SOA 2010-06

Priest Rapids Coordinating Committee Hatchery Subcommittee
Statement of Agreement on the Basis of Design for the
Gloyd Springs Summer Chinook Hatchery

Submitted to PRCC Hatchery Subcommittee: September 2, 2010
Approved by PRCC Hatchery Subcommittee: September 16, 2010
Approved by PRCC:

Statement
The HSC agrees that design of the Gloyd Springs Summer Chinook Hatchery should follow the engineering criteria and assumptions described in *Gloyd Springs Summer Chinook Hatchery Basis of Design* by Jacobs, Contract No. 430-1286, Document No. GS-HC-0210.1 Ephrata, Washington: Public Utility District No. 2 of Grant County, September 1, 2010 and summarized in the background section of this SOA, below. The project includes the construction of several buildings for the purpose of facility administration, incubation and early rearing, juvenile rearing, emergency power generation, surface water intake from an infiltration gallery, pump station, ground water wells, headtank with degassing/aeration, shop/storage and personnel housing. The Gloyd Springs Summer Chinook Hatchery may not be constructed if the HSC agrees to have all life-stages prior to acclimation at existing hatchery locations such as Eastbank or Wells hatcheries.

Background

The Gloyd Springs Summer Chinook Hatchery is intended for adult holding, spawning, incubation and pre-smolt rearing for Wenatchee and Methow summer Chinook to partially meet the mitigation and enhancement responsibilities of the Public Utility District No. 2 of Grant County as included in the terms and conditions of its FERC license (P-2114) and Salmon and Steelhead Settlement Agreement. After pre-smolt rearing, fish will be out-planted in Wenatchee and Methow overwinter acclimation sites.

Two HGMP documents, *Wenatchee Component of the Upper Columbia River Summer Chinook Program* and *Methow Component of the Upper Columbia River Summer Chinook Program* provide the definition of the summer Chinook program for the Gloyd Springs Hatchery.

The HSC was provided the Gloyd Springs Basis of Design for review in May, 2010. HSC member organizations provided comments in May, April, June, and July 2010. Grant County PUD responded to the comments and made revisions to the Basis of Design. The HSC reviewed the comment responses and confirmed that they had no additional comments on the Basis of Design in August 2010.

The final Basis of Design document agreed to in this SOA establishes the engineering design criteria to be used for the development of construction documents. The following is a synopsis of these criteria:

Design Criterion Title	Criterion Value	BoD Reference
Release		
Number of Fish Released, Dryden	278,000	2.1
Number of Fish Released, Carlton	278,000	2.1

Design Criterion Title	Criterion Value	BoD Reference	
Fish Size at Release	13 to17 fish/ lb	2.1	
Assumed Fish Length at Release	5.84 inches	2.1	
Release Method	Direct Release to River	-	
Acclimation (Dryden and Carlton)			
Remote Site Acclimation	Ponds	Separate BoD	
Rearing			
Rearing Units	Circular Tanks	7.2	
Predation Control	Enclosed Building	7.5	
Surface Water Treatment Method	None	-	
Design Density Index	0.125 lbs/cf/in	2.5.1	
Design Flow Index (Low BKD)	0.75 lbs/gpm-in	2.5.2	
Eggs			
Green Egg Take (for Wenatchee program)	365,789	2.2.2	
Green Egg Take (for Methow program)	365,789	2.2.2	
Disinfection (at take)	Surface Iodophor	5.3	
Disinfection (incubation)	formalin (as required)	5.3	
Tray Density	1 per female	2.4.1	
Incubation Method	Vertical Trays	2.2.2	
Adults			
Collection Location	Dryden and Tumwater (Wenatchee program)	2.3	
	Wells Dam[1] (Methow program)	2.3	
Number of Females Held (for Wenatchee program)		85	2.3
Number of Females Held (for Methow program)	85	2.3	
Number of Males Held (for Wenatchee program)		85	2.3
Number of Males Held (for Methow program)	85	2.3	
Adult Holding Design Volume per Fish	10 ft^3/fish	2.3.1	
Adult Holding Design Flow per Fish	1 gpm/fish	2.3.2	
Crowding Method	Mechanical Crowder	4.2	
Sorting	Through Crowder	4.3	
Anesthesia	Chemical	4.4	
Spawning	On station	4.3	
Spawning Ratio	1F:1M	4.4	
Egg Production	5,000/female	2.4.1	

[1] Wells dam is the current collection location; over time this may change to a local brood collection location, if approved through the HSC process.

This SOA only addresses criteria for facility design. It does not address site impacts, permitting, or other requirements that would need to be mitigated or met prior to construction.