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# **Priest Rapids Project Salmon and Steelhead Settlement Agreement**

**(FERC Project No. 2114)**

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# Priest Rapids Project Salmon and Steelhead Settlement Agreement

## Part I. Parties

**1.1 Parties.** This Settlement Agreement (Agreement) is entered into by Public Utility District No. 2 of Grant County (Grant PUD), the United States Department of Interior U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service of the National Oceanic and Atmospheric Administration (NOAA Fisheries), the Washington Department of Fish and Wildlife (WDFW), Confederated Tribes of the Colville Reservation (CCT), and those other fishery agencies and Tribes that are signatories to this Agreement, herein collectively referred to as the “Parties.” NOAA Fisheries, USFWS, WDFW, CCT and those other fishery agencies and Tribes that are signatories to this Agreement may be referred to as the “Governmental and Tribal Parties.”

## Part II. General Provisions

**2.1 Purpose.** The Parties have entered into this Agreement for the purpose of resolving all issues between Grant PUD and the other signatories related to Covered Species in connection with Grant PUD’s existing and its New License for the Priest Rapids Project, FERC No. 2114 (Project). This Agreement is intended to constitute a comprehensive and long-term adaptive management program for the protection, mitigation, and enhancement of Covered Species which pass or may be affected by the Project. For these purposes the Parties agree that this Agreement is fair and reasonable and in the public interest within the meaning of FERC Rule 602 governing offers of settlement (18 CFR § 385.602(g)(3)).

**2.2 Effective Date.** This Agreement shall take effect when signed by NOAA Fisheries, USFWS, WDFW, CCT, and Grant PUD. The date of last signature of Grant PUD, NOAA Fisheries, USFWS, CCT, and WDFW shall be the Effective Date. The Yakama Nation and the Confederated Tribes of the Umatilla Indian Reservation are invited and encouraged to sign this Agreement and upon signing on or before 6 months from the Effective Date may participate as Parties in its implementation as though they had executed this Agreement on the Effective Date.

**2.3 Early Implementation.** The Parties agree to commence implementation of this Agreement immediately upon the Effective Date.

**2.4 Revisions.** Parts I through XV of this Agreement may be modified by written agreement of all of the Parties. If any amendments would require the approval of FERC prior to implementation, they will become effective upon approval by FERC.

## **2.5 Duration and Rights of Withdrawal.**

**2.5.1 Duration.** This Agreement shall remain in effect through the expiration of the original license for the Project, any annual licenses issued thereafter and through the term of the New License for the Project, unless it is terminated earlier as provided herein.

**2.5.2 Withdrawal Prior to Issuance of New License.** Any Party may withdraw from this Agreement prior to the issuance by FERC of a New License if any of the following events occur: (1) any agency with mandatory conditioning authority under Sections 4(e) or 18 of the Federal Power Act (FPA) or under Section 401 of the Clean Water Act submits to FERC mandatory conditions for inclusion in the New License which are materially and significantly inconsistent with the terms of this Agreement; or (2) NOAA Fisheries issues any new biological opinion for listed Covered Species affected by the Project which includes conditions in its incidental take statement that are materially and significantly different from the terms of this Agreement.

Any Party seeking to withdraw pursuant to Section 2.5.2 must: (1) within 60 days of the submission of the condition(s) in question, provide written notice of its intent to withdraw to the other Parties together with an explanation of its reasons for doing so; (2) convene a meeting of the Parties no sooner than 10 and no later than 30 days from the date of its notice for the purpose of attempting to resolve the issue. If within 30 days of the date of the convening of such a meeting the Parties are unable to resolve the issue to the satisfaction of the Party which gave notice of its intention to withdraw, that Party may withdraw from the Agreement upon giving a final notice of withdrawal to the other Parties and to FERC. In the event that Grant PUD withdraws from this Agreement pursuant to this paragraph, this Agreement shall terminate and have no further force and effect.

**2.5.3 FERC Order Modifying Agreement.** In the event that FERC issues a New License that a Party believes modifies, directly or indirectly, any of the terms and conditions of this Agreement, that Party may within 30-days of the issuance of the New License, request rehearing in which case such rehearing request shall be deemed notice to other Parties of its objection based on a material and significant inconsistency between the Agreement and the FERC order. Thereafter if those objections are not resolved by the issuance of a subsequent FERC order, or by the Parties themselves within 60-days of the issuance of that subsequent order, whichever is later, the Party may withdraw from this Agreement. In the event, however, that one or more Parties has filed a timely petition for judicial review challenging the FERC modification(s) in question, the withdrawal shall not become effective until and unless the appellate court issues a decision affirming the FERC order or the appeal proceeding is otherwise resolved in favor of FERC on that issue.

**2.5.4 Submission of Conditions Pursuant to Reserved Authority Following Issuance of New License.** The Parties agree that following the issuance of the New License no Governmental or Tribal Party shall submit to FERC, pursuant to any statutory or reserved authority, additional conditions relating to Covered Species (other than those agreed upon through the adaptive management program contained in this Agreement) unless, before submitting such conditions to FERC, it: (i) finds that such conditions are necessary because of

new scientific information which substantially alters the biological assessment and the administrative record regarding the impact of the Project on Covered Species developed in support of the Agreement as reflected in the FERC administrative record; (ii) provides 60 days prior notice, except in emergency situations to the other Parties, of the proposed conditions together with a reasonable documentation and explanation relating to the new scientific information that supports the conditions; and (iii) includes in any subsequent submission to FERC copies of any comments provided by the other Parties together with the agency's responses to those comments. This Section 2.5.4 shall not preclude a Party from submitting a condition for consideration by FERC if such condition pertains to a Project action proposed by Grant PUD to FERC outside the scope of this Agreement. Additionally, the Parties further acknowledge that an express reservation of authority by any governmental agency Party with mandatory conditioning authority, included in any filing that is otherwise consistent with this Agreement, shall not violate the terms of this Section 2.5.4.

**2.5.5 Withdrawal After New License Has Become Effective.** In the event that following the issuance of the New License, any Governmental or Tribal Party submits to FERC for inclusion in the license, pursuant to any statutory or reserved authority, any condition for Covered Species, other than those conditions agreed upon through the adaptive management program, that is materially and significantly different from the terms contained in this Agreement, which would, if adopted, materially and significantly affect a Party's interest, that Party may withdraw from this Agreement. Prior to withdrawing the Party must: (i) within 60 days of the submission of the condition(s) in question, provide written notice of its intent to withdraw to the other Parties together with an explanation of its reasons for doing so; and (ii) convene a meeting of the Parties no sooner than 30 and not later than 60 days from the date of the notice for the purpose of attempting to resolve the issue. If within 90 days of the date of the convening of such a meeting (or such extended date to which the Parties may agree), the Parties are unable to resolve the issue, the Party may withdraw from the Agreement upon giving a final notice of withdrawal to the other Parties and to FERC.

**2.6 Assurances Regarding Fish Protection Measures.** So long as this Agreement remains in effect, each Party agrees that it shall not itself or through third parties directly or indirectly advocate or support to non-Parties fish protection measures for Covered Species other than those set forth in this Agreement or those measures agreed to through the adaptive management program contained in this Agreement. As long as no Governmental Party seeks to exercise its FPA Section 18 authority to prescribe fish protection measures for Covered Species which are materially inconsistent with those set forth in this Agreement or those agreed to through the adaptive management program contained in this Agreement, no Party shall (i) seek an agency trial-type hearing on issues of material fact under Section 18 of the FPA; (ii) propose alternative conditions under Section 33 of the FPA; or (iii) support any alternative conditions or trial-type hearings proposed or requested by any non-Party. The Parties further agree that they will make reasonable efforts to support the Governmental Parties, as appropriate, if an alternative condition is proposed or a trial-type hearing is requested by any non-Party. This Section 2.6 shall not prohibit a Party from (i) exercising its rights to withdraw from this Agreement; (ii) or petition FERC pursuant to Part VI of this Agreement; (iii) or seek trial-type hearings under Section 18 of the FPA and propose alternative conditions with respect to fishway prescriptions involving non-Covered Species.

**2.7 Relationship to Hanford Reach Fall Chinook Protection Program Agreement.** On April 5, 2004, some of the Parties to this Agreement and other entities executed the Hanford Reach Fall Chinook Protection Program Agreement (HRFCPP Agreement) that replaced the original Vernita Bar Agreement of 1988. Grant's compliance with the HRFCPP Agreement shall be a component of the fish protection and mitigation measures of this Agreement.

The Governmental and Tribal Parties to this Settlement Agreement desire to do annual monitoring and evaluation of flow scenarios in the Hanford Reach prior to 2011, the date for potential evaluation currently anticipated under the HRFCPP Agreement [Section C.6.(c)]. The desirability of such evaluation stems from an interest in better understanding how flows in the Hanford Reach impact fall Chinook migration, spawning and rearing. In the event that any of the Governmental and Tribal Parties to this Agreement desire to undertake the evaluation and monitoring of the effectiveness of the various flow scenarios implemented and to be implemented under the HRFCPP Agreement, Grant PUD will cooperate with such Parties in providing appropriate and timely information on flows and flow schedules. The Parties agree that the results of such evaluation and monitoring shall be available to all the Parties as soon as is reasonably practicable.

If the Parties to the HRFCPP Agreement agree to conduct flow evaluations related to impacts to fall Chinook or collect field data prior to 2011, Grant PUD agrees to convene a joint working group and to participate in the design, funding and implementation of the monitoring and evaluation. Such working group shall be comprised of members of the Priest Rapids Coordinating Committee (PRCC) as well as the parties to the HRFCPP Agreement. The members of the working group shall develop by consensus procedures, as appropriate, for decision making in this forum.

### **Part III. Relationship to the Federal Energy Regulatory Commission**

**3.1 FERC Filing.** Grant PUD shall file this Agreement with FERC within 45 days of the Effective Date with an Offer of Settlement that will request that FERC approve this Agreement in its entirety as part of the New License for the Project and include as conditions of the New License all of the obligations of Grant PUD set forth in this Agreement and Appendix A.

**3.2 Enforcement.** The Parties intend that all of the obligations of Grant PUD under this Agreement be enforceable terms of the New License issued for the Project by FERC.

**3.2.1 Consistency and Compliance With Statutory Obligations.** By entering into this Agreement, the Governmental and Tribal Parties represent that they believe their statutory and other legal obligations as to Covered Species are, or can be, met through implementation of this Agreement and development of recommendations, terms and conditions consistent with this Agreement that are submitted to FERC for inclusion in the New License. Provided however, nothing in this Agreement is intended or shall be construed to preclude any Governmental or Tribal Party from complying with its obligations under applicable laws and regulations. This Agreement shall not be interpreted to predetermine the outcome of any environmental or administrative review or appeal process.

**3.3 FERC Filings By Governmental and Tribal Parties.** Subject to paragraph 3.2.1, the Governmental and Tribal Parties will: a.) recommend to FERC that this Agreement be approved in its entirety and without modification b.) agree to join in the Joint Explanatory Statement in support of this Agreement to FERC; and c.) agree that as to Covered Species: i) that the individual agency's or tribe's complete and final recommendations, conditions, and/or prescriptions pursuant to Sections 4(e), 10(a), 10(j), and 18 of the FPA, to the extent those sections are applicable to the agency or tribe, will be consistent with this Agreement; ii) that any comments or responses to comments filed by them with FERC in the context of the relicensing process will be consistent with this Agreement; and iii) will actively support, in all regulatory proceedings in which they participate that are related to the relicensing of the Project, regulatory actions consistent with this Agreement.

**3.4 Endangered Species Act (ESA).** This Agreement does not include specific measures for species listed by USFWS as threatened or endangered, and consequently, USFWS reserves the right to take such future actions as it may deem appropriate under the ESA for species other than Covered Species. Grant PUD and NOAA Fisheries have worked collaboratively to develop measures in this Agreement to address the needs of ESA listed salmon and steelhead species. If FERC issues a Biological Assessment that properly incorporates the terms of this Agreement and is not materially different than the provisions of this Agreement, and if no new scientific information that is materially different becomes available during the consultation process, NOAA Fisheries anticipates that the measures contained in this Agreement, as well as implementing the Actions listed in Appendix A to this Agreement, will be adequate to avoid a jeopardy finding and minimize any incidental take occurring as a result of implementation of this Agreement for Covered Species that are presently listed as threatened or endangered under the ESA. However, nothing in this Agreement shall be construed to predetermine the outcome of any ESA consultation. NOAA Fisheries reserves the right, consistent with federal law and subject to the terms of this Agreement, to take such future actions as it may deem necessary to meet its obligations under the ESA. If during consultation with FERC pursuant to Section 7 of the Endangered Species Act, NOAA Fisheries requests any conservation measures that are materially inconsistent with the terms of this Agreement, the provisions of Section 2.5 of this Agreement will apply. Nothing in this Agreement shall limit or waive the authority of NOAA Fisheries to take whatever action it may deem necessary if the New License fails to satisfy fully the requirements of the ESA, including failing to adopt as license conditions the terms and conditions contained in a biological opinion issued by NOAA Fisheries, provided that if such NOAA Fisheries action is materially inconsistent with this Agreement, Grant shall have the right to withdraw from the Agreement as set forth in Section 2.5.

#### **Part IV. Implementation of this Agreement**

**4.1 Implementation Schedules.** The implementation and reporting requirements for the listed species measures contained in Appendix A shall, as appropriate, be extended to apply to the non-listed species as herein described. In the event that the Agreement does not provide for a specific implementation schedule for a measure, the schedule shall be developed by the Parties through the annual and triennial planning processes required by the Agreement to provide for implementation to occur as soon as is practicable.

**4.2 Standard of Care.** The Parties agree that Grant PUD and the other Parties shall use the most current and best available scientific information and analysis as the standard of care for implementing this Agreement. All facilities to be designed, constructed, modified, or operated under this Agreement shall be designed, constructed and operated using quality materials and current generally-accepted professional standards of care. Other activities required by this Agreement, including the research, monitoring and evaluation activities, shall also be governed by a similar standard of care.

In the event that the Parties advocate two or more alternatives to a study methodology, or measure or action, the Parties agree that Grant PUD and the other Parties shall evaluate and select the course of action based on the following criteria: 1) likelihood of biological success; 2) time required to implement; and 3) cost-effectiveness of solutions, but only where the Parties agree that two or more alternatives are comparable in their biological effectiveness.

**4.3 Adaptive Management.** The Parties agree that the protection, mitigation, and enhancement (PME) measures contained in this Agreement shall be implemented as provided herein and according to the principals of adaptive management. Adaptive management is an active systematic process for continually improving management policies and practices by sequential learning from the outcomes of operational programs. Adaptive management employs management programs that are designed to experimentally compare selective policies or practices by evaluating alternative hypotheses about the system being managed. The sequence of adaptive management steps include: (1) problem assessment, (2) project design, (3) implementation, (4) monitoring, (5) evaluation, and (6) adjustment of future decisions. Adaptive management is not complete until the planned management actions have been implemented, measured and evaluated and the resulting new knowledge has been fed back into the decision-making process to aid in future planning and management. The fundamental objective of adaptive management with respect to the Priest Rapids Project is to achieve the passage performance standards by 2013.

**4.4 Regulatory Compliance.** Whenever the implementation of this Agreement results in decisions by Grant PUD or the PRCC for Grant PUD to undertake activities that may require new authorizations or regulatory approvals by FERC or any other authority, Grant PUD shall promptly seek such authorizations or approvals as may be required under then existing law, and shall proceed with the implementation of such activities upon receipt of the necessary authorizations or approvals.

**4.5 Monitoring and Evaluation Program.** Grant PUD shall develop and implement, in consultation with the PRCC and subject to the approval of the Parties, monitoring and evaluation programs designed to evaluate the success of the measures in this Agreement, including applicable performance standards, as described in Appendix A to this Agreement and consistent with Section 4.3 above. This shall be accomplished for non-listed species in a manner and timeframe similar to the Performance Evaluation Program, Annual Progress and Implementation Plans, Periodic Program Evaluation Reports and Program Coordination requirements for listed species contained in Appendix A. The purpose of the program is to provide a measurable, reliable and technical basis to assess; (1) the degree to which Grant PUD is improving juvenile and adult passage survivals in accordance with the schedules and standards of this Agreement;



(2) habitat productivity improvements and; (3) supplementation for the non-listed Covered Species affected by the Project as described in Sections IX-XV.

**4.6 Financial Capacity.** Appendix A to this Agreement requires Grant PUD to maintain the financial capacity to fulfill the requirements of the reasonable and prudent alternatives contained in the Biological Opinion. While this Agreement remains in effect, Grant PUD shall also undertake such actions as may be necessary to ensure that it will maintain the financial capacity to implement the components of this Agreement.

Grant PUD shall fulfill this requirement in the manner described in Appendix A, which requires Grant PUD to maintain ratings for the senior, long-term debt of the Priest Rapids and Wanapum Developments by one or more major credit rating companies at or above investment grade BBB- (or its equivalent), or post acceptable credit support for meeting its obligations under Appendix A. If there is not at least one investment-grade rating for the bonds of the Developments, within 30 days after Grant PUD is notified that the rating(s) has been downgraded below investment grade Grant PUD shall post credit support in an amount equal to the estimated cost of implementing fish measures required by this opinion during the next 12 months. Credit support may be in the form of a line of credit with a term of at least one year and provided by a national bank or financial institution. Grant PUD shall make a good faith effort to secure a line of credit within 30 days of the notification of a downgrade and shall have a final line of credit in place no later than 60 days after the notification. Grant PUD's obligation to provide credit support shall terminate if it obtains an investment grade rating for the debt of the Developments. As long as Grant PUD is obligated to maintain credit support, the amount of the credit support to be provided shall be adjusted annually.

## **Part V. Priest Rapids Coordinating Committee**

**5.1 Establishment of Committee.** The Parties agree that the coordination of the implementation of the adaptive management program contained in this Agreement shall be through the Priest Rapids Coordinating Committee (PRCC) including Hatchery, and Habitat subcommittees, which have been established by Grant PUD consistent with the requirements of Action 39 of Appendix A. The members of the PRCC shall include the Parties to this Agreement, as well as the entities (the "non-Party members") named in Action 39 of Appendix A.

**5.2 Procedures.** The Parties shall establish such procedures including procedures for selection of a chair for the PRCC, which they may adjust from time to time, consistent with the terms of this Agreement as they determine will assist in the orderly, effective and efficient execution of its responsibilities. Grant PUD shall provide sufficient facilitation, administrative, and clerical support to the PRCC as agreed to by the Parties. The PRCC shall select, and Grant PUD shall fund an independent facilitator for the purpose of developing a well-functioning committee. Funding for the facilitator shall continue until the second Annual Progress and Implementation Plan has been filed with FERC, and continue for the duration of the license unless the Parties, through consensus, agree that a facilitator is no longer necessary.

**5.3 Designation of Representatives.** Each Party shall designate its Policy Representative, its regular representative to the PRCC and further representatives on the various subcommittees

that it may establish. Non-Party members shall similarly designate representatives, as appropriate. As a general matter, the Parties intend that Directors or Managers shall likely serve as Policy Representatives; managers with day-to-day oversight of major program areas shall serve as PRCC members; and that the senior technical staff in charge of specific program areas on a daily basis shall serve on the various technical subcommittees that the PRCC may establish.

**5.4 Decision-making.** Except for the implementation of the anadromous fish activities set forth in Appendix A, decisions related to the implementation of this Agreement shall be made by the Parties to this Agreement. Each Party shall designate one decision-making member for the PRCC. Except as otherwise provided in this Agreement, the Parties shall make decisions by consensus of those Parties present in person or by phone and shall develop its own rules of process. Abstention does not prevent consensus. The Chair shall make reasonable effort to contact the Parties and non-Party members in a timely manner to notify the Parties of PRCC meetings and pending decisions. If a Party cannot be present for an agenda item to be decided upon it may notify the Chair, who upon the receipt of such a request shall delay a decision on the agenda item for up to five (5) business days on the specified issues for which a delay is requested. A Party may invoke this right only once per delayed item. If the Parties cannot reach agreement upon an issue, then upon request by any Party that issue shall be referred to Dispute Resolution as described in Part VI.

## **5.5 Responsibilities of the PRCC.**

**5.5.1 Coordination and Oversight.** The PRCC shall serve as a forum to coordinate the implementation of this Agreement and to consider issues that arise. This oversight and cooperation function shall not diminish the specific commitments and implementation responsibilities of individual Parties under this Agreement.

**5.5.2 New Information.** The PRCC shall assess new information as it becomes available through the implementation of this Agreement or otherwise, and the PRCC may from time to time recommend to FERC amendments to the new license to reflect the best available scientific information on means and measures to achieve the applicable performance standards for the Project, as described in this Agreement.

**5.5.3 Research and Monitoring Coordination.** The PRCC shall coordinate as appropriate the design and implementation of research and monitoring programs consistent with this Agreement. The PRCC shall coordinate these activities, the sharing of data and information, and the conduct of other activities under this Agreement with related activities associated with other hydropower operations on the Columbia River in order to promote efficiencies and the use of best available scientific information and analysis in the implementation of this Agreement, including, but not limited to, participation in studies relating to the assessment of project related juvenile and adult delayed mortality.

## **Part VI. Dispute Resolution**

**6.1 General.** Disputes among the Parties arising out of the implementation of this Agreement shall initially be subject to the following dispute resolution procedures and shall be

guided by the standard of care described in 4.2, above. During the implementation of this Agreement, the Parties by consensus may adjust or modify these procedures from time-to-time as may be warranted. All Parties shall be bound to apply these agreed-upon procedures (as they are currently described or as may be modified by the Parties) to disputes amongst them that arise in the implementation of this Agreement. Only Parties to this Agreement shall have the right to invoke these dispute resolution measures.

**6.2 Notice and Referral.** The Party raising the issue shall provide written notice of the issue and the supporting rationale to the Chair of the PRCC. Within five days of receipt of such notice, the Chair shall refer the issue to such subcommittee to whom the subject matter has been delegated the initial implementation responsibilities, if any. Provided, however, that if the Chair, in consultation with the other members of the PRCC, determines that referral of the dispute to the relevant subcommittee would not enhance the likelihood of resolution because the dispute had originated with, or had already been thoroughly explored by, that subcommittee, the Chair may exercise its discretion to defer subcommittee referral and proceed to consider the matter directly pursuant to Section 6.4, below.

**6.3 Subcommittee Level.** If the dispute among the Parties occurs within a subcommittee established by the PRCC to implement this Agreement (e.g. a Hatchery or a Habitat subcommittee), the following procedures apply.

**6.3.1 Seek Resolution.** Within sixty (60) days of receipt of notice of a dispute under Section 6.2, above, the subcommittee shall seek to agree upon a resolution of the dispute. Participants shall endeavor in good faith to reach a resolution of the dispute using the best available information.

**6.3.2 Report to PRCC.** At the end of the sixty (60) day period, the appropriate subcommittee shall provide a report to the Chair of the PRCC describing the outcome of its efforts under Section 6.3.1, above. The Chair shall promptly distribute the report to the members of the PRCC. The report shall describe any proposed resolution, the basis for the proposed resolution, and such additional information as may be necessary to support the proposed resolution. In the alternative, the report shall describe the remaining issues in dispute, the efforts to resolve them, and any additional information that may be suitable to assist in resolving the outstanding issues in a timely manner.

**6.3.3 PRCC Final Action.** Upon receipt of a report under Section 6.3.2, above, the Parties shall, within thirty (30) days (or as otherwise agreed to) approve or disapprove the proposed resolution. In the event that it approves the proposal, the Parties will implement the resolution as accepted. In the event that the resolution requires the regulatory approval of FERC or another regulatory entity, Grant PUD, with the support of the Parties, shall seek prompt resolution by FERC or the relevant regulatory authority and shall proceed with its implementation upon receipt of the required approval.

**6.4 PRCC Original Action.** In the event that the Chair refers a disputed issue to the full PRCC, or a subcommittee is unable to resolve a dispute referred to it, the Parties shall have (90) days to seek agreement on the disputed matter. The Parties may elect to extend the time period

for resolving the matter as it may judge appropriate prior to the referral of an issue to the Policy Representatives of the Parties, as described below.

**6.5 Convening the Policy Representatives.** In the event that the Parties fail to agree to a resolution of a disputed issue, the Chair shall within five (5) days notify the Policy Representative of each Party of the existence of the continuing dispute and to request that they convene to resolve the dispute. The Policy Representatives shall have sixty (60) days from the receipt of such notice to resolve the dispute. This period may be extended by consensus of the Policy Representatives.

**6.6 Final Action.** If, by the end of the sixty (60) day period (or the period otherwise agreed to), the Policy Representatives have not resolved the dispute, any Party may withdraw and/or petition FERC or other appropriate regulatory authorities with responsibility over the matter to resolve the issue as may be appropriate under existing law.

**6.7 Hanford Reach Fall Chinook Protection Program Agreement.** Consistent with Section 2.7, above, disputes arising under the implementation or interpretation of the Hanford Reach Fall Chinook Protection Program Agreement shall be governed by the terms of that agreement.

## **Part VII. Definitions**

**7.1** “Biological Opinion” refers to the Biological Opinion issued by NOAA Fisheries on May 3, 2004, to the Federal Energy Regulatory Commission pertaining to the interim operation of the Project under the existing FERC license pursuant to Section 7(a)(2) of the Endangered Species Act on May 3, 2004.

**7.2** “Consensus” means the expressed mutual agreement by all Parties present in person or by phone, except for any abstaining parties.

**7.3** “Consultation” means that the Grant PUD shall obtain the views of and attempt to reach Consensus among the Parties whenever this Agreement requires the Licensee to consult with one or more of the Parties. The PRCC shall establish procedures for ensuring appropriate and meaningful Consultation under this Agreement.

**7.4** “Covered Species” means spring, summer and fall Chinook salmon (*Oncorhynchus tshawytscha*), sockeye salmon (*O. nerka*), steelhead (*O. mykiss*) and coho (*O. kisutch*).

**7.5** “Hanford Reach Fall Chinook Protection Program Agreement” refers to the Hanford Reach Fall Chinook Protection Program Agreement dated April 5, 2004.

**7.6** “New License” means the first long term license issued by FERC following expiration of the original license for the Priest Rapids Project, FERC No. 2114.

**7.7** “No Net Impact” refers to the condition whereby the Project does not produce unmitigated project related mortality of Covered Species. For purposes of this Agreement, No

Net Impact is achieved when there is a minimum of 91% combined adult and juvenile survival rate for each Covered Species past each dam and through each reservoir (survival standard), and when Grant PUD implements 2% mitigation in the form of funding habitat restoration and conservation work in mid-Columbia tributary streams, and 7% mitigation in the form of hatchery supplementation, or alternate mitigation as specified in Section IX through XV.

**7.8** “No Net Impact Fund” refers to the fund established by Part XV of this Agreement for the purpose of providing an increment of mitigation during the early years of the license term, specifically to address the gap between measured or estimated project survival and the survival standards outlined in Sections 9.3, 10.3 and 11.3, so long as steady progress is made toward achieving the survival standards in accordance with the terms and schedule provided for in this Agreement.

**7.9** “Salmon and Steelhead Settlement Agreement” consists of this Agreement.

## **Part VIII. Miscellaneous.**

**8.1 Reservation of Tribal Rights.** Nothing in this Agreement is intended to nor shall in any way abridge, limit, diminish, abrogate, adjudicate, or resolve any Indian or Tribal right reserved or protected in any treaty, executive order, statute or court decree under Federal or state law, including but not limited to the rights of the Wanapum to its subsistence and ceremonial fisheries pursuant to RCW 77.12.453.

**8.2 Notices.** All written notices to be given pursuant to this Agreement shall be mailed by first-class mail, postage prepaid to each Party. Parties shall inform all Parties by written notice in the event of a change of address. Notices shall be deemed to be given three (3) days after the date of mailing.

**8.3 Force Majeure.** For purposes of this Agreement, a “force majeure” is defined as causes beyond the reasonable control of, and without the fault or negligence of Grant PUD or any entity controlled by Grant PUD, including its contractors and subcontractors. Economic hardship shall not constitute force majeure under this Agreement.

In the event that Grant PUD is wholly or partially prevented from performing obligations under this Agreement because of a force majeure event, Grant PUD shall be excused from whatever performance is affected by such force majeure event to the extent so affected, and such failure to perform shall not be considered a material breach. Nothing in this section shall be deemed to authorize Grant PUD to violate the ESA or render the standards and objectives of this Agreement unobtainable. The suspension of performance shall be no greater in scope and no longer in duration than is required by the force majeure.

Grant PUD shall notify the other Parties to this Agreement in writing within seven (7) calendar days after a force majeure event. Such notice shall: identify the event causing the delay or anticipated delay; estimate the anticipated length of delay; state the measures taken or to be taken to minimize the delay; and estimate the timetable for implementation of the measures. Grant

PUD shall have the burden of demonstrating by a preponderance of evidence that delay is warranted by a force majeure.

Grant PUD shall use a good faith effort to avoid and mitigate the effects of the delay and remedy its inability to perform. When there is a delay in performance of a requirement under this Agreement that is attributable to a force majeure, the time period for performance of that requirement shall be reasonably extended as determined by the PRCC. When Grant PUD is able to resume performance of its obligation, Grant PUD shall give the other Parties written notice to that effect.

In the event a Force Majeure prevents performance of one or more material requirements under this Agreement for a prolonged period, the Parties recognize that reinitiation of consultation under the ESA may be required. In addition, if such delay in performance of one or more of the material requirements of this Agreement, and such delay materially reduces the benefit of this Agreement, a Party may initiate the dispute resolution provisions contained in Part VI.

**8.4 Waiver of Default.** Any waiver at any time by any Party hereto of any right with respect to any other Party with respect to any matter arising in connection with this Agreement shall not be considered a waiver with respect to any subsequent default or matter.

**8.5 Integrated Agreement.** All previous settlement drafts and negotiation communications between the Parties, either verbal or written, with reference to the subject matter of this Agreement are superseded by the terms and provisions of this Agreement, and once executed, this Agreement and its examples, figures, tables and appendix shall constitute the entire agreement between the Parties, provided, that titles to sections and sub-sections thereof are for the assistance of the reader and are not part of the Agreement.

**8.6 Successors and Assigns.** This Agreement shall be binding upon and inure to the benefit of the Parties hereto and their successor and assigns.

**8.7 Appropriations.** Implementation of this Agreement by the Governmental and Tribal Parties is subject to the availability of appropriated funds. Nothing in this Agreement will be construed by the Parties to require the obligation, appropriation, or expenditure of any money from federal, state or tribal governments. The Parties acknowledge that the agency Parties will not be required under this Agreement to expend any of their individual appropriated funds unless and until an authorized official of that agency or government affirmatively acts to commit to such expenditures as evidenced in writing.

**8.8 Legal Authority.** Each Party to this Agreement hereby represents and acknowledges that it has legal authority to execute this Agreement and is fully bound by the terms hereof.

**8.9 Release of Past Claims.** The Parties, within the limits of their authority, shall from the date of the construction of the Project to the Effective Date of this Agreement, release, waive, and/or discharge Grant PUD and its commissioners, agents, representatives employees, and power purchasers from any and all past claims, demands, obligations, promises liabilities, actions, damages and causes of action arising under the existing FERC license concerning

impacts of the Project on Covered Species to the extent known on the Effective Date. This release is conditioned on the completion of Grant PUD's obligations as set forth in this Agreement. For as long as this Agreement is in effect, the Parties shall not bring any action against Grant PUD and its commissioners, agents, representatives, employees and/or power purchasers; provided, however, that the Parties may bring an action against Grant PUD to the extent required to enforce this Agreement. This release, waiver, and/or discharge shall not transfer any of the above listed liabilities or obligations, if any, to any other entity.

**8.10 Signature in Counterparts.** This Agreement may be executed in counterparts. A copy with all original executed signature pages affixed shall constitute the original Agreement.

**8.11 No Precedent/Compromise of Disputed Claims.** The conditions described and measures proposed to rectify them set forth in this Agreement are fact specific and uniquely tied to the circumstances currently existing at the Project. The Parties agree that the conditions existing here and the proposed actions to deal with them are not intended to in any way establish a precedent or be interpreted as the position of any party in any proceeding not dealing specifically with the terms of this Agreement. Further, the Parties acknowledge that this Agreement is a compromise of disputed claims for which each Party provided consideration to the other as contemplated under Federal Rule of Evidence 408, and will not be used by any Party in a manner inconsistent with the provisions of Federal Rule of Evidence 408.

**8.12 Elected Officials Not To Benefit.** No member of or delegate to Congress shall be entitled to any share or part of this Agreement or to any benefit that may arise from it.

**8.13 No Partnership.** Except as otherwise expressly set forth herein, this Agreement does not, and shall not be deemed to, make any Party the agent for or partner of any other Party.

**8.14 No Third Party Beneficiaries.** This Agreement shall not create any right or interest in the public, or members of the public, as a third party beneficiary of this Agreement, and shall not authorize any non-Party to maintain a suit in law or equity pursuant to this Agreement.

## **Part IX. The Fall Chinook Protection Program**

**9.1 Program Elements.** Grant PUD shall develop and implement a comprehensive Fall Chinook Protection Program for the fall Chinook populations in the mid-Columbia region affected by the Project. The Program shall be comprised of the following components: Program Performance Standards; a Passage Program for the Project; the Hanford Reach Fall Chinook Protection Program Agreement; 2% compensation provided through the habitat program; and a Fall Chinook Artificial Propagation Program as described below.

### **9.2 Program Performance Standards.**

**9.2.1 No Net Impact.** This Fall Chinook Protection Program is designed to achieve No Net Impact (NNI) of the operations of the Project on fall Chinook populations in the program area, defined as the Hanford Reach and upstream to the tailrace immediately below Rock Island Dam. NNI shall apply collectively to all fall Chinook including those that originate above and

within the program area as a whole. The contributions to NNI from Project operations and other actions will include protection across all life history phases including migrations, spawning, and rearing that occur within the program area. The Parties to this Agreement agree that this Fall Chinook Protection Program achieves NNI for the Project. The Parties furthermore agree that the Hanford Reach Fall Chinook Protection Program Agreement involving multiple entities beyond the Parties is a necessary component for continuing to achieve NNI in the program area. In the event that the Hanford Reach Fall Chinook Protection Program Agreement is no longer in effect, the Parties will redefine the NNI obligations of Grant PUD in the Project area.

**9.2.2 Periodic Review and Adjustment.** Grant PUD, in consultation with the PRCC, shall from time-to-time review the performance of the Fall Chinook Protection Program and determine its continued ability to achieve its performance standards. In the event that the Parties determine that adjustments are required to better achieve the performance standards for fall Chinook, the Parties will make a further determination to either continue seeking alternative passage solutions, or to adjust the mix of habitat or artificial propagation production approaches and levels. In undertaking these determinations, the Parties shall use the best available scientific information and the generally applicable standard of care governing the implementation of this Agreement, described above.

**9.3 Project Passage.** Grant PUD, in consultation with the PRCC, shall develop a Passage Program and operational measures for the Project to protect that portion of the run that passes the Project in order to improve downstream passage survival at the Project and contribute to achieving the overall NNI objective for fall Chinook in the program area. This passage program shall be developed as a part of and in conjunction with the Downstream Passage Alternatives Action Plan defined in Appendix A, and consistent with the schedules shown in Table 2 and Figures 1 and 2. Until measures are implemented that provide equivalent or improved survivals in lieu of the current summer spill program, the default passage program will include summer spill up to TDG limits at Wanapum Dam and up to 39% at Priest Rapids Dam to pass 95% of the summer juvenile migrants (fall and summer Chinook). Spill may be increased above 39% at Priest Rapids Dam if spill is limited by TDG limits at Wanapum Dam in order to contribute to attaining the applicable performance standards for the Project.

As a starting point for this planning work, Grant PUD and the PRCC shall utilize the Fish Passage Alternatives Study (Voskuilen et al. 2003). These reports and analyses shall also be utilized, where otherwise applicable, as the basis for continued downstream passage planning for listed species as required by the Appendix A and for the other non-listed species as herein required by this Agreement. The initial plan is shown in Figure 1 – Wanapum Development Passage Measures Plan Forward and Figure 2 – Priest Rapids Development Passage Measures Plan Forward. These Plans will be reviewed and updated annually by the PRCC. Grant PUD shall also continue to implement the predator control program required by Actions 10 and 18 of Appendix A to contribute to improvements in survivals of fall Chinook and other Covered Species in the Project area.

**9.4 The Hanford Reach Fall Chinook Protection Program Agreement.** The Vernita Bar Agreement was completed in 1988 and provides operational commitments from the Mid-Columbia operators (BPA, Grant PUD, Chelan, and Douglas PUDs) to manage Columbia River



flows for protection of spawning fall Chinook. This Vernita Bar Agreement has a term concurrent with the duration of the Project license, which expired in 2005, and any annual licenses issued thereafter.

Some of the Parties to this Agreement and other entities have recently concluded a new Hanford Reach Fall Chinook Protection Program Agreement that is intended to replace the original Vernita Bar Agreement. The Hanford Reach Fall Chinook Protection Program includes the provisions of the original Vernita Bar Agreement plus operational measures to conserve and protect juvenile fall Chinook during the spring rearing period. Grant's compliance with the Hanford Reach Fall Chinook Protection Program is intended by the Parties to be an essential component of the fall Chinook program designed to achieve NNI in the program area. Based on the use of best available science and through use of adaptive management, the Parties acknowledge that future flow modifications may be addressed by the joint working group defined in Section 2.7.

**9.5 Fall Chinook Artificial Propagation Goals.** As a part of its overall Fall Chinook Protection Program, Grant PUD currently produces and will continue to produce 5,000,000 fall Chinook sub-yearling smolts annually at the Priest Rapids Hatchery, subject to adjustments pursuant to Section 9.2.2 (Periodic Review and Adjustment), above. These 5,000,000 fish fulfill Grant PUD's mitigation requirements for spawning areas inundated by the Project reservoirs. As compensation for passage mortality, Grant PUD shall provide facilities necessary to produce an additional 1,000,000 fall Chinook sub-yearling smolts (plus an additional 10% capacity allowance to provide flexibility). To accommodate this additional production, Grant PUD will rear these fish at Priest Rapids Hatchery. In addition, to compensate for the impacts of flow fluctuations within the Hanford Reach and to take advantage of the available rearing habitat within reservoirs, Grant PUD shall implement a program to produce and release up to 1,000,000 fall Chinook fry annually into the Wanapum and Priest Rapids reservoirs. Grant PUD shall, in consultation with the PRCC Hatchery subcommittee, update the existing Hatchery and Genetic Management Plan (HGMP) for approval by the Parties. Grant PUD shall, in consultation with the PRCC Hatchery subcommittee, develop a monitoring and evaluation plan to assess the effectiveness of the fall Chinook propagation program at meeting the objectives developed by the Parties and consistent with the monitoring and evaluation plan described below in Section 13.1.4.

**9.6 Priest Rapids Hatchery Improvements.** At this time, Grant PUD has identified specific facility improvements at Priest Rapids Hatchery which are necessary to carry out the programs described above. These include construction of a new incubation building, a new office building, an emergency power system to provide an uninterruptible water supply to the hatchery building, new early rearing raceways, an additional rearing pond, new adult trapping and holding facilities, a new weir on the return channel, predator control features, a pollution abatement settling pond, and up to three WDFW standard residences. Detailed information on these construction activities is provided in Allison (2003). Grant PUD, in consultation with the PRCC, shall implement the facility improvements through a schedule developed by Grant PUD, in consultation with the PRCC.

## **Part X. Summer Chinook Protection Program**

**10.1 Program Elements.** Grant PUD shall develop and implement a comprehensive Summer Chinook Protection Program for the summer Chinook populations in the mid-Columbia region affected by the Project. The objective of the Program shall be to achieve NNI of the operations of the Project on summer Chinook salmon populations that pass through the Project area.

The Program shall be comprised of the following components: Program Performance Standards; a Passage Program for the Project; 7% compensation provided through an Artificial Propagation Program; and 2% compensation provided through the habitat program described below.

**10.2 Program Performance Standards.** Grant PUD, in consultation with the PRCC, shall develop fish passage programs and operational measures designed to achieve the juvenile survival standards specified in Action 1 of Appendix A, and consistent with the schedules shown in Table 2 and Figures 1 and 2, for purposes of achieving NNI for summer Chinook salmon. However, as of the Effective Date survival study methodologies to measure project passage survival rates have not been sufficiently established to conclusively measure summer Chinook survival rates. Current summer Chinook juvenile project survivals, based upon 2003 Project operating conditions, have been calculated for use in the interim as described in Table 1 by use of the best scientific information available.

In coordination with other regional efforts, Grant PUD shall actively participate in research and development programs to assist in the development of survival study methods that can be used to estimate survival rates associated with project passage for summer Chinook. When these study methodologies are developed, they will be utilized by Grant PUD and the PRCC to develop revised estimates of project passage juvenile survivals. Grant PUD, in consultation with the PRCC, shall endeavor to recalculate these interim survivals every three years or otherwise periodically as may be warranted by new information. In revising these standards Grant PUD and the PRCC shall take into account differences in juvenile survival rates between yearling and sub-yearling migrants and the existing limitations on the ability to measure sub-yearling survival.

Grant PUD shall implement the passage alternatives developed through the PRCC directed passage improvement program which are intended to achieve the performance standards specified in Action 1 of Appendix A as applied to summer Chinook. In the event that the Parties determine that it is not feasible to achieve the performance standards for summer Chinook, the Parties will make a further determination to either continue seeking alternative passage solutions, or to adjust the mix of habitat and NNI fund contributions, or increase artificial propagation levels. In undertaking these determinations, the Parties shall use the best available scientific information available and the generally applicable standard of care governing the implementation of this Agreement, described above. When the adjusted mix of mitigation and compensation measures prescribed by the Parties for summer Chinook are fully implemented, NNI will be achieved for summer Chinook.

**10.3 Project Passage.** Grant PUD shall, in consultation with the PRCC, develop fish passage programs and operational measures designed to achieve the passage survival standards for summer Chinook, as identified in Action 1 of Appendix A for spring Chinook and steelhead

using the passage program (summer spill and juvenile passage facility development) in place pursuant to Section 9.3, and consistent with the schedules shown in Table 2 in Section XV and Figures 1 and 2 following Section XV of this Agreement.

**10.4 Summer Chinook Artificial Propagation.** Grant PUD shall, in consultation with the PRCC Hatchery subcommittee, develop the facilities necessary to produce 833,000 (plus an additional 10% capacity allowance to provide flexibility) yearling summer Chinook smolts as called for in the Biological Assessment and Management Plan (BAMP)<sup>1</sup>. In developing this program, Grant PUD shall within 1 year of the Effective Date write a HGMP for approval by the Parties and submission for ESA permits as appropriate. Grant PUD shall seek to complete site evaluations and selections within 18 months of plan approval; facility design, permitting and contracting within 2 years of site approvals; and facility construction within 2 years following permit approvals. Grant PUD shall, in consultation with the PRCC Hatchery subcommittee, develop a monitoring and evaluation plan to assess the effectiveness of the summer Chinook propagation program at meeting the objectives developed by the Parties and consistent with the monitoring and evaluation plan described below in Section 13.1.4.

## **Part XI. Sockeye Protection Program**

**11.1 Program Elements.** Grant PUD shall, in consultation with the PRCC, develop and implement a comprehensive Sockeye Protection Program for the sockeye populations in the mid-Columbia region affected by the Project. The objective of the program shall be to achieve NNI of the operations of the Project on sockeye populations that pass through the Project area.

The Program shall be comprised of the following components: Program Performance Standards; a Passage Program for the Project; 7% compensation provided through an Artificial Propagation Program and 2% compensation provided through the habitat program described below.

**11.2 Program Performance Standards.** Grant PUD, in consultation with the PRCC, shall develop fish passage programs and operational measures designed to achieve the juvenile survival performance standards specified in Action 1 of Appendix A for the purpose of achieving NNI as applied to sockeye in the Project area.

At this time, survival study methodologies to measure project passage survival rates have not been developed to conclusively estimate project survivals for sockeye smolts. Current juvenile project survivals for sockeye smolts, based upon 2003 Project operating conditions, have been calculated for use in the interim as described in Table 1, below by use of the best scientific information available.

In coordination with other regional efforts, Grant PUD will actively participate in research and development programs to assist in the development of survival study methods that can be used to estimate survival rates associated with project passage for sockeye. When these study methodologies are developed, they will be utilized by Grant PUD and the PRCC to estimate project passage survival rates for sockeye. Grant PUD, in consultation with the PRCC, shall

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<sup>1</sup> Biological Assessment and Management Plan (Bugert 1998a)

endeavor to recalculate these interim survivals every three years or otherwise periodically as may be warranted by new information.

Grant PUD shall implement the passage alternatives developed through the PRCC-directed passage improvement program which is intended to achieve the performance standards specified in Action 1 of Appendix A, as applied to sockeye. In the event that the Parties determine that it is not feasible to achieve these performance standards for sockeye, the Parties will make a further determination to either continue seeking alternative passage solutions, or to adjust the mix of habitat and NNI fund contributions, or increase artificial propagation levels. In undertaking these determinations, the Parties shall use the best available scientific information available and the generally applicable standard of care governing the implementation of this Agreement described above. When the adjusted mix of mitigation and compensation measures prescribed by the Parties for sockeye are fully implemented, NNI will be achieved for sockeye.

**11.3 Project Passage.** Grant PUD shall, in consultation with the PRCC, develop fish passage programs and operational measures to achieve the juvenile survival standards for sockeye, as specified in Action 1 of Appendix A for spring Chinook and steelhead, for the purpose of achieving NNI for sockeye. Initially, sockeye shall be protected using the same passage program in place for spring Chinook and steelhead (Appendix A), and passage survival shall be tested consistent with the schedules shown in Table 2 in Section XV and Figures 1 and 2 following Section XV of this Agreement.

**11.4 Sockeye Salmon Artificial Propagation Program.** Grant PUD shall strive to artificially propagate up to 1,143,000 sockeye salmon smolts as described in the BAMP (1998). This will include researching available options for sockeye hatchery facilities, and consideration of experimental programs. Potential locations include, but are not limited to, Skaha Lake in the Okanogan basin and Wenatchee. Previous attempts to propagate sockeye salmon in the middle and upper Columbia River basin have indicated that this propagation may be difficult to achieve. If the Parties determine that this propagation program is not feasible, then Grant PUD shall meet this compensation commitment by one of the following alternatives; flow augmentation targeted to improve instream conditions for sockeye salmon and/or habitat improvements targeted for improved natural production of sockeye salmon. If neither of these options is feasible, then additional options such as species propagation trades shall be explored. Within two years of the Effective Date, Grant PUD shall, in consultation with the PRCC, develop a production program for sockeye based on the results of the research efforts described above. In the event an artificial propagation program is needed, Grant PUD shall write a HGMP for approval by the Parties and submission for ESA permits as appropriate. Grant PUD shall, in consultation with the PRCC Hatchery subcommittee, develop a monitoring and evaluation plan to assess the effectiveness of the sockeye propagation program at meeting the objectives developed by the Parties and consistent with the monitoring and evaluation plan described below in Section 13.1.4.

## **Part XII. Reintroduced Species.**

**12.1 Coho Protection Program.** Coho are considered extinct within the mid-Columbia River, however reintroduction programs are ongoing which are intended to develop a locally

adapted, naturally reproducing population. Until such time as these efforts are successful, determination of Project survival rates and measures to meet NNI will not be implemented. The Parties will determine if a self-sustaining run of coho has been established and whether coho survival rates need to be measured or can be assumed relative to other species already measured.<sup>2</sup> The PRCC shall initially consider whether Coho meet the self-sustaining criteria prior to January 1, 2007. Grant PUD shall cooperate and coordinate with activities related to the monitoring of the coho reintroduction program particularly when such activities may occur in the Priest Rapids Project Area.

**12.2 Okanogan Basin Spring Chinook.** Hatchery compensation for Okanogan basin spring Chinook will be assessed by the PRCC in 2007 following the development of a long term spring Chinook hatchery program and/or the establishment of a threshold population of naturally producing spring Chinook in the Okanogan watershed. Should the Committee determine that such a program or population exists, then the Committee shall determine the most appropriate means to satisfy the 7% hatchery compensation requirement for Okanogan basin spring Chinook.

### **Part XIII. Artificial Propagation Production**

#### **13.1 Production Level Adjustments**

**13.1.1 Existing Work Plans.** In implementing the hatchery program elements of this Anadromous Fish Program, Grant PUD shall, in consultation with the PRCC Hatchery subcommittee, use the BAMP (Bugert 1998) as a starting point to take advantage of the substantial planning and prioritization that has already occurred with several federal and state fishery agencies and tribes. Each program shall include the development of a HGMP and be subject to modifications in response to the new information that results from monitoring and evaluation of the programs (Bugert 1998a).

**13.1.2 Adjustments in Production Levels.** Grant PUD shall maintain the initial production levels until 2013 unless modified by agreement of the Parties and after consultation with the other members of the PRCC. The initial production levels, except for original inundation mitigation, shall be reviewed in 2013 and every 10 years thereafter to determine if adjustments are appropriate to achieve and maintain NNI. Adjustments will be made if necessary based on changes in average adult returns, adult-to-smolt survival rate and smolt-to-adult survival rates from the hatcheries relative to the survival rates utilized to establish the initial production levels via the BAMP. Adjustments in production levels may also be based upon changes in the estimates of unavoidable Project adult or juvenile mortalities underlying these initial NNI calculations. The Parties will be responsible for recommending adjustments in program levels and strategies considering the methodologies described in the BAMP and recommending modified implementation plans for Grant PUD funding.

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<sup>2</sup> The PRCC shall determine that the population is self-sustaining when it demonstrates survival rates and production trends equivalent to other salmonid yearling outmigrant populations originating from the same watersheds.

**13.1.3 Hatchery Production Implementation.** Where two or more alternatives to achieving production levels exist, priority shall be placed on the basis of biological effectiveness, time required for implementation and cost effectiveness. Propagation program modifications shall make efficient use of existing facilities owned by Grant PUD or cooperating entities including adult collection, acclimation, and hatchery facilities, provided that the existing facility or the existing facility as modified is compatible with and does not compromise program effectiveness. Grant PUD in consultation with the PRCC shall make reasonable efforts to implement program modifications when needed to achieve overall and specific program objectives. Program modifications may include changes to facilities, release methods, and rearing strategies necessary to achieve NNI as determined by the monitoring and evaluation program. As of the date of entering into this Agreement, existing facilities have been identified which have sufficient unused capacity to accommodate portions of the production requirements. Grant PUD also recognizes that additional facilities may be needed to meet artificial propagation obligations. The Parties support the use of available capacity for the production programs in the Anadromous Fish Program. The Parties shall place a high priority on the efficient use of existing facilities owned by Grant PUD or cooperating entities. Grant PUD will be responsible for reaching agreements concerning shared use of facilities with cooperating entities.

**13.1.4 Monitoring and Evaluation.** Grant PUD shall, in consultation with the PRCC Hatchery subcommittee, develop a monitoring and evaluation plan for the propagation programs that is updated every five years. The first monitoring and evaluation plan shall be completed within one year of the Effective Date of this Agreement.

The Parties agree that over the duration of this Agreement, new information and technologies that are developed will be considered and utilized in the monitoring and evaluation of the propagation programs. Grant PUD shall fund propagation program monitoring and evaluation programs required by this Agreement.

#### **Part XIV. Habitat Program.**

**14.1 Habitat Account.** Grant PUD shall establish a Priest Rapids Habitat Conservation Account, as required by Appendix A and in accordance with applicable provisions of Washington State law. Interest earned on the funds in this Account shall remain in the Account. No funds from the Account shall be used to pay the routine expenses of the members of the PRCC or its Habitat Subcommittee. Payments shall be calculated based upon 2003 dollars, annually adjusted per U.S. Dept of Labor, Bureau of Labor Statistics Consumer Price Index for the Western Region. Should this index become unavailable, then the Parties shall identify a comparable index for use by the PRCC. Grant PUD shall make contributions to the Account annually on or before February 15, at or before the filing of the Annual Progress and Implementation Plans, as called for in Action 35 of Appendix A.

**14.2 Accounting Standards.** Grant PUD shall be responsible for managing this Account according to generally accepted accounting standards. The Parties may review Grant PUD's records relating to the administration of this Account during normal business hours and subject to five days prior written notice of request. In the event that issues arise over the calculation of contributions to the Account, the management of the Account, or the distribution of the funds

from the Account, Grant PUD may with the consent of the Parties retain the services of a neutral third party accounting professional to review the issues and recommend such actions as may be appropriate to resolve them.

**14.3 Increased Annual Contributions.** As required by Sections 9.1, 10.1, and 11.1, Grant PUD shall increase its annual contributions to the Priest Rapids Habitat Conservation Account required by Action 34 of Appendix A by \$807,900 (for a total of \$1,096,500 in 2003 dollars). Funds in the account shall be available to finance habitat projects identified in the Habitat Plan as approved by the PRCC Habitat subcommittee. Payment for agreed-to projects shall be made directly by Grant PUD to the responsible entity for the project, unless otherwise agreed to by the Parties.

**14.4 Habitat Plan.** Grant PUD shall develop, in consultation with the PRCC, a Habitat Plan for non-listed species in a manner similar to the plan developed for listed species pursuant to Action 33 of Appendix A and consistent with the guidance provided in Section 14.5. The plan is designed to shepherd the development and implementation of summer Chinook, fall Chinook and sockeye salmon habitat protection and restoration. The Habitat Plan shall provide for coordination with other similar programs such as those undertaken by Chelan and Douglas PUDs. At a minimum, the Habitat Plan shall identify goals, objectives, a process for coordination, and a process by which habitat projects may be identified and implemented. The Habitat Plan shall give a priority to restoring habitat functions important to listed stocks and other anadromous species in drainages occupied by upper Columbia River (UCR) steelhead and UCR spring Chinook affected by the Project. The Habitat Plan shall give priority to projects that can be implemented prior to 2010 with the available funding in order to provide maximum benefit to ESA-listed species. The purpose of the Habitat Plan is to establish and shepherd a habitat restoration program that promotes the rebuilding of self-sustaining and harvestable populations of Covered Species and to mitigate for a portion (2%) of unavoidable losses resulting from Project operations. The Habitat Plan shall be developed within one year of the date of this Agreement, and shall be revised from time to time as appropriate.

**14.5 Habitat Inventory Measures.** In order to ensure that Habitat Account funds are properly targeted and efficiently spent to mitigate for unavoidable Project mortalities, the Parties agree that Habitat Account funds (up to \$2.5 million) be used to collect the data required to establish a framework to assess and prioritize tributary enhancement projects. The objective is to collect data that will provide a sound biological basis for the development and prioritization of mitigation projects in the tributaries.

The Parties agree to utilize the substantial work that has already occurred in evaluating habitat conditions in the upper Columbia and opportunities for improvement, and agree to use such existing work as technical foundations for further analyses and planning purposes, including the use of the Aquatic Species and Habitat Assessment (Bugert 1998b): Wenatchee, Entiat, Methow and Okanogan watersheds.

The Parties furthermore agree that priority be given to the following additional specific data development tools and tributary assessment programs for river basins utilized by salmon and steelhead:

- 1) Ecosystem Diagnosis and Treatment (EDT) methodology;
- 2) State of Washington Salmon and Steelhead Inventory Assessment Project;
- 3) Forward Looking Infrared and Light Distance and Ranging/Airborne Laser Altimeter Terrain Mapping; and
- 4) Stream-flow gauging network.

**14.6 Ownership of Assets.** The PRCC or its designated subcommittee shall make recommendations to Grant PUD on the appropriate ownership of real or personal property or other assets acquired through the use of the Habitat Account. Title may be held by Grant PUD, by a resource agency or tribe or by a land or water conservancy group, as determined by the Parties. Unless the Parties determine that there is a compelling reason for ownership by another entity, Grant PUD shall hold title.

## **Part XV. No Net Impact Fund**

**15.1 Establishment.** Grant PUD shall establish and administer a No Net Impact Fund (NNI Fund) in accordance with applicable provisions of Washington State law and this Agreement. Interest earned on the funds in the NNI Fund shall remain in the NNI Fund. No funds from the NNI Fund shall be used to pay the routine expenses of the members of the PRCC or its Habitat Subcommittee. Payments shall be calculated based upon 2003 dollars, annually adjusted per U.S. Dept of Labor, Bureau of Labor Statistics Consumer Price Index for the Western Region. Should this index become unavailable, then the Parties shall identify a comparable index for use by the PRCC. Grant PUD shall make contributions to the Fund annually on or before February 15, at or before the filing of the Annual Progress and Implementation Plans, as called for in Action 36 of Appendix A.

**15.2 Accounting Standards.** Grant PUD shall manage the Fund according to generally accepted accounting standards.

**15.3 Function of Fund.** The Parties 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.

Grant PUD shall 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.

**15.4 Resolving Disputes.** In the event that issues arise over the calculation of contributions to the NNI Fund, the management of the NNI Fund, or the distribution of the funds from the NNI Fund, Grant PUD may, with the consent of the Parties retain the services of a neutral third party accounting professional to review the dispute, conduct an audit of the NNI Fund and recommend such actions as may be appropriate to resolve the issue and correct whatever deficiencies, if any, as may be warranted. This third party review may occur prior to the invocation of dispute resolution procedures described above and may serve as a reasonable basis by which to avoid the necessity of formal dispute resolution.

In the event that a dispute continues over annual contributions to or expenditures from the NNI Fund, such disputes shall be governed by the dispute resolution requirements of Part VI of the Agreement. Provided, however, in the event the Parties fail to resolve the dispute, then FERC shall retain jurisdiction over the matter and may issue an order or take other such action as may be appropriate to resolve the dispute pursuant to the terms of this Agreement and applicable law.

**15.5 Initial Survival Estimates.** The Parties agree that based upon the best available scientific information, the baseline survival estimates for juvenile summer Chinook, fall Chinook, and sockeye are as presented in Table 1. The NNI fund contribution has been calculated by the Parties using baseline survival estimates for current Project operations. These estimates are based upon site-specific studies where available and use of off-site study results where necessary. The baseline estimate for sub-yearling Chinook is based upon active migrants and does not include natural mortality for sub-yearlings rearing within the Project. Future estimates of sub-yearling survivals throughout the term of this Agreement will be determined for and applied to active migrants by Grant PUD, in consultation with the Parties. The baseline survival estimates in Table 1 will be utilized until alternative values are developed by Grant PUD with the concurrence of the other Parties.

**Table 1.** Initial survival estimates and methodology used to calculate annual contributions to NNI Fund.

Species	Species Proportion Calculation					Baseline Survival and NNI Fund Calculation					
	Baseline Adult Returns	SAR	7% Smolt Equivalentents	Initial BAMP	Species Prop.	Survival			Diff. from Standard	NNI Fund	
						WAN	PRD	PRP	Yearling	Per 1% Amount	Annual Contribution
Spring Chinook <sup>1</sup>	12,808	0.003	298,853	600,000	0.21			0.8659	-0.10%	\$115,143	\$0
Steelhead <sup>2</sup>	7,325	0.01	51,275	100,000	0.03			0.8659	-0.10%	\$16,449	\$0
Sockeye <sup>3</sup>	57,104	0.007	571,040	1,143,000	0.39			0.8389	2.60%	\$213,837	\$555,976
Summer Chinook <sup>3</sup>	17,879	0.003	417,177	833,000	0.29			0.8299	3.50%	\$159,007	\$556,525
Fall Chinook <sup>4</sup>	8,872	0.005	124,208	240,000	0.08					\$43,864	N/A
TOTAL				2,916,000	1					\$548,300	\$1,112,501

<sup>1</sup>The baseline survival estimates for spring Chinook are based on the results of site-specific studies conducted in 2001 and 2003 taken in combination with interpolations from reach-wide Chinook studies of spring Chinook passing through the Project area. These data have shown per-project spring Chinook survival to be in the range of 91%-92% over a broad range of conditions. The 2003 study results showed that both Wanapum and Priest Rapids pool and dam survivals were above 93%.

<sup>2</sup>There is not data from site-specific studies on all species. Therefore, inferences have been drawn from off-site data. Off-site data supports the assumption that spring Chinook survival is an adequate surrogate for steelhead survival. Therefore the baseline estimate for steelhead is assumed to be equal to spring Chinook.

<sup>3</sup>Off-site data supports an assumption that sockeye and subyearling summer Chinook survivals are likely to be somewhat lower than spring Chinook and steelhead. Therefore, the baseline survivals for these species are established 1%-2% lower than the yearling spring Chinook levels.

<sup>4</sup>Since the Parties have designed the Fall Chinook Protection Program to achieve NNI overall in the program area, including in the Hanford Reach, no annual contributions to the NNI Fund based upon deficits in fall Chinook survivals are warranted. The Parties agree that NNI is being achieved for fall Chinook based upon the current mix of measures.

**15.6 New Survival Estimates.** 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 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. Table 2 presents an initial schedule for conducting these evaluations. This schedule may be modified by consensus of the Parties and in consultation with the PRCC. The results of these studies will be used to develop new survival estimates for Covered Species according to the methodology shown in Table 3. The resulting survival estimates will then be used to update the Project survival estimates of Table 1 and adjust NNI contributions according to Section 15.7.

**Table 2.** Schedule for conducting survival studies and developing average Project survival estimates.

	2003	2004	2005	2006	2007	2008	2009	2010	2011
Yearling Chinook (3 yr PRP avg.=S1)	X	X	X						
Steelhead (3 yr PRP avg.=S2)				X	X	X			
Sockeye (3 yr PRP avg.=S3)							X	X	X
Subyearling Chinook (3 yr PRP avg.=S4)							X	X	X

**Table 3.** Survival estimates for Covered Species and methodology for updating survival estimates.

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Spring Chinook	86.63%	86.40%	86.74%							
Steelhead		86.59%	86.59%	86.59%	86.59%	86.59%	S2	S2	S2	S2
Sockeye		83.89%	83.89%	S1-2.7%	S1-2.7%	S1-2.7%	S2-2.7%	S2-2.7%	S2-2.7%	S3
Summer Chinook		82.99%	82.99%	S1-3.6%	S1-3.6%	S1-3.6%	S2-3.6%	S2-3.6%	S2-3.6%	S4

## 15.7 Annual Contributions.

**15.7.1 Amount of Contributions.** Subject to the following limitations, Grant PUD shall provide on an annual basis up to \$548,300 (2003 dollars, annually adjusted per US Dept of Labor, Bureau of Labor Statistics Consumer Price Index for the Western Region) for each percentage point of survival through the Project that falls below applicable juvenile project survival standards (currently 93% per development or 86.5% for the Project as a whole for yearling migrants and adjusted by an agreed upon factor for sub-yearling migrants) allocated on a per-species basis using the methodology outlined in Table 1. Juvenile Project survival shall be developed under the schedule of Table 2 and Project averages developed according to the methodology of Table 3. All calculations shall be rounded to the nearest tenth of a percentage point. Grant PUD contributions to the NNI Fund shall be made annually on or before February 15, concurrently with the filing of the Annual Progress and Implementation Plans, as called for in Appendix A.

**15.7.2 Timing and Recalibration.** Within 60 days after execution of this Agreement, payment for the year 2005 will be made. The initial payment is based on the preliminary survival information shown in Table 1. The amount of the annual contribution for 2005 shall be prorated on a monthly basis. Beginning in 2006, Grant PUD shall recalculate the annual contributions updating Table 1 with new survival information collected according to the schedule of Table 2 and survival estimates shown in Table 3. Grant PUD shall use this updated calculation for purposes of computing the annual contributions to the NNI fund for 2006, 2007 and 2008. In 2009, when new survival information is available, this new survival information would be used to adjust contributions through 2011. In 2012, updated survival estimates for all Covered Species would be used to make another adjustment. Thereafter, survival estimates shall be adjusted at five-year intervals, or at such frequency as the Parties at that time may decide.

**15.7.3 Calculation Methodologies.** The NNI Fund contribution amount shall be calculated by Grant PUD using a three step process.

1) Multiply the relative proportion of the BAMP production for each species by the total annual fund amount for each 1%.

**example:** For spring Chinook the BAMP production is 600,000 and the total for all species is 2,916,000.  $600,000/2,916,000 = 21\%$ .  $\$548,300 \text{ times } 21\% = \$115,143$ .

2) Determine the difference between the current survival and the standard, whether measured or calculated.

**example:** For yearling Chinook, the current survival is 91% at Wanapum and 92% at Priest Rapids for a PRP total of 83.7%. This is 2.8% below the PRP standard of 86.5%.

3) Multiply the result from step 1 times the result from step 2.

**example:** For spring Chinook,  $\$115,143 \text{ times } 2.8 = \$322,400$ .

The amount resulting in step 3 represents the annual NNI Fund payment for spring Chinook based on the assumptions given in the example calculations.

FIGURE 1

**PRIEST RAPIDS PROJECT  
WANAPUM DEVELOPMENT  
PASSAGE MEASURES PLAN FORWARD**

Action	Testing	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Advanced Turbines</b>			Unit 8 Install	Install 2nd Unit	Install 3rd Unit	Install 4th Unit	Install 5th and 6th Units	Install 7th Unit	Install 8th Unit	Finish Installation		
	<b>Balloon-tag Testing</b>		Balloon-tag test relative to Unit 9	Continue installation of advanced turbines if balloon-tag tests are positive								
<b>Future Unit Bypass</b>			Project Construction				Select Alternative Non-turbine Passage Options if Overall Project Survival is not Met					
	<b>Balloon-tag Testing</b>				Balloon-tag test for route specific injury and survival	Modify Concept to Reduce Injury if Necessary						
	<b>Acoustic-tag Testing</b>				Determine near-field fish behavior / survival	Modify Concept with Incremental Improvements if Necessary						
<b>MOA spill</b>			Yes	Yes	Testing	Adjust as Appropriate						
<b>Top Spill</b>		look at survival est. from acoustic data	Yes	Yes	Testing	Adjust as Appropriate						
<b>Overall Performance</b>												
	<b>Survival Testing</b>	PIT Tag	PIT Tag	PIT Tag	PIT Tag	PIT Tag	PIT Tag	PIT Tag	PIT Tag	PIT Tag	PIT Tag	Testing at 5 - Year Intervals, assuming performance standards have been met.
	<b>Species</b>	Yearling Chinook		Steelhead			Sockeye and Sub-yearling Chinook					
	<b>Route Specific Testing</b>					Project Survival test by block loading, advanced turbines and future unit passage	Project Survival test by block loading, advanced turbines and future unit passage	Project Survival test by block loading, advanced turbines and future unit passage	Passage criteria met. No additional species evaluation required.			

\* annual review of this schedule by PRCC

FIGURE 2

**PRIEST RAPIDS PROJECT  
PRIEST RAPIDS DEVELOPMENT  
PASSAGE MEASURES PLAN FORWARD**

Action	Testing	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Gate 22 Split-Bay					Project Construction					Select Alternative Non-turbine Passage Options if Overall Project Survival is not Met		
	Balloon-tag testing							Balloon-tag test for route specific injury and survival	Modify Concept to Reduce Injury if Necessary			
	Acoustic tag testing							Determine near-field fish behavior / survival	Modify Concept with Incremental Improvements if Necessary			
Turbine Operation												
	Balloon-tag testing		Balloon-tag testing									
Adv. Turbines							Possible Construction based upon further data collection					
MOA spill			Yes	Yes	Yes	Yes	Yes	Testing	Adjust as Appropriate			
Overall Performance												
	Survival Testing	PIT-Tag	PIT-Tag	PIT-Tag	PIT-Tag	PIT-Tag	PIT-Tag	PIT-Tag	PIT-Tag			Testing at 5 - Year Intervals, assuming performance criteria has been met.
	Species	Yearling Chinook		Steelhead			Sockeye and Sub-yearling Chinook					
	Route Specific Testing							Passage criteria has been met. No additional species evaluation required.				

\* annual review of this schedule by PRCC

**APPENDIX A**  
to the  
Settlement Agreement

**PROTECTION PROGRAMS**  
  
**for**  
  
**SPRING CHINOOK and STEELHEAD**

*Action 1:* Performance Standards. Grant PUD shall make steady progress towards achieving a minimum 91% combined adult and juvenile salmonid survival performance standard at the Priest Rapids and Wanapum Developments (i.e., each dam), and shall have passage measures in place, as specified in actions comprising this RPA, that are expected to achieve this performance standard by 2010. The 91% standard includes a 93% project-level (reservoir and dam) juvenile performance standard. NOAA Fisheries recognizes that it is not currently possible to measure the 91% combined adult and juvenile survival standard. To address this issue, Grant PUD is directed to use dam and reservoir smolt survival studies to evaluate progress towards meeting 95% juvenile dam passage survival and 93% juvenile project passage survival. Upon issuance of this Biological Opinion, Grant PUD shall develop and begin implementation, with steady progress, a plan to achieve the 93% juvenile project passage survival standard by 2010, and shall have measured survival for UCR spring Chinook salmon and UCR steelhead by 2013, as specified below. The performance standard can also be accomplished as a composite; Grant PUD can compensate for a failure to achieve the performance standard at one of its developments by exceeding the performance standard at the other development (i.e. at a minimum, by the same percentage amount below the survival performance standard at the development failing to meet performance standards). If at-project survival exceeds the minimum combined adult juvenile and adult performance standard specified above, as measured per the specifications listed below, off-site mitigation obligations can be reduced by a commensurate amount.

*Action 2:* Downstream Passage Alternatives Action Plan. FERC shall require that Grant PUD, in coordination with the PRCC, develop and annually revise a Downstream Passage Alternatives Action Plan (DPAAP) designed to contribute to the achievement of applicable performance standards for the Project over time. The DPAAP shall be approved by NOAA Fisheries and shall consist of the implementation and testing of capital measures designed to improve juvenile survivals at the Wanapum development, as well as the implementation and testing of alternative operational measures outlined in the actions that follow. The objective of these capital or operational modifications shall be to improve juvenile passage survivals while remaining within TDG limits.

At the conclusion of the implementation and testing of Actions 3-10 below, Grant PUD, in coordination with the PRCC and with NOAA Fisheries approval, will update its DPAAP to identify the combination of measures that results in the greatest survival. Additionally, the plan will identify other prospective high priority research and development to further improve survivals, where necessary.

*Action 3:* Top Spill through Future Units. As part of the first phase of the DPAAP described above, FERC shall require that Grant PUD design, construct and test downstream passage through a prototype top-spill unit in a vacant bay of the future units section of Wanapum dam (future unit top spill). The specific measures and bypass



flows will be developed through a design process conducted by Grant PUD in consultation with the PRCC and approved by NOAA Fisheries.

Prior to the testing and construction of the prototype future unit top spill, Grant PUD shall, in consultation with the PRCC, prepare and submit to NOAA Fisheries detailed design and engineering plans and schedules for its review and approval. This schedule shall include conducting hydraulic modeling of the prototype future unit top-spill device and completing the design work for the prototype within the first year after issuance of this opinion. Subject to confirmation in the approved schedule, Grant PUD shall award the construction contract within 2 years of issuance of the opinion and commence construction of the prototype promptly thereafter. Biological testing shall begin during the 2007 outmigration, followed by additional testing or the completion of the unit, as may be appropriate.

The design of the future unit top spill will provide at least an approximate 20,000 cubic feet per second (cfs) discharge from the forebay for the purpose of juvenile fish bypass. The installation of the future unit top spill will include a *transition chute* that will allow bypass flow to be introduced into the tailrace in the optimal configuration (as determined by hydraulic model testing) to provide improved juvenile fish egress from the tailrace and to minimize TDG uptake or de-gas bypass flow. Biological testing will include evaluation of forebay migration through the use of radio telemetry or acoustic tags and survival tests utilizing PIT tags. Additional passage measures may be required if biological testing shows that performance standards are not being met (Action 1). Biological study plans will be developed in coordination with the PRCC and approved by NOAA Fisheries. This schedule can be modified through consultation with the PRCC and with the concurrence of NOAA Fisheries.

*Action 4:* Advanced Turbines. As a second component of its DPAAP described above, Grant PUD shall, within 90 days of the issuance of this biological opinion, file an application with FERC for an amendment to its license to replace the ten turbines at its Wanapum development with ten new advanced turbines, as developed by the Department of Energy's Advanced Hydro Turbine Program. Subject to the approval of the application by FERC, Grant PUD shall first install a single advanced turbine unit beginning in 2004 and evaluate its ability to meet criteria developed in consultation by the PRCC and approved by NOAA Fisheries. Grant PUD shall, prior to installation, develop an appropriate scientific protocol for evaluating the physical and biological performance of this advanced turbine in consultation with the PRCC and approved by NOAA Fisheries. Grant PUD shall implement such protocols in 2005 and coordinate the evaluation of the performance of the test unit with the PRCC. If the results demonstrate that the advanced turbine unit will achieve juvenile passage survivals that are equivalent to or better than the survivals through the existing turbine units and is otherwise achieving applicable operating criteria, Grant PUD shall develop a schedule for implementation of the remaining nine units and, subject to the approval of NOAA

Fisheries and in consultation with the PRCC, shall proceed to install the remaining units accordingly.

*Action 5:* Spill: Subject to the identification of better measures to improve downstream survivals through the implementation of Actions 2 through 4, FERC shall require Grant PUD to implement a spill level of 43% of average daily total river flow, or TDG limits, whichever is less, for spring migrants. This spill level will remain in effect for spring migrants until a better downstream passage alternative is identified, tested and approved by NOAA Fisheries, in consultation with the PRCC. This spill level will be in effect for 95% of the spring migrants passing Wanapum Dam as determined by in-season monitoring at Rock Island Dam or June 15, whichever is earlier, with monitoring of the downstream migration to begin annually on or before April 1. In consultation with the PRCC and approval by NOAA Fisheries, Grant PUD may reduce spill as necessary to remain at or under TDG limits. Implementation and in-season management of spill shall be conducted as described in Section 3.2.1.2. Grant PUD, in consultation with the PRCC and subject to approval by NOAA Fisheries, may replace interim spill at Wanapum Dam if more biologically efficient and effective measures are designed, tested and implemented.

*Action 6:* Alternative Spill Measures. While construction takes place on the downstream passage alternatives, FERC shall allow Grant PUD to evaluate further modifications to the spill regime currently in place (spill occurs during the out-migration up to the TDG limits or 43% of total river flow, whichever is less) to evaluate potential improvements in juvenile survival. The evaluation will be based upon the best available route-specific and dam passage survival monitoring and testing information from previous evaluations. The evaluation may include the use of top spill or other passage routes as alternatives to standard tainter gate or sluiceway spill to improve downstream survivals within applicable TDG limits. Such study proposal(s) shall be developed in consultation with the PRCC and subject to NOAA Fisheries approval, and studies shall be implemented in consultation with NOAA Fisheries and the PRCC. FERC shall require Grant PUD to report on the results annually, as provided in Action 31. Implementation and in-season management of spill shall be conducted as described in Section 3.1.1.2. This spill level will be in effect for 95% of the spring migrants passing Priest Rapids Dam as determined by in-season monitoring at Rock Island Dam or June 15, whichever is earlier, with monitoring of the downstream migration to begin on or before April 1. If testing indicates that equivalent or higher project survival can be achieved via alternative spill measures as compared to the current spill regime utilized during the spring out-migration, FERC shall require that the alternative spill measures be utilized by Grant PUD for the downstream passage of listed species until replaced by a permanent downstream passage program that achieves the project survival standards for juveniles as specified in Action 1. If testing indicates that equivalent or higher project juvenile survival cannot be achieved via alternative spill measures as compared to the current spill regime utilized during the spring out-migration, FERC shall require spill amount up to the TDG limits or

43% during a minimum of 95% of the spring out-migration of ESA listed species, until biological testing indicates that other passage measures are sufficient to meet project survival standards indicated in Action 1.

- Action 7:* Alternative Spill Patterns. While testing alternative spill measures, FERC shall also require Grant PUD to investigate changes to the spill patterns at Wanapum Dam in order to explore methods to improve juvenile survival through the spillway. Any changes to the spill pattern shall be implemented only after consultation with the PRCC and subject to approval by NOAA Fisheries.
- Action 8:* Total Dissolved Gas Abatement. FERC shall require Grant PUD to continue to implement the 2000 TDG Abatement Plan and coordinate any changes to the plan with NOAA Fisheries and the PRCC, subject to approval by the Washington State Department of Ecology and by NOAA Fisheries. Implementation and in-season management of spill and water quality monitoring shall be conducted as described in Section 3.1.1.3 unless modified in consultation with NOAA Fisheries and the PRCC.
- Action 9:* Turbine Operations. While construction takes place on the downstream passage alternatives, FERC shall require Grant PUD to promptly reassess operation of the existing turbines at Wanapum Dam in order to optimize juvenile survival through the turbines. Grant PUD shall coordinate study proposals with NOAA Fisheries and the PRCC. Any subsequent changes to turbine operations to improve survival will require approval from NOAA Fisheries and consultation with the PRCC.
- Action 10:* Avian Predator Control. FERC shall require Grant PUD to continue to develop and fund an overall programmatic approach to the reduction of avian-related mortalities to salmon populations affected by the Priest Rapids Project. The Avian Predator Control Program shall articulate the goals and objectives of the program; the measures to be undertaken by Grant PUD to achieve those goals and objectives, and the methods by which the success of those measures will be evaluated from time to time as determined by the PRCC and with concurrence by NOAA Fisheries.
- As part of this Program, Grant PUD shall maintain in good condition wires across the Wanapum powerhouse tailrace area in order to discourage feeding behavior by avian predators. FERC shall also require Grant PUD to evaluate the feasibility of installing additional wire arrays across the spillway tailrace areas by the end of the first year following issuance of this biological opinion. If NOAA Fisheries determines that wire installation is feasible, and regulatory approvals are granted, Grant PUD shall install wires across the spillway tailrace area before the 2006 juvenile fish passage season begins.
- Action 11:* Northern Pikeminnow Removal Program. FERC shall require that Grant PUD continue to develop and annually fund an overall programmatic approach to the reduction of juvenile salmon mortality associated with predation by the Northern

Pikeminnow in the area of the Priest Rapids Project. This Northern Pikeminnow Removal Program shall articulate its goals and objectives; the measures to be undertaken by Grant PUD to achieve those goals and objectives, and the monitoring and evaluations, consistent with other means and measures undertaken by Grant PUD to improve juvenile passage survivals as developed pursuant to Action 2, above. This Program shall be developed in consultation with the PRCC and approved by NMFS.

*Action 12:* Downstream Passage Alternatives Action Plan. As part of Action 2, above, FERC shall require that Grant PUD complete and annually revise a DPAAP which addresses the testing, evaluation and implementation of both capital and operational modifications at the Priest Rapids Dam and their expected effect on achieving the applicable performance standards for the Project. These capital or operational modifications shall improve juvenile passage survivals while remaining within applicable TDG limits. Priest Rapids Dam passage improvements are of lower priority than Wanapum Dam passage improvements, because recent evaluations of the current spill program indicates higher project survival at Priest Rapids Dam than at Wanapum Dam under existing facilities and operations (although performance standards have not been met).

*Action 13:* Alternative Top Spill Concepts. As part of the first phase of the DPAAP above, FERC shall require that Grant PUD focus the specific designs upon alternative application of top spill concepts. Preliminary testing in 2002 and further testing in 2003 suggest that modification of tainter gates and possible use of full-open tainter gate configurations may provide high fish passage efficiencies and survivals. Prior to testing and construction, Grant PUD shall, in consultation with the PRCC, prepare and submit to NOAA Fisheries detailed design and engineering plans and schedules for its review and approval. The results of these tests will be used to further develop a longer-term downstream passage program for the Priest Rapids dam. Priest Rapids Dam passage improvements are of lower priority than Wanapum Dam passage improvements, because evaluation of the current spill program indicates higher project survival at Priest Rapids Dam than at Wanapum Dam.

*Action 14:* Alternative Spill Measures. Prior to construction of the long-term capital improvements identified in Action 12, FERC shall allow Grant PUD to evaluate further modifications to the spill regime at the dam to evaluate potential improvements in juvenile survivals. FERC shall require that Grant PUD develop annual study plans for these evaluations. The studies shall be designed to evaluate possible alternatives to spill that may result in survival improvements over the basic spill program identified under Action 15, below. Such study proposals shall be developed in consultation with the PRCC and subject to NOAA Fisheries approval. FERC shall require Grant PUD to report on the results annually, as provided in Action 32. In-season management of spill shall be conducted as described in Section 3.2.1.2. Priest Rapids Dam passage improvements are of lower priority than Wanapum Dam passage improvements, because evaluation of

the current spill program indicates higher project survival at Priest Rapids Dam than at Wanapum Dam.

- Action 15:* Alternative Spill Patterns. While testing other spill alternatives, FERC shall also require Grant PUD to investigate changes to the spill pattern at Priest Rapids Dam in order to explore methods to improve juvenile survival through the spillway. Any changes to the spill pattern shall be implemented only after consultation with the PRCC and subject to approval by NOAA Fisheries. Priest Rapids Dam passage improvements are of lower priority than Wanapum Dam passage improvements, because evaluation of the current spill program indicates higher project survival at Priest Rapids Dam than at Wanapum Dam.
- Action 16:* Spill. Subject to the identification of better measures to improve downstream survivals through the implementation of Actions 12 through 14, FERC shall require Grant PUD to implement a spill level of 61% of average daily total river flow, or TDG limits, whichever is less, for spring migrants. This spill level will remain in effect for spring migrants until a better downstream passage alternative is identified, tested and approved by NOAA Fisheries, in consultation with the PRCC. This spill level will be in effect for 95% of the spring migrants passing Priest Rapids Dam as determined by in-season monitoring at Rock Island Dam or June 15, whichever is earlier, with monitoring of the downstream migration to begin annually on or before April 1. With consultation with the PRCC and approval by NOAA Fisheries, Grant PUD may reduce spill as necessary to remain at or under the TDG limits. Implementation and in-season management of spill shall be conducted as described in Section 3.2.1.2. Grant PUD, in consultation with the PRCC and with approval by NOAA Fisheries, may replace interim spill at the Priest Rapids Development if more biologically efficient and effective measures are designed, tested and implemented.
- Action 17:* Total Dissolved Gas Abatement. In coordination with Action 12, FERC shall require Grant PUD to investigate alternatives for reducing TDG production in the Priest Rapids spillway. Results of the 2003 monitoring program shall be provided to NOAA Fisheries and the PRCC during the winter of 2004, or as soon as they are available, for discussion regarding possible alternatives for reducing TDG. In addition, development of fish passage alternatives at Priest Rapids Dam shall use the current 120% tailrace TDG limit as a design criterion. If NOAA Fisheries, in consultation with the PRCC, determines that gas abatement measures are warranted, study and design shall commence promptly (i.e., by 2005). Implementation and in-season management of spill shall be conducted as described in Section 3.2.1.3.
- Action 18:* Turbine Operations. FERC shall require Grant PUD to conduct research, beginning within 1 year of issuance of this opinion, to improve turbine survival at Priest Rapids Dam. Research proposals shall be reviewed and approved by NOAA Fisheries, in consultation with the PRCC before commencing. Biological testing shall begin in early spring of the year following the issuance of this

opinion and prior to the onset of the spring migration season. Research results and subsequent turbine operation plans shall be reviewed and approved by NOAA Fisheries in consultation with the PRCC. FERC shall make every reasonable effort to ensure that improved turbine operations shall begin by the 2005 spring migration season. Until a new operation plan is in place, FERC shall ensure that the Priest Rapids turbines are operated in a non-cavitation mode.

- Action 19:* Avian Predator Control. In conjunction with the Avian Predator Control Program developed and implemented pursuant to Action 10, above, FERC shall require Grant PUD to maintain in good condition wires across the Priest Rapids powerhouse tailrace area in order to discourage feeding behavior by avian predators. FERC shall require Grant PUD to determine the feasibility of wire installation across the Priest Rapids spillway tailrace area. The feasibility study shall be developed and conducted in consultation with and subject to approval by NOAA Fisheries, by the end of the first year following issuance of this biological opinion. If NOAA Fisheries determines that wire installation is feasible, and regulatory approvals are granted, Grant PUD shall install wires across the spillway tailrace area before the following juvenile fish passage season begins.
- Action 20:* Northern Pikeminnow Removal. As a component of the Northern Pikeminnow Predator Reduction Program developed pursuant to Action 10, above, Grant PUD shall continue to fund throughout the term of this biological opinion a Northern Pikeminnow removal program, and shall in consultation with the PRCC develop and implement a monitoring and evaluation program to evaluate its effectiveness.
- Action 21:* Adult PIT Tag Detection, Priest Rapids Dam. FERC shall require Grant PUD to continue to operate and maintain PIT tag detection capability in the right and left bank fishways at Priest Rapids Dam.
- Action 22:* Priest Rapids Adult Trap. FERC shall require Grant PUD to complete the design of an off-ladder adult trap in the left bank fishway at Priest Rapids Dam within 1 year of issuance of this opinion. Design scoping shall commence within 90 days of this biological opinion with a prompt construction schedule that will be developed in consultation with the PRCC and approved by NOAA Fisheries. Grant PUD, in coordination with the PRCC, may seek agreement on sharing the costs of constructing this facility with the Northwest Power Planning Council and other regional sources. Grant PUD shall construct the left bank fishway off-ladder trap within 3 years of issuance of this opinion, after consultation with the PRCC, and subject to NOAA Fisheries approval of the design, regardless of funding commitments from other entities.
- Action 23:* Priest Rapids Project Adult Fishway Improvements. FERC shall require Grant PUD to investigate methods for improving hydraulic conditions in the Priest Rapids project fishway collection channel, junction pool and entrance pools. Assessment shall begin within 6 months of issuance of this biological opinion and if feasible, improvements implemented during the following season ~~is~~ ladder

outage period. Schedule, design and implementation shall be undertaken in consultation with the PRCC and subject to NOAA Fisheries approval.

- Action 24:* Adult Fish Counting. FERC shall require Grant PUD to develop video monitoring capability for counting adults migrating through the right and left bank fishways at Priest Rapids and Wanapum Dams. Video counting shall be in operation by 2006 at both dams, and reports submitted for inclusion in regional databases. The horizontal counting board at Priest Rapids Dam shall be removed once the video counting equipment is operational.
- Action 25:* Adult Steelhead Downstream Passage. FERC shall require Grant PUD to operate project sluiceways at both dams continually from the end of summer spill until November 15 to provide a safer passage route for adult steelhead fallbacks. If in-season monitoring indicates that these timeframes could be modified to improve adult downstream fish passage, FERC shall require Grant PUD to discuss in-season study results with the PRCC, and upon approval by NOAA Fisheries modify the time frame for operating project sluiceways.
- Action 26:* Hatchery Subcommittee. Within 6 months of issuance of this opinion, Grant PUD shall convene a Hatchery Subcommittee of the PRCC to undertake and oversee the planning and implementation of the programs described in Actions 27-29. Grant shall complete an Artificial Propagation Plan<sup>3</sup> for UCR spring-run Chinook salmon and UCR steelhead. Grant PUD shall periodically assess modifications in these program plans with the approval of NOAA Fisheries and in consultation with the PRCC at intervals as described in Actions 26 and 27 or as otherwise agreed to by the Subcommittee.
- Action 27:* UCR Steelhead Supplementation Plan. FERC shall require Grant PUD to complete, in consultation with the PRCC and subject to NOAA Fisheries approval an Artificial Propagation Plan to rear and release up to 100,000 yearling UCR steelhead for release in the UCR basin. The plan shall be consistent with recovery criteria for UCR steelhead and other artificial propagation programs. If new facilities are determined to be warranted for the implementation of this plan, then they shall be constructed to rear a minimum of the production level of this plan plus 10%. A comprehensive monitoring and evaluation program shall be included in the plan that includes monitoring in the natural environment. The monitoring and evaluation program may be implemented in conjunction with ongoing or future monitoring and evaluation programs with other entities such as Chelan and Douglas County PUDs through cost sharing agreements external to this biological opinion.
- Action 28:* UCR Spring-run Chinook Salmon. FERC shall require Grant PUD to complete, in consultation with the PRCC and subject to NOAA Fisheries approval, an Artificial Propagation Plan to rear and release up to 600,000 yearling UCR spring Chinook for release in the UCR basin. The plan shall be consistent with UCR

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<sup>3</sup>The Artificial Propagation Plan can take the form of a Hatchery and Genetic Management Plan.

spring Chinook salmon recovery criteria and other UCR spring Chinook salmon artificial propagation programs. New facilities are anticipated to be necessary for this program and shall be constructed to rear a minimum of the production level plus 10%. A comprehensive monitoring and evaluation program shall be included in the plan that includes monitoring in the natural environment. The monitoring and evaluation program may be implemented in conjunction with ongoing or future monitoring and evaluation programs with other entities such as Chelan and Douglas County PUDs through cost sharing agreements external to this biological opinion.

The Artificial Propagation Plan shall address land, water, and facility development, identify goals and objectives, and provide for coordination with similar programs undertaken by Chelan and Douglas PUDs. The Artificial Propagation Plan shall include a schedule for prompt and steady implementation progress so as to have the necessary facilities available to commence production within 7 years of issuance of this opinion. The plan shall be developed within 1 year of the date of the issuance of this opinion. It shall seek to complete site evaluations and selections within 18 months of plan approval; facility design, permitting and contracting within 2 years of site approvals; and facility construction within 2 years following permit approvals.<sup>4</sup>

*Action 29:* White River Spring-Run Chinook Program. Consistent with Action 28 above, FERC shall require that immediately upon issuance of this biological opinion, Grant PUD shall begin funding and otherwise supporting implementation of the White River spring-run Chinook salmon captive brood program. This shall include, but is not limited to, the development of permanent rearing and acclimation facilities. This program shall be implemented to reach a yearling smolt production level of up to 250,000 fish, provided the spring-run Chinook salmon program total production is 600,000. The Hatchery Subcommittee shall develop a phased implementation schedule for the continuation of this program. The phased approach to the work shall include deadlines for site identification, facility design, HGMP approval, the obtaining of necessary regulatory approvals and the commencement of construction. The design of the required facilities should factor in a 10% increase in production capacity beyond the production levels required above.

*Action 30:* Nason Creek Spring-run Chinook Program. Consistent with Action 28 above, FERC shall require that immediately upon issuance of this biological opinion, Grant PUD begin supporting, through funding of permanent rearing and

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<sup>4</sup> This schedule assumes that existing information on candidate sites is sufficient to support site selection; that the preferred sites have readily available water rights to support the proposed facility; and that the PRCC and its Hatchery Subcommittee meet regularly to ensure prompt approvals and active support for permitting the new facilities. The individual milestones in this schedule are subject to adjustments by the PRCC as the Plan is developed.



acclimation facilities, and by other means which support the implementation of artificial propagation of spring-run Chinook salmon in Nason Creek. At this time, the development of an adult trapping facility and juvenile acclimation site to rear 250,000 yearling smolts, provided the spring-run Chinook salmon program total production is 600,000, on Nason Creek is warranted. The Hatchery Subcommittee shall develop a phased implementation schedule for these actions. The phased approach to the work shall include deadlines for site identification, facility design, the obtaining of necessary regulatory approvals and the commencement of construction. The design of the required facilities should factor in a 10% increase in production capacity beyond the production levels required above.

- Action 31:* Methow River Basin Spring-run Chinook Program. Consistent with Action 28 above, FERC shall require that immediately upon issuance of this biological opinion, Grant PUD shall begin funding and otherwise supporting the implementation of artificial propagation of spring-run Chinook salmon in the Methow River basin. This shall include, but is not limited to, development of permanent rearing and acclimation facilities. At this time, potential improvement of existing facilities in the Methow Basin owned by Douglas PUD should be explored as one avenue for Grant PUD to contribute to the recovery of UCR spring Chinook salmon at a production level of up to 200,000 yearling smolts, provided the spring-run Chinook salmon program total production is 600,000.
- Action 32:* Habitat Subcommittee. Within 6 months of the date of this opinion, Grant PUD shall convene a Habitat Subcommittee of the PRCC to undertake and oversee the planning and implementation of the necessary program elements to support habitat protection and restoration programs.
- Action 33:* Habitat Plan. FERC shall require Grant PUD to develop, in consultation with the PRCC, a Habitat Plan, subject to NOAA Fisheries approval, designed to shepherd the development and implementation of spring Chinook salmon and steelhead habitat protection and restoration. The Habitat Plan shall provide for coordination with other similar programs such as those undertaken by Chelan and Douglas PUDs. At a minimum, the Habitat Plan shall identify goals, objectives, a process for coordination, and a process by which habitat projects may be identified and implemented. The Habitat Plan shall give a priority to restoring habitat functions important to listed stocks and other anadromous species in drainages occupied by UCR steelhead and UCR spring Chinook affected by the Priest Rapids Project. The Habitat Plan shall give priority to projects that can be implemented prior to 2010 with the available funding in order to provide maximum benefit to ESA-listed species during the term of this RPA. The purpose of the Habitat Plan is to establish and shepherd a habitat restoration program that promotes the rebuilding of self-sustaining and harvestable populations of UCR spring Chinook salmon and steelhead, and to mitigate for a portion of unavoidable losses resulting from Project operations. The Habitat Plan shall be developed

within one year of the date of this opinion, and shall be revised from time to time as appropriate.

- Action 34:* Habitat Account. FERC shall require Grant PUD to establish within 1 year of the date of this opinion a Priest Rapids Habitat Conservation Account in accordance with applicable requirements of Washington State law. Funds in the account shall be made available by Grant PUD to finance tributary or main-stem habitat projects. The amount of funds provided to the account annually shall be \$288,600 (specified in 2003 dollars - annually adjusted per US Dept of Labor, Bureau of Labor Statistics CPI for Western Region).
- Action 35:* Performance Evaluation Program Development. FERC shall require Grant PUD to develop, within 1 year of the date of this opinion, an overall Performance Evaluation Program for the Project. The purpose of the program will be to provide a reliable technical basis to assess the degree to which Grant PUD is improving juvenile and adult passage survivals; habitat productivity improvements and supplementation for the listed anadromous fishery resources affected by the Project as described in this RPA. Where appropriate, the Performance Evaluation Program shall measure and evaluate individual actions within each category; assess the contribution of the action to the desired objective, and provide a basis for identifying new options and priorities among those options for further progress in meeting objectives. This Performance Evaluation Program shall consist of annual progress and implementation reports and periodic performance evaluations to assess overall performance in meeting the survival standards described in this RPA. Grant PUD shall develop this Performance Evaluation Program in consultation with the PRCC and shall submit it to NOAA Fisheries for review and approval.
- Action 36:* Annual Progress & Implementation Plans. Within 1 year of the date of this opinion and annually thereafter, FERC shall require that Grant PUD produce annual Progress and Implementation Plans that describe the implementation activities for the actions required in this RPA. These Plans will report on the status of the actions required by this RPA undertaken by Grant PUD during each calendar year and the anticipated schedule of future actions and studies in the next planning period in the areas of juvenile and adult passage, habitat, and supplementation. The Progress and Implementation Plans will also report the results of monitoring, modeling or other analyses that take place in the calendar year to evaluate the degree to which the actions are likely to improve juvenile and adult survivals. The Progress and Implementation Plans will also provide an annual plan for the operation, inspection and maintenance of all juvenile and adult fishways at both Priest Rapids and Wanapum dams. Grant PUD shall provide these Progress and Implementation Plans to NOAA Fisheries and the PRCC by no later than February 15<sup>th</sup> of each year to assist in systems operational planning for that year.

- Action 37:* Periodic Program Evaluation Reports. At 3-year intervals or as otherwise provided for in the approved Performance Evaluation Program developed pursuant to Action 35, above, Grant PUD shall prepare and submit to the PRCC a Performance Evaluation Report that will assess the ability of each program element to meet its program objectives and contribute to the overall achievement of the performance standards in Action 1, above. As may be provided in the approved Performance Evaluation Program, Grant PUD may incorporate independent peer review by recognized experts, as approved by the PRCC, as it evaluates alternative fish passage survival improvements.
- Action 38:* Program Coordination. FERC shall require that Grant PUD coordinate the design of its Performance Evaluation Program with the development of relevant parallel monitoring or evaluation systems by other hydropower operators in the Columbia Basin and the Northwest Power Planning Council. The purpose of such coordination shall be to promote technical consistency and compatibility among these efforts in order to contribute to a comprehensive evaluation of stock performances throughout the Columbia Basin. This coordination shall also promote the use of the best available science and shall provide opportunities for efficient sharing of monitoring activities, data management systems, analytical modeling and other activities.
- Action 39:* Priest Rapids Coordinating Committee: Grant PUD shall establish and convene a Priest Rapids Coordinating Committee (PRCC) comprised of NOAA Fisheries, U.S. Fish and Wildlife Service, Washington Department of Fish and Wildlife, Confederated Tribes of the Colville Reservation, Yakama Nation, Confederated Tribes of the Umatilla Reservation, and Grant PUD. The PRCC shall oversee the implementation of the anadromous fish activities associated with the Priest Rapids Project, including the requirements of this opinion. Among other things, it shall approve or modify annual Progress & Implementation Plans; approve or modify the Performance Evaluation Program; review Performance Evaluation Reports; advocate decisions of the Committee in all relevant regulatory forums; establish such subcommittees as it deems useful (in addition to the Habitat and Hatchery Subcommittees required above); resolve disputes elevated from subcommittees; and conduct other business as may be appropriate for the efficient and effective implementation of these measures.
- Action 40:* Financial Capacity. Grant PUD shall undertake such actions as may be necessary to ensure that it will maintain the financial capacity to fulfill its fishery obligations under law, including the programs and measures required by this opinion. Grant PUD undertakes financial forecasting over a decadal period every year to ensure the ability to meet financial obligations for implementing fish measures, honoring power purchase contractual obligations, making debt service payments and the like. Grant PUD shall include in its financial forecast the projected cost of fully implementing all of its fishery obligations under existing law, including this opinion and any new license obligations. Consistent with its new power sale contracts, Grant PUD shall allocate annually to each Power

Purchaser equal to their proportional share, annual power costs, which include operating expenses and debt service requirements. This recouping mechanism will ensure that Grant PUD will have adequate funds to cover its power costs. Grant PUD shall also maintain senior, enhanced debt ratings by one or more major credit rating companies at or above investment grade (BBB-or its equivalent). If there is not at least one investment grade rating for bonds for the Developments, within thirty days after Grant PUD is notified that the ratings for the Developments have been downgraded below investment grade, Grant PUD shall make a good faith effort to secure a line of credit in an amount equal to the estimated cost of implementing the fish measures required by this Opinion during the next twelve months. Grant PUD shall have a final line of credit in place no later than 60 days after receiving the notification. Credit support may be in the form of a line of credit with a term of at least one year and provided by a national bank or financial institution. Grant PUD's obligation to provide credit support shall terminate if it obtains an investment grade rating for the debt of the Developments. As long as Grant PUD is obligated to maintain credit support, the amount of the credit support to be provided shall be adjusted annually.

Priest Rapids Project Salmon and Steelhead Settlement Agreement

Dated 2/10, 2006

For:  
Public Utility District No. 2 of Grant County

By: Timothy J. Culbertson

Name: Timothy J. Culbertson

Title: General Manager

Priest Rapids Project Salmon and Steelhead Settlement Agreement

Dated DEC 16 2005, 2005

For:  
United States Department of Interior  
US Fish and Wildlife Service

By: 

Name: David Allen

Title: Regional Director

Priest Rapids Project Salmon and Steelhead Settlement Agreement

Dated 12/16/05, 2005

For:  
National Marine Fisheries Service of the  
National Oceanic and Atmospheric Administration

By: D. Robert Lohn

Name: D. Robert Lohn

Title: Regional Administrator, Northwest Region

Priest Rapids Project Salmon and Steelhead Settlement Agreement

Dated 12/16, 2005

For:  
State of Washington  
Department of Fish and Wildlife

By:  \_\_\_\_\_

Name: Jeffrey P. Koenings, Ph.D.

Title: Director



Priest Rapids Project Salmon and Steelhead Settlement Agreement

Dated 1/26/06, 2005

For:  
Confederated Tribes of the Colville Reservation

By: 

Name: Harvey Moses Jr.,

Title: Chairman of Colville Business  
Council

Priest Rapids Project Salmon and Steelhead Settlement AgreementDated Aug 10<sup>th</sup>, 2006For:  
Yakama NationBy: Lavina Washines

Name: Lavina Washines

Title: Tribal Council Chair

The following language will replace Section 12.1 and be in effect on the date of the signature of the Yakama Nation:

**12.1 Coho Protection Program.** Compensation for coho in the Wenatchee, Entiat and Methow river basins will be assessed within 6 months following the signing of the Settlement Agreement, following the development of an anticipated long-term coho hatchery program and/or the establishment of a threshold population of naturally reproducing coho in the above three subbasins. The PRCC Hatchery Subcommittee shall make the determination as to whether a hatchery program and/or naturally reproducing population of coho is present in any or all of the three basins. Should the Hatchery Subcommittee determine that such a program and/or population of coho exist in any or all of the three basins, then the Hatchery Subcommittee shall determine the most appropriate means to satisfy NNI for the Wenatchee, Entiat, and Methow river basins. Programs to meet NNI for the Wenatchee, Entiat and Methow river basins may include but are not limited to; 1) Provide operation and maintenance funding in the amount equivalent to 14% (7% per project) juvenile project passage loss or 2) provide funding for acclimation or adult collection facilities both in the amount equivalent to a total of 14% for the Priest Rapids Project. The programs selected to achieve NNI for the three subbasins will utilize an interim value of project survival, based upon the three-year average juvenile project mortality of 7% per each dam and reservoir. This interim value of total Project mortality will remain until specific passage and survival studies can be conducted and verified by the PRCC on coho passing through the Priest Rapids Project, and until and the evaluation of ongoing programs/populations in the Wenatchee, Entiat, and Methow subbasins by the PRCC is accomplished.