Priest Rapids Coordinating Committee Hatchery Subcommittee
Statement of Agreement on

NNI Recalculation

Approved by PRCC Hatchery Subcommittee: July 21, 2011
Approved by PRCC with Amendments [1] : August 24, 2011

Statement

The Priest Rapids Coordinating Committee Hatchery Subcommittee approves the following methodology for the population dynamics "adjustment of hatchery compensation" scheduled to occur in 2013 as described by the Priest Rapids Settlement Agreement.

Under this methodology, total hatchery compensation will reflect unavoidable project mortality to (1) hatchery-origin smolts and (2) natural-origin smolts where:

Compensation for hatchery-origin smolts will be based upon the 2014-2023 projected annual release targets for those hatchery programs agreed to by the PRCC Hatchery Subcommittee that are subject to NNI (i.e., subject hatcheries). Compensation will be determined by multiplying the annual release targets of the subject hatcheries by the unavoidable project mortality for each hydro project.

Compensation for natural-origin smolts at each Project will be determined using the Biological Assessment and Management Plan (BAMP) methodology, where average returns of natural-origin adults to each project will be divided by the respective juvenile project survival rates to represent the number of adults that would have returned to each project absent unavoidable mortality. The difference between this result and the average observed returns will represent the number of adult equivalents required to meet NNI. As the final step, adult equivalents will be converted to hatchery smolt production numbers by dividing the number of adult equivalents by average hatchery-specific smolt-to-adult returns (SARs).

Background

The Priest Rapids Settlement Agreement requires periodic adjustment of NNI hatchery compensation rates to account for population dynamics, unavoidable project losses, and hatchery performance. Initial

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[1] This same SOA, with language included to make it applicable to the HCP process, was approved by the Rock Island, Rocky Reach, and Wells HCP Hatchery Committees on July 20, 2011. Further, this same SOA was approved by the PRCC Hatchery Subcommittee on July 21, 2011 and forwarded to the PRCC for consideration and final approval. Accordingly, the PRCC approved the SOA on August 24, 2011 with amendments which provided clarification to the Background section, including amending the language to make the SOA applicable to the Priest Rapids Projects. There were no amendments made to the Statement section of the SOA.

hatchery production levels expire in 2013, with the recalculated production levels applying to smolt release years 2014 - 2023.

This SOA covers only the overarching methodology of calculating NNI hatchery compensation levels as a necessary prerequisite to a subsequent SOA documenting the selection of data to be used for recalculation, which populations and hatchery programs are subject to NNI, and ultimately what levels of NNI hatchery compensation are required to meet NNI during smolt release years 2014 - 2023. Under the methods proposed herein, natural-origin and hatchery-origin fish contribute to the "populations" that are subject to NNI and receive hatchery compensation.

For hatchery-origin smolts, the population size is not derived but instead relies simply on the projected annual program hatchery release numbers for 2014-2023, for those hatchery programs subject to NNI. The use of projected hatchery release numbers as the hatchery population reflects the contemporary management/conservation objectives and production levels for the subject hatcheries.

For natural-origin fish the "population" is the average number of natural-origin adults passing the Priest Rapids Projects. Achieving hatchery compensation for the natural-origin population follows the BAMP:

$$\text{average adult returns/average SAR} = \text{smolts}$$

where average adult returns will be the number of additional natural-origin adult returns expected in the absence of a project, and SAR is the average SAR of the hatchery facility that will provide the mitigation.