

Air Quality Fact Sheet

Clean air is essential to human and environmental health. Air pollution can harm humans, plants, animals, and structures. Air quality can be affected by climate, topography, meteorological conditions, and pollutants emitted from natural or human sources. Construction and operation of the proposed project could affect air quality.

The analysis and findings for coal dust are explained in a separate Coal Dust Fact Sheet. Another fact sheet with analysis and findings related to Greenhouse Gas Emissions is also available.

What impacts on air quality were studied?

The study looks at how air quality at the project area and along the rail and vessel routes could be affected by the proposed project. Air pollutants, including the types below, are regulated by federal and state laws:

- **Criteria pollutants.** The federal Clean Air Act identifies six criteria air pollutants: carbon monoxide, ozone, nitrogen dioxide, sulfur dioxide, lead, and particulate matter. Air quality in Cowlitz County currently meets the standards for these criteria pollutants.
- **Toxic air pollutants.** Washington State law identifies toxic air pollutants and sets limits for emissions. An example is diesel particulate matter, which is released when diesel fuel is burned.



Proposed project-related trains would be a source of air pollutant emissions

Washington state law for toxic air pollutants sets limits for emissions from what are called “stationary sources.” The only new stationary source emissions considered under the proposed project is coal dust. Coal dust is not a toxic-air pollutant itself, but may contain material that meets the definition for a toxic pollutant.

How were impacts on air quality analyzed?

The study describes the current conditions for air quality at and near the project area. The study considers construction, operation, and transportation related to the proposed project. Next, it identifies potential impacts on air quality. Finally, the study includes actions that can mitigate or offset the potential impacts.

An air quality model was used to evaluate air emissions. Existing air quality conditions provide the background conditions, then the model predicts the air pollutant concentrations from the proposed project during construction and operations. The model uses local weather data and federal data on air quality emissions for equipment and operations. The model results were compared with the federal and Washington state air quality standards to determine potential impacts. The study compares the average potential emissions in one year, and concentrations over shorter periods (for example, a 1-hour period, a 24-hour period, etc.) to estimate peak emissions.

How would the proposed project affect air quality?

Construction

Construction activities include emissions from equipment, trucks, and barges, as well as dust from construction disturbing the soil, and emissions from vehicles waiting at rail crossings. The study found an

increase in air pollutants during construction could occur, but no pollutants would exceed regulatory air quality limits.

Operations

Operations include emissions from storing and moving coal on site, unloading coal from rail cars, and transferring coal to vessels. It also includes emissions from equipment, docked vessels, and locomotives on the site. Additionally, emissions from vehicles waiting at rail crossings are included. The air quality model found increases in carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter, diesel particulate matter, and volatile organic compounds could occur. The study found that none of the emissions levels would exceed the regulatory air quality limits.

Rail Traffic

At full operation, the proposed project would increase rail traffic by 16 trains per day (Eight loaded trains arriving and eight empty trains departing). The study found the increase in rail traffic would increase the emissions of criteria pollutants associated with rail transport. In Cowlitz County, the increase in train traffic would increase the emissions from locomotives by 6 percent overall, with the largest emissions increase from trains for particulate matter, which would increase by 15 percent. In Washington state, for the increased train traffic, the pollutant with the largest increase would be carbon monoxide with a 38 percent increase. None of the emissions levels would exceed the regulatory air pollution limits.

Vessel Traffic

At full operation, the proposed project would add 840 vessels per year (840 empty incoming vessels and 840 loaded outgoing vessels). According to the study, the increase in vessel traffic would increase the emissions of criteria pollutants associated with vessel transport. In Cowlitz County, the increase in vessel traffic would increase the emissions from vessels by 12 percent. The largest emissions increase would be for carbon monoxide and volatile organic compounds, which would increase by over 60 percent each. The study found this would be a substantial increase in emissions from vessels in Cowlitz County, but overall the increase would be less than one percent of the total Cowlitz County carbon monoxide and volatile organic compound emissions. In Washington state, the pollutant with the largest increase from the additional vessel traffic is a 12 percent increase for volatile organic compounds. The study found none of the vessel emissions levels would exceed the regulatory air quality limits.

What can Millennium do to reduce impacts on air quality?

Permits

The following permit would be required for the proposed project:

- Notice of Construction from the Southwest Clean Air Agency

Mitigation Measures

The study did not find significant impacts on air quality that required mitigation. Mitigation for coal dust is described in the Coal Dust Fact Sheet. Mitigation for greenhouse gas emissions is described in the Greenhouse Gas Emissions Fact Sheet.

Where can I find more information?

Chapter 5, Section 5.6, *Air Quality*, of the Draft Environmental Impact Statement (EIS) has detailed information on current conditions, analysis and findings related to the potential impacts of the proposed project on air quality. The following sections of the Draft EIS also include detailed information and analyses relevant to air quality: Chapter 5, Section 5.7, *Coal Dust*, and Section 5.8, *Greenhouse Gas Emissions and Climate Change*.

Additional fact sheets that discuss coal dust and greenhouse gas emissions are also available.

Visit www.millenniumbulkeiswa.gov for more information on the proposed project and the Draft EIS.