

# Memo



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**To:** Steve Teel, LHG (Ecology)  
**From:** Hannah Morse, E.I.T. and Chris Waldron, P.E.  
**Cc:** Jake Lund, P.E. (City of Olympia), Nicholas Acklam (Ecology), Chance Asher (Ecology)  
**Date:** March 1, 2022  
**Subject:** Meeting Minutes from 12/02/2021 Meeting with Ecology to Discuss the Sediment Scope of Work (SOW) to be included in the Data Gaps Investigation Work Plan

The purpose of this memo is to document the minutes from the meeting with the Washington State Department of Ecology (Ecology) on December 2, 2021. The purpose of this meeting was to summarize the proposed sediment samples to address the data gaps identified during the August 19, 2021 meeting with Ecology. The proposed samples will be incorporated into a Data Gaps Investigation Work Plan which will be submitted to Ecology for review and approval. Results of the data gaps investigation will be included in the revised Remedial Investigation/Feasibility Study (RI/FS) Report for the City of Olympia's (City's) Solid Wood, Inc. Site dated October 5, 2015.

These meeting minutes will be attached to the Response to Comments on October 5, 2015 RI/FS Report for the Solid Wood, Inc. Site tech memo dated September 14, 2021.

## Meeting Minutes

### Who Attended:

- Jake Lund (City)
- Steve Teel (Ecology)
- Nicholas Acklam (Ecology)
- Chance Asher (Ecology)
- Chris Waldron (PIONEER Technologies Corporation [PIONEER])
- Hannah Morse (PIONEER)

Below is a summary of the Solid Wood, Inc. Site RI/FS Sediment Sampling Discussion:

1. **Ecology Comment:** Insufficient sampling to define the nature and extent of contamination (Ecology Comment #3 and G). During the 8/19/2021 meeting between the City and Ecology, Ecology recommended the City collect intertidal samples south of West Bay Park (near three existing outfalls) analyzed for the Full SMS Suite, dioxins/furans, and cPAHs in the biologically active zone (BAZ). Ecology also recommended subsurface samples be collected approximate to the BAZ samples to evaluate potential impacts to human health (e.g., clam diggers/beach combers, tribal fish consumption).

***Summary:** The City proposed 10 intertidal sediment samples located along the Budd Inlet shoreline. Six samples are located directly downgradient of the three existing outfalls and four samples are located further south of West Bay Park. Five samples will be collected from the BAZ; five samples will be collected approximately 2 feet below ground surface (bgs). All intertidal sediment samples will be analyzed for the Full SMS Suite, dioxins/furans, and cPAHs. Ecology recommended, pending analytical results, step-out sampling to define the extent of chemicals that exceed benthic or regional background criteria may be necessary. Ecology approved of the City's proposed intertidal*

sediment sampling locations and analytics. These sampling activities will be outlined in further detail in the Data Gaps Investigation Work Plan.

2. Ecology Comment: Insufficient sampling to define the nature and extent of contamination (Ecology Comment #3 and G). During the 8/19/2021 meeting between the City and Ecology, Ecology recommended the City collect subtidal sediment samples from the BAZ.

*Summary: The City proposed five subtidal sediment samples, located below the mean low water (MLW) line, to be collected from the BAZ and analyzed for the Full SMS Suite. No subsurface (2 feet bgs) sediment samples are proposed in this location because these samples are located approximately 150 to 200 feet from the Budd Inlet shoreline and based on the Conceptual Site Model (CSM), the only receptors of concern are biological receptors. As described in item #1, pending analytical results from the intertidal sediment samples, additional investigation may be necessary. Ecology approved of the City's proposed subtidal sediment sampling locations and analytics. These sampling activities will be outlined in further detail in the Data Gaps Investigation Work Plan.*

3. Ecology Comment: Insufficient sampling to define the nature and extent of contamination (Ecology Comment #3 and G). The limited sampling fails to identify (or verify) sediment quality impacts in the subtidal environment from chemical contamination and wood waste as well as other upland sources that were not identified in the conceptual release model. During the 8/19/2021 meeting between the City and Ecology, Ecology recommended the City perform field sieve analysis in accordance with Ecology's Wood Waste Guidance. Ecology recommended wood waste investigations occur in the area where historical log storage occurred at the Site.

*Summary: The City proposed a tiered approach as outlined in Ecology's Wood Waste Guidance and further action (e.g., collecting additional samples, chemical analysis, bioassays) would be triggered if the percent wood waste by volume exceeded 25%. Ecology did not agree with the presented approach. Ecology suggested the City use a more comprehensive/multiple lines-of-evidence approach to eliminate the need for multiple mobilizations to address the data gaps in sediment. Ecology recommended:*

- 1.) *Enlarging the area being investigated for wood waste further south and west of the area identified in the presentation (see Slide 4 and Slide 7).*
- 2.) *Identifying the final sediment sampling locations.<sup>1</sup> Sediment samples will be identified using a tiered approach which is as follows:*
  - a. *Tier I – Establish a grid in the vicinity of the historical log storage and handling activities.<sup>2</sup> Perform a wet sieve analysis for 20 locations (collected from the BAZ [top 6 inches]) in the field (reviewed/evaluated by two field personnel to verify the wood waste by volume) using a full range of mesh sizes with a minimum of 0.075 mm (#200) mesh sieve.*
  - b. *Tier II – Collect a sediment sample from the six locations with the highest percent wood waste (determined in Tier I).<sup>3</sup> The sediment sample(s) will be analyzed for the following:*
    1. *Full Sediment Management Standards (SMS) Suite*

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<sup>1</sup> The City proposed six sampling locations. Ecology did not agree with the proposed locations; however, Ecology agreed with collecting six samples as long as the sample locations are selected using the multiple lines-of-evidence approach.

<sup>2</sup> The footprint will be determined by reviewing historical photos to identify where log-rafts were floated in West Bay.

<sup>3</sup> In accordance with Ecology's recommendation, to prevent the field crew from needing to mobilize multiple times, six sets of sample containers will be prepared prior to mobilizing on Site.

2. *Bioassays<sup>4</sup>*
3. *Percent Solids*
4. *Grain Size*
5. *Total Organic Carbon (TOC)*
6. *Total Volatile Solids (TVS)*
7. *Bulk and Pore Water Ammonia*
8. *Bulk and Pore Water Sulfides*
9. *Pore Water Dissolved Oxygen*
10. *Biochemical Oxygen Demand (BOD)*
11. *Pore Water pH*

*The City expressed concerns about this area being a depositional area from the Deschutes River and analytical data/bioassays not being representative of contamination associated with the Solid Wood Inc. Site. Ecology acknowledged this concern and indicated analytical results will be compared to available data presented in the SCUM guidance to determine if the chemical and biological results are associated with the Site.*

#### Action Items:

- Revise the proposed tiered approach for evaluating wood waste in sediment based on Ecology's comments.

### **Summary of Path Forward**

Below is a summary of the action items from the Solid Wood, Inc. Site RI/FS Sediment Sampling Discussion:

1. Revise the field wet-sieve analysis for evaluating the nature and extent of wood waste in the data gaps investigation area.
2. Develop a preliminary sampling plan/outline for addressing soil data gaps
  - a. Call scheduled with Ecology for Thursday, December 9, 2021
3. Develop the Data Gaps Investigation Work Plan for Ecology's review/approval
  - a. A schedule for the Data Gaps Investigation Work Plan will be developed and sent to Ecology following the 12/9/2021 meeting
4. Discuss the remedial alternatives to be developed and evaluated in the RI/FS with Ecology
  - a. This discussion will be scheduled once all field activities have been performed and the sediment, soil and groundwater characterization at the Site is considered complete by Ecology

### **Enclosures**

Attachment #1	Solid Wood, Inc. Data Gaps Investigation Work Plan – Proposed Sediment Sampling Presentation Slides
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<sup>4</sup> The specific bioassays ran will be outlined in the Data Gaps Investigation Work Plan and will be selected in accordance with Ecology's guidance (e.g., SMS, Sediment Cleanup User's Manual [SCUM], Wood Waste Cleanup) and feedback.