



Oregon

Kate Brown, Governor

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February 9, 2022

TO: Senator Kathleen Taylor and Representative Jeff Reardon, Co-Chairs
Joint Committee on Way and Means Subcommittee on Natural Resources

CC: John Terpening, Legislative Fiscal Office

FM: Richard Whitman, Director

RE: Response to Questions from Budget Hearing on February 7, 2022

The Department of Environmental Quality (DEQ) presented to the Joint Committee on Ways and Means Subcommittee on Natural Resources on February 7, 2022. Senator Frederick asked a question about the status of air quality monitoring in North and Northeast Portland. The agency response is provided below.

DEQ Laboratory Monitoring Activities

Currently, DEQ has full air toxics monitoring stations in northeast Portland at the Helensview School in the Cully neighborhood and at the Humboldt School. At those locations we monitor for volatile organic compounds such as benzene, polynuclear aromatic compounds such as naphthalene, carbonyls such as formaldehyde, metals including cadmium and lead, particulate, and black carbon which is characteristic of diesel emissions. We recently expanded our PM2.5 particulate monitors in northeast Portland by setting up DEQ SensORs at Roosevelt High School and Mc Daniel High School. With resources approved during the 2021 legislative session, we will be expanding our PM2.5 monitoring network with 20 additional locations statewide, including one or more in the Portland/Metro area.

Cleaner Air Oregon Activities Addressing Industrial Facilities

There are four facilities in the Cully and north Portland area that have either completed or are finishing up air toxics risk assessments under the Cleaner Air Oregon program. This new DEQ program, adopted in 2018, requires industrial facilities to calculate health risks from their emissions, and reduce them if they exceed state thresholds. DEQ has worked closely with the communities near these facilities. Some of these facilities have made changes in conjunction with these assessments that have reduced health risks to the surrounding communities.

Update on EPA Community Monitoring Grant -Improving Diesel Particulate Matter Exposure

Details of the Grant

- The amount awarded: \$466,276

- Pass through to Portland State researchers: \$362,671
- Pass through to Reed College researchers: \$44,943

Grant Summary/Highlights

- The purpose of the EPA Community Monitoring Grant is to better characterize the chemical composition of different sources of diesel emissions, better understand and communicate their public health impacts in vulnerable communities and to inform strategies to reduce these impacts. The grant work will wrap up end of March 2022.

Monitoring

- The DEQ Laboratory worked with Portland State University to provide the Quality Assurance Project Plan (QAPP), instrumentation and technical assistance to monitor diesel particulate from rail, marine and construction sites. Four criteria were used to identify the areas in Portland with the highest risk from diesel exposure. These were areas of high diesel particulate matter and nitrogen dioxide (NO₂) concentrations, high population density and community vulnerability based on socioeconomic variables.
- The Cully and Jade neighborhoods in Portland were identified as two vulnerable areas in the Portland Metro region based on the socioeconomic variable assessed. PSU used the monitoring data to develop activity factors for different engine types (locomotive, marine, truck and construction equipment) to better characterize diesel emissions that were then used as input in the DPM model with updated 2020 diesel emissions.
- We expect the information from this project to be used to improve the location of black carbon monitors in the Portland region in order to better serve the most vulnerable neighborhoods.