Concept Document Addendum No. 1

Elliott Bay/Duwamish Restoration Program

Prepared for the Elliott Bay/Duwamish Restoration Program Panel by the King County Water Pollution Control Division

Panel Publication 14

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Addendum No. 1 to Concept Document

Addendum No. 1 of the *Concept Document*, June 1994, includes the following descriptions of habitat development sites 1 and 2 and a revised "Table 5: Potential Habitat Development Site Ranking."

Description of Habitat Development Sites

Site 1. This site is located in the Turning Basin area, upstream of the navigable waterway, on the east bank of the Duwamish River. It is adjacent to a Boeing Company office complex, grocery warehouse and tank-truck facility. The 4.6-acre site ranges between 13 feet and 15.5 feet in elevation.

Additional Site Considerations

- This portion of the Duwamish River is believed to be an area important to juvenile salmonid saltwater transition (Eric Warner and Robert Fritz, 1995. The Distribution and Growth of Green River Chinook Salmon and Chum Salmon Outmigrants in the Duwamish Estuary as a Function of Water Ouality and Substrate. Auburn, Washington: Muckleshoot Indian Tribe.) A restoration project at this site would also benefit benthic and epibenthic invertebrates, marine fish, a variety of shorebirds and upland mammals.
- The project area has a natural shoreline and a well-developed distributary channel in the intertidal flats.
- Restoration work at this site would provide expanded area and enhanced value of nearshore subtidal, unvegetated flats, emergent marsh and riparian habitat types.
- Other planned and/or potential habitat restoration work in the Turning Basin area would likely benefit and be benefited by restoration work at this site.
- A habitat restoration project at this site, being above the navigable waterway, would benefit from reduced vessel wake and problems associated with erosion.
- Historically, the site was probably intertidal swamp habitat; the constriction in the channel may have been the location of a native fishing area.
- The site has potential for the development of public access, education and interpretive facilities, including potential linkage to the Duwamish bicycle trail.
- The site is privately owned, with a Seattle City Light transmission easement running across the north end of the site.

Site 2: North Wind Weir. This 4-acre site is located south of the Turning Basin, upstream of the navigable waterway on the west bank of the Duwamish River. The site is directly across the river from Site 1. To the north is a U.S. Postal Service facility; the site is abutted on the south by a small parcel of vacant land and West Marginal Way Southwest. It ranges between 15 feet and 22 feet in elevation. The King County Parks Department is in the process of developing plans for proposed park and trailhead development of the three acres of the site, which it owns. Habitat restoration activities could be completed in conjunction with public access and interpretive displays.

Additional Site Considerations

- This portion of the Duwamish River is believed to be an area important to juvenile salmonid saltwater transition (Eric Warner and Robert Fritz, 1995. The Distribution and Growth of Green River Chinook Salmon and Chum Salmon Outmigrants in the Duwamish Estuary as a Function of Water Quality and Substrate. Auburn, Washington: Muckleshoot Indian Tribe.) A restoration project at this site would also benefit benthic and epibenthic invertebrates, marine fish, a variety of shorebirds and upland mammals.
- The shoreline is riprap, with an area of unconsolidated material on a more gentle slope extending from the toe of the riprap in the lower intertidal to subtidal areas.
- Restoration work at this site would provide expanded area and enhanced value of nearshore subtidal, unvegetated flats, emergent marsh and riparian habitat types.
- A habitat restoration project at this site, being above the navigable waterway, would benefit from reduced vessel wake and problems associated with erosion.
- Other planned and/or potential habitat restoration work in the Turning Basin area would likely benefit and be benefited by restoration work at this site.
- This site has potential for the development of public access, education and interpretive facilities. The King County Parks Department is proposing that the site serve as a trailhead for the adjacent Duwamish bicycle trail.
- Utility easements will require investigation.
- This site could be cooperatively developed with the King County Parks Department.

Table 5: Potential Habitat Development Site Ranking

(Revised January 1996)

Site 1		Size	Distance	Injury	Habitat	Prox.	Land Use:	Engr. Cost/	Proximity	Owner	Publ.	Land Use:	TOTAL
Site 2: Nryfite Edwards	Site	(acres)			Types	Habitat	Exist.	Success		- ship	Access	Potential	
Site 2: Myrite Edwards Medium High High High Medium High		_											
Site 2: North Wind Weir Medium High Medium High/Med High Hi	· •	1 -	•	•		1 -	_			1 -	_		_
Site 4B: Kenco/City Light S. Medium High High Medium High High Medium High High Medium Medium High High High High Iligh Ili		1		_	•		_		-		_	_	1 "
Site 47: Terminal 105			High	High/Med		1 -	_		_	_	High/Med	d Medium	1 9
Site 17: Terminal 105 High Med/Low High Med/Low High Medium High Low High/Med Medium High Low Medium High Medium High Medium High Medium High Medium High Medium High Medium Medium High High Medium Medium Me	Site 4B: Kenco/City Light S.	Medium	High/Med	High		High/Med				_	High	High	lligh
Site 26: Seaboard High Medium High Medium High Medium High High High/Med High Medium High/Med High Medium High/Med High Medium High High High High High High High High	Site 4: City Light South	Medium	Medium	High	Medium	Medium	Medium	High .	Medium	High	High	High	High
Site 23: Pier 89 Medium High/Med High Medium High/Med High/Med High/Med Medium High Low Low Low Medium High High High High High High High Medium High Low High/Med Medium High Low Medium Medium Medium Medium Medium High Low Medium Medium Medium Medium Medium High Low Medium Medium Medium High High High High High High High High	Site 17: Terminal 105	High	Med/Low	High/Med	Med/Low	High	Medium	High	High	Medium	High	Med/Low	High
Site 14: Kellogg Island High Medium High Medium High Medium Low High High Medium Low High/Med Medium High Medium High Medium High High High High High Medium Medium Medium High Medium Medium High Medium High High High High High Medium Medium Medium High Medium Medium High Medium Medium High Medium High Medium Low Low Medium Medium High Medium High Medium Low Low Medium Medium High Medium High Medium Low Low High Medium Medium High Medium High Medium High Medium M	Site 26: Seaboard	High	Medium	High	Medium	High	High/Med	Medium	Medium	Low	Medium	Medium	High
Site 13: Terminal 107 High Medium Medium Medium Medium Medium High Medium High Medium High Medium	Site 23: Pier 89	Medium	High/Med	High	High/Med	Medium	High/Med	Low	High	Low	High	High/Med	High
Site 1 Medium High High/Med Medium High/Med Medium High/Med Medium High/Med Medium High/Med Low High/Med Low High/Med Low High Medium High High High High High High High High	Site 14: Kellogg Island	High	Medium	High	Med/Low	High	High	Low	Low	Medium	High	High	High
Site 25: West Seattle Shore Site 3: Turning Basin Low Medium High High High High High High High High High	Site 13: Terminal 107	High	Medium	Medium	Low	High	High	Medium	High	Medium	High	Medium	High
Site 3: Turning Basin Medium High High Medium High/Med Med/Low Low Medium High/Med High High High High High Medium Low Medium Site 3: Suwamish Pk. Site 11B: Ist Ave. S/509 marsh High Low Medium High Low Medium High Low Medium High High High High High High High Medium Low Medium Site 30: Smith Cove U/W Park Low Medium High Low High/Med Med/Low High Medium High Low High/Med Medium High Low High/Med Medium High High High Medium Low Medium Site 27: Puget Creek Low Medium Low High/Med Medium High High High Medium Low High/Med Medium High High High Medium Low High/Med Medium High High High Medium Low High/Med Medium Low High/Med Medium Low High/Med Medium Low High/Med Low Low High High High High Medium High Low Medium Site 18: Spokane St. Low Low High/Med Low Low Medium Med/Low High High Low Low High Medium Low High/Med Low Medium Med/Low High Low Low High Medium Med/Low Site 18: Spokane St. Low Low High/Med Low High/Med Low Low Medium Med/Low High Low	Site I	Medium	High	High/Med	Medium	Low	High/Med.	Medium	High	Low	High/Med	d Medium	High
Site 8: Duwanish Pk. Site 11B: 1st Ave. S/509 marsh Site 310: Smith Cove U/W Park Site 11B: 1st Ave. S/509 marsh Site 30: Smith Cove U/W Park Site 11B: 1st Ave. S/509 marsh Site 30: Smith Cove U/W Park Site 11B: 1st Ave. S/509 marsh Site 31: Pier 1 Medium Low High/Med Medium Site 18: Spokane St. Low Low High/Med Low Low High/Med Low Site 18: Spokane St. Site 18: Spokane St. Site 19: Slip 4 Site 19: Slip 4 Site 19: East Waterway Low Low High/Med Med/Low Site 29: Pump Station Site 29: Pier 27 Medium Low Site 29: Fisher Mills Low Medium Medium Medium Medium Med/Low Medium Mediu	Site 25: West Seattle Shore	Medium	Medium	High/Med	Med/Low	Medium	High/Med	Low	High	High	High	High	Medium
Site 11B: 1st Ave. S/509 marsh Site 30: Smith Cove U/W Park High Low High Medium High Low High/Med Med/Low High/Med Med/Low High/Med Medium Low High/Med Medium Low High Medium Med/Low Medium Med/Low High Medium Med/Low High Medium Med/Low Medium Medium Medium Med/Low Medium Med/Low Medium Medium Medium Med/Low Medium Med/Low Medium Med/Low Medium Medium Med/Low Medium Med/Low Medium Medium Med/Low Medium Med/Low Medium Med/Low Medium Med/Low Medium Medium Med/Low Medium Med/Low Medium Medium Med/Low Medium Med/Low Medium Med/Low Medium Medium Med/Low Medium Med/Low Medium Med/Low Medium Medium Med/Low Medium Med/Low Medium Medium Med/Low Medium Medium Medium Med/Low Medium Med	Site 3: Turning Basin	Medium	High	High	Medium	High/Med	Med/Low	Medium	Low	Low	Medium	Medium	Medium
Site 30: Smith Cove U/W Park Site 16: Terminal 108 Site 16: Terminal 108 Site 27: Puget Creek Low Medium Low/Med Medium Low/Med Medium Ligh/Med Medium Medium Medium Low High/Med Medium Low Medium Low Medium Low Medium Low Medium Low High/Med Medium Low Medium	Site 8: Duwamish Pk.	Low	Medium	High/Med	Med/Low	Low	High/Med	High	High	High	High	High/Med	Medium
Site 16: Terminal 108 High Low High/Med Med/Low High/Med High/Med High Medium Low Low High Medium Low High Medium Low High Medium Low High Medium High Medium High Medium Mediu	Site 11B: 1st Ave. S/509 marsh	High	Low	Medium	Med/Low	High	Medium	Medium	High	High	Medium	Low	Medium
Site 27: Puget Creek Low Medium Low/Med Medium Iligh High Medium Low Iligh Medium Medium Site 11: 1st Ave. S Medium Low High/Med Med/Low Low Low High High Medium Iligh Low Medium Site 31: Pier 1 Medium Low High/Med Medium Low Medium Low Iligh Low High Medium Medium Site 18: Spokane St. Low Low High/Med Low Low Medium Med/Low High Iligh High Iligh Medium Medium Site 7 Sea King Ind. Park Medium Med/Low High Medium Low Medium Med/Low High Low Low Low Iligh Low Low High Medium Site 9: South Riverside Site 9: South Riverside Low Low High/Med Med/Low Low Med/Low Low Med/Low Low Medium High Medium Med/Low Low Site 24: Pump Station Site 24: Pump Station Low Low High/Med Med/Low Low Medium Low Low Medium High Medium Low Site 21: Pier 27 Medium Med/Low High/Med Med/Low Low Medium Low Low Low Low Low Low Low Low Site 31: Pier 27 Medium Med/Low High/Med Med/Low Low Medium Medium Low Low Low Low Low Low Site 31: Pier 27 Medium Med/Low High/Med Med/Low Low Medium Low Low Low Low Low Low Low Low Site 31: Pier 27 Medium Med/Low High/Med Med/Low Low Low Low Low Low Low Low Low Low	Site 30: Smith Cove U/W Park	Low .	Medium	High	Low	Low	Medium	High	High	High	High	High	Medium
Site 11: 1st Ave. S Medium Low High/Med Med/Low Low Low High Medium Low Medium Low High Medium Medium Medium Medium Low High Medium Low Medium Low High Medium Medi	Site 16: Terminal 108	High	Low	High/Med	Med/Low	High/Med	Medium	Medium	High	Medium	Low	Low	Medium
Site 31: Pier 1 Medium Low High/Med Medium Low Medium Low Medium Low High Medium Medi	Site 27: Puget Creek	Low	Medium	Low/Med	Medium	High	High	Medium	Low	Low	High	Medium	Medium
Site 18: Spokane St. Low Low High/Med Low Medium Med/Low High Medium Low Low Low Medium Medium Medium Low Medium	Site 11: 1st Ave. S	Medium	Low	High/Med	Med/Low	Low	Low	High	High	Medium	High	Low	Medium
Site 7 Sea King Ind. Park Medium Med/Low High/Med Low Medium Low Medium Med/Low Medium Low Medium Low Medium Low Medium Low Medium Low Medium Low Medium Medium Low Medium Medium	Site 31: Pier 1	Medium	Low	High/Med	Medium	Low	Medium	Low	High	Low	High	Medium	Medium
Site 7 Sea King Ind. Park Medium Med/Low High/Med Low Medium Low Medium Med/Low Medium Low Medium Medium Medium	Site 18: Spokane St.	Low	Low	High/Med	Low	Low	Med/Low	High	High	High	High	Medium	Medium
Site 9: South Riverside Low Low Low High/Med Med/Low Low Med/Low Med/Low Medium	Site 7 Sea King Ind. Park	Medium	Med/Low	High/Med	Low	Medium	Med/Low	High	Low	Low	Low	High	Medium
Site 19: East Waterway Low Low High/Med Med/Low Low Medium Low Medium Low Medium High Medium High Medium Medium Medium Low Low Site 28: Riverbend Park Medium Low Low Medium Low Low Medium Low Low Medium Medium Low Low Low Low Medium Medium Low Low Low Low Medium Medium Medium Low Low Low Low Medium Medium Medium Low Low Low Medium Medi	Site 10: Slip 4	Medium	Low	High	Medium	Low	Low	Low	Medium	Low	Medium	Medium	Low
Site 24: Pump Station Low Low High/Med Med/Low Low Medium Low Medium Low Medium Mediu	Site 9: South Riverside	Low	Low	High/Med	Med/Low	Low	Med/Low	Medium	Medium	High	Medium	Med/Low	Low
Site 28: Riverbend Park Medium High Low Low Low Medium Low Low High Medium Low Site 21: Pier 27 Medium Med/Low High/Med Med/Low Medium Low Low Low Low Low Low Medium Low Low Low Medium Low Low Medium Low Medium Low Medium Med/Low Medium Med/Low Medium Med/Low Low Medium Medium Medium Low Low Medium Low Low Medium Medium Low Low Medium Medium Low Low Medium Medium Low Low Medium Medium Low Low Medium Medium Low Low Medium Medium Low Low Medium Medium Low Low Medium Medium Low Low Medium Medium Low Low Low Low Low Low Low Lo	Site 19: East Waterway	Low	Low	High/Med	Med/Low	Low	Med/Low	Low	High	Medium	High	Low	Low
Site 28: Riverbend Park Medium High Low Low Low Medium Low Low Low High Medium Low Site 21: Pier 27 Medium Med/Low High/Med Med/Low Low Low Medium Low Low Low Low Low Low Site 6: Slip 6 Medium Low High/Med Low Medium Med/Low Low Low Low Low Medium Low Site 12: Terminal 115 Low Medium High/Med Low Low Low Low Low Low Medium Medium Low Site 20: Fisher Mills Medium Med/Low Low Low Low Low Low Low Low Low Low	Site 24: Pump Station	Low	Low	High/Med	Med/Low	Low	Medium	Low	Medium	High	Medium	Medium	Low
Site 6: Slip 6 Medium Low High/Med Low Medium Med/Low Low Low Low Medium Low Site 12: Terminal 115 Low Medium High/Med Low Low Low Low Low Low Medium Medium Low Site 20: Fisher Mills Low Low High/Med Low Low Med/Low Medium Low Low Low Low Low Low Low	Site 28: Riverbend Park	Medium	High	Low	Low	Low	Medium	Low	Low	_	High	Medium	Low
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Site 12: Terminal 115 Low Medium High/Med Low Low Low Low Low Low Medium Medium Low	Site 6: Slip 6	Medium	Low	_	Low	Medium	Med/Low	Low	Low	Low	Low	Medium	Low
Site 20: Fisher Mills Low Low High/Med Low Low Med/Low Medium Low Low Low Low Low	Site 12: Terminal 115	Low	Medium	_	Low	Low	Low	Low	Low	Low	Medium	Medium	1 '
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	Site 29: Longfellow Creek		Low	_	Low	High/Med	Low		High	Low			Low