - Nearly 1,600 acres of the Camp Bonneville site have not been characterized. Please justify the statement that characterization of 2,400 acres of this 3,980-acre site is "more than adequate" to address the presence of UXO on the site.
36. Section 3.3.3 RAU-3 Site Characterization Summary - Aside from the intended use of munitions at Camp Bonneville, the following (identified in the RI/FS) are additional mechanisms by which UXO was released at Camp Bonneville: (a) loss; (b) burial; (c) abandonment; (d) kick-outs; and (e) over-shoot / under-shoot during practice. Since the ASR also concludes that "the potential for MEC exists through a majority of the installation," please explain the rationale for the assumption that the characterization (including intrusive investigation of grids covering only 1% of the site) is adequate to develop a cleanup plan that supports early transfer of this site.
Response: Geophysical Investigation (metal detection) and subsequent clearance of all of the areas proposed for cleanup includes subsurface investigation. If the property transfers to The Bonneville Conservation Restoration Trust for additional investigation and cleanup and subsequently to the Clark County for redevelopment as a park/wildlife area, Ecology intends to ensure that a more conservative

approach to investigation and cleanup is taken than the approach proposed by the Army in this RI/FS. Also see Section 5.4 in this summary.

37. Section 4.2.8 Risk Evaluation - The following statement is inaccurate because it implies only a willful act can cause detonation of UXO: “An explosive safety risk exists if a person can come into contact with a military munition and act upon it to cause a detonation.”

Response: Comment noted.

38. Section 4.2.8 Risk Evaluation - Please address the possibility that UXO could be detonated by a horse bolting, a mountain bike crash, or any other number of accidents.

39. Section 4.2.8 Risk Evaluation - Please address the fact that casings can corrode, causing UXO to become more volatile with time, rather than less volatile.

40. Section 4.3.5 Explosive Safety Hazards - Explosive Safety Hazards cannot be accurately assessed without information as to all the military units and activities associated with this site. By leaving this information out of the Report and failing to include even assumptions about these activities, the Assessment are rendered useless.

Response: The fact that foreign military exercises and training took place at Camp Bonneville is a generally accepted fact; however, this type of training is not uncommon and does not affect the RI/FS or remedy selection for the site. In addition, since the technologies used to detect and remove foreign and U.S. ordnance/munitions is the same, there is no difference in the cleanup approach.

41. Section 4.4.1.2 Explosive Hazards Exposure Assessment – The Report states that historical records of MEC-related activities and confirmed munitions findings, plus site characterization of MEC and MEC-related activities, were evaluated to develop the MEC Source. Please explain whether the nature and location of known and assumed – but unconfirmed – MEC was included in the Hazard and Risk Assessments.

Response: All AOCs and AOPCs have been identified and evaluated for inclusion in the RI/FS. The Phase 1 and Phase 2 reconnaissance looked at these areas.

42. Section 4.4.1.2 Explosive Hazards Exposure Assessment – Please explain how assumptions regarding unconfirmed accounts in the ASR were included in this evaluation.

43. Section 4.4.1.2 Explosive Hazards Exposure Assessment – If this information was not included in the Assessment, please state why it was deemed irrelevant.

44. Section 4.4.1.2 Explosive Hazards Exposure Assessment – Please revise the Report to clarify that the “MEC Source” does not include MEC that is known and assumed but remains unconfirmed.

45. Section 4.4.1.2 Explosive Hazards Exposure Assessment – Please state why the characterization—which includes intrusive investigation of only 1% of the site—is considered an adequate method for developing a MEC Source.

46. Section 4.4.1.2 Explosive Hazards Exposure Assessment – The Hazard and Risk Assessments are based in extremely inaccurate information. Much more MEC and MEC-related ordnance is known and assumed to exist throughout the site than that which is included in the characterization.

47. Section 4.4.1.2 Explosive Hazards Exposure Assessment – The Hazard and Risk Assessments should include MEC documented in the ASR or otherwise assumed, whether its presence has been confirmed in this characterization or not.
48. Section 4.4.1.5 Approach -The presence or likelihood of MEC based on activities confirmed during site reconnaissance leaves much too large a margin of error. The assumption that the characterization is an accurate (or even adequate) depiction of all MEC on the site is false, given the fact that much more is known than was discovered during the characterization.
49. Table 4.1 Explosive Safety Relative Risk Ranking - Please provide statistics that support the assumption that, although the Safety Range Fans have a critical/catastrophic explosive safety risk, there is “a low likelihood of MEC contamination.”
50. Table 4.1 Explosive Safety Relative Risk Ranking - This assumption contradicts the nature of practice ranges, where much of the munition would be expected to miss the intended target and fall within and outside the Safety Fans.
51. Table 4.1 Explosive Safety Relative Risk Ranking - The Safety Fans, which cover most of the site, are expected to contain material from misfires and other release mechanisms as stated above.
52. Table 4.1 Explosive Safety Relative Risk Ranking - All it takes is one encounter to have a catastrophic result. The Risk Assessment should be weighted in a way that reflects this.
53. Table 4.1 Explosive Safety Relative Risk Ranking - The accuracy of the Safety Fans is in question, since no pre-1955 documentations exists as to Firing Points or Targets.
54. Section 4.4.2.2 Exposure Hazards Assessment – Current Land Use - The assumption that “it is unlikely that anyone would wander onto the property with the knowledge that it was a former military installation” is inaccurate, based on neighbors’ comments about their children accessing the site.
55. Section 4.4.2.2 Exposure Hazards Assessment – Current Land Use - “Although there are no documented trespassers, the possibility exists for people to illegally access Camp Bonneville” is also an incorrect statement. Eyewitnesses have stated that hikers freely access the site.
56. Section 4.4.2.2 Exposure Hazards Assessment – Current Land Use - This debate indicates a strong feeling on the part of the community that the Exposure Hazard for the current land use is great.
57. Section 4.4.2.2 Exposure Hazards Assessment – Current Land Use - The only safe assumption is that people do access the site and hike off-trail. To assume otherwise is naïve. Children love to wander off trails and into the brush. Since the fences are down for most of the perimeter of the site, it is also probable that adult hikers access the site and hike through brush to get to trails.
58. Section 4.4.2.3 Exposure Hazards Assessment – Current Land Use - The assumption that the risk associated with current land use activities is negligible is inaccurate. If people can access the site (and they currently do), they are at risk for encountering UXO.
Response: The current land use scenario is presented as a baseline, and is not directly relevant to the future proposed land use upon which the cleanup alternatives are predicated.
59. Section 4.4.3.2 Exposure Hazards Assessment – Future Land Use - Please give justification for the statement that “Sites with limited accessibility... do not pose

the same level of hazard as an accessible site containing the same relative explosive safety risk.”

60. Section 4.4.3.2 Exposure Hazards Assessment – Future Land Use - Please provide a site-wide, area-specific ratio of UXO-to-user, which would at least provide a basis for this assumption.
61. Section 4.4.3.2 Exposure Hazards Assessment – Future Land Use - The assumption has been made that if an area is not easily accessible, people will not go there – thus reducing the risk of exposure. However, there is no data to support this assumption. All it takes is one person to encounter one UXO for there to be a catastrophic result.
62. Section 4.4.3.2 Exposure Hazards Assessment – Future Land Use - The Army should provide a site-wide, area-specific ratio of UXO-to-user in an attempt to provide a basis for the assumption that the exposure risk decreases for areas high in MEC, but infrequently accessed.
63. Section 4.4.3.4 Exposure Hazards Assessment – Future Land Use - Please state the significance of separating surficial activities from subsurface intrusive activities at a high-intensity regional public park.
64. Section 4.4.3.4 Exposure Hazards Assessment – The assumption that intrusive subsurface activities will not take place in areas where surficial activities are expected is inaccurate. Intrusive subsurface activities must be expected in a public park where children will be unsupervised for long periods of time. The Report should reflect this. The only guarantee of surficial activities is on paved roads. All other areas have the potential for subsurface activities.

Response: Nationally, there has not been any agreement reached between DoD and state or federal regulators about the best methodology to conduct risk assessment or hazard ranking assessments at ordnance- or munitions-contaminated sites, although several approaches have been proposed. Risk assessment or hazard ranking assessments should be considered relative in terms of the specific site being addressed. Fundamentally, areas of high, medium, or low risk need to be identified and appropriate response/cleanup actions taken on a site-specific basis. The draft RI/FS for RAU 3 proposes cleanup alternatives in such a fashion for all areas of potential concern (AOPCs) and Areas of concern (AOCs) at this facility.

Ecology does not necessarily agree with all aspects of the Army’s proposed risk assessment/hazard ranking assessment for this site. However, Ecology does believe that the approach proposed does provide a way to gain a better relative comparison between the Areas of concern at the Camp Bonneville property.

Ecology believes that a more conservative approach is warranted at some of the specific areas of concern and has proposed to the Bonneville Conservation Restoration Trust, Clark County and previously the Army, that more investigation and cleanup is needed at specific areas of concern within the property. In particular, Ecology believes that Howitzer target areas within the Central Impact Area need to be cleared of ordnance, firing positions will need to be investigated and cleared of ordnance that could have been potentially buried, and further investigation is needed at some areas of the western portion of the property. If the property transfers to The Bonneville Conservation Restoration Trust for additional investigation and cleanup and subsequently to the Clark County for redevelopment as a park/wildlife area, Ecology intends to ensure that a more conservative approach to investigation and cleanup is taken than the approach proposed by the Army in this RI/FS.

Although comments were submitted that questioned some of the historical information and some of the investigative approach, Ecology must consider the following facts when making decisions about this RI/FS: All currently available historical and archival information has been reviewed and incorporated into the investigative approach for Camp Bonneville (Ecology has received the Lidar Data but has not yet determined its applicability). Approximately 60 percent of the site surface has been investigated on foot by teams during the two phases of the Instrument Aided Reconnaissance. Additional site characterization and cleanup is currently being proposed over the next 2-4 years if the property transfers. This will also include some quality assurance review of previous Army work.

Even given all of the above, contingencies should be included in any cleanup so that if ordnance is discovered, the investigation is expanded around that area to determine if any additional ordnance is in the area, which would then be removed.

In summary, Ecology is attempting to compensate conservatively for any potential lack of historical information or questions about the investigation or risk assessment methods used by negotiating for additional cleanup and cleanup contingencies in the PPCD and Draft CAP. Both of these documents will be available for public comment if the proposed transfer of the property moves forward.

65. Section 4.4.5.1 Target Areas - The “sum of all identified targets” in this Exposure Hazards Assessment does not include existing, unlocated targets. Please include these unidentified targets in the Hazard and Risk Assessments.
66. Section 4.4.5.1 Target Areas - If this information cannot be included, please state why it is deemed irrelevant.
67. Section 4.4.5.1 Target Areas - The assumption that the sum of identified target areas is an adequate characterization of the all target areas on the site is inaccurate. Identified target areas should not be the sole basis for the Hazards Assessment.
68. Section 4.4.5.1 Target Areas - A Hazards Assessment should be conducted that includes existing but unlocated target areas.
69. Section 4.4.5.4 Target Areas -Please explain why the County-wide Lidar images were not used to further assist in locating ground scars at Camp Bonneville.
70. Section 4.4.5.1 Target Areas - Lidar images are far superior to aerial photography for identifying features such as ground scars. Please address comments (60) through (65) as they pertain to Exposure Hazards Assessment for target areas.
Response: Ecology has the LIDAR data and is looking at it. At this time, we do not know whether it will be valuable to identify anything that has not already been discovered.
71. Figure 4.1 Target Area Location Map - Please revise this map to state that targets included on the map are only those confirmed during the Remedial Investigation, and do not include any pre-1955 targets or other existing and suspected targets that remain unlocated.
72. Figure 4.1 Target Area Location Map - This map represents itself to be all-inclusive of targets on the site. This is misleading and unfair to the public, who cannot possibly know from this illustration that other unidentified targets exist.
73. Section 4.4.6.5 Central Impact Target Area - Please justify Explosive Hazards Exposure Rank B for these areas that are highly contaminated.

74. Section 4.4.6.5 Central Impact Target Area - Please include in the Report a UXO-to-person ratio should even one person access this area, and weight it accordingly in the Hazards Assessment.
75. Section 4.4.6.5 Central Impact Target Area - The inaccessibility of the Central Impact Target Area is questionable due to the existing 4-wheel drive roads, which will be accessed by the public whether authorized or not. The Hazard Assessment needs to account for this.
76. Figure 4.3 Central Impact Target Area Probabilistic Model - Please revise this map to state that firing points included on the map are only those identified and do not include pre-1955 firing points or those used by foreign militaries or other entities.
77. Figure 4.3 Central Impact Target Area Probabilistic Model - For the reasons stated in (140), this map is misleading and inaccurate.
78. Section 4.4.7.4 Open Burn / Open Detonation Areas - The probability of persons in OB/OD areas is considered to be minimal. However, since these areas are accessible by road, please develop a method such as UXO-to-receptor ratio in determining a more accurate Hazard Assessment.
79. Section 4.4.7.4 Open Burn / Open Detonation Areas - One person may venture into an OB/OD site, but that one person may encounter a UXO if the ranking is high. The ranking system should be adjusted to account for the high probability of encountering UXO if the site is accessed.
80. Section 4.4.8.1 Firing Points - Please explain why it was deemed unnecessary to include information about Firing Points that are known to exist, but were not located during this characterization.
81. Section 4.4.8.1 Firing Points - This Hazards Assessment is based on incomplete information and assumes that the identified Firing Points are the only Firing Points that exist or pose a threat. This is inaccurate.
82. Figure 4.5 Firing Point Location Map -Please revise this map to state that Firing Points included on the map are only those identified and do not include pre-1955 firing points or those used by foreign militaries or other entities.
83. Figure 4.5 Firing Point Location Map -For reasons stated in (146), this map is misleading and inaccurate.
84. Section 4.4.8.4 Firing Points - Please provide documentation to support the following assumptions made in this paragraph:
 - o “Only non-deployed military munitions are anticipated to be present at Firing Points.
 - o “Most artillery munitions are required to be fired in order to activate the fuzing mechanism.”
 - o “*** the overall probability that the munition can be detonated by a person uncovering or picking up the item is extremely remote.”
85. Section 4.4.8.4 Firing Points - There is no consideration in the statements above that corrosion of casings may occur over time, making the UXO more volatile.
86. Section 4.4.9.5 Training Areas - Please explain the methodology for determining that the explosive safety risk posed by small arms ammunition is very small, when the Report acknowledges possibility of injury to persons in close proximity to an explosion.
87. Section 4.4.9.5 Training Areas - It is evident from the Army’s statement that “the explosive safety risk posed by small arms ammunition is very small and is not further discussed in this report” indicates that the Army is dismissive of a risk that could potentially be very high.
88. Section 4.4.9.5 Training Areas - Newspapers are full of incidents involving children and small arms ammunition. This type of ammunition is very attractive to

children, who will want to experiment with it to see if they can make it go off. Or they will take it off-site and experiment with it later, perhaps with their friends at school. The likelihood of children trying to detonate small arms ammunition they find is very high because it is small and looks harmless. The finding of a “very small” safety risk is inaccurate.

89. Section 4.4.9.10 Training Areas - Please explain the conclusion that the clearance action to a depth of 2 feet for areas known to be at risk for UXO is enough, given the intrusive nature of camping.
90. Section 4.4.9.10 Training Areas - My own dog has dug holes 2 feet deep at campsites. Digging is also a common activity for children, especially in areas near campsites that may not be cleared of UXO to a depth of 2 feet. The risk of encountering UXO is much too high for the safety of campers in these former Training Areas, yet cleanup slated for the camping area is ICs only (8.2.5.2).
91. Figure 4.7 Range Safety Fan Map - Please revise this map to include a statement that pre-1955 Firing Points and Targets are not included on this illustration.
92. Figure 4.7 Range Safety Fan Map - Please revise this map to state that other existing but unlocated Firing Points and Targets are not included on this illustration.
93. Figure 4.7 Range Safety Fan Map - Please provide methodology as to the determination of range for these Safety Fans.
94. Section 4.4.10.1 Range Safety Fans - Since Range Safety Fans are designed to contain “undershoot” and “overshoot” (which would be significant due to the practice nature of this facility), please provide rationale as to the “very low probability for encountering UXO in Range Safety Fans.”
95. Section 4.4.10.1 Range Safety Fans - Please provide documentation as to the accuracy of these Range Safety Fans given the possibility of misfiring, loss, burial, overshoot and undershoot as additional mechanisms for releasing UXO on the property.
96. Section 4.4.10.1 Range Safety Fans - If accuracy cannot be determined, please provide rationale for your assumptions.
97. Section 4.4.10.1 Range Safety Fans - Due to personal accounts of military actions that took place much more frequently than stated in this RI/FS, coupled with the lack of inclusion of other militaries known to have used the site, the statement that the likelihood of encountering UXO in a Range Safety Fan is “negligible” (8.2.6) is patently false.
98. Section 4.4.10.1 Range Safety Fans - The probability of persons coming in contact with UXO is much greater than the Army is acknowledging in this Report.
99. Section 4.4.10.1 Range Safety Fans - A ranking of D for Range Safety Fans is grossly inadequate given the accessibility of these areas and the UXO expected to be present due to overshoot and undershoot.
100. Section 4.4.10.1 Range Safety Fans - Due to the possibility that rounds could have impacted off the installation, please provide an additional map that illustrates fans for maximum missile distance given the following: Maximum charge, maximum range, and topography.
101. Section 4.4.10.1 Range Safety Fans - Please include in this map the areas outside Camp Bonneville that would be affected by these new range fans.
102. Section 4.4.10.1 Range Safety Fans - The Figures provided do not include information on actual ranges. This information should be provided since there is an acknowledged possibility that UXO exists off-site.
103. Section 4.4.12.2 Maneuver Areas - As stated in this section, pyrotechnic devices that could cause bodily injury may be present in Maneuver Areas as a result of

abandonment, mishandling or loss. These areas overlay camping, construction and other subsurface intrusive activities (4.4.12.3). For this reason an E Ranking is too low.

104. Section 4.4.13.2 Central Impact Area - Please define the significance of the term Central Impact Area.
105. Section 4.4.13.2 Central Impact Area - Given the nature of training on this site, please provide documentation as to accuracy of hitting targets during practice.
106. Section 4.4.13.2 Central Impact Area - If accuracy cannot be determined, please justify the conclusion that the likelihood of additional UXO present in the Central Impact Area is low – medium.
107. Section 4.4.14 Summary of Exposure Hazards by Primary Source Types - Please define “risk” as it is discussed in this section. Does it mean the risk of encountering UXO? Does it mean the risk of bodily injury or death should one encounter UXO?
108. Section 4.4.14 Summary of Exposure Hazards by Primary Source Types - I disagree with the statement that all site types pose a negligible risk except Target Areas, Firing Points and OB/OD Areas.
109. Section 4.4.16.3 Roads and Trails - Please explain assumptions concerning impacts of grading on the existence of UXO.
110. Section 4.4.16.3 Roads and Trails - Please explain the assumption that the risk of encountering UXO is less after grading than before.
111. Section 4.4.16.3 Roads and Trails - Grading could have the potential of moving UXO to the surface, rather than burying it further.
112. Section 4.4.16.3 Roads and Trails - Please state why circumstances such as horses bolting, dogs heading into the brush (chased by their owners), children chasing after snakes and squirrels, and other similar, common events are not addressed in the risk assessment for Roads and Trails.
113. Section 4.4.16.3 Roads and Trails - Given the circumstances described in (191), please provide justification for the assumption that horses, dogs and children will stay on the Roads and Trails at all times.
114. Section 4.4.16.3 Roads and Trails - Please revise this RI/FS to address the risks associated with venturing off the roads and trails, especially in places that abut high-MEC areas.
115. Section 4.4.16.3 Roads and Trails - This Report failed to give a reasonable rationale for the assumption that people and horses will stay on roads and trails.
116. Section 4.4.16.3 Roads and Trails - This Report failed to evaluate in its Hazard and Risk Assessments circumstances such as those described in (191).
117. Section 4.4.19.2 Remaining Medium Intensity Reuse Areas - Please provide justification for the assumption that “very few people are expected to enter the Remaining Medium Intensity Reuse Areas, as most people would be expected to use the accessible Roads and Trails.”
118. Section 4.4.19.2 Remaining Medium Intensity Reuse Areas -My personal observation as a camper and park user is that short-cuts are taken all the time between one use and another, and one campsite and another. The assumptions made in this section are inaccurate.
119. Section 4.4.20.1 Wildlife Management Area - Please justify the assumption that people are not expected to venture into the Wildlife Management Area due to steep terrain.
120. Section 4.4.20.1 Wildlife Management Area - Steep terrain will be an attractor for many outdoor enthusiasts.
121. Section 4.4.19 Summary of Exposure Hazards by Land Use - This Report has failed to justify assumptions for the conclusion that “none of the proposed reuse

- areas were determined to pose an appreciable explosive exposure hazard.” This is an extremely broad over-generalization given the nature of UXO contamination.
122. Section 5.2.4 Natural Processes - Since two former ranges were located adjacent to Lacamas Creek (3.2.4.1), please provide justification for the statement that “the potential for increased MEC exposure from erosion along Lacamas Creek is not considered to be an important factor for increased human exposures ***. Therefore, erosion along Lacamas Creek is not considered in the development of the Camp Bonneville cleanup standards.”
 123. Section 5.2.4 Natural Processes - Please provide justification for using only the known footprint areas selected for MEC clearance, without also including a buffer to account for a margin of error.
 124. Section 6.3.2 Cleanup Alternative 2 - I agree with the statement that there is a “negligible” risk to a person if the person’s behavior is appropriate only to the extent that people are robotic and programmable.
 125. Concluding Comments - The RI/FS was not conducted by an objective third party. There were no independent studies.
 126. Concluding Comments - Many assumptions that have been made.
 127. Concluding Comments - Most of the assumptions were not identified as such in the Report.
 128. Concluding Comments - Nearly all of the assumptions are unexplained.
 129. Concluding Comments - There are major data gaps that the Army has hidden, ignored, or failed to be addressed.
 130. Concluding Comments - The Army and County have not been forth-coming with information or technology that would increase the accuracy of this Report and its assumptions.

5.3.3 Specific comments provided by Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation

1. On page 4-34. Section 4.4.16.2. The opening comment should be amended to state that the reconnaissance effort resulted in 100% sampling (not coverage) of roads and trails.

5.4 Response to specific comments about the risk assessment

Nationally, there has not been any agreement reached between DoD and state or federal regulators about the best methodology to conduct risk assessment or hazard ranking assessments at ordnance- or munitions-contaminated sites, although several approaches have been proposed. Risk assessment or hazard ranking assessments should be considered relative in terms of the specific site being addressed. Fundamentally, areas of high, medium, or low risk need to be identified and appropriate response/cleanup actions taken on a site-specific basis. The draft RI/FS for Camp Bonneville munitions proposes cleanup alternatives in such a fashion for all Areas of Potential Concern (AOPCs) and Areas of Concern (AOCs) at this facility. This includes all information on the Central Impact Area, the Open Burn/Open Detonation Site, Firing Points, Training Areas, and the roads and trails, and range safety fan area inside the property.

Ecology does not necessarily agree with all aspects of the Army’s proposed risk assessment/hazard ranking assessment for this site. However, Ecology does believe that the approach proposed does provide a way to gain a better relative comparison between the areas of concern at the Camp Bonneville property.

Ecology believes that a more conservative approach is warranted at some of the specific areas of concern and has proposed to the Bonneville Conservation Restoration Trust, Clark County and previously the Army, that more investigation and cleanup is needed at specific areas of concern within the property. In particular, Ecology believes that Howitzer target areas within the Central Impact Area need to be cleared of ordnance, firing positions will need to be investigated and cleared of ordnance that could have been potentially buried, and further investigation is needed at some areas of the western portion of the property. If the property transfers to The Bonneville Conservation Restoration Trust for additional investigation and cleanup and subsequently to Clark County for redevelopment as a park/wildlife area, Ecology intends to ensure that a more conservative approach to investigation and cleanup is taken than the approach proposed by the Army in this RI/FS.

Although comments were submitted that questioned some of the historical information and some of the investigative approach, Ecology must consider all currently available historical and archival information has been reviewed and incorporated into the investigative approach for Camp Bonneville (including the Lidar Data which Ecology has received but has not yet determined its applicability) when making decisions about this RI/FS. Approximately 60 percent of the site surface has been investigated on foot by teams during the two phases of the Instrument Aided Reconnaissance. Additional site characterization and cleanup is currently being proposed over the next 2-4 years if the property transfers. This will also include some quality assurance review previous work conducted by the Army.

Even given all of the above, contingencies should be included in any cleanup so that if ordnance is discovered, the investigation is expanded around that area to determine if any additional ordnance is in the area, which would then be removed.

In summary, Ecology is attempting to compensate conservatively for any potential lack of historical information or questions about the investigation or risk assessment methods used by negotiating for additional cleanup and cleanup contingencies in the PPCD and Draft CAP. Both of these documents will be available for public comment if the proposed transfer of the property moves forward.

6.0 Remedial Actions

6.1 General comments related to the remedial actions proposed

Comments were submitted concerning the specific remedial actions proposed in the Feasibility Study for RAU 3. Some of the comments on remedial actions extended beyond those proposed for RAU 3 to remedial actions that may be applied to chemical contamination at the site.

Comments ranged from questions and comments on the methods used and underlying assumptions made in the analysis leading to remedial action recommendations, and the level of subjectivity exercised by the consultant in reaching their conclusions. This section provides all general comments received that pertain to the proposed remedial actions and identifies the individual who submitted the comment. After the listing of all general comments for this comment category, a general response to all comments is provided.

1. As a homeowner whose neighborhood is attached to the facility, I am alarmed to hear the extent of what lies there. There have been many occasions where our neighborhood children walk the trails and wind up in Camp Bonneville. The Camp should be clearly fenced and marked dangerous along the entire perimeter and it is not. (Christopher Guzman, Michelle Guzman)
2. Is my family guaranteed that there will be no dangers on the uninvestigated sites? The only proposed cleanup action that I would feel comfortable with would be to excavate and restore. (Crystal Paul and Jesse Paul)
3. I absolutely want 100% cleanup before a park is developed. Signage and fencing is insufficient. (Jackie Koonce)
4. Does the clean-up include de-toxification of the aquifer? How will users of the park be kept from “unsafe” areas? (Karen Smith)
5. The projected cleanup is insufficient for a park. There is pollution in many forms on this piece of land, all caused by the Army, and I think that the Army should be held completely responsible for the cleanup before any transfer of this land is considered. I am mortified that Clark County has even considered taking on the liability of this land, and I worry about the safety of innocent people. Whatever the reuse ends up being of Camp Bonneville, it needs to be determined after cleanup has been performed absolutely and entirely. Fences and signage are not removing the extreme threats, and I am insulted. (Leslie Bailey)
6. The DOE should show some leadership and say NO to the BRAC. (Mark Benson)
7. The proposed cleanup seems to fall short of what the average resident of Clark County would consider reasonable. The cleanup in no way addresses the properties that border the camp and fall under the range fans. Why is there a refusal to even inspect these properties, when it has been stated “the safety of the community is the primary goal?” I feel the safety of my taxpaying family is being ignored to push through this hasty transfer of Camp Bonneville. What is the hurry? Though part of my property falls under two of the range fans, your approach to UXO in that area has been – if we don’t look, we won’t find any. After repeated requests, BRAC has refused to assure me and my family in writing that my property is void of any UXO. This is the property that I pay taxes on and falls under their (Bonneville) range fan. At the same time they have said they will not drive a vehicle or put a stake in the ground less than 5 feet on their side of the property line, a govt. rep told several of us not to dig on our property or put in a pond we had planned. That statement is now being denied. (Rand Harris)

8. I do not want any child to go to a public park that is not free of contamination. Putting up fences is not removing the bombs or danger that exists. The Dept. of Ecology must enforce the Army to clean this area 100% clean. This is a label for a park for children – 100% clean of contaminants for 100% of time. (Teresa Freiburger)
9. In addressing the Areas of Concern, none of the 7 AOCs have been designated an “Excavation and Restoration” alternative. This is unacceptable. For example, the Target Areas are broken down into 4 different areas, with all 4 holding an “A” ranking in the Explosive Hazard Exposure, which is understandable considering their historical use. Additionally, their Future Land Reuse Intensity is ranked collectively high, with just the 2.36” Rocket Area ranked as medium reuse. Why weren’t the Target Areas, which were awarded the highest ranking in both hazard exposure and reuse, given the alternative of “Excavation and Restoration”? Additionally, the Open Bum/Open Demolition, ranked high in Explosive Hazard Exposure, should be awarded an “Excavation and Restoration” alternative. Considering that only 1% of the site has been examined for the presence of subsurface MEC, are there other sites at Camp Bonneville that would be considered AOC or AOPC, and deemed “Excavation and Restoration”? (Coleen Broad)
10. At the proposed “Amphitheater”, the County feels a deeper clearance than frost depth is warranted. Based on the potential for some type of seating requirement, intrusive activity is highly probable. (Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation)
11. Request the incorporation of “step out” criteria for entire site. (Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation)
12. M203 range is listed as needing only IC’s. Even though this range had an interim clearance performed, the QC/QA of that clearance is in dispute. Based on its’ location in the middle of the high re-use area, request additional investigation be performed. (Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation)
13. How will costs be handled for the “step-outs”? We recognize that WSDOE is not involved with the ESCA negotiations, however we feel it is prudent to explore the funding stream for this criteria within the context of this document. (Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation)
14. The Central Impact Target area is shown to receive Institutional Controls only. The risk potential for interaction is far too great to rely on IC’s. At a minimum, targets should be removed, clearance to frost depth in 100x100 ft grids around each target area and then step out requirements. Clark County believes that cleanup actions should not rely primarily on institutional controls and monitoring, where it is technically possible to implement a more permanent cleanup action for all or part of the site. The Central Impact Target Area (CITA) has been identified as having a relatively high MEC density with high potential risks. In order to adequately address public safety, public health, and fully implement the Reuse Plan, and to optimize timber management practices and trail networks, Clark County advocates a more thorough clean-up of the Central Impact Area. Clark County does not see any technical barriers to implementing a removal action at accessible and high MEC density areas of the CITA. Clark County agrees with DOE recommendations to modify the selected cleanup action for the Central Impact Target Area to include actions similar the following:
 - Center as best possible a polygon (shape dependent on terrain) not to exceed one-acre over each artillery target.

- Clear to a depth of 4 feet, using adaptive clearance approach discussed with the Army.
 - Conduct additional investigative transects over the remaining accessible (base of slope and vegetation) areas.
15. (Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation)
 16. Clark County agrees with Ecology's recommendation that the Army re-evaluate the costing of the recommended cleanup actions for Demo 2 and 3, which is estimated at \$150,000. Based on experience gathered from the recent excavation of Demo 1, it is likely that the costs for cleanup of Demo Areas 2 & 3 are significantly underestimated. (Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation)
 17. The range consolidation maps have many known firing position points. I understand that reuse is not considered intense in these areas but a possible cache of unused munitions poses an unconventional risk. I would like to see them removed for present and future soil and groundwater releases and possible future visitor knowledge and safety issues. (Christine Sutherland)
 18. Section 8.2.10 responds to cleanup at the roads and trails. I find it unreasonable to assume that visitors will maintain the beaten path. This does not take into account of children, foreigners and pets. The recommended action is a 20-foot wide swath. Anywhere that we can walk, I do not accept a MEC risk. Path or no path. How will our safety be addressed besides a sign? (Christine Sutherland)
 19. The extent to which the Army is willing to remediate Camp Bonneville is insufficient and irresponsible. The ideology of past Clark County commissioners (and I have not been convinced otherwise by current commissioners) was communicated by stating that the planned reuse was "value vs. risk." I wholeheartedly disagree with this philosophy and condemn it to the hazardous waste pile. The Army contaminated this beautiful piece of Pacific Northwest property. It is physically impossible for the Army to clean it to the degree it would need to be cleaned to assure those who visit would be safe. And, Clark County doesn't possess the money they would need to settle a liability case. The remediation plan as outlined by the Army in the Draft RIFS is incomplete, insufficient, and unacceptable to me. (Brenda Rule)
 20. I am appalled that the Army and others would consider it acceptable to convert this munitions and hazardous waste site into a park, without first eliminating all unexploded ordinances and all forms of toxic contamination from both above and below ground including water sources for the entire area, before turning it over for public use. (Daniel Swink)
 21. The Army's cleanup plans and containment measures don't even come close to eliminating the dangerous threats to human life and to the watershed, both of which will still be in great danger if their plan is accepted. (Daniel Swink)
 22. I find the Army's idea of posting some signs along park trails (which may or may not include some possible minimal fencing) to keep people out of areas that haven't been cleaned of UXO's (Unexploded Ordinances) to be totally irresponsible. Who is going to monitor all those miles of trails to make sure that some curious kids don't go into an area where they could get blown up? (Daniel Swink)
 23. For the safety and future of all concerned, I implore the Department of Ecology not to allow any plan that doesn't fully address eliminating upfront; all possible exposure to UXO's and toxic contaminants by the public. (Daniel Swink)
 24. I seriously think that the Army should be responsible for cleanup of any and all chemicals/explosive devices before the property is turned over for public use. (Donna Torres)

25. I have family in Vancouver, WA (my parents live there, as do my sister and her family). They will undoubtedly use the Camp Bonneville park property if they are confident that it poses no safety risk. My nephew and niece (kids under 12) love to play outdoors, frequenting neighborhood and nearby parks such as Lackamas Lake and riverside parks along the Columbia. Much of their fun involves exploring wooded pockets of these parks where they find snakes and other critters and take part in all sorts of imaginary play. I shudder to think of them happening upon the extremely dangerous unexploded ordnance that surely lies in such pockets of Camp Bonneville, and I know they do too: they will never use Camp Bonneville under the proposed circumstances of the property's transfer to the state. Please do not allow this transfer to take place without guarantees from the federal government ensuring 1) that all unexploded ordnance will be removed, 2) that residual effects of the prior use of the property (soil and groundwater contamination) will be mitigated, and 3) that any areas retaining unexploded ordnance or residual effects will be effectively and permanently safeguarded against the entry of ordinary citizens or unauthorized personnel. To do anything less invites disaster. (Larry West)
26. I own property in the Summit at Autumn Hills (Mt. Livingston), which borders camp Bonneville. How will I be affected by the clean up project? (J. Sullivan)
27. There are unexploded bombs, ordinance, and munitions in Camp Bonneville from years of its use as a training facility and from unexploded fireworks disposed there by the army. The soils are contaminated. The groundwater is contaminated. There are plans for public water wells in the middle of this area, which is not good because of the contamination. The army has not gone in and surveyed the whole area, so they really don't know how many bombs there are, and to date there has not been sufficient exploration of the contamination by these UXO nor of the perchlorates or other contaminants that may be there. It is absurd to consider this area as a park or any other kind of public area until the entire area is cleaned up. Until then, it should be securely fenced and guarded with sufficient markers and warnings for public protection. (Karen Axell)
28. I feel that no matter what happens with this property, it needs to be cleaned up. I think it's outrageous to believe the property could ever be used as a community park or have anything to do with the public. I believe it's the Army's responsibility to put the property back to the way they originally found it. I'm sure I'm not the only concerned citizen who feels this way and I hope you take everyone's "questions, comments and/or concerns" into serious consideration before moving forward on this issue. (Michael Blystone)
29. The RIFS contends that "Camp Bonneville has been thoroughly characterized for the presence, location, and density of munitions; this is not I believe accurate. The army used statistical based sampling to develop sampling and analyses plans for the detection of MEC and UXO as well as chemical contaminants. Although SiteStats and GridStats, OECert and UXO Calculators are used by the Army (and its contractors) to assist in site characterization, these tools are inadequate for establishing final cleanup levels as prescribed by the RIFS. It is my understanding that the Army's site characterizations assume a homogeneous distribution of ordnance in the study areas, which does not reflect actual real-life distribution within target areas. The DOE has found this sampling data to be unreliable and discredits the application, particularly in reference to the Central Impact Target Area. For this area has been underrated, especially since the site has not been secured. The RIFS claims that public exposure in the Central Impact Area is negligible, this is a false assumption because the implementation of Institutional Control such as fencing and signage are not sufficient to remove the threat to public health and safety from the

Central Impact Area. More intrusive remedial activities are required in the Central Impact Areas due to the potential for imminent harm from Explosive Hazard Exposure. (Thom McConathy)

30. As a member of this community I have a lot of concerns for the safety of visitors to Camp Bonneville. The risk of someone or animal coming across something dangerous is very high with your current cleanup plans. If your intention is to have a park that is safe for all visitors you will need a larger more thorough area of clean up. People will bring kids who will not walk the designated paths (we all know parents who have no control over their children.) Also, families will bring pets that will run all over. Even with a leash law there will be violators. Now that you know better...you must do better. Widen the clean up boundaries to include areas between your high-use areas. Think twice about creating pathways around the target areas. You have no idea what is in that soil and how it will affect the health of our citizens and family pets. The stakes are too high just to skim over the area to save money. The military will spend millions to keep Americans safe and yet when it comes to this they seem to have dropped the ball. I would like to know how much they spent developing those weapons they have tested at Camp Bonneville verses how much money they are willing to spend to keep us safe. As in the war in Iraq this shouldn't be about money it's about eliminating the threat to Americans. (Sunny Christensen)
31. Major Concern--Not enough funding for true costs of clean-up. I currently reside in a community of 126 homes (some are still lots--about 12) whose common area abuts the subject property. The federal government has a long standing history of being short sided and this can be found in a multitude of the messes they have made in our state.--the best example of which is Hanford. Camp Bonneville on its surface sounds great but given the length of time it was used as a training site and the high potential for erroneous record keeping should be a huge concern to the state. This site was used for nearly a century and through four major world conflicts as a training ground when Clark County was far less populated.--translation, many people never really knew what was happening out here because very few people lived around here. (Greg Gospe)
32. In sum, for the wildlife management area, we support Alternative 2. For the roads and trails within the wildlife management area, we can accept Alternative 4 on the *actual surface of the road or trail itself*. If there are to be any buffers along the roads and trails, on those we can accept Alternative 3, the surface clearing, assuming the vegetation would readily grow back. (Gretchen Starke, Conservation Chair, Vancouver Audubon Society)
33. As for Alternative 6, complete removal, we find it unacceptable and hope that no further consideration is made of it. We do not want to have Camp Bonneville turned into a moonscape. As this alternative was given a low ranking for all uses, it appears that the Army would also find it unacceptable. (Gretchen Starke, Conservation Chair, Vancouver Audubon Society)
34. It is not a good idea to leave bombs about and then turn Camp Bonneville into a public park! The soils are contaminated. The groundwater is contaminated. There isn't sufficient clean-up proposed by the army. The army has not gone in and surveyed the whole area, so they really don't know how many bombs there are. There are plans for public water wells in the middle of this area, which is not good because the area is CONTAMINATED!!! (Jane Valentine)
35. I live in the Summit at Autumn Hills. Because my neighborhood directly borders Camp Bonneville, I have a definite and very real concern as to the extent of fact finding, degree of cleanup and proposed locations or areas of cleanup that will be proposed or agreed to during your agencies decision making process. Obviously any

toxic or explosive materials near my neighborhood or its surrounding trails is absolutely unacceptable. In addition, it is my understanding that the fire agencies involved have stated unequivocally that they will not risk their people or resources to fight a fire at camp Bonneville unless it is properly cleaned up. This affects "me and mine" directly and it would be irresponsible and unconscionable if this situation were to be allowed to stand. (Jeffrey Gibbons)

36. I do not want a park in my county that contains unexploded bombs. This is an accident waiting to happen. Furthermore, the toxins that are left behind by the Army's past activities at Camp Bonneville are poisoning the drinking water. Once the drinking water is poisoned, it takes hundreds, if not thousands of years to purify it again. This is just not acceptable. (John Felton)
37. RI/FS Appendix B, B.4.1. "The Camp Bonneville Reuse Plan" includes key parcels of land that are designated for complete access restrictions." ... yet the recommended restrictions simply "prevent easy access." If a parcel is designated for complete access restrictions, there needs to be a commitment to keep people off that parcel at any cost. Which then poses further problems such as wildlife management: If the fences are designed to keep children out (6-ft high with barbed or razor wire at the top), then how can wildlife move freely within the area? (Lynelle West Hatton)
38. I have a big concern about the extent of cleanup planned for Camp Bonneville. After looking over the future plans for the area I can see that this is going to be used by a wide variety of people, in a wide variety of ways. There is no way anyone will keep people on the pathways and designated areas. Visitors will want to visit the park to explore the outdoors. They will bring pets who will want to explore too. I think the entire area between all recreational areas should be thoroughly searched for dangers. Not just around pathways. The trails going around and by the impact area should either be eliminated or not open until you can guarantee the safety of adults, children & pets who will be enticed to explore nature in that natural environment. I know you plan to educate visitors of the dangers but people are educated about a lot of things like smoking, no seat belts, not wearing life jackets, drinking and driving, using drugs and much more. They continue all of those things with grave consequence. So a silly educational video, I can guarantee you, will not be taken seriously and may even spark interest to find some of these "dangers" for themselves. As a member of this community I have an interest in the safety of our citizens. I cannot believe people trusted to make decisions for us would agree to anything but an adequate search of all areas our friends and neighbors will be visiting. Generations have used this land and will continue to use the land. You have a responsibility to not make the mistakes of the past become the disaster of the future. (Sunny Christensen)
39. The proposed re-use on which this RIFS is based (transferring the property to become a public regional park) is entirely unacceptable as long as MEC/UXO and chemical contaminants remain on site. If remedial activities cannot be employed by the Army to ensure that the site is remediated to the level that sufficiently removes the public's risk of exposure and injury from these elements, the proposed clean-up plan should be rejected and elevated levels of remediation should be designed. (Dviya Michael Bertish)
40. According to the 208 Area-Wide Clark County Groundwater Management Plan, leachate from the Camp Bonneville sewage ponds contributed to failed water quality standards at Lacamas Lake, fed by Lacamas Creek, which runs through the camp. This problem was known in the late 1978 to be one of two leading sources of contamination in the Lacamas Basin. There are sewage ponds still extant on the site that are adjacent to the creek, and these facilities will need to be removed since they are located in proposed hi-intensity use parklands. The RIFS makes no mention of

abatement plans for the sewage lagoons. It is possible that the sewage lagoons could be receptacles for non-sewage contaminants (including MEC) and this needs to be studied. (Dvija Michael Bertish)

41. In light of the documented groundwater contamination, an alternate cost-effective remedial activity is hereby offered. Phytoremediation is the emerging technology that uses plants or trees to extract, degrade, contain or immobilize contaminants in soil, groundwater, or surface water. Some plants and trees are particularly good at uptake or processing of certain kinds of contaminants. Phytoremediation catalyzes the extraction of contaminants from soil or groundwater through uptake and storage in the plant's shoots, leaves, or roots. Contaminants, including metals, organic and inorganic compounds are concentrated in the plant tissue and then the plant is harvested and removed from the site. Hybridized clones of native poplar (cottonwood) trees can be introduced into Camp Bonneville in high risk areas, where, after three years of growth, these trees can show fast-paced removal of toxic substances from soil and groundwater. The use of hybridized poplars can clear toxic substances to levels as deep as 40 feet, and can completely arrest and remove groundwater plumes in a relatively short period of time. This alternate methodology should be added to the clean-up plan. (Dvija Michael Bertish)

6.2 Response to general comments related to the remedial actions proposed

As noted in previous responses, the RI/FS for RAU 3 was focused on site-wide UXO and MEC remaining on site. As such, remedial actions proposed were limited to those that would address the explosive safety hazard posed by UXO and MEC remaining at the site. Chemical contamination at the site is associated with other RAUs, and remedial actions proposed for these contaminants are addressed in other phases of facility work. Some of these work phases have been completed, and some are still ongoing. Additional information on these other work phases can be found at the Ecology website on Camp Bonneville.

With respect to methods and assumptions used in identifying the recommended remedial actions presented in the RI/FS for RAU 3, Ecology is reviewing this document and the basis for these recommendations. We will consider the comments provided by the public during our review. Although there is no quantitative, numerical cleanup level in MTCA for UXO or MEC, MTCA specifies a qualitative level of cleanup that is required, which is fundamentally the protection of human health and the environment. In addition, MTCA provides factors that should be considered in selecting remedial actions and how these factors should be considered in weighing remedial action alternatives. Ecology believes that additional analysis is needed in the section of the RI/FS describing the methods used in evaluating remedial action options and evaluating alternatives. Ecology proposes that an addendum to the RI/FS be conducted to further address the selection of remedy criteria. This analysis will assist in selecting a preferred alternative during the CAP development process. As previously noted, the work to be performed that will be developed to support the Consent Decree and CAP for the site will include requirements for additional site characterization and remedial action at RAU 3. We anticipate that these requirements will address concerns expressed in these comments.

6.3 Specific comments related to the remedial actions proposed

This section provides specific comments received that pertain both to this comment category and to specific parts of the draft RI/FS document. Specific comments are addressed in any of the following three ways:

- A response is provided to an individual specific comment;
- A response is provided to a series of specific comments in the same topic area; and
- A general response is provided to all specific comments included in this comment category at the end of the list.

6.3.1 Specific comments provided by Paul and Karen Kingston

1. Pg.ES-3:ES.10 – At a Camp Bonneville RAB meeting the Army stated that clearance to 14 inches also meant they could also add soil at a fill depth of 14 inches. Fill dirt has a different composition and compaction. The fill-dirt alternative would not mitigate erosion and soil displacement factors. These factors must be discussed in relation to UXO/MFC remediation.

Response: Comment noted.

2. Pg.ES-5: Table ES.1 – The cost analysis of this table is invalid because these estimates are calculated from computerized data from parsons, Inc. who identified their use of statistical and presumptive data.

Response: Ecology notes these are estimates.

3. 6.5.6 – For use as a Regional Park, the only alternative is Alternative 6. Records in cases of clear cutting show that after restoration is completed or implemented, the wildlife and habitats reinstate. Note the explosion of Mt. St. Helens and the rich return of a diverse wildlife and forest growth. History in this region states the use of fire and those occurrences of natural forces are a temporarily undesirable state and yet attribute a future forest and migratory wildlife area of greater health and sustainability. This temporary state of Camp Bonneville while under Alternative 6 is a small price to pay for safety and human lives. The other option is to change the Reuse Plan to better the rational to monetarily encumber this entire nation less for closed base restoration...than to risk lives and spend millions of federal dollars for one behaviorally modified Regional Park (planned while LRA public committees were told Camp Bonneville was “Pristine less some wear and tear”)

Response: Opinion noted.

4. Much of this scoring was based on presumption and assumption. We consider it invalid unless stated otherwise. (Alternatives analysis)

Response: Opinion noted.

5. Clearance depths are highly inadequate and unacceptable. Parsons Inc. Grid clearances are unacceptable. (Recommended cleanup actions)

Response: Opinion noted.

6. Table 8.4 - needs updating

6.3.2 Specific comments provided by Lynelle Hatton

1. Section 3.2.4.2 1999 Time Critical Removal Action - Since the Army has not permitted on-site destruction of UXO since 1993 (2.2.4.3), please explain why on-site explosive destruction was allowed during the Removal Action.
Response: This UXO was damaged and therefore destroyed onsite.
2. Section 3.2.4.2 1999 Time Critical Removal Action - Please provide documentation from all relevant authorities that this method of destruction was approved beforehand.
3. Section 3.2.4.2 1999 Time Critical Removal Action - On-site detonation of explosives during the Removal Action is in direct conflict with the Army's own 1993 directive.
4. Section 4.4.10.1 Range Safety Fans - Given the nature of training on this site, complete clearance of UXO is the only possible solution for making these areas safe for the proposed re-use.
5. Section 4.4.13.2 Central Impact Area - Given the ineffectiveness of ICs in keeping people off property, the impermanence of ICs in the long term, and the likelihood of encountering UXO in this area (which is severely underestimated in this Report), the only appropriate cleanup action for the proposed high-intensity regional park is complete removal of UXO.
6. Section 6.3.3 Alternative 3 - Please explain why on-site destruction and disposal of Ordnance and Explosives (OE) will take place, given the Army's 1993 directive to the contrary.
7. Section 6.3.3 Alternative 3 - Please identify the means of dealing with contamination from munitions detonated, burned or otherwise destroyed on-site.
8. Section 6.3.6 Alternative 6 - Please describe the remediation methods for testing and decontaminating soil for placement back into excavated areas once MEC items have been removed. (See also 6.5.6.)
Response: The same methods used at Landfill 4 will likely be used.
9. Section 6.4.3.3 Chemical-Specific ARARs - The following statement ignores the possibility that there is chemical contamination associated with MEC: "No chemical-specific ARARs were identified *** because the primary concern *** is to reduce public safety risk associated with MEC ***." In my view, MEC and chemical contamination cannot be separated.
Response: Chemical specific ARARs are primarily those specified by MTCA.
10. Section 7.2 Evaluation Criteria - The primary considerations for cleanup should be Protectiveness, Permanence, and Effectiveness over the Long-Term.
11. Section 7.2 Evaluation Criteria - Cost is not important if the criteria in (230) are not met.
12. Section 7.2 Evaluation Criteria - Technical and Administrative Implementability is not important if the criteria in (230) are not met.
13. Section 7.2 Evaluation Criteria - Short-Term Risks are least important, since they primarily impact workers who will be trained, employed and insured by Army contractors, and fully aware of the risks associated with their work on the site.
14. Section 7.2 Evaluation Criteria - Given the fact that the criteria for evaluating and selecting Cleanup Alternatives were not weighted as to importance as indicated in (230) through (234), the methodology is fatally flawed. Cost cannot be evaluated equally with public safety.

15. Section 7.2 Evaluation Criteria - Please explain why evaluation methodology did not include weighting the criteria.
16. Section 7.2 Evaluation Criteria - Given the fact that co-existence of UXO and people is unacceptable by any standards except the Army's, it is not possible to clean this site to an appropriate level for a high-intensity regional public park, certainly not without impacting the environment in a way that is irreparable and cost prohibitive (according to the Army).
17. Section 7.2 Evaluation Criteria - Please consider the following comments to be relevant to the Alternative Analysis and Scoring for each area.
18. Tables 7.1 through 7.11- The methodology for selecting the appropriate cleanup alternative for an area is fatally flawed, as stated above.
19. Tables 7.1 through 7.11- Even assuming a solid, widely-accepted methodology, a statistical difference of 2 points in a ranking system of this nature is a virtual tie.
20. Tables 7.1 through 7.11- Selection of an alternative based on a 2-point difference cannot be accomplished without further extensive evaluation and a weighted methodology as described above.
21. Concluding Comments - The only Cleanup Alternative for UXO that would make the park safe is Alternative 6, which would destroy the environment.

6.4 Response to specific comments related to the remedial actions proposed

Evaluation criteria will be expanded on in an RI/FS addendum that is being proposed by Ecology and/or in the draft CAP. Ecology is proposing additional cleanup in areas, including the targets in the Central Impact Area, additional depth clearance in the amphitheater, etc., and additional investigation in the form of transects in the western part of the camp. Chemical-specific ARARs will include those specified in MTCA, at a minimum. Cost estimates are "estimates", and they are probably reasonable given our current knowledge of Camp Bonneville.

7.0 Ecological assessment and preservation/maintenance of habitat

7.1 General comments related to ecological assessment and preservation/ maintenance of habitat

Ecology received several comments regarding the ecological assessment conducted for RAU 3. Comments ranged from questioning the sufficiency of work completed to inventory species present (including threatened and endangered species) to issues regarding the proposed remedial actions and their potential impact on site ecology. This section provides all general comments received that pertain to the risk assessment and habitat preservation/maintenance and identifies the individual who submitted the comment. After the listing of all general comments for this comment category, a general response to all comments is provided.

1. How will “wildlife management and forestry” look? Logging? Hunting? (Karen Smith)
2. Clark County also agrees that the wildlife and threatened and endangered species descriptions should be greatly expanded to describe the rare plant species [three-leaf trillium and spotted checker mallow] found at Camp Bonneville. The current documentation is inadequate. The analysis should also state how the rare plants were protected during the investigation and how important animal and plant species will be protected during any remedial actions. The paragraphs should also focus on endangered fish species, as several salmonid species were added to the endangered list after the initial survey was performed but before the draft report was prepared. All references cited should be listed in the Table of References (Section 9). (Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation)
3. There appears to be an extensive network of existing road and trails throughout the military reservation area. The study said that the roads and trails (I assume both) were 20 feet wide. In considering the cleanup of unexploded ordnance, this is a cause of some concern. Roads and trails cause fragmentation of habitat that can be detrimental to some species. Each road or trail increases the edge effect, thereby decreasing the amount of forest habitat. (Gretchen Starke, Conservation Chair, Vancouver Audubon Society)
4. To implement Alternative 4 on the roads and trails would require digging into the ground to a depth of 14 inches wherever it was thought that unexploded ordnance might be (Table 7.7). Because brush would need to be cleared in Alternative 3, which is less intrusive, I assume that brush would also need to be cleared in Alternative 4. Table 7.7 states that implementing Alternative 4 would have little habitat destruction to existing roads and trails. That would be the case if the cleanup process were limited to the surface of the road or trail. I could not find any information on whether or not cleanup would go beyond the actual road or trail, but I could have simply missed it. If there were any clearing adjacent to the road or trail, the habitat destruction could be considerable, depending on the width of the clearing alongside the road or trail. Assuming that a buffer of ten feet were cleared on each side of every trail and road, 2.42 acres of habitat could be destroyed for every mile of road or trail. Considering all 42 of the roads and trails in the reservation, over 100 acres would be affected. If a clearing buffer was greater than ten feet, more acres would be taken out. Whatever the size of any buffer, the effect on wildlife would extend

further than the road or cleared buffer. This is because the effect of clearing penetrates into the forest from the edge. The impact on wildlife would vary, depending on the species, with a greater impact on those species, such as some warblers, that depend on forests for shelter. Was this accounted for in the study? (Gretchen Starke, Conservation Chair, Vancouver Audubon Society)

5. We support Alternative 2, Institutional Controls, for the wildlife management area. What is not clear to me is how the trails and roads element will be kept separate from the wildlife management area. From the two maps, it appears that many of the roads and trails are in the wildlife management area. (Gretchen Starke, Conservation Chair, Vancouver Audubon Society)
6. For the benefit of wildlife, we suggest that northeast corner of the reservation be closed to most human activity. The roads and trails could be decommissioned and the forest could reclaim them. Signs and fencing, as well as the steep terrain, should discourage most trespassing. (Gretchen Starke, Conservation Chair, Vancouver Audubon Society)
7. Where are the biological inventories for this property? Does this area provide important habitat? For what species? Are there wetlands? Surface water? Prairie? Forests? Are there endangered or protected species? (Laura Olah, Executive Director, Citizens for Safe Water Around Badger)
8. Will the level of cleanup protect worms, fishes, snakes, voles, soil microbes, birds, predatory species, eagles, and other species identified in the biological inventories? (Laura Olah, Executive Director, Citizens for Safe Water Around Badger)

7.2 Response to general comments related to ecological assessment and preservation/ maintenance of habitat

MTCA requires that remedial actions be protective of both human health and the environment. It also requires a sufficient understanding of species and habitat present at a site to ensure that remedial actions will be protective of these species, and will not adversely affect habitat through their implementation. Ecology will review the RI/FS completed for RAU 3, as well as other studies that have been completed for the site characterizing ecological receptors and habitat at the site, to determine if the identified remedial actions meet MTCA requirements. We will consider the comments provided by the public during our review. If the methods used in characterizing site ecology are found to be flawed, or if remedial actions proposed do not meet the MTCA requirements for protection of the environment, we will work to correct any issues identified prior to Ecology's acceptance of the work and its conclusions and recommendations. In developing the work to be performed and conceptual Scope of Work to support the Consent Decree and CAP, the additional site characterization and remedial action activities that will be specified will take into account the need to conduct these activities in a manner that is protective of sensitive areas of the facility. For example, we propose that investigation for MEC and UXO be conducted in the wetland area adjacent to Lacamas Creek and the Environmental Study Area proposed for the southwest corner of the regional park, and that the survey be conducted initially using a helicopter magnetometer survey, followed by surface reconnaissance and clearance, as needed. This will limit intrusive and potentially destructive activities in these sensitive areas.

7.3 Specific comments related to ecological assessment and preservation/maintenance of habitat

This section provides specific comments received that pertain both to this comment category and to specific parts of the draft RI/FS document. Specific comments are addressed in any of the following three ways:

- A response is provided to an individual specific comment;
- A response is provided to a series of specific comments in the same topic area; and
- A general response is provided to all specific comments included in this comment category at the end of the list.

7.3.1 Specific comments provided by Paul and Karen Kingston

1. Section 4.4.20 this section needs updating and inclusion of a Wildlife Management Plan. Fencing in wildlife poses health issues, and unbalanced prey-animal ecosystem, and indiscriminant breeding which should be included in a wildlife plan within a UXO/MEC RI/FS as wildlife managers will become receptors.

Response: Ecology intends to attempt to balance the needs of wildlife and the needs of humans in this proposed cleanup.

7.3.2 Specific comments provided by Lynelle Hatton

1. Section 3.2.4.2 1999 Time Critical Removal Action - Environmental remediation needs to be conducted for areas in which explosive destruction occurred.

Response: For demo areas 1, 2, and 3 this is addressed by another RI/FS, study, or interim action.

2. Section 4.4.20.1 Wildlife Management Area - Although the future reuse does not include Wildlife Management within the Central Impact Area, the entire site will in effect be a Wildlife Management Area during the period of the Conservation Easement.

3. Section 4.4.20.1 Wildlife Management Area - Please state reasons for failing to address wildlife management during the period the Conservation Easement will be in effect.

Response: Ecology believes that this is a re-use plan issue.

4. Section 4.4.20.1 Wildlife Management Area - Please state reasons for failing to address the impact of ICs on wildlife management.

Response: Ecology believes that this is a re-use plan issue.

7.4 Response to specific comments related to ecological assessment and preservation/ maintenance of habitat

Ecology intends to attempt to balance the needs of wildlife and the needs of humans in this proposed cleanup. For demo areas 1, 2, and 3, environmental remediation is addressed by another RI/FS, study, or interim action. Ecology believes that some of the issues raised are re-use plan issues and should be forwarded for consideration by Clark County.

8.0 Use of institutional controls

8.1 General comments related to use of institutional controls at the facility in general, and the specific institutional controls proposed for the facility

Institutional controls were proposed in the RI/FS for RAU 3 as one type of remedial action that would be taken at the site. Several comments were received on the proposal to use institutional controls and their sufficiency for controlling access to areas of the site where UXO and MEC may still be present. This section provides all general comments received that pertain to institutional controls and identifies the individual who submitted the comment. After the listing of all general comments for this comment category, a general response to all comments is provided.

1. I absolutely want 100% cleanup before a park is developed. Signage and fencing is insufficient. (Jackie Koonce)
2. Clark County has made frequent mention of the use of institutional controls to keep the public out of certain areas of their proposed park. The Army is proposing ICs in all Areas of Concern recommended for active cleanup. Institutional controls are usually, but not always, legal controls, such as easements, restrictive covenants, and zoning ordinances, but in this case the proposed controls are primarily fencing and signage. To accept the proposed ICs as part of a remedial action where there is a high likelihood of MEC contamination is dangerous. Fencing and signage does not remove the dangers of MEC, hazardous substances remain on the property endangering both human health and the environment. ICs do not offer long-term effectiveness; there is no assurance that there will be maintenance of the ICs on a periodic basis. Restoration of Camp Bonneville is needed, not ICs. (Coleen Broad)
3. Clark County was not consulted in the development of the draft RI/FS and, specifically, was not consulted in the Army's development of the Institutional Controls element of the proposal. The County believes that, given the current proposal, the Army will place a substantial burden on the County by over reliance on institutional controls to protect public health and safety. Proposed institutional controls must be thoroughly evaluated to determine alternatives and whether or not the selected alternatives are practical, affordable are consistent with the Reuse Plan. This current proposal would result in a site with a significant public safety concern (large areas which are not searched or therefore cleared of UXO), and which could pose a significant public safety hazard that ultimately might not be adequately mitigated through the implementation of institutional controls. Additionally, in the County's estimation, the proposal inadequately addresses clean-up standards by leaving the potential for exposing people and the environment to long-term exposure risks associated with UXO. Furthermore, the over reliance of institutional controls will result in an inequitable savings to the Army, which will burden both existing and all future county taxpayers with the costs associated with institutional control requirements. The true cost of these institutional controls is incomplete since the details are not present and the time for which the controls must be in place will be significantly beyond the 10-years noted in the draft. (Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation)
4. The site-wide institutional controls proposed for the site for lack of cleanup are unsound and unstable. These restrictive covenants, educational awareness programs, signage, and behavior modifications do nothing but provide inflated and false actions

for our safety. How long does DOE feel enforcement of the above mentioned and Army described IC actions need? Since the cleanup action proposed for the site is expected to be permanent. How are we going to be protected from a non-action remediation indefinitely? (Christine Sutherland)

5. Institutional Controls are laughable. For the Army to believe signs and fences are adequate forms of containment from areas where MEC (and other) contamination is highly likely and, to great extent, not completely known, is preposterous. Signs and fencing do not remove the dangers of the area – only COMPLETE and thorough remediation of the area will guarantee safety. And, we have been told that only “moonscaping” would come close to guaranteeing safety. At this point, the Army has FAILED to maintain a perimeter fence around Camp Bonneville. What evidence does the public have that we can trust that the institutional controls will be maintained? Neither the bobbing-head vacant assurances by County Commissioner Boldt nor individuals of the Army have instilled in me a faith or trust that they consider these issues of any concern. (Brenda Rule)
6. We support Alternative 2, Institutional Controls, for the wildlife management area. As the study indicated, the likelihood of anyone encountering dangerous unexploded ordnance in this area is low. The use of education, signs, and fencing should keep all but the most foolhardy individual safe. (Gretchen Starke, Conservation Chair, Vancouver Audubon Society)
7. The Institutional Controls (ICs) proposed by the Army are grossly inadequate in the long-term. There is no guarantee signs will remain in place and fences will be maintained, even if the DOE accepts responsibility for enforcement. All it takes is one child getting through a fence one time for there to be an accident. Is that a risk the DOE is willing to take in approving this plan? Look at the state of the current signs and fences. Once there is an accident and the park uses are suspended, the ICs are likely to fall into a state of further disrepair -- much as the current condition of signs and fences around Camp Bonneville. How can the DOE accept permanent responsibility in overseeing ICs at a County park miles away from its nearest regional office? Does it plan to inspect fences daily? (Lynelle West Hatton)
8. Section 6.3.2.2.3 identifies elements of Clark County’s Educational Awareness Program (institutional controls) to include timber harvesting and related land disturbing activities. The limitations of a nature conservancy plan prohibit timber harvesting, so this section needs to be removed. Furthermore, this same section states “the standard permit application process of the City of Vancouver and Clark County should be amended to include information about the possibility of MEC hazards, and specific Camp Bonneville site plan information and restrictive covenants.” In a televised Vancouver City Council meeting earlier this year, the council was questioned as to the city of Vancouver’s interest/involvement in Camp Bonneville. The Mayor of Vancouver vehemently and publicly denied the city’s involvement in any aspect of Camp Bonneville, and stated clearly for the record that the city has never been involved in meetings, the cleanup process or the re-use process, nor is it likely to ever be involved. The RIFS wrongly identifies the City of Vancouver as a participant in the implementation of Institutional Controls, and all of these references should be eliminated from the document in order to clarify that the City of Vancouver is not an active participant and is therefore free and clear of any liability and/or risk associated with Camp Bonneville. (Dvija Michael Bertish)
9. The institutional controls (ICs) proposed in the current plans are a step in the direction of protecting the public, but the ICs would need to be of a higher quality and maintained to a higher degree than the current eastern boundary fencing. (Roger Nielsen)

8.2 Response to general comments related to use of institutional controls at the facility in general, and the specific institutional controls proposed for the facility

Institutional controls are allowed under MTCA to control access to areas of a site where contamination remains. Institutional controls are allowed under circumstances where it is technically impractical to reduce contaminants to levels allowed under MTCA. Ecology acknowledges that technologies currently available will not allow all MEC and UXO present at the Camp Bonneville facility to be identified and remediated, and that institutional controls will likely be used in some areas of the site to limit access or potential exposure. Ecology will review the RI/FS completed for RAU 3 to determine if proposed use of institutional controls as a remedial action, is appropriate as allowed by MTCA in all cases, considering the identified future use of the facility by Clark County. We will consider the comments provided by the public during our review, and in development of the work to be performed for the Consent Decree and CAP. If use of institutional controls is not found to be appropriate in specific applications for protection of human health, we will work with Clark County, the Bonneville Conservation Restoration Trust, and its contractor to correct any issues identified prior to Ecology's acceptance of the work and its conclusions and recommendations. In addition, this information will be utilized in the development of the Draft CAP. In addition, a more detailed institutional control plan will be developed after the cleanup is completed. (See WAC 173-340-440)

8.3 Specific comments related to use of institutional controls at the facility in general, and the specific institutional controls proposed for the facility

This section provides specific comments received that pertain both to this comment category and to specific parts of the draft RI/FS document. Specific comments are addressed in any of the following three ways:

- A response is provided to an individual specific comment;
- A response is provided to a series of specific comments in the same topic area; and
- A general response is provided to all specific comments included in this comment category at the end of the list.

8.3.1 Specific comments provided by Paul and Karen Kingston

1. Pg.ES-2:ES.7 – does not discuss the mandatory management device of Regional Park visitor Risk Waivers upon entering the Park. The Army noted during a Camp Bonneville Restoration Advisory Board meeting: all regional park visitors would sign a Behavior Modification Agreement as a risk management tool.
2. PgES-4:ES.13 – Does not include the Behavior Modification Agreement each Regional Park visitor will be required to sign. This section does not include the Army recommendation for Political Representatives altering State law to provide indemnity to the new landowner and special interest leasers.
3. Section 6.2 – We are highly against the use of fencing and signage to mitigate risks and safety management associated with explosives possessing a detonation “Kill Zone” from 35 to 85 foot in perimeter. This section should include assessment of off-site UXO landings and their risk safety factors.

4. Section 8.2.6.3 – states IC’s will modify human behavior should a human encounter an MEC item. Please give background scientific evidence that this type of human behavior modification is a practicable permanent solution for risk, safety, and Tort mitigation.
5. B7.4 – This plan should already be in effect via DoD Guidelines. Please locate this plan and support it in references.

8.3.2 Specific comments provided by Lynelle Hatton

1. Section 4.4.10.1 Range Safety Fans - Please explain the rationale for using Institutional Controls (8.2.6.3) to prevent contact with UXO in these areas.
2. Section 4.4.12.2 Maneuver Areas - ICs are inadequate to protect public safety (8.2.8.2) in these Maneuver Areas.
3. Section 4.4.13.2 Central Impact Area - Please provide rationale for the effectiveness and permanence of ICs in keeping people out of the Central Impact Area.
4. Section 4.4.13.2 Central Impact Area - Please provide information as to the types of ICs that would be effective and permanent measures to keep people out of the Central Impact Area.
5. Section 4.4.13.2 Central Impact Area - Please explain how ICs that are effective and permanent (e.g. 6-ft chain link fence with 3-strand barbed or razor wire at the top) are consistent with wildlife management of the affected 465 acres, as required by the Conservation Easement for early transfer.
6. Section 4.4.13.2 Central Impact Area - ICs are extremely inadequate for protecting the public from contact with UXO in the Central Impact Area.
7. Section 4.4.13.2 Central Impact Area - Should ICs be used, the only possible effective and permanent means of protecting the public would be 6-foot chain link fences with 3-strand barbed or razor wire at the top.
8. Section 4.4.13.2 Central Impact Area - This type of IC is inconsistent with wildlife management as required by the Conservation Easement for early transfer.
9. Section 4.4.16.3 Roads and Trails - Please give justification for the assumption that signs at appropriate intervals (8.2.10.3) will keep people and horses on trails at all times.
10. Section 4.4.16.3 Roads and Trails - Please identify “appropriate intervals” for signs.
11. Section 4.4.16.3 Roads and Trails - Roads and Trails abut high-risk areas, especially those that wind through the Central Impact Area and other areas that are not proposed for UXO cleanup. If UXO is left in the abutting areas, the ICs for the Roads and Trails should include 6-ft chain link fences with 3-strand barbed or razor wire at the top on both sides of the trail. This is the only way pedestrians and equestrians can be expected to stay safely on the trail at all times.
12. Section 4.4.20.1 Wildlife Management Area - Please explain how ICs that are effective at keeping people out of contaminated areas can be consistent with a Wildlife Management Plan that allows movement of wildlife through these areas.
13. Section 4.4.20.1 Wildlife Management Area - Please revise this Report to address the issues stated in (202) through (204).
14. Section 4.4.20.1 Wildlife Management Area - Co-existence of effective Institutional Controls (fences) and a viable Wildlife Management Plan is impossible.

15. Section 6.3.2 Cleanup Alternative 2 - Signs are not effective unless persons of authority (including parents, teachers and other supervisory adults) enforce them.
16. Section 6.3.2 Cleanup Alternative 2 - Fences are not effective unless persons of authority (including parents, teachers and other supervisory adults) enforce them.
17. Section 6.3.2 Cleanup Alternative 2 - Both signs and fences can and do fall into disrepair.
18. Section 6.3.2 Cleanup Alternative 2 - Land use restrictions and regulatory controls can change and thus cannot be considered permanent.
19. Section 6.3.2 Cleanup Alternative 2 - The assumption cannot be made that ICs will cause a person's behavior to be appropriate.
20. Section 6.3.2 Cleanup Alternative 2 - There is no consideration given in this Report to children with disabilities, parent-child or teacher-student ratios, the typical family scenario of setting children loose at a park to explore and play, and any number of other factors that would render ICs useless.
21. Section 6.3.2 Cleanup Alternative 2 - A child wanders out of her parent's sight, then screams. The parent makes a mad dash in a shortcut through the brush to get to the child. Why hasn't the Army considered real-life scenarios that will impact the effectiveness of ICs?
22. Section 6.3.2 Cleanup Alternative 2 - Printed material received at parks is often equivalent to junk mail: people may glance at it back home before they throw it out. It will not be effective unless it is physically handed to them at the entrance to the park, and perhaps not then. Upon arrival at a park, parents deal with immediate needs first – locating bathrooms, preparing picnics, setting up camp, buying firewood, hitting the trail for a hike. The printed material sits on the dashboard until the ride home.
23. Section 6.3.2 Cleanup Alternative 2 - Newspaper articles might be effective when the park is first opened, but this is not an effective avenue for frequent reminders of the hazards and risks. For example, there were notices in two local newspapers about the public comment period for this RI/FS, but to my knowledge there have been no subsequent reminders. Furthermore, if people are out of town when articles appear, they are unlikely to read them.

8.4 Response to specific comments related to use of institutional controls at the facility in general, and the specific institutional controls proposed for the facility

A more detailed institutional control plan will be developed after the cleanup is completed. Evaluation criteria will be expanded on in an RI/FS addendum that is being proposed by Ecology and/or in the draft CAP. Comments pertaining to the reuse plan should be referred to Clark County. (See WAC 173-340-440)

9.0 Facility transfer

9.1 General comments on the potential land transfer of the Camp Bonneville Facility to Clark County

Several comments were received concerning the proposed transfer of the Camp Bonneville Facility from the Army to Clark County. Many of the comments questioned whether this transfer was wise considering the currently proposed future use of the facility as a park and recreational area. Some of the comments questioned the ability of Clark County to maintain such a facility, and some provided suggestions for the transfer process itself. This section provides all general comments received that pertain to the potential land transfer and identifies the individual who submitted the comment. After the listing of all general comments for this comment category, a general response to all comments is provided. Additional comments specifically regarding the proposed future use of the facility by Clark County are provided in a later section of this document.

1. Opposed to Clark County acquiring the Camp Bonneville property (anonymous).
2. I am appalled at what the County is proposing to do with the property....a park and camp ground...a place where outdoor exploration is the goal. Even more appalling is the willingness Clark County is to accept this property without proper clean up by the army. The liability would then rest on all the Clark County taxpayers and remove the army their responsibility. Even worse than that, **people will be at risk**. Unless the entire site can be properly cleaned up, it is fatal to allow this transfer to take place. I am personally opposed to the transfer and clean up that is currently being proposed. (Christopher Guzman, Michelle Guzman)
3. The financial, technical/environmental project site's highest long term productivity could be greatly optimized by the following constructive governmental legal and administrative coordinated actions: Federal/state enablin2 legislative/executive actions. The federal government should retain fee title, subject only to the data map shown southwestern site pipeline easement. Existing federal site roads should be improved to meet practical, but not excessive fire vehicle access needs. The U.S. Congress should be requested to immediately act to re-designate the entire subject site a legally exclusive federal jurisdiction, and the Washington Governor and legislature should seamlessly, and with sharp blue line clarity, amend all pertinent state statutes and rules particularly exempting private owned leasehold improvements, constructive betterments, and all other personal property from personal property taxation and leasehold excise taxation on the subject entire site, *as well as ex cathedra*, all other state existing federal exclusive jurisdiction lands. Hence, all for profit, non-profit, pro bono, donated, or operated betterments and personal property would be enabled to avoid these burdensome costs. Final Administrative Action: The federal government should quickly finalize a 99 year master operational ground and water system/right lease with Clark County, with renewable extensions and options to buy at a agreed token \$ total fee buyout amount at certain agreed buyout future dates. In consideration of the remedial federal work and the master lease, Clark County should acquire an all peril liability insurance policy in favor of the federal landlord and themselves. Reversions of tenant and all sub-tenants' property would accrue as a pass through to the federal government. The federal, state, and Clark County governments should without further delay, proceed to take the above legislative, legal, remedial, financial and administrative actions for a 100% cleanup of the entire site by a project completion date of January 1, 2010.

(Harmon H. Rulifson)

4. Camp Bonneville is a dangerous place! For more than 80 years the Army used this acreage for discharging and testing of rockets, grenades and other munitions and this area is filled with undischarged rockets, grenades, and other munitions. For Clark County to take over Camp Bonneville now is absolutely ludicrous and pure insanity. Clark County is dealing inadequately with cleanup up many polluted streams and waterways and found to be quite incapable of keeping developers from polluting streams and waterways. Therefore, I believe it would be an atrocious burden for the citizenry of this county. This very grave issue of safety for the citizens must be considered. How many millions are the county commissioners willing to pay in lawsuits were people to be hurt by exploding munitions? Millions could be spent to have Clark County officials evaluate the clean-up and that is before ever beginning clean up. The citizens DO NOT want the county to accept responsibility of Camp Bonneville, because the potential “nice park” would cost an estimated \$20 - \$100 million or more. Army negotiators are telling partial truths to the Board of County Commissioners as they want to dupe the Commissioners into taking the property. This is because they do not want to pay for the clean up or be responsible for any future legal action. Hopefully, the County negotiators will see the dangers. As a Clark County citizen, I strongly object to Clark County taking this land for a park, years in the future; at such time when the Army has completely cleaned this land and cleared it of any munitions; rockets, grenades and other such dangerous devices, then and only then, should Clark County Commissioners revisit the idea of takeover.

(Madya Panfilio)

5. As a citizen and as a member of my local school board, I urge you to recommend against the transfer of Camp Bonneville from the US Army to Clark County. More funding must be obtained to do a more thorough job of cleaning XO and other contaminants as well as unexploded munitions from this area. We will have more than sufficient new parks created as a result of the passage of countywide parks initiative. (Greg Gospe)
6. WHAT DOES IT TAKE FOR THE CITY TO SHOW SOME COMMON SENSE FOR ONCE? For heaven's sake, are you all imbeciles? We don't have the money to waste on this project. There are far too many things wrong with the City as it is. GET ON THE BALL. (Jane Valentine)

9.2 Response to general comments on the potential land transfer of the Camp Bonneville Facility to Clark County

Comments pertaining to the proposed transfer of the Camp Bonneville facility from the Army to Clark County are not directly related to the RI/FS for RAU 3. Ecology believes that some of the areas proposed for cleanup should be cleaned up irrespective of the land reuse plan. Ecology will review the RI/FS for RAU 3 and the proposed remedial actions for site-wide UXO and MEC in light of the current proposal for this transfer and future use of the facility as a County park and recreational area. If remedial actions that are ultimately determined to be appropriate and feasible for the site are not sufficiently protective to allow for this type of land use, Ecology will provide this information to the Army and Clark County. Ecology will also ensure that these comments provided on the proposed property transfer are shared with Clark County representatives.

9.3 Specific comments on the potential land transfer of the Camp Bonneville Facility to Clark County

This section provides specific comments received that pertain both to this comment category and to specific parts of the draft RI/FS document. Specific comments are addressed in any of the following three ways:

- A response is provided to an individual specific comment;
- A response is provided to a series of specific comments in the same topic area; and
- A general response is provided to all specific comments included in this comment category at the end of the list.

9.3.1 Specific comments provided by Lynelle Hatton

1. Section 2.2.7.2 Population – The comments received on this RI/FS are said by the DOE to drive the cleanup plan and the DOE’s subsequent recommendation to the Governor concerning the appropriateness of early transfer.
2. Concluding Comments - In my view, Camp Bonneville will never be worthy of pre-cleanup transfer to a County that plans to turn it into a regional public park.
3. Concluding Comments - The RI/FS must be revised; however, I have already come to the conclusion that this property is a liability the County shouldn’t touch under any circumstances.

9.4 Response to specific comments on the potential land transfer of the Camp Bonneville Facility to Clark County

These comments reflect an opinion being expressed by the writer of the comments.

10.0 Land use plan

10.1 General comments on the land use plan for the Camp Bonneville Facility proposed by Clark County

In addition to comments received on the proposed transfer of the Camp Bonneville facility from the Army to Clark County, which were provided in an earlier section of this document, comments were also received on the current land use plan proposed by Clark County for the facility. Many of the comments questioned the proposed use of the facility as a park and recreational area, considering the areas of the facility that could not be guaranteed to be cleared of UXO and MEC, and the likely success of institutional controls in controlling access to certain areas of the facility. Some of the comments questioned the ability of Clark County to maintain such a facility. This section provides all general comments received that pertain to the land use plan and identifies the individual who submitted the comment. After the listing of all general comments for this comment category, a general response to all comments is provided.

1. I am in favor of Camp Bonneville becoming a park if the clean up is done correctly. I also agree that Camp Bonneville regional park remains a park, and the wildlife management area continues to be used ONLY for wildlife management and forestry, and an Exhibit be made to display the history of the site be made available for viewing. (Maria Oja)
2. Nothing hits harder than a BRAC sales pitch that institutes citizen recreational enjoyment with behavioral modification, a regional park boasting of fenced in camping areas, hiking and equestrian fenced habi-trails, liability waivers, and millions of federal taxpayer dollars providing enrichment and benefit to a disproportionate few. (Paul and Karen Kingston)
3. I cannot help but to consistently feel that this proposal is outrageous. I personally feel that if the government would consider putting something other than a park on the grounds of Camp Bonneville, this whole situation would be under very different circumstances. I do not think that the public would be quite so upset about this. I think that if the army/government would consider (and I know you all are exhausted from hearing everyone's "two cents" - however, you're going to get mine - though it's short)... but I think that if the army/government would consider a site somewhat similar to that of the Mt. St. Helens Interpretive Center the issues about the CB site would be less. I DO have a child and I DO have pets/horses and I DO know what it's like to be around people who cannot contain their wild children. Hasn't anyone ever watched Nanny 911? I mean c'mon! The show's a hit due to the simple fact that the world is overpopulated with dual-income parents that could give a darn about proper child rearing. Otherwise there'd be no Nanny 911. Do we all believe that we can contain these wild, ill-mannered children/pets from harm with signs and fencing (IC's)? NO WAY! Volunteer at a daycare or an elementary school if in doubt. Heck, a high school even! Back to the St. Helens Interpretive Center... I firmly feel, after volunteering endlessly within the school district, that we need fear in the children/adults, but with a hint of reverse psychology and leniency. This way they think that they are being contained at their own free will. At the Interpretive Center, you don't see or hear about many people walking into the volcano voluntarily because they know the dangers. The separation between the tourists and the dangers is basically a split rail fence. No razor wire. No barbed wire. No chained link. Granted, I haven't been up there in a couple years, but I've heard not much has changed. My point is, that people are educated about the dangers of a volcano and

therefore you could probably put up a strand of yellow danger tape and it would mean the same. I truly feel that if we turn CB into something like an Interpretive Center where people can go and learn about past wars and the military and even the differences between munitions andwell, the possibilities are endless. There could even be a memorial for Veterans. What I'm saying is that the cleanup will have to continue regardless of what it becomes. As for THIS amount of cleanup for a park, NO WAY!! It's just not enough. I would NEVER allow my daughter to go, and I would inform everyone I knew of the dangers. BUT, if the existing proposal for cleanup took place and something like an Interpretive Center was put in, I wouldn't have a problem going because there would be designated paths where people would be mass educated about the responsibilities of attending and straying from the designated areas. It just seems to work in St. Helens quite well. You cannot tell a child (or an adult for that matter) not to think of a gray elephant, and expect them NOT to think it!! Thank you for your time and hearing me out. I hope you actually read this! (Lauren Blystone)

4. Please, please reconsider the plans to open Camp Bonneville as a regional park while there are still chemical contaminants and unexploded ordnance present. We cannot take these chances! (Vivian J. Robertson)
5. The re-use plans of Clark County are very aspirational and will likely go unfilled for decades to come, due to the lack of public funds. Undoubtedly, the park's facilities would need to be constructed over a long period of time. Could the cleanup plans be synchronously paced with the county's construction plans? The Cleanup Plan should propose such a coordinated schedule in order to ease the shock of the total cleanup costs, ease the approval process, and open up the camp gradually during our lifetime. (Roger Nielsen)

10.2 Response to general comments on the land use plan for the Camp Bonneville Facility proposed by Clark County

Ecology will review the RI/FS for RAU 3 and the proposed remedial actions for site-wide UXO and MEC in light of the future use of the facility as a County park and recreational area. If remedial actions that are ultimately determined to be appropriate and feasible for the site are (or are not) sufficiently protective to allow for this type of land use, Ecology will provide this information to the Army and Clark County. Ecology will also ensure that these comments provided on the proposed property transfer are shared with Clark County representatives.

10.3 Specific comments on the land use plan for the Camp Bonneville Facility proposed by Clark County

This section provides specific comments received that pertain both to this comment category and to specific parts of the draft RI/FS document. Specific comments are addressed in any of the following three ways:

- A response is provided to an individual specific comment;
- A response is provided to a series of specific comments in the same topic area; and
- A general response is provided to all specific comments included in this comment category at the end of the list.

10.3.1 Specific comments provided by Paul and Karen Kingston

1. Section 2.3.1.1 – The LRA Steering Subcommittees were predominately comprised of Special Interest Groups. I was on the initial Steering Committee and I can report that only three people that I know of were from the general public and with no special interest affiliation.
2. Section 2.3.2.3 – States “more trails may be added.” This statement is in opposition to the original LRA/Army agreements. This also states the wildlife management area will be left in its current state and misrepresents the wildlife area as not containing hiking and equestrian use.
3. Section 4.4.15 – does not include the specific definition of Wildlife management area to include the proposed use for hiking and equestrian use.
4. The RI/FS dictates the Army will request Clark County to unilaterally withhold zoning changes around Camp Bonneville as a mitigating factor for Risk Assessment. This is unacceptable and denies constitutional Rights of Citizens who purchases their land before the BRAC date of 1995. (Development and Screening of Alternatives)
5. B.13 – Camp Bonneville will set precedence as a Training Range conversion to a Regional Public Park under BRAC. BRAC has no other comparisons whereby the entire site is converted under BRAC. This section states an alarming and risk chilling statement “Ongoing monitoring, quantification of input, and updated policy and park planning will enable Clark County to protect its citizens while enjoying access to one of the largest new urban parks in America.”

10.3.2 Specific comments provided by Lynelle Hatton

1. Section 7.2 Evaluation Criteria - If the objectives of public health and safety, permanence and long-term effectiveness of cleanup cannot be achieved without detrimental effects to the environment and a cost of cleanup that is unacceptable to the Army, then the only reasonable conclusion is that the proposed regional park is the wrong use for this site.

10.3.3 Specific comments provided by Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation

1. The Wildlife Management Area reference should be amended to include the word “Timber” since timber management is clearly a primary activity in the Reuse Plan. Additionally, in places, the report fails to recognize that trail use planned for this part of the park – an example of this omission is noted in section ES. 18 – page ES-4.

10.4 Response to specific comments on the land use plan for the Camp Bonneville Facility proposed by Clark County

Many of the specific comments on the Reuse Plan pertain to the county reuse plan and should be referred to Clark County. Evaluation criteria will be expanded on in an RI/FS addendum that is being proposed by Ecology and/or in the draft CAP.

11.0 Army Role and Responsibility

11.1 General comments related to the long-term role and responsibility of the Army at the Camp Bonneville Facility

Some comments were received that raised questions about the long-term role and responsibility of the Army at the Camp Bonneville facility and/or offered suggestions for specific roles that the Army should be required to maintain at the facility in the future. This section provides all general comments received that pertain to this comment category and identifies the individual who submitted the comment. After the listing of all general comments for this comment category, a general response to all comments is provided.

1. My concerns of the clean up are the cost. I would like to know who will pay for it? I believe the cost of the clean up should be paid by the federal gov't, since they made the mess. When the clean up takes place, I would hope it would be done as recommended by the Army with no short cuts. If someone were to be injured because of the "MEC" or the run-off of the soil contaminants, it would be very costly. (Maria Oja)
2. I am distressed by a letter from Joseph W. Whitaker, Deputy Assistant Secretary of the Army, to Clark County Commissioner Marc Boldt dated April 22, 2005 wherein Mr. Whitaker writes in part ... "any agreement on the level of cleanup required at Camp Bonneville between Clark County and the Washington Department of Ecology (WDOE) must include a provision indicating that WDOE will not take any enforcement action against the Army." The DOE should enforce the U.S. Army to take responsibility, as the polluter, for complete, total and absolute characterization and remediation of the land, and not have its hands tied by an agreement between the Department of the Army and Clark County. Successful remediation is not signage and fencing. A larger percentage of the camp needs to be investigated for subsurface MEC. Fewer ICs should be applied; more excavation and restoration should be implemented. It is not unreasonable to hold a responsible party answerable and accountable and the Army's comments in the above-referenced letter are patently insulting to concerned Washington State residents. (Coleen Broad)
3. While not specifically discussed in this document, there is an understanding among the parties (Army, DOE, and Clark County) that certain levels of new MEC discoveries will constitute a "re-opener". While similarly understood that such a re-opener would result in the Army performing additional work, the timing of that work should be addressed within the context of this document. (Brian Vincent, Clark County Public Works, and Jeroen Kok, Vancouver-Clark Parks and Recreation)
4. Clark County is ill equipped to educate the public on this subject, and therefore, the education element here should rest with the advanced expertise of the Army. Thus, the Army should publish and mass distribute the catalogue of munitions in Appendix A to all households within a 3-mile radius of Camp Bonneville. The Army should take the lead in the implementation of Institutional Controls. (Karen Axell)
5. The Ordnance Items Descriptions in Appendix A catalogue the various forms of munitions that were used at Camp Bonneville. The section outlining Institutional Controls suggests that Clark County will be responsible for outreach and education on the subject of munitions to the general public. I propose that Clark County is ill equipped to educate the public on this subject, and therefore, the education element here should rest with the advanced expertise of the Army. Thus, the Army should publish and mass distribute the catalogue of munitions in Appendix A to all

households within a 3-mile radius of Camp Bonneville. The Army should take the lead in the implementation of Institutional Controls. (Dvija Michael Bertish)

11.2 Response to general comments related to the long-term role and responsibility of the Army at the Camp Bonneville Facility

Under the legal framework of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and MTCA, the Army is ultimately responsible for all cleanup and costs associated with cleanup and all institutional controls related to cleanup. The responsibility for site remediation, maintenance of remedial actions such as engineering controls and institutional controls, and long-term contaminant monitoring at the site will be specified in two documents that will be prepared by the Department of Ecology in 2006: the Consent Decree and the CAP for the Camp Bonneville facility. As previously noted, the Consent Decree is a legal document that formalizes the agreement between Ecology and Clark County and the Bonneville Conservation Restoration Trust, and is entered and approved by a court. The Consent Decree will be issued under the authority of the MTCA, Chapter 70.015D RCW, and ensures the cleanup will proceed in accordance with all applicable laws and regulations. The Consent Decree is the legal agreement that implements the CAP, and all other activities related to cleanup in the future. The CAP will describe the selected cleanup actions, specify the cleanup standards that will be applied to the site, and identify any other requirements of site remediation. The Consent Decree and the CAP will clearly describe both the short-term and long-term responsibilities that will be maintained by Clark County and the Bonneville Conservation Restoration Trust relative to site remediation.

12.0 Areas of archaeological significance

12.1 General comments related to the potential for areas of archeological significance to be present at the Camp Bonneville Facility

Federal and state cleanup law require that activities related to site investigation and remediation be conducted in a manner that considers the impact of these activities on cultural resources that may be present on the site, and that prescribed steps for monitoring for the presence of these resources and their maintenance and protection during these activities. Several comments were submitted concerning the sufficiency of the cultural resource survey that had been completed for the site, and the potential impact of proposed remedial actions on cultural resources that might be present on the site. This section provides all general comments received that pertain to this comment category and identifies the individual who submitted the comment. After the listing of all general comments for this comment category, a general response to all comments is provided.

1. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121(d) specifies that on-site remedial actions must meet all federal standards, requirements, criteria, limitations, or more stringent state standards determined to be legally Applicable or Relevant and Appropriate Requirements (ARARs) to the site conditions and the remedial action.

CERCLA occasionally permits a waiver from compliance with administrative requirements of ARARs. However, CERCLA requires compliance with the substantive aspects of these laws and regulations even if the administrative requirements do not need to be implemented. Therefore, it is clear that the Army has significant federal and state regulatory-equivalent responsibilities concerning cultural resource issues associated with the proposed cleanup of UXO and MEC at the Camp Bonneville site. Several of the proposed cleanup actions require significant ground-disturbing activities (GDA). The following table summarizes the total area of GDA across all 14 identified cleanup areas. This table is derived from information contained in Section 8 and table ES.1 of the Executive Summary of the Draft RI/FS.

2.1 Proposed Action	2.1 Approximate Affected Acreage
Frost Depth Clearance (14")	589.6
Subsurface Clearance (4')	54

Clark County's Reuse Plan identifies that in Section 7.1.5 *Archeological Findings* that if studies "uncover significant archeological findings, it is likely that the reuse plan may need to be modified." The specific studies referred to in the Reuse Plan are cultural resource surveys performed by representatives of the Army during 1999. The final report, *Cultural Resource Survey of Selected Areas, Camp Bonneville, Clark County* (CRS), was assembled in May 2003 by Dale L. Sadler.

For several reasons, Cowlitz Indian Tribe (CIT) considers the CRS prepared by the Army to be an incomplete and inadequate assessment. Although outside of DOE's jurisdictional concern, you should be aware that negotiations are underway between the Army and CIT to rectify that situation, as well as address approximately 20 site cleanup projects conducted by the Army on Camp Bonneville that have been implemented without *any* of the required Section 106 consultation process between

the Army, Washington Department of Archaeology and Historic Preservation (DAHP) and CIT.

Actions of greatest concern to the CIT include any GDA which have the potential to impact cultural resources present on the Camp Bonneville site, regardless of the scale of the resources.

Currently, the CIT cannot find any text within the Draft RI/FS that describes methodology or details costs associated with archaeological monitoring during the proposed Camp Bonneville Cleanup activities, including the approximately 643.6 acres of GDA.

Therefore, we request that DOE decline approval of the Draft RI/FS until such time that:

- 1) A plan for the protection of archeological and cultural resources during ground disturbing activities is prepared and included in the text of the RI/FS. Such a plan shall include, but shall not be limited to:
 - a. A general monitoring program of all ground-disturbing activities by mutually acceptable, independent, third-party archeologists. Specific details of this plan shall be coordinated between all parties concerned with the mandatory Section 106 consultation processes. The plan shall include immediate and programmatic contingency responses in the event of discovery of archeological or cultural resources on Camp Bonneville during the implementation of cleanup activities.
 - b. Cost estimates for implementation of the plan.
- 2) Federal monies to fund the implementation of the plan are identified and allocated, to be delivered to Clark County as part of the total cleanup costs.
- 3) The text of the conservation conveyance between DOD and Clark County shall recognize that proposed reuse planning of the site by Clark County may require modification based upon discovery of cultural resources during the implementation of cleanup activities.
(John Barnett, Chairman for the Cowlitz Indian Tribe)
2. Another issue to consider is the many Indian artifacts that are buried on this site. History tells of the Cowlitz Tribe having a prehistoric camp or village located on the property. The tribe should be able to claim any artifact that have been taken from this site and any that remain buried and when the property is clean they should stake claim as to the future usage of the park. (Madya Panfilio)
3. The RI/FS does not adequately cover Indian Artifacts and other cultural finds and assessments in MEC/UXO finds. There were too many sections in which to mention this. (Paul and Karen Kingston)
4. Clark County agrees that the archaeological and cultural resources description should be greatly expanded to include the material in the most recent, after 1998, cultural surveys. The current sections are inadequate, and also fail to address how cultural resources, which may be encountered during the process of further investigations and clean-up actions, will be protected. All references cited should be listed in the Table of References (Section 9). (Brian Vincent and Jeroen Kok)
5. The Cowlitz Tribe has provided documentation that identifies the location of an historic aboriginal Native American site, the village of Simsik, within the boundaries of Camp Bonneville. The Army denies the existence of this aboriginal site at the Camp, and has further refused to expand the study of this subject beyond its own documentation and private review. The Army claims that there are no identifiable

archeological resources and site, and has also refused to allow the Cowlitz Tribe to conduct its own archeological investigation. This conflict needs to be resolved prior to the implementation of land-disturbing activities pursuant to proposed re-use of the property in order to prevent potential disturbance of archeological and cultural resources under the Archaeological Resources Protection Act. (Karen Axell)

6. The Cowlitz Tribe has provided documentation that identifies the location of an historic aboriginal Native American site, the village of Simsik, within the boundaries of Camp Bonneville. The Army denies the existence of this aboriginal site at the Camp, and has further refused to expand the study of this subject beyond its own documentation and private review. The Army claims that there are no identifiable archeological resources and site, and has also refused to allow the Cowlitz Tribe to conduct its own archeological investigation. This conflict needs to be resolved prior to the implementation of land-disturbing activities pursuant to proposed re-use of the property in order to prevent potential disturbance of archeological and cultural resources under the Archaeological Resources Protection Act. (Dvija Michael Bertish)

12.2 Response to general comments related to the potential for areas of archeological significance to be present at the Camp Bonneville Facility

Ecology agrees with these comments and intends to work with all interested parties to develop an improved cultural resource protection plan. Ecology appreciates the input received in this area, and acknowledges the requirements for identification and protection of cultural resources specified in both state and federal law and regulations. We will consider these comments in review of the RI/FS for RAU 3 and supporting documentation, including the cited 2003 Cultural Resource Survey. We will consult with other state and federal agencies, as appropriate, concerning this review. Ecology will work with the representatives of the Cowlitz Indian Tribe to determine a means of proceeding with remediation and protecting cultural resources.

12.3 Specific comments related to the potential for areas of archeological significance to be present at the Camp Bonneville Facility

This section provides specific comments received that pertain both to this comment category and to specific parts of the draft RI/FS document. Specific comments are addressed in any of the following three ways:

- A response is provided to an individual specific comment;
- A response is provided to a series of specific comments in the same topic area; and
- A general response is provided to all specific comments included in this comment category at the end of the list.

12.3.1 Specific comments provided by Lynelle Hatton

1. Section 2.2.8 Archeological and Historical Resources - Please explain why the Native American activities and artifacts known to have existed on this site were not identified in the studies that were conducted.
2. Section 2.2.8 Archeological and Historical Resources - The lack of reference to known Native American history on this site is an omission that shows, at the least, a major insensitivity to all but Army and County concerns.

12.4 Response to specific comments related to the potential for areas of archeological significance to be present at the Camp Bonneville Facility

Response to these specific comments is provided in the general response to this comment category provided in the previous section. Ecology agrees with these comments and intends to work with all parties to develop an improved cultural resource protection plan.

13.0 Regulatory Issues

13.1 General comments related to regulatory issues and the Camp Bonneville Facility

Several comments were submitted concerning the regulatory requirements for cleanup and land transfer to other parties, and whether site investigation and cleanup is currently meeting these requirements and/or would be meeting them in the future under the proposed land transfer. This section provides all general comments received that pertain to regulatory issues and identifies the individual who submitted the comment. After the listing of all general comments for this comment category, a general response to all comments is provided.

1. It is my contention that the BRAC early transfer process avoids federal DoD regulations that pertain to prioritization and abatement of MEC/UXO. Since the property is federally owned and operated, liability for cleanup rests solely at the federal level, where cleanup protocols are clearly outlined in the Federal Register. The property should not be transferred to Clark County until the munitions removal protocols and environmental protections established in the Federal Register are sufficiently achieved. According to the EPA, “the Military Munitions Rule by its own terms applies only to the ‘recovery, collection, and on-range destruction of unexploded ordnance and munitions fragments during range clearance activities at active or inactive ranges (see 40CFR 266.202(a)(1)(iii).” Under this interpretation, Camp Bonneville (an inactive range) would be subject to regulations for the remediation of UXO and munitions as identified in the Military Munitions Rule. The draft RIFS is not consistent with Military Munitions Rule regulations, and this should be corrected. (Thom McConathy)
2. Resistance by the army to adhere to Stormwater and erosion BMPs for Landfill 4 remediation and the contention by the Army that they do not need to follow Washington State BMPs for Stormwater and erosion control for any of this remediation I find to be arguable. (Tom McConathy)
3. According to section 120(h)(3) of CERCLA, all necessary remedial action must be taken prior to transfer of the property deed. Where federal property is being transferred with known or suspected MEC/UXO on site, all areas need to be evaluated under CERCLA or the equivalent RCRA process. CERCLA 121(c) concludes that the remedial activity is to be protective of human health and the environment, that all threats at the site have been addressed, and that contaminants of concern in the groundwater have been shown to be below drinking water standards, followed by five-year review reports. With the suspension of remedial activity on the camp in preparation of early transfer to Clark County, it appears that the early transfer process bypasses this definition of CERCLA review, and this needs to be corrected. The polluter should remain liable for all risks identified by CERCLA review, not the transferee. (Dvija Michael Bertish)
4. It is my contention that the BRAC early transfer process avoids federal DoD regulations that pertain to prioritization and abatement of MEC/UXO. Since the property is federally owned and operated, liability for cleanup rests solely at the federal level, where cleanup protocols are clearly outlined in the Federal Register. The property should not be transferred to Clark County until the munitions removal protocols and environmental protections established in the Federal Register are sufficiently achieved. According to the EPA, “the Military Munitions Rule by its own terms applies only to the ‘recovery, collection, and on-range destruction of

unexploded ordnance and munitions fragments during range clearance activities at active or inactive ranges (see 40CFR 266.202(a)(1)(iii).” Under this interpretation, Camp Bonneville (an inactive range) would be subject to regulations for the remediation of UXO and munitions as identified in the Military Munitions Rule. The draft RIFS is not consistent with Military Munitions Rule regulations, and this should be corrected. (Dvija Michael Bertish)

13.2 Response to general comments related to regulatory issues and the Camp Bonneville Facility

Ecology finds the comments relating to the interpretation of the BRAC Law, the Military Munitions and Range Rule and the Federal Register to be well researched and interesting. Ecology also believes that the “contentions” noted by the commenter are a matter of legal interpretations and opinion that can probably not be best determined in this particular response to comments. Ecology will consider the submitted comments during its review of the RI/FS for RAU 3 with respect to specific regulatory requirements that would apply to selection and implementation of proposed remedial actions. As noted in a previous section of this document, specific information regarding the continuing responsibility of the Army with respect to site investigation and cleanup would be outlined in the Consent Decree and the CAP that will be prepared for the facility in early 2006. The Consent Decree is a legal document issued under MTCA that formalizes the agreement between Ecology and Clark County and the Bonneville Conservation Restoration Trust and is entered and approved by a court. It ensures the cleanup will proceed in accordance with all applicable laws and regulations, and it implements the CAP, which will describe the selected cleanup actions, specify the cleanup standards that will be applied to the site, and identify any other requirements of site remediation. The Consent Decree and the CAP will clearly describe both the short-term and long-term responsibilities that will be maintained by the Army relative to site remediation.

13.3 Specific comments related to regulatory issues and the Camp Bonneville Facility

This section provides specific comments received that pertain both to this comment category and to specific parts of the draft RI/FS document. Specific comments are addressed in any of the following three ways:

- A response is provided to an individual specific comment;
- A response is provided to a series of specific comments in the same topic area; and
- A general response is provided to all specific comments included in this comment category at the end of the list.

13.3.1 Specific comments provided by Paul and Karen Kingston

1. Section 4.4.6.5 – The fence along the Central Impact Target Area is one, two, or three strand barbed wire (someone 5 foot 3 inches could step over it) Some of the signs are defective or covered by Wild Blackberry and other native species of plants and small trees. This fence is not protective or securing. Within Washington State, exchange of property laws and realty laws extend either security or risk issues to be the sole responsibility of the seller unless there has been full disclosure to the buyer and the buyer accepts that responsibility. Where in this section does the Army disclose security or risk issues to Clark County? Where in this section does Clark County accept the security and risk issues stated within this RI/FS?

2. Section 5 – Cleanup Standards – This section is vague and needs conformation with WDOE standards.
3. Section 6.4.1 – if MTCA does not have technically possible cleanup alternatives, then another Law should be implemented by the State and Federal Regulators.

13.4 Response to specific comments related to regulatory issues and the Camp Bonneville Facility

Fence repairs are proposed as a condition of transfer to Clark County and redevelopment as a park. If this transfer and redevelopment does not occur, Ecology will need to have discussions with the Army about this based on other potential access scenarios.

14.0 Perimeter fencing

14.1 General comments related to Camp Bonneville Facility perimeter fencing

Several comments were received concerning the current status of perimeter fencing at the Camp Bonneville facility. These comments noted that fencing is missing and/or in disrepair at certain locations. This section provides all general comments received that pertain to perimeter fencing and identifies the individual who submitted the comment. After the listing of all general comments for this comment category, a general response to all comments is provided.

1. I feel the information is misleading. We have asked a number of questions, and not received answers from BRAC. We have not received answers to our questions about the perimeter fence. (Mark Benson)
2. Areas of Camp Bonneville's external boundary fencing are down, and have been down for an unknown period of time. The RI/FS, Section 7.4, states in part that Camp Bonneville ... "should not be open to the public ... due to explosive hazards." Additionally, Camp Bonneville's Restoration Advisory Board has broached the fencing issues repeatedly without success. Because the fence-line is currently not in conformance with the RI/ES, and because there is no timeline as to when the Army will bring the fencing into compliance, when will the Army be required to fulfillment their commitment to repair/replace the fence, and what assurance does the public have that the fence, once brought into compliance, will be maintained? (Coleen Broad)
3. There is no sufficient fencing at the Autumn Hills/Camp Bonneville border to prevent unsafe access to Camp Bonneville from Autumn Hills. Chain link fencing as installed on the western borders of the Camp should also be the norm for the eastern borders as well. (Alan Dragon)
4. Section 7.4 states access to the site is currently restricted by a fence. CB "should not be open to the public... due to explosive hazards." Many areas of the perimeter of the fence are down. Please give a short timeline to the Army for the fence issue to be completed. (Christine Sutherland)
5. As has been exposed by the local media, the fence along the eastern boundary is missing and in disrepair. When one travels farther back into the undeveloped sections of the Yacolt Burn State Forest, the eastern fence has been destroyed by years of decay and fallen timber. Fortunately, no wayward hunter or hiker has been injured by UXOs when errantly entering the Camp from the east side. (Roger Nielsen)
6. The Camp Bonneville boundary line, along the East and North, has come under scrutiny when reports of missing and downed fencing were authenticated. Whether these fences were down while the base was active is unknown. The Camp Bonneville RAB is addressing this issue. The Autumn Hills subdivision is actively pursuing a chain link fence congruent with preexisting base fencing along Camp Bonneville's West and Southerly boundaries. They also request a conservation buffer that will compliment Army maintenance procedures, DNR Fire protection, Clark County Fire Departments, and provide adequate roadway access along the perimeter boundaries from within Camp Bonneville. (Karen Kingston)

14.2 Response to general comments related to Camp Bonneville Facility perimeter fencing

Ecology agrees that access to the Camp Bonneville facility must be controlled to the extent practicable until remedial actions are completed to sufficiently address risk to the public. We acknowledge public comments regarding the current status of perimeter fencing, and we will work with the Army, County, and Bonneville Conservation Restoration Trust to attempt to correct this issue.

14.3 Specific comments related to Camp Bonneville Facility perimeter fencing

This section provides specific comments received that pertain both to this comment category and to specific parts of the draft RI/FS document. Specific comments are addressed in any of the following three ways:

- A response is provided to an individual specific comment;
- A response is provided to a series of specific comments in the same topic area; and
- A general response is provided to all specific comments included in this comment category at the end of the list.

14.3.1 Specific comments provided by Paul and Karen Kingston

1. Section 4.4.13.3 this area is accessible to anyone above a certain height stepping over the fence. This should not be considered secure. Again does not include a free running loose horse.
2. Section 6.4.3.6 – DoD 6055.9-STD requires specialized personnel to detect, remove, and dispose of found ordnance. Yet, while installing fencing in a plan slated for 2006, the Corp and Army do not want to use specialized personnel. What assurances are garnered within the RI/FS that this new admonition will occur?
3. Section 6.4.4.1 – MTCA requires compliance monitoring...where is this compliance monitoring during fence installation.
4. Section 7.4.1 – The site is not currently restricted by fencing. The fencing has been missing for more than 5 years.

14.3.2 Specific comments provided by Lynelle Hatton

1. Section 4.4.2.2 Exposure Hazards Assessment – Current Land Use - Camp Bonneville neighbors have expressed concern at many RAB meetings that fences are down along the property line. They express these concerns because of the likelihood that someone will wander onto the site and be harmed by UXO.
2. Section 4.4.2.2 Exposure Hazards Assessment – Current Land Use - They have asked that fences preventing access to Camp Bonneville be erected.
3. Section 4.4.2.2 Exposure Hazards Assessment – Current Land Use - The Army has offered to replace the downed fences with “like kind” fences similar to those installed 50 years ago when the area was sparsely populated. These fences have been identified as 3- or 4-strand barbed wire.
4. Section 4.4.2.2 Exposure Hazards Assessment – Current Land Use - The neighbors have requested something more effective at keeping people off the property, such as 6-foot chain link fences. The Army has refused their request.

14.4 Response to specific comments related to Camp Bonneville Facility perimeter fencing

Ecology agrees that access to the Camp Bonneville facility must be controlled to the extent practicable until remedial actions are completed to sufficiently address risk to the public. We acknowledge public comments regarding the current status of perimeter fencing, and we will work with the Army, County, and Bonneville Conservation Restoration Trust to attempt to correct this issue. Installation of the fence should be conducted with UXO avoidance personnel present.

15.0 Public involvement

15.1 General comments related to the public involvement process for the Camp Bonneville facility

Several comments were submitted regarding the public involvement process that has been implemented for the Camp Bonneville facility. Comments questioned the role of the RAB, the process used by Ecology to identify and contact parties who may have interest in site activities, and the area defined by Ecology for this contact with the public. This section provides all general comments received that pertain to the public involvement process and identifies the individual who submitted the comment. After the listing of all general comments for this comment category, a general response to all comments is provided.

1. Under what Remedial Action Unit for Camp Bonneville is the public to comment on their concerns regarding the pollution, existing and potential, of groundwater? (Coleen Broad)
2. It appears from the Reuse Advisor Board (RAB) meeting minutes, that this body has become a problem in moving the Camp Bonneville cleanup steadily forward. I urge you and your Department to work solely and progressively with the Army and Clark County of Washington to expeditiously cleanup Camp Bonneville. (Frank H. Funk)
3. The Army has not conducted regional public awareness regarding cleanup or issues at Camp Bonneville. The Army has not required regional input for public comment. (Paul and Karen Kingston)
4. I have never been notified about any meetings, correspondence, or material relating to the transfer of Camp Bonneville. Living in the Autumn Hills neighborhood bordering Camp Bonneville to the east, it is essential the residents be notified of issues which will directly affect their property. All information I have gathered has been through my own searching. (Alan Dragon)
5. We are concerned about this issue and how it affects our family and community. We feel that the format of the website is inadequate and although it appears to contain the Consultant's report, the next steps of the project are not obvious. It does not easily communicate what your agency will be doing next. (Alan and Julie Shibata)
6. Until now, we have not been aware or were notified of any of the happenings around the edges of our properties. Please include us on any and all meeting notices/correspondence regarding these matters. (Donna Torres)
7. Why wasn't I contacted sooner? (J. Sullivan)
8. I urge you to further involve the residents of the Summit at Autumn Hills. We have a vested interest in the cleanup of Camp Bonneville. (Roger Nielsen)
9. I learned about the public input availability and subsequent extension of that privilege very recently from a neighbor. Although my family and I hear sporadic weapon's fire coming from the area of the Camp we have not been concerned. Consequently, I have never felt it necessary to contact the authorities or research the matter further. Had I received a notice of public hearing via the US mail I would have researched the subject and attended the meeting. As I have learned that the deadline for input ends today I hardly have time to add my opinion about the disposition of the land. In the future I encourage the acting liason to send a general mailing to those residences potentially impacted by changes to Camp Bonneville, and that those people be given enough notice to allow time for researching constructive responses and input. (Scott Springer)

10. Given the extent of contamination, the high-intensity re-use plan and the fact that DOE will make a recommendation to the Governor after the comment period ends, I believe the DOE's public involvement effort for Camp Bonneville has been inadequate. As you will note below, my grave concern is that the regional park re-use is expected to attract many from a large area identified in the re-use plan, the RI/FS and the County's Comprehensive Plan to be the greater Portland area, as well as Cowlitz and Skamania Counties. This is not an ordinary regional park; the public involvement process should not be ordinary either. I fully believe that the entire region expected to frequent this heavily contaminated park be given the opportunity to participate in public involvement. I know of many outdoor enthusiasts in the greater Portland area who will be very interested in a new regional park that will provide camping, equestrian and mountain biking trails, and new hiking opportunities. These people need to be involved in a comment period concerning the UXO on this site (and other contamination once we reach that point). Giving only the narrower "region" the opportunity to comment is a disservice to all the people from the larger region who will frequent the park. This, in my opinion, is a matter of life and death. Please suspend the deadline for the public comment period indefinitely, until Portland, Cowlitz County and Skamania County have been included in the comment process. Upon extension, please hold press conferences in Portland, Cowlitz County and Skamania County, followed by DOE public meetings in those jurisdictions and on-site availability of the RI/FS in each jurisdiction. If you are not planning to include these jurisdictions in public participation for this current comment period, could you explain why you feel it is unnecessary to involve the greater region when considering cleanup plans for a high-intensity use (a regional park) that will attract many from that region, thus impacting the safety and welfare of the region's children? (Lynelle Hatton)
11. In reviewing Ecology's 2004 Public Participation Plan, I have the following questions. (All pages are cited from the April 2, 2004 DOE Public Participation Plan unless otherwise noted.) As the Camp Bonneville Reuse Plan states (CBRP, p. 31): "The planned reuse activities will have the potential as a regional magnet..." Clark County is often referred to as part of the greater Portland area, and I am pleased to note (p. 21) that notices of public meetings have been published in The Oregonian as well as other local papers. I am noticing, however, that the only local copy of the RI/FS is at the Westfield Shoppingtown Public Library. Since it is reasonable to expect that the Portland public will be attracted to new camping and hiking opportunities, the Native American Cultural Center and other aspects of the Reuse Plan, I would like to see a copy available for review in Portland (see p. 10, allowing for DOE or the Army to go beyond the mandatory public involvement requirements). Metro Regional Parks and Open Spaces would be a good place for the RI/FS, as people interested in regional parks would be looking there for information. Could a copy be given to Metro—along with proper notice in The Oregonian (not just the Clark County section) and other public information avenues—for review by the Portland public, or by Clark County residents working in Portland? The Army is said to be continuing their efforts to clean the site (p. 5). Could you tell me what the Army is currently doing in terms of cleanup? I am interested in a list of new community concerns and new information that has become available since the April 2, 2004 Public Participation Plan (PPP) was published. Has the PPP been updated (pp. 17, 21) to include these new concerns and information, if any? If this information becomes publicly available only at the end of the current comment period, can the PPP be updated at that time to include public involvement on the new concerns and/or information? Is the fencing project along the perimeter of the developments

being conducted under an Interim Action? If so, I would conclude (p. 2) that this is a work phase not covered under the PPP, which would then require updates to the PPP. Could you confirm? And if required, have these updates been completed? (Lynelle Hatton)

15.2 Response to general comments related to the public involvement process for the Camp Bonneville facility

MTCA outlines specific requirements for public participation relative to site investigation and remedial action activities. These requirements were reviewed and specific activities were identified that would be carried out for the Camp Bonneville facility. One of the activities was the development of the Camp Bonneville Public Participation Plan, which was issued April 1, 2004, after a period of public comment and a public meeting to discuss its content. In developing this plan, members of the community who had expressed interest in the site were contacted and interviewed for their input concerning how public involvement and participation should be structured for the site. As site investigation and remedial activities have proceeded at the site for the Remedial Action Units, Ecology has issued public notice of opportunity to comment on draft documents, and public meetings have been scheduled to discuss these documents. We appreciate the input from comments regarding the type of notice that has been issued, and the area of contact used. We will review our process with respect to these comments, and update the mailing list and public participation plan, as appropriate. Another mechanism that has been used to keep the public informed is the RAB for the Camp Bonneville. The RAB is a group of interested citizens that is tasked with oversight and review of activities performed on the site by the Army and its contractors. The RAB has been very active in informing other members of the public of ongoing work at the facility.

15.3 Specific comments related to the public involvement process for the Camp Bonneville facility

This section provides specific comments received that pertain both to this comment category and to specific parts of the draft RI/FS document. Specific comments are addressed in any of the following three ways:

- A response is provided to an individual specific comment;
- A response is provided to a series of specific comments in the same topic area; and
- A general response is provided to all specific comments included in this comment category at the end of the list.

15.3.1 Specific comments provided by Lynelle Hatton

1. Section 2.2.7.2 Population – Please justify omission in this Report of the public participation effort for this RI/FS. (This is relevant to provide a public record that can be evaluated as to the comprehensive nature of the public awareness and participation program, and comments submitted to the DOE on the RI/FS.)
2. Section 2.2.7.2 Population – Given the unique risks associated with UXO on this site, please state why the Army did not feel it was necessary to work with the Clark County and the DOE to identify and demand inclusion of parties identified in (2) and (3) in the public participation effort for this RI/FS.
3. Section 2.2.7.2 Population – The nature of contamination on this site (UXO) requires a public participation effort that exceeds the standard for regional parks or other contaminated properties.

4. Section 2.2.7.2 Population – Clark County has shown extraordinary carelessness and a lack of interest in the safety of the greater public by failing to demand an active public awareness effort that would include all targeted visitors to the future park (e.g. Clark County, Skamania County and the greater Portland area).
5. Section 2.2.7.2 Population – The Army, in its awareness of UXO issues, also failed to protect public interests by requiring a public participation plan that would include all park participants targeted in the County’s re-use plan and the Comprehensive Plan for regional parks.
6. Section 2.2.7.2 Population – Upon request by concerned citizens, the DOE also declined to expand its public participation plan for this RI/FS to include the parties identified in comments (9) and (10).
7. Section 2.2.7.2 Population – The public participation effort for sites of this nature should be driven by a combination of the nature of contamination on the site (UXO), the type of transfer (pre-cleanup), and the proposed re-use (high-intensity regional public park).
8. Section 2.2.7.2 Population – Effective immediately, please revise the Camp Bonneville Public Participation Plan to account for the factors identified in comment (12).
9. Section 7.2 Evaluation Criteria - Any scoring for Public Concerns that is stated to be influenced by cost, implementability and short-term effectiveness during cleanup (except as it impacts the immediate community) is highly questionable, especially if no public opinion sampling was conducted.
10. Section 7.2 Evaluation Criteria - Please state how “assumed acceptance” from the local public was determined.
11. Section 7.2 Evaluation Criteria - Please identify the method for scoring Public Concerns.
12. Section 7.2 Evaluation Criteria - Please identify all persons involved in commenting on the cleanup alternatives for purposes of determining Public Concerns.
13. Section 7.2 Evaluation Criteria - If a random sampling of objective public—uninfluenced by suggestions from the Army or Parsons—was not included in evaluating Public Concerns, please state how assumptions were determined as to how the public would view the alternatives.
14. Section 7.2 Evaluation Criteria - If a sampling of the public wasn’t polled as to this Alternative Analysis, then scorings of 10 (highest support) and 1 (lowest support) should not be used.
15. Section 7.2 Evaluation Criteria - The Army and its contractor (Parsons) are not objective parties when determining assumptions as to Public Concerns. If they alone were responsible for these assumptions, without having consulted with objective parties, then the methodology for determining Public Concerns is useless.
16. Section 7.2 Evaluation Criteria - Unless the Army can disprove the priority of these Public Concerns, please revise the methodology to weight the criteria based on the following comments, (244) through (248).
17. Section 7.2 Evaluation Criteria - If any assumptions about Public Concerns can be made, they would have to be that public health and safety is the number one priority, along with permanence and long-term effectiveness of the cleanup plan in protecting health and safety.
18. Section 7.2 Evaluation Criteria - Protecting the environment would be the second priority.
19. Section 7.2 Evaluation Criteria - Any scoring for Public Concerns that is stated to be influenced by cost, implementability and short-term effectiveness during cleanup

(except as it impacts the immediate community) is highly questionable, especially if no public sampling regarding Public Concerns was not conducted.

15.4 Response to specific comments related to the public involvement process for the Camp Bonneville facility

MTCA outlines specific requirements for public participation relative to site investigation and remedial action activities. These requirements were reviewed, and specific activities were identified that would be carried out for the Camp Bonneville facility. One of the activities was the development of the Camp Bonneville Public Participation Plan, which was issued April 1, 2004, after a period of public comment and a public meeting to discuss its content. In developing this plan, members of the community who had expressed interest in the site were contacted and interviewed for their input concerning how public involvement and participation should be structured for the site. As site investigation and remedial activities have proceeded at the site for the RAUs, Ecology has issued public notice of opportunity to comment on draft documents, and public meetings have been scheduled to discuss these documents. We appreciate the input from comments regarding the type of notice that has been issued, and the area of contact used. We will review our process with respect to these comments, and update the mailing list and public participation plan, as appropriate. Another mechanism that has been used to keep the public informed is the RAB for the Camp Bonneville. The RAB is a group of interested citizens that is tasked by the Army with oversight and review of activities performed on the site by the Army and its contractors. The RAB has been very active in informing other members of the public of ongoing work at the facility.

The next anticipated public notice provided by Ecology will be a 30-day comment period on the draft Prospective Purchaser Consent Decree (PPCD). The Army will also provide a comment period on the Finding of Suitability for Early Transfer (FOSET).

Evaluation criteria will be expanded on in an RI/FS addendum that is being proposed by Ecology and/or in the draft CAP.

16.0 Miscellaneous comments

16.1 General miscellaneous comments

Comments were submitted that were not strongly related to the previous comment categories. This section provides all miscellaneous comments received and identifies the individual who submitted the comment. Please note that in this section, only specific response to comments is provided.

1. The east end of the military reservation is steep and rocky. The quarter section next to our quarry was logged this Spring. The top through quarters have minimal timber mostly rock. I believe this area is strategic to maintaining a rock supply in the Vancouver area, and it also would be a source of income for the public schools. There is plenty of land left for parks in the east side. As a neighbor and appraiser let's do the highest and best use analysis. (Byron Slack)

Response: This comment should be referred to Clark County for discussion about reuse of the site.

2. I feel the information is misleading. We have asked a number of questions, and not received answers from BRAC. We have not received answers to future fire fighting plan. (Mark Benson)

Response: This comment should be referred to Clark County for discussion about reuse of the site.

3. The ONLY thing the Army needs to continue to do is taking the money available and keep cleaning up this land – a piece at a time and quit wasting time, energy and tax payers money. It does not matter whether the county and city officials understand the dangers of this land-fence it off, keep cleaning it up and quit wasting everyone's time. At some point, someone will get hurt or killed, groundwater will travel offsite and pollute more than those around this small piece of land, fire will break out and the fumes will cause serious, if not deadly, consequences to those unfortunate enough to breathe them in. Someone will sue, someone will pay and this silly little game will just keep going on and on. (Stella Bourassa)

Response: Comment noted.

4. Clark County agrees with DOE comments regarding the disproportionate cost analysis conclusions drawn in the draft RI/FS. We agree that the Army must document the costs and corresponding environmental benefits of all of the remedial actions being considered for a particular site or part of a site so that Ecology may evaluate if all necessary elements are appropriately determined and included in the comparative analysis. Ecology will decide if a claim of disproportionate cost is valid or not. (Brain Vincent and Jeroen Kok)

Response: Comment noted.

5. Due to the nature of the contamination and the separation of soil and groundwater investigations, the determinations of cleanup levels for MEC are not identified in the MTCA. I feel the burden of assessment should fall on the receptor interaction. A regional multiuse park is proposed. The Army doesn't feel eliminating the risk is practical. The polluter has left a source of contamination that does not biodegrade or migrate into dilution. The polluter has left a source that is not avoidable and

catastrophic if intercepted. The public has declared opposition to the risk. “A clean MEC site” is assumed from the Army as interaction between source and receptor-negligible. This statement regarding CB is a tragedy in the name of human life value. It is documented that MEC occurs over the entire site. Our exposure to this hazard after the proposed action in the RI/FS is unacceptable. An expectation of individual MEC avoidance behavior modification is autocracy in the invited recreational atmosphere. Does the DOE find our interaction with this hazard negligible after the Army’s proposed action is complete? (Christine Sutherland)

Response: Two-to-four more years of characterization and cleanup are proposed by the Bonneville Conservation Restoration Trust prior to transfer back to the County for redevelopment as a park. Ecology intends to oversee this cleanup under the proposed PPCD.

6. I do not feel the “walk at your own risk” institutional control is acceptable and request that the military history is celebrated at Camp Bonneville without fear. With the planned reuse the county has pursued, I am asking our DOE to take full action of remediation to protect the public and environment. (Christine Sutherland)

Response: Comment noted.

7. How is it that the BRAC process makes so little use of technology long available? Perhaps BRAC makes use of geographically marked data only outside the Public domain? I know from years of working with financial software databases that sound, proven information correctly captured and dispersed is crucial to project success. The smallest avoidance of evidence is very often deadly. Does the Washington State DOE believe it has truly done enough to enforce the often lauded “Public Participation” in the process? (David Wilmot)

Response: Comment noted. Ecology has met the procedural requirements of public participation under state law, and has gone above and beyond those requirements. As an example, this responsiveness summary is not a required public participation activity.

8. It is time for the decision makers at the State DOE level (as well as atop the EPA) to demand that our government fully addresses the problems of disregarding the truth in remedial investigations now seemingly designed to obscure truths... in an insidious method of cost control. (David Wilmot)

Response: Comment noted.

9. A huge responsibility given to the EPA (and State DOEs by association) in this CERCLA BRAC process, is to provide safeguards to the Public Health. My hope is that an eventual Base-wide Watershed Assessment, and a thorough local Watershed Assessment in the meantime, will prove to be a great tool in determining the hidden health risks for this community, and assist in establishing appropriate global Public Health/Environmental safeguards. (David Wilmot)

10. In our most recent major election, there was significant funding provided for the development of parks on a county wide basis. While there was a great need for outdoor recreational areas when Camp Bonneville was first closed, there are now hundreds of acres of parks planned across our region. We essentially do not need this park as much as we once did. If you factor in the risk and the uncertainties, we really don't need this park. In fact, there is a very large park that is expected to be developed over the next 5-10 years called Hockinson Meadows which is only about 3

miles away and is much closer to people who live on the fringe of the urban growth boundary. (Greg Gospe)

Response: This comment should be referred to Clark County for response.

11. Also, I understand that there may be some amount of Nuclear Waste from Hanford deposited there. If that is so, then why aren't we being told? (John Felton)

Response: There is no credible information to support this.

12. I personally know people who, as youngsters, breached holes in fences and splashed in streams running through military bases. These individuals later contracted diseases such as MS and ALS. There is a high incidence of these diseases in their community, which neighbors a military base. Prior to approving a clean-up plan for a high-intensity use such as a regional park, comprehensive studies of County health records should be conducted to determine the incidence of diseases of this nature, as well as cancer and thyroid disorders. Additionally, soil, groundwater contamination and watershed viability studies should be required. (Lynelle West Hatton)

Response: Epidemiology is outside the scope of this RI/FS. There are numerous potential causes of this incidence of health problems.

13. I would like to comment and suggest a mutually beneficial use for the Bonneville Military Camp (a Challenge Course for Juveniles). I am a Vancouver Police Officer formerly a Fish and Wildlife Officer for Washington State. My specialty is Environmental Law Enforcement. Recently, myself and several others have seen an increase in Juvenile crime and increasing demands on the justice system to rehabilitate Juveniles. The format we determined using best practices would be the Challenge Course utilizing strict military discipline to correct behavior. These Juveniles will perform projects ranging from Trail construction, Minor building and facility repair, stream restoration work, endangered plant and wildlife surveys, and large wildlife population studies. These activities will be supervised and designed by professionals who will volunteer their time and resources to the project. Our goal will be to improve the Camp Bonneville site within the park area and other areas as approved. (Officer Rey Reynolds)

Response: This comment should be referred to Clark County for response.

14. Before we allow our children to play in such a place, wouldn't it be advantageous to have an outside organization do a thorough analysis re: environmental safety concerns? (Sandie Eichner)

Response: We believe Ecology fulfills this role as an objective third party.

15. We fear a wildfire will not be fought by local agencies due to their fear of UXO, and since fire spreads uphill, our development (Autumn Hills) is in imminent danger of destruction if such a fire is unleashed. (On a side note, the Army should at least cut in some firebreaks around the Camp while the cleanup debate drones on). (Roger Nielsen)

Response: Ecology agrees.

16. The Camp Bonneville RAB does not provide advisory in issues of property devaluation due to Former Army Weapons Training Base issues or the role of our Clark County government as it pertains to easements, fair and equitable assurance for fire protection on private property, fair and equitable assurance of Army munitions response on private properties within firing fans, or the national initiative for

Counties to place deed restrictions and munition find advisories within zones in proximity to Weapons Training Bases, either former or active. (Karen Kingston)

Response: Comment noted.

16.2 Specific miscellaneous comments

This section provides specific comments received that pertain both to this comment category and to specific parts of the draft RI/FS document. Specific comments are addressed in any of the following three ways:

- A response is provided to an individual specific comment;
- A response is provided to a series of specific comments in the same topic area; and
- A general response is provided to all specific comments included in this comment category at the end of the list.

16.2.1 Specific comments provided by Paul and Karen Kingston

1. Pg. ES-1:ES.2 – Should include the date of the Clark county LRA
Response: Comment noted.
2. Pg. ES-3:ES.7 – Highlights: Wildlife Management Area. This notation is deceptive and should read; Wildlife Management – Hiking-Equestrian-Area.
Response: Comment noted.
3. Section 2.3.2 – A Public Firing Range was not presented to the Steering Committee I was on. I find this statement inaccurate.
Response: Comment noted.
4. Section 4.4.2.1 – States the FBI Range has no intrusive activities...the fact that the FBI is further corrupting the site and further contaminating it, should be intrusive. The known condition of the perimeter fencing, verified by dated video, should invalidate the FBI's indemnity for risk assessment as a lease activity. The FBI is aware of the lack of perimeter fence and the Army's ability to secure the entire facility and has stated on record that they feel the earthen berm they live-fire into, is a substantial deterrent for public safety or for oversight in the ongoing problem of trespassing at Camp Bonneville. The FBI training range is of utmost importance for Homeland Security and thus should receive special attention and provision for mitigating risk. The FBI should receive the Army's utmost attention to site security, and hold a trust in the Army's ability to be a dutiful and responsible Landlord.
Response: Comment noted.
5. Clark County has already made changes to growth maps reflecting the development of Camp Bonneville into a Regional Park. These changes should be characterized under UXO/MEC risk management. Adding larger ingress/egress gates or more gates, will characterize removal actions. As will road alterations to facilitate the amount of visitors factored into the RI/FS. To justify equations by visitor usage or site use and not factor in accessibility via gates and roadways to accommodate these very "equation factoring visitors and personnel" is nothing less than a local or federal government planning its large offices with two small doors and narrow hallways. In the case of Camp Bonneville, enlargement of the existing roadways or to redevelop gate areas to scale the factored amount of visitors or employees brings into account...explosives hazards. Thus, inclusion within the RI/FS (4.4.7.6 notes a

logging camp to be located on Demo Site 2 and will require heavy commercial traffic to be intermixed with visitor and management traffic...one more obvious reason to enlarge the roadways.) (Risk Evaluation)

Response: Comment noted.

6. Section 6.3.2.2.1-.3 - For behavior to be appropriate, one must understand the situation and voluntarily react in a responsible manner.” This is an inappropriate method for youth, unless the park management mandates park entry by youths to be in apportionment to the number of adults entering with the youths and signing consent forms. This is not related within this section, if one exists.

Response: Comment noted.

7. Section 6.3.4.1 – considers brush clearance. In other sections of the RI/FS, erosion is considered a detriment to subsurface UXO/MEC. How will this be rectified under this sections plan?

16.2.2 Specific comments provided by Lynelle Hatton

1. Section 2.3.2.2 Timber Economic Resource -Please address the validity of the economic plan for timber harvesting, given that UXO is known to exist in trees.
2. Section 2.3.2.2 Timber Economic Resource - Please provide documentation as to the marketability of timber that has been contaminated by UXO.
3. Section 2.3.2.2 Timber Economic Resource - Please provide documentation of the County’s plan for addressing the issues described in (17) and (18).
4. Section 2.3.2.2 Timber Economic Resource - This issue is important not only for timber harvesting, but in the event of trees downed by storms, earthquakes, disease, etc.

Response: Comments relative to timber should be referred to Clark County for response.

5. Section 3.1.2 Site Characterization (Introduction) - When the RAB requested Lidar imaging, the County willfully withheld information about having County-wide Lidar in its possession.
6. Section 3.1.2 Site Characterization (Introduction) - That information was withheld from the Army, Parsons, the DOE and the RAB.
7. Section 3.1.2 Site Characterization (Introduction) - Please investigate the County’s motives for failing to disclose that it had County-wide Lidar in its possession.
8. Section 3.1.2 Site Characterization (Introduction) - Please investigate the County’s motives for withholding a technology that would greatly assist in more accurately characterizing Camp Bonneville.

Response: Ecology has the LIDAR data described.

9. Section 3.2.5.1 2000 Aerial Photograph Examination - Please explain how the 1980 aerial photograph prepared and published by Fort Bragg was omitted from the ASR.

Response: This omission was an Army oversight.

10. Section 4.4.9.4 Training Areas - Please provide data on the decibel level of the loud reports referenced in this section.

Response: Information is not available to respond to this comment.

11. Section 4.4.9.4 Training Areas - Please provide information on the nature of the smoke referenced in this section.

Response: Information is not available to respond to this comment.

12. Concluding Comments - The Army stated at the October 2005 RAB meeting that community RAB members must follow restricted protocol for contacting politicians about Camp Bonneville.

13. Concluding Comments - The Army and County, in the meantime, have taken steps to secure political footing by meeting with Senators' and Governor's aides without inviting the DOE, community RAB members, or other concerned citizens.

14. Concluding Comments - These actions testify to the backhanded nature of Army and County negotiations and agreements regarding transfer of this contaminated property.

Response: Opinions noted.