SEATTLE'S INVENTORY/ASSESSMENT STRATEGY

All City decisions around salmon habitat protection and restoration require a good understanding of the needs of the fish and an understanding of the existing condition of salmon habitat which the City might influence. The City's influence may be the result of capital projects, changes in best management practices, incentive programs for businesses and land owners, educational programs for all citizens, or regulations affecting new development and redevelopment.

The application of the science framework previously described in this document suggests that each aquatic environment needs to be examined separately to understand fish usage and to determine preliminary focus areas. Just as we will continue to sponsor or participate in research to further understand fish usage, we will also continue to gather information about existing conditions to help us make decisions about habitat protection and investments.

We have developed a list of data elements which we believe are likely to be most important in understanding existing conditions. Not every element is important in every environment. These elements are listed below. An asterisk (*) indicates we believe the element is particularly important in the aquatic environment indicated.

Data Elements Needed *indicates particularly important in aquatic area noted ? indicates relationships need further investigation	Lake WA	Lake Union Ship Canal	Locks	Duwamish Estuary	Marine Nearshore
Environmental Data					
Substrate/ intertidal substrate	*	*	N/A	*	*
Rainfall data					
Stream flows			*		
Water temperature		*	*		
Physical condition of riparian corridors	*	*	N/A	*	*
Bank hardening	*	*	N/A	*	*
Large Woody Debris	*		N/A	*	*
Pools in streams	N/A	N/A	N/A	N/A	N/A
Analysis of biota	*	*	N/A	*	*
Aquatic Vegetation	*	*	N/A	*	*
Water Quantity			*		N/A
Water Velocity					N/A
Offshore bathymetry	*	*	N/A	*	*
Stream/River morphology			N/A		
Currents					*
Drift cells/ direction of littoral drift	N/A	N/A	N/A	*	*

Data Elements Needed *indicates particularly important in aquatic area noted ? indicates relationships need further investigation	Lake WA	Lake Union Ship Canal	Locks	Duwamish Estuary	Marine Nearshore
Wave energy/fetch	*	N/A	N/A	*	*
Channel migration zone	N/A	N/A	N/A	*	N/A
Flood plain	N/A	N/A	N/A	*	N/A
Pool/riffle ratio	N/A	N/A	N/A	N/A	N/A
Hydric soils			N/A		
Erosion/Sedimentation/ feeder bluffs			N/A	*	*
Sediment accretion areas	*		N/A	?	*
Sediment transport zones	*		N/A	?	*
Geological hazard areas			N/A		
Groundwater discharge points/upwellings/ springs	*	*	N/A	*	*
Creek/Stream discharge points	*		N/A	*	*
Stormwater/CSO/SSO discharge points	*	*	N/A	*	*
Tidal influence/salinity/saltwater-freshwater transition zones	N/A	*	*	*	*
Basin hydrology models					
Water Chemistry					
Water pH	* littoral habitat	?	?	?	N/A
Water DO	* littoral habitat	*	?	?	N/A
Biota in Water			N/A		
Metals		*	N/A		
PAHs		*	N/A		
PCBs		*	N/A		
Pesticides		*	N/A		
Nitrate			N/A		
Conductivity			N/A		
TDS			N/A		
TSS			N/A		
Toxics			N/A		
Fecal coliform			N/A		
Nutrients			N/A		
Sediment chemistry					
Metals		*	N/A	*	

Data Elements Needed * indicates particularly important in aquatic area noted ? indicates relationships need further investigation	Lake WA	Lake Union Ship Canal	Locks	Duwamish Estuary	Marine Nearshore
PAHs		*	N/A	*	
PCBs		*	N/A	*	
Pesticides		*	N/A	*	
Biological Resources					
Benthic community analyses			N/A		
Forage fish and holding areas			N/A		*
Shellfish areas	N/A	N/A	N/A		*
Eelgrass beds	N/A	N/A	N/A	N/A	*
Salmon or Bull Trout spawing areas	N/A	N/A	N/A	N/A	N/A
Fish and marine invertebrate home range data/projections	N/A	N/A	N/A	*	*
Sensitive and special habitat areas	*	*	N/A	*	*
Chlorophyll A					
Secchi Disc	*	*	N/A	?	?
Human Use Data					
Demographic data (including socio-economic and ethnicity information			N/A		
Site use information (e.g. public access, commercial, recreational, etc.)	*	*	N/A	*	*
Overwater structures	*	*	N/A	*	*
Potential sources of contamination, including a summary of individual outfalls, surface water, ground-water, storm-water, CSO discharges, and identification of contaminated fill	*	*	N/A	*	*