

# MILLENNIUM Bulk Terminals—Longview

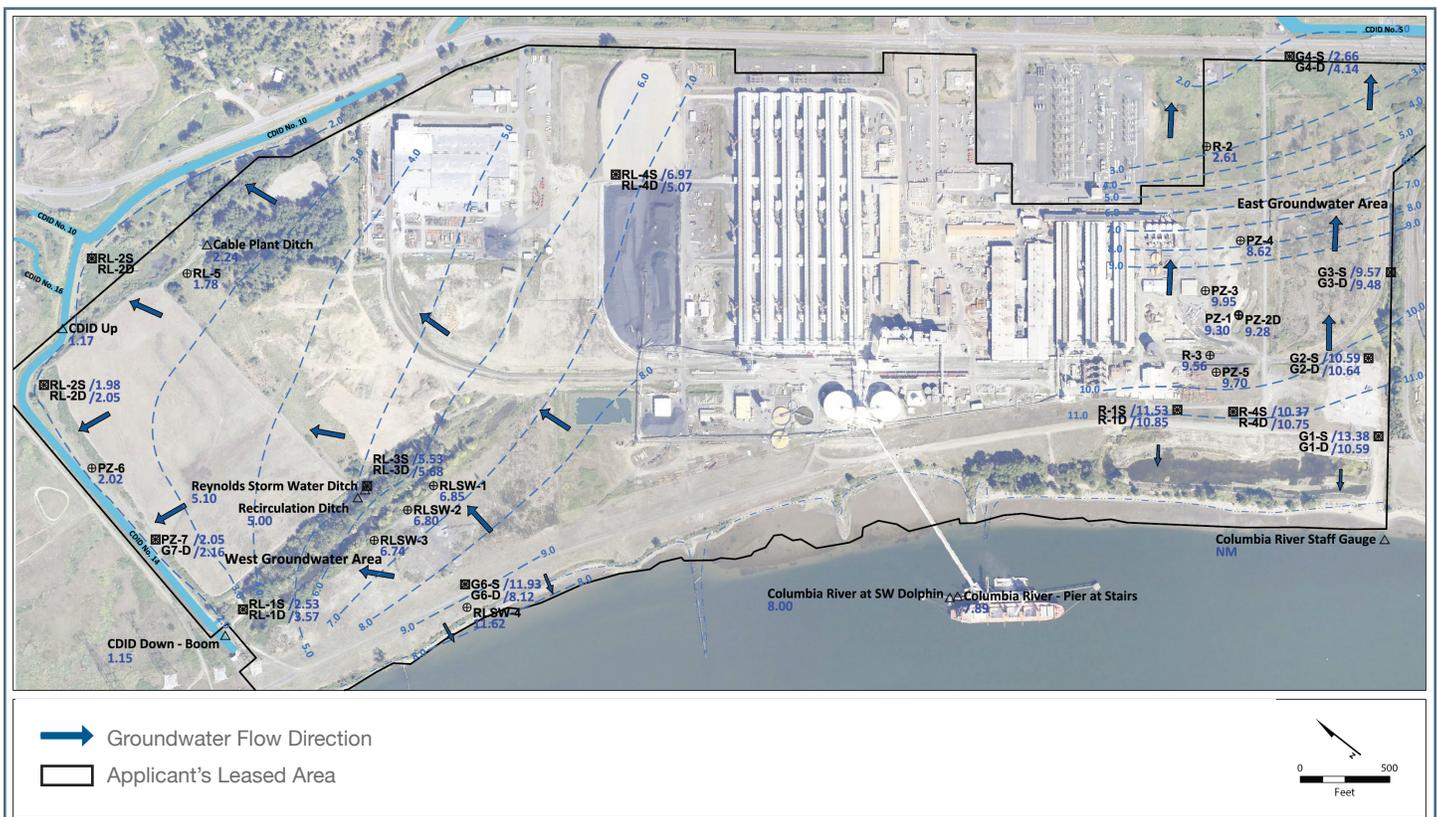
State Environmental Policy Act Draft Environmental Impact Statement



## Groundwater Fact Sheet

Groundwater is the water found beneath the ground surface in soil, sand, and rock. It is stored in, and moves slowly through, geologic formations called aquifers. Groundwater is used for drinking water, irrigation, and industrial uses, and provides water for lakes, rivers, and wetlands.

Beneath the ground surface of the proposed project, a shallow groundwater aquifer exists that discharges to the diking drainage ditch system, which then flows to the Columbia River. This water from the shallow aquifer is not used for drinking water. Beneath the shallow aquifer is a deeper aquifer that discharges to the Columbia River and also flows upward into the shallow aquifer. During the dry season, the proposed project would use wellwater from the deeper aquifer. Millennium has existing water rights that would allow the groundwater to be used for industrial purposes.



Groundwater flows away from the Columbia River within the project area

## What impacts on groundwater were studied?

Construction and operational activities related to the proposed project that could affect groundwater were studied. Activities that could affect groundwater include:

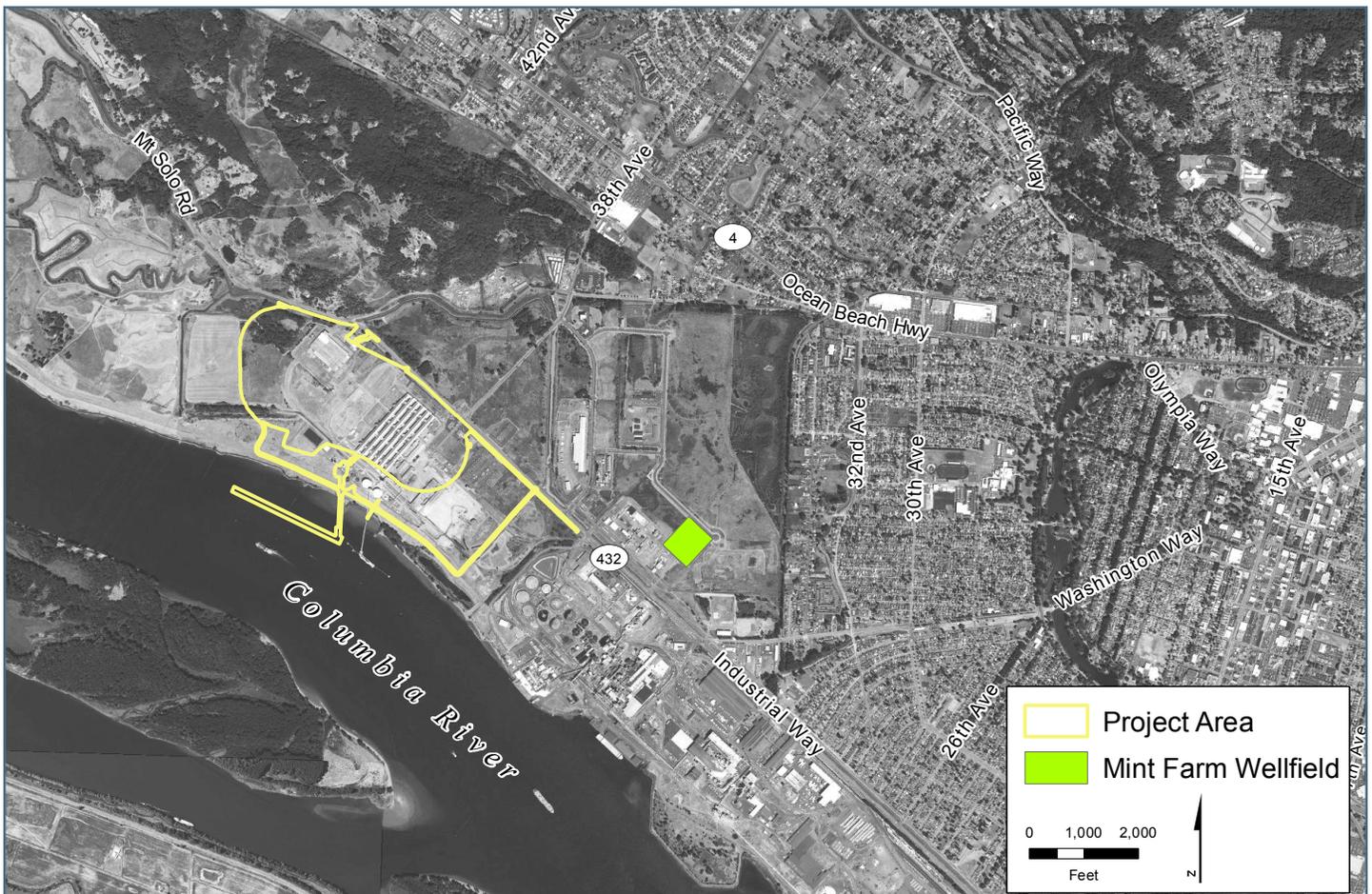
- Using groundwater for dust control and equipment washing during construction and operation.
- Changing the site, disturbing the soils or previously contaminated areas.

This fact sheet is provided as a general overview for public outreach purposes. This summary does not include all aspects of the State Environmental Policy Act (SEPA) analysis. The detailed analysis, data, and findings are in the Draft Environmental Impact Statement (EIS). The Draft EIS is the SEPA document of record for information.

- Changing water runoff patterns and other activities.
- Spills of hazardous materials during construction or operations.

Groundwater contamination from past activities is present at the project area. Pollutants identified in the shallow aquifer include cyanide and fluoride. Cleanup of chemical contamination is following the Washington State Model Toxics Control Act and is being addressed separately from the proposed project.

The study also looks at possible impacts on groundwater at the nearby City of Longview Mint Farm Industrial Park. The project area is within the Mint Farm Wellhead Protection Area. Water from the project area could flow to the drinking water wells.



*The Mint Farm Regional Water Treatment Plant draws water from an aquifer in the area*

## How were impacts on groundwater analyzed?

The study analyzes the potential impacts the proposed project would have on groundwater at the project area and in the local groundwater basin. Information from the pollution cleanup and other relevant groundwater reports was used. The study uses this information to describe groundwater resources at and near the project area. It considers the proposed construction and terminal operations. Next, it identifies potential impacts on groundwater. Finally, the study includes actions that could mitigate or offset the potential impacts.

## How would the proposed project affect groundwater?

### Construction

Construction would involve adding significant weight to many acres of the project area to compact the soil. This would increase pressure on groundwater in the shallow aquifer. Special drainage systems would collect groundwater that would be released from soil compaction. The construction activity would also alter rainwater runoff patterns. A permit would be required to test and treat stormwater prior to discharging it to the Columbia River to meet water quality standards. Water in the shallow aquifer is prevented from moving into the deeper aquifer by a natural barrier.

The study found the amount of groundwater needed for construction and the existing bulk terminal operations would be approximately 6.5% of the amount of water allocated under the existing water rights. The study also found that construction would not significantly affect groundwater supply.

Spills of fuels, chemicals, and other hazardous materials could occur. Based on equipment fuel-tank sizes, the spills would not likely affect groundwater.

### Operations

The study found the amount of groundwater needed for future and existing operations would be less than 10% of the amount of water allocated by existing water rights. This includes water used for dust suppression. The study found that operations would not significantly affect groundwater supply or groundwater recharge. The majority of the area included in the groundwater study is in Zone 2 of the Mint Farm Wellhead Protection Area. Operation of the proposed project likely would not affect the wellfield at the Mint Farm Industrial Park.

In terms of water quality, runoff could pick up pollutants from the ground and affect groundwater through infiltration. Runoff would be collected and treated by a stormwater-treatment system, reducing the potential for impacts on groundwater quality. Coal dust would not likely infiltrate to groundwater. The study found metals and contaminants from coal are not likely to leach into groundwater.

Spills of fuels or hazardous materials could occur from equipment or rail cars. Materials released onto the ground could enter and potentially degrade groundwater quality. Based on typical equipment fuel-tank sizes, the spills would be expected to be small and not likely affect groundwater.

## What can Millennium do to reduce impacts on groundwater?

### Permits and Plans

The following permits and plans would be required for the proposed project:

- Cowlitz County Critical Areas Permit to protect critical aquifer recharge areas.
- Clean Water Act Section 401 Water Quality Certification.
- National Pollution Discharge Elimination System (NPDES) permits for stormwater discharges from construction and operations.

### Mitigation Measures

The study identifies the following mitigation measures to reduce impacts on groundwater:

- Spill response kits will be maintained throughout the project area during construction and operations. Kits will contain equipment needed to quickly clean up spills. If a spill occurs, officials at the Washington Emergency Management Division, Cowlitz County, and the Washington State Department of Ecology will be notified immediately.

## How can the public comment on the Draft Environmental Impact Statement?

There are multiple ways for the public to provide comments. Comments will be accepted during the comment period from April 29 to June 13, 2016.

### By Mail

Millennium Bulk Terminals—Longview SEPA EIS  
c/o ICF International  
710 Second Avenue, Suite 550, Seattle, WA 98104

### Online

At [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov)

### In Person

At a public hearing, orally or in writing

- **May 24, 2016**  
1:00 p.m. to 4:00 p.m. and 5:00 pm to 9:00 pm  
Cowlitz County Regional Conference Center  
1900 7th Avenue  
Longview, WA 98632
- **May 26, 2016**  
1:00 p.m. to 4:00 p.m. and 5:00 pm to 9:00 pm  
Spokane Convention Center  
334 W Spokane Falls Boulevard  
Spokane, WA 99201
- **June 2, 2016**  
1:00 p.m. to 4:00 p.m. and 5:00 pm to 9:00 pm  
TRAC Center  
6600 Burden Boulevard  
Pasco, WA 99301

## Where can I find more information?

Chapter 4, Section 4.4, *Groundwater*, of the Draft Environmental Impact Statement (EIS) has detailed information on current conditions, the analysis, and findings related to the potential impacts of the proposed project on groundwater. The following sections of the Draft EIS also include detailed information and analyses relevant to groundwater: Chapter 3, Section 3.6, *Hazardous Materials*; Chapter 4, Section 4.5, *Water Quality*; and Chapter 5, Section 5.7, *Coal Dust*.

Additional fact sheets that discuss hazardous materials, water quality and surface water, and coal dust are also available.

Visit [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov) for more information on the proposed project and the Draft EIS.