CONSERVATION AGREEMENT FOR PACIFIC LAMPREY

(*ENTOSPHENUS TRIDENTATUS*)

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

2012

TABLE OF CONTENTS

I. PURPOSE

The Pacific Lamprey Conservation Initiative (Initiative) has been developed to promote implementation of conservation[1] measures for Pacific Lamprey in Alaska, Washington, Oregon, Idaho, and California. The Initiative has three phases: Assessment and Template for Conservation Measures (Luzier et al. 2011); Conservation Agreement (Agreement); and Regional Implementation Plans. The Agreement represents a cooperative effort among natural resource agencies and tribes to reduce threats to Pacific Lamprey and improve their habitats and population status. Cooperative efforts through the Agreement intend to: a) develop regional implementation plans derived from existing information and plans; b) implement conservation actions; c) promote scientific research; and d) monitor and evaluate the effectiveness of those actions.

The strategies and schedules for implementing conservation actions by region will be described in the regional implementation plans. In regions that are early in the planning process, the work will focus on identification of ongoing and needed actions. In other regions that have already gone through an extensive planning process, the focus will be on prioritizing actions, identifying potential funding and developing schedules for implementation. For example, in the Columbia River region the implementation plans would rely heavily 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 Passage Plan for Lamprey (2009), the U.S. Bureau of Reclamation Lamprey Assessment (2011), 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, non-governmental organizations and other stakeholders. The parties who sign the Agreement will be called signatories. To ensure implementation of specific conservation measures, separate cooperative agreements may be developed among natural resource agencies, tribes and other supporting entities, who are not signatories to the Agreement. These non-signatory parties are encouraged to participate in regional implementation planning.

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 for Pacific Lamprey to the extent that progress toward conservation objectives is measurable and documented. They also agree to the extent practicable to implement those conservation actions outlined in the regional implementation plans.

III. STATUS AND DISTRIBUTION OF PACIFIC LAMPREY

Although Pacific Lamprey were historically widespread along the West Coast of North America, their abundance is declining and their distribution is contracting throughout Oregon, Washington, Idaho, and 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;

[1] As used in this document the term "conservation" includes actions to restore lamprey populations.

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, Pacific Lamprey 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. The 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 Pacific Lamprey return to their birthplace to reproduce, suggesting that anadromous lampreys are unique among species with long migrations, but suggest that limited dispersal at sea precludes panmixia in this species. These results and future studies that include samples from increased geographic locations leave uncertainty for population structure of Pacific Lamprey. Therefore, dividing management units into finer geographic scales would provide a risk averse approach for conserving Pacific Lamprey. Experience with other fish conservation programs indicates that RMUs represent a feasible, practical, and meaningful structure to organize and implement conservation throughout the distribution of Pacific Lamprey.

The following summarizes the status and threats to Pacific Lamprey 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 Pacific Lamprey RMUs in Alaska. The State of Alaska has six species of lampreys, however, little research has occurred and 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 Pacific Lamprey RMUs in Coastal Washington and Puget Sound. Where demographic and threat data exist, abundance of Pacific Lamprey 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 Pacific Lamprey 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 Pacific Lamprey RMU is at relatively lower risk, however, restricted tributary passage and degraded water quality are ongoing 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 Pacific Lamprey 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 Pacific Lamprey and support traditional tribal cultural use of Pacific Lamprey throughout their historic range in the United States. The intent of the parties is to achieve this goal, where ecologically and economically feasible, by maintaining viable populations in areas where they exist currently, restoring populations where they are extirpated or at risk of extirpation, and doing so in a manner that addresses the importance of lamprey to tribal peoples. The parties envision a future where threats to Pacific Lamprey are reduced to the greatest extent possible, and the historic geographic range and ecological role of Pacific Lamprey are 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 Pacific Lamprey 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 Pacific Lamprey population structure

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

Objective 2: Identify global issues that are impacting Pacific Lamprey

The effects of changing marine environment and climate, disease, poor water quality, impact of dams on downstream migration of juveniles, contaminant accumulation, non-native species and predation throughout the entire range of Pacific Lamprey are poorly

understood. To further understand the effects of global issues on Pacific Lamprey 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 Pacific Lamprey conservation, biology, unique life history, habitat needs, cultural importance, and interface with salmonid restoration activities.

Objective 4: Data sharing
Continue to build and maintain Pacific Lamprey databases and Geographic Information System layers (to be maintained by USFWS Region 1) to facilitate information sharing among partners.

Objective 5: Identify and characterize Pacific Lamprey for the RMUs
Identify historic and present distributions of Pacific Lamprey 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, parties will:

a. Identify habitat conditions necessary to support all life stages of Pacific Lamprey.
b. Identify and protect habitat areas within an RMU capable of supporting Pacific Lamprey life stages.
c. Identify and prioritize threats to Pacific Lamprey in RMUs, emphasizing threats not addressed through restoration efforts for other species (e.g., Pacific salmon and bull trout).
d. Implement targeted lamprey restoration projects to reduce prioritized threats (e.g., improve passage at human caused stream barriers, restore lamprey spawning and rearing habitats, and consider lamprey life stages during in-stream work).
e. Develop protocols for monitoring habitat status, Pacific Lamprey status, and restoration effectiveness.

Objective 7: Restore Pacific Lamprey of the RMUs
Identify unoccupied and sparsely occupied watersheds where Pacific Lamprey may be restored to their historic range and levels of abundance. Where feasible implement artificial propagation and translocation experiments to develop methods and strategies for reintroducing Pacific Lamprey to extirpated areas and advancing Pacific Lamprey conservation through establishing self-sustaining populations within RMUs.

VI. OTHER SPECIES INVOLVED

The primary focus of this Agreement is the conservation and enhancement of Pacific Lamprey and their habitats within watersheds of Alaska, Washington, Oregon, Idaho, and California. The important role of Pacific Lamprey in the food-web (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. These other aquatic species are also expected to benefit from Pacific Lamprey conservation activities that will potentially ameliorate threats.

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. Nothing in this Agreement shall be construed to affect, modify, restrict, or expand any right or legal obligation of any signatory. The signatories recognize they each may 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 signatory.
2. Nothing in this Agreement is intended to restrict signatories from participating in similar activities with other public or private agencies, organizations or individuals.
3. Nothing in this Agreement is intended to waive any immunity provided by federal, state, local or tribal laws. Signatories fully retain all immunities and defenses provided by law with respect to any action based on, or occurring as a result, of this Agreement.
4. The Tribal signatories maintain jurisdictional authority relative to species, habitat, and land use management on areas of tribal jurisdiction.
5. Nothing in this Agreement shall be construed as:
   (1) affecting, modifying, diminishing, or otherwise impairing the sovereign immunity from suit enjoyed by an Indian tribe; or
   (2) authorizing or requiring the termination of any existing trust responsibility of the United States with respect to the Indian people.
6. Modifications to this Agreement must be mutually agreed upon by all signatories and all changes shall be executed in writing as an addendum to the original Agreement.

VIII. CONSERVATION ACTIONS

Coordinating Conservation Activities and Schedules

1. Coordination of conservation activities will be conducted by the Pacific Lamprey Conservation Team (Conservation Team). The Conservation Team will include

representatives that have technical or management expertise as selected by the signatories.

2. Signatories will define the roles, responsibilities, and membership for the Conservation Team to meet the Goal of this Agreement. The Conservation Team will commence upon selection of members and a leader by the signatories.
3. The designated Conservation Team leader may rotate among the representatives from the signatories.
4. The Conservation Team shall make recommendations for the conservation of Pacific Lamprey to the signatories and supporting entities based on the following activities:
    a. The Conservation Team will meet annually to review progress on implementation actions and schedules developed for each RMU and to review and revise the Agreement as needed. The Conservation Team will produce a report every two years outlining progress made during the preceding years.
    b. The Assessment and Template for Conservation Measures (Assessment) will be updated during the last year of this five-year Agreement period (and at five-year intervals thereafter) by the USFWS in coordination with partners. It will include updated information on the current distribution, population size, short term trend and threats to Pacific Lamprey. This information will be used to evaluate the foreseeable risks and general population health of existing RMUs. The information guiding the Tribal Pacific Lamprey Restoration Plan for the Columbia River, the U.S. Army Corps of Engineers 10-Year Passage Plan for Lamprey and other existing lamprey plans and actions (from other agencies and Tribes), will be updated and integrated into the revised Assessment. This Assessment will also discuss progress towards meeting goals and objectives in the Agreement. Based on the revised Assessment the Conservation Team will make recommendations on the need for extending and revising the Agreement.
    c. From the range-wide status assessment process, updates to the Pacific Lamprey databases and GIS will also occur on annually.

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

Funding Conservation Actions

1. Funding for implementing conservation actions 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 Pacific Lamprey conservation 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 appropriation laws. This Agreement is neither a fiscal nor a funds obligation document. Any endeavor involving reimbursement or contribution of funds among signatories to this Agreement 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 signatories and shall be independently authorized by appropriate statutory authority. This Agreement 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

The Conservation Team will provide biennial reports on conservation action progress to the signatory agencies. In addition, the range-wide status assessment (Assessment and Template for Conservation Measures) will be updated during the last year of this five-year Agreement period. Copies will be distributed by the Conservation Team to signatories and interested parties and made available to the public.

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 signatories. Any signatory 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, and to the extent not in conflict with the Indian preference authorized for Self Determination Act contracts by 25 U.S.C. § 450(e)(b), the signatories 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 federal 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

Confederated Tribes and Bands of the Yakama Nation
PO Box 151
Toppenish, Washington 98948

Confederated Tribes of the Umatilla Indian Reservation
46411 Ti'Mine Way
Pendleton, Oregon 97801-9467

Confederated Tribes of Warm Springs
1233 Veterans Street
Warm Springs, OR 97761

Cow Creek Band of Umpqua Tribe of Indians
2371 NE Stephens Street
Roseburg, Oregon 97470

Confederated Tribes of Grand Ronde
47010 SW Hebo Road
Grand Ronde, Oregon 97347

Confederated Tribes of Siletz Indians
1322 N. Larchwood
Salem, Oregon 97303

Blue Lake Rancheria Tribe
428 Chartin Road
Blue Lake, CA 95525

Mechoopda Indian Tribe of Chico Rancheria
125 Mission Ranch Blvd
Chico, California 95926

California Department of Fish and Game
1416 9th Street, 12th Floor
Sacramento, California 95814

Idaho Department of Fish and Game
P.O. Box 25
Boise, Idaho 83707-0025

Oregon Department of Fish and Wildlife
3406 Cherry Ave Northeast
Salem, Oregon 97303

Washington Department of Fish and Wildlife
600 Capitol Way North
Olympia, Washington 98501-1091

U.S. Army Corps of Engineers
1125 NW Couch Street, Suite 500
Portland, Oregon 97209-4141

Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208

U.S. Bureau of Indian Affairs
911 NE 11th Avenue
Portland, Oregon 97232

U.S. Bureau of Land Management - California
2800 Cottage Way, Suite W-1623
Sacramento, California 95825

U.S. Bureau of Land Management - Idaho
1387 South Vinnell Way
Boise, Idaho 83709

U.S. Bureau of Land Management - Oregon
333 S.W. 1st Avenue
Portland, Oregon 97204

U.S. Bureau of Reclamation
1150 North Curtis Road, Suite 1000
Boise, Idaho 83706-1234

U.S. Fish and Wildlife Service - Region 1
911 NE 11th Avenue
Portland, Oregon 97232

U.S. Fish and Wildlife Service - Region 8
2800 Cottage Way
Sacramento, California 95825

U.S. Forest Service - Region 1
200 East Broadway
P.O. Box 7669
Missoula, Montana 59807-7669

U.S. Forest Service - Region 4
324 25th Street
Ogden, Utah 84401

U.S. Forest Service - Region 5
1323 Club Drive
Vallejo, California 94592

U.S. Forest Service - Region 6
PO Box 3623
Portland, Oregon 97208

National Marine Fisheries Service
7600 Sand Point Way NE
Seattle, Washington 98115-0070

-Signature Page-

The Yakama Nation
Main Agency Offices
401 Fort Road
PO BOX 151
Toppenish, WA 98948

Harry Smiskin, Chairman, Yakama Tribal Council

7-9-12
Date

Conservation Agreement for Pacific Lamprey

-Signature Page-

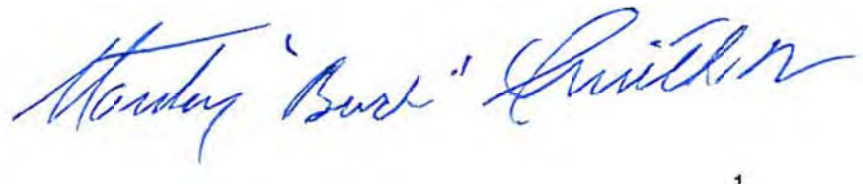
Confederated Tribes of the Umatilla Indian Reservation
46411 Ti'Mine Way
Pendleton. OR 97801

Les Minthorn, Chairman, Board of Trustees

7-2-12
Date

-Signature Page-

Confederated Tribes of the Warm Springs
1233 Veterans Street
Warm Springs, Oregon 97761



July 18, 2012

_____ _____

Buck Smith, Chairman Tribal Council Date

-Signature Page-

Cow Creek Band of Umpqua Tribe of Indians
2371 NE Stephens
Roseburg, OR 97470

Dan Courtney

Dan Courtney, Tribal Chairman

6/14/12

Date

-Signature Page-

The Confederated Tribes of the Grand Ronde Community of Oregon
9615 Grand Ronde Road
Grand Ronde, OR 97347

Jack Giffen, Jr., Tribal Council Secretary

6-20-12
Date

-Signature Page-

Confederated Tribes of Siletz Indians
201 SE Swan Avenue
P.O. Box 549
Siletz, OR 97380

Delores Pigsley, Tribal Chairman

6/20/12
Date

-Signature Page-

Blue Lake Rancheria
PO Box 428
Blue Lake, CA 95525

Michelle Fuller

Michelle Fuller, Environmental Programs Director

6/18/2012

Date

-Signature Page-

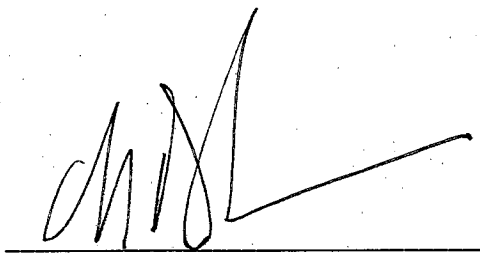
Mechoopda Indian Tribe
125 Mission Ranch Blvd
Chico, California 95926

Dennis Ramirez, Chairman

7.7.12
Date

-Signature Page-

California Department of Fish and Game
1416 Ninth Street, 12th Floor
Sacramento, CA 95814



Charlton H. Bonham, Director

7/3/2012

Date

-Signature Page-

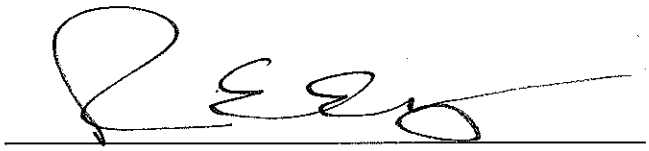
Idaho Department of Fish and Game
600 South Walnut Street
Boise, Idaho 87312

Virgil Moore, Director

6/18/12
Date

-Signature Page-

Oregon Department of Fish and Wildlife
3406 Cherry Ave NE
Salem, Oregon 97303



Roy Elicker, Director

6/15/12

Date

-Signature Page-

Washington Department of Fish and Wildlife
600 Capitol Way N
Olympia, Washington 98501-1091

Philip Anderson, Director

6/18/2012
Date

-Signature Page-

U.S. Army Corps of Engineers
Northwestern Division
1125 NW Couch Street
Portland, Oregon 97209

David J. Ponganis, Director of Programs

20 June 2012
Date

-Signature Page-

Bonneville Power Administration
905 NE 11th Ave.
Portland, OR 97232
Portland, Oregon 97232

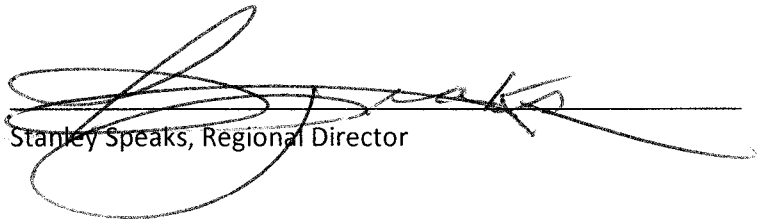
Stephen J. Wright, Administrator and Chief Executive Officer

6/18/12

Date

-Signature Page-

U.S. Bureau of Indian Affairs
Northwest Region
911 NE 11th Avenue
Portland, Oregon 97232



Stanley Speaks, Regional Director

7/16/2012
Date

-Signature Page-

U.S. Bureau of Land Management
California State Office
2800 Cottage Way, Suite W-126
Sacramento, California 95825

for Angie Lara
James G. Kenna, State Director

6/20/12
Date

-Signature Page-

U.S. Bureau of Land Management
Idaho State Office
1387 South Vinnell Way
Boise, Idaho 83709

Steven A. Ellis, State Director

6/26/12
Date

-Signature Page-

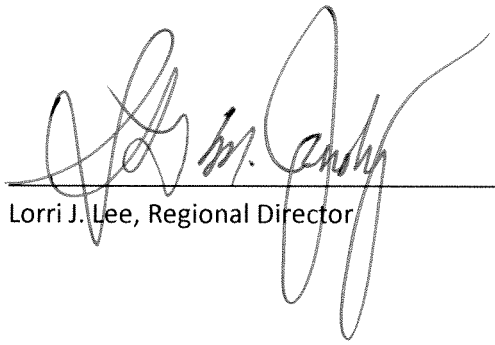
U.S. Bureau of Land Management
Oregon State Office
333 Southwest First Avenue
Portland, Oregon 97204

Michael S. Mottice, Acting State Director

7-6-12
Date

-Signature Page-

U.S. Bureau of Reclamation
Pacific Northwest Region
1150 N. Curtis Rd
Boise, ID 83706



Lorri J. Lee, Regional Director

June 18, 2012
Date

-Signature Page-

U.S. Fish and Wildlife Service, Region 1
911 NE 11th Ave
Portland, Oregon 97232

JUN 12 2012

Robyn Thorson

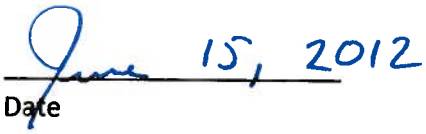
Robyn Thorson, Regional Director

Date

-Signature Page-

U.S. Fish & Wildlife Service
Pacific Southwest Region
2800 Cottage Way, W-2606
Sacramento, CA 95825

Ren Lohoefener, Regional Director



Date

-Signature Page-

U.S. Forest Service, Region 1
200 E. Broadway PO Box 7669
Missoula, MT 59807-7669

Faye Krueger, Regional Forester

Date 6/18/2012

-Signature Page-

U.S. Forest Service, Region 4
324 25th Street
Ogden, Utah 84404

Harv Forsgren, Regional Forester

6/15/12
Date

-Signature Page-

U.S. Forest Service, Region 5
1323 Club Drive
Vallejo, CA 94592

Randy Moore, Regional Forester

6/26/12
Date

-Signature Page-

U.S. Forest Service, Region 6
333 Southwest First Avenue
Portland, Oregon 97204

for Nora B Rasure
Kent P. Connaughton, Regional Forester

6/18/12
Date

-Signature Page-

National Marine Fisheries Service
Northwest Region
7600 Sand Point Way NE
Seattle, Washington 98115-007

William Stelle

June 18, 2012

William W. Stelle, Jr., Regional Administrator

Date

XII. SUPPORTING ORGANIZATIONS

Columbia Land Trust
1351 Officers Row
Vancouver, Washington 98661

Lower Columbia River Estuary Partnership
811 SW Naito Parkway
Portland, Oregon 97204

Pacific States Marine Fish Commission
205 SE Spokane Street, Suite 100
Portland, Oregon 97202

Portland General Electric
121 SW Salmon Street
Portland, Oregon 97204

Salmon Creek Watershed Council
12807 NW 20th Avenue
Vancouver, Washington 98685

-Supporting Signature Page-

Columbia Land Trust
1351 Officers Row
Vancouver, Washington 98661

Glenn Lamb, Executive Director

6/18/12
Date

-Supporting Signature Page-

Lower Columbia Estuary Partnership
811 Southwest Naito Parkway
Portland, Oregon 97204

Debrah Marriott, Executive Director

June 20, 2012
Date

-Supporting Signature Page-

Pacific States Marine Fisheries Commission
205 SE Spokane Street, Suite 100
Portland, Oregon 97202

Randy Fisher, Executive Director

June 18, 2012
Date

Portland General Electric
121 SW Salmon Street
Portland, Oregon 97204

James Piro jps

Jim Piro, President and CEO

6/19/2012

Date

-Supporting Signature Page-

Salmon Creek Watershed Council
800 NE Tenny Rd., Ste. 110 RM B-312
Vancouver, Washington

Bianca Streif, Chair

6/20/2012
Date

XIII. LETTERS OF SUPPORT

Alaska Department of Fish and Game
P.O. Box 115526
Juneau, Alaska 99811-5526

California Department of Water Resources
1416 Ninth Street
Sacramento, California 94236-0001

City of Portland, Environmental Services
1120 SW Fifth Avenue, Room 1000
Portland, Oregon 97204

Chelan County Public Utility District No. 1
327 N. Wenatchee Avenue
Wenatchee, Washington 98801

U.S. Environmental Protection Agency - Region 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

Grant County Public Utility District No. 2
P.O. Box 878
Ephrata, Washington 98823

Metro
600 NE Grand Avenue
Portland, Oregon 97232-2736

STATE OF ALASKA

SEAN PARNELL, GOVERNOR

DEPARTMENT OF FISH AND GAME
OFFICE OF THE COMMISSIONER

P.O. BOX 115526
JUNEAU, AK 99811-5526
PHONE: (907) 465-4100
FAX: (907) 465-2332

May 30, 2012

Ms. Robyn Thorson, Regional Director
U.S. Department of the Interior
Fish and Wildlife Service
911 NE 11th Avenue
Portland, OR 97232-4181

Dear Ms. Thorson:

The Alaska Department of Fish and Game (ADF&G) is pleased to accept your invitation to provide a letter of support for the Pacific Lamprey Conservation Initiative (Initiative). ADF&G does not plan to join as a signatory to the Conservation Agreement at this time. However, a member of my staff may attend the Pacific Lamprey Summit III on June 20, 2012.

The Initiative focuses on Pacific lamprey (*Entosphenus tridentatus*), which is one of six lamprey species found in Alaska from Southeast Alaska north to the Arctic coast. The Pacific lamprey ranges along the Southeast Alaska coast to a point north of Juneau. The other five Alaska species[1] are distributed in streams and rivers throughout the state, and some populations inhabit strictly inland ranges. As in the contiguous U.S., The Pacific lamprey species in Alaska play important ecological roles and are important to Alaska Natives for subsistence and other cultural reasons.

As outlined in its Comprehensive Wildlife Conservation Strategy, ADF&G has compiled information on populations and the conservation status of Alaska's lamprey species, and has created an interactive mapping program that records lamprey observations. ADF&G has also provided State Wildlife Grant funds to support a University of Alaska Fairbanks study on lamprey genetics and life history characteristics in two Alaska river systems. Some biological and stock assessment data has been collected for subsistence harvests and for an existing limited commercial fishery. Overall, however, substantial data gaps exist regarding basic life history, genetics, abundance, and trophic structure for all lamprey species in Alaska.

[1] **Western brook lamprey** (*Lampetra richardsoni*); **River lamprey** (*Lampetra ayresii*); **Arctic lamprey** (*Lethenteron camtschaticum*); **Alaskan brook lamprey** (*Lethenteron alaskense*); **Siberian (brook) lamprey** (*Lethenteron kesslerii*).

Unlike the population declines and constricted ranges displayed by Pacific lamprey in the Lower 48, we currently have no indication of similar trends in Alaska lamprey species. In fact, some lamprey species in Alaska are locally abundant in certain seasons. Moreover, most of the risk factors identified in the Initiative as probable causes of decline in the Lower 48 are not yet present in Alaska to any substantial degree.

Nonetheless, we acknowledge the conservation concern for Pacific lamprey outside of Alaska, and we recognize the value of improving our knowledge regarding Alaska's lamprey species. Not only is conservation of lampreys consistent with our Alaska constitutional mandate to manage all resources on a sustained yield principle, but better data on genetics, habitat, and other lamprey characteristics is necessary to accurately assess population size and trends in Alaska, which is a priority for management of subsistence fisheries and the existing commercial fishery for lampreys. Gathering better data will help us to forestall problems such as have occurred in the contiguous states, and may contribute to lamprey conservation efforts outside of Alaska.

ADF&G is pleased to offer our support for the Pacific Lamprey Conservation Agreement and its goal "to cooperatively reduce or eliminate threats, assure long-term persistence, and sustain traditional tribal cultural use of Pacific Lamprey throughout its range." Although we cannot commit to participating as a signatory at this time due to other management priorities, we expect to remain engaged to a limited degree in lamprey data collection and assessments. Should our priorities be realigned, we trust that the opportunity to participate more fully in the future will remain open.

Please direct any future communications to Eric Volk, Fisheries Scientist (eric.volk@alaska.gov, 907-267-2335), who from this point forward will serve as the ADF&G point of contact on lamprey issues. Thank you again for the invitation to participate.

Sincerely,

Cora Campbell

Cora Campbell
Commissioner

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY
EDMUND G. BROWN JR., Governor

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

JUN 26 2012

To: Fisheries

Robyn Thorson, Regional Director
United States Department of the Interior
Fish and Wildlife Service
911 NE 11th Avenue
Portland, Oregon 97232-4181

Dear Ms. Thorson:

Thank you for your April 26, 2012, letter inviting support for the Pacific Lamprey Conservation Agreement (Agreement), "to cooperatively reduce or eliminate threats, assure long-term persistence, and sustain traditional tribal cultural use of Pacific Lamprey throughout its range," including California. The Department of Water Resources (DWR) fully supports the goal of this Agreement to conserve Pacific Lamprey, a California native fish species, and other species that will benefit from the Agreement. The purpose of the Agreement is consistent with DWR's mission "to manage the water resources of California in cooperation with other agencies, to benefit the State's people, and to protect, restore, and enhance the natural and human environments." Further, the Bay Delta Conservation Plan, an important strategic program for DWR, will provide for the conservation and management of Pacific Lamprey by enhancing environmental conditions to benefit the species.

Moving forward, it may be possible for DWR to assist with some aspects of the Agreement by providing monitoring data on Pacific Lamprey in California, as well as engaging in other activities as opportunities arise. For future communications regarding the Agreement, please contact Chris Wilkinson of my staff at (916) 376-9704 or cdw@water.ca.gov.

Sincerely,

Mark W. Cowin
Director

cc: (See list attached.)

— CITY OF PORTLAND —
ENVIRONMENTAL SERVICES
1120 SW Fifth Avenue, Room 1000, Portland, Oregon 97204 ▪ Dan Saltzman, Commissioner ▪ Dean Marriott, Director

July 13, 2012

Howard Schaller
U.S. Fish and Wildlife Service
Columbia Rivers Fisheries Program
1211 SE Cardinal Court, Suite 100
Vancouver, Washington 98683

Re: Pacific Lamprey Conservation Agreement

Dear Howard,

Thank you for the invitation to participate in the Pacific Lamprey Conservation Agreement. We are interested in continuing to work with the USFWS and other parties in the pursuit of lamprey recovery. Leveraging expertise and resources has been critical in protecting and recovering listed species in Portland, and it will be essential in preventing lamprey from further decline.

The Bureau of Environmental Services has increased its efforts to aid in lamprey conservation and recovery. We partnered with ODOT to retrofit the Tryon Creek Highway 43 culvert to accommodate lamprey passage, and have worked with your team to monitor and evaluate the success of those retrofits for all salmon and lamprey. We worked with your team to sample the Willamette River to identify lamprey presence and distribution. We are also in the middle of an extensive restoration of Crystal Springs Creek, including restoring fish passage at 9 culverts, designed to provide habitat and passage for salmon and lamprey. We are interested in a possible designation of Crystal Springs Creek as a long-term, climate change research stream to monitor improvements and changes in salmon and lamprey populations.

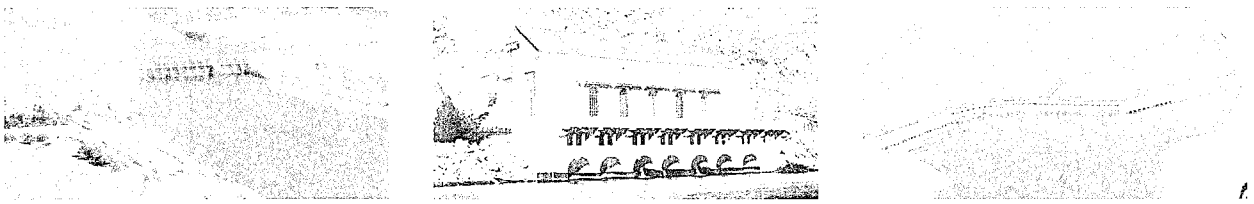
Our efforts are small relative to the overall need to improve the status of lamprey, however we are committed to including lamprey needs in our watershed actions. We would like to participate in the Regional Implementation Team to help identify local priority watersheds and actions, and leverage expertise, resources and monitoring across the region. BES supports the Pacific Lamprey Conservation Agreement's strategic effort to maximize limited resources to further the future of lamprey and our ongoing partnership with the USFWS.

Sincerely,

Dean Marriott

cc: Jane Bacchieri

Ph: 503-823-7740 Fax: 503-823-6995 ▪ www.cleanriverspdx.org ▪ Using recycled paper. ▪ An Equal Opportunity Employer.
For disability accommodation requests call 503-823-7740, Oregon Relay Service at 1-800-735-2900, or TDD 503-823-6868.



May 30, 2012

Howard Schaller, Project Leader/Pacific Lamprey Lead
US Fish and Wildlife Service
Columbia River Fisheries Program Office
1211 SE Cardinal Court, Suite 100
Vancouver, WA 98683-9684

Subject: U.S. Fish and Wildlife Service Pacific Lamprey Conservation Agreement

Dear Mr. Schaller:

Thank you for your recent correspondence concerning the U.S. Fish and Wildlife Service (USFWS) Pacific Lamprey Conservation Agreement. Chelan PUD recognizes the importance of the Pacific Lamprey and the leadership of USFWS in preventing this species from becoming Endangered Species Act (ESA) listed.

In the interest of clarity, and out of respect to our stakeholders and Settlement Agreement signatories (USFWS included), Chelan PUD's commitment to Lamprey is represented wholly by our Pacific Lamprey Management Plan in the Rocky Reach Project License. Chelan PUD has worked closely with USFWS to develop this plan, which conveys funding for the research and actions necessary to conserve and protect this species within our project area. USFWS is uniquely positioned to maximize the potential synergy between the proposed Conservation Agreement and Pacific Lamprey Management Plan to conserve lamprey populations.

Chelan PUD would like to express our broad support for USFWS efforts, as well as those of other managers and tribes, to ensure the health of Pacific Lamprey in the Northwest. We will continue to meet our commitments to this important effort. If you have any questions or concerns, please contact Jeff Osborn (509-661-4176) in our Fisheries Program.

Sincerely,

John Janney
General Manager

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

JUN 15 2012

OFFICE OF THE REGIONAL ADMINISTRATOR

Ms. Robyn Thorson
Regional Director
U. S. Department of the Interior
Fish and Wildlife Service
911 NE 11th Avenue
Portland, Oregon 97232-4181

Dear Ms. Thorson:

I am writing you to provide an official letter of support from the U. S. Environmental Protection Agency for the 2012 Conservation Agreement for Pacific Lamprey. The EPA recognizes the tremendous historical and cultural significance of Pacific Lamprey in the Pacific Northwest especially to Tribal Governments and Tribal people.

This agreement provides a voluntary framework for collaboration on efforts to reduce or eliminate threats to Pacific Lamprey and the EPA remains committed to be a partner in this important regional collaboration. The EPA has made a commitment to Pacific Lamprey toxics reduction in the Columbia River Basin Toxics Reduction Action Plan and is committed to lead work efforts to address specific actions to reduce toxics impacts to Pacific Lamprey.

I will not be able to attend the Pacific Lamprey Summit on June 20, 2012; however, I have asked Mary Lou Soscia, our Columbia River Coordinator to attend in my place. Mary Lou can be contacted at (503)326-5873.

Thank you, again, for your leadership on developing a strong collaborative partnership in conserving and restoring Pacific Lamprey. The EPA is proud to be a member of this team.

Sincerely,

Dennis J. McLerran
Regional Administrator

Grant County
PUBLIC UTILITY DISTRICT
Excellence in Service and Leadership

June 5, 2012

Mr. Howard Shaller, Project Leader/Pacific Lamprey Lead
Ms. Christina Luzier, Fish Biologist/Lamprey Team Coordinator
United States Fish and Wildlife Service
Columbia River Fisheries Program Office
1211 SE Cardinal Court Suite 100
Vancouver WA 98683

RE: Pacific Lamprey Conservation Agreement

Dear Mr. Shaller and Ms. Luzier,

The Public Utility District No. 2 of Grant County, Washington (Grant PUD), would like to thank the US Fish and Wildlife Service (USFWS) for the invitation to participate in the Pacific Lamprey Summit III, to be held in Portland, Oregon, in June and for the opportunity to provide input in the development of the Pacific Lamprey Conservation Agreement.

As you may be aware, the Federal Energy Regulatory Commission (FERC) issued a new operating license for the Priest Rapids Project on April 17, 2008 (FERC 2008), and subsequent order in 2009 (FERC 2009), which required Grant PUD to develop and implement a Pacific Lamprey Management Plan (PLMP). The PLMP is also a requirement included in the 401 Clean Water Certification issued by the Washington Department of Ecology for the Priest Rapids Project. The PLMP was developed in consultation with the Priest Rapids Fish Forum (PRFF), which is made up of representatives from the Washington Department of Fish and Wildlife, USFWS, Washington Department of Ecology, Wanapum Band, Yakama Nation, Confederated Tribes of the Colville Reservation, Confederated Tribes of the Umatilla Reservation, Columbia Inter-Tribal Fish Commission, and US Bureau of Indian Affairs.

The core objectives of the PLMP, many of which are already being implemented, consist of:

1. Achieve No Net Impact to Pacific lamprey. Identify, address, and fully mitigate Project effects to the extent reasonable and feasible;
2. Provide safe, effective, and timely volitional passage for adult upstream and downstream migration;
3. Provide safe, effective, and timely volitional passage for juvenile downstream migration, and;

4. Avoid and mitigate Project impacts on rearing habitat for Pacific lamprey.

Over the past decade, Grant PUD has actively participated in the research of, and mitigation for, Pacific lamprey related to the Columbia River hydro system and the Priest Rapids Project area. Grant PUD was the first mid-Columbia River utility to assess the passage of lamprey in and through its project area (*Nass* et al. 2003) and to identify potential actions and modifications to improve successful passage without compromising adult salmonid passage. Results of the 2001 – 2002 lamprey telemetry studies in the Project area formed the basis of proposed modifications which are being conducted as part of implementation of the PLMP. These studies and measures are partly the result of participation at the regional level and cooperation with tribes, agencies, and other hydroelectric operators to address resource challenges and their potential solutions. In particular, Grant PUD's past and present participation in the Columbia River Basin Lamprey Technical Work Group (CRBLTWG) has contributed to the regional research foundation. As a founding participant, Grant PUD assisted in the development of the "Critical Needs and Uncertainties" document and provided information to support the Tribal Pacific Lamprey Restoration Plan (CRITFC, 2011).

Past activities and future measures implemented by Grant PUD to mitigate for Project impacts to Pacific lamprey are extensive and on-going. These include fish counting facilities that operate 24 hours a day, seven days a week, for the upstream migration period; written fishway fish collection procedures conducted by qualified biologists to ensure safe recovery of all fish species present during dewatering events; and juvenile lamprey protection as a result of Grant PUD's avian predation and Northern pikeminnow control programs that have proven effective at minimizing impacts to juvenile salmonid out-migrants.

Physical fish ladder and dam modifications include the use of "slotted" (hour-glass style) fishway entrances that provide differential velocity elevations with a range of high and low velocity corridors to suit different species, improved 24-hour video fish counting stations to collect reliable and accurate count data, and downstream migrant bypass systems to meet juvenile salmonid survival criteria.

The fish counting stations have undergone several staged modifications starting with the conversion from count board stations (visual) to dual orifice video stations, and in 2010, conversion to engineered crowders which utilize a single orifice video station and picket leads with 3/4-inch gap spacing to accurately enumerate all adult lamprey counts. Significant improvements for downstream passage have been achieved by development of the Wanapum Future Unit Bypass and the Priest Rapids top-spill bulkhead for juvenile salmon which should also provide a higher survival alternative passage route for lamprey.

As required by the FERC Order (FERC 2009) and as outlined in its PLMP, Grant PUD implemented measures to improve lamprey passage in 2010, which included conducting inspections of the Project passage facilities by the PRFF members, and the installation of passage-enhancing structures in the fishways at Priest Rapids and Wanapum dams. New structures included diffusion grate aluminum plating, ramps ascending perched orifices, and lamprey-friendly video fish count crowders; all specifically designed to facilitate lamprey passage. To improve tagging and fish husbandry research, Grant PUD expanded its fish handling facilities at Priest Rapids Dam by building innovative adult lamprey trapping and holding facilities for the most efficient and non-invasive processing of study fish.

Grant PUD has been active with respect to investigations related to Pacific lamprey passage research through its historical activities and proactive implementation of research and mitigation measures included in the PLMP. At this time, Grant PUD has decided to forego signing the Pacific Lamprey Conservation Agreement but is fully committed to continued participation in existing and future regional forums related to Pacific lamprey. Grant PUD believes that the measures that it is implementing through its PLMP are consistent with the goals of the Pacific Lamprey Conservation Agreement and that regional coordination and information sharing is critical for Pacific lamprey recovery efforts.

Should you have any questions please contact me at (509) 754-5088, extension 2312, or tdresse@gcpud.org, or Mike Clement at (509) 754-5088, extension 2633, or mclemen@gcpud.org.

Sincerely,

Tom Dresser, Manager
Fish, Wildlife, and Water Quality

cc: PRFF Members
Steve Lewis, USFWS
R.D. Nelle, USFWS
Julie Pyper, Grant PUD
Ross Hendrick, Grant PUD
Mike Clement, Grant PUD

Reference List

CRITFC (Columbia River Inter-Tribal Fish Commission). 2011. *Tribal Pacific Lamprey Restoration Plan for the Columbia River,* December, 2011.

FERC (Federal Energy Regulatory Commission). 2009. *Order Modifying and Approving Pacific Lamprey Management Plan, Article 401(a)(12) and Water Quality Certificate Condition 6.2(5)(b) for the Priest Rapids Hydroelectric Project, Project No. 2114. Public Utility District No. 2 of Grant County, Ephrata, WA.* May 01, 2009.

FERC (Federal Energy Regulatory Commission). 2008. *Order Issuing New License for the Priest Rapids Hydroelectric Project, Project No. 2114. Public Utility District No. 2 of Grant County, Ephrata, WA*, April 17, 2008.

Grant PUD. 2009. *Pacific lamprey management plan, final, for the Priest Rapids Hydroelectric Project, Project No. 2114. Public Utility District No. 2 of Grant County, Ephrata, WA,* January 2009.

Nass, B., Sliwinski, C., English, K., Porto, L., and Hildebrand, L. 2003. *Assessment of Adult lamprey Migratory Behavior at Wanapum and Priest Rapids Dams Using Radio-telemetry Techniques, 2001-2002. Report prepared for Public Utility District No. 2 of Grant County, Ephrata, WA*, Included in FLA, Technical Appendix E-4.C.

600 NE Grand Ave.
Portland, OR 97232-2736
www.oregonmetro.gov

Metro | *Making a great place*

June 8, 2012

Howard Schaller, Pacific Lamprey Lead
United States Department of the Interior
Fish and Wildlife Service
Columba River Fisheries Program Office
1211 SE Cardinal Court, Suite 100
Vancouver, WA 98683

Re: Pacific Lamprey Conservation Agreement

Dear Mr. Schaller:

The Metro regional government's Natural Areas Program offers its strong support for the Pacific Lamprey Conservation Agreement and related effort to conserve Pacific Lamprey throughout its range. As manager of nearly 16,000 acres of parks and natural areas in the greater Portland metropolitan region, we appreciate that cooperation between resource agencies and between agencies and landowners is essential to getting big things done.

Our holdings include many acres along streams and rivers in the Lower Columbia including the Tualatin, Sandy and Clackamas Watersheds. Although limited by funding, we are actively implementing projects designed to address identified limiting factors for Lamprey such as improved water quality, removing passage barriers and improving river complexity.

We look forward to collaborating with regional partners to ensure we have both the best available science guiding our decisions and the best opportunities to leverage our limited management funds.

Thank you for taking on this effort.

Best regards,

Jim Desmond, Director
Sustainability Center

XIV. LITERATURE

CRITFC (Columbia River Inter-Tribal Fish Commission). 2011. Tribal Pacific lamprey restoration plan for the Columbia River basin. Final Draft Decision Document, Dec. 16, 2011, Columbia River Inter-Tribal Fish Commission, Portland, Oregon. 183 pp with Appendices.

Goodman, D. H., S. B. Reid, M. F. Docker, G. R. Haas, and A. P. Kinziger. 2008. Mitochondrial DNA evidence for high levels of gene flow among populations of a widely distributed anadromous lamprey *Entosphenus tridentatus* (Petromyzontidae). Journal of Fish Biology 72:400-417.

Lin, B., Z. Zhang, Y. Wang, K. P. Currens, A. Spidle, Y. Yamazaki, and D. Close. 2008a. Amplified fragment length polymorphism assessment of genetic diversity in Pacific lamprey. North American Journal of Fisheries Management 28:1182-1193.

Luzier, C. W., and 7 coauthors. 2009. Proceedings of the Pacific lamprey conservation initiative work session – October 28-29, 2008. U.S. Fish and Wildlife Service, Regional Office, Portland, Oregon.

Luzier, C.W., H.A. Schaller, J.K. Brostrom, C. Cook-Tabor, D.H. Goodman, R.D. Nelle, K. Ostrand and B. Streif. 2011. Pacific Lamprey *Entosphenus tridentatus* Assessment and Template for Conservation Measures. U.S. Fish and Wildlife Service, Portland, Oregon. 282 pp.

Spice, E.K., D.H. Goodman, S. B. Reid, and M. F. Docker. 2012. Neither philopatric nor panmictic: microsatellite and mtDNA evidence suggest lack of natal homing but limits to dispersal in pacific lamprey. Molecular Ecology doi: 10.1111/j.1365-294X.2012.05585.x.

USACE (U.S. Army Corps of Engineers). 2009. Pacific Lamprey passage improvements final implementation plan 2008 – 2018. U.S. Army Corp of Engineers, Portland District, Portland, Oregon.

USBR (U.S. Bureau of Reclamation). 2012. Assessment of U.S. Bureau of Reclamation projects in the Columbia river basin effects on Pacific lamprey (*Lampetra tridentata*). Bureau of Reclamation. Boise, ID.