



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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August 12, 2014

Mr. Marc Estvold
Project Manager, on Behalf of Port of Skagit
3302 Oakes Avenue
Anacortes, WA 98221

Re: Ecology Review Comments
August 5, 2014 Draft Focused Site Assessment Work Plan
Northern State Hospital Property, Sedro-Woolley, WA
Northern State IPG

Dear Mr. Estvold:

I have reviewed the referenced draft work plan prepared by Maul Foster & Alongi, and have only the few comments listed below.

Thank you for an excellent job describing current and historical facility conditions as they relate to the potential for environmental contamination. The investigations outlined in the work plan should provide a sound basis for future planning efforts.

Comments:

Figure 1 It would be helpful to have a new figure covering the same area as Figure 1, but without the shading pattern. That would allow all of the major features in the study area to be seen on one figure.

Sec. 2.3 A little more research on ground water resources in the area is advisable to identify water-bearing zones or aquifers that might underlie the facility. A good place to start would be the geologic logs for the water wells located on the adjacent Skagit County-owned property.

Also, it might be more accurate for the text to say - The uppermost ground water at the Property likely flows down to the south, southwest, and southeast in accordance with area topography and as a result of discharge to Hansen and Brickyard Creeks. The only area likely to have a different flow direction is the north end of the Property, close to Hansen Creek.



- Sec. 3.4.1 During the visual reconnaissance, did it appear likely that the buildings were repainted over the years? If so, would that not imply the potential for lead in the soil next to the building walls?
- Sec 5.3 Please add and/or clarify the distinction between exposure pathways for humans, terrestrial receptors (plants, soil biota, wildlife), the freshwater sediment benthic community, and freshwater aquatic species.
- Sec. 5.4 Please add terrestrial species and the freshwater benthic community to the list of potential receptors.
- Sec. 6.2.2 Soil boring depths are proposed to be 15 feet or the water table, whichever is shallower. Ground water encountered at shallow depth may not represent a true water table, given the fine-grained sediments thought to underlie the facility. Instead, the ground water might represent a seasonally perched water-bearing zone. The borings should therefore go to 15 feet, unless there is clear evidence the water table has been reached or the water-bearing zone is present year-round.

I recommend barium and selenium be deleted from the listed of metals to be analyzed, and replaced with zinc and copper, given the proximity of two freshwater creeks.

Please add diesel-range total petroleum hydrocarbons by Northwest Method NWTPH-Dx to the bullet list of analyses, for those situations where the soil borings are near diesel tanks or releases. The text should also indicate that either NWTPH-Gx or -Dx will be run, depending on the product stored at the specific boring location, if the HCID results indicate detectable hydrocarbons.

The soil results should also be compared to the cleanup levels protective of terrestrial wildlife, MTCA Table 749-3.

One soil sample is proposed from each boring and analyzed for a suite of potential contaminants. While this approach will make sense at most boring locations, an alternative approach might be considered where contamination might have occurred both at the surface and a depth. In this situation, soil samples could be obtained from different depths, and analyzed for different contaminants. For example, soil collected from the boring outside the maintenance building where gasoline USTs were present might be tested for metals near the surface, but for TPH plus lead-only at depth.

- Sec. 6.2.3 Ground water analytical results should also be compared to surface water standards, given that the highest beneficial use for the uppermost water-bearing zone will also likely include discharge to surface water.

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Sec 6.3 A simpler direct-comparison approach between detected concentrations and cleanup levels might be used here, given the preliminary nature of the investigation. Risk assessments typically need a more robust data set and a greater understanding of site conditions than will be available at this stage of the project.

App. A Ideally, the reporting limits for ground water should be checked against potential surface water standards, and the reporting limits for soil checked against Method B and terrestrial species cleanup levels. However, this level of effort may not be warranted given the preliminary nature of the focused site assessment.

If you have any questions about these comments, please contact me at (425) 649-7107 or by email at mark.adams@ecy.wa.gov.

Thank you again for an excellent plan.

Sincerely,



Mark Adams, LHG
Site Manager

ecc: Michael Stringer, Maul Foster & Alongi
John Means, Ecology

