

SUMMARY NOTES FROM JUNE 28, 2017 MEETING WITH ECOLOGY REGARDING WOODWORTH LAKEVIEW FACILITY (VCP ID NO: SW 1012)

ATTENDEES: Ecology – Jeremy Hughes, Nick Acklam, and Rebecca Lawson
Woodworth Capital, Inc. – Jeff Woodworth and William Starks
Farallon Consulting, Inc. – Peter Jewett and Brani Jurista

PURPOSE:

- Discuss the contents of the letter regarding Response to Comments for the Woodworth & Co. Lakeview Plant dated May 25, 2017 prepared by Ecology (Opinion Letter);
- Determine the next steps to meet the requirements for regulatory closure; and
- Define the deliverables that Farallon and Woodworth will provide to Ecology.

OPENING STATEMENT:

Mr. Jeff Woodworth stated that Woodworth Capital Incorporated is fully committed to cleaning up the Lakeview Facility to protect human health and the environment; however, the changes of Ecology Project Managers and numerous revisions to the scope of work that was agreed to have created unnecessary delays and expenses. Mr. Woodworth indicated that Woodworth Capital Incorporated has spent in excess of \$1.6 million dollars toward cleaning up the Lakeview Facility. In order to commit the necessary funds to complete the cleanup action, a final scope of work agreed to by Ecology is necessary. Ecology agreed that a final agreed to scope of work will be determined to reach regulatory closure.

Mr. Woodworth stated that use of institutional controls and environmental covenants applied to the Lakeview Facility would be acceptable. Ecology concurred that a No Further Action determination by Ecology would likely include institutional controls and/or environmental covenants.

SUMMARY NOTES

Details of the meeting discussions. The items are numbered by the Opinion Letter:

1) Well Screens

- Ecology concurred wells screened appropriately.
- Farallon agrees.

2) Use of sulfuric acid/silica gel cleanup procedure

- Sulfuric acid/silica gel cleanup procedure not to be used in future sampling.
- Farallon agrees.

3) PAHs and PCBs as constituents of concern.

- Ecology requested that soil samples be collected from AOC-3, AOC-4, asphalt plant, tar tank, and hot mix plant areas and analyzed for PAHs.
- Farallon noted that the scope of work for completion of a Remedial Investigation (RI) was provided in the RI Work Plan (2009) that was reviewed and approved by

Ecology. Ecology previously concurred that the RI was sufficient to implement the cleanup action described in the Remedial Investigation and Feasibility Study Report (2009) and detailed in the Engineering Design Report (2010).

- Farallon questioned why is it necessary to investigate these areas after already implementing the approved cleanup action. Soil samples collected from the cleanup action excavation of AOCs-1, -2, and -3 were analyzed for PAHs and did not exceed Washington State Model Toxics Control Act Cleanup Regulations (MTCA) Method A cleanup levels.
- There is no evidence of use or releases of PCBs during Woodworth operations.
- A release of PCB-free transformer fluid by Lakeview Light & Power occurred on February 23, 2017 in an area identified by the Tacoma-Pierce County Health Department. Farallon understands that impacted soil has been remediated in accordance with MTCA and that Lakeview Light & Power will provide documentation to Ecology.

4) Additional monitoring wells in AOCs-1, -2 and -3

- Ecology concurred that no additional monitoring wells are needed in AOCs-1, -2, or -3 at this time.
- Farallon agrees.
- Ecology concluded that the nature and extent of contamination in shallow groundwater in the northwestern portion of the Site, near monitoring wells MW 25 and MW-33, have not been fully characterized.
- Farallon clarified with Ecology that the location of the area is between monitoring wells MW-24 and MW-33. Farallon noted that there is no evidence of TPH releases in or near this area, and it is not necessary to investigate further.

5) Further soil sampling in AOCs-1, -2 and -3

- Ecology requested collection of four additional soil samples in AOCs-1, -2, and -3. Farallon disagrees that additional soil samples are necessary, and presented the technical basis that sufficient confirmation soil samples were collected in areas proximate to the sampling locations identified by Ecology. In AOC-1, former soil sample location A1-11-040810-3 was surrounded by four confirmation base-of-excavation soil samples at greater depths. Former soil sample A1-7-040710-6 was surrounded by four confirmation base-of-excavation soil samples, but according to Ecology, those samples were not proximate enough to confirm the cleanup. The sufficiency of confirmation soil sample A2-4-040710-3 in AOC-2 and confirmation soil sample A3-B2-P-100510-4.5 was discussed.
- Farallon stated that soil samples were analyzed for PAHs and did not exceed MTCA Method A cleanup levels.

- Mr. Woodworth stated that soil in AOCs-1, -2, and -3 was impacted by prior releases of motor oil, and there was no evidence of the use or release of PCBs.

6) TCE cleanup level

- Ecology concurred that MTCA Method A is the appropriate cleanup level for TCE in groundwater.
- Farallon concurs.

7) TCE source area delineation

- Ecology requested additional investigations in the areas of the former WSDOT testing lab and near monitoring well MW-25 (up-gradient of the testing lab).
- Farallon explained that the former mobile testing lab location was not fixed, and that it may be a difficult area to sample due to the presence of an electrical transformer, a vault, and numerous underground utilities. Ecology and Farallon concurred that an area directly east, between the remediation system compound and the roofing shredder building, can be accessed and sampled.
- Farallon explained that extensive soil sampling was conducted in the area around monitoring well MW-25. Farallon disagreed that additional soil sampling in this area is necessary. Farallon questioned the usefulness of sampling soil 18 feet below ground surface (bgs) to identify sources of TCE contamination. Ecology explained that the request was based on the slightly higher concentration of TCE detected in the soil sample collected from monitoring well MW-25 at a depth of 18 feet bgs.

8) Designation of TCE-affected groundwater

- Ecology requested that groundwater-impacted areas not be designated as Areas of Concern.
- Ecology and Farallon agreed that from this point forward, the areas of impacted groundwater be called TCE Plume in Groundwater, and Arsenic and Lead Plume in Groundwater.

9) TCE attenuation in groundwater assessment

- Ecology requested further assessment for natural attenuation of TCE, including analysis of groundwater samples for monitored natural attenuation (MNA) parameters, statistical analysis, and/or microbial population testing.
- Farallon concurred with collecting groundwater samples during the groundwater sampling event under item 15 to evaluate natural attenuation for TCE, in accordance with the MNA Ecology guidance. Ecology references a 95% confidence interval. Farallon noted that that Ecology MNA guidance recommends an 85% confidence interval.

10) Industrial Supply Well and Public Supply Wells

- Ecology requested collection and analysis of water samples from the industrial well.
- Farallon stated that collection and analysis of a water sample(s) from the industrial well will be included in the monitoring.
- Ecology confirmed that no aquifer testing is necessary.
- Farallon concurred.
- Ecology requested additional information on the use and yield of the industrial well, and its designation for industrial use only. Ecology clarified that proper signage needs to be displayed on the industrial well.
- Farallon and Woodworth will request this information from the current property owner, Miles Sand and Gravel.
- Ecology requested sampling of public water supply wells at the Laurel Lane Mobile Home Park and the Majestic Oaks Water System. Farallon noted that the TCE Plume in Groundwater and the Arsenic and Lead Plume in Groundwater are fully delineated, stable to reducing, and contained on the Lakeview Facility. Farallon concluded that there is no technical basis to sample and analyze water samples from these water supply wells. Both wells are far from the Lakeview Facility and the areas of groundwater contamination. In addition, the Majestic Oaks Water System is cross-gradient of the TCE plume in the deep aquifer. Ecology will further evaluate this issue. Woodworth has not agreed to sample these wells.

11) Up-gradient well(s)

- Ecology concurred that further evaluation of potential up-gradient sources of TCE in groundwater is not warranted. However, Ecology requests sampling and analysis of groundwater from up-gradient wells.
- Farallon indicated that up-gradient wells will be included in the sampling round requested under item 15.

12) Vapor Intrusion Assessment

- Ecology concurred with Farallon to revise the Focused Feasibility Study/Disproportionate Cost Analysis (FFS/DCA) to reflect the industrial exposure scenario.
- Farallon agreed.

13) Arsenic and Lead Characterization

- Ecology did not request further delineation of arsenic or lead in groundwater in AOC-5.
- Ecology requested information regarding best management practices (BMPs) to prevent discarding concrete slurry and process water.

- Farallon and Woodworth will request this information from Miles Sand and Gravel. However, Woodworth has no control over the operations of Miles Sand and Gravel, and cannot be held responsible for implementation of BMPS by this current owner.
- Ecology requested further evaluation of geochemistry on the mobilization of arsenic and lead.
- Farallon requested further clarification from Ecology. Ecology stated that groundwater sampling of existing monitoring wells will be sufficient to ensure no further degradation of groundwater quality at the Lakeview Facility.

14) Potable groundwater

- Groundwater is considered potable by Ecology.
- Although the shallow water-bearing zone does not have sufficient yield, because it is in communication with the deep water-bearing zone, Farallon agreed with Ecology that the shallow and the deep water-bearing zones should be considered potable.

15) Site-wide groundwater monitoring event

- Ecology requested a site-wide comprehensive groundwater sampling event that includes analyses for TPH, metals, PCBs and PAHs.
- Farallon disagreed that all of the monitoring wells should be sampled and analyzed for all COCs. Farallon provided the technical basis for area-specific sampling parameters.
- Farallon agreed to conduct a site-wide groundwater monitoring and sampling event that will target specific areas for specific COCs. This will include sampling groundwater for 1,4-dioxane in the area co-located with the highest detections of TCE in groundwater. Farallon will prepare and provide a sampling plan for Ecology review and approval prior to conducting a site-wide groundwater monitoring and sampling event.
- Ecology requested a data package following completion of the site-wide groundwater monitoring and sampling event. Farallon agreed, and will compile the data per the Ecology request.

ACTION ITEMS AND SCHEDULE

- 1) **Deliverable 1:** Within 2 weeks of providing these summary notes, Farallon will provide an e-mail or a letter to Ecology presenting the technical basis and Farallon recommended approach to meet Ecology requirements for items 1 through 15 discussed during the meeting. Deliverable 1 will include sufficient detail to support the proposed approach.
- 2) **Deliverable 2:** Ecology will provide comments via an e-mail on the technical basis and proposed approach. Farallon anticipates Ecology comments within 2 to 3 weeks of submittal of Deliverable 1.

- 3) **Deliverable 3:** Upon reaching mutual agreement on the proposed approach, Farallon will submit a Sampling and Analysis Work Plan for Ecology review and comment. Farallon will proceed with the scope of work after discussing any comments with Ecology.
- 4) **Implementation of the Scope of Work:** Farallon will implement the scope of work presented in the Sampling and Analysis Work Plan no later than November 2017.
- 5) **Deliverable 4, Summary Report and/or Addendum to FFS/DCA Report:** Farallon will prepare a Summary Report documenting the results from the investigation. An Addendum to the FFS/DCA Report will be prepared if no additional information is necessary. The Addendum will summarize the results from the sampling field program, and provide detailed discussions of the evaluation of items 1 through 15, including revising the Vapor Intrusion Assessment to reflect the industrial exposure scenario.