DRAFT CONSERVATION AGREEMENT FOR PACIFIC LAMPREY

(*ENTOSPHENUS TRIDENTATUS*)

in the States of
Alaska, Washington, Oregon, Idaho, and California

2012

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I. PURPOSE

This Conservation Agreement (Agreement) has been developed to promote implementation of conservation measures for Pacific Lamprey (PL) in Alaska, Washington, Oregon, Idaho, and California as a collaborative and cooperative effort among resource agencies and tribes. This cooperative effort, through implementation of this Agreement and the associated Assessment and Template for Conservation Measures and Regional Implementation plans, is intended to reduce or eliminate threats to the PL and reduce the likelihood the species will require listing as a special status by state or federal agencies.

The intent is to develop regional implementation plans that build upon existing information, tracks conservation actions and evaluate the effectiveness, and learn from monitoring, evaluation and research. For example in the Columbia River Region, the implementation plans would heavily rely on the threats and the proposed actions identified in the Tribal Pacific Lamprey Restoration Plan for the Columbia River (2011), Army Corps of Engineers 10 year plan (2009), and the U.S. Fish and Wildlife Service (USFWS) Assessment and Template for Conservation Measures (Luzier et al. 2011).

II. PARTIES

The parties to this agreement will include interested tribes, states, federal agencies, NGOs and other stakeholders. To ensure implementation of specific conservation measures, separate cooperative agreements may be developed with resource agencies, tribes and other supporting entities, who are not signatories to the agreement. These non-signatory interested parties are encouraged to participate in regional implementation planning.

III. STATUS AND DISTRIBUTION OF PACIFIC LAMPREY

Although PL were historically widespread along the West Coast of North America, their abundance is declining and their distribution is contracting throughout Oregon, Washington, Idaho, California (Luzier et al. 2009). Current status in Alaska is unknown. Threats to Pacific Lamprey occur throughout much of the range of the species and include: restricted mainstem and tributary passage, reduced flows, dewatering of streams, stream and floodplain degradation, degraded water quality, and changing marine and climate conditions. These threats in conjunction with declining distribution and depressed abundance affect the status of lamprey.

For the purpose of implementing conservation actions, PL distribution has been divided into ten Regional Management Units (RMUs). This division facilitates a finer level of resolution for description of populations, distribution, and their habitats. It also provides a more optimal structure for collaboration on conservation and restoration activities. Each of these RMUs includes several 4th level Hydrologic Unit Codes (HUCs) which are the finer scale geographic units used to evaluate lamprey status, threats, and conservation needs. These findings by HUC were synthesized to determine the overall status, threats and conservation needs for the RMU (Luzier et al. 2011).

To date there has not been strong evidence for reproductive isolation from collection locations (Goodman et al. 2008; Lin et al. 2008), even for those separated by large

geographic distances (Northern California to Japan). Higher proportions of drainage-specific or unique haplotypes were identified in southern regions, but were present in a low number of samples and therefore the implications on Pacific Lamprey population structure are equivocal. Recent results of Spice et al. (2012) do not support the concept that PL return to their birthplace to reproduce, suggesting that anadromous lampreys are unusual among species with long migrations, but suggest that limited dispersal at sea precludes panmixia in this species. These result and future studies that include samples from increased geographic locations leave uncertainty for population structure of PL. Therefore, dividing management units into finer geographic scales would provide a risk adverse approach for conserving PL. Experience with other fish conservation programs indicates that RMUs represent a more feasible, practical, and meaningful structure to organize and implement conservation throughout the distribution of PL.

The following summarizes the status and threats to PL identified in the Assessment and Template for Conservation Measures (Luzier et al. 2011).

Alaska - A risk assessment and query of ongoing and needed actions and research was not conducted for PL RMUs in Alaska. The State of Alaska has six species of lampreys; however, little research has been done so their distribution and status are unknown. The Alaska State Comprehensive Wildlife Strategy outlines the species, suspected distribution, general concerns, habitat concerns, conservation goals and objectives, and species and habitat monitoring plans.

Washington Coast and Puget Sound Regions - Limited data exists for PL RMUs in Coastal Washington and Puget Sound. Where demographic and threat data exist, abundance of PL was characterized as 'rapidly declining' (Luzier et al. 2011). Threats include adult and juvenile passage, stream and floodplain degradation and reduced stream flows.

Columbia River Basin Regions (Lower Columbia/Willamette, Mid–Columbia, Upper Columbia, Snake, Mainstem) - RMUs of PL are at 'high risk' throughout much of the Columbia River basin, particularly in the Snake River, the Mid-Columbia and the Upper Columbia regions (Luzier et al. 2011). The main threats affecting these RMUs include restricted mainstem and tributary passage, stream and floodplain degradation and "small population" effects. The Lower Columbia PL RMU is at relatively lower risk; however, restricted tributary passage and degraded water quality are on-going threats (Luzier et al. 2011).

Coastal Oregon – The Pacific Lamprey RMU in this region is at relatively lower risk than those of the Columbia River basin. The most serious threat in this region is stream and floodplain degradation.

California - Conservation planning has been initiated in California using similar methods employed in Washington, Oregon and Idaho. Preliminary results indicate the majority of the PL RMU is at relatively high risk in the California region (Luzier et al. 2011). The threats identified most often in the California region include stream and floodplain

degradation, degraded water quality, dewatering and reduced stream flows, and restricted tributary passage.

IV. GOAL

The goal of this Agreement is to achieve long-term persistence of PL and support traditional tribal cultural use of PL throughout their historic range in the United States through maintaining healthy populations in areas where they exist and restoring populations where they are depleted. PL may be reintroduced to areas from which they have been extirpated where ecologically and economically feasible. The cooperators envision a future where threats to PL are either eliminated or reduced to the greatest extent possible and the role of PL in stream ecology and maintaining ecological balance is restored.

V. OBJECTIVES

The following objectives are divided into two categories. Objectives 1-4 pertain to conservation activities across the United States portion of the PL range, as well as within RMUs. Objectives 5-7 pertain to conservation activities and the development of Regional Implementation Plans within RMUs. These objectives will be refined as Regional Implementation Plans are developed.

Objective 1: Evaluate PL population structure

Continue genetic analyses on PL throughout the United States range to refine delineation of RMUs as needed.

Objective 2: Identify global issues that are impacting PL

The effects of changing marine environment and climate, disease, impact of dams on downstream migration of juveniles, non-native species and predation throughout their entire range are poorly understood. To further understand their effects on PL at the landscape level, parties will coordinate research, monitoring and evaluation with Landscape Conservation Cooperatives, National Fish Habitat Partnerships and other large scale natural resource conservation initiatives as appropriate.

Objective 3: Public outreach

Develop and implement a public outreach effort specifically addressing PL conservation. Outreach may focus on PL biology, unique life history, habitat needs, cultural importance, and how salmonid restoration activities can be modified to benefit PL.

Objective 4: Data sharing

Continue to build and maintain PL databases and GIS layers (to be maintained by FWS Region 1) to facilitate information sharing between and among partners.

Objective 5: Identify and characterize PL for the RMUs

Identify historic and present distributions of PL in each RMU and monitor them to detect changes in distribution and status as conservation actions are implemented.

Objective 6: Identify, secure and enhance watershed conditions contained in the RMUs

Protect areas with healthy habitat conditions and strive to improve watershed conditions and migratory corridors where needed. These efforts will focus on threats not being addressed through restoration efforts for other species (e.g., salmon and bull trout recovery plans). To focus efforts, cooperators will:

a. Identify habitat conditions necessary to support all life stages of PL.
b. Identify and protect areas within the RMU that have habitat conditions needed to support PL life stages.
c. Identify and prioritize threats to PL in RMUs.
d. Implement targeted lamprey restoration projects to address prioritized threats. For example safe and effective passage at mainstem and tributary anthropogenic barriers, restore lamprey spawning and rearing habitat, and considering lamprey life stages during in-stream work (e.g., providing adequate time for ammocoetes to vacate the substrate when streams are dewatered).
e. Develop protocols for monitoring habitat status, PL status, and restoration effectiveness.

Objective 7: Restore PL of the RMUs

Identify unoccupied and sparsely occupied watersheds where PL can be restored to their historic range and levels through Regional Implementation Plans. Where feasible implement translocation and artificial production experiments to determine techniques and approaches for populating extirpated areas and advancing PL conservation through establishing self-sustaining RMUs.

Upon signing, the signatories agree to coordinate their resources where possible, in terms of personnel and operational funding, and to seek additional funding to implement conservation activities to the extent that progress toward conservation objectives is measurable and documented. They also agree to the extent practicable to implement those conservation actions detailed in the Initiative. The Initiative will be evaluated annually, and modified as necessary to address newly identified conservation issues and to ensure program effectiveness. The Assessment and Template for Conservation document will be updated every five years, and results will be used to update the Agreement, which will also be revised at five year intervals until it is no longer deemed necessary.

VI. OTHER SPECIES INVOLVED

The primary focus of this Agreement is the conservation and enhancement of PL and the watersheds in Alaska, Washington, Oregon, Idaho, and California upon which they depend. Other native species occurring within or adjacent to PL habitat should also benefit from PL conservation activities. Since the strategy focuses on ecosystem health, the Agreement will potentially ameliorate threats facing many of these species. The important role of Pacific lamprey in the food-wed (directly as prey at all life stages, and as a source of marine-derived nutrients that fuel relatively sterile tributary ecosystems) would suggest benefits to a broad array of species; anadromous salmonids, resident fish,

aquatic and terrestrial based wildlife, aquatic and semi-aquatic vegetation, riparian zones and upland vegetation.

VII. AUTHORITY

1. This Agreement is subject to, and is intended to be consistent with, all applicable federal, tribal and state laws and interstate compacts.
2. The Parties recognize they each have specific statutory or non-statutory responsibilities that cannot be delegated with respect to the management and conservation of wildlife, wildlife habitat and development and management of water resources. Nothing in this Agreement is intended to abrogate the responsibilities or authorities of any Party.
3. Nothing in this Agreement is intended to restrict Parties from participating in similar activities with other public or private agencies, organizations or individuals.
4. Nothing in this agreement is intended to waive any immunity provided by federal, state, local or tribal laws. Parties fully retain all immunities and defenses provided by law with respect to any action based on, or occurring as a result, of this Agreement.
5. The Tribe(s) maintain jurisdictional authority relative to species, habitat and land use management on tribal trust lands.
6. Modifications to this Agreement must be mutually agreed upon by all signatories and all changes shall be executed as an addendum to the original Agreement.

VIII. CONSERVATION ACTIONS

Coordinating Conservation Activities and Schedules

1. Administration of the Agreement will be conducted by the Pacific Lamprey Conservation Team (Conservation Team). The team may include technical and legal advisors and other members as selected by the signatories.
2. Parties will develop a charter to define the roles, responsibilities, and membership for the Conservation Team.
3. The designated team leader may rotate annually among the representatives from the USFWS, signatory state agencies and tribes.
4. Authority of the Conservation Team shall be limited to making recommendations for the conservation of PL to the administrators of the signatory and supporting entities.
5. The Conservation Team will meet at least annually to develop range-wide priorities, review implementation plans developed for each RMU, coordinate tasks and agency resources to most effectively implement the implementation plan, and review and revise the Agreement as needed. Updates to the PL databases and GIS will also occur on an annual basis.
6. The Team will produce an annual written report outlining progress made during the preceding year.
7. The Initiative has produced a range-wide status assessment (Assessment and Template for Conservation Measures; Luzier et al. 2011) and it will be updated

during the last year of this five-year Agreement period (and at five-year intervals after that) by the USFWS Western Lampreys Conservation Team. It will include updated information on the current distribution, population size, short term trend and threats to PL. This information will be used to evaluate the foreseeable risks and general population health of existing RMUs. Through the Assessment update process the information guiding the Tribal Pacific Lamprey Restoration Plan for the Columbia River, the U.S. Army Corps of Engineers 10-Year Passage Plan and other existing lamprey plans and actions (from other agencies and Tribes), will be updated. The revised Assessment will also discuss progress towards meeting goals and objectives in the Conservation Agreement. Based on the revised assessment the Conservation Team will make recommendations on the need for extending and revising the Agreement.

8. Conservation Team meetings will be open to the public. Meeting decision summaries and progress reports will be available to the Conservation Team and other interested parties.

Funding Conservation Actions

1. Funding for the Agreement will be sought from a variety of sources. Subject to availability of funds Federal, State and local agencies may provide or secure funding to support PL conservation and implementation of conservation measures according to their priorities.
2. It is understood that all public funds required for and expended in accordance with this Agreement are subject to approval by the appropriate local, state or Federal appropriations. This instrument is neither a fiscal nor a funds obligation document. Any endeavor involving reimbursement or contribution of funds between parties to this instrument will be handled in accordance with applicable laws, regulations, and procedures, including those for Government procurement and printing. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This instrument does not provide such authority. Specifically, This Agreement does not establish authority for noncompetitive awards to the cooperator of any contract or other agreement.

Conservation Progress Assessment

In addition to annual reports, the Conservation Team will provide a five-year status assessment to the signatory agencies. Copies will be made available to cooperators and interested parties.

IX. DURATION OF AGREEMENT

The term of this Agreement shall be five years and may be extended for five-year intervals as desired by the Parties. Any party may withdraw from this Agreement with sixty days written notice to the other parties.

X. FEDERAL AGENCY COMPLIANCE

1. During the performance of this Agreement, the participants agree to abide by the terms of Executive Order 11246 on non-discrimination and will not discriminate against any person because of race, color, religion, sex or national origin.
2. No member or delegate to Congress or resident Commissioner shall be admitted to any share or part of this Agreement, or to any benefit that may arise there from, but this provision shall not be construed to extend to this Agreement if made with a corporation for its general benefit.

XI. Signatories

To be determine.

Signature block by agency and tribe.

XII. Supporting organizations

To be determined

XIII. Literature cited

To be filled in later.