

## **Department of Environmental Quality**

sent via Email

**Northwest Region** 

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May 18, 2021

Jason Hegdahl Cascade Corporation 2201 NE 201st Avenue Fairview, Oregon 97024

Deborah Taege The Boeing Company Environment, Health & Safety - Environmental Remediation Bldg. 10-20, MC 9U4-26 800 N 6th Street Renton, WA 98055-1409

## RE: Annual Performance Report for 2020. East Multnomah County Troutdale Sandstone Aquifer Remedy. ECSI #1479

Dear Mr. Hegdahl and Ms. Taege,

The Oregon Department of Environmental Quality (DEQ) has reviewed the *Annual Performance Report for 2020, East Multnomah County Troutdale Sandstone Aquifer Remedy,* dated April 12, 2021. This report was prepared on your behalf by Geosyntec Consultants, Inc., Landau Associates, Inc. and SS Papadopulos and Associates, Inc. DEQ approves the document and the following project changes as recommended in report Section 6.0.

## **DEQ** approves the following changes to project remediation systems:

The Central Treatment System continues to operate and maintain hydraulic control of the dissolved volatile organic compound (VOC) groundwater plume. DEQ approves continued operation of groundwater extraction wells EW-2 and EW-14. Pilot shutdown of EW-23, as previously approved by DEQ, will begin in second quarter 2021. Continued groundwater monitoring will be performed to evaluate if resumed pumping at EW-23 is needed, per the approved Remedy Well Network Criteria for the project.

The Central Treatment System also houses the Soil Vapor Extraction (SVE) system. The SVE system removes VOC mass from unsaturated soils currently accessed from six vapor extraction wells. DEQ approves the continued operation of the SVE in 2021 to remove soil vapors from the existing six vapor extraction wells. Data will be reviewed to determine continued SVE usefulness such as when soil vapor contaminant concentrations reach asymptotic levels.

DEQ approved an email dated May 10, 2021, which provided notification of planned testing of the SVE system. The plan is to shut down the existing SVE for approximately 2-4 weeks to test soil vapor for VOCs at the six new vapor monitoring wells (VMW-I through VMW-N) installed during summer 2020. Vapor testing is planned at two days following shut down, at two weeks after shutdown, and again at four weeks if needed, based on data from the first two tests. Data will be used to evaluate the efficacy of potential expansion of the SVE system to include the six new vapor monitoring wells.

## DEQ approves the following monitoring program and schedule modifications:

Decommission Lower TSA well EW-15. The well is located in the far eastern portion of Remedy Zone C near the Zone D boundary. The well meets the criteria for decommissioning. Trichloroethene (TCE) concentrations have been below detection limits since November 2010. EW-15 is not useful for water level monitoring due to anomalous water levels.

Decommission Lower TSA extraction well EW-8 in Remedy Zone C. This well is currently monitored annually and is in a redundant location for groundwater elevation and water quality monitoring to EW-12 and BOP-23dg. TCE concentrations at EW-8 have been less than the Maximum Contaminant Level (MCL) of  $5.0~\mu g/L$  since 2010, except for one event in February 2018 when TCE concentrations were  $5.31~\mu g/L$ . TCE concentrations in August 2018, 2019 and 2020 were well below the MCL and close to the laboratory detection limit (0.50 ug/L). The well is approximately 680 feet from the dissolved VOC plume and meets the remedy criteria for decommissioning (TCE less than the MCL for two consecutive years).

Decrease monitoring frequency for groundwater elevation and groundwater quality for Remedy Zone D well EW-16 from semi-annual to annual. TCE concentrations at EW-16 have been below the MCL since February 2013, and this well does not provide a critical point for groundwater water elevation monitoring.

Decrease monitoring frequency for groundwater elevation data and/or groundwater quality in listed Remedy Zone B wells based on VOC concentrations being consistently below the respective MCLs for two years and the distance between the specific wells and the dissolved VOC plume:

- Reduce groundwater elevation monitoring to an annual frequency at BOP-20(ds), BOP-61(ds), BOP-61(dg), BOP-66(ds).
- Reduce groundwater elevation monitoring frequency to biennial at BOP-23(dg), BOP-62(ds), BOP-65(ds), EW-3, and EW-13.
- Reduce groundwater quality sampling to an annual frequency at BOP-61(ds), BOP-61(dg), and BOP-66(ds),
- Reduce groundwater quality sampling to biennial frequency for wells BOP-20(ds), BOP-65(ds), and EW-13.

Please feel free to call me with questions.

Sincerely,

Kenneth Thiessen RG/CEG Northwest Region Cleanup Section

cc: Cindy Bartlett, R.G. Geosyntec Consultants
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Charles Andrews, Ph. D., S.S. Papadopulos & Asso., Inc.
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