

2018-2027

United States v. Oregon

Management Agreement

2018-2027 *United States v. Oregon*
MANAGEMENT AGREEMENT

TABLE OF CONTENTS

PREAMBLE.....	1
I. INTRODUCTION	1
A. PARTICIPANTS	1
B. SCOPE OF AGREEMENT	2
1. Nature of Agreement.....	2
2. ESA Section 7 and NEPA Processes.....	3
3. Party Positions.....	4
4. Court Technical Advisor	4
5. Availability of Funds.....	5
6. Management Precision	5
7. Duration of Agreement.....	5
8. Modification and Withdrawal	6
9. Communication	6
C. <i>UNITED STATES v. OREGON</i> FRAMEWORK.....	7
1. Technical Advisory Committee	7
2. Production Advisory Committee.....	9
3. Strategic Work Groups.....	11
4. Regulatory Coordination Committee	12
5. Policy Committee	12
6. Dispute Resolution Procedure.....	13
7. Emergency Matters	15
D. JUDICIAL REVIEW OF DISPUTES.....	16
E. PROSECUTION REFERRAL AGREEMENTS	16
F. PERFORMANCE MEASURES, COMMITMENTS AND ASSURANCES	17
1. General	17
2. Performance Evaluation	18
3. Policy Committee Consideration	22
4. Public Notice/Education about Terms of Agreement	23
G. DEFINITIONS.....	23

II. HARVEST.....	23
A. UPRIVER SPRING AND SNAKE RIVER SUMMER CHINOOK	24
1. Catch Expectations of the Parties.....	24
2. Minimum Columbia River Treaty Indian Ceremonial and Subsistence Entitlement.....	26
3. Ocean Fisheries	27
4. Non-treaty Mainstem Columbia River Fisheries	27
5. Treaty Indian Mainstem Columbia River Fisheries	27
6. Review if Escapement Goals Established	27
7. Review of Impacts.....	28
B. UPPER COLUMBIA RIVER SUMMER CHINOOK	28
1. Upper Columbia Summer Chinook Fishery Framework	29
2. Ocean Fisheries	30
3. Non-treaty Fisheries	30
4. Treaty Indian Fisheries.....	30
C. SOCKEYE	31
1. Bonneville Dam Management Goal	31
2. Non-treaty Columbia River Fisheries	31
3. Treaty Indian Columbia River Fisheries	31
4. Fisheries on Sockeye Returns Greater than 75,000 Adults.....	31
D. FALL CHINOOK	32
1. Snake River Fall Chinook Harvest.....	32
2. Harvest Management Objectives for Fall Chinook.....	32
3. Escapement and Management Objectives.....	33
4. Ocean Fisheries	35
5. Non-treaty Columbia River Fisheries	35
6. Treaty Indian Fisheries.....	36
7. In-Season Review.....	36
E. STEELHEAD	36
1. Management Principles	36
2. Steelhead Escapement Goals.....	37
3. Non-treaty Columbia River Harvest	37
4. Treaty Indian Zone 6 Harvest.....	38
F. COHO	38
1. Management Principles	38
2. United States v. Oregon Harvest Sharing Principle	38
3. Responsibilities for Costs.....	39
4. Escapement Objectives	39
5. Fisheries Management.....	39

G. WHITE STURGEON	40
1. Management Goals.....	40
2. Management Measures.....	40
H. SHAD.....	41
I. WALLEYE AND OTHER NON-NATIVE SPECIES.....	42
J. LAMPREY	42
K. RESEARCH AND MONITORING	42
1. Current Needs.....	43
2. Additional Needs.....	43
III. PRODUCTION ACTIONS.....	43
A. MANAGEMENT PRINCIPLES	43
1. General Statement	43
2. Research, Monitoring, and Evaluation.....	44
3. Marking	44
4. Broodstock, Facility and Funding Needs for Production Programs.....	46
5. Mitchell Act Funding	46
6. Non-Mitchell Act Funding	47
B. SPRING CHINOOK PRODUCTION	48
C. SUMMER CHINOOK PRODUCTION	48
D. SOCKEYE PRODUCTION	48
E. FALL CHINOOK PRODUCTION	48
1. Snake River Fall Chinook Supplementation Program	48
2. Other Fall Chinook Production	51
F. STEELHEAD PRODUCTION.....	51
1. Steelhead Production for Brood Years 2019-2028	51
2. Monitoring Adult Composition.....	52
G. COHO	52
1. Purpose of Program Modifications	52
2. Upriver Coho Production for 2018-2027 Brood Coho	52
3. Grande Ronde Program.....	52
4. Priority for Upriver Programs	52
5. Contingency	53
H. PRODUCTION ISSUES REQUIRING FURTHER DEVELOPMENT.....	53
1. Table B1, Spring Chinook Salmon	54
2. Table B2, Summer Chinook Salmon	54

3. Table B3, Sockeye Salmon	54
4. Table B5, Fall Chinook Salmon	54
5. Table B6, Steelhead.....	54
I. PROCESSES FOR ONGOING OR FUTURE REVIEWS	55
1. Process for Ongoing or Future Reviews Affecting Production Programs	55
2. Process for High Priority Production Items That Will Require Further Development, Cooperative Planning, and Resolution	56
SCHEDULE A: Annual Schedules for Committee Activities.....	58
Annual TAC Schedule	58
Annual PAC Schedule.....	59
Annual Policy Committee Schedule	60
Table 1. Lead Management Entities for Each Sub-basin.*	62
GLOSSARY.....	63
SIGNATURES.....	
HARVEST RATE SCHEDULES.....	
Table A1. Spring Management Period Chinook Harvest Rate Schedule.....	
Table A2. Summer Management Period Chinook Harvest Rate Schedule.....	
Table A3. Fall Management Period Chinook Harvest Rate Schedule.	
Table A4. Fall Management Period Steelhead Harvest Rate Schedule.	
Attachment A. Columbia River Fall Chinook Fishery Model Summary.....	
Attachment B. <i>U.S. v. Oregon</i> Upriver Spring Chinook Catch Balance Model	
PRODUCTION TABLES	
Table B1. Spring Chinook Production for Brood Years 2018-2027.....	
Table B2. Summer Chinook Production for Brood Years 2018-2027	
Table B3. Sockeye Production for Brood Years 2018-2027.....	
Table B4A/B4B. Snake River Fall Chinook Production for Brood Years 2018-2027	
Table B5. Fall Chinook Production for Brood Years 2018-2027	
Table B6. Steelhead Production for Brood Years 2019-2028.....	
Table B7. Coho Production for Brood Years 2018-2027.....	
Attachment C. Grande Ronde Spring Chinook Marking Guidelines.....	

PREAMBLE

The purpose of this Management Agreement is to provide a framework within which the Parties may exercise their sovereign powers in a coordinated and systematic manner to protect, rebuild, and enhance upper Columbia River fish runs while providing harvests for both treaty Indian and non-treaty fisheries.

The primary goals of the Parties are to rebuild weak runs to full productivity and fairly share the harvest of upper river runs between treaty Indian and non-treaty fisheries in the ocean and Columbia River Basin.

As a means to accomplish this purpose, the Parties intend to use (as herein specified) habitat protection authorities, enhancement efforts, and artificial production techniques, as well as harvest management, to ensure that Columbia River fish runs continue to provide a broad range of benefits in perpetuity.

By this Agreement, the Parties have established procedures to facilitate communication and to resolve disputes fairly. It is the intent of the Parties that these procedures will permit the Parties to resolve disputes outside of court, and that litigation will be used only after good faith efforts to settle disagreements through negotiation are unsuccessful.

I. INTRODUCTION

A. PARTICIPANTS

In their status as Parties to *United States v. Oregon*, Civil No. 68-513-MO (D. Or.), the State of Washington, the State of Oregon, the State of Idaho, the United States, the Shoshone-Bannock Tribes, the Confederated Tribes of the Warm Springs Reservation of Oregon, the Confederated Tribes of the Umatilla Indian Reservation, the Nez Perce Tribe, and the Confederated Tribes and Bands of the Yakama Nation, the latter four, hereinafter referred to as “the Columbia River Treaty Tribes,” (collectively, the Parties) enter into this Agreement, the

2018-2027 *United States v. Oregon* Management Agreement. The Shoshone-Bannock Tribes join only in Part I of this Agreement. The Shoshone-Bannock Tribes have filed a complaint in intervention in *United States v. Oregon* but have not taken any action on this complaint. The Parties agree that the Shoshone-Bannock Tribes' participation in any of the forums set forth in this Agreement in no way represents an admission, determination, settlement, or adjudication of any legal or factual issues related to the nature and scope of the Shoshone-Bannock Tribes' off-reservation fishing rights under the Fort Bridger Treaty of July 3, 1868 (15 Stat. 673). In the event the Shoshone-Bannock Tribes pursue litigation on their complaint in intervention or any other claims they may have concerning the Shoshone-Bannock Tribes' Fort Bridger Treaty of July 3, 1868, the Parties reserve the right to assert any and all defenses they may have to the claims of the Shoshone-Bannock Tribes in Civil No. 68-513, and the Shoshone-Bannock Tribes' participation in any of the forums set forth in this Agreement shall not be construed as a waiver or abandonment of any Party's claims or defenses.

B. SCOPE OF AGREEMENT

1. Nature of Agreement

This Agreement will be submitted as a stipulated order in *United States v. Oregon*, Civil No. 68-513-MO (D. Or.). If approved by the Court, this Agreement shall be binding on the Parties as a decree of the Court. The fishing regimes and production actions described in this Agreement neither set precedent nor prejudice any future allocation arrangements or production actions. Nothing in this Agreement limits the positions the Parties may take in any forum regarding harvest actions or production actions other than those expressly agreed to herein.

2. ESA Section 7 and NEPA Processes

The Parties recognize that the federal agencies (National Marine Fisheries Service (NOAA Fisheries), United States Fish and Wildlife Service (USFWS), and Bureau of Indian Affairs (BIA)) have consultation responsibilities under the Endangered Species Act (ESA). NOAA Fisheries and USFWS expect to complete biological opinions on the joint fishery proposal contained in the Agreement and further described in biological assessments to be prepared by the Technical Advisory Committee and Production Advisory Committee. The Parties also recognize that the federal agencies have responsibilities to prepare certain analyses under the National Environmental Policy Act (NEPA).

In Part III and Tables B1-B7 of this Agreement, the Parties have identified certain production programs that will be used to support the joint fishery proposal and support the intent of the Parties to not impede, and in some cases contribute to, ESA recovery. NOAA Fisheries and USFWS will continue to review the production programs contained in this Agreement and undertake ESA consultations as appropriate.

The Parties recognize that NOAA Fisheries or USFWS may recommend modifications to the production actions in this Agreement based on the results of these consultations. In the event that any of the production programs set forth in this Agreement would be affected by acceptance of NOAA Fisheries' or USFWS' recommendations in a manner that would affect the joint fishery proposal, the Parties agree to meet and discuss the resulting impacts on the valuable exchange of consideration reflected in this Agreement. The Parties agree to make a good faith effort to work collaboratively on any necessary modification to this Agreement. In so doing, the concerns and needs of all Parties will be accounted for to the extent possible. Should the Parties

agree to modify any of the production programs in this Agreement, the Parties will monitor and evaluate the effects of such modifications on adult returns and fishery opportunities.

Notwithstanding the good faith efforts discussed above, the Parties recognize that NOAA Fisheries or USFWS may issue a Biological Opinion or Opinions that necessitate changes to the production programs of this Agreement and that such Biological Opinions or changes are not subject to the provisions of Parts I.B.8 and I.C.6. The Tribes reserve their rights to seek judicial relief in *United States v. Oregon* with respect to any federal action concerning production programs that may affect the number of fish returning to tribal usual and accustomed fishing places, or that otherwise impact their treaty-reserved fishing rights. All Parties reserve any and all rights and defenses that they may have.

The Parties will work, to the extent they deem appropriate, with the U.S. Army Corps of Engineers, the Bonneville Power Administration, the U.S. Bureau of Reclamation, USFWS and NOAA Fisheries as necessary to facilitate the implementation of the hatchery provisions set forth in this Agreement.

3. Party Positions

The Columbia River Treaty Tribes maintain that tribal fisheries are subject to limitations only under the conservation necessity standards in federal case law, including case law governing the *United States v. Oregon* litigation. Other Parties, including the States, disagree.

4. Court Technical Advisor

The Court has appointed court technical advisors to assist in technical matters related to this case (*e.g.*, Docket Nos. 1072, 1719). When the Parties ask the court technical advisor to attend a meeting, or when the Court uses the court technical advisor's services, USFWS, NOAA Fisheries, and the states of Idaho, Oregon and Washington will share the costs of such

participation. USFWS and NOAA Fisheries will jointly be responsible for one half of the cost. The states of Idaho, Oregon, and Washington will jointly be responsible for one half of the cost.

The Parties recognize selection and use of a court technical advisor is solely within the Court's discretion. This section shall not prevent any Party from seeking to advise the Court as to the Court's selection or use of a court technical advisor.

5. Availability of Funds

This Agreement shall not be interpreted as binding federal agency or state parties to expend in any one fiscal year any sum in excess of appropriations made by Congress or a state party's legislature, and available for purposes of this Agreement for that fiscal year, or as involving the United States or a state party in any contract or other obligation for the further expenditure of money in excess of such appropriations.

6. Management Precision

Careful monitoring and a conservative in-season management philosophy will be employed to minimize the risk that harvest management objectives are not met due to inadvertent management error. The Parties recognize that, even using the best available data in-season, the actual harvest rates may differ due to management imprecision. Adult trapping will be conducted at Bonneville Dam, Priest Rapids Dam and Lower Granite Dam to facilitate in-season management, run reconstruction, and/or broodstock collection.

7. Duration of Agreement

This Agreement becomes effective upon the signature of all Parties. This Agreement covers the winter, spring, summer, and fall season Columbia River fisheries and includes agreed-to production measures. The harvest provisions in Part II of this Agreement shall terminate on December 31, 2027. The production provisions for spring, summer and fall Chinook, sockeye

and coho in Part III of this Agreement shall terminate with the release of the 2027 brood year production identified herein and for steelhead with the release of the 2028 brood year production.

8. Modification and Withdrawal

a. **Modification.** Any Party may at any time seek a modification of any provision of this Agreement. Where consideration and approval of such modification is otherwise subject to a specific process under this Agreement, the process specified in the applicable provision shall be followed. In all other instances, the Party shall provide written notice to the other Parties of the modification being sought and any changed conditions necessitating such modification, and if an agreement on modification cannot be reached, the Party seeking modification may invoke dispute resolution as provided in **Part I.C.6** as a means to seek consensus. This Agreement, if adopted by the Court, shall be modified only by written agreement of all Parties.

b. **Withdrawal.** Any Party may withdraw from this Agreement at any time by serving written notice to the Court and the other Parties. The notification shall include a description of any changed conditions necessitating withdrawal. At the request of any Party, the Parties shall meet to discuss the withdrawal. Upon withdrawal of any Party, any remaining Party may withdraw upon notice to the Court and other Parties. Withdrawal of one or more Parties shall not preclude the remaining Parties from continuing the Agreement.

9. Communication

The Parties agree to continue to communicate in good faith, consistent with the Court's Stipulated Order, dated April 16, 1998 (Docket No. 2153).

C. *United States v. Oregon* FRAMEWORK

For purposes of implementing this Agreement, the Parties will continue to utilize the Technical Advisory Committee (TAC), the Production Advisory Committee (PAC), the Policy Committee, and Dispute Resolution as described below. TAC and PAC will provide the technical information outlined in Schedule A: *Annual Schedules for Committee Activities*. In addition, the Parties establish two workgroups, the Strategic Work Group and the Regulatory Coordination Work Group as described below.

1. Technical Advisory Committee

A Technical Advisory Committee (TAC) is hereby established to develop, analyze, and review data pertinent to this Agreement and to make reports and technical recommendations regarding harvest management. Members shall be qualified fisheries scientists familiar with harvest management of Columbia River fish runs. TAC shall be composed of designated technical representatives of each of the following entities: Washington, Oregon, Idaho, USFWS, NOAA Fisheries, the BIA, the Warm Springs Tribe, the Umatilla Tribes, the Nez Perce Tribe, the Yakama Nation, and the Shoshone-Bannock Tribes. The Parties agree to seek funding sources to assist TAC and its representatives in the performance of their functions.

a. TAC shall select annually from among its members a Chair and Vice-Chair. Unless otherwise agreed, the entity represented by the Chair shall be responsible for providing administrative and logistical support to the TAC. In the Chair's absence, the Vice-Chair shall assume the Chair's duties and responsibilities. TAC shall meet and provide technical information in accordance with Schedule A, or any then-applicable replacement schedule, or as otherwise needed.

b. Prior to the earliest contemplated or requested opening of any fishery that is subject to the requirements of this Agreement, and continuously thereafter until the close of such fishery and the final compilation of catch and escapement data for runs affected by such fishery, each Party shall promptly and continuously make available to each other Party copies of data, information, forecasts, estimates, forecasting procedures, methods, models, and other information available to or used by such Party in determining management policies and the timing, location, scope or conditions of any contemplated or requested fishery that would be subject to the provisions of this Agreement. Included in the foregoing shall be any materials pertaining to Columbia River stocks of fish furnished by such Party to the United States Section of the Pacific Salmon Commission, the Pacific or North Pacific Fishery Management Councils or the Department of Commerce. The materials shall be exchanged through TAC or through such representative as a Party has specified in writing as its agent for this purpose when the circumstances do not allow for timely communication through TAC. Prior to any Party's distribution to any management entity of a report concerning potential fishing regulations on any fishery subject to this Agreement, TAC shall, to the extent that time permits, exchange all relevant data and review the management entities' respective recommendations for fisheries.

c. The TAC shall endeavor to reach consensus on its reports and technical recommendations. If TAC is unable to achieve consensus upon a technical issue, the TAC Chair shall invite the Court Technical Advisor to attend the next TAC meeting to review the various technical contentions. The TAC Chair shall advise the TAC of the Court Technical Advisor invitation.

(i) The role of the Court Technical Advisor shall be that of a facilitator, not an arbitrator. The Court Technical Advisor shall preside over the discussion and endeavor to facilitate resolution of the unresolved issue.

(ii) When the TAC is unable to achieve consensus on a report or recommendation, the TAC Chair shall identify a time certain for each Party (or group of parties) to provide an issue paper summarizing any position it wants the Policy Committee to consider. The TAC Chair will then prepare a written report to the Policy Committee for consideration of the issue. The report shall include the factual background, a description of the Parties' respective positions along with the issue papers offered in support of the Parties' positions, the TAC minutes, if any, and any independent views or recommendations by the Court Technical Advisor not contained in TAC report.

d. Distribution of Reports. The reports required by Schedule A and this section shall be submitted by the TAC Chair to the Parties through their Policy Committee representatives. If there are issues where TAC did not reach a consensus, the report shall conform with Part I.C.1.c. (ii) above with respect to those non-consensus issues. TAC shall make good faith efforts to ensure timely compilation and distribution of reports to the Parties. Except in cases of emergencies that preclude such advance distribution, all reports and recommendations shall be distributed to all Policy Committee representatives at least ten days prior to the Policy Committee meeting at which a report or recommendations are to be considered.

2. Production Advisory Committee

Coordination of production and harvest management is essential to the successful implementation of this Agreement. Accordingly, a Production Advisory Committee (PAC) is

hereby established to coordinate information, to review and analyze existing and future natural and artificial production programs pertinent to this Agreement, and to submit recommendations to the management entities. Members shall be qualified fisheries scientists familiar with Columbia River artificial and/or natural fish production. PAC shall be composed of designated technical representatives of each of the following entities: Washington, Oregon, Idaho, USFWS, NOAA Fisheries, the BIA, the Warm Springs Tribe, the Umatilla Tribes, the Nez Perce Tribe, the Yakama Nation, and the Shoshone-Bannock Tribes. The Parties agree to seek funding sources to assist PAC and its members in the performance of its functions.

a. PAC shall select annually from among its members a Chair and Vice-Chair, however, neither position shall represent the same entity as the TAC Chair. Unless otherwise agreed, the entity represented by the Chair shall be responsible for providing administrative and logistical support to PAC. In the Chair's absence, the Vice-Chair shall assume the Chair's duties and responsibilities. PAC shall meet and provide technical information in accordance with Schedule A, or any then-applicable replacement schedule, or as otherwise needed.

b. The reports and recommendations of PAC shall be summarized in writing, and shall express the consensus views and recommendations of its members whenever possible.

c. If PAC is unable to achieve consensus upon a technical issue, the PAC Chair shall invite the Court Technical Advisor to attend the next PAC meeting to review the various technical contentions. The PAC Chair shall advise the PAC of the Court Technical Advisor invitation.

(i) The role of the Court Technical Advisor shall be that of a facilitator, not an arbitrator. The Court Technical Advisor shall preside over the discussion and endeavor to facilitate resolution of the unresolved issue.

(ii) When the PAC is unable to achieve consensus on a report or recommendation, the PAC Chair shall identify a time certain for each Party (or group of parties) to provide an issue paper summarizing any position it wants the Policy Committee to consider. The report shall include the factual background, a description of the Parties' respective positions along with the issue papers offered in support of the Parties' positions, the PAC minutes, if any, and any independent views or recommendations by the Court Technical Advisor not contained in PAC report.

d. Distribution of Reports. The reports required by Schedule A and this section shall be submitted by the PAC Chair to the Parties through their Policy Committee representatives. If there are issues where PAC did not reach a consensus, the report shall conform with Part I.C.2.c.(ii) above with respect to those non-consensus issues. PAC shall make good faith efforts to ensure timely compilation and distribution of reports to the Parties and relevant management entities. Except in cases of emergencies that preclude such advance distribution, all reports and recommendations shall be distributed to all Policy Committee representatives at least ten days prior to the meeting at which a report or recommendations are to be considered.

3. Strategic Work Groups

From time to time, the Policy Committee shall appoint a Strategic Work Group or Groups (SWG) to assist the Policy Committee by reviewing technical information, evaluating potential solutions to particular problems arising over the implementation of this Agreement from a

biological and policy perspective, and proposing resolutions or courses of action to the Policy Committee. Each SWG shall be composed of persons designated to represent the Parties' varied interests in the particular issue assigned to the SWG, and may vary from issue to issue. Persons assigned to the SWG should possess either technical or policy expertise, or both, as necessary to evaluate potential solutions from different perspectives with the aim of finding a common approach to resolving the practical difficulties of implementing this Agreement.

4. Regulatory Coordination Committee

The Regulatory Coordination Committee (RCC) shall include one person designated by each Party who shall serve as its point of contact. Each Party shall provide its fisheries enforcement regulations to the other Parties. The RCC shall convene as necessary to review the Parties' regulations with the goal of identifying inconsistencies and/or inaccuracies, and shall notify the Parties of potentially conflicting regulations to assure consistency with the Agreement and each other, and shall make recommendations to the Policy Committee for resolving such conflicts and inconsistencies for potential adoption by all Parties. The RCC shall also provide a forum for resolving conflicts and coordinating among the Parties regarding fisheries enforcement, and for negotiating the prosecution referral agreements described below in Part I.E. Each Party shall designate law enforcement, attorney, and fishery manager representatives to participate in the RCC as necessary to achieve its responsibilities under this section.

5. Policy Committee

A Policy Committee, composed of a policy and a legal representative appointed by each Party signatory to this Agreement, is hereby established. The purpose of the Policy Committee is to facilitate cooperative action by the Parties with regard to fishing regulations, policy issues or disputes, and the coordination of the management of fisheries on Columbia River runs and

production and harvest measures. The Policy Committee may make assignments to the technical committees described in this Agreement to assist it.

The Policy Committee shall designate a Chairman and meet in accordance with Schedule A or at such times as are appropriate to conduct the business described in this Agreement. The Chairman shall provide all Parties with notice of meetings. The Committee may adopt appropriate rules to govern its proceedings.

6. Dispute Resolution Procedure

a. A Party must raise a formal “point of disagreement” to initiate the dispute resolution processes of this Agreement. A Party raising a formal point of disagreement shall provide all other Parties written notice that it is raising a formal point of disagreement. That written notice shall include a summary of the disagreement, the Party’s position on the appropriate resolution(s) of the disagreement, and any documents or supporting materials that assist in describing the disagreement and/or supporting the Party’s position on an appropriate resolution. If the Party raising the point of disagreement believes that emergency circumstances make it impossible to employ the full dispute resolution process, a complete explanation of the emergency shall be included. All Parties shall strive to provide notice of a point of disagreement at the earliest possible time. Points of disagreement shall be referred for dispute resolution as herein prescribed unless the Parties agree on other means for resolving them.

b. Technical Disputes

(i) In the course of developing reports identified in Schedule A and in completing any other tasks assigned by the Policy Committee, the TAC and PAC shall employ the procedures prescribed in Part I.C.1. and Part I.C.2. above to attempt to

resolve technical disputes prior to referring a non-consensus report or recommendation to the Policy Committee. If TAC or PAC is unable to achieve consensus, the TAC or PAC report conforming with the requirements of Part I.C.1. or C.2. will be provided to the Policy Committee for its review and consideration.

(ii) Non-consensus among TAC and PAC does not ripen into a formal point of disagreement unless and until a Policy Committee representative notifies all other Parties through their Policy Committee representatives that it is raising a formal point of disagreement as provided in Part I.C.6.a. above.

(iii) When a point of disagreement arising out of technical non-consensus is raised by a Party for Policy Committee consideration, the Policy Committee shall review the reports and materials submitted by TAC or PAC. In the course of considering a point of disagreement, the Policy Committee may identify additional technical issues and data needs related to the specific point of disagreement as to which further documentation is deemed necessary and ask the PAC or TAC to do additional analysis.

c. Policy Disputes

(i) Policy points of disagreement must be raised by a Party's Policy Committee representative. If a TAC or PAC representative believes that a policy dispute is preventing a consensus on a technical TAC or PAC report or recommendation, that person should review the matter with its Policy Committee representative to determine if that Policy Committee representative should raise a policy-based point of disagreement.

(ii) Upon notice of a point of disagreement, the Policy Committee Chairman shall establish a date and place for the Policy Committee to consider the dispute, taking into consideration any emergency circumstances. The Chairman's notice setting a date

and place for consideration of the point of disagreement shall include an invitation for any Party to submit documents or supporting materials relevant to the point of disagreement that it believes should also be considered by the Policy Committee.

(iii) The Policy Committee shall discuss and attempt to resolve the point of disagreement. Unless the Committee unanimously agrees otherwise, its deliberations and discussions shall remain confidential except for the documents or other materials submitted to or considered by it. The Policy Committee Chairman shall compile a complete record of written materials considered by the Policy Committee in its deliberations on a point of disagreement. On points of disagreement over which the Policy Committee is unable to reach a consensus decision, any Party may provide to a non-Party management entity or other person a statement in support of its position on the disputed issue. The statement shall identify the data and other information that supports the Party's position but may be abbreviated as required to permit timely action by the entity or person. Any such statement shall be submitted to the Policy Committee for inclusion in its record related to the dispute.

d. The Parties recognize that the entities charged with making decisions and resolving disputes must be given the opportunity to examine competing positions of the Parties and the factual basis for their positions prior to rendering such decisions. They therefore will use their best efforts to share fully all relevant data and information and to present their positions and the factual basis therefor prior to seeking judicial review.

7. Emergency Matters

Emergency matters may require immediate judicial action without compliance with this Section, and nothing in Part I.C.6 shall be construed as limiting a Party's right to seek such relief

when those emergency matters arise. However, the Parties shall make every reasonable effort to use the foregoing dispute resolution procedures prior to initiating judicial action, and the Party seeking immediate judicial relief shall have the burden of establishing the existence of an emergency.

D. JUDICIAL REVIEW OF DISPUTES

1. In the event that a dispute arises concerning this Agreement and, after compliance with the foregoing Part I.C.6, to the extent required thereunder, a Party may petition the Court in Case No. 68-513 for a determination of the dispute. Unresolved disputes over matters that are not within the retained jurisdiction in Case No. 68-513 may be submitted to any court having subject matter and personal jurisdiction.

2. The Parties expect and intend that review by the Court in Case No. 68-513 of any dispute that has been subject to a Policy Committee proceeding under the foregoing Part I.C.6. will be limited to documents or other written materials submitted to or considered by the Policy Committee. The Parties understand that the Court may consider other documents or materials where good cause is shown why such documents or materials were not submitted to the Policy Committee during its deliberations. A Party may present oral testimony, declarations or affidavits concerning any documents and materials before the Court.

E. PROSECUTION REFERRAL AGREEMENTS

1. The Columbia River Treaty Tribes, Oregon and Washington agree that the Tribes should bear primary responsibility for enforcing agreed-upon regulations applicable to mainstem treaty Indian fisheries.

2. To carry out this responsibility, the Columbia River Treaty Tribes agree to commit, to the maximum extent possible, the police, prosecutorial, and judicial resources necessary to ensure compliance with Tribal regulations governing mainstem fisheries.

3. To assist the Columbia River Treaty Tribes in carrying out this responsibility, Oregon and Washington may negotiate with each tribe for an agreement to refer to such tribe, for prosecution under tribal law, those tribal fishermen cited by state enforcement officers for violating agreed upon mainstem fishing regulations, and to cooperate with tribal authorities in making evidence and testimony available in tribal court proceedings. As part of each referral agreement, the tribe shall report the disposition of the tribal prosecution to the state law enforcement agency making the referral.

4. Unless specified otherwise in the referral agreements entered into under this Part I.E., the states of Oregon and Washington shall retain authority to prosecute violations of applicable laws or regulations in state court.

5. If Oregon or Washington believes that a tribe or tribes is not carrying out its responsibilities under this section to enact and enforce agreed-upon mainstem fisheries regulations, it may refer the matter to the Policy Committee for dispute resolution as provided in Part I.C.6.c.

F. PERFORMANCE MEASURES, COMMITMENTS AND ASSURANCES

1. General

The Parties enter this Agreement based, in part, on their expectation that the measures in Parts II and III will help upriver stocks rebuild over time. The Parties also recognize that other laws and processes outside the scope of the Agreement, as well as the actions of public and private entities not signatory to this Agreement, may affect their ability to fulfill rebuilding and harvest sharing objectives. The Parties anticipate that their efforts will focus primarily on implementation of the specific measures in Parts II and III. This section establishes procedures to monitor progress toward rebuilding and to seek consensus on actions to address the

circumstances where activities that are beyond the scope of the Agreement may affect the achievement of rebuilding and sharing goals.

2. Performance Evaluation

The Parties agree to establish performance measures that will be used to monitor progress toward rebuilding the upriver stocks of salmon and steelhead that presently constrain fisheries. Should rebuilding not progress as expected, the Parties further commit to a process to identify why stocks are not rebuilding and to take actions available within the scope of the Parties' joint and separate authorities to address the underlying problem and reestablish a positive rebuilding trend for those stocks.

a. **Performance Measures.** The Parties will monitor progress toward rebuilding by tracking trends in the status of the indicator stocks listed below. The Parties have selected these indicator stocks because of their geographic distribution, and because of the current availability of data sets that the Parties can use to establish a base against which to compare the future status of these stocks.

The Parties have identified two types of indicator stocks. Harvest indicator stocks are those used directly for managing the fisheries. Abundance indicator stocks provide more detailed information about natural-origin stocks or populations that currently limit fisheries. Neither the indicator stocks nor the performance measures listed below shall preclude the Parties from considering other indicators or performance measures that may be developed in the future, or that may be necessary to determine the status of a particular stock of concern.

The Parties will compare the status of indicator stocks to the 1988-2007 "base period," which represents the status of stocks before completion of this Agreement. The

Parties will use the performance measures and base period data as reference points for gauging progress.

TAC will update the indicator stock summaries annually and provide a report to the Policy Committee annually.

Harvest Indicator Stocks	
Stock	Performance Measure
Upriver spring/summer Chinook	
Upriver spring and Snake River spring/summer Chinook	Number of returning adults at Columbia River mouth
Natural-origin Snake River spring/summer Chinook	Number of returning adults at Columbia River mouth
Natural-origin Upper Columbia spring Chinook	Number of returning adults at Columbia River mouth
Upper Columbia Summer Chinook	
Upper Columbia Summer Chinook	Number of returning adults at Columbia River mouth
Sockeye	
Combined Upper Columbia River and Snake River sockeye	Number of returning adults at Columbia River mouth
Summer Steelhead	
Skamania natural-origin A-run steelhead	Number of returning adults at Bonneville Dam
Natural-origin A-Index steelhead	Number of returning adults at Bonneville Dam
Natural and Hatchery-origin B-Index steelhead	Number of returning adults at Bonneville Dam
Fall Chinook	
Upriver Bright fall Chinook	Number of returning adults at Columbia River mouth
SNAKE RIVER natural-origin fall Chinook	Number of returning adults at Columbia River mouth

Abundance Indicator Stocks	
Stock	Performance Measure
Upriver spring/summer Chinook	
Snake River natural-origin spring/ summer Chinook	Number of returning adults at Lower Granite Dam
Upper Columbia River natural-origin spring Chinook	Number of returning adults at Priest Rapids Dam
Upriver Columbia River natural-origin spring Chinook stocks (Wenatchee, Entiat, Methow)	Sub-basin run size
Snake River spring/summer Chinook index stocks (Bear Valley, Marsh, Sulphur, Minam, Catherine Cr., Imnaha, Poverty Flats, Johnson)	Redd counts
John Day natural-origin spring Chinook	Redd counts
Warm Springs natural-origin spring Chinook	Number of returning adults at Warm Springs NFH weir
Upper Columbia Summer Chinook	
Upper Columbia River summer Chinook	Priest Rapids Dam counts
Sockeye	
Snake River	Number of returning adults at Lower Granite Dam
Lake Wenatchee natural-origin	Number of returning adults at Tumwater Dam
Okanogan natural-origin	Number of returning adults at Wells Dam
Snake River	Number of adults returning to Stanley Basin
Summer Steelhead	
Methow River natural-origin steelhead	Redd counts
Wenatchee River natural-origin steelhead	Redd counts
Select populations/groups of Snake River natural-origin A-run steelhead	Juvenile and adult abundance indices for groups that are monitored regularly
Select populations/groups of Snake River natural-origin B-run steelhead	Juvenile and adult abundance indices for groups that are monitored regularly
Natural-origin Snake River A-Run Steelhead	Adults returning to Lower Granite Dam
Natural-Origin Snake River B-Run Steelhead	Adults returning to Lower Granite Dam
Joseph Cr A-run steelhead	Redd counts
John Day natural-origin steelhead	Redd counts
Umatilla natural-origin steelhead	Threemile Dam counts
Klickitat River natural-origin steelhead	Data developed in accordance with the recommendations in Rawding, D. 2007

Abundance Indicator Stocks	
Stock	Performance Measure
Warm Springs natural-origin steelhead	Number of returning adults at Warm Springs NFH weir
Fall Chinook	
Hanford natural-origin adult fall Chinook	Population estimates
Snake River adult fall Chinook	Number of hatchery and natural adults at Lower Granite Dam
Snake River adult fall Chinook	Redd counts between Lower Granite Dam and Hells Canyon Dam and in Clearwater River
Deschutes River natural- origin adult fall Chinook	Population estimates
Additional Stocks and Performance Measures	
TAC will add additional abundance indicator stocks and performance measures to this table as directed by the Parties and as data become available. It is the intent of the Parties to update, add to, and revise the abundance indicator groups as needed to assess progress toward salmon and steelhead recovery.	

b. Analysis of Decline. If the performance measure of any indicator stock declines for three consecutive years relative to the base period, any Party to this Agreement may request the Policy Committee to direct TAC to complete an Analysis of Decline. TAC shall complete the Analysis of Decline within one year of receiving Policy Committee direction. The Parties will exercise their best efforts to provide the resources necessary for a timely and thorough analysis.

The Analysis of Decline shall identify factors leading to the decline in the stock's performance, and shall assess the overall significance of the decline with respect to the achievement of rebuilding for the stock. The Analysis of Decline shall identify which factors are within the Parties' control, such as the activities described in Parts II and III of this Agreement, and which are not, such as ocean conditions. As part of its analysis, TAC may rely on any Assessment or review conducted by the Salmon Technical Team or

Habitat Committee of the Pacific Fishery Management Council under Section 3.2.3 of the Pacific Coast Salmon Plan (revised May 2000).

Based on its findings, TAC shall recommend any modifications to Parts II and III of this Agreement that in TAC's judgment are needed to promote achievement of rebuilding, or may recommend adjustments to the rebuilding or performance measures. The TAC recommendations may also include suggestions for habitat restoration or enhancement measures. TAC may identify whether special programs, research, or analyses by experts who are not TAC members are needed to promote the long-term rebuilding of the stock in question.

TAC shall submit the Analysis of Decline to the Policy Committee for consideration.

3. Policy Committee Consideration

After receiving the Analysis of Decline, the Policy Committee shall convene. After review of the Analysis of Decline Report, the Policy Committee may make recommendations for modification of the Agreement. The Parties may thereafter modify Parts II and III of this Agreement, or the performance measures, consistent with the Policy Committee's recommendations. Provided, however, that only the Agreement as modified by such amendments will create additional legal obligations on Parties to the Agreement.

If the Policy Committee determines that no modifications to Parts II and III of this Agreement, or to the performance measures, can reasonably be expected to provide benefits to the stock in question, the Policy Committee may identify actions of other entities that may be needed to promote rebuilding of the stock. Examples might include habitat restoration and enhancement measures, or adjustments in fisheries outside the Columbia River Basin. The

Policy Committee shall make and communicate recommendations to those other entities concerning such actions. Examples could be recommendations about fish habitat or access to habitat, fisheries regimes, data collection, or research.

4. Public Notice/Education about Terms of Agreement

The Parties will use their best efforts to make all members of their respective governments aware of the commitments in this Agreement.

G. DEFINITIONS

Terms defined in the Glossary shall have the meaning given therein wherever they are used in this Agreement.

II. HARVEST

The Parties, through this Agreement, in recognition of the Columbia River Treaty Tribes' federally secured rights, the conservation requirements, and the rights of other fishermen to fishery resources under applicable federal law, have proposed fisheries as set out below.

Tribal harvest in mainstem treaty fisheries with subsistence gear shall be consistent with any harvest guidelines identified herein. Mainstem treaty subsistence fisheries shall be open on a year round basis and shall not be restricted by the States or the United States, except for conservation purposes. The Columbia River Treaty Tribes shall manage mainstem treaty subsistence fisheries in good faith to remain within harvest guidelines, in coordination with other Parties.

This Agreement describes specific provisions for managing mainstem fisheries and certain tributary fisheries. Harvest plans for the Parties' other tributary fisheries will be developed cooperatively by the management entities with primary management responsibility in the respective sub-basin (as specified in Table 1: Lead Management Entities for each Sub-Basin).

Other Parties may be affected by, and therefore may have an interest in, tributary harvest plans, and therefore shall be provided an opportunity to review and comment on the development of such plans.

The Parties have previously directed TAC to establish a schedule for investigating all upriver escapement goals, management goals and rebuilding objectives. Some progress has been made on this effort. The Parties recognize the importance of this information. Accordingly, the Parties will work with TAC to identify and prioritize their work, including development of upriver escapement goals, management goals and rebuilding objectives.

A. UPRIVER SPRING AND SNAKE RIVER SUMMER CHINOOK

Mainstem Columbia River salmon fisheries occurring from January 1 through June 15 will be managed depending on the abundance of upriver spring Chinook and Snake River summer Chinook. Upriver spring Chinook include all natural and hatchery spring Chinook stocks originating from the Columbia River and its tributaries upstream of Bonneville Dam. Snake River summer Chinook include all natural and hatchery summer Chinook stocks originating from the Snake River watershed.

1. Catch Expectations of the Parties

The Parties recognize that Table A1 (Spring Management Period Chinook Harvest Rate Schedule) sets limits on the percentage of natural origin upriver spring Chinook and SR summer Chinook that can be taken in mainstem fisheries. The Parties recognize that non-treaty fisheries may use mark-selective fishing techniques that allow for a higher harvest rate on marked hatchery fish compared to unmarked fish. Mark rates for hatchery fish subject to those fisheries will be determined in accordance with Part III.A.3. The Parties agree that the fish to be allocated among treaty and non-treaty fisheries are all upriver spring Chinook and Snake River summer

Chinook. In agreeing to Table A1, the Parties expect that mainstem fisheries on upriver spring Chinook and Snake River summer Chinook will be managed to achieve catches roughly matching those shown in Table A1.

Non-treaty fisheries will be designed to meet the intent of catch balancing as represented by columns D and F in Table A1, and managed to stay within both the ESA impact rate and the mortality guideline, *i.e.*, the allowable treaty catch. The States of Oregon and Washington will do this by implementing the following actions: (1) conservative management of non-treaty fishing prior to the first in-season TAC run size update consistent with the mortality guideline for a run size reduced from the pre-season forecast by a buffer of at least 30%; and (2) setting subsequent fishing periods that are scaled to the in-season TAC run size updates and associated mortality guidelines. If the non-treaty fishery exceeds the mortality guideline (allowable treaty catch) by 5% or 1,000 fish, whichever is greater, then, in the subsequent year the States of Oregon and Washington will increase the buffer above 30%. The buffer increase could be up to 40% if the Parties agree that that level of increase is necessary to address the cause of the divergence. In the event that in-season fishery management factors result in non-treaty or treaty catch exceeding levels in columns D and F in Table A1, or if the Parties agree that re-distribution of unused ESA impacts would better meet the mutual objectives of the Parties, unused ESA impacts may be, by agreement of the Parties, transferred between the non-treaty and treaty fisheries.

The Parties will monitor whether those expectations are being met, as follows:

- a. Each year, the States of Oregon and Washington and the Columbia River Treaty Tribes will monitor mainstem fisheries from January 1 through June 15, and will compare

how actual performance compares with management guidelines as shown in Table A1 as part of the annual run reconstruction process;

b. As part of the annual run reconstruction process, the States of Oregon and Washington will monitor and report to the Parties the mark rate in the fishery; the number of fish retained or landed; the number of unmarked fish released; the number of marked fish released; the stock composition of the mortalities; and other information as agreed upon.

c. If the annual run reconstruction reveals that the Parties' catch balance expectations are widely divergent from the results, the Parties agree to meet and discuss whether modifications to Table A1 or other provisions of Part II.A should be made.

2. Minimum Columbia River Treaty Indian Ceremonial and Subsistence Entitlement

There is a minimum mainstem treaty Indian ceremonial and subsistence entitlement to the Columbia River Treaty Tribes of 10,000 spring and summer Chinook. It is anticipated that the majority of this entitlement will be taken during the January 1 through June 15 management period. Tributary harvest of spring and summer Chinook is not included in this entitlement. It is understood that if the total mainstem Columbia River treaty Indian harvest of spring and summer Chinook is greater than or equal to 10,000 spring and summer Chinook, then this entitlement has been met. If the total mainstem Columbia River treaty Indian harvest of spring and summer Chinook is less than 10,000, then the difference will be distributed to the Tribes from spring Chinook hatcheries below Bonneville Dam as first priority. If spring Chinook are not available from hatcheries below Bonneville Dam, or by agreement of the Parties, the entitlement may be filled from other hatchery sources of equivalent quantity and quality.

3. Ocean Fisheries

The Parties assume, based on available information, that ocean harvest of upriver spring and Snake River summer Chinook in the Pacific Ocean south of the southwesterly projection of the United States-Canada boundary between British Columbia and Washington is, and will continue to be minimal. If new information becomes available related to this assumption, the Parties agree to further discussion and consideration of management adjustments. If non-treaty ocean fisheries are proposed that would increase fishery-related mortalities on upriver spring and Snake River summer Chinook above minimal levels assumed herein, the estimated ocean harvest of upriver spring and Snake River summer Chinook shall be reviewed by TAC and shall count toward the total allowable harvest for non-treaty fisheries (Table A1).

4. Non-treaty Mainstem Columbia River Fisheries

Non-treaty commercial and recreational fisheries will be managed according to Table A1 of this Agreement.

5. Treaty Indian Mainstem Columbia River Fisheries

Fisheries conducted by the Columbia River Treaty Tribes will be managed according to Table A1 of this Agreement.

6. Review if Escapement Goals Established

If during the term of this Agreement TAC recommends specific escapement goals to the Policy Committee, and the Policy Committee adopts those escapement goals, and if it appears that either the treaty or the non-treaty fisheries governed by this Agreement are not being accorded an opportunity to attempt to take a fair and equitable share of upriver spring Chinook and Snake River summer Chinook, the Parties will review the Spring Management Period

Chinook Harvest Rate Schedule (Table A1) and discuss whether to modify it so as to achieve fair sharing.

7. Review of Impacts

The Parties commit to good faith efforts to monitor and evaluate fishery impacts for the Snake River Spring/Summer ESU. The Parties direct TAC to make recommendations to the Policy Committee for monitoring and evaluation. In the fall of 2019, the Policy Committee will review and consider any appropriate adjustments to management measures, as they relate to this ESU and June 15 as the transition date from spring to summer harvest regimes for chinook in the mainstem Columbia River.

B. UPPER COLUMBIA RIVER SUMMER CHINOOK

Mainstem Columbia River Chinook fisheries occurring from June 16 through July 31 will be managed based on the abundance of upper Columbia River summer Chinook as provided in Table A2. The Parties agree to manage upper Columbia River summer Chinook based on an interim management goal of 29,000 hatchery and natural origin adults as measured at the Columbia River mouth. The management goal is based on an interim combined spawning escapement goal of 20,000 hatchery and natural adults. The following table lists the component of the interim escapement goal. Mainstem fisheries will not be managed for these individual components. The Parties agree to consider new information related to the escapement goals as it becomes available.

Upper Columbia Summer Chinook Interim Goals	
Stock Group	Spawning Objective Components
Wenatchee/Entiat/Chelan Natural	13,500
Methow/Okanogan Natural	3,500
Hatchery	3,000

The Parties instruct TAC, with PAC assistance, to calculate appropriate adjustments to the upper Columbia River summer Chinook interim escapement goals to address the aggregate broodstock and escapement needs of the upper Columbia summer Chinook programs. TAC will present its recommended adjustments to the Policy Committee.

Concerns have been identified by the federal Parties regarding the development of a better data set to monitor and evaluate natural origin and hatchery stock status of upper Columbia summer Chinook as part of the integrated management approach. The Parties direct TAC to review options regarding upper Columbia summer Chinook natural origin and hatchery stock status monitoring and to make recommendations for future consideration by the Parties.

1. Upper Columbia Summer Chinook Fishery Framework

The following table describes the framework for managing fisheries targeting upper Columbia summer Chinook. Table A2 provides the harvest rate schedule for these fisheries.

Upper Columbia Chinook Fishery Framework		
Run Size at River Mouth	Allowed Treaty Harvest	Allowed Non-treaty Harvest
<5,000	5%	<100 Chinook
5,000-<16,000	5%	<200 Chinook
16,000-<29,000	10%	5%
29,000-<32,000	10%	5-6%
32,000- <36,250 (125% of 29,000 goal)	10%	7%
36,250-50,000	50% of total harvestable ¹	50% of total harvestable ¹
>50,000	50% of 75% of margin above 50,000 plus 10,500 ²	50% of 75% of margin above 50,000 plus 10,500 ²

¹The total number of harvestable fish is defined as the run size minus 29,000 for run sizes of 36,250 to 50,000.

²For the purposes of this Agreement, the total number of harvestable fish at run sizes greater than 50,000 is to be determined by the following formula: $(0.75 * (\text{runsize} - 50,000)) + 21,000$.

2. Ocean Fisheries

Adult equivalent harvest of non-treaty fisheries in the Pacific Ocean south of the southwesterly projection of the United States-Canada boundary between British Columbia and Washington will be counted as part of the total run size for allocation purposes. Pre-season modeled impacts of ocean fisheries will be used for the purposes of in-season management of in-river fisheries. Post-season modeled impacts will be used to assess actual fishery compliance with the Agreement. If treaty and non-treaty fisheries fail to meet the specified catch sharing objectives on a consistent basis, additional management measures will be applied so that the catch sharing objectives will be met. The Parties agree to develop such measures if they become necessary.

3. Non-treaty Fisheries

Non-treaty commercial and recreational impacts in the summer management period will be managed according to the framework and harvest rate schedule in Table A2 of this Agreement. These fisheries include commercial and recreational fisheries in the ocean south of the U.S.-Canada border at run sizes greater than 29,000, commercial and recreational fisheries in the mainstem and tributaries, and ceremonial and subsistence fisheries conducted by the Wanapum Band and the Colville Tribes.

4. Treaty Indian Fisheries

Fisheries conducted by the Columbia River Treaty Tribes will be managed according to the framework and harvest rate schedule in Table A2 of this Agreement. These fisheries include mainstem and tributary fisheries.

C. SOCKEYE

1. Bonneville Dam Management Goal

The management goal for upper Columbia River sockeye is 65,000 adult sockeye as measured at Priest Rapids Dam which, under average migration conditions, requires a 75,000 run over Bonneville Dam.

2. Non-treaty Columbia River Fisheries

Non-treaty commercial and recreational impacts on listed sockeye will be minimized to the degree possible, but the total impact shall not exceed 1% of the river mouth run of listed Snake River sockeye.

3. Treaty Indian Columbia River Fisheries

Fisheries conducted by the Columbia River Treaty Tribes will be managed according to the following schedule; all fishery impacts on sockeye will be included in the specified harvest rates:

Upriver Sockeye Run Size	Harvest Rate on Upriver Sockeye
<50,000	5%
50-75,000	7%
>75,000	7% with further discussion

4. Fisheries on Sockeye Returns Greater than 75,000 Adults

If the upriver sockeye run size is projected to exceed 75,000 adults over Bonneville Dam, any Party may propose harvest rates exceeding those specified in Part II.C.2. or Part II.C.3. of this Agreement. The Parties shall then prepare a revised biological assessment of proposed Columbia River fishery impacts on listed sockeye and shall submit it to NOAA Fisheries for consultation under Section 7 of the ESA.

D. FALL CHINOOK

1. Snake River Fall Chinook Harvest

Fall season fisheries in the Columbia River Basin below the confluence of the Snake River will be managed according to the abundance based harvest rate schedule shown in Table A3. Upriver bright stock Chinook harvest rates will be used as a surrogate for Snake River fall Chinook harvest rates unless TAC develops and the Policy Committee approves a new methodology that makes it possible to manage fisheries based on stock-specific Snake River fall Chinook harvest rates.

2. Harvest Management Objectives for Fall Chinook

The Parties have agreed that the following fishery regimes and management measures will be implemented for fall Chinook fisheries:

a. TAC will annually produce a fall season fishery model output that provides the information for the annual model known as Attachment A. The Parties shall implement fisheries in approximate accordance with this modeled fishery output. The model will include expected river mouth run sizes and Bonneville Dam passage along with overall harvest rates based on river mouth run sizes of fall Chinook, summer steelhead, coho and chum. For fisheries management, the Parties agree to use Attachment A as a template for fishery models.

b. This Agreement contemplates that in the implementation of the non-treaty fisheries, Oregon and Washington agree to manage their fisheries in a manner that will not exceed an URB harvest rate shown in Table A3. If mark-selective fisheries are implemented that impact upriver fall Chinook, the non-treaty ocean and in-river fisheries

may not harvest more than 50% of the harvestable surplus of upriver fall Chinook, consistent with the applicable federal allocation case law.

c. This Agreement contemplates that in the implementation of the tribal fisheries, the Columbia River Treaty Tribes agree to manage their fisheries in a manner that will not exceed an URB harvest rate shown in Table A3.

d. The Treaty Tribes and the States of Oregon and Washington may agree to a fishery for the Treaty Tribes below Bonneville Dam not to exceed the harvest rates provided for in this Agreement.

3. Escapement and Management Objectives

a. McNary Dam: The Parties agree that the minimum combined Columbia River and Snake River upriver bright management goal at McNary Dam is 60,000 adult fall Chinook, which includes both hatchery and natural production for all areas above McNary Dam. The 60,000 McNary Dam goal will be used as part of the annual calculation of harvestable surplus and allocation shares. The Parties also agree that the minimum upriver bright adult escapement to meet the combined Hanford Reach, lower Yakima River, and mainstem Columbia River above Priest Rapids Dam natural spawning goal, as well as the current Priest Rapids Hatchery production goal, is 43,500 adult fall Chinook (this historically included a minimal run to the Snake River). In the event of anticipated low returns of upriver bright fall Chinook to the Hanford Reach, notwithstanding the provisions of Table A3, ocean and in-river fisheries will be managed at the discretion of the Parties to help achieve the escapement goal. If future hatchery production is modified as a result of mitigation agreements or new production programs, then the Parties will instruct TAC to calculate appropriate adjustments to the McNary

Dam management goal to address program adjustments and natural production needs for this area. TAC will present its recommended adjustments to the Policy Committee.

b. Spring Creek National Fish Hatchery (NFH): The Spring Creek NFH escapement necessary to meet the full hatchery program requirements is 6,000 adult fall Chinook (3,500 females), which is expected to produce a 10.5 million smolt release. Ocean and in-river fisheries will be managed to help achieve this escapement in accordance with the fishing regimes described herein.

c. Klickitat Hatchery: The Klickitat Hatchery program production needs of 2,400 adult bright fall Chinook shall not be a management constraint. Until the Klickitat Hatchery implements a broodstock collection program, the broodstock need for Klickitat Hatchery fall Chinook shall be made up from bright fall Chinook returning to Little White Salmon NFH or other appropriate hatchery that is above base program needs. In the event base program needs cannot be met, the Parties agree to develop a program, which will address the shortfall.

d. Little White Salmon/Willard NFH: The number of bright fall Chinook adults necessary to meet the full production program, including the on-station release program of 6.5 million smolts, the 1.7 million transfer to the Yakima River (Prosser), and the 4.0 million Klickitat Hatchery program need, is 8,000 fish (3,800 females). To meet Bonneville and Umatilla hatchery program needs, an additional 1,300 fish may be needed. The Little White Salmon NFH escapement goal shall not be a management constraint.

e. Mid-Columbia Fall Chinook: The Parties have used the interim escapement goals recommended by TAC for Mid-Columbia tributaries for the purposes

of developing the annual fishery model known as Attachment A. Mid-Columbia bright fall Chinook escapement is not a management constraint for fisheries.

f. Deschutes River: The Deschutes River fall Chinook stock is of special management concern. If a Deschutes River mouth sanctuary closure to fall Chinook fishing is determined to be necessary, then the Parties commit to conducting on the water monitoring and enforcement of any steelhead subsistence or sport fishing occurring in the closed area for the purpose of determining the incidental mortality of Chinook in those fisheries.

4. Ocean Fisheries

The Parties recognize that the Secretary of Commerce adopts regulations recommended by the Pacific Fishery Management Council (PFMC) that annually establish a Chinook catch quota for all fisheries south of the U.S.-Canada border. The ESA ocean fishery management criteria currently require a 30 percent reduction of the total harvest impact on Snake River fall Chinook from the 1988-93 base period for all ocean fisheries combined (including Canadian and S.E. Alaskan fisheries). The Parties acknowledge that all U.S. ocean fisheries will be managed consistent with the ESA ocean fishery management criteria and applicable case law under *United States v. Oregon*. If NOAA Fisheries modifies the ESA ocean fishery management criteria, the Parties will discuss whether it is appropriate to reconsider criteria for in-river fisheries.

5. Non-treaty Columbia River Fisheries

Non-treaty fall season fisheries will be managed in approximate accordance with modeling summary results annually described in Attachment A and Part II.D.2 of this Agreement. Non-treaty fisheries shall be managed to not exceed the over-all URB Chinook harvest impacts listed in modeling summary results annually described in Attachment A. It is the

intent of the Parties that conduct of the Hanford sport fishery will not in any manner constrain the treaty Indian fishery unless the Tribes have already achieved the treaty tribal fisheries' share as described in modeling summary results provided in Attachment A.

6. Treaty Indian Fisheries

The fall season treaty Indian fishery shall be managed in approximate accordance with modeling summary results annually described in Attachment A and Part II.D.2 of this Agreement. Commercial fishing in Zone 6 of the Columbia River shall remain an exclusive treaty Indian fishery. The actual fishing dates, gear restrictions, and other shaping measures with respect to this fishery shall be defined by the Tribes in-season as the fishery progresses.

7. In-Season Review

The Parties shall meet in-season to review run size updates and the fisheries that have occurred up to that point. If that review suggests that the States of Oregon and Washington or the Columbia River Treaty Tribes will be unable to achieve the fisheries or harvest sharing objectives described in Part II of this Agreement by continuing to adhere to the harvest rates set forth in Part II.D.2.b. and c. or Part II.E.3 and 4, the Parties may, by agreement, adjust those harvest rates. The total URB harvest rate resulting from such an adjustment shall not exceed those shown in Table A3. The total Group B index steelhead fall season harvest rate resulting from such an adjustment shall not exceed the rates shown in the abundance based harvest rate schedule shown in Table A4.

E. STEELHEAD

1. Management Principles

The Parties have discussed the concerns identified by the Tribes regarding the appropriateness of Group A and B steelhead stock separation as applied to fisheries management

relative to non-harvest activities. Information and harvest management criteria will be established to address steelhead management issues. The Parties direct TAC to make recommendations to the Policy Committee for further studies as needed to address steelhead management issues. For the purposes of this Agreement, Group B index steelhead are defined as any steelhead measuring at least 78cm fork length and passing Bonneville Dam between July 1 and October 31. The Parties direct TAC to review non-retention impacts to the Snake River Steelhead DPS from all fisheries, and to make recommendations in 2019 to the Policy Committee regarding any appropriate adjustments to the determination of total fishery impacts.

2. Steelhead Escapement Goals

TAC has completed a review of Snake River steelhead escapement information. The Parties will consider the information in monitoring management activities.

3. Non-treaty Columbia River Harvest

Non-treaty fisheries in the mainstem Columbia River will be managed in approximate accordance with modeling summary results annually described in Attachment A. These fisheries will result in a harvest rate that is no greater than that shown in Table A4. Non-treaty fisheries for steelhead in the mainstem Columbia River and its tributaries will be managed consistent with *United States v. Oregon* and *United States v. Washington* case law principles regarding harvest sharing. All non-treaty fisheries outside the Snake River basin will be managed not to exceed 2% harvest impact for natural origin Group B index steelhead. Oregon and Washington will provide catch estimates annually. The harvest impacts will be estimated for Group A and Group B index steelhead.

4. Treaty Indian Zone 6 Harvest

Zone 6 treaty Indian fall season fisheries will be managed in approximate accordance with modeling summary results annually described in Attachment A. These fisheries will result in a harvest rate that is no greater than that shown in Table A4. The Tribes will employ standard management tools, at their discretion, to stay within the steelhead guideline while achieving the fall Chinook allocation.

F. COHO

1. Management Principles

An important aspect of this Agreement is to define an understanding among the Parties regarding procedures and schedules for mass marking of Columbia River hatchery coho originating from state and federal facilities, for clarifying releases above Bonneville Dam, and for subsequent fishery management. The Parties recognize that the actions defined in this Agreement reflect the Parties' best efforts at reaching a negotiated agreement to protect, rebuild, and enhance upriver Columbia River coho while providing harvests for both treaty Indian and non-treaty fisheries.

2. United States v. Oregon Harvest Sharing Principle

The Parties agree to implement fisheries in the Pacific Fishery Management Council (PFMC) and Columbia River Compact fora that provide treaty Indian and non-treaty fisheries the opportunity to each harvest 50 percent of the upriver adult coho available for harvest south of the U.S.-Canada border. The provision for 50 percent of the defined upriver adult coho run size to non-treaty fisheries shall include any catches in sport fisheries above Bonneville Dam as well as sport and commercial fisheries below Bonneville Dam and in the ocean. The upriver coho run is comprised of both early and late stocks.

3. Responsibilities for Costs

This Agreement does not commit the Tribes to additional costs directly related to mass marking and a selective fisheries plan. These envisioned costs specifically include providing for equipment use and maintenance, costs for marking and tagging operations, and increases in staff for coded-wire tag sampling, if any are required. The Party sponsoring and conducting mass marking will carry out this responsibility by providing equipment and technical assistance when needed.

4. Escapement Objectives

Non-treaty fisheries will be managed to achieve at least the collective broodstock escapement necessary to fulfill Columbia River hatchery production goals, including hatchery programs both above and below Bonneville Dam. TAC shall provide a recommended spawning escapement goal analysis to the Policy Committee. The Parties intend to gather information for developing a coho spawning escapement goal and/or a management goal (in Bonneville Dam equivalents). In the event of agreement on a natural spawning escapement goal for upriver coho, the 50 percent sharing agreement shall apply to that portion of the run size in excess of the agreed natural spawning escapement goal.

5. Fisheries Management

The Parties agree that all fisheries, including selective and non-selective types, affecting upper Columbia River coho, will be implemented as a result of the co-management process that includes the North of Cape Falcon Forum, the PFMC, the Columbia River Compact, and *United States v. Oregon* Columbia River tributary jurisdictions. The Parties recognize that the Secretary of Commerce will adopt regulations recommended by the PFMC that establish ocean salmon fisheries for all areas south of the U.S.-Canada border. Upriver coho impacts in ocean and

Columbia River Basin fisheries shall be described annually. Catch-and-release mortalities associated with non-treaty selective fisheries will be included in calculations of the total upriver run size and the harvest sharing provisions of **Part II.F.2** of this Agreement. The Parties agree that selective and non-selective fishery options will be evaluated on their merits consistent with the management objectives and fishery sharing provisions stated in this Agreement and there is no assurance that selective fisheries will occur simply because marking has occurred. The Parties acknowledge that coho fisheries will be managed consistent with the harvest sharing principles. Fisheries adjustments in-season will also be made accordingly.

G. WHITE STURGEON

1. Management Goals

The intent of the Parties is to manage sturgeon populations in the Zone 6 fishing area to provide long term sustainable harvest opportunities for Indian and non-treaty fisheries. The current status of the sturgeon population is the key factor in determining appropriate harvest levels. The Parties commit to continue ongoing studies to estimate present and optimum population levels, life history characteristics, recruitment, spawning potential and appropriate sturgeon fishing sanctuaries.

2. Management Measures

Oregon, Washington and the Columbia River Treaty Tribes have established a joint Sturgeon Management Task Force. They will continue to meet regularly in that forum to review sturgeon management issues and set harvest guidelines for the upcoming year. Information to be reviewed includes recreational, commercial and subsistence landings for each reservoir between Bonneville and McNary Dam. Estimates of encounters in non-retention recreational activities will also be provided. The Sturgeon Management Task Force shall determine the harvest

guidelines for each reservoir annually. The effectiveness of harvest management shall be measured relative to a three-year rolling average of the guidelines. Annual harvest guidelines may be adjusted to account for cumulative overages/underages. The treaty catch may be taken in gillnet, setline, platform or hook-and-line fisheries.

Oregon, Washington, and the Columbia River Treaty Tribes agree to undertake a review of sturgeon management regulations. The effect of size limits, sanctuaries and other regulations on the harvest guidelines will be estimated.

The Parties commit to pursuing enhancement activities, along with the necessary funding, for sturgeon populations in the Zone 6 fishing area. Activities considered will include, but not be limited to, artificial propagation, transplantation from other areas and flow augmentation. The Parties agree that funding for ongoing studies to estimate present and optimum population levels, life history characteristics, recruitment, spawning potential and appropriate sturgeon fishing sanctuaries is essential to successfully managing these populations.

H. SHAD

Shad runs have been sufficiently large to allow for major expansion of harvest. However, markets are limited and need to be developed for this species. Development of catch methods shall be pursued to promote a sufficient catch of shad while minimizing the catch of other species. The Parties shall seek to minimize the harvest of salmon incidental to treaty Indian and non-treaty shad fisheries as set forth in Part II, Sections A.4 and 5, B.3 and 4, and C.2 and 3. The incidental shad catch during treaty Indian fisheries for anadromous fish may be sold or otherwise utilized. The Tribes may also implement directed shad fisheries using traps or other appropriate gear. All incidental impacts to salmon and steelhead will be accounted for as part of applicable harvest guidelines.

I. WALLEYE AND OTHER NON-NATIVE SPECIES

The incidental catch of walleye and other fish species not native to the Columbia River during treaty Indian fisheries for anadromous fish may be sold or otherwise utilized. Non-treaty fisheries on walleye shall continue under state regulation, which prohibits the sale of walleye.

J. LAMPREY

The Parties recognize the depressed status of lamprey populations originating from upstream of Bonneville Dam. The Parties acknowledge that factors other than harvest have been the major cause of population decline. The Parties commit to jointly support efforts to identify and implement projects to restore lamprey populations above Bonneville Dam.

There shall be no commercial harvest of lamprey in the Columbia River and its tributaries. This does not prevent trade or barter among Indian Tribes, or harvest for personal use by non-Indians, if otherwise permitted. The Parties recognize that opportunities for harvest of lamprey are extremely limited. In recent years, the primary opportunity for harvest of lamprey has been at Willamette Falls. Annual take levels will be determined through a process that includes discussions between the State of Oregon and the Tribes.

K. RESEARCH AND MONITORING

The *United States v. Oregon* Parties have agreed to a series of species-specific harvest management regimes described in Part II. Implementing those management regimes requires continuation of essential monitoring activities. Additional research and monitoring is needed to improve the accuracy and precision of management. Important components of a comprehensive research and monitoring program include, but are not limited to, those described below. The Parties agree that maintaining a vigorous research and monitoring program is essential to continued implementation of the harvest regimes as envisioned in this Agreement. The Parties therefore agree to work together to maintain funding for current programs, and seek additional

funding that are considered essential to increase certainty in the conservation effectiveness of the harvest strategies contained within this Agreement.

1. Current Needs

- a. Fisheries sampling for stock composition including impacts to natural origin fish.
- b. Fishery effort accounting.
- c. Natural spawning escapement enumeration.
- d. Run reconstruction and forecasting.
- e. Observer programs and test fisheries.
- f. Dam passage sampling.

2. Additional Needs

- a. Snake River fall Chinook run reconstruction and forecasts.
- b. Enhanced natural spawning escapement enumeration.
- c. PIT tag sampling.
- d. Increase sampling effort to maintain necessary fishery sampling rates.
- e. Evaluate genetic stock identification methods to further improve stock identification.

III. PRODUCTION ACTIONS

A. MANAGEMENT PRINCIPLES

1. General Statement

The Parties have responsibilities with regard to the conservation, rebuilding, and/or enhancement of the anadromous salmonids of the upper Columbia River Basin. The Parties also recognize the existing Northwest Power and Conservation Council's interim rebuilding goal to

increase total adult salmon and steelhead runs above Bonneville Dam by 2025 to an average of 5 million annually in a manner that supports tribal and non-tribal harvest (Council Document 2014-12, III.). The Parties intend to use artificial production techniques where appropriate, among other strategies, to assist in rebuilding weak runs and mitigating for lost production. The Parties' stated intent to implement the production actions described in this Agreement is an important consideration to the Tribes. These production actions, in conjunction with other enhancement efforts, habitat protection, hydrosystem management, and harvest management, are intended to ensure that Columbia River fish runs continue to provide a broad range of benefits in perpetuity.

2. Research, Monitoring, and Evaluation

The Parties will work in cooperation to continue developing monitoring and evaluation programs for the production actions contained in this Agreement and for any production program modifications implemented under Part I.B.2 and III.A.1. Monitoring and evaluation programs for production shall be consistent with the research and monitoring activities for harvest described in Part II.K, and may use some of the same tools. Therefore, the Parties commit to retain flexibility as they develop monitoring and evaluation programs, to use their best efforts to maintain current funding for monitoring and evaluation programs, and to secure additional funding to address information needs. The Parties will integrate information gained from monitoring and evaluation with the production strategies in this Agreement so as to increase certainty in their conservation effectiveness.

3. Marking

The Parties recognize and have discussed the concerns identified by the Parties regarding marking protocols for various production programs identified in this Agreement. Marking

scenarios identified in this Agreement are expected to occur during the period of this Agreement. It should not be interpreted that each marking program has the full support of all Parties or that any Party waives any rights it may have with regard to any marking protocol. Nothing in this Agreement shall be interpreted as setting precedent for future marking programs or as preventing Parties from reaching other agreements on individual marking programs which may be implemented during or after termination of this Agreement; provided, however, that notice of such agreements shall be given to the other Parties. All Parties commit to make a good faith effort to continue discussions and negotiations on individual marking issues during the period of this Agreement.

The Parties agree to engage in a “basin by basin” approach to develop marking protocols. The Parties will evaluate releases in all tributaries within a sub-basin. The Parties will take into account the purpose of the releases and the interests of the appropriate Parties, and accommodate all Party interests to the extent possible. The Parties will place particular emphasis on evaluating the marking protocols and allowable harvest rates that affect the harvest sharing principles embodied in this Agreement.

Nothing in this Agreement shall be interpreted to prevent the federal Parties and/or states from mass marking fish required to be marked under Congressional acts directing the mass marking of Chinook, coho, and steelhead intended for harvest which are released from federally operated or financed hatcheries. In the event USFWS and/or states mark fish inconsistent with Tables B1-B7, nothing in this Agreement prevents any Party from challenging these acts. In the event of insufficient funding to carry out such marking, the federal Parties will consult with the other Parties to review and revise the priorities in any marking plan provided for under this Agreement. The federal Parties will, to the extent required by law, consider the other Parties’

recommendations and the United States' trust and treaty responsibility to the Tribes before deciding marking priorities.

4. Broodstock, Facility and Funding Needs for Production Programs

The Parties hereby commit to a good faith effort to meet the juvenile release programs identified in Tables B1, B2, B3, B4, B5, B6, and B7. However, juvenile release levels will be dependent on obtaining adequate returns of broodstock, maintaining adequate facility rearing space, and funding to accomplish the agreed-to production programs. The Parties recognize that much of the funding for the production programs central to this Agreement is the responsibility of entities that are not Parties to this Agreement (e.g., BPA, BOR, COE, PUDs and private entities) as mitigation for Columbia River Basin water development projects. All the Parties agree to work cooperatively to provide the necessary facility rearing space and to make a good faith effort to secure the necessary funding for these production programs. In the event that production program goals are not achievable, the Parties will negotiate contingencies on a case-by-case basis through the *United States v. Oregon* Policy Committee and Dispute Resolution process.

For production programs that are not included in Tables B1-B7, the Parties commit annually to provide their individual production plans for review and discussion by the PAC. As a result of this review, the PAC will determine if there are issues that should be forwarded to the Policy Committee. Any such issues will be discussed annually at the Mid-Spring Meeting or otherwise designated negotiation session.

5. Mitchell Act Funding

The Parties agree to request, and to use their best efforts to secure, sufficient funding to carry out production management measures set forth in Tables B1-B7. If appropriations through

the duration of this Agreement contain sufficient funding to carry out current Mitchell Act programs, the Parties agree to implement the Mitchell Act production actions as set forth in this Agreement subject to compliance with all applicable laws. If there is insufficient funding to maintain current Mitchell Act programs, then, consistent with the Anti-Deficiency Act, the United States cannot commit to fund any particular Mitchell Act program. In the event of such insufficiency in Mitchell Act appropriations to meet all of the Parties' desires, the United States will consult with the Tribes and the States to review and revise the Mitchell Act program in light of the actual Fiscal Year appropriations, and the United States will give good faith consideration to all Parties' recommendations, the United States' trust responsibility to the Tribes, and Mitchell Act history before deciding which Mitchell Act program actions will be funded. It is not the Parties' intent to eliminate or substantially reduce any Mitchell Act programs, however, the upriver releases identified in this Agreement have priority over lower river releases. The Parties understand that options for any program changes will be considered pursuant to Part I.C.

6. Non-Mitchell Act Funding

Implementation of other non-Mitchell Act funded production measures in this Agreement may involve new costs that are funded by government and non-government entities. For programs funded by the federal agency signatories, non-Mitchell Act production measures are subject to obtaining funding sufficient to implement the measures and are subject to compliance with all applicable laws. The Parties agree to request, and to use their best efforts to secure, sufficient funding to carry out production management measures set forth in Tables B1-B7. If there is insufficient funding to implement non-Mitchell Act programs funded by a federal agency signatory, the Parties will consult to review and revise the program measures in light of the funding for that year. The United States will give good faith consideration to all Parties'

recommendations, the United States' trust responsibility, and the purpose and history of the program before deciding which programs will be funded.

B. SPRING CHINOOK PRODUCTION

The Parties agree to implement spring Chinook production programs described in Table B1: Spring Chinook Production for Brood Years 2018-2027. In developing marking protocols, the Parties agree to take a "basin by basin" approach as described in Part III.A.3.

C. SUMMER CHINOOK PRODUCTION

The Parties agree to implement summer Chinook production programs described in Table B2: Summer Chinook Production for Brood Years 2018-2027.

D. SOCKEYE PRODUCTION

The Parties agree to implement sockeye production programs described in Table B3: Sockeye Production for Brood Years 2018-2027.

E. FALL CHINOOK PRODUCTION

1. Snake River Fall Chinook Supplementation Program

a. The Parties all have an interest in the current Snake River (SR) fall Chinook production program, its effects on SR fall Chinook abundance and productivity, and the magnitude or relative impact of the current production program compared to other actions and conditions that influence SR fall Chinook abundance and productivity. With the implementation of the SR fall Chinook supplementation program, the abundance of natural origin SR fall Chinook has significantly increased, thereby effectively reducing the near-term risk to the population's persistence.

The Parties agree that the effect of the current supplementation strategy on SR fall Chinook abundance, productivity, spatial structure, and diversity, and the magnitude or

relative impact of the current production program to other actions that influence SR fall Chinook will continue to be evaluated over the course of this Agreement. If, during the course of this Agreement, additional data or changed circumstances arise associated with the SR fall Chinook, then the Parties agree to consider options to address the issue identified, including whether to modify the current supplementation program or consider other management responses.

In the event that NOAA seeks to revise the SR fall Chinook supplementation program utilizing its ESA authorities, or another event triggers ESA-based re-consideration of the SR fall Chinook supplementation program during the term of this Agreement, NOAA shall meet with all the Parties to analyze the SR fall Chinook supplementation program compared to other actions and conditions that influence SR fall Chinook abundance, productivity, spatial structure and diversity, as well as legal principles, including but not limited to the Tribes' treaty rights, the States' interests, the Secretarial Order on ESA and Tribal Treaty rights, the conservation necessity principles and the ESA.

b. The Parties agree to implement SR fall Chinook production programs described in Table B4: Snake River Fall Chinook Production for Brood Years 2018-2027 pursuant to action defined above.

c. The Parties will meet annually prior to September 15 of each year to develop broodstock collection protocols needed to implement Table B4. In the case of broodstock shortages, priorities outlined in Table B4 will be followed. Annual plans for the respective fall Chinook brood year will be provided to PAC by October 1 of each year.

d. Trapping of adult fall Chinook at Lower Granite Dam will occur at a fixed percentage rate agreed upon by the fishery managers prior to initiation of trapping at the dam. Trapping is to provide for broodstock collection (hatchery and natural origin), accurate run reconstruction, and for removal of non-Snake origin fish.

e. The Parties will work cooperatively to seek and maintain adequate funding to operate the Lower Granite Dam trap to further the goals of the Snake River production programs.

f. A monitoring and evaluation implementation plan remains in development as part of the long term production plan for SR fall Chinook to support conservation and harvest programs. In the interim, an appropriate number of fish will be coded-wire tagged for evaluation purposes as identified in Table B4. The tagging/marking technique shall allow for the adult returns of the off-site released juvenile Lyons Ferry Hatchery fall Chinook to pass the Lower Granite Dam trap because it is the Parties' intent that current trapping protocols at Lower Granite Dam will ensure that the majority of supplementation fish will pass upstream of Lower Granite Dam to spawn naturally. Unless the Parties agree otherwise, the adult returns from juvenile SR fall Chinook releases that are surplus to broodstock needs shall be allowed to pass Lower Granite Dam to spawn naturally.

g. The Parties shall coordinate the use of Lyons Ferry subyearling production for supplementation and research. To facilitate research review, the Parties shall consider research proposals through existing research review forums. In order to protect the integrity of the Parties' production commitments with regard to SR fall Chinook

contained in this Agreement, research proposals are subject to review and agreement of the Parties. Such agreement shall not be unreasonably withheld.

h. The PAC shall provide an annual update report of SR fall Chinook adult returns and expected egg-take by November 1. The PAC shall also provide an actual egg-take and juvenile production estimate report by January 15 of each year.

2. Other Fall Chinook Production

The Parties agree to implement other fall Chinook production programs described in Table B5: Fall Chinook Production for Brood Years 2018-2027. With respect to John Day and The Dalles Dam mitigation, in 2012 the Parties and the US Army Corps of Engineers (USACOE) agreed upon a compromise interim reprogramming mitigation level of 107,000 Total Adult Production with a stock split of approximately 75% upriver bright fall Chinook and 25% tule Chinook. The Parties will continue to work with the USACOE to implement that compromise level of mitigation.

F. STEELHEAD PRODUCTION

1. Steelhead Production for Brood Years 2019-2028

Hatchery steelhead from the 2019-2028 brood (fish that return to the Columbia River in 2018-2027 and will spawn in 2019-2028) shall be implemented as described in Table B6: Steelhead Production for Brood Years 2019-2027. The Parties agree to continue a monitoring and evaluation program for the mass marking and selective fisheries program in the Columbia River Basin. A purpose of the program is to evaluate catch and release mortalities to unmarked steelhead.

2. Monitoring Adult Composition

The Parties commit to seek funding for a program to monitor the composition of adult steelhead returning above Bonneville, Lower Granite, and Priest Rapids dams. The Parties commit to working with U.S. Army Corps of Engineers to improve sampling at Bonneville Dam. This program is expected to include but is not limited to the collection of scales from adult steelhead at Bonneville, Lower Granite, and Priest Rapids dams to assist in monitoring hatchery and natural origin adult escapement to the Snake River and upper Columbia River areas.

G. COHO

1. Purpose of Program Modifications

The coho program modifications described below are a result of a negotiated agreement between the Parties to address mass marking, the selective fisheries program, and the Parties' desire to restore upriver coho runs.

2. Upriver Coho Production for 2018-2027 Brood Coho

The Parties agree to implement upriver coho production and reintroduction programs described in Table B7: Coho Production for Brood Years 2018-2027.

3. Grande Ronde Program

The Parties have agreed to implement a pilot program and will evaluate its effectiveness over the course of this Agreement. If the Parties determine this program is not meeting the objectives identified, the balance of the production will revert back to release in the Umatilla River.

4. Priority for Upriver Programs

Except as described in Table B7, for each respective brood year, the upriver releases identified in this Agreement have priority over lower river releases. The States of Oregon and

Washington and the United States shall manage lower river hatchery programs such that upriver release levels will meet the coho release goals described in Table B7. In the event of a juvenile rearing catastrophe, the Parties agree to consider alternative release strategies, which may include but are not limited to making up the shortfall in subsequent broodyears.

5. Contingency

The Parties recognize that disease, weather disasters, or other unforeseen events might impact non-mass marked upriver coho programs and result in a situation where already mass-marked lower river coho are the only fish available to be reprogrammed for an upriver release to meet the release goals identified in this Agreement. Therefore, if a shortfall in non-mass marked coho for upriver programs occurs after mass marking is completed, the Parties will meet and agree on how best to address the shortfall.

H. PRODUCTION ISSUES REQUIRING FURTHER DEVELOPMENT

The Parties acknowledge that on-going hatchery reviews, production planning, evaluation of hatchery programs to meet mitigation responsibilities, development of new programs and other factors may require the Parties to modify some of the production programs described in Tables B1-B7. The Parties commit to good faith efforts to continue the development of production plans, including descriptions of issues requiring policy guidance, analyses of technical issues, and identification of funding mechanisms in order to reach consensus on outstanding issues that prevent the finalization of Tables B1-B7.

The following list of production issues is recognized as being of high priority for resolution by the Parties but is not intended to exclude other production issues that may arise during the term of this Agreement. The Parties commit to good faith efforts to better define

and/or resolve issues and engage in cooperative planning for the implementation of the following programs:

1. Table B1, Spring Chinook Salmon

a. Leavenworth NFH complex facility modification, spring Chinook program levels, release locations, development of locally adapted broodstocks and marking protocols.

b. Yankee Fork spring Chinook development of locally adapted broodstock for supplementation and production planning that also considers the Sawtooth FH program and Crystal Springs Hatchery design and build out.

2. Table B2, Summer Chinook Salmon

a. Panther Creek summer Chinook development of locally adapted broodstock for supplementation and production planning.

3. Table B3, Sockeye Salmon

a. Wallowa Lake sockeye program.

4. Table B5, Fall Chinook Salmon

a. John Day and The Dalles Dams mitigation program.

b. Priest Rapids Hatchery fall Chinook marking protocols (Grant County PUD mitigation program).

5. Table B6, Steelhead

a. Wenatchee, Methow, Okanogan steelhead development of new acclimation facilities and marking protocols.

b. Methow River/Winthrop NFH and Okanogan River steelhead management plans developed within 18 months of completing ESA consultations.

c. Yankee Fork of the Salmon River steelhead local broodstock transition and production planning.

I. PROCESSES FOR ONGOING OR FUTURE REVIEWS AFFECTING PRODUCTION PROGRAMS, AND FOR HIGH PRIORITY PRODUCTION ITEMS THAT WILL REQUIRE FURTHER DEVELOPMENT, COOPERATIVE PLANNING, AND RESOLUTION

1. Process for Ongoing or Future Reviews Affecting Production Programs

The Parties recognize that ongoing or future reviews of hatchery management programs and policies may affect the production programs described in this Agreement. Program modifications recommended by NOAA and USFWS as a result of the ESA Section 7 process are addressed in Section I.B.2 of this Agreement. Program modifications proposed by any other party will be considered by the *U.S. v. Oregon* Parties on a case-by-case basis, and the following specifics shall apply consistent with the general modification provision in Section I.B.8 of this Agreement. The Parties will consider the relationship of the proposed modification to the overall Agreement and the valuable exchange of consideration the Agreement represents. After considering any modification, the Parties may agree to modify the Agreement, renegotiate the Agreement, or pursue any and all options they may have, including but not limited to dispute resolution pursuant to this Agreement, withdrawal from this Agreement, or initiating legal action. The Parties commit to monitor and evaluate the effects of program modifications on adult returns and fishery opportunity as a condition of agreement to a modification.

2. Process for High Priority Production Items That Will Require Further Development, Cooperative Planning, and Resolution

The Parties have identified a list of high priority production items set forth in Part III.H. that will require further development, cooperative planning, and resolution during the course of this Agreement and could result in modification of Tables B1-B7.

The Parties agree that additions, deletions, or modifications to Tables B1-B7, aside from those subject to Part I.B.2, may be made by agreement of the Parties at any time during the term of this Agreement. The following specific process shall apply to the extent feasible consistent with the general modification provision of Section I.B.8.

a. The Party proposing any such modification is responsible for supplying to other Parties all relevant information and rationales supporting a proposal. All proposals must be submitted to PAC by the relevant co-managers or Parties for technical analysis and eventual recommendation to the Policy Committee.

b. Planning efforts in connection with the proposal will occur at a sub-basin level, and appropriate Parties (as identified in Table 1) for each production program proposal will make a good faith effort to participate in and contribute to the planning effort.

c. Each Party shall advise and update its PAC representative regarding progress on production program planning efforts. An annual progress report will be provided by the PAC to the Policy Committee on each production item after coming under active consideration by the Parties.

d. In the event PAC cannot reach a consensus recommendation, an issue paper will be prepared for Policy Committee review which describes the issue preventing consensus and contains relevant facts of the dispute. If the Policy Committee cannot

reach consensus, any Party may elect to invoke the Dispute Resolution procedure in Part I.C.6.

e. If the Parties reach consensus on a proposed modification, they shall incorporate the modification into this Agreement.

SCHEDULE A: *Annual Schedules for Committee Activities***Annual TAC Schedule**

Report/Activity	Information	Dates/Deadlines
Spring/summer season management (spring, summer, sockeye)	Post-season run reconstruction Pre-season run forecasts	November – December Mid-December
Steelhead	Post-season run reconstruction and Pre-season Forecasts	January
Fall season management (TAC works with Joint State Staff to accomplish these tasks)	Post-season run reconstruction (all managed fall Chinook stock groups including Snake River Fall Chinook) Pre-season forecasts	November- February February
Winter Season Joint Staff Report Sturgeon/Smelt (TAC works with Joint State Staff)	Stock status/management guidelines Fishery review/recommendations TAC review of document	Final document available mid- December Early December
Winter/Spring Season Joint Staff Report and Spring Chinook / Steelhead (TAC works with Joint State Staff)	Stock status/Run forecasts, Management guidelines, Fishery review/recommendations TAC review of document	Final document available January Early January
Fall Season Joint Staff report Fall Chinook, coho, steelhead (TAC works with Joint State Staff)	Stock status/run forecasts, Management guidelines, Fishery review/recommendations TAC review of document	Final document available Mid-July Early July
Annual Summary Report (for Policy Committee)	Final Post-season impacts from all fisheries compared to targets in Management Agreement for previous year. Includes Spring Catch Balance report, Fall summary report, Indicator Stock summary Report, and ESA Impact report.	April/May
In-season spring management	Assist Joint State staff with Compact Fact Sheet development Run size updates Fishery updates	Weekly February – Early June
Pre-season fall management	Run forecasts Fall fishery planning/PFMC/NOF	Mid-February March – April
In-season summer management	Assist Joint State staff with Compact Fact Sheet development Run size updates Fishery updates	Weekly June-July
Post-season spring/summer season summary report for Policy Committee	Fishery Impact Summary for spring and summer season fisheries	August-October
In-season fall management	Compact Fact Sheet development Run size updates/fishery updates	Weekly August – October
Post-season fall season summary report for Policy Committee	Fishery Impact Summary for fall season fisheries	November-December

Annual PAC Schedule

Report/Activity	Information	Dates/Deadlines
Consider production changes to Tables B.1 – B.7	Spring/summer Chinook Fall Chinook/coho/ Steelhead	Monthly PAC meetings
Production plan modifications based on preseason forecast	Spring/summer Chinook Fall Chinook/coho/ Steelhead	Early April Early August
Update on production programs not included in Tables B.1 – B.7	Spring/summer Chinook Fall Chinook/coho/ Steelhead	Update at mid-Spring Policy Committee meeting
Preliminary tributary escapements	Spring/summer/fall Chinook Coho Steelhead	Early November Early December Mid-June
Determine Lower Granite trapping and broodstock collection protocols	Fall Chinook	August
Summarize annual release numbers for production review report	Spring/summer Chinook Fall Chinook/coho/ Steelhead	September – November PAC meetings
Post-season escapement and identification of production changes	Spring/summer/fall Chinook Coho Steelhead	Early December Early December Early May
Finalize annual production review report	Spring/summer Chinook Fall Chinook/coho/ Steelhead	Update at mid-Winter Policy Committee meeting
Summarize PAC/Policy Committee approved changes to Tables B.1 – B.7	Spring/summer Chinook Fall Chinook/coho/ Steelhead	Update at mid-Winter Policy Committee meeting

Note: Columbia Basin production activities involve a wide number of agencies and staff. Different agencies, including parties to this Agreement, delegate aspects of the above responsibilities to staff who may not be members of PAC. PAC will involve itself as needed to ensure these tasks are accomplished, and PAC will work with state, federal, and tribal agency staff as needed to collect appropriate information regarding the above activities and report it to the Policy Committee. PAC will share information regarding current production programs not included in Tables B1-B7. PAC is directed by the Policy Committee to assist in resolution of any disputes regarding production programs included in this Agreement and report any issues requiring policy resolution. TAC and PAC will provide additional data and analysis as requested in order to implement this Agreement.

Annual Policy Committee Schedule

Report/Activity	Information	Dates/Deadlines
<u>Mid-Winter Meeting</u> - Specified negotiation topics - Fall fisheries post-season review - Spring and summer management period fishery preview - Sturgeon Management Task Force meeting - Production review and annual decision point for (non-steelhead) production program issues	Briefing papers TAC post-season fall season fishery report TAC pre-season fishery report (Summary of Forecasts and Joint Staff Report) Staff/TAC sturgeon technical reports/abundance data Proposed production modifications	January-February
<u>Mid-Spring Meeting</u> - Specified discussion topics - Potential Non-Party Interaction - Fall management period fishery preview - Mid-spring season fishery update - Review Annual Indicator Summary Report -RCC Regulation Consistency Review Report	Briefing papers Issue Papers TAC pre-season fishery report (Summary of PFMC/NOF and in-river fishery modeling) TAC spring season update TAC Annual Indicator Summary Report RCC Report	April-May

Report/Activity	Information	Dates/Deadlines
<u>Mid/Late Summer Meeting</u> - Specified discussion topics - Spring/summer fisheries post-season review - Fall Season Management Issues - Production review and annual decision point for steelhead production program issues	Briefing papers TAC post-season spring/summer season fishery report TAC report PAC report	August-September
<u>Fall Meeting</u> - Specified discussion topics - Fall Season update - Coho broodstock collection update	Briefing papers TAC report PAC report	October-November

Table 1. Lead Management Entities for Each Sub-basin.*

Sub-Basin	Fishery Management Entities	Sub-Basin	Fishery Management Entities
Wind River	WDFW, YIN	Little White Salmon River	WDFW, YIN
Big White Salmon River	WDFW, YIN	Klickitat River	WDFW, YIN
Yakima River	WDFW, YIN	Wenatchee River	WDFW, YIN
Entiat River	WDFW, YIN	Methow River	WDFW, YIN
Hood River	ODFW, CTWSOR	Deschutes River	ODFW, CTWSRO
John Day River	ODFW, CTWSRO, CTUIR	Umatilla River	ODFW, CTUIR
Walla Walla River	ODFW, CTUIR, WDFW	Tucannon River	WDFW, CTUIR, NPT
Grande Ronde	ODFW, WDFW, NPT, CTUIR	Imnaha River	ODFW, NPT, CTUIR
Clearwater River	IDFG, NPT	Salmon River	IDFG, NPT, SBT**
SNAKE RIVER MAINSTEM	WDFW, ODFW, IDFG, CTUIR, NPT	Columbia River, Upper Mainstem (Confluence of Snake R. to Chief Joseph Dam)	WDFW, YIN, CTUIR

* The lead management entities will consult with USFWS and NOAA Fisheries as necessary when fish listed under the ESA inhabit a sub-basin and/or when USFWS funds or has a production facility in the sub-basin.

** The Shoshone-Bannock Tribes shall be deemed a management entity for purposes of those portions of the Salmon River sub-basin that concern those lands and streams outside the Nez Perce Reservation originally established by the Nez Perce Treaty of 1855 where the Shoshone-Bannock Tribes exercise treaty-secured fishing rights, and such other sub-basin areas as may subsequently be agreed upon by the affected parties hereto.

GLOSSARY

For the purposes of this Agreement:

Ad-Clip or **Ad** means: A means of marking fish by removing the adipose fin.

AEQ means: Adult equivalent.

anadromous fish means: Fish that ascend freshwater rivers and streams to reproduce after maturing in the ocean.

AOP means: Annual Operations Plan developed for an artificial production program.

artificial production or **artificial propagation** means: Spawning, incubating, hatching or rearing fish in a facility constructed for fish production.

BA means: A biological assessment prepared under 16 U.S.C. § 1536(c).

BIA means: Bureau of Indian Affairs, an agency of the United States Department of the Interior.

BOR or **BR** means: United States Bureau of Reclamation, an agency of the United States Department of the Interior.

BPA means: Bonneville Power Administration.

BPH means: Bonneville Pool Hatchery; tule fall Chinook salmon produced in artificial production facilities between Bonneville and The Dalles Dams.

BUB means: Bonneville Upriver Bright; bright fall Chinook salmon produced in Bonneville Hatchery.

BY means: Brood year.

C&S means: Ceremonial and subsistence.

ceremonial fish means: Those fish caught and used pursuant to tribal authorization for religious or other traditional Indian cultural purposes of the tribes and which may not be sold, bartered or offered for sale.

COE means: United States Army Corps of Engineers.

Columbia River Compact or **Compact** means: The Oregon-Washington Columbia River Compact, enacted in Oregon as 1915 Or. Laws ch. 188, § 20 (codified at ORS 507.010), in Washington as 1915

Wash. Laws ch. 31, § 116 (codified as amended at RCW 77.75.010 (2006)), and ratified by Congress in the Act of April 8, 1918, ch. 47, 40 Stat. 515.

Columbia River Treaty Tribes means: The Confederated Tribes of the Warm Springs Reservation of Oregon, the Confederated Tribes of the Umatilla Indian Reservation, the Nez Perce Tribe, and the Confederated Tribes and Bands of the Yakama Nation.

commercial fish means: Those fish that are sold or bartered or are caught for that purpose (except subsistence fish).

conversion rate means: The estimated survival of adult fish during upstream migration. Conversion rates are calculated by dividing the count of a particular group of adult fish at the uppermost dam by the count of that group at the lowest dam.

CTUIR means: Confederated Tribes of the Umatilla Indian Reservation.

CTWSRO means: Confederated Tribes of the Warm Spring Indian Reservation of Oregon.

CWT means: Coded Wire Tag, a means of marking fish by inserting numeric-coded wires into their snouts.

DPS means: Distinct Population Segment under 16 U.S.C. § 1532(16), as defined in 61 Fed. Reg. 4722 (Feb. 7, 1996).

emergency means: Unanticipated change in fish resource status, abundance, timing or harvest level for which the relevant data was not available during preseason planning and which requires immediate management response to achieve the objectives of this Agreement.

enhancement means: The use of artificial propagation to increase the abundance of fish for harvest and spawning purposes.

ER means: Exploitation rate.

ESA means: Endangered Species Act, 16 U.S.C. §§ 1531-1544.

escapement means: The total number of adult fish that are passed through fisheries for purposes of artificial or natural production.

ESU means: Evolutionarily Significant Unit, as defined in 56 Fed. Reg. 58,612 (Nov. 20, 1991) for the purpose of identifying salmon “species” under 16 U.S.C. § 1532(16).

FCRPS means: Federal Columbia River Power System.

FH means: Fish Hatchery.

fishery impact or **harvest impact** means: Incidental fishery-related mortalities, measured as a percentage of run size at some geographical point.

FWS means: United States Fish and Wildlife Service, an agency of the United States Department of the Interior.

harvestable fish means: Those fish determined pursuant to this Agreement to be available for harvest.

hatchery fish means: Fish spawned, incubated, hatched or reared in an artificial production facility.

HCP means: A habitat conservation plan prepared under 16 U.S.C. § 1539.

HGMP means: A Hatchery and Genetics Management Plan prepared under 50 C.F.R. § 223.203(b)(5).

HR means: Harvest rate.

IDFG means: Idaho Department of Fish and Game.

IPC means: Idaho Power Company.

ISS means: Idaho Supplementation Study.

Joint State Staff or **Joint Staff** means: Joint Columbia River Management Staff of the Oregon and Washington Departments of Fish and Wildlife.

LCR means: Lower Columbia River, that portion of the Columbia River downstream from Bonneville Dam.

listed means: Determined to be a threatened or endangered species under 16 U.S.C. § 1533.

LM means: A means of marking fish by clipping the left maxillary.

lower river means: That portion of the Columbia River downstream from Bonneville Dam.

LRB means: Lower River Bright; bright fall Chinook salmon that spawn naturally in the Columbia River approximately three miles downstream of Bonneville Dam.

LRH means: Lower River Hatchery; tule fall Chinook salmon produced in artificial production facilities in the Columbia River basin downstream of Bonneville Dam.

LRW means: Lower River Wild; naturally-produced bright fall Chinook salmon from Columbia River tributaries downstream of Bonneville Dam.

LSRCP means: The Lower Snake River Fish and Wildlife Compensation Plan, initially authorized by Pub. L. No. 94-587, § 102, 90 Stat. 2917, 2921 (1976).

LV means: A means of marking fish by clipping the left ventral fin.

MA means: Mitchell Act, Act of May 11, 1938, ch. 193, 52 Stat. 345 (codified as amended at 16 U.S.C. §§ 755-757).

mainstem means: The Columbia River between its mouth and McNary Dam, except where expressly indicated otherwise.

management entity means: The agency (tribal, state, or federal) having fisheries management or production authority over the specific area and subject matter involved. The Parties designate the following as their management entities for purposes of this Agreement:

Idaho—Idaho Department of Fish and Game

Nez Perce Tribe—Nez Perce Department of Fisheries

Oregon—Oregon Department of Fish and Wildlife

Shoshone-Bannock Tribes—Shoshone-Bannock Fish and Wildlife

United States—

National Marine Fisheries Service (ocean fisheries)

United States Fish and Wildlife Service (National Fish Hatcheries)

Umatilla Tribe—Umatilla Department of Natural Resources, Fisheries Program

Warm Springs Tribe—Warm Springs Natural Resources Branch, Fish, Wildlife, and Parks
Department

Washington—Washington Department of Fish and Wildlife

Yakama Nation—Yakama Nation Fisheries Resource Management

A party may change the designation by notifying the Chair of the Policy Committee in writing.

management goal means: A desired adult fish run size, usually composed of an aggregate of individual stocks, as measured at a given geographic point.

marked fish means: Fish to which humans have applied some external/internal means of identification.

M&E means: Monitoring and evaluation.

Mid Columbia fall Chinook or **MCB** means: Bright fall Chinook salmon originating from the Columbia River and its tributaries from about three miles downstream of Bonneville Dam upstream to McNary Dam.

Mid Columbia coho means: Coho salmon originating from the Wenatchee, Entiat, and Methow watersheds.

Mid Columbia HCP means: The Habitat Conservation Plans prepared under 16 U.S.C. § 1539 for the operation of Rock Island Dam, Rocky Reach Dam, and the Wells Hydroelectric Project.

natural origin fish, natural spawning fish, or naturally produced fish means: Fish produced by spawning and rearing in natural habitat, regardless of the parentage of the spawners.

NEOH means: Northeast Oregon Hatchery.

NFH means: National Fish Hatchery.

NI means: Non-Indian.

NMFS means: The National Marine Fisheries Service, a subdivision of NOAA.

NOAA means: The National Oceanic and Atmospheric Administration, a subdivision of the United States Department of Commerce.

NOAA Fisheries means: The National Marine Fisheries Service, a subdivision of NOAA.

non-treaty fisheries means: All fisheries within the United States' portion of the Columbia River Basin except those open only to members of the Columbia River Treaty Tribes or the Shoshone-Bannock Tribes, and all ocean fisheries in the United States' Exclusive Economic Zone and shoreward off the coasts of Washington and Oregon except those open only to members of the Makah, Quileute, Hoh, or Quinault Tribes.

North of Falcon Forum or **NOF** means: A series of public meetings associated with the annual planning of salmon fisheries in Washington and Oregon north of Cape Falcon.

NPCC means: The Northwest Power and Conservation Council established by 16 U.S.C. § 839b.

NPT means: Nez Perce Tribe.

NPTH means: Nez Perce Tribal Hatchery.

ODFW means: Oregon Department of Fish and Wildlife.

outplant means: A form of supplementation releasing adults in streams to increase or establish natural spawning fish populations.

PBT tagging means: Parentage-based tagging, a means of genetic identification of fish through annual tissue sampling and genotyping of broodstock so that tissue samples from offspring may be genotyped to identify parentage or hatchery-of-origin.

PCSRF means: Pacific Coastal Salmon Recovery Fund, initially authorized by Pub. L. No. 106-113, Appendix A, § 623, 113 Stat. 1501, 1501A-56 (1999).

PFMC means: The Pacific Fishery Management Council established by 16 U.S.C. § 1852.

PIT tag means: A means of marking fish with passive integrated transponders.

point of disagreement means: A disagreement over the interpretation or application of this Agreement.

PUB means: Pool Upriver Bright; artificially-produced bright fall Chinook salmon released in areas between Bonneville and McNary Dams.

PUD means: Public Utility District.

rebuilding means: Progress toward achieving an abundance of fish that meets the long-term natural production and harvest goals of the Parties.

RM means: A means of marking fish by clipping the right maxillary.

run means: An aggregate of one or more stocks of the same species migrating at a discrete time.

RV means: A means of marking fish by clipping the right ventral fish.

SAB means: Select Area Bright; artificially-produced bright fall Chinook salmon derived from a Rogue River stock.

sanctuary means: A specific location closed to fishing for the protection of certain fish populations that may be present.

SBT means: Shoshone-Bannock Tribes.

spawning escapement means: The number of fish arriving at a natal stream, river, or artificial production facility to spawn.

spawning escapement goal or **spawning objective** means: The numerical target for a given population, stock, or run of adult fish for artificial or natural production.

SR means: Snake River.

SRW means: Snake River Wild; natural-origin Snake River fall Chinook salmon, a component of upriver bright fall Chinook salmon.

stock means: An aggregation of fish spawning in a particular stream or lake during a particular season which to a substantial degree do not interbreed with any group spawning at a different time.

subbasin or **sub-basin** means: A geographic area upstream from Bonneville Dam containing-tributaries to the Columbia River mainstem or to the Snake River that produce anadromous fish.

subsistence fish means: Those fish caught by enrolled members of a federally-recognized Indian Tribe or the Wanapum Band for the personal consumption of tribal members, or their immediate family, or for trade, sale or barter to other Indians for their consumption, or for consumption at a tribally approved function for which no admission or other fee is charged.

subsistence gear, as applied to treaty Indians, means: Dipnet or bagnet, spear, gaff, club, fouling hook, hook and line or other methods as determined by the management entities.

supplementation means: The release of artificially propagated fish or fertilized eggs in streams to increase or establish natural spawning fish populations.

tributary means: Any portion of the Columbia River system other than the mainstem of the Columbia River.

unclipped fish means: Fish with all fins intact.

upper river or upriver means: The portion of the Columbia River and its tributaries upstream from Bonneville Dam.

URB means: Upriver bright fall Chinook salmon.

USACOE means: United States Army Corps of Engineers.

USFWS means: United States Fish and Wildlife Service, an agency of the United States Department of the Interior.

VIE means: Visible Implant Elastomer or Visual Implant Elastomer, a means of marking fish by injecting a small amount of colored or fluorescent material under the skin.

WDFW means: Washington Department of Fish and Wildlife.

YIN means: Yakama Nation.

YKFP means: the Yakima/Klickitat Fisheries Project that is the subject of a Memorandum of Understanding Between the Confederated Tribes and Bands of the Yakama Indian Nation and the State of Washington, dated May 19, 1994.

Zones 1-5 means: The statistical zones of the Columbia River commercial fishing area downstream from Bonneville Dam, as defined in Section 635-042-0001 of the Oregon Administrative Rules. Zones 1 through 5 encompass the Columbia River mainstem easterly of a line projected from the knuckle of the south jetty on the Oregon bank to the inshore end of the north jetty on the Washington bank, and westerly of a line projected from a deadline marker on the Oregon bank (approximately four miles downstream from Bonneville Dam Powerhouse 1) in a straight line through the western tip of Pierce Island, to a deadline marker on the Washington bank at Beacon Rock.

Zone 6 means: The statistical zone of the Columbia River treaty Indian commercial fishing area upstream from Bonneville Dam running from Bonneville to McNary Dams.

CONFEDERATED TRIBES OF THE WARM SPRINGS RESERVATION OF OREGON

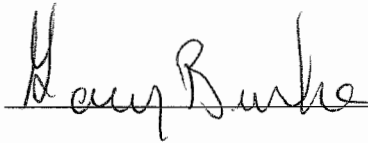


E. AUSTIN GREENE, JR., Chairman
Tribal Council

11/21/17

Date

CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION

A handwritten signature in cursive script, appearing to read "Gary Burke", is written over a horizontal line.

GARY BURKE, Chairman
Board of Trustees

A handwritten date "11-30-17" is written over a horizontal line.

Date

NEZ PERCE TRIBE



MARY JANE MILES, Chairman
Tribal Executive Committee

12-14-17

Date



CASEY L. MITCHELL, Secretary
Tribal Executive Committee

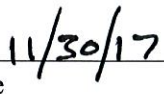
12/14/17

Date

CONFEDERATED TRIBES AND BANDS OF THE YAKAMA NATION

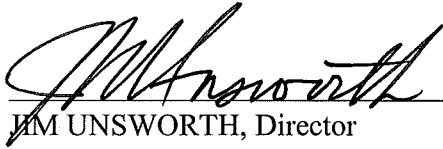


JOE L. GOUDY, Chairman
Tribal Council



Date

STATE OF WASHINGTON



JIM UNSWORTH, Director
Washington Department of Fish and Wildlife

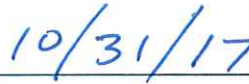
11/1/17

Date

STATE OF OREGON

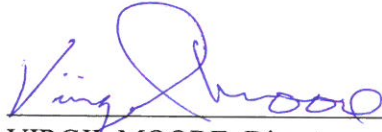
A handwritten signature in blue ink, appearing to read "Curt Melcher", is written over a horizontal line.

CURT MELCHER, Director
Oregon Department of Fish and Wildlife

A handwritten date "10/31/17" in blue ink is written over a horizontal line.

Date

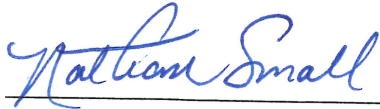
STATE OF IDAHO



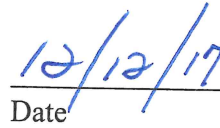
VIRGIL MOORE, Director
Idaho Department of Fish and Game

12/8/2017
Date

SHOSHONE-BANNOCK TRIBES

A handwritten signature in blue ink that reads "Nathan Small". The signature is written in a cursive style and is positioned above a horizontal line.


NATHAN SMALL, Chairman
Fort Hall Business Council

A handwritten date in blue ink that reads "12/12/17". The date is written in a cursive style and is positioned above a horizontal line.

Date

UNITED STATES OF AMERICA

U.S. Department of the Interior



ROBYN THORSON, Regional Director
U.S. Fish and Wildlife Service, Pacific Region

FEB 23 2018

Date

UNITED STATES OF AMERICA
U.S. Department of the Interior



TWYLA STANGE, Acting Regional Director
Bureau of Indian Affairs, Northwest Region

FEB 23 2018

Date

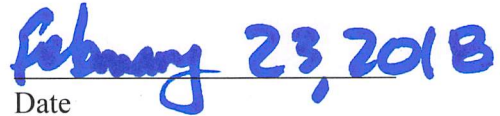
UNITED STATES OF AMERICA

U.S. Department of Commerce



BARRY A. THOM, Regional Administrator

National Marine Fisheries Service, West Coast Region



Date

2018-2027 U.S. v. Oregon
Management Agreement
Harvest Rate Schedules

Table A1. Spring Management Period Chinook Harvest Rate Schedule

Harvest Rate Schedule for Chinook in Spring Management Period							
A	B	C	D	E	F	G	H
Total Upriver Spring and Snake River Summer Chinook Run Size ⁶	S Snake River Natural Spring/Summer Chinook Run Size ¹	T Treaty Zone 6 Total Harvest Rate ^{2,5}	D Treaty Catch Guideline	E Non-Treaty Natural Harvest Rate ³	F Non-Treaty Mortality Guideline	G Total Natural Harvest Rate ⁴	H Non-Treaty Natural Limited Harvest Rate ⁴
<27,000	<2,700	5.0%		<0.5%		<5.5%	0.5%
27,000	2,700	5.0%	1,350	0.5%	1,350	5.5%	0.5%
33,000	3,300	5.0%	1,650	1.0%	1,650	6.0%	0.5%
44,000	4,400	6.0%	2,640	1.0%	2,640	7.0%	0.5%
55,000	5,500	7.0%	3,850	1.5%	3,850	8.5%	1.0%
82,000	8,200	7.4%	6,068	1.6%	6,068	9.0%	1.5%
109,000	10,900	8.3%	9,047	1.7%	9,047	10.0%	
141,000	14,100	9.1%	12,831	1.9%	12,831	11.0%	
217,000	21,700	10.0%	21,700	2.0%	21,700	12.0%	
271,000	27,100	10.8%	29,268	2.2%	29,268	13.0%	
326,000	32,600	11.7%	38,142	2.3%	38,142	14.0%	
380,000	38,000	12.5%	47,500	2.5%	47,500	15.0%	
434,000	43,400	13.4%	58,156	2.6%	58,156	16.0%	
488,000	48,800	14.3%	69,784	2.7%	69,784	17.0%	

Footnotes for Table A1

1. If the Snake River natural spring/summer forecast is less than 10% of the total upriver run size, the allowable mortality rate will be based on the Snake River natural spring/summer Chinook run size. In the event the total forecast is less than 27,000 or the Snake River natural spring/summer forecast is less than 2,700, Oregon and Washington would keep their mortality rate below 0.5% and attempt to keep actual mortalities as close to zero as possible while maintaining minimal fisheries targeting other harvestable runs.
2. Treaty Fisheries include: Zone 6 ceremonial, subsistence, and commercial fisheries from January 1-June 15. Harvest impacts in the Bonneville Pool tributary fisheries may be included if TAC analysis shows the impacts have increased from the background levels.
3. Non-Treaty Fisheries include: Commercial and recreational fisheries in Zones 1-5 and mainstem recreational fisheries from Bonneville Dam upstream to the Hwy 395 Bridge in the Tri-Cities and commercial and recreation SAFE (Selective Areas Fisheries Evaluation) fisheries from January 1-June 15; Wanapum tribal fisheries, and Snake River mainstem recreational fisheries upstream to the Washington-Idaho border from April through June. Harvest impacts in the Bonneville Pool tributary fisheries may be included if TAC analysis shows the impacts have increased from the background levels.
4. If the Upper Columbia River natural spring Chinook forecast is less than 1,000, then the total allowable mortality for treaty and non-treaty fisheries combined would be restricted to 9% or less. Whenever Upper Columbia River natural fish restrict the total allowable mortality rate to 9% or less, then non-treaty fisheries would transfer 0.5% harvest rate to treaty fisheries. In no event would non-treaty fisheries go below 0.5% harvest rate.
5. The Treaty Tribes and the States of Oregon and Washington may agree to a fishery for the Treaty Tribes below Bonneville Dam not to exceed the harvest rates provided for in this Agreement.
6. If the total in river run is predicted to exceed 380,000, the Parties agree to consider increasing the total allowed harvest rate and to reinitiate consultation with NOAA Fisheries if necessary.

Table A2. Summer Management Period Chinook Harvest Rate Schedule.

River Mouth Run Size	Max Treaty Total Harvest Rate	Treaty Harvest	Max Non-Treaty Total Harvest Rate	Non-Treaty Harvest	Escapement Past Fisheries
5,000	5.0%	250	2.0%	<100	4,650
7,500	5.0%	375	2.7%	<200	6,925
10,000	5.0%	500	2.0%	<200	9,300
12,500	5.0%	625	1.6%	<200	11,675
15,000	5.0%	750	1.3%	<200	14,050
16,000	10.0%	1,600	5.0%	800	13,600
17,500	10.0%	1,750	5.0%	875	14,875
20,000	10.0%	2,000	5.0%	1,000	17,000
22,500	10.0%	2,250	5.0%	1,125	19,125
25,000	10.0%	2,500	5.0%	1,250	21,250
27,500	10.0%	2,750	5.0%	1,375	23,375
29,000	10.0%	2,900	5.0-6.0%	1,450-1,740	≥24,360
30,000	10.0%	3,000	5.0-6.0%	1,500-1,800	≥25,200
32,500	10.0%	3,250	7.0%	2,275	26,975
35,000	10.0%	3,500	7.0%	2,450	29,050
36,250	10.0%	3,625	10.0%	3,625	29,000
37,500	11.3%	4,250	11.3%	4,250	29,000
40,000	13.8%	5,500	13.8%	5,500	29,000
42,500	15.9%	6,750	15.9%	6,750	29,000
45,000	17.8%	8,000	17.8%	8,000	29,000
47,500	19.5%	9,250	19.5%	9,250	29,000
50,000	21.0%	10,500	21.0%	10,500	29,000
52,500	21.8%	11,438	21.8%	11,438	29,625
55,000	22.5%	12,375	22.5%	12,375	30,250
57,500	23.2%	13,313	23.2%	13,313	30,875
60,000	23.8%	14,250	23.8%	14,250	31,500
62,500	24.3%	15,188	24.3%	15,188	32,125
65,000	24.8%	16,125	24.8%	16,125	32,750
67,500	25.3%	17,063	25.3%	17,063	33,375
70,000	25.7%	18,000	25.7%	18,000	34,000
72,500	26.1%	18,938	26.1%	18,938	34,625
75,000	26.5%	19,875	26.5%	19,875	35,250
77,500	26.9%	20,813	26.9%	20,813	35,875
80,000	27.2%	21,750	27.2%	21,750	36,500

River Mouth Run Size	Max Treaty Total Harvest Rate	Treaty Harvest	Max Non-Treaty Total Harvest Rate	Non-Treaty Harvest	Escapement Past Fisheries
82,500	27.5%	22,688	27.5%	22,688	37,125
85,000	27.8%	23,625	27.8%	23,625	37,750
87,500	28.1%	24,563	28.1%	24,563	38,375
90,000	28.3%	25,500	28.3%	25,500	39,000
92,500	28.6%	26,438	28.6%	26,438	39,625
95,000	28.8%	27,375	28.8%	27,375	40,250
97,500	29.0%	28,313	29.0%	28,313	40,875
100,000	29.3%	29,250	29.3%	29,250	41,500

Footnotes for Table A2 (Upper Columbia River Summer Chinook Harvest Rate Schedule)

1. Fisheries included are all non-treaty fisheries in the Columbia River mainstem below McNary Dam and all Treaty fisheries in Zone 6 between June 16 and July 31, along with any Treaty and non-treaty fisheries impacting upper Columbia River summer Chinook in the mainstem Columbia and tributaries above McNary Dam. Wanapum and Colville fisheries are included in the non-treaty share. Non-treaty ocean fisheries south of the U.S.-Canada border are included in the non-treaty share at run sizes above 29,000. At run sizes below 29,000, the non-treaty harvest impacts shown are for in-river fisheries. The Treaty Tribes and the States of Oregon and Washington may agree to a fishery for the Treaty Tribes below Bonneville Dam not to exceed the harvest rates provided for in this Agreement.
2. The river mouth interim management goal is 29,000 fish. This equates to a 20,000 natural and hatchery escapement goal.
3. For runs less than 16,000, the Treaty harvest on the total summer period Chinook river mouth run size will be no more than 5%.
4. For runs less than 5,000, the non-treaty harvest on the total summer period Chinook river mouth run size will be less than 100 Chinook.
5. For runs sizes of 5,000, but less than 16,000, the non-treaty total harvest rate on summer period Chinook will be less than 200 Chinook.
6. For run sizes of 16,000 to 36,250 (125% of the 29,000 goal), the Treaty harvest rate will be limited to 10%. For run sizes of 16,000 to 28,999, the non-treaty harvest will be limited to 5%. For run sizes of 29,000-36,249, the non-treaty harvest rate will be stepped. For run sizes of 29,000 to 32,499, the non-treaty harvest rate will be limited to 5-6%. For run sizes of 32,500 to less than 36,249, the non-treaty harvest rate will be limited to 7%.
7. For run sizes of 36,250 to 50,000, the treaty and non-treaty harvest rates will each be 50% of the total harvestable number of fish calculated as the river mouth run size minus 29,000.
8. For run sizes above 50,000, higher numbers of fish will be allowed to escape fisheries. The harvestable number of fish will be adjusted to include 75% of the margin of fish above 50,000. The treaty and non-treaty harvest rates will each be 50% of the total harvestable number of fish calculated by the following formula: $(0.75 * (\text{Runsize} - 50,000)) + 21,000$.

Table A3. Fall Management Period Chinook Harvest Rate Schedule.

Expected URB River Mouth Run Size	Expected River Mouth Snake River Natural Origin Run Size ¹	Treaty Total Harvest Rate	Non- Treaty Harvest Rate	Total Harvest Rate	Expected Escapement of Snake R. Natural Origin Past Fisheries
< 60,000	< 1,000	20%	1.50%	21.50%	784
60,000	1,000	23%	4%	27.00%	730
120,000	2,000	23%	8.25%	31.25%	1,375
> 200,000	5,000	25%	8.25%	33.25%	3,338
	6,000	27%	11%	38.00%	3,720
	8,000	30%	15%	45.00%	4,400

Footnotes for Table A3

1. If the Snake River natural fall Chinook forecast is less than the level corresponding to an aggregate URB run size, the allowable mortality rate will be based on the Snake River natural fall Chinook run size
2. Treaty Fisheries include: Zone 6 ceremonial, subsistence, and commercial fisheries from August 1-December 31.
3. Non-Treaty Fisheries include: commercial and recreational fisheries in Zones 1-5 and mainstem recreational fisheries from Bonneville Dam upstream to the confluence of the Snake River and commercial and recreation SAFE (Selective Areas Fisheries Evaluation) fisheries from August 1-December 31.
4. The Treaty Tribes and the States of Oregon and Washington may agree to a fishery for the Treaty Tribes below Bonneville Dam not to exceed the harvest rates provided for in this Agreement.
5. Fishery impacts in Hanford sport fisheries count in calculations of the percent of harvestable surplus achieved.
6. When expected river-mouth run sizes of naturally produced Snake River Fall Chinook equal or exceed 6,000, the States reserve the option to allocate some proportion of the non-treaty harvest rate to supplement fall Chinook directed fisheries in the Snake River.

Table A4. Fall Management Period Steelhead Harvest Rate Schedule.

Forecast Bonneville Total B Steelhead Run Size	River Mouth URB Run Size	Treaty Total B Harvest Rate	Non- Treaty Natural Origin B Harvest Rate	Total Harvest Rate
< 20,000	Any	13%	2.0%	15.0%
20,000	Any	15%	2.0%	17.0%
35,000	> 200,000	20%	2.0%	22.0%
B Run Steelhead are defined as steelhead measuring ≥ 78 cm				

Footnotes for Table A4

This harvest rate schedule applies to fall season fisheries only. These fisheries include all mainstem fisheries below the mouth of the Snake River from August 1 through October 31 and for mainstem fisheries from The Dalles Dam to the mouth of the Snake River from November 1 through December 31. Also included are fall season treaty fisheries in Drano Lake and tributary mouth sport fisheries in Zone 6 that impact Snake River steelhead.

Attachment A

Columbia River Fall Chinook Fishery Model Summary

Ocean Option: PPMC April Final
 Columbia River Model Option: **Model Year -Final**

Date
 Time

Steelhead/Coho/Chum Guidelines

Non-Indian Wild B Index
 Constraint X%
 Projected X%
 Treaty Indian Total B Index
 Constraint X%
 Projected X%
 Non-Indian LCR Coho (in-river)
 Constraint X%
 Projected X%
 Non-Indian Chum
 Constraint X%
 Projected X%

Chinook

Management Guidelines	Total	Goal/Guideline
Snake River Wild HR	X%	X%
Non-Indian	X%	X%
Treaty Indian	X%	X%
% of Harvestable Surplus		
Non-Indian	X%	50%
Treaty Indian	X%	50%
McNary Escapement	0	60,000
LRH Ocean/Inriver Exp. Rate	X%	X%
LRH Inriver Exp. Rate	X%	X%

Non-Indian Catch Sharing

	SRW		Aug Catch		URB		Brights - Mainstem	
	Impact	Percent	Catch	Percent	Catch	Percent	Catch	Percent
Sport	X%	X%	0	X%	0	X%	0	X%
Comm	X%	X%	0	X%	0	X%	0	X%
Tules - Mainstem Chinook - Mainst LRH - Impacts								
	Catch	Percent	Catch	Percent	Catch	Percent	Catch	Percent
Sport	0	X%	0	X%	0	X%	0	X%
Comm	0	X%	0	X%	0	X%	0	X%

			Total	BPH	URB	LRH	LRW	BUB	PUB	LRB	SAB	LRH ER	SRW HR	Wild B	Total B	LCR Coho	Chum
Ocean Harvest			0	0	0	0	0	0	0	0	0						
Columbia River Run			0	0	0	0	0	0	0	0	0						
Harvest Below Bonneville																	
Early - Mid August	X	days	0	0	0	0	0	0	0	0	0	0.0%	0.0%	0		0	0
Select Areas	X%		0	0	0	0	0	0	0	0	0	0.0%	0.0%	0		0	0
Buoy 10	X%		0	0	0	0	0	0	0	0	0	0.0%	0.0%	0		0	0
Mainstem Sport	X%		0	0	0	0	0	0	0	0	0	0.0%	0.0%	0		0	0
Mid - Late August	X	days	0	0	0	0	0	0	0	0	0	0.0%	0.0%	0		0	0
Z4-5 Mid - late August	X	days	0	0	0	0	0	0	0	0	0	0.0%	0.0%	0		0	0
Z4-5 Sept Chinook	X	days	0	0	0	0	0	0	0	0	0	0.0%	0.0%	0		0	0
Mid - Late Sept Coho	X	days	0	0	0	0	0	0	0	0	0	0.0%	0.0%	0		0	0
October Coho	X		0	0	0	0	0	0	0	0	0	0.0%	0.0%	0		0	0
Tributary Sport	X%		0	0	0	0	0	0	0	0	0		0.0%	0		0	0
Lower River Total			0	0	0	0	0	0	0	0	0	0.0%	0.0%	0		0	0
Bonneville Dam Passage			0	0	0			0	0					0			
Harvest Above Bonneville																	
Zone 6 - Bonn to Hwy 395			0		0			0	0				0.0%	0			
Treaty Comm. and C&S			0	0	0			0	0				0.0%	0	0		
Hanford Reach Sport			0		0												
McNary Dam Passage			0		0												
Lower Granite Dam Passage																	
Escapement				0		0		0	0		0						
Hatchery				0		0		0	0		0						
Natural				0	0	0	0	0	0	0	0						
Hatchery Surplus				0		0		0	0		0						
Natural Surplus					0		0										

Attachment B

U.S. v. Oregon Upriver Spring Chinook Catch Balance Model

This model uses current sport/commercial allocation and current mark rates.

Non-Indian Impact Allocation - Commercial	43%
Non-Indian Impact Allocation - Recreational	57%
Non-Indian Selective Fishery Mortality Rate - Commercial	29.3%
Tangle Net Mortality Rate	18.5%
Large Mesh Mortality Rate	40.0%
Proportion of Impacts used in Tangle Net Fishery	50.0%
Non-Indian Selective Fishery Mortality Rate - Recreational	10.0%

A	B	C	D	E	F	G	H	I	J	K	L	M
Run Size	Treaty Impact Rate	Non Treaty Impact Rate	Non Treaty Impacts Used in Non-Selective Fisheries	Total Upriver Spring Chinook Mark Rate	Treaty Catch	Selective Fishery Non-Treaty Landed Catch	Selective Fishery Non-Treaty Total Mortality	Non-Selective Fishery Non-Treaty Landed Catch	Non-Treaty Total Landed Catch	Non-Treaty Total Mortality	Treaty Catch minus Non-Treaty Total Mortality	Non-Treaty as a % of Total
27,500	5.0%	0.5%	0.3%	70%	1,375	276	293	83	359	375	1,000	21%
33,000	5.0%	1.0%	0.3%	70%	1,650	1,159	1,229	99	1,258	1,328	322	45%
44,000	6.0%	1.0%	0.3%	70%	2,640	1,546	1,638	132	1,678	1,770	870	40%
55,000	7.0%	1.5%	0.3%	70%	3,850	3,313	3,511	165	3,478	3,676	174	49%
82,000	7.4%	1.6%	0.3%	70%	6,068	5,350	5,670	246	5,596	5,916	152	49%
109,000	8.3%	1.7%	0.3%	70%	9,047	7,659	8,117	327	7,986	8,444	603	48%
141,000	9.1%	1.9%	0.3%	70%	12,831	11,323	12,000	423	11,746	12,423	408	49%
217,000	10.0%	2.0%	0.3%	70%	21,700	18,515	19,622	651	19,166	20,273	1,427	48%
271,000	10.8%	2.2%	0.3%	70%	29,268	25,843	27,388	813	26,656	28,201	1,067	49%
326,000	11.7%	2.3%	0.3%	70%	38,142	32,724	34,680	978	33,702	35,658	2,484	48%
380,000	12.5%	2.5%	0.3%	70%	47,500	41,959	44,467	1,140	43,099	45,607	1,893	49%
434,000	13.4%	2.6%	0.3%	70%	58,156	50,100	53,095	1,302	51,402	54,397	3,759	48%
488,000	14.3%	2.7%	0.3%	70%	69,784	58,783	62,297	1,464	60,247	63,761	6,023	48%

Column Descriptions

- A Run Size - Comes directly from the 2008-2017 Management Agreement spring Chinook harvest schedule.
- B Treaty Impact Rate - Comes directly from the 2008-2017 Management Agreement spring Chinook harvest schedule.
- C Non-Treaty Impact Rate - Comes directly from the 2008-2017 Management Agreement spring Chinook harvest schedule.
- D Non-Treaty Impacts Used in Non-Selective Fisheries - Represents incidental impacts in non-selective fisheries of the lower Columbia (Youngs Bay, Blind Slough, and Deep River) and the upper Columbia (Wanapum).
- E Total Upriver Spring Chinook Mark Rate - Assumed mark rate for spring chinook destined for above Bonneville Dam.
- F Treaty Catch - Number of fish harvested
- G Selective Fishery Non-Treaty Landed Catch - Number of fish harvested in mark selective fisheries.
- H Selective Fishery Non-Treaty Total Mortality - Includes landed catch plus catch and release mortalities.
- I Non-Selective Fishery Non-Treaty Landed Catch - Number of upriver fish harvested in non-selective fisheries.
- J Non-Treaty Total Landed Catch - Column G plus column I.
- K Non-Treaty Total Mortality - Column H plus column I.
- L Treaty Catch Minus Non-Treaty Total Mortality - Column F minus column K.
- M Non-Treaty as a % of Total - Column K divided by the sum of column K and column F.

2018-2027 U.S. v. Oregon
Management Agreement
Production Tables

Table B1. Spring Chinook Salmon Production For Brood Years 2018-2027.**Basin: Columbia River Above McNary**

Release Site	Rearing Facility	Stock	Life stage	Target Release Number	Mark ^{1, 22}	Non- Ad-Clipped ²	Primary Program Purpose	Funding	Foot-notes
Yakima River (Various Release Sites)	Cle Elum Hatchery	Yakima	Yearling	810,000	100% Ad-CWT	0	Supplementation	BPA	
Twisp River Acc. Site	Methow	Twisp	Yearling	29,123	100% CWT only	29,123	Supplementation	Douglas, PUD (NNI)	3,4
Chewuch River Acc. Site	Methow	Methow Composite	Yearling	60,516	100% CWT only	60,516	Supplementation	Chelan PUD (NNI)	3,4,17
On Station	Methow	Methow Composite	Yearling	134,126	100% CWT only	134,126	Supplementation	Grant, Douglas PUDs (NNI)	3,4,18
On Station	Winthrop NFH	Methow Composite	Yearling	400,000	100% Ad-CWT	0	Fishery/ Supplementation	BR	5
Okanogan River or other agreed to Acc. Sites	Winthrop NFH	Methow Composite	Yearling	200,000	100% Ad-CWT	0	Fishery/ Supplementation	BR/BPA	5
Chiwawa R. Acc. Site	Eastbank	Chiwawa	Yearling	144,026	100% CWT	144,026	Supplementation	Chelan PUD (NNI)	3,4
Nason Creek	Eastbank FH	Nason/Chiwawa/Wenatchee	Yearling	223,670	125K CWT only, 98,670 Ad/CWT	125,000	Supplementation	Grant PUD (NNI)	3,4,19
On Station	Leavenworth NFH	Carson	Yearling	1,200,000	200K Ad-CWT, 100% Ad-Clip	0	Fishery	BR	6
Walla Walla River	Carson NFH	Carson	Yearling	250,000	100% Ad-Clip, 50K Ad-CW	0	Supplementation	Mitchell Act	7
Subtotal				3,451,461		492,791			

Table B1. Spring Chinook Salmon-continued**Basin: Snake River**

Release Site	Rearing Facility	Stock	Life stage	Target Release Number	Mark ^{1, 22}	Non- Ad-Clipped ²	Primary Program Purpose	Funding	Foot-notes
Tucannon	Tucannon/ Lyons Ferry	Tucannon	Smolt	225,000	100%CWT	225,000	Supplementation	LSRCP/BPA	
Asotin	TBD	TBD	Smolt	TBD	TBD	TBD	Supplementation	LSRCP/BPA FCRPS	21
Meadow Creek (Selway)	NPTH	Clearwater/RR	Parr	400,000		400,000	Supplementation	BPA	
Lolo Creek (Yoosa/Camp Cr.)	NPTH	Clearwater/RR	Presmolt	150,000	100% CWT	150,000	Supplementation	BPA	
Newsome Creek	NPTH	Clearwater/RR	Presmolt	75,000	100% CWT	75,000	Supplementation	BPA	
Clearwater River/NPTH	NPTH/ Dworshak NFH	Clearwater/RR	Smolt	200,000	60,000 Ad w/ some CWT	140,000	Supplementation/ Fishery	BPA	
Upper Selway-Magruder	Dworshak NFH	Clearwater/RR	Parr	300,000	PBT	300,000	Supplementation	LSRCP	
Lower Selway	Clearwater FH	Clearwater/RR	Smolt	400,000	66% Ad, 33% CWT/No Ad	133,000	Supplementation/ Fishery	LSRCP	
Clear Cr.	Clearwater FH	Clearwater/RR	Smolt	635,000	100% Ad-Clip	0	Fishery	LSRCP	
Red R. Pond (S.F.Cl)	Clearwater FH	Clearwater/RR	Smolt	1,100,000	100% Ad-Clip	0	Fishery	LSRCP	
On Station	Kooskia NFH	Kooskia/ Clearwater/RR	Smolt	650,000	600,000 Ad- Clip	50,000	Fishery/ Supplementation	FWS	8
On Station	Dworshak NFH	Dworshak/ Clearwater/RR	Smolt	1,050,000	100% Ad-Clip	0	Fishery	LSRCP	
On Station	Rapid River	Rapid River	Smolt	2,500,000	100% Ad-Clip	0	Fishery	IPC	
Little Salmon River	Rapid River	Rapid River	Smolt	150,000	100% Ad-Clip	0	Fishery	IPC	9
Hells Canyon –Snake R.	Rapid River	Rapid River	Smolt	350,000	100% Ad-Clip	0	Fishery	IPC	9
On Station Upper Salmon R.	Sawtooth FH	Upper Salmon River	Smolt	1,000,000	Ad-Clip		Fishery	LSRCP	10
Yankee Fork	Sawtooth/ Crystal Springs FH	Upper Salmon River/ Yankee Fork	Smolt	300,000	100% Ad-Clip	0	Supplementation/ Fishery	LSRCP/BPA	11
Catherine Creek	Lookingglass	Catherine Creek	Smolt	150,000			Supplementation/ Fishery	LSRCP/BPA	12
Upper Grande Ronde	Lookingglass	U. Grande Ronde	Smolt	250,000			Supplementation/ Fishery	LSRCP/BPA	12
Lostine River	Lookingglass	Lostine	Smolt	250,000	100% Ad-Clip		Supplementation/ Fishery	LSRCP/BPA	13
Lookingglass Creek	Lookingglass	Catherine Creek/ Lookingglass	Smolts	250,000			Fishery/ Reintroduction	LSRCP/BPA	12
Imnaha River sub-basin	Lookingglass	Imnaha	Smolt	490,000	100% Ad-Clip		Supplementation/ Fishery	LSRCP	14
Subtotal				10,875,000		1,473,000			

Table B1. Spring Chinook Salmon- continued**Basin: Columbia River, Bonneville to McNary**

Release Site	Rearing Facility	Stock	Life stage	Target Release Number	Mark ^{1, 22}	Non-Ad-Clipped ²	Primary Program Purpose	Funding	Foot-notes
Hood River	Round Butte/ Parkdale	Hood	Yearling	250,000	100% AD-Clip	0	Reintroduction/ Fishery	BPA	15
On Station	Warm Springs NFH	Deschutes	Yearling	750,000	100% Ad-CWT	0	Fishery	FWS	
On Station	Round Butte	Deschutes	Yearling	380,000	100% Ad; 240K Ad-CWT	0	Fishery	PGE	20
Umatilla River	Umatilla	Umatilla/Carson	Yearling	660,000	100% Ad-Clip, 60k Ad-CW	0	Fishery	BPA	
Umatilla River	Umatilla	Umatilla/Carson	Yearling	150,000	100% CWT only	150,000	Supplementation	BPA	
Klickitat	Klickitat	Klickitat	Yearling	600,000	100% Ad-Clip, 200KCWT	0	Supplementation/ Fishery	MA/BPA	16
Klickitat (above Castile)	Klickitat	Klickitat	Adult Outplants	TBD	Evaluation Mark		Supplementation	MA/BPA	16
On Station (Drano Lake)	Little White Salmon NFH	Carson	Yearling	1,000,000	75K Ad-CWT, 100% Ad-Clip	0	Fishery	MA	
On Station	Carson NFH	Carson	Yearling	1,170,000	75K Ad-CWT, 100% Ad-Clip	0	Fishery	MA	7
Subtotal				4,960,000		150,000			
Grand Total-Spring Chinook Salmon				19,286,461		2,115,791			

Footnotes for Table B1: Spring Chinook Salmon

1. The category 'Mark' may include fish that are adipose fin clipped (Ad-Clip), regardless of funding source. The tribes do not agree with the concept of mass marking production using an adipose fin clip for anything other than evaluation purposes. Non-treaty Parties may propose to use mark-selective fishing techniques in spring Chinook fisheries that allow for a higher harvest rate on hatchery fish marked with an adipose fin clip compared to fish not so marked. Non-tribal Parties also recognize that mass marking by adipose clipping facilitates broodstock management and hatchery/natural origin stock assessment. In agreeing to Table A1 (Spring Chinook Harvest Rate Schedule), the Parties expect that mainstem fisheries on upriver spring Chinook will achieve catches roughly matching those shown in Catch Balance Model. Allocation should not exceed 50/50 harvest share. As described in Part II, Section A.1, the Parties will monitor whether those expectations are being met. If they are not, the Parties will discuss whether to modify this Agreement so as better to meet those catch expectations.
2. The federal Parties will, to the extent required by law, consider the other Parties' recommendations and the United States' trust and treaty responsibility to the Tribes before deciding marking priorities. The category "Non-Ad-Clipped" may include fish marked by other means such as CWT, PIT, or VIE tags. Nothing in this Agreement shall be interpreted to prevent the federal Parties and/or states from mass marking fish required to be marked under Congressional acts directing the mass marking of Chinook, coho, and steelhead intended for harvest which are released from federally operated or financed hatcheries. In the event USFWS and/or states mark fish inconsistent with Tables B1-B7, nothing in this Agreement prevents any Party from challenging these acts. In the event of insufficient funding to carry out such marking, the federal Parties will consult with the other Parties to review and revise the priorities in any marking plan provided for under this Agreement.
3. No Net Impact (NNI) production subject to recalculation beginning with the 2014 release and every 10 years thereafter consistent with the HCPs and Settlement Agreement. These modifications are linked to measured changes in hydrosystem passage survival for plan species. Current production levels are effective for release years 2014-2023.
4. Ad-clipping and tagging will be decided by the Parties in coordination with the HCP/Settlement Agreement processes.
5. The Parties have agreed to an abundance based marking program for Winthrop NFH and annual transfer of 200,000 ad-clipped and coded wire tagged Winthrop NFH spring Chinook to the Colville Tribe when Methow Hatchery and Winthrop Hatchery are expected to meet production goals. Okanogan transfers will not occur until ESA status designations of transferred juveniles in the Okanogan are resolved. The Winthrop NFH spring Chinook program is divided into two release groups, one for release into the Methow Basin and the other to be used for re-introduction efforts in the Okanogan River. Prioritization of spring Chinook salmon broodstock will be as follows: (1) - backfill Methow Fish Hatchery broodstock shortfalls, (2) - meet Winthrop NFH on-station releases of 400,000 smolts, and (3) – provide 200,000 pre-smolts to Okanogan River. If on-station production at Winthrop NFH is expected to be at or below 200,000, adipose fin-clipping will not occur and potentially some other tag method (i.e., visible elastomer, body CWT) will be implemented to distinguish Winthrop NFH releases.
6. The Leavenworth NFH is currently undergoing a review of hatchery facilities and programmatic details. It is anticipated that there may be changes to this program during the period of this Agreement including program levels, release location and marking protocols to meet specific objectives. The Parties will collaboratively develop implementation guidelines per Part III.H of this Agreement for the Leavenworth facility. Furthermore there are a number of facility and infrastructure improvements that may require additional short term reductions to production during the active construction phase to facilitate project completion. The goal for Leavenworth hatchery was 2.2 Million spring Chinook in the 1988 Management Agreement and was reduced to 1.625 million in the 2005-2007 Interim Management Agreement. A reduction in spring Chinook production from 1.625 Million to 1.2 Million was adopted by the parties in the 2008-2017 Management Agreement as an interim action to achieve the current objectives with respect to present USFWS concerns over water quality, fish health, hatchery infrastructure issues, and ESA straying risks. The goal of the hatchery infrastructure improvements is restoration back to the 2.2 Million smolt program level. Achieving this production level is subject to the constraints imposed by water quality, fish health and ESA requirements. Leavenworth NFH began providing broodstock (adults in excess to Leavenworth NFH brood needs) to initiate a new hatchery program at Chief Joseph Hatchery beginning in brood year 2013. These broodstock transfers may continue as needed, and are subject to periodic review by the parties.
7. The Parties support implementation of a 250,000 Walla Walla spring Chinook smolt release program with production at Carson Hatchery in the interim and the NPCC master planning process for a new Walla Walla Hatchery program at the 500,000 fish level in the longer term. If the program is expanded under the NPCC process then the 250,000 production would shift back to Carson NFH.

Footnotes for Table B1: Spring Chinook Salmon- continued

8. Fish production will be prioritized with the first 50,000 (non ad-clipped) allocated for supplementation of Clear Creek, the next 600,000 (ad-clipped) for fishery purpose. Production in excess of 650,000 will be discussed by the Parties to allocate to supplementation or fisheries. The Parties are working to assess options to increase smolt production from Kooskia Hatchery either through programmatic changes or facility modifications. As a result, the target release number may change during the course of this Agreement
9. Production at Rapid River Hatchery above 2.5M will be split between Hells Canyon Dam and the Little Salmon River – alternating releases of 100,000 to Hells Canyon and 50,000 to Little Salmon River. For example: 1) 2,500,000 million Rapid River; 2) 100,000 Snake River/Hells Canyon Dam; 3) 50,000 Little Salmon; 4) 100,000 Snake River/Hells Canyon Dam; 5) 50,000 Little Salmon, etc. until all production is allocated. If production is less than 3 million, Parties will discuss options. The Parties agree that recent smolt releases do not provide adequate and consistent mitigation for adult returns at locations affected by Idaho Power Company's Hells Canyon Complex and its operations. Several Parties also are actively participating in the re-licensing of such Complex. Idaho Power Company's mitigation responsibilities, including production numbers and release locations of Rapid River spring Chinook, are a subject of these discussions. The interim target production numbers and release locations of Rapid River spring Chinook specified herein shall not affect any Party's right to pursue alternative production and release locations in connection with the development of a long-term agreement and/or in connection with the Hells Canyon re-licensing process.
10. Upper Salmon River broodstock release could be up to 1.7 million depending on egg take and facility logistics. If production is above 1.0 million, the Parties will discuss disposition of these fish. A component of the total production at this facility is produced as part of an integrated program that includes supplementing natural spawning upstream of the hatchery weir. During the building phase of the integrated broodstock, 150,000-250,000 smolts will be unclipped and 100% CWT. When the integrated smolt production component reaches 500,000, all smolts will be ad-clipped. The segregated component of the broodstock is 100% ad-clipped.
11. Smolt release numbers (up to 300,000) are determined annually through AOP process. After Crystal Springs FH is operational, transitioning this production from Sawtooth Fish Hatchery to Crystal Springs FH will be initiated through the Salmon River AOP process. It is anticipated that the release number will increase to 600k once Crystal Springs FH is in operation.
12. The marking guidelines for the Upper Grande Ronde, Catherine Creek, and Lookingglass Creek are as described in the Grande Ronde Spring Chinook Marking Guidelines found in Attachment C and referenced in the CTUIR-NPT-ODFW letter agreement dated April 28, 2008.
13. If production level is at 150,000 smolts, or less, co-managers will discuss options for not ad-clipping all, or a portion of, juvenile production to achieve minimum spawner escapement levels and broodstock targets
14. If production level is at 225,000 smolts, or less, co-managers will discuss options for not ad-clipping all, or a portion of, juvenile production to achieve minimum spawner escapement levels and broodstock targets.
15. Hood River production will increase to 250,000 in 2018 with 100k reared at Round Butte and 150K at Parkdale. Current production is 150,000 reared at Round Butte (75K), and Parkdale (75K). All fish are acclimated and released into the West Fork Hood River with 100% Ad-only marking. Primary purpose is for re-introduction/harvest. Funding is provided by BPA.
16. Implementation of the Klickitat Basin Anadromous Fisheries Master Plan (2012) will result in upgrades at the Klickitat Hatchery and changes to this program. A phased approach will be used to gradually integrate the program and increase production to 800,000 smolts over time. First generation returns from initial integrated broodstock (in excess of brood needs) will be released in the upper Klickitat River above Castile Falls. The parties will collaborate on implementation of proposed changes to this program.
17. Chelan PUDs recalculated Methow River spring Chinook obligation of 60,516 may be acclimated at the Chewuch Acclimation Site or other sites as approved by the HCP.
18. Grant PUD's recalculated Methow River spring Chinook obligation of 134,126 will be reared and released from the Douglas County PUD's Methow Fish Hatchery and could be acclimated in the upper Methow (i.e. Goat Wall, Early Winters, Mid-Valley) as part of YN's Expanded Acclimation Program, or other sites as approved by the HCP.
19. Grant PUD's combined recalculated Wenatchee River spring Chinook obligation is 223,640 yearlings being produced at Nason Creek (125,000 are ad-present conservation program fish and 98,670 are ad-clipped backup brood fish). The White River captive brood program was phased out with BY2013.
20. Production increased from 240K to 380K for experimental study design. The 380K will consist of two groups of 150K released at 15 F/lb and one group of 80K released at 8 F/lb. Study will be conducted for 6 years beginning with BY16.

Footnotes for Table B1: Spring Chinook Salmon- continued

21. This hatchery program is under consideration by the Parties, but has not moved forward and implementation is not foreseeable. Prior to implementation the Parties will follow appropriate NEPA and ESA consultation process.
22. For all Spring Chinook hatchery programs above Bonneville Dam, tissue samples are collected annually from broodstock and incorporated into a parentage-based tagging (PBT) baseline. One exception is the production from the Eastbank Hatchery program; parent samples are being collected, but not yet genotyped. All other hatchery programs effectively 'tag' ~90-100% of annual releases.

Table B2. Summer Chinook Salmon Production for Brood Years 2018-2027.**Basin: Columbia River Above McNary**

Release Site	Rearing Facility	Stock	Life stage	Target Release Number	Mark ^{1, 11}	Non-Ad-Clipped ²	Primary Program Purpose	Funding	Foot-notes
Chelan River	Eastbank FH	Wells/Columbia River	Yearling	400,000	100% Ad-CWT	0	Fishery	Chelan PUD (FIC)	3,4,6
Chelan River	Eastbank FH	Wells/Columbia River	Yearling	176,000	100% Ad-CWT	0	Fishery	Chelan PUD (NNI)	3,5,6
Dryden Ponds	Eastbank	Wenatchee	Yearling	500,000	100% Ad-CWT	0	Supplementation/ Fishery	Chelan PUD (NNI)	3,5
Carlton Rearing Pond	Eastbank	Met./Okan/Wells	Yearling	200,000	100% Ad-CWT	0	Supplementation/ Fishery	Grant-PUD (NNI)	3,5,7
Okanogan/ Similkameen Rivers	Eastbank	Met./Okan/Wells	Yearling	166,569	100% Ad-CWT	0	Supplementation/ Fishery	Chelan PUD (NNI)	3,5,7
On Station	Entiat NFH	Wells	Yearling	400,000	100% Ad-Clip, 200k Ad-CWT	0	Fishery	BR	
Wells or other locations	Wells	Wells	Yearling	200,000	100% Ad-Clip	0	Research	Mid Col. PUDs	3
On Station	Wells	Wells	Yearling	320,000	100% Ad-Clip	0	Fishery	Douglas PUD (FIC)	3,4
On Station	Wells	Wells	Subyearling	484,000	100% Ad-Clip	0	Fishery	Douglas PUD (FIC)	3,4
Yakima Basin	Prosser/Marion Drain	Wells	Subyearling	1,000,000	TBD	TBD	Parties to assess Reintroduction feasibility	BPA	9
Subtotal				3,846,569		0			

Table B2. Summer Chinook Salmon-continued**Basin: Snake River**

Release Site	Rearing Facility	Stock	Life stage	Target Release Number	Mark ^{1, 11}	Non-Ad-Clipped ²	Primary Program Purpose	Funding	Foot-notes
Johnson Creek	McCall Hatchery	Johnson Cr.	Smolt	150,000	100% CWT-VIE	150,000	Supplementation	BPA	
Knox Bridge	McCall Hatchery	South Fork	Smolt	1,000,000	Ad-Clip		Fishery	LSRCP	8
Pahsimeroi Ponds	Pahsimeroi	Pahsimeroi	Smolt	1,000,000	935,000 Ad-Clip	65,000	Fishery	IPC	
Curtis Cr/Cabin Cr	McCall Hatchery	South Fork	Eyed Egg	300,000		300,000	Supplementation	BPA/ LSRCP	
Panther Creek	TBD	TBD	TBD	TBD	TBD	TBD	Supplementation/Fishery	BPA/ FCRPS	10
Subtotal			Smolts	2,150,000		215,000			
Grand Total- Summer Chinook Salmon				5,996,569		150,000			

Footnotes for Table B2: Summer Chinook Salmon

1. The category 'Mark' may include fish that are adipose fin clipped (Ad-Clip), regardless of funding source. The tribes do not agree with the concept of mass marking production using an adipose fin clip for anything other than evaluation purposes. Non-treaty Parties may propose to use mark-selective fishing techniques in summer Chinook fisheries that allow for a higher harvest rate on hatchery fish marked with an adipose fin clip compared to fish not so marked. Non-tribal Parties also recognize that mass marking by adipose clipping facilitates broodstock management and hatchery/natural origin stock assessment.
2. The federal Parties will, to the extent required by law, consider the other Parties' recommendations and the United States' trust and treaty responsibility to the Tribes before deciding marking priorities. The category "Non-Ad-Clipped" may include fish marked by other means such as CWT, PIT, or VIE tags. Nothing in this Agreement shall be interpreted to prevent the federal Parties and/or states from mass marking fish required to be marked under Congressional acts directing the mass marking of Chinook, coho, and steelhead intended for harvest which are released from federally operated or financed hatcheries. In the event USFWS and/or states mark fish inconsistent with Tables B1-B7, nothing in this Agreement prevents any Party from challenging these acts. In the event of insufficient funding to carry out such marking, the federal Parties will consult with the other Parties to review and revise the priorities in any marking plan provided for under this Agreement.
3. These production programs are implemented and/or adjusted based on mid-Columbia HCP's and Settlement Agreement. The Parties are pursuing new acclimation facilities tied to these existing programs.
4. Fixed inundation compensation (FIC). Not subject to recalculation by the mid-Columbia HCP's or Settlement Agreement.
5. No Net Impact (NNI) production subject to recalculation beginning with the 2014 release and every 10 years thereafter consistent with the HCPs and Settlement Agreement. These modifications are linked to measured changes in hydrosystem passage survival for plan species. Current production levels are effective for release years 2014-2023.
6. The 100% AD-CWT marking of the program is required to measure contribution to harvest and straying of the Chelan Falls summer Chinook program (to non-target areas) consistent with meeting/addressing HCP-HC monitoring and evaluation objectives.
7. If there are insufficient numbers of Methow/Okanogan broodstock available then Wells stock will be used to make up shortfall.
8. A component of the total production at this facility is produced as part of an integrated program that includes supplementing natural spawning upstream of the hatchery weir. During the building phase of the integrated broodstock, 150,000-250,000 smolts will be unclipped and 100% CWT. When the integrated smolt production component reaches 500,000, all smolts will be ad-clipped. The segregated component of the broodstock is 100% ad-clipped.
9. Implementation of the Yakima Subbasin Summer/Fall Chinook and Coho Salmon Hatchery Master Plan (2012) will result in upgrades to the Prosser and Marion Drain facilities to accommodate change to the current program. The Yakima release of summer-run may include 250,000 yearlings and 250,000 subyearlings to maximize adult recruitment initially (yearlings have a higher post-release survival). As local returns become available in sufficient numbers, the production will then transition to 1,000,000 sub-yearlings. Transition from Wells to local brood source will occur over time.
10. Per Part III.H, the parties commit to reviewing options for Panther Creek to initiate program and develop details for program objective, rearing strategy and facilities, release numbers, and mark plan.
11. For all Summer Chinook hatchery programs, tissue samples are collected annually from broodstock and incorporated into a parentage-based tagging (PBT) baseline. One exception is the production from the Eastbank Hatchery program; parent samples are being collected, but not yet genotyped. All other hatchery programs effectively 'tag' ~90-100% of annual releases.

Table B3. Sockeye Salmon Production for Brood Years 2018-2027.**Basin: Columbia River and Snake River Above McNary**

Release Site	Rearing Facility	Stock	Life stage	Target Release Number	Mark ¹	Non-Ad-Clipped ²	Primary Program Purpose	Funding	Foot-notes
Stanley Basin		Snake River	Smolt	1,000,000	100% Ad-Clip	0	Supplementation	BPA FCRPS	5
Wallowa Lake		TBD	TBD	TBD		TBD	Reintroduction	BPA FCRPS	3
Lake Cle Elum/Yakima Basin Lakes		Okanogan/Wenatchee	Adults	Up to 10,000		Up to 10,000	Reintroduction	TBD	4
Grand Total- Sockeye Salmon		Smolts		1,000,000		0			

Footnotes for Table B3: Sockeye Salmon

1. The category 'Mark' may include fish that are adipose fin clipped (Ad-Clip), regardless of funding source. The tribes do not agree with the concept of mass marking production using an adipose fin clip for anything other than evaluation purposes. Non-treaty Parties may propose to use mark-selective fishing techniques that allow for a higher harvest rate on hatchery fish marked with an adipose fin clip compared to fish not so marked. Non-tribal Parties also recognize that mass marking by adipose clipping facilitates broodstock management and hatchery/natural origin stock assessment.
2. The federal Parties will, to the extent required by law, consider the other Parties' recommendations and the United States' trust and treaty responsibility to the Tribes before deciding marking priorities. The category "Non-Ad-Clipped" may include fish marked by other means such as CWT, PIT, or VIE tags. Nothing in this Agreement shall be interpreted to prevent the federal Parties and/or states from mass marking fish required to be marked under Congressional acts directing the mass marking of Chinook, coho, and steelhead intended for harvest which are released from federally operated or financed hatcheries. In the event USFWS and/or states mark fish inconsistent with Tables B1-B7, nothing in this Agreement prevents any Party from challenging these acts. In the event of insufficient funding to carry out such marking, the federal Parties will consult with the other Parties to review and revise the priorities in any marking plan provided for under this Agreement.
3. Parties commit to developing a plan for reintroduction of sockeye in Wallowa Lake should funds become available. Rearing facilities, stock, release numbers, and marks will be determined in this planning process. Parties commit to implementation of this plan pending funding availability. This hatchery program is under consideration by the Parties, but has not moved forward and implementation is not foreseeable. Prior to implementation the Parties will follow appropriate NEPA and ESA consultation processes.
4. Juvenile releases are on hold until appropriate facilities can be identified. The Parties commit to developing a plan for reintroduction of sockeye in Lake Cle Elum (and possibly other historic sockeye nursery lakes in the Yakima Basin) should funds become available. Rearing facilities, stock, release numbers, and marks will be determined in this planning process. Parties commit to implementation of this plan pending funding availability. The transfer of adults from Priest Rapids Dam to the Yakima Basin is triggered by sockeye adult counts of at least 80,000 at Bonneville Dam. If implemented in a given year, the range of adults transferred is 1,000 to 10,000, calculated from a sliding scale which is based on run strength.
5. For the Snake R. Sockeye hatchery program, tissue samples are collected annually from broodstock and incorporated into a parentage-based tagging (PBT) baseline. The hatchery program effectively 'tags' ~90-100% of the annual release.

Table B4. Snake River fall Chinook Salmon production priorities for the Lower Snake River Compensation Program (LSRCP) at Lyons Ferry Hatchery, the Fall Chinook Acclimation Program (FCAP), and the Idaho Power Program (IPC) for Brood Years 2018-2027. (For other Fall Chinook Production, see Table B5)

Production Program					
Priority	Rearing Facility	Number	Age	Release Location(s)	Marking ^{1, 2}
1	Lyons Ferry	450,000	1+	On station	225K AdCWT, 225K CWT
2	Lyons Ferry	150,000	1+	Pittsburg Landing	70K AdCWT, 80K CWT
3	Lyons Ferry	150,000	1+	Big Canyon	70K AdCWT, 80K CWT
4	Lyons Ferry	150,000	1+	Captain John Rapids	70K AdCWT, 80K CWT
5	Lyons Ferry	200,000	0+	On station	200K AdCWT
6	Lyons Ferry	500,000	0+	Captain John Rapids	100K AdCWT, 100K CWT, 300K Unmarked
7	Lyons Ferry	500,000	0+	Big Canyon	100K AdCWT, 100K CWT, 300K Unmarked
8	Lyons Ferry	200,000	0+	Pittsburg Landing	100K AdCWT, 100k CWT only
9	Irrigon	200,000	0+	Salmon River ³	200K AdCWT
10	Lyons Ferry	200,000	0+	Pittsburg Landing	200K Unmarked
11	Lyons Ferry	200,000	0+	Captain John Rapids	200K AdCWT
12	Irrigon	200,000	0+	Grande Ronde River	200K AdCWT
13	Irrigon	200,000	0+	Salmon River ³	200K AdCWT
14	Irrigon	200,000	0+	Grande Ronde River	200K Unmarked
15	Irrigon	600,000	0+	Salmon River ³	600K Ad only
TOTAL	Yearlings	900,000			
	Subyearlings	3,200,000			

Table B4- continued. Snake River fall Chinook salmon production priorities for Nez Perce Tribal Hatchery - for Brood Years 2018-2027.

Priority	Number	Age	Life History	Release Location(s)	Marking
1	500,000	0+	Standard	On station	100K AdCWT, 200K CWT only, 200K Unmarked
2	200,000	0+	Early-spawning	Luke's Gulch	100K AdCWT, 100k CWT only
	200,000	0+	Early-spawning	Cedar Flats	100K AdCWT, 100k CWT only
3	500,000	0+	Standard	North Lapwai Valley	100K AdCWT, 200K CWT only, 200K Unmarked
TOTAL	1,400,000	Subyearlings			

Footnotes for Table B4: Snake River Fall Chinook Salmon

1. The Parties expect that fisheries conducted in accordance with the harvest provisions of this Agreement will not compromise broodstock acquisition. If broodstock acquisition is nevertheless compromised by the current mark strategy and as a result of implementation of mark selective fisheries for fall Chinook in the ocean or Columbia/Snake River mainstem, the Parties will revisit the marking strategy during the course of this Agreement.
2. For all Snake River Fall Chinook hatchery programs, tissue samples are collected annually from broodstock and incorporated into a parentage-based tagging (PBT) baseline. The hatchery programs effectively 'tag' ~90-100% of annual releases.
3. Beginning with BY18, the releases of subyearlings at Hells Canyon Dam will be moved to the Salmon River. The Parties agree to future discussions of approaches to address the effects of this change on mitigation in the Hells Canyon reach. Several Parties are actively participating in the re-licensing of Idaho Power Company's Hells Canyon Complex and its operations. Idaho Power Company's mitigation responsibilities, including production numbers and release locations are a subject of these discussions. The production numbers and release locations of fall Chinook specified herein shall not affect any Party's right to pursue alternative production and release locations in connection with the development of a long-term agreement and/or in connection with the Hells Canyon re-licensing process. The adult return information from these releases will inform the Parties as they consider whether to move additional release locations during the course of the Management Agreement.

Table B5. Fall Chinook Salmon Production for Brood Years 2018-2027 (Several programs may change pending the outcome of John Day Mitigation discussions. The Parties will discuss and agree to any changes prior to implementation (For Snake R. Basin production, see Table B4). The grand total at the bottom of this table includes all Snake R. Fall Chinook releases from Table B4.

Basin: Columbia River Above McNary

Release Site	Rearing Facility	Stock	Life stage	Target Release Number	Mark ^{1, 11}	Non-Ad-Clipped ²	Primary Program Purpose	Funding	Foot-notes
Prosser	Prosser	URB-Local	Subyearling	500,000		500,000	Supplementation/ Fishery	BPA	
On Station Prosser	Little White Salmon NFH	URB	Subyearling	1,700,000	200K Ad-CWT, 100% Ad-Clip	0	Fishery	MA/COE	3,9,10
On Station Prosser	Bonneville	URB	Yearling	450,000	100% Ad/CWT	0	Fishery	COE	3,9,10
On Station Ringold	Bonneville	URB	Subyearling	3,500,000	100% Ad-Clip, 430k Ad-CWT	0	Fishery	COE	9,10
On Station Priest Rapids	Priest Rapids Hatchery	URB	Subyearling	326,000	TBD	TBD	Fishery	Grant PUD (NNI)	4,5
On Station Priest Rapids	Priest Rapids Hatchery	URB	Subyearling	5,000,000	600K Ad-CWT, 600k Ad-Clip	TBD	Fishery	Grant PUD (FIC)	4,6
Priest Rapids Reservoir	Priest Rapids Hatchery	URB	Subyearling	273,961	TBD	TBD	Fishery	Grant PUD	4,7
On Station Priest Rapids	Priest Rapids Hatchery	URB	Subyearling	1,700,000	100% Ad-Clip, CWT-TBD	0	Fishery	COE	9,10
Subtotal				13,449,961		500,000			

Table B5. Fall Chinook Salmon-continued**Basin: Columbia River, Bonneville to McNary**

Release Site	Rearing Facility	Stock	Life stage	Target Release Number	Mark ^{1, 11}	Non-Ad- Clipped ²	Primary Program Purpose	Funding	Foot- notes
On Station	Little White Salmon NFH	MCB	Subyearling	4,500,000	200K Ad-CWT, 200k CWT only, 4.1M Ad-Clip	200,000	Fishery	COE	9
On Station	Willard NFH	MCB	Subyearling	2,000,000	200K Ad-CWT, 200K CWT only, 1.6M Ad-Clip	200,000	Fishery	MA	
Umatilla River	Umatilla	MCB	Subyearling	600,000	100% Ad-CWT	0	Fishery/ Supplementation	BPA	
Umatilla River (Pendleton Acclimation Site)	Bonneville	MCB	Yearling	780,000	100% Ad-CWT	0	Fishery/ Supplementation	COE/BPA	9
Umatilla River	Bonneville	MCB	Yearling	120,000	100% Ad-CWT	0	Fishery/ Supplementation	COE	9
Klickitat	Klickitat Hatchery	MCB	Subyearling	4,000,000	650k Ad-CWT, 100% Ad-clip	0	Fishery	MA	8
On Station	Spring Creek NFH	Tule	Subyearling	10,500,000	450K Ad-CWT, 450K CWT-only, 9.6M Ad-clip only	450,000	Fishery	COE	9
Subtotal B5				22,500,000	850,000				
Subtotal B4				5,500,000					
Grand Total- Fall Chinook Salmon				41,449,961	4,115,000				

Footnotes for Table B5: Fall Chinook Salmon

1. The category 'Mark' may include fish that are adipose fin clipped (Ad-Clip), regardless of funding source. The tribes do not agree with the concept of mass marking production using an adipose fin clip for anything other than evaluation purposes. Non-treaty Parties may use mark-selective fishing techniques that allow for a higher harvest rate on hatchery fish marked with an adipose fin clip compared to fish not so marked. Allocation should not exceed 50% of the harvestable surplus. Non-tribal Parties also recognize that mass marking by adipose clipping facilitates broodstock management and hatchery/natural origin stock assessment.
2. The federal Parties will, to the extent required by law, consider the other Parties' recommendations and the United States' trust and treaty responsibility to the Tribes before deciding marking priorities. The category "Non-Ad-Clipped" may include fish marked by other means such as CWT, PIT, or VIE tags. Nothing in this Agreement shall be interpreted to prevent the federal Parties and/or states from mass marking fish required to be marked under Congressional acts directing the mass marking of Chinook, coho, and steelhead intended for harvest which are released from federally operated or financed hatcheries. In the event USFWS and/or states mark fish inconsistent with Tables B1-B7, nothing in this Agreement prevents any Party from challenging these acts. In the event of insufficient funding to carry out such marking, the federal Parties will consult with the other Parties to review and revise the priorities in any marking plan provided for under this Agreement.
3. Implementation of the Yakima Subbasin Summer/Fall Chinook and Coho Salmon Hatchery Master Plan (2012) will result in upgrades to the Prosser and Marion Drain facilities to accommodate changes to the current program. It is the intent of the Parties to phase out releases from LWS NFH and replace them with fish (eggs) from Priest Rapids Hatchery, adults collected at the Priest Rapids Dam OLAFT (off ladder adult fish trap), Ringold Springs Hatchery, or adult collected from new facilities in the lower Yakima River. The Parties also propose to move acclimation and release of the 1.7M Yakima River fall Chinook program to a new facility to be constructed in the lower Yakima River (below RM 10) pursuant to John Day mitigation negotiations with the U.S. Army Corps of Engineers.
4. The Parties recognize that fall Chinook from Grant PUD-funded releases may, in some years, provide the principal source of harvestable fall Chinook available to non-treaty fisheries under Part II of this Agreement. The Parties may agree to mass mark Grant PUD-funded fall Chinook releases with an adipose fin clip to facilitate implementation of the fall Chinook harvest provisions of this Agreement.
5. No Net Impact (NNI) production subject to recalculation beginning with the 2014 release and every 10 years thereafter consistent with the HCPs and Settlement Agreement. These modifications are linked to measured changes in hydrosystem passage survival for plan species. Current production levels are effective for release years 2014-2023.
6. Fixed inundation compensation. Not subject to recalculation by the mid-Columbia HCPs or Settlement Agreement.
7. Fixed inundation compensation. Not subject to recalculation by the mid-Columbia HCPs or Settlement Agreement, however, in 2013 the Parties agreed to convert the fry program to subyearlings based upon a higher adult return for subyearling versus fry releases. Production was implemented in the fall of 2013 concurrent with the completion of the Priest Rapids Hatchery rebuild.
8. Implementation of the Klickitat Basin Anadromous Fisheries Master Plan (2012) will result in upgrades at the Klickitat Hatchery and changes to this program if and when a lower Klickitat River acclimation facility is constructed. The current plan is to continue to receive eggs from LWS NFH for this program. While the goal is to AD clip 100% of this production, water and space limitations within the existing infrastructure preclude 100% marking without posing substantial risk to fish survival. The Parties will collaborate on implementation of proposed changes to this program.
9. Parties have worked jointly with the USACOE to develop a long-term production plan designed to meet the basic tenets of an improved in-place, in-kind John Day and The Dalles Dam (JD/TD) Mitigation program and reach the 107,000 Total Adult Production (TAP) goal.
10. The Parties have agreed to an expanded JDM production to meet the 107,000 Total Adult Production mitigation obligation of the COE. This expansion includes construction of a new full cycle facility at Ringold and an acclimation/adult collection facility at the I-182 site in the lower Yakima River. It is anticipated that construction will occur in 2019 (pending funding) and production will start in 2020. The Parties anticipated that an additional 7,250,000 sub-yearling and 500,000 yearling Chinook will be produced from this expansion. Expected releases are: Ringold – 10,400,000 sub-yearlings (which will include the 3,500,000 currently released at Ringold and the 1,700,000 currently releases at Priest Rapids Hatchery). I-182 – 3,750,000 sub-yearlings (which includes the 1,700,000 currently released at Prosser) and 500,000 yearlings (of which 210,000 are currently being released at Prosser, with planned addition for 240,000 targeted for release at Prosser pending COE funding).
11. For all Fall Chinook hatchery programs above Bonneville Dam, tissue samples are collected annually from broodstock and incorporated into a parentage-based tagging (PBT) baseline. The hatchery programs effectively 'tag' ~90-100% of annual releases.

Table B6. Steelhead Production for Brood Years 2019-2028 (parents returning to freshwater in 2018-2027).**Basin: Columbia River Above McNary**

Release Site	Rearing Facility	Stock	Life stage	Target Release Number	Mark ^{1, 20}	Non-Ad-Clipped ^{2,3}	Primary Program Purpose	Funding	Foot-notes
Wenatchee Basin, various locations	Eastbank/Chiwawa	Wenatchee	Smolt	123,650	100% CWT only	123,650	Supplementation	Chelan PUD (NNI and FIC)	4,5,6,17
Wenatchee Basin, various locations	Eastbank/Chiwawa	Wenatchee	Smolt	123,650	100% Ad-Clip	0	Fishery/Supplementation	Chelan PUD (NNI and FIC)	4,5,6,17
Methow River, various locations	Wells	Wells/Methow	Smolt	100,000	100% Ad-Clip	0	Supplementation/Fishery	Douglas PUD (FIC)	4,6,7
Twisp River Various locations	Wells	Wells/Methow	Smolt	48,000	100% CWT only	48,000	Supplementation	Douglas PUD (NNI and FIC)	4,5,6,18
Upper Columbia River	Wells	Wells/Methow	Smolt	160,000	100% Ad-Clip	0	Supplementation/Fishery	Douglas PUD (FIC)	4,6
On Station-various locations	Winthrop NFH	Wells/Methow	Smolt	100,000-200,000	100% Ad-Clip	0	Fishery/Supplementation	BR	7
Okanogan River multiple locations	Wells	Wells/Okanogan	Smolt	100,000	100% Ad-Clip	0	Fishery	Grant PUD	4,8
Upper Columbia River	Winthrop NFH	Upper Columbia	Recon. Kelt	50-100	PIT Tag	50-100	Supplementation	BPA	
Yakima River	Prosser Hatchery	Yakima	Recon. Kelt	300-500	PIT Tag	300-500	Supplementation	BPA	
On Station	Ringold	Wells	Smolt	180,000	100% Ad-RVClip	0	Fishery	MA	
Touchet River	Lyons Ferry	Wallowa A	Smolt	100,000	20K CWT, 100% Ad-Clip	0	Fishery	LSRCP	
Touchet River	Lyons Ferry	Touchet A	Smolt	50,000	100% CWT	50,000	Broodstock Evaluation/Supplementation	LSRCP	
Subtotal			Smolts	1,085,300		221,650			
			Kelts	350-600		350-600			

Table B6. Steelhead- continued**Basin: Snake River**

Release Site	Rearing Facility	Stock	Life stage	Target Release Number	Mark ^{1, 20}	Non-Ad-Clipped ^{2,3}	Primary Program Purpose	Funding	Foot-notes
Tucannon River	Tucannon/ Lyons Ferry	Tucannon A	Smolt	150,000	25K Ad/CWT, 50K CWT only	50,000	Fishery/ Supplementation	LSRCP/BPA	9,19
Lyons Ferry Hatchery	Lyons Ferry	Wallowa A	Smolt	60,000	100% Ad-Clip	0	Fishery	LSRCP	9
Cottonwood Pond, Grande Ronde River	Lyons Ferry	Wallowa A	Smolt	225,000	20-45K CWT, 100% Ad-Clip	0	Fishery	LSRCP	
Little Sheep Creek, Imnaha	Irrigon	Little Sheep Cr. A	Smolt	215,000	25KCWT, 100% Ad-Clip, 4,000PIT	0	Fishery/ Supplementation	LSRCP	
Dworshak NFH	Dworshak NFH	Clearwater B	Smolt	1,200,000	100% Ad-Clip	0	Fishery	COE	11
Clear Ck, Middle Fork Clearwater	Dworshak NFH	Clearwater B	Smolt	300,000	100% Ad-Clip	0	Fishery	COE	11
Lower South Fork Clearwater – Red House Hole	Dworshak NFH	Clearwater B	Smolt	400,000	100% Ad-Clip	0	Fishery	COE	11,12
Lower South Fork Clearwater – Red House Hole	Clearwater	Clearwater B/ South Fk Cl	Smolt	220,000	100% Ad-Clip	0	Fishery	LSRCP	11,12
Lower SF Clearwater	Clearwater	Clearwater B/ South Fk Cl.	Smolt	290,000	100% Ad-Clip	0	Fishery	LSRCP	11,12
Meadow Cr., SF Clearwater	Clearwater	Clearwater B/ South Fork Cl	Smolt	210,000	No Ad-Clip	210,000	Supplementation	LSRCP/BPA FCRPS	11,12
Newsome Ck SF Clearwater	Clearwater	Clearwater B/ South Fork Cl	Smolt	123,000	No Ad-Clip	123,000	Supplementation	LSRCP/BPA FCRPS	11,12
Lolo Creek, MF Clearwater	Dworshak NFH	Clearwater B/ Lolo	Smolt	200,000	No Ad-Clip	200,000	Supplementation	COE/BPA FCRPS	11,12
East Fork Salmon	Hagerman NFH	EFSR-A	Smolt	60,000	100% no-clip w/ CWT	60,000	Supplementation/ Fishery	LSRCP	13
Yankee Fork	Magic Valley, Sawtooth	USRB/Yankee Fork	Smolt	440,000	220K Ad-Clip, 220K TBD no Ad	220,000	Supplementation/ Fishery	LSRCP	14
Little Salmon River	Niagara Springs, Magic Valley	Oxbow A, Pah A	Smolt	<=650,000	100% Ad-Clip	0	Fishery	IPC/LSRCP	
Hells Canyon Snake River	Niagara Springs	Oxbow A	Smolt	550,000	100% Ad-Clip	0	Fishery	IPC	
Upper Salmon Tribs.	Sawtooth, Pahsimeroi	Sawtooth/ Pahsimeroi, USRB	Eggs	1 million	0		Supplementation	TBD	15
Subtotal			Smolt	5,293,000		803,000			

Table B6. Steelhead- continued**Basin: Columbia River- Bonneville to McNary**

Release Site	Rearing Facility	Stock	Life stage	Target Release Number	Mark ^{1, 20}	Non-Ad-Clipped ^{2,3}	Primary Program Purpose	Funding	Foot-notes
Umatilla River	Umatilla	Umatilla Summer	Smolt	50,000	100% Ad-Clip, 20K CWT	0	Supplementation/ Fishery	BPA	
Umatilla River, Minthorn AP	Umatilla	Umatilla Summer	Smolt	50,000	100% Ad-Clip, 20K CWT	0	Supplementation/ Fishery	BPA	
Umatilla River, Pendleton AP	Umatilla	Umatilla Summer	Smolt	50,000	100% Ad-Clip, 20K CWT	0	Supplementation/ Fishery	BPA	
Klickitat	Skamania	Skamania Summer	Smolt	90,000	100% Ad-Clip	0	Fishery	MA	16
Hood River (East and Middle Forks)	Oak Springs	Hood River Winter	Smolt	50,000	100% Ad- RM/LM Clip	0	Supplementation/ Fishery	BPA	
Subtotal			Smolt	290,000		0			
Grand Total - Steelhead				6,668,300		1,024,650			

Footnotes for Table B6: Steelhead

1. The category 'Mark' may include fish that are adipose fin clipped (Ad-Clip), regardless of funding source. The tribes do not agree with the concept of mass marking production using an adipose fin clip for anything other than evaluation purposes. Non-treaty Parties may propose to use mark-selective fishing techniques that allow for a higher harvest rate on hatchery fish marked with an adipose fin clip compared to fish not so marked. Allocation should not exceed 50/50 harvest share. Non-tribal Parties also recognize that mass marking by adipose clipping facilitates broodstock management and hatchery/natural origin stock assessment.
2. The federal Parties will, to the extent required by law, consider the other Parties' recommendations and the United States' trust and treaty responsibility to the Tribes before deciding marking priorities. The category "Non-Ad-Clipped" may include fish marked by other means such as CWT, PIT, or VIE tags. Nothing in this Agreement shall be interpreted to prevent the federal Parties and/or states from mass marking fish required to be marked under Congressional acts directing the mass marking of Chinook, coho, and steelhead intended for harvest which are released from federally operated or financed hatcheries. In the event USFWS and/or states mark fish inconsistent with Tables B1-B7, nothing in this Agreement prevents any Party from challenging these acts. In the event of insufficient funding to carry out such marking, the federal Parties will consult with the other Parties to review and revise the priorities in any marking plan provided for under this Agreement.
3. The Parties' intent is that Fishery impacts on the fish identified in the table above as Non-Ad-Clipped will be similar to those of natural-origin fish. Marking/tagging for monitoring and evaluation is expected. Fish that are hatchery reared but not adipose fin clipped may be marked for monitoring and evaluation by other methods (including natural features such as scales and fin erosion) such that they can be identified as hatchery produced at counting stations and in Fishery. Monitoring and evaluation plans will be developed by the appropriate sub-basin management entities and shall be coordinated through the U.S. v. Oregon Production Advisory Committee. Annually, the Production Advisory Committee shall provide an update of the monitoring and evaluation plans to the Parties.
4. Fish may be released from multiple locations including on-site hatchery releases, direct stream releases, acclimation sites as part of the YN's Expanded Acclimation Program, or at other sites as approved by the HCP.
5. No Net Impact (NNI) production subject to recalculation beginning with the 2014 release and every 10 years thereafter consistent with the HCPs and Settlement Agreement. These modifications are linked to measured changes in hydrosystem passage survival for plan species. Current production levels are effective for release years 2014-2023.
6. Fixed inundation compensation. Not subject to recalculation by the mid-Columbia HCPs or Settlement Agreement.
7. Methow River/Winthrop NFH Steelhead Programs – The Methow River steelhead programs will change during the period covered by this Agreement. At the completion of the pending ESA consultations, a management plan guiding these changes will be developed by the Parties within 18 months. The management plan will incorporate the hatchery objectives using an integrated steelhead program, transition to increased production, fishery objectives, marking, supplementation objectives using natural origin fish, adult management, criteria for natural origin adult collection, etc. The Parties support development of steelhead acclimation facilities for these programs, which may include YN's Expanded Acclimation Program. Full implementation is subject to funding being provided by PUDs and BOR. It is the Parties intent that the production level at Winthrop NFH transition to a final size of 200,000 smolts of local Methow River stock starting with brood year 2015. Meeting the 200,000 target release size is dependent on the following factors: 1) Collection of at least 50% local, natural-origin brood annually; and 2) Completion of the ESA consultation. The local Parties commit to meeting annually to review performance of this program and to discuss any issues regarding the transition to the expanded production size.
8. The Okanogan River steelhead programs are expected to change during the period covered by this Agreement. At the completion of the pending Section 10 permitting process a management plan to guide these changes will be developed by the Parties. The management plan will incorporate the hatchery mitigation requirement using an integrated steelhead program, timing of the transition, fishery objectives, marking, supplementation objectives using natural origin fish, adult management, criteria for natural origin adult collection, etc. Current habitat for steelhead in the basin is limited and full implementation of the plan will depend upon timing and level of improvements to habitat. Full implementation is subject to funding being provided by PUDs, BPA, and BOR.
9. The on-station release at Lyons Ferry will vary from 60,000-160,000 related to smolt production targets for the Tucannon River so that the total program equals 210,000 (e.g., 150,000 Tucannon + 60,000 on-station at Lyons Ferry).

Footnotes for Table B6: Steelhead- continued

10. The Parties will collaborate on an annual basis to establish juvenile release targets and adult broodstock management above the Little Sheep Creek weir and in the hatchery. If adult returns decrease the Parties have the option to release unclipped groups of fish aimed at achieving natural escapement and broodstock goals.
11. Under current production levels, returns of hatchery Group B steelhead are expected to be sufficient to meet egg take needs for existing programs. In the event that hatchery Group B steelhead returns are projected to be less than 10,000 fish at Lower Granite Dam and sport fishery on Idaho-bound hatchery steelhead would have to be restricted to meet egg take needs, the Parties shall discuss management measures to respond to the shortfall in steelhead returns. Potential management measures include, but are not limited to: prioritizing releases for the 2019-2029 brood years, restrictions on sport and/or tribal tributary fishery, additional broodstock collection. Releases of Clearwater B steelhead in the Clearwater Basin will be prioritized over releases in the Salmon Basin. All Parties agree to take appropriate actions to equitably address a forecasted or actual broodstock shortfall. If the Parties are unable to agree on management measures to respond to the shortfall, the Parties shall modify both supplementation and fishery production actions to reflect the anticipated broodstock return.
12. Parties support collecting adults returning to South Fork Clearwater River and Lolo Creek with infrastructure development, funding support, and HGMPs to accomplish broodstock transition to locally returning adults. Parties commit to further discussion of supplementation options and release locations in the South Fork of the Clearwater.
13. The Parties support continuing collection of locally returning adults to the East Fork Salmon River with infrastructure development, funding support, and HGMPs. The Parties commit to further discussions of supplementation options and release locations for this local broodstock.
14. Parties support collecting adults returning to Yankee Fork with infrastructure development, funding support, and HGMPs to accomplish broodstock transition to locally returning adults. If surplus production from local broodstock is available, Parties will discuss release options.
15. The Parties agree on three locations for planting these eggs including Indian Creek, Panther Creek, and Yankee Fork and will investigate local broodstock collection opportunity for transitioning the program. Releases into Indian Creek will be limited to 100,000 eggs. The Parties will review information from monitoring and evaluation of the program to assess effectiveness, and if eggs from local broodstock are available will consider expanding release locations to other streams including Basin Creek and Morgan Creek.
16. Implementation of the Klickitat Basin Anadromous Fisheries Master Plan (2012) is not anticipated to result in changes to this program at this time. The Parties will collaborate on implementation of proposed changes to this program.
17. Chelan PUD's combined summer steelhead obligation in the Wenatchee River is 247,300. This obligation includes 165,000 fixed inundation compensation that is not subject to recalculation by the mid-Columbia HCPs or Settlement Agreement; and 22,000 recalculated NNI steelhead production, and 60,300 steelhead as a species trade for sockeye production. The 247,300 steelhead program is split into 123,650 supplementation program and 123,650 safety-net program.
18. The Twisp River steelhead supplementation program includes 8,000 recalculated NNI compensation and 40,000 fixed inundation compensation which is not subjected to recalculation.
19. Dependent on program size, at 75,000 all would be unclipped.
20. For all Steelhead hatchery programs above Bonneville Dam and Skamania Hatchery (located in the lower river, with releases above Bonneville Dam), tissue samples are collected annually from broodstock and incorporated into a parentage-based tagging (PBT) baseline. One exception is the production from the Eastbank Hatchery program; parent samples are being collected, but not yet genotyped. All other hatchery programs effectively 'tag' ~90-100% of annual releases.

Table B7. Coho Salmon Production for Brood Years 2018-2027**Basin: Columbia River Above McNary**

Release Site	Rearing Facility	Stock	Life stage	Target Release Number	Mark ^{1, 8}	Non-Ad-Clipped ²	Primary Program Purpose	Funding	Foot-notes
Naches River	Eagle Creek	Eagle Cr./ Yakima	Smolt	500,000	50%CWT	500,000	Supplementation/ Fishery	BPA/MA	
Upper Yakima River	Prosser	Yakima/Eagle Cr.	Smolt	500,000	50%CWT	500,000	Supplementation/ Fishery	BPA/MA	
Icicle Creek (at the NFH)	Cascade/ Willard	Mid Col Local	Smolt	500,000	100% CWT only and/or PBT	500,000	Supplementation	BPA/MA/ PUD	3
Nason Creek	Cascade/ Willard	Mid Col Local	Smolt	400,000	100% CWT and/or PBT and 100% body tagged	400,000	Supplementation	BPA/MA/ PUD	3
Beaver Creek	Cascade/ Willard	Mid Col Local	Smolt	100,000	100% CWT and/or PBT and 100% body tagged	100,000	Supplementation	BPA/MA/ PUD	3
Methow Tributaries	Cascade/ Willard	Mid Col Local	Smolt	800,000	100% CWT only and/or PBT	800,000	Supplementation	BPA/MA/PUD	3
On Station	Winthrop NFH/Cascade	Mid Col Local	Smolt	200,000	100% CWT only and/or PBT	200,000	Supplementation	BPA/MA/ PUD	3,4
Subtotal				3,000,000		3,000,000			

Basin: Snake River

Release Site	Rearing Facility	Stock	Life stage	Target Release Number	Mark ^{1, 8}	Non-Ad-Clipped ²	Primary Program Purpose	Funding	Foot-notes
Clear Cr., Lapwai Cr., Nez Perce Tribal Hatchery	Eagle Creek	Early	Smolt	550,000	60k CWT, 15K PIT	550,000	Supplementation	MA/ PCSRF	
Grande Ronde/ Lostine River	Cascade	Early	Smolt	500,000	100% Ad-clip 90k CWT	0	Fishery/ Reintroduction	MA	5
Clear Creek	Dworshak/ Kooskia	Early/Late	Smolt	500,000	TBD	500,000	Supplementation	PCSRF	7
Subtotal				1,550,000		1,050,000			

Table B7. Coho Salmon-continued**Basin: Columbia River- Bonneville to McNary**

Release Site	Rearing Facility	Stock	Life stage	Target Release Number	Mark ^{1, 8}	Non-Ad- Clipped ²	Primary Program Purpose	Funding	Foot- notes
Umatilla R (Pendleton Acclimation Pond)	Cascade	Early	Smolt	500,000	400K Ad-Clip, 100k CWT only	100,000	Supplementation/ Fishery	MA/BPA	5
Klickitat River	Klickitat Hatchery	Late	Smolt	1,000,000	100% Ad-Clip, 45k CWT	0	Fishery	MA	6
Klickitat River	Washougal	Late	Smolt	2,500,000	100% Ad-Clip, 75k Ad-CWT	0	Fishery	MA	
Subtotal				4,000,000		100,000			
Grand Total- Coho Salmon				8,550,000		4,150,000			

Footnotes for Table B7: Coho Salmon

1. The category 'Mark' may include fish that are adipose fin clipped (Ad-Clip), regardless of funding source. The tribes do not agree with the concept of mass marking production using an adipose fin clip for anything other than evaluation purposes. Non-treaty Parties may propose to use mark-selective fishing techniques that allow for a higher harvest rate on hatchery fish marked with an adipose fin clip compared to fish not so marked. Non-tribal Parties also recognize that mass marking by adipose clipping facilitates broodstock management and hatchery/natural-origin stock assessment.
2. The federal Parties will, to the extent required by law, consider the other Parties' recommendations and the United States' trust and treaty responsibility to the Tribes before deciding marking priorities. The category "Non-Ad-Clipped" may include fish marked by other means such as CWT, PIT, or VIE tags. Nothing in this Agreement shall be interpreted to prevent the federal Parties and/or states from mass marking fish required to be marked under Congressional acts directing the mass marking of Chinook, coho, and steelhead intended for harvest which are released from federally operated or financed hatcheries. In the event USFWS and/or states mark fish inconsistent with Tables B1-B7, nothing in this Agreement prevents any Party from challenging these acts. In the event of insufficient funding to carry out such marking, the federal Parties will consult with the other Parties to review and revise the priorities in any marking plan provided for under this Agreement.
3. Upper Columbia Reintroduction Program is in transition from feasibility phase to long term production phase. Production numbers and release locations may change based on agreement of the Parties.
4. The 200,000 acclimated smolts identified for release at the Winthrop NFH complex includes full-term reared, on-station and/or Lower Columbia River transferred back-channel releases. This is a reduction from prior on-station releases due to a shift in production being distributed to upstream acclimation sites.
5. Co-managers will review pilot program performance adult return data and factors impacting survival (ocean conditions, in-river survival, fisheries, etc.) no later than 2022 and make a decision on whether to 1) transition to local broodstock development, 2) extend the pilot program, or 3) discontinue the releases. Release of this group of fish will revert back to the Umatilla River should co-managers decide to discontinue the program.
6. Implementation of the Klickitat Basin Anadromous Fisheries Master Plan (2012) will result in upgrades at the Klickitat Hatchery and changes to this program if and when a lower Klickitat River acclimation facility is constructed. The Parties will collaborate per Part III.H of this Agreement on proposed changes to this program.
7. For a period of 3-5 years, approximately 100,000 of this release will be from an experimental later returning stock (Kalama). NPT will work with ODFW, WDFW, and USFWS to ensure these fish are produced – from egg availability, fish health sampling, rearing space, marking, to release. NPT staff will implement an M&E plan to determine if late stock releases from the Snake Basin are successful. This group of fish will receive a unique mark for M&E purposes and representative CWT groups as determined annually by the local co-managers during the Annual Operation Plan meeting. If the survival and/or returns of this late stock do not prove to be beneficial to the Tribal program, the NPT reserves the right to return to utilizing an early stock for production of this group of fish.
8. For some Coho hatchery programs, tissue samples are collected annually from broodstock and incorporated into a parentage-based tagging (PBT) baseline. The hatchery programs with broodstock sources above Bonneville Dam effectively 'tag' ~90-100% of annual releases. However, smolts released above Bonneville Dam that are sourced from broodstock below the Dam are not identifiable using PBT (not all broodstock in the lower river are PBT-sampled).

Attachment C

Grande Ronde Spring Chinook Marking Guidelines

A. Interim period with Captive Brood programs at production levels

1. Upper Grande Ronde
 - Conventional CWT only
 - Captive Brood ADCWT
 - If all production is from conventional brood mark 50% AD with represented CWT group
2. Catherine Creek
 - Conventional AD with represented CWT group
 - Captive Brood ADCWTVIE
3. Lookingglass Creek
 - Conventional AD with represented CWT groups
 - CC Captive Brood ADCWT

B. Long term period with primarily Conventional Production and captive brood safety net programs maintained for Upper Grande Ronde and Catherine Creek.

1. Upper Grande Ronde

Upper Grande Ronde sliding scale for adult escapement and fish marking		
Adult Escapement	Marking	Assumptions
<300	Follow Interim Marking Strategy	Use captive brood safety net production
300-750	First 125,000 CWT only Balance Ad with represented 62.5K CWT	
751-1500	First 62,500 CWT only Balance Ad with represented 62.5K CWT	
>1500	Ad with represented 62.5K CWT	

2. *Catherine Creek*

Catherine Creek sliding scale for adult escapement and fish marking		
Adult Escapement	Marking	Assumptions
<150	Follow Interim Marking Strategy	Use captive brood safety net production
≥150	Ad with represented 62.5K CWT	

3. *Lookingglass Creek*

- Ad with represented 62.5KCWT group