

Technical and Programmatic Priorities – Recommended Investments (Decision)

Ship Canal Predation Study

July 2018

Background

During the 2018 WRIA 8 budget approval process, the Salmon Recovery Council (Council) approved a carry-forward fund balance of \$184,476, which is available to advance priority actions identified during the WRIA 8 Plan update process (technical and programmatic priorities), to fill revenue gaps due to federal and state funding reductions, or to carry-forward to fund priorities identified in the future. WRIA 8 staff committed to briefing the Council on priorities to be considered for investment using these funds after approval of the Plan update.

In January, the Council approved a total of \$92,000 for stream and river wood surveys to be performed in 2018. Since then, the Technical Committee (TC) has been seeking partners for completing that work, as well as developing other recommendations for advancing important priorities identified in the WRIA 8 Monitoring and Assessment Plan (MAP).

The WRIA 8 TC has secured cost- and data-sharing partnerships for the wood survey on the Cedar River with the Cedar River Instream Flow Commission and the King County River and Floodplain Management Section that have resulted in a savings of roughly \$30,000 (i.e., 50% of the Cedar River wood survey cost will be shared by our partners).

Emerging Issue

Predation risk to juvenile Chinook salmon in the Lake Washington Ship Canal has been identified in many WRIA 8 technical workshops and forums as a key uncertainty and potential major key bottleneck to Chinook recovery in WRIA 8. The issue was studied in 1999, but predator fish communities have changed over the last 20 years, temperatures in the Lake Washington Ship Canal have been increasing in recent years, and predation of juvenile salmon is identified in the MAP as a priority issue. The Technical Committee met with representatives of WDFW and US Fish and Wildlife Service to discuss a project to further quantify the problem. US Fish and Wildlife Service recently proposed performing a diet analysis of predators with funding support from WRIA 8.

Recommendation

The WRIA 8 TC recommends directing a portion of the savings realized in the Cedar River wood survey partnerships, and re-investing those funds to support diet analysis of fish predators captured in the LWSC by the US Fish and Wildlife Service.

Summary of Recommended Additional Technical and Programmatic Investments:

Recommended Action	Estimated Cost
<p>An assessment of predation in the Lake Washington Ship Canal was conducted in 1999 and because of changes in the predator and prey fish communities and increased water temperatures, a new assessment is needed. WDFW, USFWS, and King County propose to conduct a new study in 2018 to assess predation of juvenile salmonids by piscivorous fishes in the Lake Washington Ship Canal. Much of the work will be covered by agency staff; however, some funds are needed to cover the cost of USFWS technicians to conduct the diet analysis as well as the cost of genetic analysis of well-digested salmonid prey.</p>	<p>\$18,933</p>

Proposed budget for Lake Washington Ship Canal diet analysis of piscivorous fishes				
A) USFWS work				
Task	Days	Crew	Total	Cost
Collection of diet samples	10	1	10	\$2,106
Data entry	2	1	2	\$421
	samples	#/day	days	Cost
Lab processing of diet samples	500	16	31.25	\$6,581
Subtotal				\$9,108
Plus overhead (36.5%)				\$12,433
B) Additional lab work (ID of well-digested salmonids), lab TBD				
	samples	cost/sample		
Genetic analysis	100	\$65		\$6,500
C) Grand total for diet analysis				\$18,933