



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

1250 W Alder St • Union Gap, WA 98903-0009 • (509) 575-2490

August 18, 2017

Shane DeGross
BNSF Railway Company
605 Puyallup Ave
Tacoma WA, 98421

RE: Further Action required at the following site:

Site Name: Michael Irrigation (aka John Michael Lease Site)
Site Address: 5640 Sunset Highway, Cashmere
Facility/Site No.: 3154383
Cleanup Site ID No: 2149
VCP Project No.: CE0278

Dear Mr. DeGross:

The Department of Ecology (Ecology) has reviewed Farallon Consulting's "Submittal of Supplemental Soil and Groundwater Investigation Report" dated June 29, 2016, and their request for a No Further Action (NFA) determination. While Ecology appreciates the work completed to date, a NFA determination is not warranted at this time based on the following concerns:

- Contamination at the site is complex and the Contaminants of Concern (COCs) present include:
 - Gasoline-Range Petroleum Hydrocarbons (GRPH)
 - Diesel-Range Petroleum Hydrocarbons (DRPH)
 - Heavy Oil-Range Petroleum Hydrocarbons (ORPH)
 - Benzene
 - Carcinogenic Polyaromatic Hydrocarbons (cPAH)
 - Heavy tars and other free phase petroleum hydrocarbons observed during drilling and documented in boring logs



A large amount of contamination is present near the water table. Although much of the contamination may have a relatively low solubility (e.g. tars), the amount of contamination undergoing dissolution can change over time, including in response to groundwater level changes. The current approach proposed by BNSF is not sufficiently protective of human health and the environment without a stronger burden of proof that groundwater (and surface water) are not, and will not become, impacted by the contaminated soil. The leachability studies, although one piece of evidence to be considered, are not in and of themselves enough to make this case. This data cannot replace actual groundwater data as characterized by quarterly monitoring of a sufficiently robust monitoring network.

- Ecology still has strong reservations regarding a no-cleanup approach for this site. Although the monitoring wells have not had measurable free product, many of the boring logs document “free product” and “tar” in the subsurface, including near the water table. The Wenatchee River is immediately adjacent to locations with subsurface contamination. For example, soil samples collected at Test Pit locations TP30 and TP23 along the river bank, had concentrations of ORPH above Method A cleanup levels at a depth of 14 feet. The groundwater surface in these test pits was also measured at about 14 feet below ground surface (TRC 2012). The proximity of the river and subsurface soil contamination presents a significant concern.

Note that the Model Toxics Control Act (MTCA) expresses an intent that cleanup actions provide for a permanent cleanup to the maximum extent practicable, provide for a reasonable restorations time frame, and consider public concerns. The disproportionate cost analysis (DCA), as requested in our September 3, 2014 email, is one portion of the analysis of what constitutes practicable solutions. Ecology does not concur with the conclusion that excavation of contamination on the south side of the railroad tracks should not occur due to potential to mobilize of contamination. Within excavations below the water table, contaminated water can be pumped and treated to mitigate this concern. Similarly, it is not reasonable to conclude that removal of contamination within the vadose zone would present an increased risk to groundwater.

- None of the concerns Ecology expressed about the Terrestrial Ecological Evaluation (TEE) have been resolved. Norm Hepner (a former Ecology employee) had several questions regarding the TEE in a January 14, 2013 email. Ecology has not found any information in the file in response to those questions, hence the subsequent request in the September 3, 2014 email from John Mefford. Ecology questions the results of Table 749-1, which indicate low ratings for wildlife and habitat in an established riparian corridor.

Note that the table is to be completed by an experienced field biologist. Future submittals should provide the name and qualifications of the biologist completing the table as well as documentation of the decision process. Ecology also requests further information on why the parcel on the north side of the tracks cannot be considered habitat or wildlife terrain, given the riparian corridor in this area.

As you are aware, the Site has a fairly complex history and a large amount of email communications have taken place over the years. As a recap, Ecology approved a "Revised Cleanup Action Work Plan" dated December 31, 2014. That work plan proposed excavation and offsite disposal of contaminated soils on the south side of the railroad tracks that bisect the Site. Although Ecology had reservations regarding contaminated soil remaining on the north side of the tracks, a substantial amount of cleanup would have been done under that plan.

In a meeting between Ecology and BNSF in August 2014, BNSF proposed a change in cleanup plans to a proposed NFA based on a lack of impacts to groundwater from the contaminated soil. No MTCA Method A cleanup level exceedances had occurred in monitoring wells since 2008. During the August 2014 meeting, Ecology staff indicated that a stronger demonstration of the lack of impact to groundwater would be required, including a more robust groundwater monitoring network. BNSF proposed leachability studies to make this case. In the meeting, Ecology staff did not concede that leachability testing would replace the need for a more robust groundwater monitoring network; in point of fact, this need was reiterated in an email from Mr. John Mefford of Ecology to Ms. Violet Barnard of BNSF dated September 3, 2014. The need for a more robust groundwater monitoring network was also echoed in a letter dated October 13, 2014, from Mr. Phil Rigdon of the Confederated Tribes and Bands of the Yakama Nation.

Please note that there are currently four monitoring wells at the Site, and three of four monitoring wells are up-gradient or cross-gradient to contaminated areas. Only MW-1 is located in an area of contamination on the north side of the tracks, and it is not positioned directly downgradient of the contaminated areas on the south side of the tracks.

The September 3, 2014 email from Mr. Mefford also reiterated other Ecology concerns regarding the negation of active cleanup at the Site, including requesting additional information regarding the terrestrial ecological evaluation (TEE) and requested a disproportionate cost analysis as support for deviating from the plan to implement a permanent remedy. Ecology has not received the requested information. Mr. Thomas was evidently unaware of the entirety of the site history, and that Ecology had not received the information requested in our September 3, 2014 email, when he wrote his June 29, 2016 email. Please note that Mr. Thomas was temporarily serving as acting site manager while the permanent site manager was away from the office. Ecology apologizes for the miscommunication in the June 29, 2016 email.

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Ecology looks forward to future work from BNSF to get this site to closure. We expect future submittals to address the concerns we've outlined. If you have any questions, please feel free to contact me directly at (509) 454-7839 or Jennifer.Lind@ecy.wa.gov.

Sincerely,

A handwritten signature in cursive script that reads "Jennifer Lind".

Jennifer Lind
Toxics Cleanup Program
Central Regional Office

By Certified Mail [91 7199 9991 7037 1759 7909]

cc: Phil Rigdon, Yakama Nation – Dept. of Natural Resources
McClure Tosch, Yakima Nation – Fisheries
Mr. Keith Woodburne, TRC