

## Coal Dust Pollution in the Columbia River Gorge National Scenic Area

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Burlington Northern Santa Fe Railway (BNSF) transports coal by rail through the Columbia River Gorge National Scenic Area in open-topped coal cars. Three to four trains, each more than one mile-long, travel from the Powder River Basin (PRB) in Wyoming and Montana through the Columbia River Gorge every day. Coal discharged from nearly every coal train from the PRB pollutes lands and waters in the Columbia River Gorge. In some places, like Columbia Hills State Park in Klickitat County, coal accumulations is several inches deep on the shoreline of the Columbia River. If the Millennium Bulk Terminal proposed in Longview, Washington is built, an additional eight loaded coal trains with open coal cars would travel through the Gorge, further polluting the National Scenic Area, the Columbia River and its tributaries with toxic coal. The photos below focus on Columbia Hills State Park, just one of many sites in the Columbia River Gorge that is continuously polluted with dust and debris from passing BNSF coal trains. These photos demonstrate that the transport of coal in open rails cars has polluted and will continue to pollute the Columbia River Gorge despite the application of surfactant at the PRB mines and the installation of a surfactant re-spray facility in Pasco, Washington.



**July, 2012** - Coal dust flies off a BNSF coal train into the Columbia River at Columbia Hills State Park.

Photo: Julie Coop



**Early 2013** – A thick layer of coal debris covered the soil in an area east of the boat launch at Columbia Hills State Park. Photo: Friends of the Columbia Gorge



**March 25, 2013** - Coal debris deposited from passing coal trains on the BNSF rail line is several inches thick along Columbia River at Columbia Hills State Park. Photo: Friends of the Columbia Gorge



**March 25, 2013** - Coal debris adjacent to BNSF's railroad track along the banks of the Columbia River at Columbia Hills State Park. The U.S. Surface Transportation Board declared that coal is a "pernicious ballast foulant" that destabilizes railroad tracks and leads to more accidents.

<http://www.troutmansandersenergyreport.com/wp-content/uploads/2011/03/Coal-Dust.pdf>

Photo: Friends of the Columbia Gorge



**August 21, 2013** - Coal several inches deep from passing coal trains on the banks of the Columbia River has replaced the soil at Columbia Hills State Park. Nothing grows here but a few invasive weeds. Coal blows directly into the Columbia River in violation of the Clean Water Act. Friends of the Columbia Gorge and its allies are currently suing BNSF for unpermitted discharge of coal into the Columbia River and other water bodies in Washington State. Photo: Friends of the Columbia Gorge

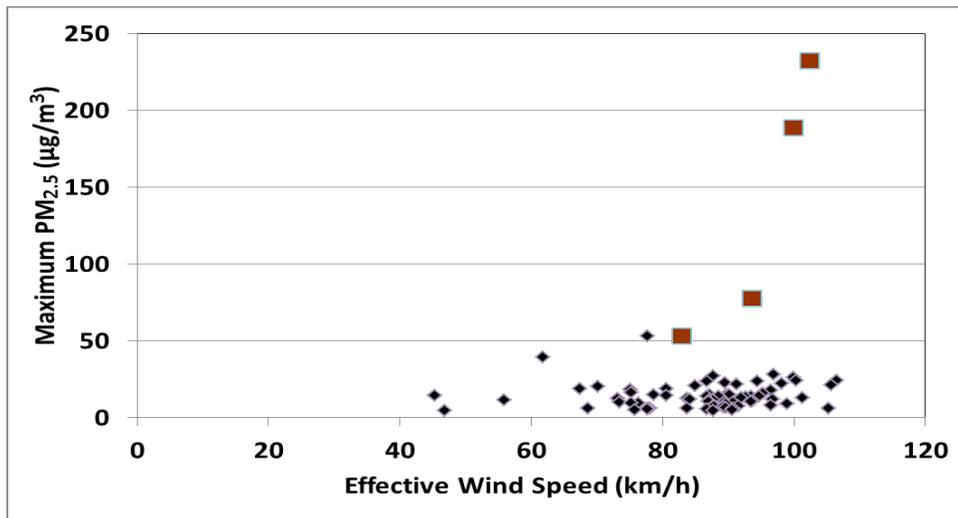
**November 2015** – Dr. Dan Jaffe published a report titled “Diesel particulate matter and coal dust from trains in the Columbia River Gorge, Washington State, USA” in the Atmospheric Pollution Journal. This report monitored coal dust in the Columbia River Gorge on the BNSF rail line during the summer of 2014. The report found that nearly every coal train emits coal dust; coal trains emit double the PM 2.5 concentrations compared to other freight trains; 5.4% of coal trains emit thick clouds of coal dust; and 10.3% emit visible clouds of coal dust when the effective wind speed (the sum of the wind speed and the speed of the train) exceeds 90 kph (56 mph).

[http://www.atmos.washington.edu/jaffegroup/modules/APOLLO/Jaffe\\_DPM\\_coal\\_dust\\_trains\\_ColumbiaRivGorge\\_2015.pdf](http://www.atmos.washington.edu/jaffegroup/modules/APOLLO/Jaffe_DPM_coal_dust_trains_ColumbiaRivGorge_2015.pdf)



Summer 2014 - Thick plume of coal dust blows off a BNSF coal train in the Columbia River Gorge.

[http://www.atmos.washington.edu/jaffegroup/modules/APOLLO/Jaffe\\_Video\\_Coal\\_train\\_Aug7\\_2014.mp4](http://www.atmos.washington.edu/jaffegroup/modules/APOLLO/Jaffe_Video_Coal_train_Aug7_2014.mp4)



One in ten coal trains emits visible plumes of coal dust at effective speeds of 90 kph (56 mph) or more.



**January, 2015** - BNSF began operating a re-spray facility in Pasco due to the failure of the surfactant sprayed on coal cars at the mines in the Powder River Basin to control coal dust and debris. The Tri-City Herald Newspaper also reports that BNSF treats coke trains at the facility.

<https://www.youtube.com/watch?v=EYpYOfMFBAI>



**May 22, 2015** – Hikers at Columbia Hills State Park on the trail to the iconic petroglyph “Tsagaglala” (She Who Watches) witnessed and photographed this passing train with black clouds of coal or coke blowing on to the state park and the Columbia River. According to the Tri-City Herald, BNSF sprays both coal and coke trains in Pasco. <http://www.tri-cityherald.com/news/local/article80608512.html>



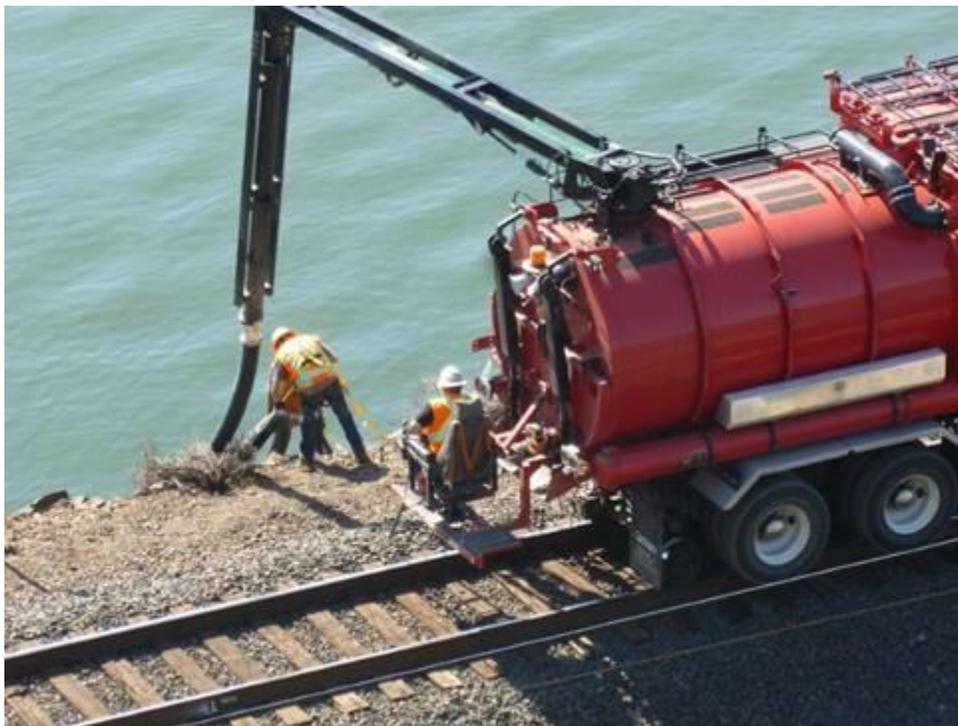
**May 22, 2015** – These photos of a BNSF train with what appears to be coal blowing off of coal hoppers into the Columbia River at Columbia Hills State Park several months *after* the Pasco re-spray facility became operational. Photo: Laura Foster



**April 2016** – Coal dust vacuum truck at Columbia Hills State Park.



**April 25, 2016** - BNSF vacuum truck removing coal debris from the banks of the Columbia River at Columbia Hills State Park. Photo: Mary Ann Teague



**April 25, 2016** - BNSF contractors use a vacuum truck to attempt to remove coal debris along the BNSF track and the shoreline of the Columbia River near Horsethief Butte at Columbia Hills State Park in the Columbia River Gorge. Photo: Mary Ann Teague



**April, 2016** –Photo: Friends of the Columbia Gorge



**April, 2016** - The two photos above show the area directly east of the boat launch site at Columbia Hills State Park that had been recently vacuumed of coal dust and debris that routinely blows off of passing coal trains. There is still some coal dust visible in the photo. Photo: Friends of the Columbia Gorge



**May 17, 2016** - BNSF vacuum truck prepares to transfer coal that was removed from the shoreline of the Columbia River to a truck for transport to the Roosevelt Regional Landfill. This site is located adjacent to the boat launch at Columbia Hills State Park. Photo: Friends of the Columbia Gorge



**May 17, 2016** – Area adjacent to the boat launch, Columbia Hills State Park. Photo: Friends of the Columbia Gorge



**May 17, 2016** – The three photos above show coal dust and debris accumulation in an area previously vacuumed by BNSF at Columbia Hills State Park, adjacent to the public boat launch. Coal continues to be discharged from BNSF coal trains despite the re-spray facility in Pasco, Washington that has been in operation since January 2015. Photo: Friends of the Columbia Gorge