

Greg Shaw

Section 4.7 Level 1 Tech (UXO). The County has ignored this requirement for years, despite the importance of the matter. Please do not try to reduce the requirement to save money or convenience. No manager in the County takes UXO/MEC seriously. It is seen as an imaginary threat. I refer you to the lack of a serious MEC Brief until Mr. Malone arrived. Keep pushing the County to understand that MEC is a serious issue.

Greg Shaw

Page 69: Section 4.8 CITA inspections. I support the recommendation as long as it does not REDUCE the effectiveness of the “inspections.” A real surface inspection needs to define the need to actually examine the surface, even if that requires brush or other clearing. Personally, I believe it should require fairly extensive geomagnetic sampling and removal. Expensive, but useless otherwise.

I-225-1

Greg Shaw

Page 70: Section 4.9 Periodic Reviews Section 4.9.1. Please delete the excuse. I can document that the failure was willfull and I have no desire to further embarrass Ecology with this.

Greg Shaw

Section 4.9.2. Recommendation. 1st there is a spelling error “period” vs “periodic. 2nd, As I have addressed elsewhere, the statute requires a periodic review of the site five years after the initiation of a remedial action. I believe that because there is a Consent Decree and permanent IC’s the bench mark will now be 5 years after this Periodic Review. The date is no longer tied to the old review dates.

Greg Shaw

Section 4.10. Repositories. This section really does not adequately address the issue. I would suggest an entry that just says that conditions have changed and Ecology, Clark County and the Army will consult and determine the resolution of the repository/document access issue within 180 days, a year whatever and issue a public statement on how the new scheme will be rolled out...

Greg Shaw

Page 71: Section 4.1.1 APPCD and Small Arms Ranges. I do not believe that the 4.1.1.1 comment fully discusses this issue. There is still conflicting information. I do agree that any future Consent Decree clarify the record.

Greg Shaw

Section 4.1.2 RAU—2A findings. Concur. I would note, however, that the described material, if substantially similar to our holdings, is NOT incorporated into sections of this Periodic Review as I have highlighted (*supra*).

Greg Shaw

Section 4.1.3 RAU-3: WSA Discrepancy at 4.1.3.2 This area should be cleared. Period, as noted above. The IC recommendation includes the phrase “other than hiking along the roads and trails.” You seem to forget that the roads and trails themselves have NOT been cleared.

Greg Shaw

Page 72. Section 4.1.1.1 RAU-1 – Vapor Intrusion. I have noted above that, on the basis of gaps in the RAU-1 data, Ecology can not now consider the cleanup of RAU-1 to be protective for human health or the environment. It is my view that the two buildings should be investigated, demolished, reviewed for contaminants and fully remediated. Why would we want to push this further down the road? Make your recommendation to suggest strongly that this lingering problem be put to bed as soon as practicable.

Greg Shaw

Page 73: Conclusions. I have addressed most of this in earlier comments. To Summarize: 1. Nothing presented in the Review supports a finding that the Property is “protective for human health and the environment. Period. 2. The Review contains no supporting documentation, citation of statutory authorities, or rationale to create a carve out for “current users.” The site is not protective for anyone OR the environment (Ecology deftly does not address the environment at all.) 3. The Review contains no accurate or comprehensive information on the persons and organizations currently using Camp Bonneville, the specifics of the areas used, the nature of the use, the extent of contaminants brought onto the Property or created at the Property, the duration of uses, documentation of safety or access control briefs or other information on which to consider risks for any one user, much less for groups or organizations of users. 4. In creating an unsupportable carve-out declaring that members of that carve out group are immune from harmful effects from even minimal interaction with undefined contaminants, Ecology oversteps its authorities and creates a liability burden for the Army, State and County. 5. As this Review documents (and these comments support), Ecology is not now in a position to assert that the remedies employed at any of the remedial actions are effective. 6. Not even the roads and trails have been cleared of MEC. Digest that.

Greg Shaw

Final Comment This is a critical moment in the history of the Camp Bonneville cleanup. If Ecology is still not willing to make hard decisions that reflect the fully evaluated record available, Ecology has failed in every aspect and the cleanup may never be finished. The record, the data, and the evaluations in the Periodic Review do not support any conclusion except that the Property still is not protective of human health and the environment. Your authorities do not give you the power to discard your own process to alter or modify the overall facts before you to make life easier for Clark County, the Army, or yourself. Ecology has not produced any clear, unclouded, body of data, test results, or research to support a finding that Camp Bonneville is protective of health and the Environment. As hard as it may be to come to such a conclusion, there is no room to sugar-coat the result and make exceptions. The Property as a whole should be closed to all but critical cleanup personnel and others essential to maintaining the property until such time as Ecology can assert that the Property as a whole is protective for human health and the environment. Gregory Shaw 10 January 2026

DEAR MR. MICHAEL
CRONIN

RETURNING YOUR
ADVERTISED RE-
QUEST

PLEASE, FIND THAT
VERY REQUEST EN-
CLOSED AND ATTACH-
ED: →



Comment Period

US Army Camp Bonneville

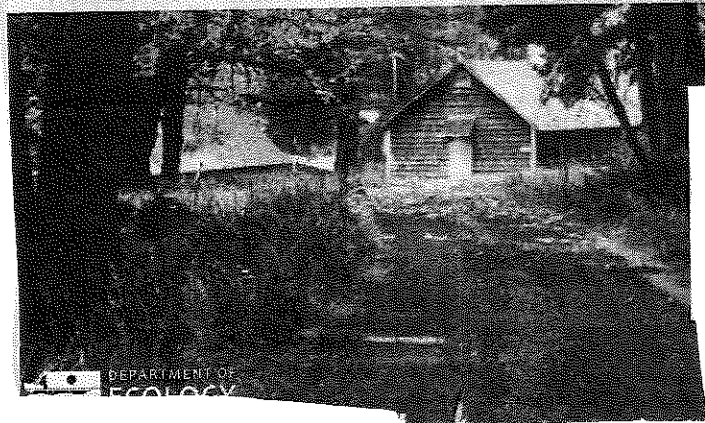
Draft First Periodic Review and Public Participation Plan

November 1st - December 31st, 2025

Online: go.ecology.wa.gov/11670

Phone: 564-233-9482

By mail: Michael Cronin, Site Manager, PO Box 47600,
Olympia, WA 98504-7600



FOR THE "COMMENT (2)
PERIOD ; I AM ONLY
RETURNING THE SITE
MANAGERS REQUEST

MY MAILING ADDRESS

IS: { THOMAS EARL WRIGHT
283 S.E. 283RD AVE
CAMAS WASHING-
TON 98607-7205
UNITED STATES

I speak English only and
am a bachelor, a legal
status with drivers license

(b) (7)(A)

THE COMMENT PLAN
PERIOD FOR ME IS OVER

SINCERELY

Thomas Earl Wright

period

neville

Public Participation Plan

31st, 2025

anager, PO Box 47600



10 December 2025 – Comments to Ecology Open House

For more than a quarter century, the Washington State Department of Ecology has been responsible for oversight of the cleanup and restoration of Camp Bonneville.

According to current financial records, \$87,450,027.19 has been directed by the Army to the Camp Bonneville cleanup. Of that, \$4,357,590 has been budgeted to Ecology.

Ecology's responsibility was to ensure that Camp Bonneville was turned over to Clark County for uses as defined in the transfer documents. The Deed records that Camp Bonneville is to be used in perpetuity for the conservation of natural resources.

According to this Periodic Review, the cleanup actions are NOT protective of human health and the environment for use as a regional park. The Review also states "...the site is protective of current users." There is no justification or rationale for this undefined distinction and no evidence that Ecology is fully informed on the nature or extent of current users. We will come back to this important point.

For the record, cleanup actions for Camp Bonneville began before the transfer of the site to Clark County in 2006 and Ecology claimed oversight authority before the County had any role.

The key 1st point is that this report is a devastating indictment of the Department of Ecology itself, Clark County managers, the Department of the Army, APEX/PBS, BCRRT, Weston and others.

The touted "Conceptual Cleanup Model and the MTCA **have failed to produce a site cleared to allow the uses described** in the Conservation Conveyance and the other agreements between the Governor, the County and the Army.

2nd, and even more disappointing, is that the "NEW" Ecology team has failed to layout any framework for Clark County to move forward to completing the required cleanup and restoration of Camp Bonneville.

3rd, Ecology has failed to produce even a shred of documentation, monitoring data, or confirmatory testing as to the current status of any of the 5 Remedial Action Units, much less the other 70% of the Property. Ecology has prepared a "book report" describing the final cleanup reports and "No Further Action" findings which may or may not represent the contamination status as of the dates of those documents, but clearly fails to provide any documentation or rationale to claim CURRENT cleanup conditions. As an example, Ecology was so concerned about the risk of weather or other events in the Central Impact Target Area that it imposed both an annual requirement for a full surface inspection of the Targets Area in the CITA (117 acres) and special inspections after any severe weather

events. More than 5 years have passed and these inspections have never been done. Ecology cannot demonstrate that MEC, MD or other Hazardous materials have not percolated to the surface or down slope to Lacamas Creek. The conclusion can only be that the cleanup status of RAU-3 (CITA) is unknown and that “Further Action is Required” to certify that the remedy is effective.

I also point out that, sitting here today, we are at the tail end of major weather event as described by the National Weather Service last night. Heard with my own ears. Are UXO-qualified teams being mobilized to surface inspect (whatever that actually means) the 117 acres? Why not? Ecology put this in the CAP for RAU-3 (and I note, never published a full amended text of that key document). Let’s put our boots on and go take a look...

4th. Neither APEX or Ecology used “Best Evidence” as a lawyer would say. There is no (zero) reference to the full site investigation by EPA done ca. 2011/12. That reports contains much more recent monitoring data, especially on lead contamination in the range areas. MTCA requires the use of such monitoring data. Why did Ecology cite only older information and ignore EPA recommendations? (By the way, we have full documentation of the contentious relationship with EPA experts and Ecology dogged refusal to consider EPA UXO standards in the absence of any such standards in MTCA.

Beyond this, there is no evidence that APEX or Ecology used the 140 or so Monthly Camp Bonneville Reports that are an incremental record of the various site investigations, cleanup activities, property O&M efforts, the day by day identification of MEC, MD and HTW. The reports also contained a record of what was being done to install or maintain Institutional Controls, to adhere to Ecology’s Emergency Actions, and Interim Actions.

Likewise for the BCT meeting notes with attachments. And, of course, the RAB minutes.

I would comment that Ecology was onsite through much of this and failed to pay any attention to the continuously false claims made by the County about the status of the property. If you had ever used this stream of data and insisted that the record be kept accurate, many of the newly described deficiencies would not have ever taken hold: Fences, signage, road access, gates washed out roads, on and on.

Finally, Ecology made no effort improve the quality of information available for evaluation and planning. One example is EPA’s suggestion that water monitoring results for RAU-2C would be improved if rainfall and weather conditions were taken to account. Just how much rainwater was impacting well testing. This was never done. We even offered to purchase a professional weather station and donate it to the County. Never accepted and no current and location specific weather data has ever been used. Weather data is

discussed in this set of reviews, but none of it is specific to Camp Bonneville testing locations. Our family lives immediately adjacent to the Site at 1680 feet. We get twice the rain of any local weather monitoring site. Data from Brush Prairie, Camas or Vancouver is not within 50% our readings. Why no effort to get best evidence?

5th. This Review contains no evidence that Ecology or APEX have accessed much less applied accurate location data in defining locations, RAU boundaries, location of MEC, Location and control zones around of legally protected Cultural areas, much less the property boundary, the actual footprint of surface and sub-surface MEC clearance.

For Camp Bonneville to be protective of human health and the environment, the EXACT boundaries between safe and unsafe must be knowable. A 1/8" line on the map of a 500' square is not sufficient.

6th. Worldwide GPS systems were and, are stratified, in order to deny foreign governments accurate location data on sensitive areas. The circular area of probability constraints have been adjusted over time. The Review does not address the accuracy of GPS equipment used to document different cleanup actions since 1995. GPS data cited in various reports should be characterized as to the embedded circular error and the reviewers should have taken the variations in accuracy into account when analyzing or even describing the areas surveyed or remediated. You cannot effectively define the locations of fences or other engineering controls without knowing exactly where these locations are.

7th. Has Ecology considered the different effectiveness in geomagnetic detection equipment between 1995 and today? The USG has devoted literally billions of dollars to improve IED/UXU detection and suppression. There is no citation to documentation or studies about the current state of detection capabilities compared to the many different makes and models used in Camp Bonneville Cleanup. Should areas cleared 10 or 20 years ago be resurveyed? Can they be made safer with new state of the art equipment? This Review should have addressed that.

8th. This Review makes reference to the 2005 Clark County Reuse Plan. There is a 2006 version of the Reuse Plan, Why was that not referenced? In any event, the 2005 Plan at Section 7 clearly notes that the preliminarily selected uses may have to be adjusted based on the conveyance method agreed to between the Army and Clark County. The list cited in the review lists uses specified for the "Economic Development Conveyance" – but the property was actually transferred under the much more restrictive "Conservation" Conveyance. (As an historical note, evidence in the records strongly suggests that these

uses derived from a checklist of possible Economic Development use that circulated at national BRAC meetings during this period.)

This review does assert that the County will have to adjust the eventual uses to the limitations of the now existing cleared areas (a total reversal of Ecology's mandate to clear according to the actual uses chosen by the County). But Ecology has done neither. You did not clear the areas mandated in the Reuse Plan and you did not clear areas that would be allowable uses under the limitations of the Conservation Conveyance.

Our reading of the Review and our knowledge of the larger records set suggests that the required changes noted in this Review are not a full and well document list of all of the changes (OR NEW CLEANUP) that would be required before Ecology would find that the cleanup would protect human health and the environment.

9th, Now to the hard parts: 1st, Ecology, like County program managers bandy about the phrase "Regional Park," but there is no documentation that establishes where such a park might be located, how it could safely be accessed, how it would be protective of sensitive wetlands and cultural areas, and most especially how big such a park might be.

How did Ecology come to a conclusion that the remedial actions are not protective of a Regional Park or the environment?

This review barely aludes to sensitive wetlands (or your responsibility to survey and remediate ground water SITEWIDE), so where is the documentation and where are the MTCA criteria on which you made these decisions?

Ecology cannot say how big the Regional Part would be, where it would be, what activities would be allowable, what uncleared areas were easily accessible from a Park, how it would be isolated from uncleared areas, the level of use, etc., etc., etc.

What are you actually talking about? What is the MTCA standard on which you based your judgement?

10th. As I noted at the start, Ecology has found that Camp Bonneville is safe for the health of humans and the environment for Current Uses. There is no documentation or listing or definition of allowed current uses.

1. Was the burglary of the FBI ammunition storage facility last January an allowed use under your decision?
2. Are the regularly scheduled 30-60 person firing range events for members of the public acceptable current uses?

3. Are the regional SW Washington and Oregon Noxious Weed field days and picnics, allowed uses.
4. Is the storage and “DAILY USE” of ammunition magazines in the CVF by ATF an allowable use?
5. Is the inspection of novel apple trees an acceptable current use?
6. Is the collection of logs for bioremediation of the Lewis River an acceptable current use?
7. Is the discharge of CS gas an acceptable current use?
8. Is allowing the Cowlitz Tribal police training on UTV at RAU-2C an allowable current use?
9. Is it an allowable current use for the FBI in impot junk cars for shoot ups at the Firing Range?
10. What is the allowable daily number of LE officers allowed to be using the range? To be training in ATVs on the roads and trails? To be firing paitballs in the Cantonment areas?

Ecology has no idea of what the actual current uses are or what the level of use is. You have not documented where or what or how often Camp Bonneville is being used. There is data, sign-in sheets, card swipes, range calendars, Public Works emails, etc. (But County staff, and particularly CCSO and the FBI do not want anyone to know).

11th. There are many more, but I will stop with this.

Why has Ecology programmatically lied to the public that the roads and trails were cleared???

Since at least 2009 Ecology briefings and documents and emails have wrongly claimed that the roads and trails and 20’ buffers aside them have been cleared. Even in this document we can see your effort to conceal the truth. It is hidden in a caption on a map, while you assert throughout this document that the roads and trails can be used in various areas, that “current” uses are protected while you know full well that all of the current users are on uncleared roads and trails.

The public fought a struggle with Barry Rogowski during the Listening session as he repeatedly pushed back that the roads and trails had been cleared. It was pretty ugly. But surprise, in the Response to Comments, Ecology admitted that the roads and trails had not been cleared and that Clark County would not be allowed to open uncleared roads and trails to public use.

How can Ecology say that the cleanup is protective for human health and the environment for current uses when you now admit that the entire road and trail network remains uncleared? Hypocrisy at its most dangerous. So back to the beginning, what is the MTCA standard for use of uncleared roads and trails in an almost 4,000-acre former firing range? The risks are too great for future users of a hypothetical Regional Park, but Law enforcement officers, PBS staff, County staff, garbage collectors, phone and electrical repair crews, and hundreds and hundreds of members of the public?

This is an unsustainable “free pass” and failure of Ecology to step up and admit that only absolutely essential staff and trained cleanup personnel are safe, under MTCA, to use the property.

And more, Ecology does not provide any framework for moving forward.

Exactly what must be done immediately; who is responsible for doing it?

What is Ecology’s oversight plan?

What exactly must be done before the property is protective...?

12th. Ecology’s effort to avoid doing Periodic Reviews. We have the records of the year by year, step-by step effort to avoid the MTCA requirement, to slow roll compliance, and eventually to move forward with this pseudo Periodic Review. Ecology and County program managers attempted to amend the Consent Decree to delay Periodic Reviews until 5years after the NFA findings for all of the Remedial Actions at Camp Bonneville. When that was apparently shot down by the State AG, Ecology and the County just refused to take action on the required review. Ecology knew that periodic reviews were required (I even have a personal letter from Brock Milliern from 2021 assuring me that the reviews would be done). If anyone is interested, we will provide the entire documentation of the TCP’s long effort to avoid accountability.

Clark County and Ecology were only required to undertake the current review because the public gained the ear of the head of investigations in the State Auditor’s Office and, by chance there was already another oversight action in process at Ecology.

The public only took this action following the harassing behavior of County staff towards members of the Citizens’ Advisory Group and the refusal of the managers to allow the CAG to do anything but review the findings of Ecology’s NFA notices. The County did not want to have the CAG digging up problems that might interfere with plans to develop a park. They seemed intent on squelching information, some but not all of which by far, is addressed in this Review.

Ecology's delay is compounded by the merging of five (really 8) Remedial Actions into this unified study. The slipshod and hurried preparation of this review should have taken place in separate reviews for each remedial action unit. Each should have had a dedicated report from the County/contractor and each should have been assessed and incorporated by Ecology into a separate Periodic Review.

The amalgamation of 5 (8) remedial actions into one has very bad consequences:

1. Public comment periods done individually by RAU could have allowed time for actual public engagement.
2. Individual reviews would have allowed for a more thorough, complete and accurate product.
3. The multiple undone reviews that should have started more than a decade ago, might have prevented many of the identified problems, errors of haste and limited access to essential records, and might have prevented the obvious decay of the property.
4. A review of the separate RAUs would have allowed the public time to carefully assess Ecology's judgments.
5. Not insignificantly, separate reviews would prevent a built-in 5-year major financial hit to the County's funding. Spacing out the individual RAU reviews would be more easily absorbed by the limited funds available.

13th. We have not addressed the hundreds of errors of fact and omission. There are astounding blunders and many small but important misrepresentations of the record. We will address these in writing between now and the end of the comment period. I again ask that the comment period be extended beyond New Year's Eve for 30 or 60 days. The public needs time to work its way through this tome.

Ecology has tersely called out APEX for "substantial issues in the presentation and accuracy of the information and findings..." And, APEX received additional funding from the County to modify its initial submission. The people of Clark County should get its money back and an apology from APEX for failing to provide a workable document for this Periodic Review.

But, this does not absolve Ecology which, I believe, inappropriately interfered in APEX work in drafting its submission, which edited drafts of the APEX report before it was submitted, which did not provide anything near the access to records that would have allowed a better product, and which throughout the preparation of the APEX document has left the impression that it wished to modify, perhaps even whitewash, some of APEX's comments and findings.

And further, this entire review process is tainted by conflicts of interest.

The hiring of APEX (then PBS) was, in my own opinion inappropriate. PBS has been benefitting from Camp Bonneville related contracts since 2003 or earlier. It has essentially held a sole source contract for quarterly water monitoring since the 2004 failed excavation of Landfill 4. This has brought it millions of dollars in revenue. But that is not all, PBS held contracts concerning the cleanup of RAU-2 and the disposition of remaining military debris from RAU-3 after BRCCT departed in 2010. This was apparently a pass-thru contract with a company called Bay West. So at the minimum, PBS was conflicted over 3 of Ecology's 5 RAUs. The County Council pointed out the obvious conflicts and directed the County Manager to find a different company specifically to avoid conflicts of interest. Apparently, the Manager had signed a contract the day before Council gave its directions and the conflicts were ignored.

There are other conflicts of interest. A core Ecology manager involved in this review was hired into that position from Clark County's Department of Public Works and an Ecology manager's spouse was employed by Public Works at the time the contract was let.

Why bring this up? Because this Review does not fully address the issues surrounding the data and evaluation problems that beset RAU-2C – the very activity being carried out by APEX/PBS. This is the most enduring and difficult Remedial Action Unit and the review does not disclose the conflict and did not require an outside expert to provide material for a proper Periodic Review of RAU-3. It is my opinion that this failure leaves Ecology out of compliance with the WAC requirements and the Findings of the State Auditor. We will be referring this issue back to the State Auditor for investigation.

#14. I have attached a copy of the 18 August 2021 Milliern letter. It is worth a close read. It is a maze of correct and wildly incorrect information crafted by Mr. Rogowski (he took public credit for the content) to deflect uncomfortable failures and missteps at the Camp Bonneville cleanup. It is something of a Rosetta Stone for unravelling the ongoing programmatic failure of the now \$87 million cleanup.

Gregory Shaw

(Prepared originally for presentation at the recent "Open House.")

Greg Shaw

Background: On 19 March 2009, ECY notified Mike Gage, head of the BCRRT, in writing that the primary objective of Ecology's Emergency Action for RAU-3 had been successfully completed. That Emergency Action required, in part, that the Camp Bonneville perimeter fence in its entirety be secured by fencing and signed with appropriate warning notices. This certification of completion was signed by Greg Johnson on behalf of Ben Amoah-Forsen of the Toxics Cleanup Program.

To this day, the public has not been provided documentation that the entire perimeter of Camp Bonneville is fenced and intact. We have asked dozens of times. On 3 November 2020, in response to such questions, the same Greg Johnson wrote in an official communication to the Army's BRAC environmental coordinator that "The 3 strand barbed wire fence with no trespassing danger signs every 50 feet has always been on the Camps (sic) perimeter, over 2/3rds of the site is barbed wire and there is also a portion of **approximately 1.25 miles that has no fence at all** because of the terrain."

#1. Why did Ecology certify in 2009 that Emergency Action had been completed if 1.25 miles had been, been left unfenced and may still, today, be unfenced.

#2. Does Ecology have documentation or first-hand reporting that those 1.25 miles were ever fenced?

#3. Did ECY staff or contractors actually examine the entire fenceline for the Periodic Review?

#4. When was that review of the perimeter fence completed? Is there documentation to support that review?

#5. Did ECY staff or contractors, review and confirm the entirety of the fence securing the Central Impact Target Area (CITA)? The PBS onsite visit photos show that there the main road entrance was unsecured and that was no evidence of an appropriate main gate for the CITA.

#6. Does ECY have documentation that it verified required signage for the entire CITA fenceline and for a secure gate at the SW road entrance?

#7. Since at least 2012 (until recently), Ecology staff has had a permanent office and presence at Camp Bonneville. Is there any record to show that ECY staff reported the lack of required fencing, gates and signage?

#8. The required Monthly Reports for Camp Bonneville religiously reported that the roads and trails at Camp Bonneville were continuously monitored. Why did Ecology (that was well paid for oversight) not ever take exception to the false monthly reports?

#9. Does Ecology know how many authorized much less unauthorized people enter Camp Bonneville on a daily, weekly, or monthly basis? Did Ecology obtain information on the type and frequency of intruders to Camp Bonneville over the period of this review and did Ecology review the Army and BCRRT historical records commenting on the significant number of hunters, escapees from the Larch Corrections facility, random citizens and children entered the property on a regular basis. This data exists and is contained in up to date file in Clark County Internal Services, Public Works, and CCSO files.

#10. Please provide the public with documentation that the CITA fencing/signage and gates were, and are now, protective of public safety and the environment and meet certified standards for preventing unauthorized access to UXO and other Hazardous materials.

#11. Did ECY or contractors do a full review to determine what new methods or standards have been developed since to secure such risk-laden properties? I do not see evidence in the PBS/Apex or ECY documentation.

#12. Has Ecology corrected the false certification contained in the 2002 completion notice for the RAU-3 Emergency Action that there was a full perimeter fence when that work had not been done?

#13. Does a 3, 4, or 5-strand barbed wired fence meet County, State or Federal standards for protecting public safety and the environment for approximately 700 acres of heavily UXO contaminated property? Have these standards changed since the Emergency Action in 2009?

#14. Why is there no recommendation to require the use of current technology to monitor the perimeter and CITA fences, the gates, sensitive cultural sites and environmental areas? Such technology is freely available, proven effective and relatively inexpensive. This is exactly the type of new methodologies that MTCA mandates be identified and applied to remedial action sites.

Comment: Despite the power of repetition, this Public-Draft Periodic Review incorrectly asserts that the RAU-1 Institutional Control mandated in the Covenant attached to the Camp Bonneville Quit Claim Deed.

The Covenant is specific:

“(2) that a sign shall be posted permanently on or in each building identifying the potential environmental contamination associated with the particular Building and providing notification that upon demolition that additional soil sampling is required and additional remediation may be required...”

The Review includes a photograph of the sign attached to building T-1932 that reads “Caution – Do not modify this building or excavate near building without permission from range control.”

This sign is out of compliance with almost every aspect of the verbiage mandated in the Restrictive Covenant:

- a. There is no mention of environmental contamination.
- b. There is no mention of additional soil sampling.
- c. There is no mention of additional remediation.
- d. “Permission from Range Control” is a meaningless direction. Range Control is not a person, or an organization, it is a nickname for building 4398.
- e. The sign is the institutional control in this case and RAU-1 is, and has been for more than a decade, out of compliance.**



My Significant Conclusions and Findings

The Public – Draft Camp Bonneville Periodic Review provides abundant evidence that the cleanup of Camp Bonneville has failed.

The Department of the Army has provided \$87 million for the cleanup since 2006.

According to the conclusions of the pending 2025 Periodic Review **“For future uses as a regional park, based solely on activities in the 2005 reuse plan, the cleanup actions are not protective of human health and the environment.”**

The cleanup has been a strategic program management failure by all parties.

Here are the facts:

1. Only approximately 30% of the Property has been investigated and cleared to any standard for the risk of Unexploded Ordnance (UXO). This includes a significant portion of the 2005 proposed regional park area.
2. The Central Valley floor has been investigated at least three times for UXO, excluding a few small sections that cannot currently be identified, but including a nearly complete surface clearance by BCRRT and a repeat sub-surface clearance to 14” below-ground-surface by Weston. Despite this, Weston ended its sub-surface clearance after documenting 720 “anomalies” that it left in situ below 14” in the proposed park area. A confirmatory dig of these possible MEC was conducted and confirmed that some were, in fact dangerous. No further UXO clearance has been done in this core area of the proposed park area.
3. EPA, as the most experienced national regulator of former military sites, repeatedly advised Ecology that the appropriate clearance level for the proposed park area was clearance “to depth” or a minimum of 4 feet. Ecology agreed to a 24” sub-surface clearance, but only actually required Weston to clear to 14”. Ecology’s hubris has left the Central Valley Floor unsafe for public use as a park or much else.
4. This review has identified areas in the proposed park area that were not actually investigated or cleared of UXO despite being designated as fully cleared.
5. As regulator, Ecology did not require permanent markers to delimit cleared for uncleared spaces at Camp Bonneville. Despite repeated unsuccessful requests for GIS information defining Camp Bonneville cleanup areas, it not appears that such data, if it does exist, is

“unreadable” and thus could not have been used in this review. The result is that it is currently impossible to exactly define footprint by footprint where any person is safe or not.

6. This review fails to provide any current data on the effectiveness of any of the five remedial action areas at Camp Bonneville. At the 10 December 2025 “Open House” staff repeated that the statute does not require any confirmatory testing but only to review records and monitoring data. That is to say, when the report says that lead levels are x, it actually means that the level was x at the time the cleanup ended, be that 20 years ago or last year. **Ecology does not know the current level of HTW at any site** at Camp Bonneville. It is an obvious question, in the absence of current information or verification, how can it declare that any remedial action is NOW in compliance with MTCA or other standards? That was the purpose of this review.
7. There is no “monitoring data to review only because the regulator – Ecology – did not make regular monitoring and recordkeeping a requirement in the Cleanup Action Plans that it wrote and approved. This might have been noticed decades ago if the required 5-year Periodic Reviews had been done.
8. This issue is orders of magnitude more devastating for RAU-3, the requirement for sitewide cleanup of UXO and related dangerous materials. As noted above, about 70% of Camp Bonneville was not investigated for, or cleared of, UXO. Monitoring data is required to assess whether UXO or related dangerous materials have migrated to the surface by “frost heave,” washed out during the heavy rains that are a routine occurrence at Camp Bonneville, been pulled to the surface at cleared and uncleared areas, both by vehicle traffic, unauthorized law enforcement training off-range, maintenance staff, tree falls, animals or other factors. Such monitoring was required for a portion of the Central Target Impact Area (CITA) but has NEVER been done. Not once.
9. This Periodic review admits, but buried, that ***the 50-some miles of roads and trails at Camp Bonneville have not been cleared. Take that in...***
 - a. For 20+ years, Ecology has forcefully rebutted public statements (and individual members of the public) that the Camp Bonneville roads and trails had not been cleared.
 - b. We have submitted a long, but still incomplete compilation of official Ecology managers and publications up until last year that have propagated the false claim.

- c. Try to internalize the importance of this admission. Ecology rescinded its claims about the roads and trails in the “Response to Public Comments” for a “non-meeting” Listening Session and stated officially that Clark County would not be allowed to open uncleared roads and trails for public use.
- d. The costs and time required to now clear the roads and trails could delay the development of any uses at Camp Bonneville for many, many years. The Army, last year, closed the funding for MEC/UXO clearance at Camp Bonneville. **Clark County citizens will foot the bill.**
- e. I repeat, Ecology is on the record that the County may not allow public use of the uncleared system of roads and trails.

10. The result of this is that Ecology and Clark County cannot say at this moment, as you read this, that there is not UXO **on the surface** at any area of Camp Bonneville... not in the CITA, not in the 70% of the uncleared property, not on the roads and trails, not anywhere. The Periodic Review team and contractors did not traverse, much less investigate, the presence of UXO at Camp Bonneville on more than 10% (my guess based on the various maps on record) of the roads and trails and even a lower percentage of the overall Property. The statute requires a Periodic Review to certify that the cleanup is effective for the remedial actions undertaken by the State. This review does not come even close to fulfilling the letter or the intent of the statute when it comes to UXO.
11. The cleanup has failed in many other ways. The most costly failure to date is the ineffectual effort to cleanup the contaminated sub-surface groundwater percolating through Landfill 4 (RAU-2C). In 2004, Ecology directed the excavation of the contaminants in this landfill out of urgent concerns that the contaminated water might make its way into Lacamas Creek and/or the Troutdale aquifer. The excavation of the contamination remains incomplete.
12. A review of a variety of records shows that the excavation into a heavily clay soil was delayed and not begun until the rainy season was approaching. The excavation was called off as heavy rains began (documented by review of local weather databases) and a significant portion of the contaminants were left in place over the winter and the

excavation was not sealed and refilled until the Spring by which time the site filled with water that drained through the contamination and into the groundwater. Not surprisingly, groundwater monitoring showed an *increase* after the attempted cleanup. The rate of decline of the contamination is (in my non-expert opinion) unstable.

13. Logic would suggest that over the last 22 years the regulator – Ecology – would have directed an attempt to remove the remaining contaminants or to pump out and filter the contaminated water. Vancouver is successfully using such a process to reduce PFAS levels.
14. But no, Ecology and the County have funneled millions of dollars of Army funding to a single company to conduct (mostly) quarterly groundwater monitoring at a still growing forest of wells. The Army, in something of a hail-Mary just gave the County \$6 million more solely for the purpose of keeping this remediation project alive. There is no progress and there has not been a new idea about how to fix it in decades. It is a failed remedial action. This will not improve until the contaminants are removed, a new set of eyes look at the data, new expert contractors reassess the hydrology of the area, and there is some third-party oversight.
15. So, you might ask why this issue is not addressed at length in the Periodic Review. Perhaps because the company that has had a lock on groundwater funding at Camp Bonneville for more than 20 years is the same company that Clark County hired to prepare and submit its package of information and analysis to Ecology for this Periodic Review. This is, just perhaps, the most egregious conflict of interest in recent Clark County History. The County Council actually cited this conflict in a public meeting and directed the County Manager to find a non-conflicted company in place of PBS/APEX. This was not done.
16. As it was left, PBS/APEX filed a draft periodic review that was sent back for massive revision by Ecology, it requested (and was granted) additional funds from Clark County to prepare a second draft periodic review that Ecology pointedly declined to review but published along with version one as attachments to the final Public-Draft Periodic Review.

17. At the same time PBS remains under separate County contracts to continue quarterly water monitoring and to prepare an RI/FS that will set the future remediation framework for water monitoring. This has to change or there is no hope for any credible fresh look to solve the RAU-2C problem. None.
18. There is one last defect in the cleanup of RAU-2C. In 2023 or shortly after, the record shows that serious concerns were growing about the accuracy or sufficiency of groundwater monitoring and analysis at RAU-2C. Our research shows that, in addition, there were unusual fluctuations in contaminant levels in the monitoring wells, a concern that rainfall was not being appropriately addressed as a factor in measurable test results, and questions about the accuracy of test samples and the inclusion of historical data in current analysis. The public asked repeatedly of County and Ecology staff, but were met with blanket denials that there was a problem. Those answers were not accurate full or complete. Recently available communications confirm that that there were and are issue about the testing and analysis of groundwater at RAU-2C. The quarterly groundwater and sampling reports have been delayed to the point that the public now lacks even relatively current information, the RI/FS has been delayed yet again (the same RI/FS that PBS/APEX) has been writing and rewriting for many years at great expense), and the issues or issues are completely whitewashed in the very limited mention of RAU-2C in this Periodic Review.
19. The public is in the dark. Access to current information is being limited. And, this significant cleanup problem is no closer to a solution than it was in 2004.
20. Perhaps the biggest component of the strategic program management failure of the cleanup is the myopic attitude of Ecology towards the comprehensiveness of the technical failures, the pattern of lowering cleanup standards for financial reasons and its own administrative pressure to expedite the close-out of the cleanup itself.
21. This periodic review records, technical issues, administrative issues and compliance issues with the documentation of the five RAUs, but shows no appreciation that the overall cleanup approach has failed to evolve

along with the increasing understanding of the scope and wide distribution of contamination since 2006 when the County took title to the property. Over 20 years, Ecology has only reduced the clearance area and standards for cleanup of UXO. For example, the full cleanup of UXO in the Western Slopes has been reduced on the order of 75%. Ecology took BCRRT to arbitration to force broad sub-surface and, in doing so, helped force BCRRT out of the cleanup in 2010. In 2012, Ecology failed to insist that continued cleanup be undertaken by a replacement specialist environmental company, but allowed the County (with extensive participation by Ecology itself) to run the remaining cleanup.

22. The result was an immediate reduction in required standards for, and area to be cleaned up in, the CITA and for the drastic reversal of the enhanced standards forced on BCRRT for the Western Slopes during arbitration, and the elimination of most of the required areas to be remediated. The record shows that these changes were driven by the Army's refusal to pay full fare for the previously Ecology-mandated cleanup. Ecology "dumbed-down" both the CITA and the Western Slopes clearance standards.
23. The Periodic Review documents the results: The County and Ecology have failed to honor the trade-off (annual-plus surface inspections) for the size and scope of the CITA reductions and now Ecology recommends undoing the requirements for even the annual surface inspections and heavy rain event inspections. **None of the required surface inspections have been carried out in the 117-acre targets area. Period.** Ecology now seems to think that the requirement is too vague. Because Ecology itself wrote the "vague" requirement it still wants now to further reduce the cleanup of the CITA. The CITA not having been even surface cleared would have no continuing inspection or removal of MEC/UXO. The CITA cleanup is failing before our eyes.
24. In the Western Slopes Area, as a result of the 2017 changes to reduce cleanup, the "discovery" that there is an area of this proposed park area that was never cleared at all, and the patchwork quilt mashup of cleared and uncleared 10' transects, the entire area is almost unusable for any public purpose.

25. Ecology and the County have failed to coordinate any end goal to define the needed, required or appropriate conditions to consider the environmental cleanup to be complete. Ecology remains of the mindset that tidying up the RAUs is enough, but it does not (and likely cannot) understand or articulate what that actually means.

26. The County is in denial about Camp Bonneville as a whole. None of the Council members or the Manager understand enough about Camp Bonneville to even begin developing a path forward. There is not enough funding to complete even the Periodic Review proposed upgrades, improvements, institutional controls. There is enormous pressure from law enforcement to allow Camp Bonneville to expand its footprint and authority over the entire Property. At any time, any single Councilor can swing the vote to allow endless LE use or the total termination of LE use.

27. The band-aids proposed in the Periodic Review will be expensive, but mostly they cannot help resolve the unformed questions:

Will Camp Bonneville become a Property for the conservation of natural resources or will it be a continuing pawn in the hands of the Sheriff and the FBI?

What cleanup is required to transition to the required natural resource area?

What should a completed cleanup look like if the County cannot move itself to commit to the resource area end state?

What immediate additional steps can Ecology require in the absence of a final target use?

28. So, the cleanup has failed. The site is not safe for public use. There is no agreed-on end state. There are limited funds. And, there is pending litigation that may change the current and future of the Property.

29. My last comment is that there has been a total failure of public participation. I strongly request that Ecology establish a rule that there will be a dedicated Camp Bonneville Review meeting on a set day during each Calander year that will allow for Ecology and the County to update the public on the status of the cleanup and the property. This should be

honored once each year without regard to any other Camp Bonneville meetings. One meeting, once a year. Is that too hard?

Public Comment on the Camp Bonneville 2025 Public-Draft Periodic Review – Need for engineering and/or Institutional Controls at the Range, explosives Bunkers, and other sensitive sites

The Camp Bonneville Range (it is not properly called or referenced as the “FBI Range”) was left out of the original list of RAU-2A firing ranges because of Ecology’s policy of not clearing active ranges. The range is clearly identified by signs, but is unfenced, creating an attractive nuisance. The FOSET recorded at page 26 that “A potential MEC-risk was identified during investigation.” There is no record that this risk was further investigated or remediated.

BCRRT lead sampling of neighboring small arms range fan areas ca 2003 found levels of lead that exceeded MTCA safe levels in and around the range. The Clark County Department of Health has taken no action to investigate the ongoing threat to users of the range. A review of County, CCSO and discussions with the management of the Portland FBI have uncovered no record that this range has been cleared of lead since 1996 or earlier. The national standard is that lightly used outdoor ranges are to be cleared of lead every three years. **The Camp Bonneville range berm has not been cleared in at least roughly 30 years despite its regular heavy use.**

This is a dangerous portion of the property immediately adjacent to the Range Road and fully open on all sides to authorized and unauthorized persons. Ecology is aware that on or about 15 January 2025, burglars stole approximately 12,000 rounds of high-power ammunition from a storage shed then used by the FBI.

Despite the risk, Ecology still refuses to insist on remediation of this active threat to the hundreds of law enforcement personnel currently using the Camp Bonneville Range. The public used to believe that Ecology’s purpose was to protect human health and the environment. Not so much for SW Washington LEOs, I guess.

Given this, Ecology has a statutory and moral responsibility to limit the un-remediated Lead and MEC threat at the range by immediately ordering that Institutional Controls be put in place to prevent unintended harm to non-LEO users of Camp Bonneville, contractors and even trespassers. Fencing and locked gates should be quickly installed. IC’s, including land use restrictions, signage, security measures such as camera and alarms, and a requirement to log in every range user should quickly be implemented at the range. Range users also should be required to sign a waiver acknowledging the legacy Lead and MEC threat.

In addition to dangerous conditions at the Camp Bonneville range, recent research has uncovered the continuing use of two explosives magazine in the Central Valley Floor at

Camp Bonneville by U.S. ATF, Portland. The Periodic Review questionnaires confirmed and added to the information we acquired in FOIA requests to ATF. An initial FOIA request produced several years of logs showing continuous storage of small levels of various explosive materials in these magazines. A more recent FOIA request returned only highly redacted emails between ATF, MEDU and Public Works concerning a possible contract to extend ATF's expired contract for the magazines, but ATF failed to produce the logs that we know to exist.

The ATF questionnaire provided more disturbing information, The respondent stated that the explosives magazines were used daily. He also claimed that the magazines were under the supervision of the Washington State Department of Labor and Industries. In response to a records request to LNI on 11 June 2025, the department responded that it had **no record of any inspection of the Camp Bonneville ATF explosives magazines between 1 January 2010 and 24 January 2025. So, there is no third-party regulation of these explosive materials at Camp Bonneville.**

I honestly have no understanding of how Ecology can allow new explosives to be brought on to Camp Bonneville. These materials should be considered uncleared MEC under RAU-3, Phase 1. These magazines were either NOT cleared by Weston or have been reestablished without proper documentation. Until this is explained, I will consider that Clark County is out of compliance with the RAU-3 Cleanup Action Plan for each of the two magazines. In another sense, these are illegal explosive caches that are reportable just the same as the discovery of random sticks of dynamite on a rural farm. Regardless, this is another out of compliance item requiring the suspension of the NFA for RAU-3.

Just as with the range, as long as explosive remain in the Central Valley Floor, the know explosives require action to protect current and future users of the Property. Fencing, Signage, alarms, need to be in place prior to a renewed NFA.

But more, the Ecology teams site inspection photographs show numerous additional weapons and/or ammunition bunkers abandoned across the property. A few of these were pointed out to CAG members in November 2024, but he had no details of what the individual bangers/magazines had been used for or were currently being used for.

I would argue that Ecology should maintain a full inventory of current and past explosives containments that shows the use (current or past), the status (active or inactive) and the date of MEC and HTW cleanup, if any. The public has no access to these seemingly random and potentially extremely hazardous sites at Camp Bonneville and there should be an unambiguous and current record available for public and staff reference. Such an inventory should be assembled and published in the Fibal Periodic Review.

Finally, there are other sensitive sites known to us from reviews of the cultural materials reports, museum inventories and other records. These sites were not known to the last set of County program managers and we have been unable to determine whether these sites are currently protected as required in the (now) redacted agreements and site records. It appears that weed control personnel maintenance staff and unmonitored LEO operations might easily trample across a sacred site by accident. Thus, I ask that the Final version of the Periodic Review provide adequate details to describe the nature and effectiveness of the Institutional Controls for each of these sites.

I apologize if this is a duplicate comment. A similar but different comment was lost during transmission via the Ecology site link. This is a new, but similar submission.

Comments and Questions for the Public-Draft Periodic Review

Section 4.3 “The evaluations in this Periodic Review rely on the Site Uses set forth in the 2005 Reuse Plan.

The 2005 (or 2006 Reuse Plan - a full copy of which cannot be located apparently) is absolutely clear that it foresaw the need for substantial revisions in the proposed uses of Camp Bonneville for many reasons. Prime among them was that the LRA, in 1998, did not have any significant UXO data for the Property. The Army’s sampling data was not available, the EE/CA report came only after final drafting, and the initial Archive Search Report was incomplete. “The LRA has made assumptions on locations of reuse activities...we will work with the Army to wherever possible, relocate developments that have been planned in any areas that are found to be more contaminated than originally anticipated.”

The Reuse plan also notes in the same section that it lacked updated endangered and threatened species data, and had no current information on wetland zones because of ongoing UXO activities.

At Section 7.1.2 Transfer restrictions the Reuse Plan reads “It is possible that deed restrictions or other institutional controls may be attached to the transfer of the property to the LRA. In that event, the LRA will need to evaluate the institutional controls to ensure that the proposed reuses and transfer of the property remain viable.”

That is exactly what happened. An expected “Economic Development” conveyance was denied by the Army and, in turn, the parties agreed to a Conservation Conveyance that restricted use of the Property to the conservation of natural resources. The Reuse Plan was never revised to meet that specific limitation. FYI, In conversation with a County Commissioner who managed the transfer at the time, the Commissioner expressed real surprise that the Reuse Plan had not been updated after the change to a conservation conveyance.

In addition several of the proposed uses (Clark College area, the outdoor school, the large law enforcement road course/driving track) disappeared from the possible uses and, as noted in this Periodic Review, some uses were considered infeasible because of site contamination. **The County and Ecology failed to make any programmatic adjustments as this took place.**

As a result, the Reuse Plan is effectively a dead duck.

Nevertheless, County managers and staff persist in allowing current activities they believe are allowed by the Reuse Plan. The FBI, ATF, MEDU, SWAT and other LE use of the range and other areas of the property: “Well, a Law Enforcement training center was an element in the Reuse Plan...”. Moving the CCSO range to Camp Bonneville: “Well, shooting ranges were an element of the Reuse Plan...”. As a point of fact, the Reuse Plan cannot be used as justification for any use at Camp Bonneville **prior to the completion of the environmental cleanup** per a specific letter to the County. Also, the current range was NOT a part of the Reuse Plan. The location was deemed unsafe and inappropriate and was to be moved before the property was opened to the public.

Another missed point is that the Army did not (and does not) approve Reuse Plans. It accepts plans as provided by the LRAs and they are used to guide the cleanup. So, in fact, the Camp Bonneville Reuse Plan was not approved by the Army.

BUT, none of this matters. The various Reuse Plan maps are not useful because no locations have been approved and none of the exact locations for any uses have been approved. This is what happens when one tries to find truth in a 28-year old planning document that was not managed or adjusted over almost three decades.

The only certainty about the future of Camp Bonneville is that **it must be used for the conservation of natural resources**. In fact it may not be used for any other purpose. Seems pretty clear.

The transfer documents do not specify that the Property as a whole, or even in part, will be a large regional park. Ecology should make no reference to the Reuse Plan or to “the Park.”

Camp Bonneville is no longer managed by the Parks Division of Clark Public Works. There is no Master Park Plan.

Section 4.3.2 of the Public Draft Periodic Review reads “Any update to the Master Park Plan will be incorporated into future Periodic Reviews.” THERE IS NO MASTER PARK PLAN.

The same section reads “Clark County is planning to develop a master park plan. Actually, the County Council has not made any determination that such a step will be taken.

Further, as noted in separate comments, no one can describe where an aspirational regional park would be located at Camp Bonneville, how big it would be or what uses might be allowed.

But finally, Camp Bonneville is not a park – as I have said before. Looking out my window at Camp Bonneville this very minute, it is either a conservation property (per the deed), or it is

a Law Enforcement and ATF shooting range/training facility and explosives depository (per staff and three Council members).

Whatever happens in the courts to sort this out over the coming years, Camp Bonneville is not a park-plus. It was transferred to be a unitary parcel to be used for the conservation of natural resources. Ecology needs a reset to understand this and to stop thinking of it as a reuse area (park) and a wildlife area. It is one and only one property only to be use for the conservation of natural resources.

Ecology management and the County Council need to have serious and detailed discussions about where the cleanup goes. It would be a waste of time and money to try to shoehorn the reality of the still highly contaminated property into an old, useless, reuse plan.

Returning to the beginning: Camp Bonneville does not have a viable or relevant approved reuse plan. There is no Master park Plan and, even if one comes into being, it would not define the cleanup needs of the entire property. Ecology remains the oversight agency for all of Camp Bonneville.

It appears that this Review has left Ecology at a crossroad. The Periodic review offers only band-aids to the bits and pieces of deficiencies it has come across in this foreshortened review effort. Continue as before and we will all regroup in five years to do this yet again Groundhogs Day style. Or, Ecology management and the County Council can come to terms on understanding how the overall cleanup has sputtered out without a useable property and devise (with public input) a clear methodology and framework to transition towards s final state of Camp Bonneville as a conservation area as required by the CERCLA Covenant to the deed.

Appendix B. Reference Documents

*Note: Bolded text in "Reference Text" column added to highlight portion of text being commented on as needed.

Comment #	Subsection	Subsection Heading	Report Page #	Reference Text	Comment
7	2.1.2	Administrative History	5	2008 August – ownership of the remaining 820 acres of the Site leased from the State of Washington (Department of Natural Resources) was transferred to Clark County.	The way this is written it reads as though all DNR leased land was transferred to the county, not just the portion in the NE corner.
8	2.1.2	Administrative History	5	2011 December – Ownership of the Property was transferred from BCRRT to Clark County.	Specify that the property was transferred via Quit Claim Deed.
1	2.2	Physical Setting, Hydrology, and Hydrogeology	7	November, December, and January represent the wettest months with 6.31, 6.79, and 6.05 average inches of precipitation, respectively, and a total average annual precipitation of 42 inches. Annually the area experiences an average of 26 days below freezing, with January being the coldest month having an average temperature of 38 degrees Fahrenheit. July and August represent the driest and hottest months with 0.48 and 0.62 average inches of rain and average temperatures of 65.4 and 65.5-degrees Fahrenheit, respectively and typically only seven days with temperatures reaching above 90 degrees Fahrenheit.	Source of weather data not provided.
9	2.4.1	RAU 1 Areas	9	Landfill 2 was discovered in about 1978, during excavation for construction of the current sewage lagoon.	As written it implies that there is a current sewage lagoon onsite which is not the case. Clarify that these lagoons are no longer in use.
10	2.4.1	RAU 1 Areas	10	Landfill 3 is located southeast of the existing sewage lagoon, near Lacamas Creek, and approximately 300 feet southeast of Landfill 2	Same comment as above.
11	2.4.1	RAU 1 Areas	10	The Former Burn Area is located immediately north of Landfill 3, to the southeast of the existing sewage lagoon.	Same comment as above.
12	2.4.1	RAU 1 Areas	11	Following site investigations cleanup actions, Ecology concurred with the determination that were not required for the grease pits.	Missing "cleanup actions"
13	2.4.1	RAU 1 Areas	12	The Hazardous Materials Accumulation Point (Building 4476) is in the northeast corner of the Camp Bonneville shop area, in the Camp Killpack cantonment. The building is a three-walled structure, built in 1990, with concrete masonry block walls and a concrete slab floor. The open front of the structure is secured with locked metal gates. The structure, also referred to as the Covered Vehicle Maintenance Storage, has been used for the storage of drums of liquids such as antifreeze and used oil.	Where is the Hazardous Materials Accumulation Point referred to as the Covered Vehicle Maintenance Storage? This building is not big enough for storing vehicles. My assumption is that you're referring to the portion of Building 4475 that is a canopy covering.
14	2.4.1	RAU 1 Areas	13	A wooden two-track vehicle ramp remains at the site.	The way this is written it suggests that this equipment is still present and intact, however this is not true. Wash Rack 1 was dismantled in June 2000 (see Section 4.3.11 of 2004 <i>Cleanup Action Plan Remedial Action Unit 1</i> , prepared by URS). Today, there is no visible indication of the two-track vehicle ramp.
15	2.4.1	RAU 1 Areas	14	26 ASTs are located at multiple locations with 23 located in the Camp Bonneville cantonment and the remaining three in the Camp Killpack cantonment. Each of these ASTs has a 275-gallon capacity tank and had been in use since the 1920s and 1930s to store diesel fuel for heating. In July 1999 three ASTs were reportedly still in use at Camp Killpack.	Clarify that the three ASTs in Killpack and all ASTs in Bonneville are no longer in use.
16	2.4.1	RAU 1 Areas	15	The center magazine #2951 is the smallest, with an interior floor space measuring only about feet by feet, and a door also facing southward.	How big? Dimensions are not provided.
2	2.5	Remedial Action Unit 2A – Small Arms Ranges	22	Lead in soils is the primary contaminate of concern for this remedial action unit	Contaminant is misspelled as "contaminate" in the second sentence.

Comment #	Subsection	Subsection Heading	Report Page #	Reference Text	Comment
17	2.5.1.3	Draft Final Site Investigation Report Small Arms Ranges and Demolition Areas 2 and 3 Camp Bonneville Vancouver, Washington (AEM 2003)	23	This report, as it related to RAU 2A, sampled soils for lead at the small arms ranges and background locations on Site.	Suggest revising "report" to "investigation".
18	2.5.3.4	Final Cleanup Action Report Remedial Action Unit 2A Small Arms Ranges (Weston 2018c)	26	Documents from the time of field work, including daily field logs, indicate field work for RAU 2A was proceeding following the methodology laid out in the work plan at that time (MKM 2008a, MKM 2008b, MKM 2009). The 2012 APPCD documented the cleanup with associated confirmation data for all ranges except 2A-16 and 2A-21 had been completed to Ecology's satisfaction; however, the confirmation samples for the cleanup activities have not been identified in the project files. This data is needed for this and future periodic reviews to evaluate the effectiveness of the cleanup actions. This will be discussed further in Section 4 Issues and Recommendations.	Should clarify that it is the confirmation sample data that is missing. See additional comments for page 58, Section 3.7.2.
19	2.5.3.4	Final Cleanup Action Report Remedial Action Unit 2A Small Arms Ranges	26	The 2012 APPCD documented the cleanup with associated confirmation data for all ranges except 2A-16 and 2A-21 had been completed to Ecology's satisfaction; however, the confirmation samples for the cleanup activities have not been identified in the project files. This data is needed for this and future periodic reviews to evaluate the effectiveness of the cleanup actions.	If the 2012 APPCD documented the cleanup had been completed to Ecology's satisfaction this must have included the confirmation samples. No further action should be necessary.
20	2.7.2	RAU 2C Interim and Emergency Actions	30	An interim action at RAU 2C was conducted in 2004 to remove and dispose of ordnance, landfill materials, and associated contaminated soil at Landfill 4/Demolition Area 1. Soil was removed until confirmation samples indicated that perchlorate was at concentrations below MTCA Method B soil cleanup levels for protection of groundwater. In the western area of the landfill, excavation was stopped prior to reaching the interim action goals at approximately 27 feet below ground surface as saturated soils were encountered and work could no longer continue safely. An estimated 13,300 cubic yards (cy) of impacted material were removed from the landfill, and approximately 900 cy of potential impacted soil remained in place. The interim soil removal was reported to have removed approximately 93% of the impacted soil.	This section should be updated to include the 2004 Pilot Study conducted by Tetra Tech. The Pilot Study included the installation of injection points upgradient of MW-2A/2B; injection of biodegradable carbon source (corn syrup); and GW sampling before and after to evaluate effectiveness.
21	2.8.1.2	MEC Site Characterization	32	In addition to the survey work, a Time Critical Removal Action was carried out on a 10-acre portion of the explosive ordnance disposal (EOD) demolition range , following the postponement of a separate removal planned for the 40mm M203/light anti-tank weapon range.	Shouldn't this be described under the interim actions/emergency actions, not investigations? Additionally, the "demolition range" referenced here is described elsewhere as Demolition Area 1 (DA1). It would be helpful to maintain consistency and include that nomenclature.
22	2.8.2	RAU 3 Interim and Emergency Actions	35	These interim actions took place, as substantiated through references in other completed interim action final reports as well as daily production records. Ecology has included these emergency and interim actions in this discussion, as they are part of the Site's remedial history, but due to lack of documentation Ecology cannot state this work was completed to Ecology's satisfaction.	What is the implication of this statement? Was the work not completed to Ecology's satisfaction at some point in the past?
23	2.8.2.5	Central Valley Floor	37	No final report was produced for this interim action, and as a result, Ecology is unable to verify whether the work was completed or able to identify a detailed record of the activity. Records from the time indicate field work did take place, as references to this work are found in documentation for other interim actions where final reports were completed (i.e., daily field activity reports).	If the work was referenced, did it reference a report? Not having the report doesn't mean a report was not produced.

Comment #	Subsection	Subsection Heading	Report Page #	Reference Text	Comment
24	2.8.2.6	Dense Vegetation / Moderate Slope	37	No final report was produced for this interim action, and as a result, Ecology is unable to verify whether the work was completed or able to identify a detailed record of the activity. Records from the time indicate field work did take place, as references to this work are found in documentation for other interim actions where final reports were completed (i.e., daily field activity reports).	If the work was referenced, did it reference a report? Not having the report doesn't mean a report was not produced.
25	2.8.2.7	Central Impact Target Area	38	No final report was produced for this interim action, and as a result, Ecology is unable to verify whether the work was completed or able to identify a detailed record of the activity. Records from the time indicate field work did take place, as references to this work are found in documentation for other interim actions where final reports were completed (i.e., daily field activity reports).	If the work was referenced, did it reference a report? Not having the report doesn't mean a report was not produced.
3	2.9	Groundwater Monitoring	43	On an annual basis groundwater from three drinking water wells on Site are sampled along with surface waters at Lacamas Creek and its tributary North Fork Lacamas Creek. Surface water samples have been collected annually since 2013.	The drinking water wells are sampled quarterly.
26	3.1.1.1	Law Enforcement Activities	46	The FBI constructed a training facility and small arms range in 1995 referred to as the FBI range.	Include here that the Army issued a permit to the FBI in 1991.
27	3.1.1.2	DNR Heli Tact Operations	48	DNR Heli Tact Operations	Update all instances of "Heli Tact" or "Heli-Tact" to "Helitack"
28	3.1.1.3	Forestry	48	Logging is only completed in areas outside of the CITA or critical areas (wetlands, etc.), ground disturbance protocols were communicated in the contract documents, and logging contractors receive MEC training.	Specify MEC awareness training instead of just MEC training.
29	3.1.1.3	Forestry	48	Clark County Public Works has stated logging is completed by outside contractors and consists of thinning/dead limb removal from below and removing smaller trees.	Just thinning from below, no dead limb removal activities
30	3.1.1.3	Forestry	48	All activities were related to thinning, hazard removal and replanting to promote forest health. Ecology has not been provided or identified records which verify this information.	Ecology has not asked for this information. The county can provide timber sale contracts and the forest stewardship plan that guide these activities
31	3.1.2	Future Site Use	49	The planned future use of the Site is a regional park. For the evaluation in the Periodic Review, Ecology is using the 2005 Camp Bonneville Reuse Plan (2005 Reuse Plan), as it is currently the document of record for future use activities (OTAK, 2005).	This statement is misleading. The future re-use of the site identified 9 elements including regional park, law enforcement training center, rustic retreat center/outdoor school, Native American cultural center, Clark College environmental education, trails and nature area, FBI firing range, law enforcement and public firing ranges, and timber resource management area (page xi). Regional park elements largely include the list on this page (see section 4.5.1 of reuse plan on page 30). This list appears to be a mix of the re-use elements and regional park facilities.
32	3.1.2	Future Site Use	49	Several of these activities require new infrastructure or have the potential to disturb the ground below depths of clearance or occur in areas that were not cleared as part of the RAU 3 Cleanup Actions. For example, a proposed logging camp partially overlaps with the CITA exclusion zone and an expansion zone for the retreat center/outdoor school is in a section of the Western Slope Area which has not had clearance. Restrictive Covenants are in place to prevent or manage ground disturbing activities, but it may be necessary to add additional restrictions. Based on the 2005 Reuse Plan, the cleanup actions undertaken are not protective of the Projected Use.	The cleanup that was completed was based on the uses identified in the Reuse Plan. However, the future use of the site will be finalized through the Master Planning process. In other words, the projected use of the site is still yet to be finalized. None of the current projected uses include ground-disturbing activities beyond that which would be required for construction of new infrastructure. Based on current excavation restrictions for the property, no ground-disturbance will occur without adequate UXO support. As such, it is not accurate to state that the cleanup actions completed at the site are not protective of Projected Use.

Comment #	Subsection	Subsection Heading	Report Page #	Reference Text	Comment
33	3.1.2	Future Site Use	50	It is important to acknowledge, at the time of this Periodic Review the 2005 Reuse Plan is almost two decades old and was developed prior to substantial portions of the cleanup being completed. As cleanup has progressed at the Site, the cleanup team has agreed that changes from the 2005 Reuse Plan are needed. The RAU 3 CAP included changes such as moving the proposed Logging Camp off Site and restricting activities to hiking along roads and trails in the Western Slope Area (Ecology 2010, Ecology 2018, Ecology 2019a). These proposed changes to the park plan still need to be incorporated into the proper document of record. Changes could be formalized by revising the existing Reuse Plan or incorporated with changes in the upcoming Master Park Plan for the site that Clark County Public Works is beginning to develop.	Who has agreed and where is this documented that the cleanup team agreed? Specify who the cleanup team is and when/where the agreement occurred. What about forest management activities in this area? Institutional controls identified in the RAU 3 CAP also allow for forestry activities within the Western Slopes Area. Also, please note that the County has not yet started the Master Plan.
4	3.2	Institutional Controls	51	Multiple institutional controls are in place or partially in place and being maintained for the protectiveness of the current site uses, however, the Clark County Public Works is out of compliance for implementing multiple institutional controls required for the projected Site use (Table 3-2).	If the institutional controls are for a projected site use that is not yet occurring how can the county be out of compliance?
34	3.3.2	Vapor Intrusion	52	Soils below Buildings 4475 and T-1932 at RAU 1 have contamination in place, or suspected contamination, requiring either a vapor intrusion risk evaluation or additional institutional controls that require the buildings be evaluated for vapor intrusion risks prior to building occupancy or construction.	Given the building's current condition, the County has no current plans of occupying the building. Please update this statement to indicate that 1). the vapor intrusion evaluation would only be necessary should the current building and/or any future building be occupied prior to any investigation/remediation of the contaminations suspected beneath and 2). the vapor intrusion evaluation is not necessary should the building be demolished.
35	3.4.3	Site Hazard Assessment and Ranking Process	55	Ecology has completed a SHARP assessment for the site (Appendix E). The SHARP assessment rated the site as Low. Please note that Ecology SHARP's assessment is for chemicals of potential concern and currently does not address MEC in the assessment process. The Site likely will be reassessed as cleanup progresses.	There should be a statement that 1). clarifies that there should be a MEC risk assessment for the site; and, 2). defines who is responsible for that assessment. Additionally, as currently written, it is not clear when Ecology states, "The Site likely will be reassessed as cleanup progresses" if that's referring to both COPCs and MEC or just COPCs. Please clarify.
36	3.6.2	RAU 3 Advanced Geophysical Classification (AGC)	56	AGC is not a required or universally applicable method and has not been implemented at this Site. While early iterations of AGC technology existed, it was not operationally available, financially viable, nor supported by a formal accreditation process at the time when the decision was made to transition from non-AGC DGM to analog detection methods. Additionally, certain areas of the Site may present ongoing challenges - such as continued high anomaly density below established clearance depths, complex terrain, or limited accessibility - that could preclude the effective use of AGC.	This section is missing some sort of concluding statement. Does the existence of this technology affect the evaluations, decisions or recommendations made for RAU 3?
37	3.7.1	RAU 1 Effectiveness	57	New scientific information regarding the hazards from vapor intrusion has been established since the time decisions were made regarding these locations (Section 3.3 New Scientific Information). Additional remedial investigation/assessment for vapor intrusion risks prior to occupation is recommended.	See comment above for Section 3.3.2.
38	3.7.1	RAU 1 Effectiveness	58	Building T-1932 and Building 4475 require assessment for vapor intrusion prior to occupancy to address changes in the exposure pathways from volatile compounds.	See comment above for Section 3.3.2.
39	3.7.2	RAU 2A Effectiveness	58	The 2012 APPCD and field records document that cleanup occurred and met the goals of the CAP and workplan; however, this data must be located, or additional sampling will be required to confirm the removal actions met the cleanup goals.	If the 2012 APPCD and field records document that this cleanup occurred and met the goals of the CAP and workplan then the data has already confirmed the long-term protectiveness of the remedial actions as evidenced by Ecology's No Further Action determination letter. Seeking confirmation sampling results at this stage is not necessary. The confirmation data at this point would only be necessary if the cleanup standards change and are revised to a lower number than what drove the cleanup. Additionally, how would the confirmation sampling requirements be defined? Who would be responsible for developing this? How would this be funded given that RAU 2A has received an NFA?
40	3.7.2	RAU 2A Effectiveness	59	While restrictions on ground disturbing are in place for the Site, this periodic review has identified the need for additional institutional controls to ensure the long-term protectiveness of the soil covers. These are as follows: • Routine inspection of the caps for non-grassy plants (such as shrubs or saplings) followed by their removal and repair of the soil cover. RAU 2A – 21 has trees that either need removal or inspection for damage to the soil cap.	Ecology should require a one-time action to 1). remove all dead trees from this soil cap; 2). inspect the cap for any damage; and, 3). make any necessary repairs prior to implementing the other recommendations. Otherwise this will be an ongoing maintenance concern. Additionally, it would be helpful to define what "routine" is so we have a metric with which to comply. Monthly? Quarterly? Annually?

Comment #	Subsection	Subsection Heading	Report Page #	Reference Text	Comment
41	3.7.2	RAU 2A Effectiveness	59	Confirmation sampling data of the cleanup is needed for future assessments, if this data cannot be located additional sampling will be required.	See comments above regarding confirmation sampling.
42	3.8.3	Clark County's Periodic Review Support Report	62	On January 21, 2025, Ecology received a report, prepared by PBS (an Apex Company), t referred to as a "Periodic Review Support Report" (Support Report) which fulfilled Clark County's obligation, pursuant to WAC 173-340-420.	Remove "t" before "referred" in this sentence. Note, this report was subsequently renamed "Summary and Technical Assessment for Periodic Review Report" upon finalization.
43	3.8.3	Clark County's Periodic Review Support Report	62	A requirement of the APPCD is that Clark County shall submit to Ecology a report ninety (90) calendar days before every 5-year anniversary of the date of dismissal that addresses the review criteria in WAC 173-340-420. On January 21, 2025, Ecology received a report, prepared by PBS (an Apex Company), t referred to as a "Periodic Review Support Report" (Support Report) which fulfilled Clark County's obligation, pursuant to WAC 173-340-420. Ecology reviewed the Support Report and identified numerous and substantial issues with the accuracy of information, analysis, and findings within. Ecology does not consider the Support Report to satisfy the requirements of a Periodic Review under MTCA. The Support Report including Ecology's comments is included in this review as Appendix F.	This is an unfair characterization of the report and process. The report submitted was a draft and the contracted scope of work (reviewed by Ecology) included an opportunity for the county to address Ecology's comments, which was completed. A revised report was submitted to Ecology on August 6, 2025. As such, the County respectfully requested that the County's revised report (Summary and Technical Assessment for Periodic Review Report) be included as an Appendix. Furthermore, the Support Report, as referred to here, was never intended to satisfy the requirements of a Periodic Review under MTCA nor was it ever the County's responsibility to do so. As stated in WAC 173-340-420, the Periodic Review is the responsibility of Ecology. Section XV of the 2012 APPCD indicates the County is responsible for producing a report that addresses the review criteria in WAC 173-340-420, which it does. This report is separate and distinct from Ecology's responsibility for conducting the Periodic Review. The County appreciates that Ecology ultimately included the updated report as Appendix G, and the County respectfully requests the statements about the county's report and process, including Ecology's involvement in that process, be revised as discussed here.
44	3.8.3	Clark County's Periodic Review Support Report	62	Ecology through a supplemental site investigation and subsequent records review confirmed that no soil from the RAU 2A cleanup were permanently placed in the former sewage lagoons.	Clark County assisted with this effort yet is given no credit. Additionally, this should be updated to indicate that daily field logs from the time indicate soils were only temporarily stockpiled before being disposed of off-site.
45	3.8.3	Clark County's Periodic Review Support Report	62	Due to the time and effort that went into reviewing the Support Report and the substantial number of issues identified, Ecology has elected not to require a revised report and has focused on preparing this Periodic Review.	Ecology explained that it did not have the authority to require a revised report. Per Ecology's correspondence dated October 6, 2025, "Ecology stated that the County had fulfilled its obligation under paragraph 150 of the Amended Prospective Purchaser Consent Decree and would not require or review a revised submission." Section 3.8.3 should be revised to match this language.
46	3.8.3	Clark County's Periodic Review Support Report	62	Clark County Public Works has chosen to revise the Periodic Review Support Report to address Ecology's comment and provide a document which accurately reflects the cleanup activities and conditions at the Site.	The statement that Clark County has "chosen to revise" the report is misleading. The submission of a revised Summary and Technical Assessment Report was envisioned at the outset and was included in the scope of work for the project. Ecology reviewed the scope of work and was part of the kick-off meeting for the report.
47	3.8.3	Clark County's Periodic Review Support Report	62	Ecology through a supplemental site investigation and subsequent records review confirmed that no soil from the RAU 2A cleanup were permanently placed in the former sewage lagoons. Therefore, Ecology no longer agrees with this Statement in the Support Reports findings on the former sewage lagoons.	This was revised in the Summary and Technical Assessment Report. Please adjust text to indicate that Ecology no longer agrees with this Statement in the initial draft of the Support Report..."
48	3.8.4	Administrative Review	63	As part of this Periodic Review, Ecology has conducted an administrative review of the work conducted and documents produced and has identified several issues and deficiencies in the administrative record.	Does the specification and clarification of these deficiencies in the subsections that follow within the Periodic Review address the issue or is additional action warranted? A concluding statement such as, "These deficiencies are summarized in the sections below" would help clarify.

Comment #	Subsection	Subsection Heading	Report Page #	Reference Text	Comment
49	3.8.4.3	RAU 3 Western Slopes Area Reporting Discrepancy	63	The 2018 RAU 3 CAP amendment identified that areas with a slope of 25% (14°) would be surfaced cleared and did not provide an exemption for restricted accessibility areas. After reviewing the DVMS interim action work plan (BCRRT 2008c) and the 2010 RAU 3 CAP (Ecology 2010), Ecology found that a small section of the WSA, with a slope of less than 25% (14°), was incorrectly attributed to having transect-based work or considered a "restricted accessibility area" and did not receive the cleanup required under the CAP (Figure 12).	It is misleading to state that the work completed was not the cleanup required in the CAP. The CAP amendment states, "Of the original 425 acres marked for clearance in the Western Slopes Area, about 195 acres will be MEC surface cleared". For the cleanup, Weston ultimately cleared approximately 194 acres as described in their 2019 Work Plan which is what Weston was contracted for and paid to do. (*Note: In the 2019 <i>Summary Response to Public Comments</i> document prepared by Ecology, the total acreage proposed is 194 but in the final CAP Amendment, the number changes to 195.) Regarding the incorrect attribution of the "restricted accessibility area": In the CAP amendment, it states that the amendment was based in part on "access limitations of steep slopes and vegetation". Further, Figure 3 in the 2019 <i>Summary Response to Public Comments</i> prepared by Ecology does not show the area in question as being identified for clearance. Finally, this area was investigated by Parsons in 2001 and 2002 (See Figure 4.2 and 4.8 of the 2003 <i>Draft Reconnaissance Summary Report, Camp Bonneville, Vancouver, Washington</i> prepared by Parsons). As stated in the report, during these reconnaissance investigations, "Data was collected at a maximum spacing of 50 meters along a reconnaissance transect..." or closer if a relevant feature was observed (See section 2.4.3).
50	4.1.2	Recommendation	65	The long-term O&M Plan for the site must be developed in a timely manner. Ecology recommends that the Plan be prepared in an iterative process with priority given to the O&M needs necessary for the continued maintenance of the Site and cleanup actions. Establishing a review requirement, such as semi-annual, would be recommended to ensure the long-term O&M plan continues to serve the Site needs and requirements.	Revise "Instructional" in the second paragraph to "Institutional". Additionally, it would be helpful in this section to outline the steps already taken by the county to develop a long-term O&M plan, including the institutional control manual as part of that plan. Revise "institution" in the third paragraph to "institutional".
51	4.1.2	Recommendation	65	Establishing a review requirement, such as semi-annual, would be recommended to ensure the long-term O&M plan continues to serve the Site needs and requirements.	This statement should specify who is going to review this. A semi-annual review is onerous and not necessary once the plan is fully established. Periodic reviews conducted every 5 years are already a requirement and can fulfill this need. WAC 173-340-440 (7) Periodic review. The department shall review compliance with institutional control requirements as part of periodic reviews under WAC 173-340-420. A more frequent review should be based on changes in condition at the site, such as use, key personnel, etc. not necessarily time.
57	4.2.1	Issue	65	The institutional controls which have been implemented or partially implemented are protective of the current Site users, but the County is out of compliance with the requirements of the APPCD for future use based on the 2005 Reuse Plan.	How can the county be out of compliance for future use if it isn't yet proposing future use?
58	4.3.1	Issue	66	The Projected Site use for evaluation in this Periodic Review is based on the 2005 Reuse Plan which was written prior to completion of cleanup actions at the site. This plan has activities with the potential to disturb ground surfaces below the depth of cleanup or that occur in uncleared areas. Based on this plan additional UXO remediation may be necessary to protect human health and the environment. Later cleanup documents did propose changes to reuse activities, such as the removal of the logging camp and restriction of activities in the Western Slopes Areas to hiking along roads and trails (Ecology 2010, Ecology 2018, Ecology 2019a). These changes, however, have not been incorporated into the reuse plan or future park plans.	Ecology should clarify this statement further. What is it proposing? To clarify, UXO support is already required for all ground-disturbing activities. Is Ecology suggesting that additional UXO remediation may be required in addition to the already required UXO support for all ground-disturbing activities? Additional UXO remediation may be necessary for excavation in certain areas but should not be needed for ongoing forest management activities, for example. Also limiting uses in the western slopes areas to hiking along roads and trails is not feasible since this is the area of the property slated for higher intensity uses.
59	4.4.2	Recommendation	67	Ecology recommends that the RAU 2A CAP be amended and restrictions be recorded to require delineation, regular inspection and maintenance of the soil covers, thus preventing exposure of contaminated soils. The restriction should also recommend that if the soils are disturbed, that appropriate health and safety measures be taken.	The protective cover for 2A-21 specifically will not be protective of human health and the environment due to the prior decision to cover the root zones of existing Douglas-fir trees resulting in the death of those trees, which will eventually lead to windfall and windthrow that will compromise the liner and soil cap. These trees need to be removed all at one time, the liner and cap inspected for damage, and then repairs made prior to any demarcation, signage, or other measures.
60	4.5.2	Recommendation	67	If records cannot be located, then Ecology will require soil sampling to confirm that human health and the environment are being protected by the remedial actions undertaken at RAU 2A.	See prior comments about this. Ecology made a prior decision that remediation activities achieved the cleanup goals and issued a no further action letter. Just because the confirmation samples cannot be found does not invalidate this prior decision. Will Ecology pay for this sampling?

Comment #	Subsection	Subsection Heading	Report Page #	Reference Text	Comment
6	4.7	RAU 3 Cleanup Action Plan - Level 1 MEC Technician Requirement	68	4.7.1. Issue: The 2010 RAU 3 CAP establishes a requirement for two Clark County Park employees to be certified as Level I MEC technicians to facilitate implementation of the procedures for land disturbing activities (Ecology 2010). This requirement has several issues that limit the ability to address site conditions required to maintain the Site: • A "Level I MEC Technician" is not a formally recognized certification within the Department of Defense Explosive Safety Board or industry-standard UXO qualification structure. The correct terminology for this certification is a UXO Technician I. • A UXO technician I can be authorized to perform limited activities but is not a UXO-Qualified Personnel (UXOQP) for the purposes of ground disturbing activities. UXO Technicians II and UXO Technician IIIs are UXOQPs. A UXOQP is required by the Environmental Protection Provisions for ground disturbing activities and is necessary for the long-term maintenance of cleanup actions protective of human health and the environment. • The requirement that UXO technicians be County employees means any vacancy that may occur would result in Clark County being immediately in non-compliance with the Site Cleanup requirements until that vacancy can be filled. This could create significant gaps in compliance. 4.7.2. Recommendation: The CAP should be amended to use the correct certification requirements and require UXOQP services for ground disturbing activities. An amendment would need to be formally developed and should: • Replace the terminology from a "Level I MEC Technician" with the recognized Department of Defense Explosive Safety Board certification. • Change the requirement that Clark County employ two "Level I MEC technicians" to retain either by employment or contract at least one UXOQP and at least one additional UXO technician. This will provide flexibility in fulfilling these requirements.	This section needs some considerable thought and research. 1. Can the Army do an updated MEC risk assessment? 2. If RAU 3 has received a no further action letter, then requirements for UXOQP seem unnecessary except for very specific situations like excavation or if something is found. Sending staff to Level 1 UXO Technician school/training is an onerous and expensive requirement for the County. The County can commit to ensuring all staff, contractors, visitors are trained in UXO Awareness and maintaining on-call UXO support for construction support and anomaly avoidance. The requirement for UXO certification of County staff is above and beyond what is required of other UXO sites in Washington State, let alone other parts of the country. For example, the following sites are open to and/or accessible to the public and do not appear to be required to employ/retain UXO support on staff: Port Angeles Combat Range located in Port Angeles, Washington; Fort Townsend State Park and Fort Worden State Park in Fort Townsend, WA; Fort Flagler State Park in Nordland, WA.
61	4.6.2	Recommendation	68	Ecology recommends that the CAP amendments should be filed as written with the Clark County Superior Court to accurately reflect the project record. Further amendments to Cleanup Action Plans should be filed separately.	Is this the responsibility of the County? Can this be updated to specify?
62	4.8.2	Recommendation	69	Ecology recommends amending the RAU 3 CAP to provide clear details on what events would require additional surface inspections and to expand an annual inspection requirement to other areas of the RAU 3 cleanup to ensure the long-term protection of human health and the environment. The details of this amendment need development and may likely constitute a substantial change to the Cleanup Action Plan, requiring public notice and participation.	1). This proposed change does not seem like a "substantial change". 2). What is the purpose of a surface inspection of the CITA following weather events? Given the permanent restricted access to the CITA, the only inspections warranted would include along the fence line where repairs and vegetation brushing occur and along the CITA road. Furthermore, the requirement to send staff into the CITA should be removed unless and only if the requirement is for the CITA road that was cleared to 14" sub-surface.
53	4.10.2	Recommendation	70	A copy of all Model Toxics Control Act (MTCA) documents related to this Site shall be maintained at Ecology's Toxics Cleanup Program's Headquarter Cleanup Section in Lacey, Washington and certain records are available online through Ecology's "Cleanup and Tank Search" database.	It would be helpful to include examples of what these documents would be.

Comment #	Subsection	Subsection Heading	Report Page #	Reference Text	Comment
5	4.12	RAU 2A Findings in the Final Cleanup Action Report need revision for accuracy	71	4.12.1. Issue: The Final Cleanup Action Report for RAU 2A relied on an incomplete project record following the departure of contractors in 2009 and resumption of cleanup activities. The Final Cleanup Action report used work plans, memorandums, and landfill manifests to document Cleanup Activities for RAU 2A that occurred prior to Weston Solution taking over the project (Weston 2018). Ecology as part of the periodic review process has identified detailed field records which appear to have been unavailable to Weston. These records document the field activities from 2008 through 2009 and provided additional confirmation that RAU 2A work plans were being followed and identify that soils with elevated lead "MTCA Soils" were initially placed in the eastern Sewage Lagoon then profiled and disposed of in a landfill. 4.12.2. Recommendation: Ecology recommends that the Weston report either be revised or a memorandum with attached field documents be added to the final report detailing this work to ensure an accurate project record.	This periodic review report clarifies the issue and corrects it. Shouldn't that be sufficient? Who is paying for this additional work?
54	4.13.1	Issue	71	A small section of the Western Slope Area, with a slope of less than 25% (14°), appears to have not undergone cleanup (FIGURE 12). This portion was misattributed to work previously stated to have been conducted as part of Dense Vegetation/Moderate Slope interim action and identified as a "restricted accessibility area" in the final report for the Western Slopes Area (BCRRT 2008c, Ecology 2010, Weston 2020b). The roads and trails buffer zones were cleared in the corresponding area (BCRRT 2009a).	Please see above comment for Section 3.8.4.3.
55	4.13.2	Recommendation	72	Ecology recommends that either this area undergo surface clearance as required by the CAP or the CAP is amended to establish additional institutional controls specific to this area. This may include a restrictive covenant prohibiting activities other than hiking along the roads and trails.	It is not reasonable to attempt to restrict access to the western slopes areas to hiking along roads and trails. The area is important for forest management activities and has previously been thinned. The area in question was included in the 2002 Reconnaissance Investigations conducted by Parsons. The investigation included transect spacing as 10-15 meter spacing with a maximum data collection interval set at 50m. This interval was decreased if relevant features were observed. Only items identified as "ordnance scrap" were discovered in this area during the 2002 investigation.
56	4.14.2	Recommendation	72	The RAU 1 CAP could be amended to require additional remedial investigation to evaluate vapor intrusion risks prior to occupancy of Building 4475 and Building T-1932. Alternatively, a vapor intrusion assessment can be conducted to assess those risks without requiring an amendment to the CAP. If after that assessment or evaluation, data establishes that contamination is present at RAU 1, which may generate harmful vapors and/or combustible gas, then the Environmental Covenant for RAU 1 could require that a vapor or gas control system be operated and maintained to prevent migration of vapor or gas into the buildings.	If we demolish these structures, would we need a CAP amendment to incorporate clean up measures?
52	4.10.1	Issue		The APPCD states information repositories shall be located at the Department of Ecology in Lacey Washington and Washington State University Vancouver Library. These locations are no longer up to date with the Washington State Library repository moving to the downtown Fort Vancouver Library . Additionally, these information repositories have not been consistently maintained by either party to the APPCD and do not account for digital record keeping technology.	Update to "Fort Vancouver Regional Library".
63	Figure 4	Killpack Cantonment Map			This figure is missing portions of the Killpack Cantonment area including several buildings.
64	Figure 4	Killpack Cantonment Map			Since this figure doesn't show the entirety of the Killpack Cantonment area, either update to include Figure that shows the entirety or include a note that indicates not all buildings in the Killpack Cantonment are shown.
65	Figure 9C	RAU 3 - Emergency and Interim Actions			This should include the UXB TCRA's in 1998/1999



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10**

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SUPERFUND &
EMERGENCY
MANAGEMENT DIVISION

February 14, 2022

Mr. Barry Rogowski
Acting Program Manager
Toxics Cleanup Program
Washington State Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Re: Camp Bonneville Cleanup, Clark County, Washington

Dear Mr. Rogowski:

I am writing regarding the Camp Bonneville cleanup site (Site) and in follow-up to the progress updates provided by the Washington State Department of Ecology (Ecology) to representatives for the U. S. Environmental Protection Agency, Region 10 (EPA). As you are aware, Ecology is the lead Agency responsible for providing oversight of the investigation and cleanup at the Site. Cleanup actions are being performed by Clark County in coordination with the U.S. Army. I understand that the technical updates discussed with EPA on November 19, 2021, and January 6, 2022, have been informative. While your team provided updates on the progress at the Site overall, three areas were of particular interest to EPA: the groundwater/surface water pathway, the munitions clearances, and the lead cleanup in the former shooting ranges.

EPA has reviewed information regarding the groundwater/surface water conceptual site model (GW/SW CSM), data trends and plans for Remedial Action Unit (RAU) 2C, former landfill area. Based on this review, enclosed are EPA's technical recommendations for Ecology's consideration pertaining to RAU 2C. The following two paragraphs highlight EPA's recommendations presented in the enclosure:

The CSM states that RDX degrades under anaerobic conditions; however, aerobic conditions are apparent in groundwater based upon dissolved oxygen concentrations. The CSM would be stronger with a review of the presence or absence of degradation products and a review of the fate of RDX (see Lapointe, et al., 2017). The CSM also should estimate the extent of perchlorate above the cleanup level; if necessary, additional monitoring wells should be installed that define the extent of perchlorate in groundwater above the cleanup level. The CSM also should evaluate the groundwater pathway to North Lacamas Creek and describe the fate of perchlorate detected in Lacamas Creek in the ESI (E&E, 2012). Finally, the CSM should incorporate the potential for perfluorinated compounds (PFAS), which are commonly used in munitions (Olsavsky et al 2020, Valluri et al 2019).

Since the perchlorate concentration is increasing in L4-MW-04A and the concentration is much greater than the cleanup level, the fate of perchlorate in groundwater along this flow path is of interest. Additional groundwater monitoring well(s) and surface water monitoring of Lacamas Creek should be considered to delineate the extent of perchlorate. Surface water monitoring

should include sampling during third quarter when baseflow conditions occur (i.e., when surface water runoff is minimal and groundwater baseflow accounts for most of the stream flow).

With regard to munitions cleanup at the Site and as stated in EPA's May 27, 2015, letter to Ecology, EPA trusts that Ecology, the County and the Army will continue to work to ensure the protection and safety of all workers and visitors to the Camp Bonneville site. There are a number of different acceptable approaches to munitions cleanups, and they often rely on a combination of clearance and future land use controls. We strongly encourage Ecology to continually assess the effectiveness and appropriateness of land use controls established for each of the RAUs and require changes and enhancements, including stricter controls, as necessary to protect people, including children and Limited English Proficiency communities, from potential safety risks from unexploded ordnance. In EPA's experience, while land use controls can be an effective measure, they must be diligently monitored and maintained, and adjusted as needed, to achieve the stated goals.

Finally, it is EPA's understanding that soil cleanups at lead-impacted areas (e.g., former shooting ranges) were based on information from the Remedial Investigation and Feasibility Study and conducted in conformance with state Model Toxics Control Act cleanup requirements which are generally consistent with EPA's risk-based approach to addressing lead contamination in soils. We anticipate that periodic monitoring of the effectiveness of caps placed over lead contamination, and repairs as necessary, will be required as part of the long-term monitoring and land use controls plans for the Site.

I appreciate your staff's time in providing updates to the project. As outlined in EPA's 2015 letter, we would like to request periodic updates on the Site so that Ecology can keep EPA informed as to the status of cleanup actions. The EPA point of contact for the Camp Bonneville cleanup site is Monica Tonel at (206) 348-2692, or by email at tonel.monica@epa.gov. If you have any questions or wish to discuss further, please feel free to contact me at (206) 553-4141.

Sincerely,

Calvin J. Terada
Director

Enclosure

cc: Nicholas Acklam
WA Department of Ecology



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10 LABORATORY SERVICES AND SCIENCE DIVISION
RISK EVALUATION BRANCH
1200 6th Ave #155, Seattle, WA 98101

January 12, 2022

MEMORANDUM

SUBJECT: Review of Camp Bonneville GW/SW CSM, current data trends and future plans

FROM: Don Clabaugh, PE

TO: Monica Tonel

This technical memorandum summarizes the conceptual site model for the Landfill 4 site at Camp Bonneville. Documents reviewed included Sections 3 and 4 of the Remedial Action Unit 2C Draft Remedial Investigation/Feasibility Study (RI/FS) (BCRRT, 2009), and recent groundwater monitoring reports (PBS, 2020; PBS, 2021). In addition, a presentation by Washington Department of Ecology (Ecology) on the history and conceptual site model (CSM) of the Landfill 4 site presented on January 6, 2022 was viewed (see NOTES following REFERENCES). Finally, portions of the Expanded Site Investigation report pertinent to surface water concentrations of perchlorate were reviewed (E&E, 2012).

CONCEPTUAL SITE MODEL

Section 4.1.1 of the RI/FS states that perchlorate and RDX are contaminants of concern (COCs) at Landfill 4, and the source of the material is from disposal of pyrotechnics and open detonation of surplus munitions. A removal action conducted in 2004 removed the primary source material; residual soil contamination included RDX up to 33 milligrams per kilogram (mg/kg) and perchlorate up to 12.9 mg/kg over an area of approximately 2,700 square feet. Other contaminants (volatile organic compounds) and RDX associated with the landfill had decreased in concentration in groundwater to less than applicable cleanup levels. Perchlorate concentrations, however, persist above cleanup levels. Model toxics cleanup act (MTCA) Method B cleanup level for groundwater is 11 micrograms per liter (µg/l) for perchlorate and 1.1 µg/l for RDX. The CSM states that the contaminated groundwater is “perched” and surrounded by “impermeable clays and andesitic bedrock with only a surface water connection to the lower Central Valley portion of Camp Bonneville.” The RI/FS projects that groundwater flows to Lacamas Creek approximately 800 feet southwest of the site; the Expanded Site Investigation (ESI) completed in 2012 confirms that perchlorate is present in North Fork Lacamas Creek northwest of Landfill 4 and persists to Lacamas Creek through most of the Camp (E&E, 2012).

An excerpt from the fourth quarter 2019 Groundwater monitoring report is attached along with groundwater potentiometric surface and perchlorate isoconcentration maps. Groundwater horizontal and vertical gradients are well represented by monitoring wells at the site and historical trends are understood. Perchlorate above the cleanup level extends from the landfill to

the northwest, west and southwest. The extent of perchlorate in groundwater above the cleanup level is not delineated.

The CSM states that RDX degrades under anaerobic conditions; however, aerobic conditions are apparent in groundwater based upon dissolved oxygen concentrations. The CSM would be stronger with a review of the presence or absence of degradation products and a review of the fate of RDX (see Lapointe, et al., 2017). The CSM also should estimate the extent of perchlorate above the cleanup level; if necessary, additional monitoring wells should be installed that define the extent of perchlorate in groundwater above the cleanup level. The CSM also should evaluate the groundwater pathway to North Lacamas Creek and describe the fate of perchlorate detected in Lacamas Creek in the ESI (E&E, 2012). Finally, the CSM should incorporate the potential for perfluorinated compounds (PFAS), which are commonly used in munitions (Olsavsky et al 2020, Valluri et al 2019).

CURRENT DATA TRENDS

Section 3.3 of the second quarter 2021 groundwater monitoring report states that “The current RAU 2C Camp Bonneville monitoring program requires groundwater sampling and analysis for 28 monitoring wells, shown on Figure 3 (Base Boundary) and Figure 4 (Landfill 4/Demolition Area 1). In addition, three water supply wells and three surface water locations are sampled annually.” Surface water sample locations on Lacamas Creek include a station approximately 1,000 feet south of the site and two additional stations further downstream. During the January 6, 2022 briefing by Ecology, it was stated that COCs have never been detected in surface water, and that the last sampling event during baseflow conditions was conducted during third quarter 2020 (Shaljian, Michael, 2022).

Perchlorate concentrations are increasing in several wells. The following trend analysis of data collected since 2014 is from the second quarter 2021 groundwater monitoring report (PBS, 2021).

The following wells demonstrated a statistically significant increasing trend at a 95% confidence level:

Perchlorate

- L4-MW04A

RDX

- L4-MW04A
- L4-MW08B
- L4-MW10B

The following wells demonstrated a statistically significant decreasing trend at a 95% confidence level:

Perchlorate

- L4-MW05A
- L4-MW10A

RDX

- L4-MW10A

The following wells did not demonstrate a statistically significant trend over the analyzed time interval:

Perchlorate

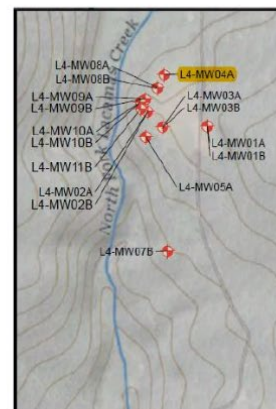
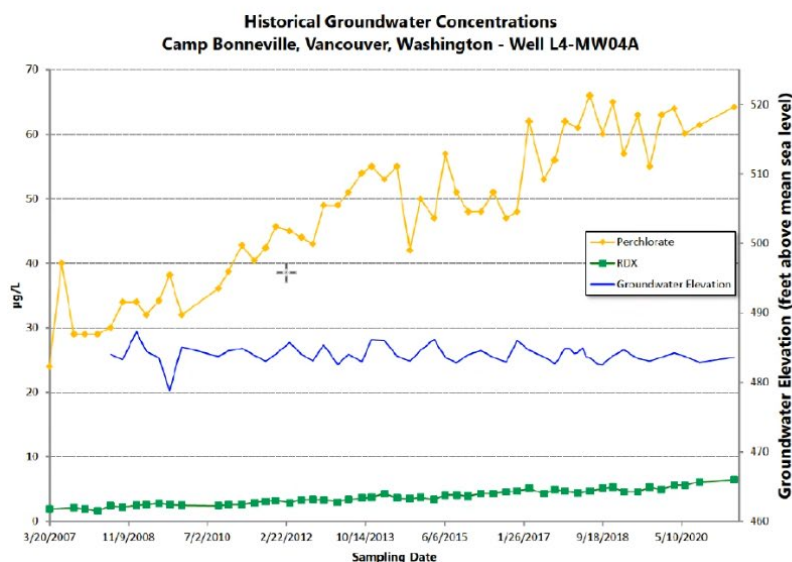
- L4-MW07B
- L4-MW08B
- L4-MW10B

RDX

- L4-MW05A

Well L4-MW-04A, screened in the shallow portion of the aquifer, is hydraulically downgradient and north of the landfill and contained 483 µg/l perchlorate in second quarter 2021. The following slide was presented during the January 6, 2022 Ecology presentation.

Increasing CoC Trends at L4-MW-04A



- Statistically significant increasing trends for Perchlorate, RDX
- Perchlorate concentrations hovering around 5-6X CUL for past 5+ years

Since the perchlorate concentration is increasing in L4-MW-04A and concentration is much greater than the cleanup level the fate of perchlorate in groundwater along this flow path is of interest. Additional groundwater monitoring well(s) and surface water monitoring of Lacamas Creek should be considered to delineate the extent of perchlorate. Surface water monitoring should include sampling during third quarter when baseflow conditions occur (i.e., when surface water runoff is minimal and groundwater baseflow accounts for most of the stream flow).

FUTURE PLANS

During the January 6, 2022 Ecology presentation future plans for the site were discussed. These plans will hopefully be presented to the public in a “listening session” to be conducted by Ecology on January 19, 2022.

Future Plans for Monitoring/Remediation

- Clark County is currently stalled in completion of groundwater monitoring contract required to continue groundwater/surface water monitoring and complete Feasibility Study/CAP.
- Ecology has advised Clark County return to quarterly groundwater sampling to achieve maximum conformity with 2006 PPCD.
- Ecology will evaluate remedial alternatives developed for contaminated groundwater at Landfill 4, analyze using disproportionate cost analysis in developing CAP.

REFERENCES

Bonneville Conservation Restoration and Renewal Team, LLC (BCCRT), 2009, Draft Remedial Investigation/Feasibility Study RI/FS for Site-Wide Groundwater Remedial Action Unit 2C, 105 pages

E&E, 2012, Camp Bonneville Expanded Site Inspection, Vancouver, Washington, Technical Direction Document Number: 11-02-0010. Prepared for USEPA.

Lapointe, Marie-Claude, et al., 2017, A Conceptual Model of Fate and Transport Processes for RDX Deposited to Surface Soils of North American Active Demolition Sites, Journal of Environmental Quality, 46:1444–1454.

Olsavsky N, Kearns VM, Beckman CP, Sheehan PL, Burpo FJ, Bahaghighat HD, Nagelli EA. 2020. Research and Regulatory Advancements on Remediation and Degradation of Fluorinated Polymer Compounds. Applied Science, 10:1-27.

PBS, 2020, Fourth Quarter 2021 Groundwater Sampling and Analysis Report, Camp Bonneville, 23201 NE Pluss Road, Vancouver, Washington 98682. Report prepared for Clark County, Washington, and Washington State Department of Ecology.

PBS, 2021, Second Quarter 2021 Groundwater Sampling and Analysis Report, Camp Bonneville, 23201 NE Pluss Road, Vancouver, Washington 98682. Report prepared for Clark County, Washington, and Washington State Department of Ecology.

Shaljian, Michael, 2022, WDOE Hydrogeologist, personal communication.

Valluri SK, Schoenitz M, Dreizin E. 2019. Fluorine-containing oxidizers for metal fuels in energetic formulations. Defence Technology, 15: 1-22

NOTES - from January 6, 2022 video conference with Michal Saljian (ECY)

Camp Bonneville mtg with WDOE

Thursday, January 6, 2022

10:03 AM

Camp Bonneville



Landfill 4 /Demolition Area 1 History

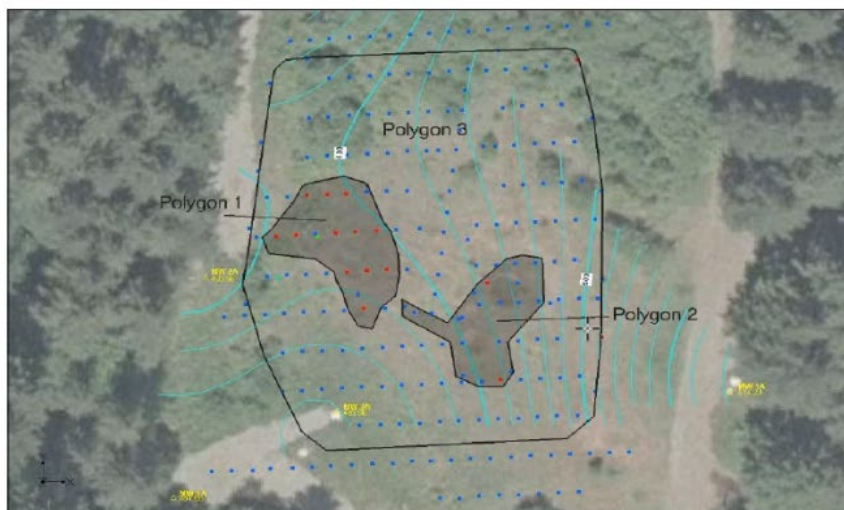
- Landfill 4/Demolition Area 1 was used for the disposal and detonation of munitions, explosives, and fireworks
- In 2004, Ecology oversaw an interim removal action to dispose of contaminated soils with high perchlorate and RDX concentrations
- Contaminated soils were removed to the maximum extent practicable, with excavation stopping when equipment began sinking into clay at ~ 20' bgs
- Approximately 900 yd³ of residual contamination left in place where perchlorate > 500 ug/kg in soils



Camp Bonneville

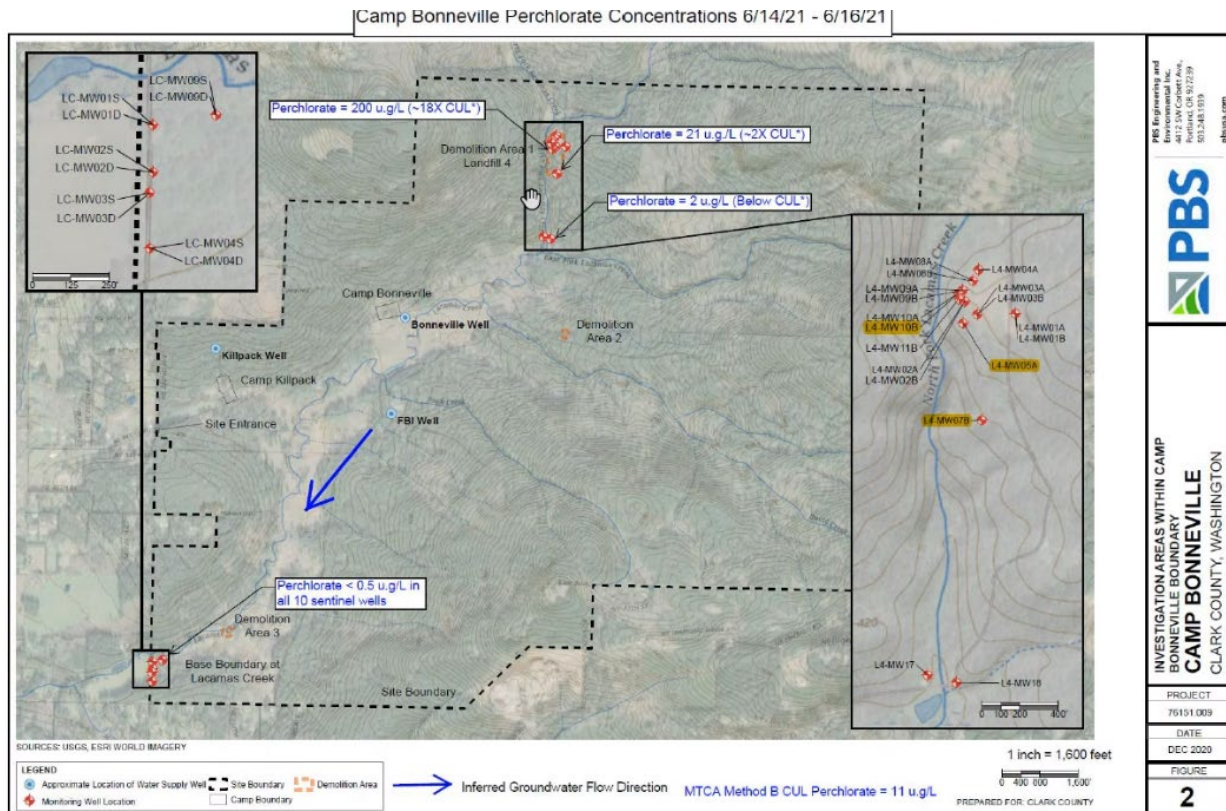


Delineation of Residual Contaminated Soils at Landfill 4



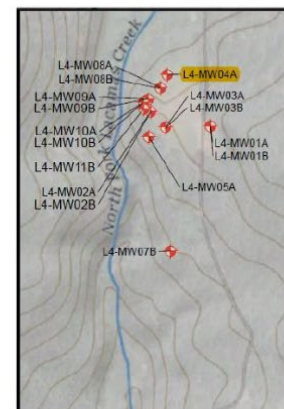
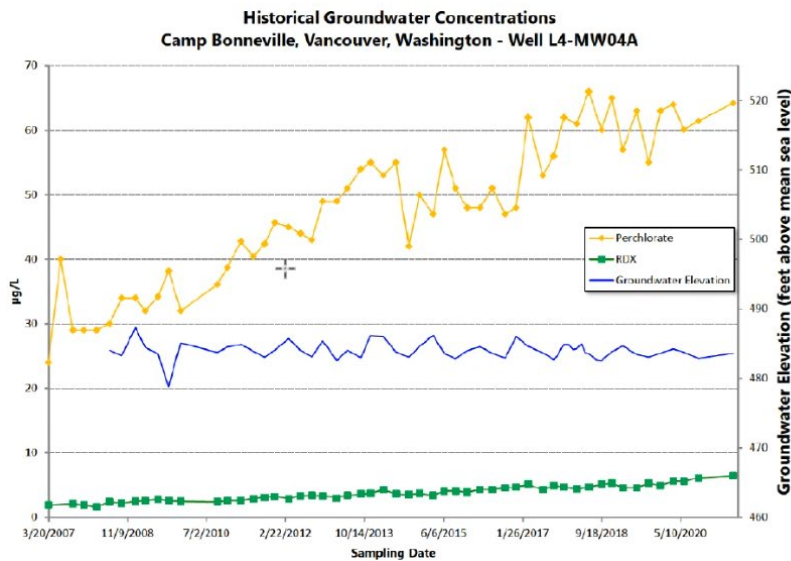
- Residual contaminated soils have perchlorate > 500 ug/kg
- Estimated that 99% of residual contamination is below water table

Most of residual contamination was below the water table.



Detections in the "B" wells. Are those shallow or deep? Any detections in the deep well? Any stream sample locations?

Increasing CoC Trends at L4-MW-04A



- Statistically significant increasing trends for Perchlorate, RDX
- Perchlorate concentrations hovering around 5-6X CUL for past 5+ years

Conceptual Site Model/Exposure Pathways

- Seasonal changes in concentrations and long-term, sustained presence of highly mobile contaminants support notion of site hydrogeology acting as a “bathtub”
- Infiltrating water is trapped by clay “walls” and competent andesitic bedrock “floor”
- CoC concentrations are very high in the immediate vicinity of former landfill, appear to attenuate to non-detect levels moving south from LF-4; sentinel and production wells have never had a detection above the MDL for perchlorate or RDX
- ❑ Soil-direct contact pathway is *incomplete*. Soils have been remediated to a depth of 8-27 ft bgs at LF4, with fill placed above residual contaminated soils
- ❑ Groundwater pathway is *incomplete*. Contaminated groundwater present at site, but does not appear to have a connection to local aquifers. Groundwater use on-site restricted to non-potable purposes
- ❑ Surface water pathway is *potentially complete*. There have been no surface water detections above MDLs for Perchlorate, RDX since sampling began in 2013. Apparent slow migration rate from LF4 and dilution in Lacamas Creek mitigate risk for this pathway
- ❑ Sediment pathway is *incomplete*. CoCs have high solubility and preferentially partition to surface water and pore water, rather than to sediment
- ❑ Air pathway is *incomplete*. Perchlorate and RDX are non-volatile, inhalation via soil/groundwater is not a potential exposure pathway

Considering another domestic well sampling event.

Surface water sampling has been done annually. Consider 3rd quarter sampling of baseflow.

Technical Note on Perchlorate & Surface Water

- Perchlorates have not been classified for carcinogenic risk (no slope factor)
- There are no listed surface water ARARs for perchlorates
- EPA established an interim drinking water health advisory of 15 ug/L for perchlorate, but no MCL or MCLG. ECY Method B CUL is 11 ug/L
- Fish bioconcentration is an additional exposure pathway to be considered
- ECY calculated that applying a BCF of 1,000 yields a surface water Method B CUL of 1.8 ug/L; BCF of 20 yields SW-CUL of 91 ug/L
- ATSDR data shows perchlorate bioconcentration is low for aquatic species, BCF of 1,000 is very conservative. Surface water concentrations have been below MDL of 0.5 ug/L since 2013



Returning to quarterly sampling.

Surface water would be sampled in the 3rd quarter.

No AAAP used at the site.



Future Plans for Monitoring/Remediation

- Clark County is currently stalled in completion of groundwater monitoring contract required to continue groundwater/surface water monitoring and complete Feasibility Study/CAP.
- Ecology has advised Clark County return to quarterly groundwater sampling to achieve maximum conformity with 2006 PPCD.
- Ecology will evaluate remedial alternatives developed for contaminated groundwater at Landfill 4, analyze using disproportionate cost analysis in developing CAP.

DC asked if surface water had been sampled during the dry season. Michael said that the last 3rd quarter sample was in 2020 and that COCs were not detected.

DC-reminded Michael that PFAS are present as an accelerant in munitions and asked if they would be included in future sampling events. Michael responded that he would look into that.

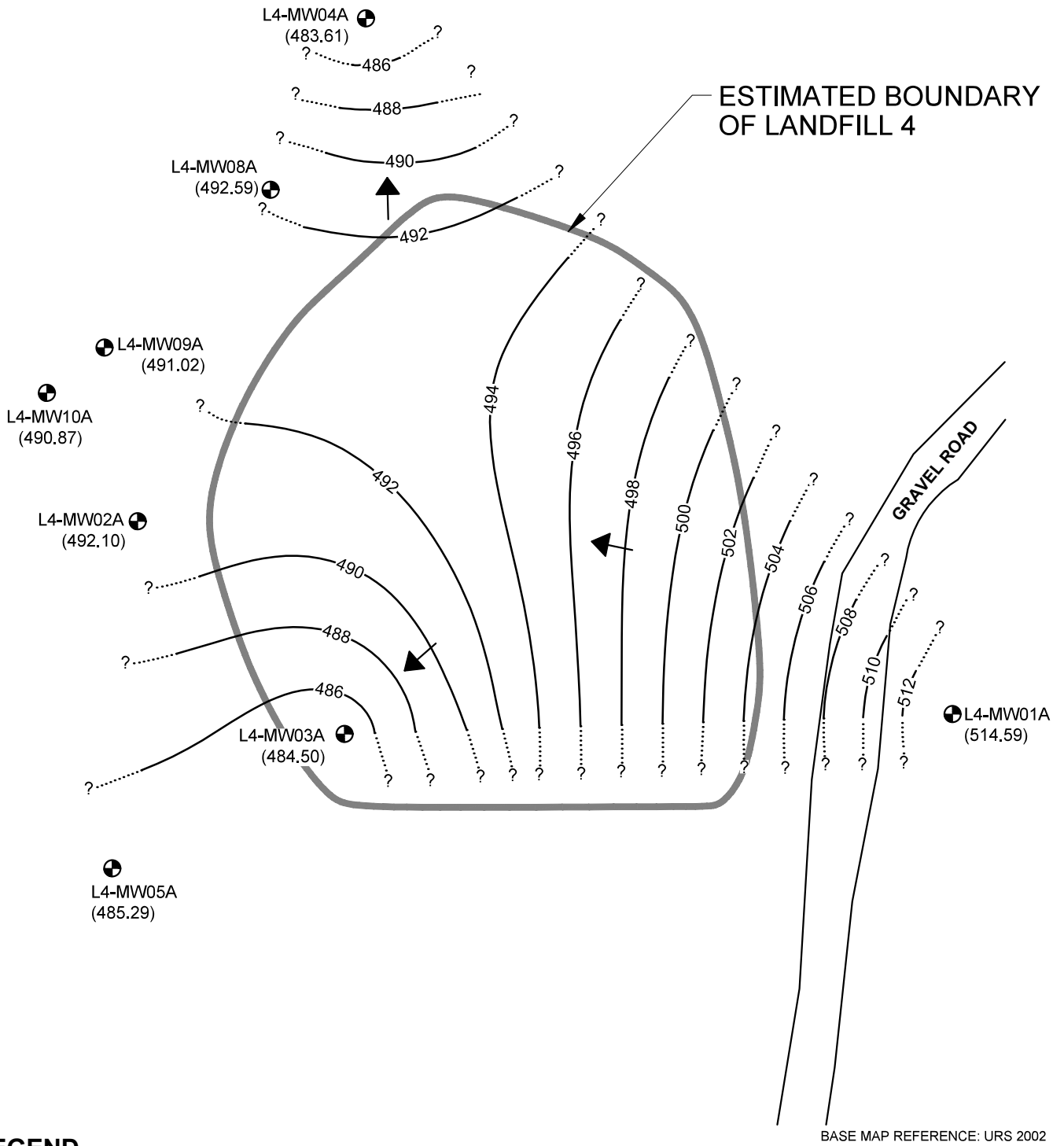
EXCERPT FROM 4TH QUARTER 2019 GROUNDWATER MONITORING REPORT

The groundwater potentiometric surface and perchlorate isoconcentrations are shown in the attached figures taken from the fourth quarter 2019 report (PBS, 2019). The following text, from the same report, describes groundwater flow direction.

Groundwater elevations and contours are shown on Figures 6A and 6B in support of the following groundwater observations:

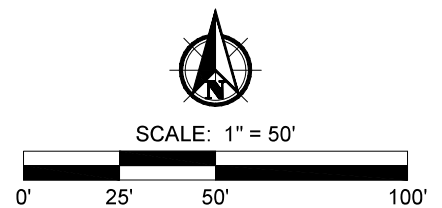
- For the eight wells in the A grouping, there is a consistent high groundwater elevation in upgradient eastern well L4-MW01A and a westerly groundwater flow direction. From there, groundwater demonstrates a divergent flow pattern from the northwest (toward L4-MW04A) to southwest (toward well L4-MW05A). This is consistent with historical trends.
- For the eight B wells, there is a consistent high groundwater elevation in upgradient eastern well L4-MW01B. Groundwater flow direction is primarily to the west with slight fluctuations from west-northwest to west-southwest and is consistently toward North Fork Lacamas Creek. South of well L4-MW05A, groundwater flow is primarily to the southwest toward L4-MW07B, which is consistent with historical trends.
- The well pairs demonstrated vertical gradients as follows:
 - L4-MW01A/L4-MW01B: Upward (since second quarter 2008)
 - L4-MW02A/L4-MW02B: Downward (since second quarter 2008)
 - L4-MW03A/L4-MW03B: Downward (since second quarter 2008)
 - L4-MW08A/L4-MW08B: Downward (since third quarter 2017)
 - L4-MW09A/L4-MW09B: Downward (since third quarter 2017)
 - L4-MW10A/L4-MW10B: Downward (since third quarter 2017)

SEE ATTACHED FIGURES



LEGEND

-  **L4-MW01A**
(514.59)
MONITORING WELL AND WELL NUMBER
-  **GROUNDWATER ELEVATION**
(FEET ABOVE MEAN SEA LEVEL)
-  **DEEP GROUNDWATER CONTOUR (4TH QUARTER 2019)**
-  **GROUNDWATER FLOW DIRECTION**

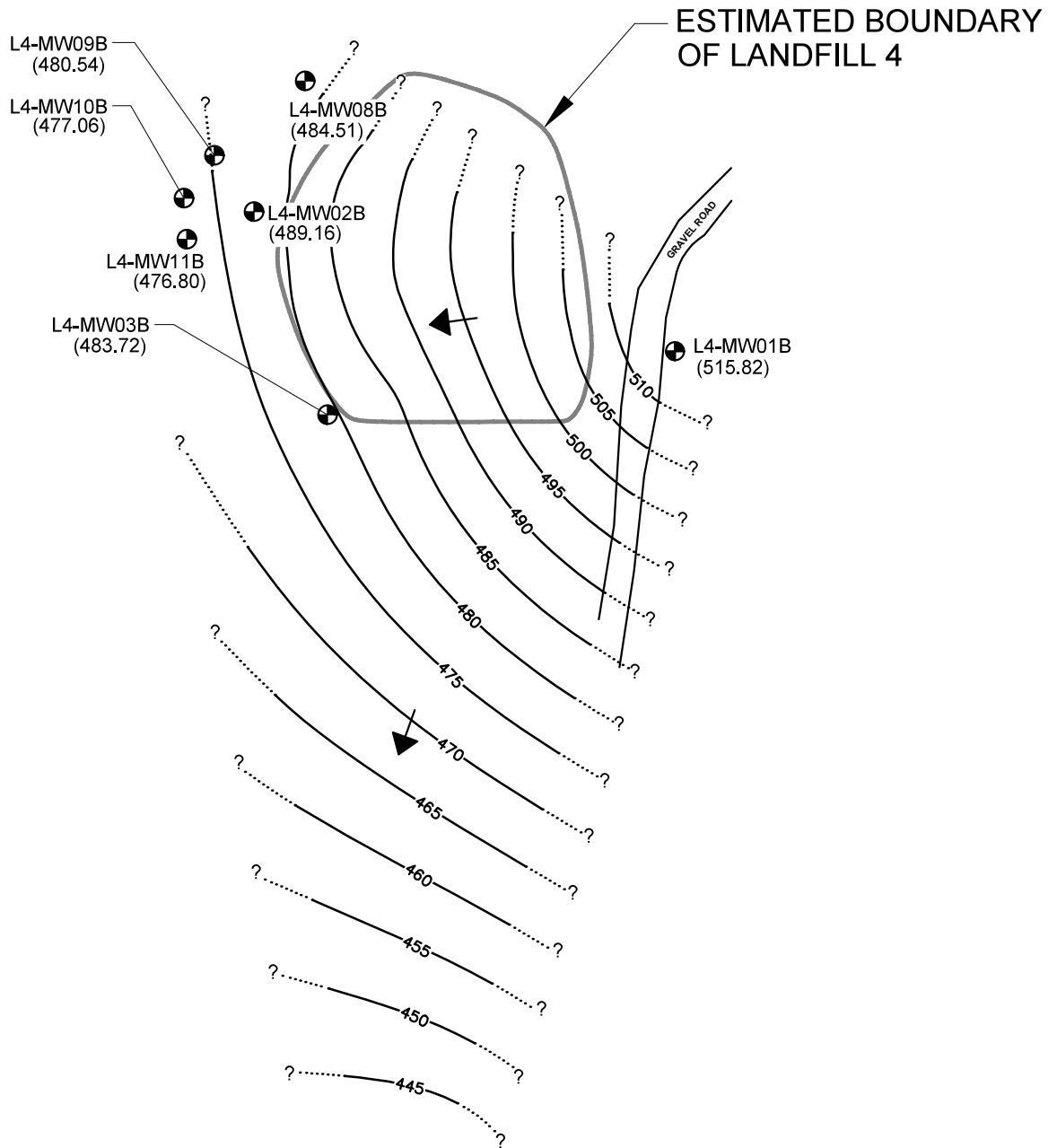


PREPARED FOR: CLARK COUNTY, WASHINGTON



SHALLOW LANDFILL 4 MONITORING WELLS, 4TH QUARTER 2019
GROUNDWATER CONTOURS
 CAMP BONNEVILLE
 CLARK COUNTY, WASHINGTON

MAR 2020
 76151.009
 FIGURE
6A



LEGEND

-  **L4-MW01B**
(515.82) **MONITORING WELL AND WELL NUMBER**
- GROUNDWATER ELEVATION**
(FEET ABOVE MEAN SEA LEVEL)
-  **DEEP GROUNDWATER CONTOUR (4TH QUARTER 2019)**
-  **GROUNDWATER FLOW DIRECTION**

BASE MAP REFERENCE: URS 2002



SCALE: 1" = 100'

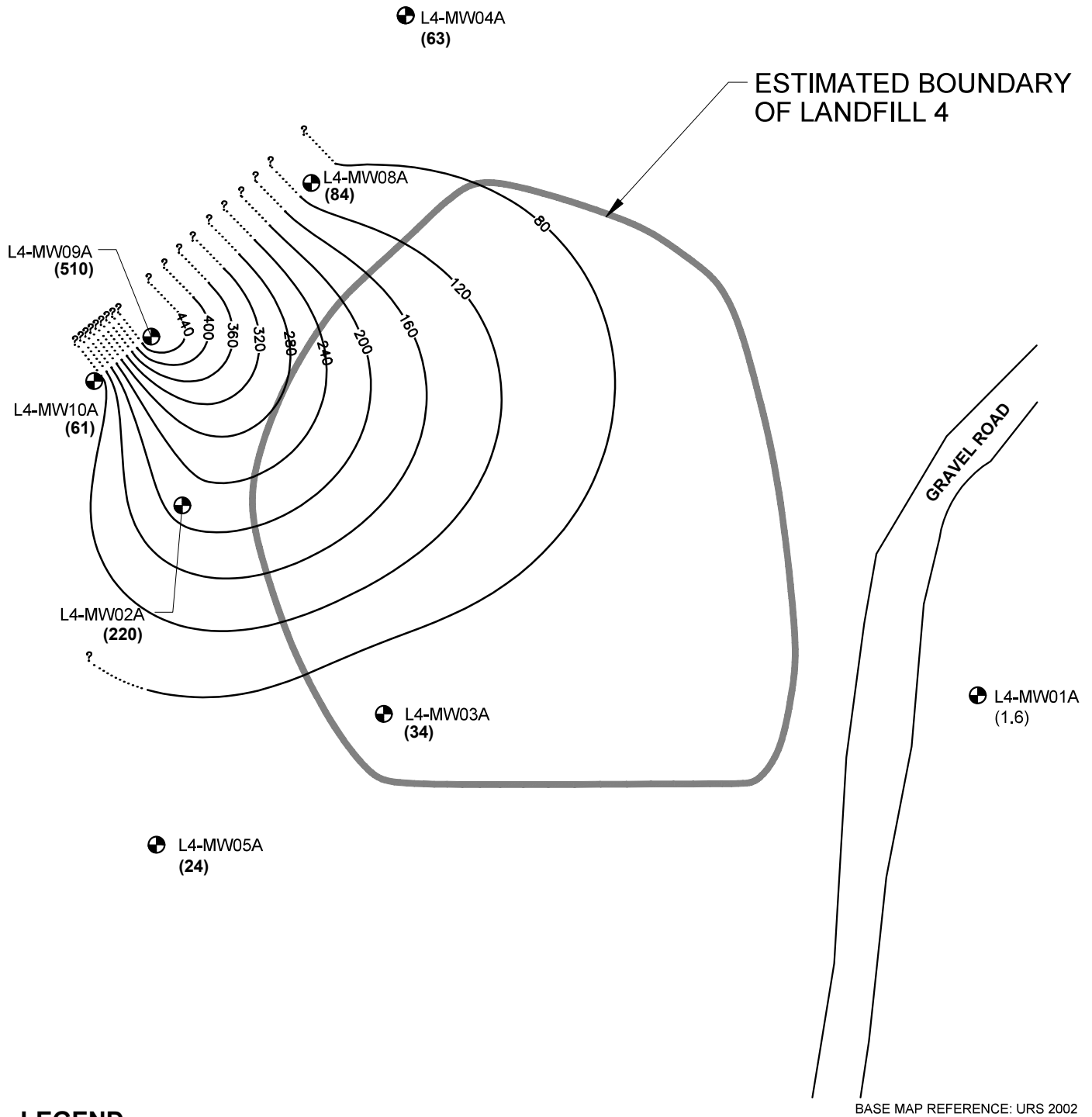


PREPARED FOR: CLARK COUNTY, WASHINGTON



DEEP LANDFILL 4 MONITORING WELLS, 4TH QUARTER 2019
GROUNDWATER CONTOURS
CAMP BONNEVILLE
CLARK COUNTY, WASHINGTON

MAR 2020
76151.009
FIGURE
6B



LEGEND

- +
L4-MW02A
(220)
- MONITORING WELL AND WELL NUMBER
 PERCHLORATE CONCENTRATION IN
 SHALLOW GROUNDWATER ($\mu\text{g/L}$)
 BOLD EXCEEDS CLEANUP LEVEL OF $11.0 \mu\text{g/L}$
-
- SHALLOW GROUNDWATER PERCHLORATE
 CONCENTRATION CONTOUR (4TH QUARTER 2019)



SCALE: 1" = 50'

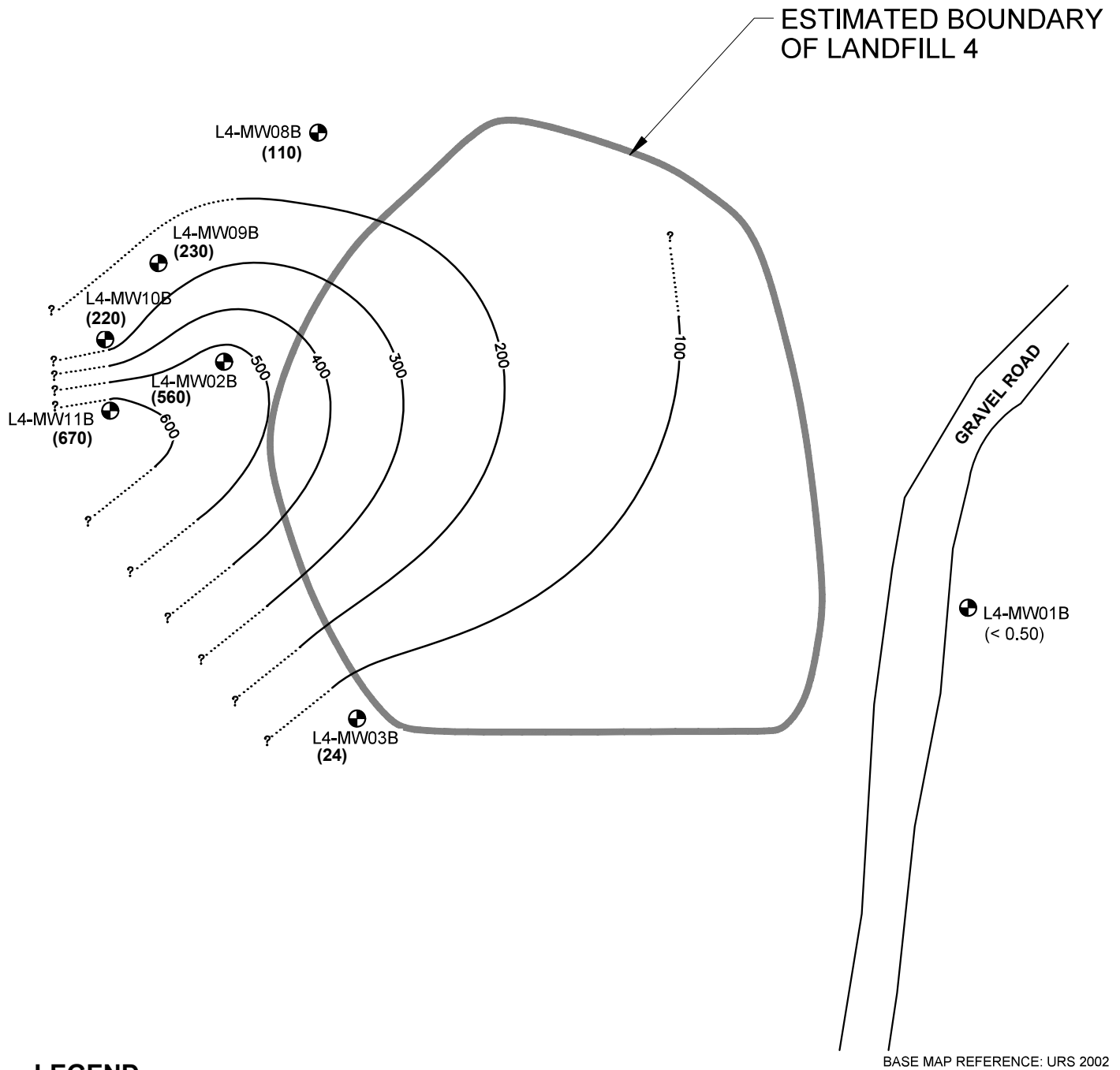


PREPARED FOR: CLARK COUNTY, WASHINGTON



PERCHLORATE ISOCONTOURS (A WELLS)
4TH QUARTER 2019 - LANDFILL 4 MONITORING WELLS
 CAMP BONNEVILLE
 CLARK COUNTY, WASHINGTON

MAR 2020
 76151.009
 FIGURE
7A



LEGEND

- L4-MW02B (560)**
- MONITORING WELL AND WELL NUMBER**
- PERCHLORATE CONCENTRATION IN DEEP GROUNDWATER ($\mu\text{g/L}$)**
- BOLD EXCEEDS CLEANUP LEVEL OF 11.0 $\mu\text{g/L}$**
-
- DEEP GROUNDWATER PERCHLORATE CONCENTRATION CONTOUR (4TH QUARTER 2019)**



SCALE: 1" = 50'



PREPARED FOR: CLARK COUNTY, WASHINGTON



PERCHLORATE ISOCONTOURS (B WELLS)
4TH QUARTER 2019 - LANDFILL 4 MONITORING WELLS
 CAMP BONNEVILLE
 CLARK COUNTY, WASHINGTON

MAR 2020
 76151.009
 FIGURE
7B



DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF, G-9
600 ARMY PENTAGON
WASHINGTON, DC 20310-0600

30 November 2020

Mr. Gregory Shaw
28601 NE Emerald Road
Camas, Washington 98607

Subject: Response to letter from Mr. Gregory Shaw, dtd 26 October 2020, Subject:
Department of the Army Authorities over Cleanup and Reuse of Camp Bonneville

Dear Mr. Shaw:

Thank you for your October 26, 2020 letter to the Assistant Secretary of the Army, Installations, Energy, and Environment concerning the proposed Camp Bonneville reuse and associated Army Authorities at the former Army installation. I am responding on his behalf addressing the concerns raised in your letter.

As you know Camp Bonneville was transferred via a conservation of natural resources conveyance using early transfer authority with a Finding of Suitability for Early Transfer (FOSET) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) covenant deferral signed by the Governor of Washington. The early transfer limits what actions can be done on the property prior to the completion of environmental cleanup. The Army's responsibility under the terms of the deed and these agreements is to ensure the property is being used for conservation purposes and we believe Clark County is complying with its responsibilities as specified in those agreements.

The Army also entered into an Environmental Services Cooperative Agreement (ESCA) with Clark County in July 2006. The ESCA and the associated FOSET provided for the transfer of the property to Clark County, including related environmental remediation liabilities, and states, "Clark County will conduct remediation via an ESCA with the Army and in accordance with a Pre-Purchaser Consent Decree (PPCD) issued by Washington Department of Ecology (WDOE) to Clark County.

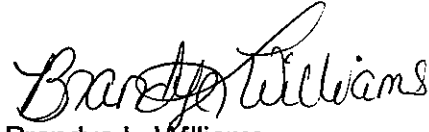
It is the Army's position that the concerns you raised have to be addressed by Clark County and the local community, as under BRAC law, the local community determines reuse for the property. However, the Army is providing responses to your questions as an enclosure.

As the owner of the property, the county per agreement with the Army is responsible to ensure all land use controls are adhered to. Reuse of the property is specified by the reuse plan as approved by the community through its latest version as revised in 2006. Issues on reuse should be addressed to the Clark County.

We would encourage you to continue to work to communicate your needs and concerns with the county and state, to ensure all future use and development at the former site benefits all local stakeholders.

Thank you for your interest in the reuse of this important property. My Point of Contact for Camp Bonneville is Mr. Hank Procter, (703) 545-2498, cell (703) 870-5213, at webster.w.procter.civ@mail.mil.

Sincerely,



Brandy L. Williams
Colonel, GS
Chief, Army Environmental Division
Installation Support Directorate

Enclosures:

- 1 - Responses to Questions
- 2 - Correspondence from Mr. Gregory Shaw

Copies Furnished:

Webster Procter, BRAC
Sue Ryan, ELD
John Tesner, DASA-ESOH
Scott Armstrong, Calibre/BRAC
Greg Johnson, Clark County

Questions asked by Mr. Shaw –

1. Why is there no public engagement, public information or public process?
 - During the cleanup and submission of decision documents the public has been involved through public review and comment when legally required and they have been given a chance to comment on documents. The community can also engage with the county at every public meeting and commissioner meeting.
 - In July 2006, the Army dissolved the Restoration Advisory Board (RAB) as a result of the property transfer to the County.
 - With the inception of the Environmental Cooperative Agreement (ESCA) between the Army and Clark County, the county created a Citizen's Advisory Group (CAG) and had several meetings as the cleanup progressed.
 - Public access to information and records is provided at the site upon request via the Site Manager who is available to answer questions on issues associated with the site. Site information is also available via the county and at the Department of Ecology State of Washington website, <https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=11670>, including points of contact and locations of document repositories.
2. Do the Army, EPA and Ecology endorse the use of High Explosives, Hypergolic weapons and riot control gases on the Property?
 - The reuse plan allows for the establishment of the Law Enforcement Officer (LEO) training by federal, state, and local entities. The Army does not dictate how and with what materials LEO training is accomplished. As long as they are in compliance with the terms of the reuse plan and associated state and federal regulations, the use of materials for training is up to them.
3. Do all parties condone and approve the addition and expansion of uses before environmental clean-up has been completed?
 - The activities presently taking place at the former installation are acceptable under the re-use plans, deed permissions, and transfer constraints. The general public is not allowed on site and will not be until environmental remediation is complete and the park opens. First responders have been allowed to train during this time frame and have always been allowed per the re-use plan and the FOSET.
4. Has Clark County made the Army aware they agreed to turn access control over the Property over to another Federal agency (FBI) office in another state?
 - To Army's knowledge Clark County still controls access to the property.

5. Is a failing 3-strand wire fence meant for livestock adequate to prevent access to a property not fully cleared of MEC? Does a 5-strand fence meet specifications for preventing access to the Central Target Impact Area?
 - Fencing currently in place meets the requirement of transfer documents for all categories of property at the site. The 3-strand wire is around the entirety of the site with signage at intervals along the fence. The Impact area was specifically identified as requiring at least 5-strand wire and signage to ensure the hazard is identified to possible inadvertent intrusion. This levels of fencing meet the requirements set forth in the transfer documents.
6. After 14 years, why is there not a perimeter firebreak or road adequate for firefighting equipment to access the full site?
 - The existing roads and trails were cleared of munitions and the county currently maintains the status of these roads.
 - Should the county choose to construct a perimeter firebreak road, adequate for firefighting equipment that is their decision/action.
7. Who is responsible for Land Use Restrictions?
 - Clark County as the owner of the property.
8. Why is there no longer any role by the EPA in certifying environmental clean-up?
 - Camp Bonneville is not a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site and is not listed on the National Priorities List, maintained by the EPA. EPA was involved as a courtesy until approximately 2003 but withdrew as the Washington Department of Ecology is the lead regulatory agency.
9. Has the Washington Department of Ecology met standards in overseeing the clean-up and protecting public health and the environment?
 - The State has been and will continue to meet its legal requirements under Model Toxics Control Act (MTCA).
10. Can planners rely on a Reuse Plan that was originally drafted in 1998 to support an Economic Conveyance as a roadmap for natural resource conservation uses 22 years later and beyond?
 - Yes. The Army considers the Clark County Reuse Plan the primary document describing the intended reuse of the Property. The 1998 Reuse Plan has had several updates and is still being utilized. This authority requires the majority of the site to be kept in conservation status.

Enclosure 1: Response to letter from Mr. Gregory Shaw, dtd 26 October 2020, Subject: Department of the Army Authorities over Cleanup and Reuse of Camp Bonneville

- Per the Reuse Plan the property is still identified for reuse as Conservation, with recreational components occurring on approximately one third of the property (~800 acres). The recreational components do not interfere with the conservation purpose of the transfer and include uses such as a regional park, law enforcement training center – including an FBI firing range, rustic retreat center/outdoor school, Native American cultural center, Clark College environmental education, trails and nature area, timber resource management area, and habitat restoration. The remaining two thirds of the site are being kept in a non-development, conservation status.

11. Is the County confident that portions of this site can be safely opened to the general public by April 2021?

- Army defers the response to this question to Clark County representative, Army cannot speak on their behalf.

12. No public information is available on the "Cabin" to be refurbished and allocated to range use. Where is it? What is the remediation status? Has the County Department of Community Development approved construction plans? Have plans for the rehabilitation and buildout of that structure been reviewed by Ecology or the Army for compliance with lead and asbestos abatement? Will Law Enforcement use risk disturbance of sub-soil contamination or have other deleterious effects?

- Army defers the response to this question to Clark County representative. Army cannot speak on their behalf.