

CENWS-ODS-ND

MEMORANDUM FOR FILE

March 30, 2017

**SUBJECT:** DMMP SMALL PROJECT NO-TEST EVALUATION OF EMERALD KALAMA CHEMICAL MAINTENANCE DREDGING OF WATER INTAKE AND WASTEWATER OUTFALL STRUCTURES, WITH FLOW-LANE DISPOSAL.

- 1. Introduction.** This memorandum documents the Tier 1 evaluation by the Dredged Material Management Program (DMMP) agencies (U.S. Army Corps of Engineers, Washington Departments of Ecology and Natural Resources, and the Environmental Protection Agency) of Emerald Kalama Chemical's (EKC) maintenance dredging of water intake and wastewater outfall discharge locations (Figure 1). This evaluation resulted in a no-test determination.
- 2. Project.** EKC proposes to remove up to 198 cubic yards (CY) of Columbia River sediment from the intake and outfall locations over the course of 10 years. The sediment will be disposed via flow-lane disposal in the Columbia River.
- 3. Evaluation.** The Emerald Kalama Chemical project is located on the Columbia River near Kalama, Washington. The intake and outfall locations (Figures 1 thru 3) are located between the dock area and the shore. Wastewater discharge from the facility, including the onsite wastewater treatment plant is managed under NPDES permit # WA0000281. Effluent from the wastewater treatment plant (outfall 002) is combined with non-contact cooling water (outfall 001) and discharged through the off-shore outfall pipe shown in Figure 1. Parameters monitored include flow, temperature, and toluene from outfall 001 and flow, pH, biological oxygen demand, total suspended solids, metals, volatile- and semi-volatile organic chemicals from outfall 002. Biological toxicity testing is performed every five years.

According to communications with the project consultant, monitored parameters under the discharge permit have had zero permit exceedances since 2003 with one exception. The exceedance was for temperature, which was elevated due to a power failure beyond the control of the plant. The most recent available fish bioassay data (EKC, 2013) and Discharge Monitoring Report (EKC, 2016a-d) were reviewed. No bioassay failures or permit exceedances were noted.

In January 2017, EKC dredged 66 CY near the intake and outfall pipe locations; the material was approved for upland disposal (DMMP, 2014). The January 2017 dredging was the first time the outfall pipe had been dredged since its installation. Photos of the material removed in January 2017 (Figures 4 and 5) show that the material is very coarse-grained and contains shell materials. Future maintenance dredging is expected to remove new material that accumulates due to natural river sedimentation processes.

For projects up to a moderate rank, the DMMP User Manual recommends <1,000 CY as a "no test" volume. A review of Ecology's database "What's in My Neighborhood" reveals that post-cleanup operations and maintenance is currently in progress to address soil and groundwater contamination beneath the plant. Contaminants of concern related to this cleanup include benzene, toluene, biphenyl, bis(2-ethylhexyl)phthalate, phenol, benzoic acid, arsenic, volatile organic compounds, semi-volatile organic compounds, and diphenyl oxide. Cleanup actions included constructing a shallow interceptor trench parallel to the Columbia River and installing seven recovery wells to capture contaminated groundwater flowing toward the river. According to the most recent Periodic Review (conducted every

five years), the interceptor trench continues to maintain hydraulic control so contamination does not reach the Columbia River (Ecology, 2016).

In addition to the dredging proposed at the intake and outfall locations, EKC has also proposed to dredge up to 4800 CY from the dock area. The material from the dock area is addressed via separate Suitability Determination (DMMP, 2016) and Volume Revision (DMMP, 2017). Sampling and chemical testing conducted in August 2015 demonstrated that no chemicals were detected in exceedance of the DMMP freshwater screening level 1 guidelines. All DMMP COCs were either not detected or were detected at concentrations well below the SL1 for the sediment proposed for dredging in the dock area (USACE, 2016).

- 4. No-Test Determination.** Based on the information provided above, the DMMP agencies have determined that the sediment proposed for maintenance dredging is not likely to pose a concern; therefore, no DMMP testing of the material is required for this project.

This determination does *not* constitute final agency approval of the project. During the public comment period that follows a public notice, resource agencies will provide input on the overall project. A final decision will be made after full consideration of agency input, and after an alternatives analysis is done under section 404(b)(1) of the Clean Water Act.

- 5. References.**

DMMP, 2014. DMMP Tier 1 Evaluation of Emerald Kalama Chemical, LLC – Water intake and outfall line maintenance, Columbia River, with upland disposal. October 6, 2014.

DMMP, 2016. Determination regarding the suitability of proposed dredged material from Emerald Kalama Chemical for open-water flow-lane disposal in the Columbia River. January 7, 2016.

DMMP, 2017. Volume revision for Emerald Kalama Chemical (NWS-2016-192), Kalama, Washington for open water flow-lane disposal in the Columbia River. March 2, 2017.

EKC, 2013. Attachment 2: Biological Toxicity Testing Data, Emerald Kalama Chemical, LLC. Toxicity test results conducted in July 2012 and February 2013.

EKC, 2016a. Monthly Discharge Monitoring Reports, Discharges No. 1 and No. 2, January – December 2016 monitoring period.

EKC, 2016b. Semi-Annual Discharge Monitoring Report, Discharge No. 2, January 2016 monitoring period.

EKC, 2016c. Semi-Annual Discharge Monitoring Report, Discharge No. 2, April 2016 monitoring period.

EKC, 2016d. Semi-Annual Discharge Monitoring Report, Discharge No. 2, August 2016 monitoring period.

Discharge Permit No. WA0000281 for Emerald Kalama Chemical, LLC, Issued July 2, 2009, Facility Site ID#: 1082. Prepared by the Industrial Section, Waste 2 Resources Program, April 2016

Washington State Department of Ecology, 2016. Periodic Review: Emerald Kalama Chemical LLC, Facility Site ID#: 1082. Prepared by the Industrial Section, Waste 2 Resources Program, April 2016.

6. Agency Signatures.

Concur:

The signed copy is on file in the Dredged Material Management Office

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Date Heather Whitney Fourie - Seattle District Corps of Engineers

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Date Justine Barton – U.S. Environmental Protection Agency

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Date Laura Inouye, PhD. – Washington State Department of Ecology

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Date Celia Barton – Washington State Department of Natural Resources

**Copies Furnished:**

DMMP agencies

Danette Guy, USACE Regulatory

DMMO File

Figure 1. Location Map.

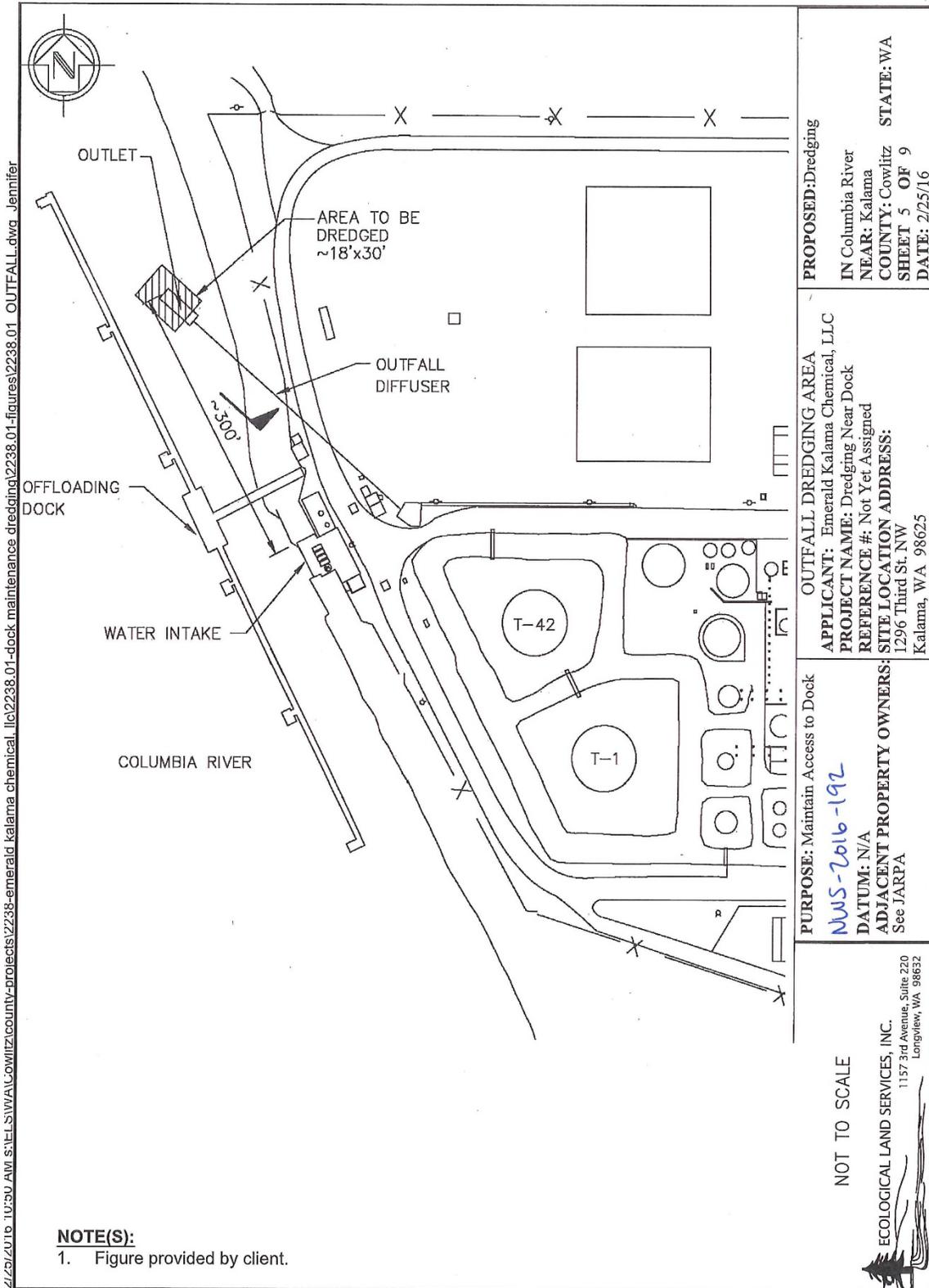




Figure 3. Intake detail

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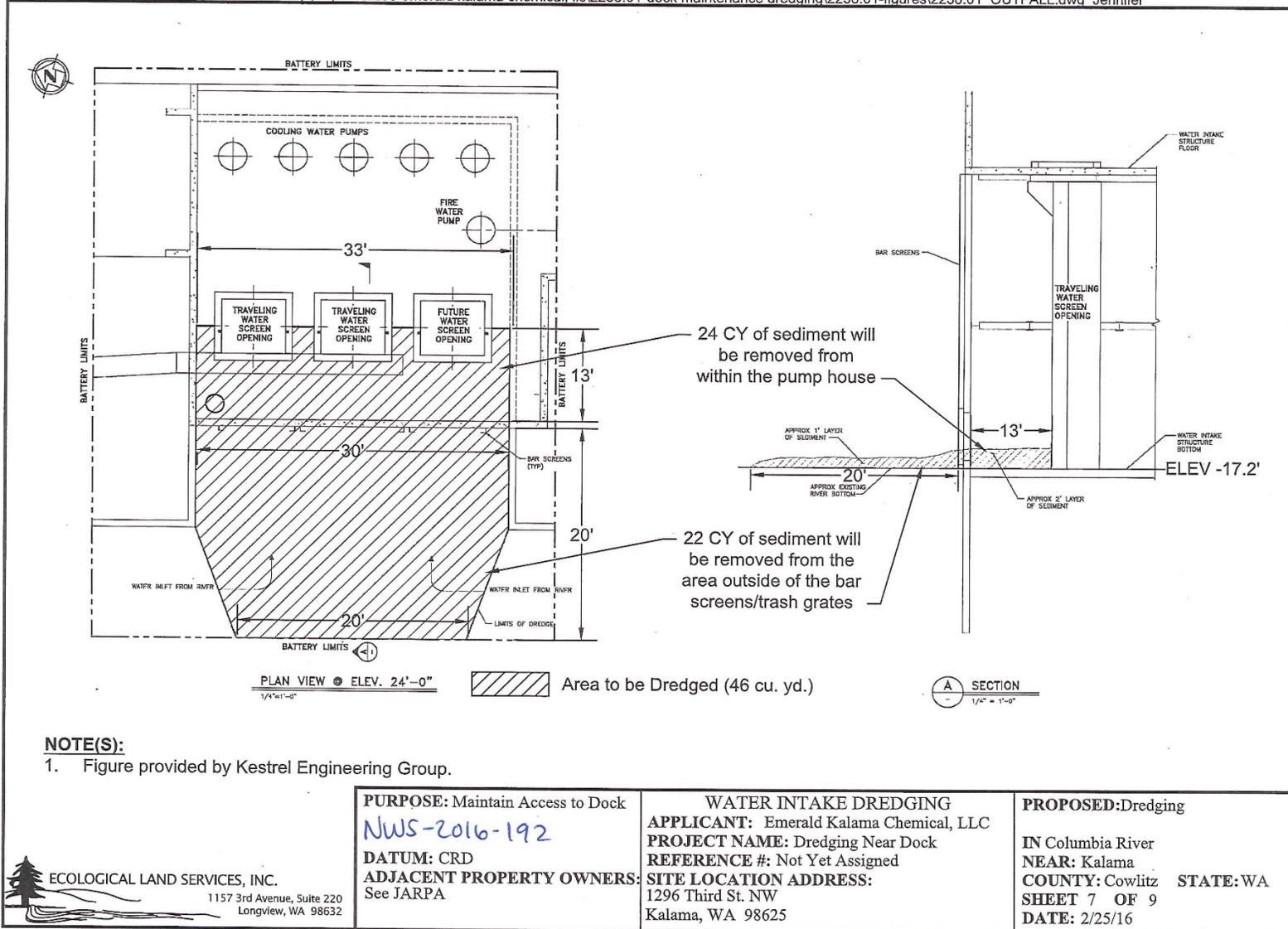


Figure 1. Dredged material removed during January 2017 outfall maintenance dredging.



Figure 5. Close-up of material removed during January 2017 outfall maintenance dredging.

