

Program: Snohomish SumSTHD On-station (Reiter)
 Date: 12/20/2006 (Draft)

A. Program Management Summary Question: Are hatchery program objectives, performance measures, and adaptive management steps defined?

Risk Factor	Question Number	Question	Answer	Priority Element	Weight		Score		Comments	
					A&P	D&S	A&P	D&S		
Program Management	A1	Are program objectives defined?	Y	Yes	10	10	10	10		
	A2	Are performance measures established and monitored for the proportion natural influence, fish health, survival within the hatchery, and smolt-to-adult survival rates?	N	Yes	10	10	0	0		
	A3	Are hatchery programming and operational decisions based on an Adaptive Management Plan?	N	Yes	10	10	0	0		
	Management Summary:					Maximum Potential		Program Score		
						A&P	D&S	A&P	D&S	
						30	30	10	10	
Consistency with Best Management Practices:							Low	Low		
Priority Elements: One or more priority elements need review to assure program is designed consistent with management objectives.										

B. Gene Flow Summary Question: Do program management practices suggest that additional analysis is needed to evaluate gene flow from the hatchery to the natural population?

Risk Factor	Question Number	Question	Answer	Weight		Score		Comments	
				A&P	D&S	A&P	D&S		
Gene Flow	B1	Has the gene flow from naturally spawning adults of hatchery-origin been quantitatively evaluated and found to be consistent with management objectives?	N						
	B2	Did the broodstock for the program originate from the GDU of the natural population within the watershed and has it been propagated in the hatchery for less than 3 generations?	N	6	6	0	0		
	B3	Does the program avoid population transfers and subsequent releases of eggs or fish from outside the watershed?	Y	3	3	3	3		
	B4	Are adult returns to traps removed from the watershed (i.e., not recycled to anadromous waters to provide additional harvest opportunities)?	N	1	1	0	0		
	B5	Do adequate adult capture facilities exist in every location where juveniles are released?	Y	1	1	1	1		
	B6	Are juvenile fish released onstation or, if released offstation, are the juveniles acclimated at the release site?	Y	1	1	1	1		
	B7	Are approximately 100% of the hatchery fish marked so that they can be distinguished from the natural population?	Y	1	1	1	1		
	B8	Is the proportion of natural spawners of hatchery-origin estimated for all natural populations with a reasonable probability of being impacted by releases from the program?	N	1	1	0	0		
Gene Flow Summary:					Potential Score		Program Score		
					A&P	D&S	A&P	D&S	
					14	14	6	6	
Consistency with Best Management Practices:							Moderate	Moderate	
Action: Quantitatively evaluate gene flow. If results are inconsistent with management objectives, consider reducing program size, implementing additional BMPs, or implementing an integrated program.									

C. Competition Summary Question: Do program management practices suggest that additional analysis is needed to evaluate competition between steelhead of hatchery and natural-origin?

Risk Factor	Question Number	Question	Answer	Weight		Score		Comments
				A&P	D&S	A&P	D&S	
Competition	C1	Has the potential competition resulting from the release of juveniles and the potential production from naturally spawning adults of hatchery-origin been quantitatively evaluated and found to be consistent with management objectives?	N					
	C2	Does the program avoid population transfers and subsequent releases of eggs or fish from outside the watershed (A3)?	Y	1	0	1		
	C3	Are adult returns to traps removed from the watershed (i.e., not recycled to anadromous waters to provide additional harvest opportunities) (same question as B4)?	N	5	0	0		
	C4	Do adequate adult capture facilities exist in every location where juveniles are released (same question as B5)?	Y	5	0	5		
	C5	Are smolts released in a physiological status consistent with smolting?	Y	5	0	5		
	C6	Are smolts released in a location or time when interactions with the natural population are unlikely?	N	5	0	0		
	C7	Are juvenile fish released onstation or, if released offstation, are the juveniles acclimated at the release site (same question as B6)?	Y	5	0	5		
	C8	Are approximately 100% of the hatchery fish marked so that they can be distinguished from the natural population (same question as B7)?	Y	1	0	1		

C9	Is the proportion of natural spawners of hatchery-origin estimated for all natural populations with a reasonable probability of being impacted by releases from the program (same question as B8)?	N	1	0	0	
Competition Summary:			Potential Score		Program Score	
			A&P	D&S	A&P	D&S
			28	0	17	0
Consistency with Best Management Practices:					High	NA
Action: No further program analysis required.						

D. Disease Summary Question: Do program management practices suggest consideration of additional BMPs to reduce the potential risk of disease transmission from the hatchery program to the natural population?

Risk Factor	Question Number	Question	Answer	Weight		Score	
				A&P	D&S	A&P	D&S
Disease	D1	Does the broodstock chosen have a pathogen history that indicates no threat to other populations in the watershed?	Y	5	0	5	
	D2	Does the facility have a pathogen history that indicates no threat to other populations in the watershed?	Y	5	0	5	
	D3	Does the program avoid population transfers and subsequent releases of eggs or fish from outside the fish disease management zone (B3)?	Y	5	0	5	
	Disease Summary:			Potential Score		Program Score	
				A&P	D&S	A&P	D&S
				15	0	15	0
Consistency with Best Management Practices:					High	NA	
Action: No further program analysis required.							

Comments

E. Facilities Summary Question: Do hatchery structures and operating procedures suggest the need to consider additional BMPs to reduce facility effects on the VSP characteristics of the population?

Risk Factor	Question Number	Question	Answer	Priority Element	Weight		Score		Comments
					A&P	D&S	A&P	D&S	
Facilities	E1	Does hatchery intake screening comply with Integrated Hatchery Operations Team (IHOT), National Marine Fisheries Service, or other agency facility standards?	Y	Yes	5	5	5	5	
	E2	Does the facility operate within the limitations established in its National Pollution Discharge Elimination System (NPDES) permit and in compliance with state or federal regulations for discharge?	Y	Yes	5	5	5	5	
	E3	Does water usage comply with applicable permits?	Y	Yes	5	5	5	5	
	E4	Is the facility sited so as to minimize the risk of catastrophic fish loss from flooding?	Y	Yes	10	10	10	10	
	E5	Are hatchery structures located and operated in a manner that does not impede passage of naturally produced juveniles and adults?	Y	Yes	10	10	10	10	
	E6	Is staff notified of emergency situations at the facility through the use of alarms, autodialer, and pagers?	Y	Yes	2	2	2	2	
	Facilities Summary:					Maximum Potential		Program Score	
					A&P	D&S	A&P	D&S	
					37	37	37	37	
Consistency with Best Management Practices:							High	High	
Priority Elements: All priority elements addressed.									
Action: No further program analysis required.									