

FACT SHEET FOR BN WHITEFISH FUELING FACILITY – September 2009

Facility Description

The BN Whitefish Fueling Facility is ranked a high priority on Montana's Comprehensive Environmental Cleanup and Responsibility Act (CECRA) priority list. The Facility is an active, approximately 90-acre locomotive fueling and repair facility which, has operated since the early 1900s. The Facility had three separate fueling areas: a freight fueling area west of the highway overpass and two passenger fueling areas east of the overpass on either side of the depot, known as the east and west passenger fueling areas. Three wastewater lagoons are located in the freight fueling area. Railroad operations, spills, leaks, and other improper disposal at the fueling facilities as well as oily discharges to the wastewater lagoons caused soil and shallow groundwater contamination with petroleum products, polynuclear aromatic hydrocarbons (PAHs - organic contaminants containing benzene, a known carcinogen or cancer-causing substance), volatile organic compounds (VOCs - chemical compounds containing carbon that evaporate or vaporize readily), and heavy metals. Contamination originating at the Facility has entered Whitefish River water and sediments.

Current Site Status

BNSF Railway Company (BNSF) is continuing implementation of the pilot test project to recover additional petroleum product through the microwell recovery system. DEQ and BNSF are working to complete the remedial investigation and begin the feasibility study.

In the summer of 2009, BNSF began removal activities in the Whitefish River adjacent to the Facility under an Administrative Order from the U.S. EPA under the Oil Pollution Act. Activities under this order have included investigation of contamination in the river and in soil between the interceptor/recovery trench and the river bank. Cleanup of river sediments under the oversight of EPA are scheduled to begin in late September 2009.

Also in the summer of 2009, the City of Whitefish obtained a \$50,000 grant from the Montana Department of Natural Resources and Conservation to conduct additional soil and groundwater contamination investigations outside of the Facility boundaries. The City plans to start sampling in the fall of 2009.

The cleanups conducted to date have been interim measures taken to limit exposure to areas containing the highest concentrations of contamination. A comprehensive cleanup needs to be conducted in the future. Completion of the remedial investigation and feasibility study by BNSF will allow DEQ to select a final remedy for the Facility that will ensure protection of human health and the environment in the long term.

Identified Contamination

BNSF's investigations have identified the following contaminants that have been released to the environment at the Facility: diesel fuel; bunker "C" fuel (a heavier than diesel

liquid hydrocarbon); VOCs, primarily trichloroethene (a solvent); PAHs – which are present in fossil fuels, fuel spills and are also formed by the incomplete combustion of carbon fuels; polychlorinated biphenyls (PCBs – which are typically used as coolants and insulating fluids for transformers and capacitors and as a pesticide extender); and heavy metals including antimony, arsenic, cadmium, chromium, lead, nickel and zinc. Former locomotive fueling spills resulted in diesel and bunker “C” fuels in soil and groundwater at the Facility. The specific sources of VOCs and PCBs have not yet been definitively identified. The heavy metal contamination has been attributed to railcar wheel bearings and railcar repair activities.

Interim Remedial Actions

An interceptor/recovery trench was installed near the Whitefish River in 1973 and has been in operation since that time collecting and routing groundwater with petroleum product to an oil/water separator and lagoon system for treatment. Trench repair and improvement work in 1997 included a 100-foot extension of the east leg of the trench.

In 1988, an additional recovery trench network with associated recovery wells was constructed in the Freight Locomotive Fueling (FLF) area. This system initially recovered petroleum product; however, volumes diminished over time and BNSF ceased operation of the system.

Several monitoring wells have been utilized for free product recovery by use of motorized skimmers and hand bailing. Field testing of product recoverability initiated in April 2006 has continued into 2009 resulting in additional removal of petroleum from groundwater beneath the Facility. In late 2008, a pilot test was implemented with the installation of a microwell recovery system in the vicinity of existing recovery wells. The goal of this action is to increase the rate of petroleum retrieval. As of September 2008, there have been approximately 15,477 gallons of petroleum product (primarily diesel fuel) recovered at the facility. It is estimated that there is an additional 23,000 to 110,000 gallons of petroleum product remaining in site soils and groundwater.

In addition to the above petroleum cleanup actions, there have been interim actions taken to cleanup some contaminated solid media at the Facility. In 1992, BNSF thermally treated approximately 5,900 tons of soil generated from the construction of the new fueling facility installed at the railyard. Also in 2005, BNSF removed an area of identified lead and antimony soil contamination.

Site Operational History

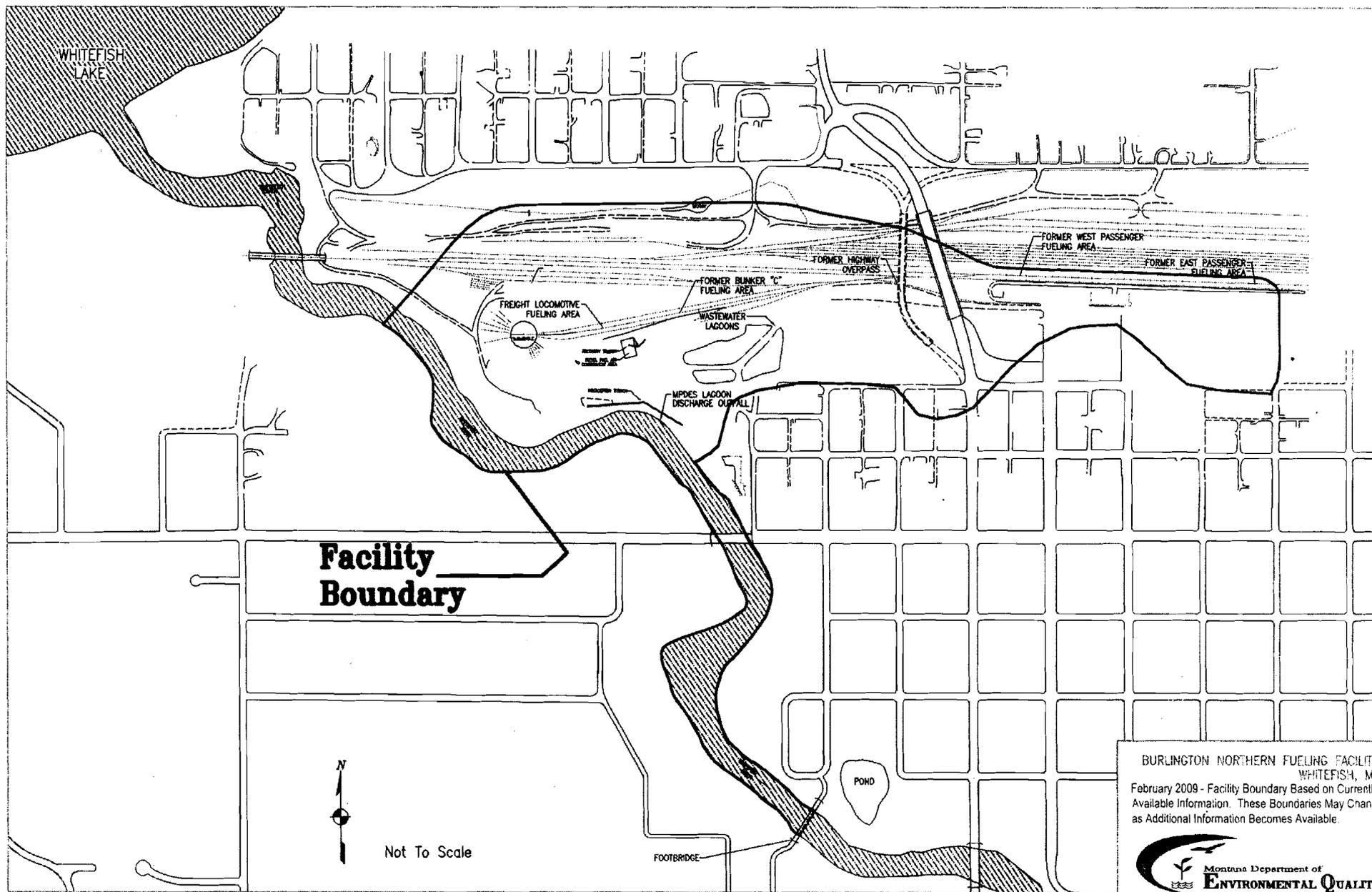
The railyard was constructed in 1903 and 1904. A roundhouse and associated shops have reportedly been in operation at Whitefish since their construction in 1904. Locomotive maintenance and repairs were done at these shops until 1958, at which time major repair activities were transferred to other BN facilities. The roundhouse shops were removed in 1981, and only minor maintenance is presently performed at the railyard.

Coal, wood, or heavy bunker oil was used to fire the steam locomotives in Montana until the mid-1930s, when railroads began using diesel-fired switcher engines. Bunker "C" and similar heavy fuel oil products were dispensed in a former fueling area. The use of diesel road engines began in the 1940s. Three diesel fueling areas were constructed at the facility during this period: the FLF area (northeast of the roundhouse shops), the West Passenger Fueling (WPF) area (west of the existing depot), and the East Passenger Fueling (EPF) area east of the depot. The FLF is presently operational and was reconstructed in 1999. Fueling area improvements included the installation of a concrete platform with subgrade secondary containment liner, leak detection equipment, and a new fuel dispensing system. The WPF and EPF areas were closed in the early 1980's in response to the decrease in passenger rail service.

A lagoon system designed to contain and treat oily wastewater at the railyard was constructed in the 1960s. The system was designed to treat wastewater generated in the roundhouse and at track pans that were installed around 1970. The wastewater system drained to a concrete oil/water separator. Recovered oil was shipped offsite for recycling. The water from the oil/water separator was discharged to a series of three lagoons located east of the roundhouse. The three lagoons were significantly upgraded in 1998. Upgrade activities included regrading the existing lagoon system, installing a subdrain system, and lining each lagoon with a high-density polyethylene (HDPE) geomembrane. In August 1995, DEQ sent BNSF a letter notifying it of its status as a potentially liable person for the Facility. In 1998, DEQ determined BNSF was liable for cleanup at the Facility and issued a Unilateral Administrative Order requiring BNSF to conduct a remedial investigation and feasibility study.

For more information

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BURLINGTON NORTHERN FUELING FACILITY
 WHITEFISH, MT
 February 2009 - Facility Boundary Based on Currently
 Available Information. These Boundaries May Change
 as Additional Information Becomes Available.



**Facility
 Boundary**



Not To Scale

FOOTBRIDGE

POND

WHITEFISH
 LAKE

FREIGHT LOCOMOTIVE
 FUELING AREA

FORMER BUNKER C
 FUELING AREA

WASTEWATER
 LAGOONS

MPDES LAGOON
 DISCHARGE OUTFALL

FORMER HIGHWAY
 OVERPASS

FORMER WEST PASSENGER
 FUELING AREA

FORMER EAST PASSENGER
 FUELING AREA