

Step 3 Table: Sammamish River Chinook Population Goals and Outcomes (goals in bold print are reiterated from WRIA 8 Chinook Conservation Plan)

VSP Parameter	Historic/Template Conditions	Current (Base) Period Conditions	10-year GOALS	Long-term GOALS	Outcomes
Abundance	Historic abundance unknown given limited documentation. EDT template estimate (2004) = approximately 8,500	Recent average spawning ground escapement = 255 (Bear/Cottage AUC index); 1,083 (expanded Bear/Cottage AUC estimate plus Issaquah Cr below the hatchery rack) 1998-2007.	<ul style="list-style-type: none"> Maintain base period average basin escapement (1,083) on spawning grounds (in Issaquah Cr and other tributaries incl. Bear/Cottage)¹ and maintain broodstock goal of 2,000 at Issaquah Hatchery. (Numbers are being examined by the co-managers, and will be revisited after Issaquah intake barrier removal). 	<ul style="list-style-type: none"> 1,000 to 4,000 spawners (WDFW) in tributaries (lower range is MSY², upper range is equilibrium abundance). (Numbers are being re-examined by the co-managers, and will be revisited after Issaquah intake barrier removal). 2,000 adult returns to the Issaquah Hatchery. 	Tribal treaty and sport fishing opportunity occur on a consistent basis. Available tributary habitat is fully utilized.
Productivity ³	EDT template productivity (2004) modeled to be 19.4. Assume > 3.0 as high productivity consistent with recovery planning.	Estimates from EDT model and NOAA BRT = ~ 1 or less. Co-manager estimate = 0.53 returns/spawner (2004-07). Avg. egg-migrant survival rate (2000-2006) = 2.9% in Bear Cr. (WDFW wild salmonid eval. program)	<ul style="list-style-type: none"> Increase productivity to 1.0 or greater. 1.5x (2004-2007) egg to migrant survival rate in subareas (i.e., 4.4%). ≥2 adult returns/spawner 2-4 years out of 10 	<ul style="list-style-type: none"> Long term egg to migrant survival rate of 10%. 1-3.0 recruits/ spawner in Sammamish. Increase NOR growth rate to greater than 1.05. 	Spawners in tributaries are producing optimal numbers of juvenile migrants. The number and proportion of NOR spawners has increased.
Spatial Distribution	Spawning distribution assumed to be broad but more concentrated in larger streams.	Most consistent spawning limited to Issaquah and Bear/Cottage creeks. Spawning distribution in Issaquah Creek impeded by barrier at ~RM 5.	<ul style="list-style-type: none"> Convert 1 satellite subarea to core (e.g., Issaquah Creek upstream of barrier at RM 5) Expand spawning distribution by 50% over 2000-2005 average. 	<ul style="list-style-type: none"> Recapture hypothesized historic distribution. Consistent use of NLW tribs in addition to Bear Cr for spawning. 	Population that is more resilient to disturbances and is more fully exploiting available habitat.
Diversity	Historic diversity assumed to be greater than it is currently	Assumed that genetics are driven mostly by hatchery fish.	<ul style="list-style-type: none"> Improve Sammamish River habitat conditions to support eventual smolt rearing. Maintain or increase the proportion of natural origin fish (NORs) in the hatchery broodstock and in the natural population Operate Issaquah hatchery to move toward meeting HSRG goals for an integrated population, while maintaining total abundance. 	<ul style="list-style-type: none"> Maintain and increase duration of natural spawning period in basin. Operate Issaquah hatchery consistent with HSRG recommendations for integrated hatchery (see HSRG Tech Discussion Paper #1.) and WDFW hatchery reform plan now under development. 	NOR spawners drive the genetics of the population so that genetic risk is minimized.

¹ Abundance trends in Bear-Cottage Creek and other tributaries will continue to be monitored and compared to the current baseline abundance in order to measure progress in meeting all VSP goals.

² MSY = Maximum sustainable yield.

³ Based on run reconstruction method-natural-origin spawners on the spawning grounds.