

20 year summary

Year	2012	2013	1 2014	2 2015	3 2016	4 2017	5 2018	6 2019	7 2020	8 2021	9 2022	10 2023	11 2024	12 2025	13 2026	14 2027	15 2028	16 2029	17 2030	18 2031	19 2032	20 2033	21 2034	22 2035	
containers			12,480	24,960	24,960	24,960	24,960	24,960	49,920	49,920	49,920	49,920	49,920	99,840	99,840	99,840	99,840	99,840	99,840	99,840	99,840	99,840	99,840	124,800	
tons @ 20 Tons / 40 foot container			249,600	499,200	499,200	499,200	499,200	499,200	998,400	998,400	998,400	998,400	998,400	1,997,600	1,997,600	1,997,600	1,997,600	1,997,600	1,997,600	1,997,600	1,997,600	1,997,600	1,997,600	2,496,000	
Construction costs			-867,2684	-867,2684																					
Land cost			-250000																						
Maintenance costs(% year)				-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	

Reduced operating costs to cargo owner to use Rail vs. Truck
 Rail vs truck transportation rate per ton mile (\$0.071* ton miles) \$ 0.071 per ton mile \$ 653,927 \$1,307,854 \$ 1,307,854 \$1,307,854 \$1,307,854 \$ 1,307,854 \$ 2,615,708 \$ 2,615,708 \$ 2,615,708 \$ 2,615,708 \$ 3,923,562 \$ 3,923,562 \$ 3,923,562 \$ 3,923,562 \$ 3,923,562 \$ 5,231,416 \$5,231,416 \$ 5,231,416 \$ 5,231,416 \$ 60,815,215 \$ 121,630,429
Calculation - Truck Rate (\$0.10) - Rail Rate (\$0.029) x Average Tons per Truck (20) x Distance x (The estimated annual number of truck trips shifting to rail as a result of the project).
Reference: WSDOT Cost Benefit Study

Gallons of fuel saved
Metric Tons of CO2 Saved (trucks)

annual truck miles saved (average of 738 mile to PNW ports)			9,210,240	18,420,480	18,420,480	18,420,480	18,420,480	18,420,480	36,840,960	36,840,960	36,840,960	36,840,960	36,840,960	55,261,440	55,261,440	55,261,440	55,261,440	55,261,440	73,681,920	73,681,920	73,681,920	73,681,920	73,681,920	856,552,320
Annual Metric tons off trucks			249,600	499,200	499,200	499,200	499,200	499,200	998,400	998,400	998,400	998,400	998,400	1,497,600	1,497,600	1,497,600	1,497,600	1,497,600	1,996,800	1,996,800	1,996,800	1,996,800	1,996,800	1,996,800
Truck miles / 100 million			0.092	0.184	0.184	0.184	0.184	0.184	0.368	0.368	0.368	0.368	0.368	0.553	0.553	0.553	0.553	0.553	0.737	0.737	0.737	0.737	0.737	0.737

Safety factors	2.1 Fatalities / 100 million miles traveled
FataltiesMT 2.01/ 100 million MilesTraveled	2.1 Fatalities / 100 million miles traveled
	0.0458 0.0916 0.0916 0.0916 0.0916 0.0916 0.0916 0.1833 0.1833 0.1833 0.1833 0.1833 0.1833 0.2749 0.2749 0.2749 0.2749 0.2749 0.2749 0.3666 0.3666 0.3666 0.3666 0.3666 4.3
Fatalities saved \$6,200,000	\$6,200,000 per fatality
	\$ 284,097 \$ 568,194 \$ 568,194 \$ 568,194 \$ 568,194 \$ 568,194 \$ 568,194 \$ 1,136,388 \$ 1,136,388 \$ 1,136,388 \$ 1,136,388 \$ 1,136,388 \$ 1,704,582 \$ 1,704,582 \$ 1,704,582 \$ 1,704,582 \$ 1,704,582 \$ 2,272,776 \$ 2,272,776 \$ 2,272,776 \$ 2,272,776 \$ 2,272,776 26,421,016.8 \$ 26,421,017

Road Maintenance Costs Saved by using Rail

Avoided Maintenance Costs - By diverting trucks off the roadways and onto the railroads, the public can benefit from reductions in highway maintenance costs. The value of every truck mile diverted (rail volumes diverted to truck if project does not happen) is \$0.12.
 \$0.12 cost/ per mile diverted off roads \$ 1,105,229 \$2,210,458 \$ 2,210,458 \$2,210,458 \$2,210,458 \$ 2,210,458 \$ 4,420,915 \$ 4,420,915 \$ 4,420,915 \$ 4,420,915 \$ 6,631,373 \$ 6,631,373 \$ 6,631,373 \$ 6,631,373 \$ 6,631,373 \$ 8,841,830 \$8,841,830 \$ 8,841,830 \$ 8,841,830 \$ 102,796,278
Calculation - Total length of truck mileage averted per one way trip x Number of trucks (1 truck = 20 tons of freight) per year x \$0.12
Reference: WSDOT Cost Benefit

Environmental Costs Saved by using Rail

Metric Tons of CO2 Saved (trucks vs rail)
Avoided CO2 by diverting trucks off the roadways onto rail, the public can benefit from reductions in CO2 production from reduction in fuel usage
fuel saved rail vs truck
gal used if trucked at 6.5 mpg (truck miles/ 6.5 miles per gal BNSF Carbon Calculator
gal used if railed at 26 mpg
savings in gallons of fuel saved by using rail
Metric tons of CO2 saved -using rail vs. trucks ((fuel saved x 23.4 lbs per gal)/2205 lbs per ton). Pounds of CO2 per gallon of fuel as determined by EPA.
11278 22556 22556 22556 22556 22556 22556 45111 45111 45111 45111 45111 45111 67667 67667 67667 67667 67667 90223 90223 90223 90223 90223
\$ 1,048,840

CO2 revised in final Summary due to new guidance from USDOT see CBA summary for revised cost rate/ year \$14 \$ 157,890 \$ 315,780 \$ 315,780 \$ 315,780 \$ 315,780 \$ 315,780 \$ 631,559 \$ 631,559 \$ 631,559 \$ 631,559 \$ 631,559 \$ 947,339 \$ 947,339 \$ 947,339 \$ 947,339 \$ 947,339 \$ 1,263,119 \$1,263,119 \$ 1,263,119 \$ 1,263,119 \$ 14,683,754

GAL of fuel saved