

Attachment 3: Creek Daylighting - Construction Cost Estimate

Option	Description	Length of stream			Tons Excavated	Clearing & Grubbing	Remove Asphalt & Gravel	Earthwork & Soil Dewatering (1)	Material Transport Disposal (2)	Channel Grading	Cobbles (3)	Turf Reinforcing Mat (4)	Initial Hydroseed	Monitoring & Restoration	Infrastructure Costs		Construction Management & survey	Contingency	Total
		Linear Ft	Width	Depth											Yards	\$5000/acre			
A	Daylight Maple Creek to Pond 8	1,025	80	15	68,333	\$ 9,425	\$ 328,000	\$ 1,025,000	\$ 1,708,333	\$ 20,500	\$ 24,600	\$ 46,125	\$ 8,200	\$ 20,500	\$ 120,000	\$ 750,000	\$ 527,889	\$ 609,103	\$ 5,197,675
B	Daylight Maple Creek through Beach Berm to Ocean	2,700	80	15	180,000	\$ 24,828	\$ 432,000	\$ 2,700,000	\$ 4,500,000	\$ 54,000	\$ 64,800	\$ 121,500	\$ 21,600	\$ 54,000	\$ 120,000	\$ 750,000	\$ 1,149,555	\$ 1,326,409	\$ 11,318,691
C	Daylight Maple Creek and Alder Creek through Beach Berm to Ocean	3,331	80	15	222,067	\$ 30,630	\$ 608,680	\$ 3,331,000	\$ 5,551,667	\$ 66,620	\$ 79,944	\$ 149,895	\$ 26,648	\$ 66,620	\$ 120,000	\$ 1,500,000	\$ 1,499,121	\$ 1,729,756	\$ 14,760,581
D	Daylight Alder Street Creek through Beach Berm to Ocean	1,900	80	15	126,667	\$ 17,471	\$ 304,000	\$ 1,900,000	\$ 3,166,667	\$ 38,000	\$ 45,600	\$ 85,500	\$ 15,200	\$ 38,000	\$ 120,000	\$ 750,000	\$ 842,457	\$ 972,066	\$ 8,294,961
E	Daylight Alder & Maple Creek to Estuary	3,331	Variable		585,031	\$ 64,847	\$ 608,680	\$ 8,775,458	\$ 33,167,231	\$ 141,043	\$ 99,144	\$ 317,346	\$ 56,417	\$ 141,043	\$ 120,000	\$ 1,500,000	\$ 5,848,857	\$ 6,748,681	\$ 57,588,746
F	Daylight Alder Creek to Mill Pond	850	80	15	56,667	\$ 7,816	\$ 136,000	\$ 850,000	\$ 1,416,667	\$ 17,000	\$ 20,400	\$ 38,250	\$ 6,800	\$ 17,000	\$ 120,000	\$ 750,000	\$ 439,391	\$ 506,990	\$ 4,326,314
Other	Create Estuary	800	380	25	422,222	\$ 34,943	-	\$ 6,333,333	\$ 16,888,889	\$ 76,000	\$ 19,200	\$ 171,000	\$ 30,400	\$ 76,000	\$ 120,000	\$ 1,500,000	\$ 3,282,469	\$ 3,787,465	\$ 32,319,699
Other	Daylight Alder Creek to Maple Creek	631	70	15	36,808	\$ 5,077	\$ 176,680	\$ 552,125	\$ 920,208	\$ 11,043	\$ 15,144	\$ 24,846	\$ 4,417	\$ 11,043	\$ 120,000	\$ 1,500,000	\$ 434,276	\$ 501,087	\$ 4,275,945
G	Fill Mill Pond and Decommission Storm Drain System	348,000		8	154,667				\$ 3,866,667				\$ 34,800	\$ 87,000			\$ 518,500.67	\$ 598,270	\$ 5,105,237

Notes

1) earthwork at \$10/yard and Dewatering at \$5/yard

2) Material Transport Costs would vary considerable depending on if the material could be reused on site or if they would have to be transported off site. It will not be easy to reuse the materials on site in the OUE area, because there may not be enough geographical area to accommodate all the material. The City would need permission from GP and DTSC to dispose of materials in other locations on the Mill Site which may not be feasible, especially as clean-up standards in OUE are for recreational use and other areas of the Mill Site are slated for development and have different clean-up standards. Material disposal costs is assumed at \$20/ton except for the estuary option which would include removal of about 75% of the materials trucked offsite, which is a more expensive \$48/ton for transportation and disposal. Disposal costs (tipping fee, trucking and material handling costs) are based on actual Harbor District costs to dispose of dredge sands.

3) assume cobble check dam with ten cubic yards of cobbles every 50 feet

4) assume Turf reinforcing mat at each turn in the creek (every 200 feet) for about 50 feet in length

5) wetland mitigation required for on-site impacts due to project on a 2:1 ratio, a 3:1 ratio could be required.