

ESTIMATED CAPITAL and O&M COSTS at LUSTED HIL		
	Fluorosilicic Acid	Sodium
Capital Cost¹	\$4,950,000	\$5,1
Average Annual O&M Cost		
Fluoride Chemical Cost /lb product ² (Chemical Supplier Quote)	\$0.38 (\$0.44)	\$ (0)
Cost/lb of Fluoride (Chemical Supplier)	\$2.11 (\$2.44)	\$ (\$)
Average Annual Fluoride Chemical Cost³	\$445,000	\$33
Additional Caustic ⁴	\$55,000	
O&M Staff ⁵	\$50,000	\$10
Power	\$25,000	\$2
Total Annual O&M	\$575,000	\$45
Average Usage, Storage and Delivery Requirements		
Average Flow, mgd	101	
Fluoride Dose, mg/L	0.7	
Daily Chemical Usage	326 gpd (3240 ppd)	133
Number of 50# Bags / day (Number of 1-ton Supersacks /day)	NA	(
Days Storage Required ⁶	30	30
Storage Quantity	10,000 gal	40,000 lbs (20 tons)
Shipping Container	Bulk tank car	50# bags
Shipping Volume	4500 gal	20 tons (1 ton pallets, 40 bags/pallet)
Delivery Frequency	2 per month	1 per month

Notes:

- Capital costs are for treatment of Bull Run source only. Fluoride not required at Columbia South Shore Wellfield unless groundwater is used on a sea. Capital costs for sodium fluoride and sodium fluorosilicate include space for 60 days storage. Capital costs are 2012 dollars.
- Chemical cost based on survey of area utilities. A recent quote from a local chemical supplier is provided for comparison.
- Average annual fluoride costs based on an average flow of 101 MGD, fluoride dose of 0.7 mg/L, and chemical cost from area utilities.