

Table 1. Biological Questions												
Type	Vancouver Lake Biological Questions	Significance To Biological Basis			Info Availability			Is it answered by current studies?	Relative cost of initiating new studies			Comments
		H	M	L	H	M	L		< \$25k	\$25k - \$100k	> \$100k	
Bio-1	Is Vancouver Lake swimmable and safe for human contact?											
Bio-2	What is the type, amount and distribution of algae in Vancouver Lake?											
Bio-3	What is the type, amount and distribution of bluegreen algae in Vancouver Lake?											
Bio-4	What is the type, amount and distribution of plants in and around Vancouver Lake?											
Bio-5	What is the type, amount and distribution of fish in Vancouver Lake?											
Bio-6	What is the type, amount and distribution of wildlife in and around Vancouver Lake?											
Bio-7	What is the type, amount and distribution of plankton in Vancouver Lake?											
Bio-8	What is the type, amount and distribution of invertebrates in Vancouver Lake?											
Bio-9	What is the type, amount and distribution of exotic plant and animal species in and around Vancouver Lake?											
Bio-10	What is the type, amount and distribution of habitats around Vancouver Lake?											
Bio-11	What conditions facilitate algae blooms?											
Bio-12	How do fish, plant and animal distributions change through time?											
Bio-13	Are there any federal or state listed species in or around Vancouver Lake?											

Table 2. Physical Environment Questions												
Type	Vancouver Lake Physical Environment Questions	Significance To Physical Basis			Info Availability			Is it answered by current studies?	Relative cost of initiating new studies			Comments
		H	M	L	H	M	L		< \$25k	\$25k - \$100k	> \$100k	
Phy-1	What are the water circulation patterns within Vancouver Lake?											
Phy-2	What is the quantity and timing of flows within the flushing channel?											
Phy-3	What is the quantity and timing of flows from Lake River into and out of Vancouver Lake?											
Phy-4	What is the quantity and timing of flows from Burnt Bridge Creek into Vancouver Lake?											
Phy-5	What is the quantity and timing of flows from Salmon Creek into Lake River?											
Phy-6	What is the quantity and timing of flows from other tributaries into Vancouver Lake and/or Lake River?											
Phy-7	How does groundwater influence Vancouver Lake circulation?											
Phy-8	What affect does the island play on water circulation patterns?											
Phy-9	What is the physical bathymetry of Vancouver Lake, the flushing channel and Lake River and its tributaries?											
Phy-10	How do Columbia River dam releases impact Vancouver Lake water levels?											
Phy-11	How do Columbia River tidal fluctuations impact Vancouver Lake, Lake River, and its tributaries?											
Phy-12	How does seasonal variability impact hydrology within Vancouver Lake, Lake River, and its tributaries?											
Phy-13	What is the impact of sea level rise on Vancouver Lake?											
Phy-14	How much sediment has accumulated since dredging in the 1980's? Since development of the Columbia River hydrosystem?											
Phy-15	Does the flushing channel affect lake conditions?											

Type	Vancouver Lake Water and Sediment Quality Questions	Significance To Water and Sediment Quality Basis			Info Availability			Is it answered by current studies?	Relative cost of initiating new studies			Comments
		H	M	L	H	M	L		< \$25k	\$25k - \$100k	> \$100k	
WQ-1	What is the type, amount and distribution of nutrients (i.e. phosphorus) in Vancouver Lake?											
WQ-2	What is the type, amount and distribution of contaminants in Vancouver Lake?											
WQ-3	What is the source and quantity of nutrients entering Vancouver Lake?											
WQ-4	What is the source and quantity of contaminants entering Vancouver Lake?											
WQ-5	What is the temperature profile of Vancouver Lake and its tributaries throughout the year?											
WQ-6	What is the influence of the Willamette river on Vancouver Lake water quality?											
WQ-7	What is the relationship between Alcoa site contaminants and Vancouver Lake?											
WQ-8	Does Vancouver Lake meet water quality standards for pathogens and bacteria?											
WQ-9	What is the quality of groundwater entering Vancouver Lake?											
WQ-10	How does seasonal variation affect nutrient and contaminant concentrations?											
SQ-1	Where does Vancouver Lake sediment come from and what is the quality of that sediment?											
SQ-2	How does sediment move within Vancouver Lake?											
SQ-3	How does sediment move within Lake River, the flushing channel, and other tributaries?											
SQ-4	What is the type, amount and distribution of nutrients in Vancouver Lake sediment?											
SQ-5	What is the type, amount and distribution of contaminants in Vancouver Lake sediment?											
SQ-6	What is the grain size distribution of Vancouver Lake sediments?											
SQ-7	What is current rate of accumulation/disbursement of sediment in Vancouver Lake and Lake River and what is the trajectory for these rates?											

Table 4. Alternatives		
Type	Vancouver Lake Possible Management Alternatives	Comments
ALT - 1	What will happen if no management actions take place at Vancouver Lake?	
ALT - 2	What alternatives are available to control blue-green algae blooms?	
ALT - 3	What are the range of dredging alternatives are available to improve conditions at Vancouver Lake?	
ALT - 4	Could we drain the lake, Let the sediment stabilize, and re-flood in controlled sections?	
ALT - 5	Can flushing channel design or operations improve conditions in Vancouver Lake?	
ALT - 6	Would manipulating lake levels help in reducing the occurrence of bluegreen algae blooms?	
ALT - 7	Are there any chemical treatments (i.e. alum) that might benefit Vancouver Lake?	
ALT - 8	Would increasing/decreasing the size of Vancouver Lake be feasible/beneficial?	
ALT - 9	Is it possible to dilute or flush Vancouver Lake?	
ALT - 10	Would increasing aquatic vegetation help Vancouver Lake? If so, how do we get more plants to grow?	
ALT - 11	Is there a feasible way to oxygenate the lake?	
ALT - 12	Would biomanipulation be an effective tool to manage Vancouver Lake?	
ALT - 13	Should we be concerned about eroding dikes along Lake River? Would it be beneficial to assist in their removal?	

Table 5. Operations		Comments
	What funding sources are available to the Partnership for implementing the vision?	
	What activities can the community assist in to increase awareness and participation?	
	Did previous restoration efforts improve water flow and/or water quality in Vancouver Lake?	

Table 6. Other Question Holding Bin		
		Comments
	What effect will dewatering of Columbia River dredge materials have on the Lake?	
	How significant are lawns for pollution to the lake?	
	Are we looking at minority community fishing?	
	Is a watershed council needed or necessary?	
	What percent of homes in BBC are still on septic?	
	How many septic tanks within BBC Basin have been eliminated since 1982?	
	Can we incorporate this process into a TMDL plan for BBC and Salmon Creek?	
	What is the influence of the Ridgefield wastewater treatment plant?	
	Has anyone reported "swimmer's itch" from recreating in Vancouver Lake?	
	What is the effect of septic tanks on Vancouver Lake water quality?	
	How do we get more aquatic plants to grow in Vancouver Lake?	