

SOA 2011-01

**Priest Rapids Coordinating Committee**

**Statement of Agreement**

**Modified Schedule and Funding Agreement for Juvenile Sockeye and Steelhead Survival Studies at the Priest Rapids Project**

Submitted to Priest Rapids Coordinating Committee: January 26, 2011

Approved by the Priest Rapids Coordinating Committee: February 16, 2011 (Final Email Vote)

**Statement:**

The Priest Rapids Coordinating Committee agrees that based on high survival estimates after two years of evaluating juvenile sockeye survival, the third year of juvenile sockeye survival study can be deferred until 2016, to allow more comprehensive evaluation of sources of juvenile steelhead mortality in Public Utility District No. 2 of Grant County (Grant PUD)'s Priest Rapids and Wanapum reservoirs. In 2016, Grant PUD will conduct year three of the juvenile sockeye survival study, which will also serve as the initial five year check-in study for sockeye. For 2012 through 2016, the NNI Fund will be based on the current two year survival average for sockeye. For 2017 and beyond, the NNI Fund will be based on a new three sockeye survival average, based on 2016 study results, if validated by the PRCC. Funding for the 2011 steelhead loss evaluation will be provided using Grant PUD funds originally allocated for the originally anticipated 2011 juvenile sockeye survival study, plus NNI funds of \$1,973,659. Equipment purchased for this study with NNI funds can be used in other studies upon agreement of the PRCC.

Per Section 15.3 (**NNI- Function of Fund**) of the Priest Rapids Salmon and Steelhead Settlement Agreement (Agreement), the PRCC *“recognize that the performance standards specified herein may not be achieved for certain stocks through current (2003) Project operations. The purpose of the Fund is to provide the Parties with additional financial capacity to undertake measures to improve survivals of Covered Species prior to the time when the Project attains applicable juvenile project survival standards. The NNI Fund is intended to provide near-term compensation for annual survivals that are less than the survival objectives in the performance standards for the Project for spring Chinook, steelhead, summer Chinook and sockeye. Grant PUD will reduce its annual NNI Fund contributions as progress toward meeting these performance standards is achieved. When the Parties determine that the performance standards have been achieved on a species-by-species basis, the NNI Fund annual contributions for that species will be terminated.”*

The PRCC also reiterates that Grant PUD shall, per Section 15.3 of the Agreement, *“develop annual plans for the expenditure of funds from the NNI Fund in consultation with the PRCC and with the approval of the Parties. These annual plans may be developed as a part of the annual Habitat Plans required by Appendix A or they may also include other measures or activities designed to improve survivals for Covered Species and contribute to the achievement of applicable performance standards for the Project. Grant PUD shall report annually on the activities associated with the NNI Fund in its Annual Progress and Implementation Plans required by Action 36 of Appendix A.”*

## **Background:**

Section 15.6 (**New Survival Estimates**) of the Priest Rapids Salmon and Steelhead Settlement Agreement (Agreement) requires Grant PUD to conduct survival studies for covered species *“to evaluate steady progress toward meeting performance standards and to adjust the NNI Fund, Grant PUD shall, in consultation with the PRCC, conduct survival studies for Covered Species”*. The Section 15.6 (Agreement) also states that the *“results of these studies will be used to estimate survival rates for Covered Species based on the arithmetic 3-year average of the annual estimates”*. However, Section 15.6 of the Agreement also allows the PRCC to modify the schedule presented in Section 15.6 (*the schedule may be modified by consensus of the Parties and in consultation with the PRCC*).

In 2008, using a paired release-recapture methodology, juvenile steelhead survival was estimated through the Wanapum and Priest Rapids developments (dam and reservoir) to be 0.9584 (SE=0.0242) and 0.8635(SE=0.0232), respectively, or 0.8276 (SE=0.0305) through the combined Priest Rapids Project (both developments and reservoirs; Skalski et al. 2009a).

In 2009, using a paired release-recapture methodology, juvenile steelhead survival was estimated through the Wanapum and Priest Rapids developments (dam and reservoir) to be 0.9436 (SE=0.0189) and 0.8806(SE=0.0206), respectively, or 0.8309(SE=0.0256) through the combined Priest Rapids Project (both developments and reservoirs; Skalski et al. 2009b).

In 2010, using a paired release-recapture methodology, juvenile steelhead survival was estimated through the Wanapum and Priest Rapids developments (dam and reservoir) to be 0.8553(SE=0.0186) and 0.9037(SE=0.017), respectively, or 0.7729(SE=0.0223) through the combined Priest Rapids Project (both developments and reservoirs; Skalski et al. 2010).

In the three years of juvenile steelhead, the arithmetic mean juvenile steelhead survival is 81.05% for the combined project. Priest Rapids Dam passage survival was estimated to be 91.8%, 95.4% and 96.7% for 2008, 2009 and 2010 respectively, and Wanapum Dam passage survival was estimated to be 96.4%, 97.3%, and 97.2% for 2008, 2009 and 2010 respectively. Priest Rapids Reservoir passage survival was estimated to be 89.1%, 91.0%, and 91.3% for 2008, 2009 and 2010 respectively, and Wanapum Dam Reservoir passage survival was estimated to be 85.3%, 91.7%, and 86.7% for 2008, 2009 and 2010 respectively. Therefore, the PRCC has concluded that further investigation of juvenile steelhead losses in Priest Rapids and Wanapum reservoirs is warranted and necessary in order for survival performance standards to be met

In 2009 and 2010 Grant PUD released a total of 1,815 and 1,593 acoustic-tagged run-of-river sockeye smolts respectively, to estimate juvenile sockeye survival through the Priest Rapids Project,. Paired release-recapture methods were used to estimate survival through the Wanapum and Priest Rapids developments (dam and reservoirs). Using a paired release-recapture methodology, juvenile sockeye survival through the Wanapum and Priest Rapids developments (dam and reservoir) during 2009 was estimated to be 0.9726 (SE=0.0093) and 0.9460 (SE=0.0114), respectively. During 2009, the juvenile sockeye passage survival estimate through the Priest Rapids Project (both developments and reservoirs) was 0.9201 (SE=0.0142) (Skalski et al. 2009b). In 2010, juvenile sockeye survival through the Wanapum and Priest Rapids developments (dam and reservoir) was estimated at 0.9408 (SE=0.0138) and 0.9688 (SE=0.0139), respectively. The juvenile sockeye passage survival estimate through the Priest Rapids Project (both developments and reservoirs) in 2010 was 0.9114 (SE=0.0187; Skalski et al. 2010). For the combined Priest Rapids Project, the two year arithmetic mean for juvenile sockeye survival for 2009 and 2010 is 91.4%. This is 4.65% above the required performance standard identified in the Priest Rapids Salmon and Steelhead Settlement Agreement (86.49%).