

Response to Comments
Draft Workplan and SEPA DNS
Kaiser Mead NPL Site

Public comment period – March 25 – April 25, 2019

This document addresses questions and comments received by the Department of Ecology (Ecology) during the public comment period on the Interim Action Workplan (Workplan), State Environmental Policy Act (SEPA) Determination of Nonsignificance (DNS), and Public Participation Plan for cleanup at the former Kaiser Mead NPL site in Mead, Washington. The Workplan would create a "pump and treat" system to remove cyanide and fluoride contamination in groundwater left behind by Kaiser's waste handling practices from the 1940s to the late 1970s. The SEPA determination is based on the possible environmental impacts that may result because of the proposed cleanup actions. As the SEPA lead agency, Ecology determined that the proposed cleanup actions will not have a probable significant adverse impact on the environment and therefore an environmental impact statement (EIS) is not required.

Ecology published notice of an opportunity to comment on the Workplan, SEPA DNS, and Public Participation Plan in The Spokesman Review on March 25, 2019. In the notice, Ecology invited public review and provided a 31-day public comment period. The deadline for submittal of written comments was April 25, 2019.

Comments were received from three commenters during the comment period. Comments appear in italicized text, followed by Ecology's response in regular text.

Comment from Mark Henry

1. The currently proposed location of the infiltration pond is due north of the SPL, which appears to be very near the areas having highest fluoride and cyanide concentrations in groundwater. Given the nature of the uppermost aquitard (potentially leaky and possibly not laterally continuous), why not move the infiltration pond further to the north (downgradient of high concentration groundwater) or to the northeast (upgradient) so that potential "bifurcation" or splitting of the plume with treated water is lessened. Infiltration of treated water in the middle of the plume could impact current plume position or localized groundwater flow that would then potentially limit the extraction wells anticipated benefit.

2. Groundwater extraction is shown at the POC, which would also be from the deeper B zone. Why not move extraction closer towards sources, and extract from A zone. This would reduce drilling costs, likely remove higher concentration contaminated groundwater, and cutoff contamination prior to POC rather than at POC?

Response to Mark Henry

Regarding the first comment, Ecology shares the concern about the potential impacts to the plume as a result of reinfiltration of treated water in the location shown in the Interim Action Workplan.

The preliminary location of the infiltration pond shown on Figure 6-1 was based on several factors, including: proximity to existing monitoring network features; adequate characterization of the stratigraphy in the vicinity including information on the presence or absence of the uppermost aquitard; a desire to avoid impacting areas where groundwater quality was not already impaired; and an attempt to minimize cost by reducing the overall project footprint.

However, based on the comment, Ecology will require that the placement of the infiltration pond be re-evaluated as part of the system design. A groundwater mounding analysis will be required to determine the expected impact of the designer's proposed infiltration pond configuration on groundwater flow directions and gradients in the vicinity. Potential shifts in the plume will be monitored closely during start-up and adjustments to the system will be made as needed to prevent unintended impacts.

The second comment is also an excellent question and a topic that was explored in the Supplemental Feasibility Study. We found that the aquifer sediments down gradient of the SPL pile have become contaminated as a result of decades of contact with contaminated groundwater. This includes the B-zone aquifer sediments, which are now themselves acting as a source of on-going contamination to groundwater.

While concentrations of contaminants in groundwater are higher in the A-zone plume center area, if we were to place the extraction wells there, we would not capture the contamination contributed by the downstream B-zone aquifer sediments. This is supported by modeling conducted in the Supplemental Feasibility Study which indicates that we will be able to remove more overall contaminant mass by placing the wells in the B-zone. A secondary reason we have chosen the B-zone for the initial extraction wells is that there is information to suggest that the high fluoride concentrations currently found in the A-zone may inhibit development of the wetland plants needed to effectively remove the cyanide.

It is likely that groundwater withdrawal points will be adjusted as we gain experience in operating the extraction and treatment system and look for ways to optimize its use to remove contaminant mass from the aquifer system. Blending-in flow from A-zone withdrawal points in the future may help us deliver steady concentrations to the treatment system as levels in the B-zone drop over time.

Comment from Matthew Wright

Whitworth Water District #2 supports the groundwater cleanup activity at the Kaiser Mead Site so long as the efforts do not spread the contamination plume further or into other non-polluted aquifer reaches. Thank you.

Response to Matthew Wright

Ecology appreciates the commenter's support for the project. The aquifer's response to the operation of the extraction and treatment system will be closely monitored to ensure that we are achieving our goals without creating unintended consequences such as causing the plume to migrate to areas that aren't currently impacted.

Comment from Mike Petersen

The Lands Council supports the proposed interim action to reduce the cyanide and fluoride that continue to reach the Spokane Rathdrum aquifer. We support Alternative C, which will reduce the ongoing sources of groundwater contamination by removing the contaminant mass from the aquifer; which will reduce off-site transport of contaminants. We support the construction of a pump and treat system to remove the cyanide and fluoride contamination. It is critical that the contamination plume continue to be monitored and that the public continue to be informed as progress is made and hopefully the contaminant levels decrease. Thank you very much for the opportunity to comment.

Response to Mike Petersen

The Lands Council's support for the project is noted. Ecology appreciates the commenter's interest in the project.