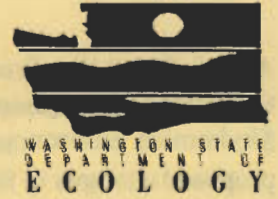


Site Cleanup Status: Burlington Northern Santa Fe Railway - Skykomish



Former Maintenance and Fueling Facility

Site background

The former railroad maintenance and fueling facility in the east King County town of Skykomish opened in the late 1890s and is now owned and operated by the Burlington Northern and Santa Fe (BNSF) Railway Company. Historical activities, including refueling and maintaining locomotives, and providing electricity for electric engines, resulted in the release of contaminants to the surrounding environment. BNSF has accepted responsibility for cleaning up contaminants at the site.

Investigations performed by BNSF in cooperation with the Washington Department of Ecology (Ecology) since 1993 have revealed petroleum contamination in soils and groundwater at the site that exceed state standards. The contamination has migrated beyond the railroad property and has been found underneath homes and businesses in Skykomish.

In addition, the investigation found lead, arsenic and polychlorinated biphenyls (PCBs) in soils at the rail yard to a depth of approximately six inches — these impacts appear to be limited to the rail yard and do not extend off of BNSF property.

Petroleum is a known environmental toxin above certain concentrations and some components are known human carcinogens. BNSF and Ecology are working with the local community to ensure all exposure pathways are evaluated and the site is cleaned up. One primary concern is that petroleum is seeping from contaminated groundwater directly into the Skykomish River.

Based on available current data, the site contamination consists of the following:

Soils — Surface soils on the rail yard contain petroleum (diesel and Bunker C fuel), lead, arsenic and PCBs above state cleanup standards. In some areas of the site, including areas off the rail yard, subsurface soils contain petroleum and its components (e.g., polynuclear aromatic hydrocarbons or PAHs) to an approximate 15-foot depth.

Groundwater — Both floating and dissolved petroleum products are present in groundwater beneath the site and at the Skykomish River at levels greater than allowed under state law. The estimated volume of petroleum is approximately 160,000 gallons.

Surface Water — Petroleum products from upland areas are seeping into the river.

Sediments — Petroleum and PAHs are present in sediments along the riverbank at seep locations.

Feasibility study being revised and prepared for public comment

BNSF submitted a Remedial Investigation report (RI) in 1996. This study provides baseline data about soil, groundwater, surface water, air and river sediments throughout the site that will be used to develop cleanup options that are physically, economically, socially and scientifically feasible. For nearly a year, Ecology and BNSF have been working toward completing a document called the Feasibility Study (FS). This document includes a summary of investigation work as well as an evaluation of cleanup alternatives for the site.

A draft Feasibility Study is currently being re-written by BNSF to incorporate comments from Ecology, the Skykomish Environmental Coalition (SEC), and proposed changes to the state Model Toxics Control Act regulation. The study is being updated because a number of data gaps were identified and must be addressed before final cleanup decisions can be made. These data gaps include:

- Completion of biological sediment sampling.
- Evaluation of the vapor pathway in accordance with proposed changes to MTCA regulations.
- Supplemental soil and/or sediment sampling in the former Maloney Creek channel area.

Each sampling activity requires an Ecology-approved sampling and analysis plan. These plans are currently being developed between BNSF for Ecology's approval.

Once completed, the draft Feasibility Study, along with the 1996 RI, will be available for public review and comment.

Actions taken this year

During this year, 123 gallons of petroleum products were removed from the extraction wells located near the Skykomish River. Since 1996, BNSF has removed 755 gallons from these wells. Containment booms and absorbent pads were periodically maintained during periods of low water where petroleum has historically been observed seeping in the river. A dust suppressant was applied to uncovered areas of the rail yard to lower air-borne exposure to metals and PCBs.

Skykomish Environmental Coalition members collected cancer information last spring – specifically the types of cancers that have occurred in Skykomish since the 1980s. Ecology asked Public Health – Seattle & King County to review the information. Public Health determined that the data “did not point to any unusual pattern of occurrence of cancer” and that “it is extremely unlikely they all arose from a common environmental exposure.”

New site manager; proposed changes in regulations

In January 2000, Ecology assigned a new lead to oversee the BNSF site. It took several months for the new site manager to become familiar with all the site issues. Also this year, Ecology proposed a number of substantive changes to state cleanup regulations, including changes to cleanup action levels for petroleum. These changes include new investigation requirements for certain contaminants and potential exposure pathways. The cleanup levels for petroleum will affect cleanup decisions at the BNSF site and may require additional data about the soil, groundwater and product floating in groundwater. Computer models have been developed that predict how much petroleum can be left behind and still be protective of human health and the environment. Ecology and BNSF are currently reviewing these models to calculate appropriate cleanup levels.

Next steps

Once the revised draft Feasibility Study has been completed, the public can review it and provide their comments, ideas, suggestions and other input during a formal 30-day comment period required by state law. Ecology will take comments into consideration and make substantive changes, if necessary.

Ecology will also compile a formal responsiveness summary that addresses all the comments provided. Following its approval of the Feasibility Study, Ecology will choose appropriate cleanup remedies and incorporate them in a formal Cleanup Action Plan (CAP) and consent decree. The consent decree is a legal document between Ecology and BNSF that establishes their rights and obligations.

The final cleanup action plan will contain cleanup details, cleanup levels and points of compliance where BNSF must achieve cleanup. All work must be conducted under the legal framework of the consent decree. The CAP and the consent decree will also be available for public comment. While the Feasibility Study is being revised, Ecology and BNSF will continue working toward a cleanup action.

Ecology has requested additional sediment sampling. BNSF has agreed to complete this sampling and analysis as soon as river conditions are appropriate. The work plan must be approved by Ecology.

BNSF will continue to collect product from extraction wells, to maintain the containment booms and absorbent pads in the river, when accessible, and to maintain a dust suppressant during the dry months until a final remedy is in place.

Opportunities for public input

Under state law, anyone can provide input during the formal 30-day public comment period. The public can also provide comments, ideas, suggestions and concerns on a daily informal basis through the Skykomish Environmental Coalition (SEC), Ecology and a BNSF representative. Two environmental consultants have been retained by the SEC through a Public Participation Grant, provided by Ecology, to help educate and inform the community about the technical aspects of the project. BNSF has retained Jennifer Kauffman of EnviroIssues who will be coordinating a community outreach program with Ecology.

For more information

If you have questions or comments about the site cleanup, please contact Ecology's site manager or the SEC representative listed below:

Louise Bardy

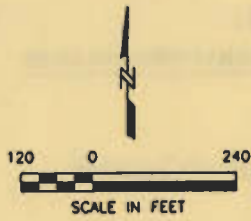
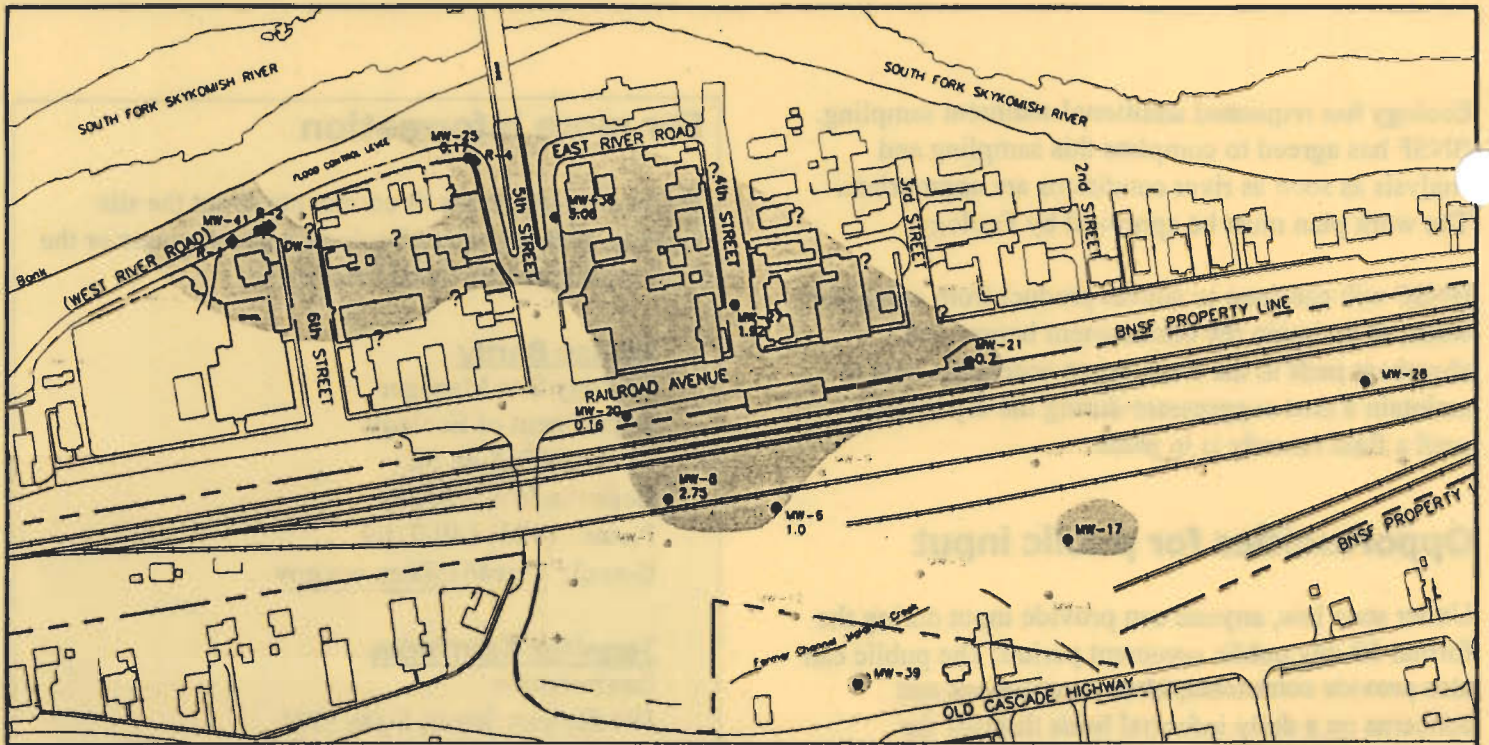
Ecology Site Manager
Department of Ecology
3190 160th Ave. SE
Bellevue WA 98008
Phone: (425) 649-7209
E-mail: lbar461@ecy.wa.gov

Jennifer Kauffman

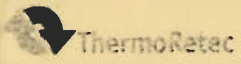
EnviroIssues
101 Stewart Street, Suite 1101
Seattle WA 98101
Phone: (206) 269-5041
E-mail: jkauffman@enviroissues.com

Michael Moore

Skykomish Environmental Coalition
PO Box 193
Skykomish WA 98288-0193
Phone: (360) 677-2410



| LEGEND | |
|--------|---------------------------|
| ● MW-4 | MONITORING WELL LOCATION |
| ◆ DW-4 | DEEP WELL LOCATION |
| ■ R-2 | RECOVERY WELL |
| ■ | AREAS OF LNAPL OCCURRENCE |



BNSF
SKYKOMISH, WASHINGTON
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**ESTIMATED AREA OF FREE PRODUCT
IN GROUNDWATER**

FIGURE 1