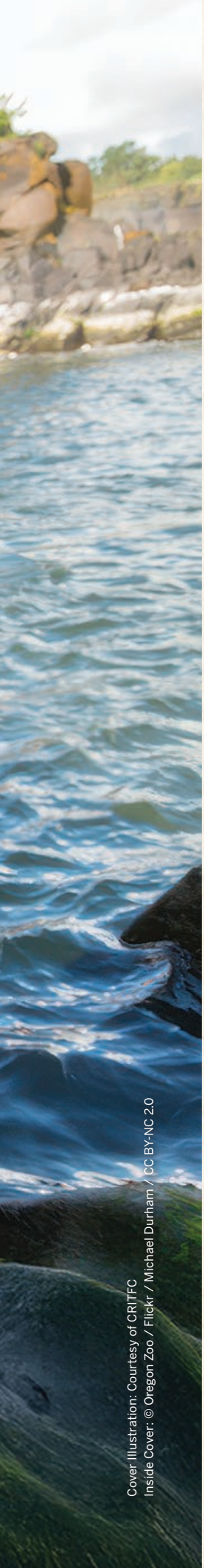
2025 Tribal Pacific Lamprey Restoration Plan for the Columbia River Basin

POLICY DOCUMENT

Columbia River Inter-Tribal Fish Commission

Nez Perce ▪ Umatilla ▪ Yakama ▪ Warm Springs

Willamette Falls fishery.



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Columbia River Inter-Tribal Fish Commission

PREFACE

The **Columbia River Inter-Tribal Fish Commission (CRITFC)** was created in 1977 by the four Columbia River treaty tribes — Nez Perce, Umatilla, Warm Springs, and Yakama. CRITFC provides technical, policy coordination and enforcement services to our member tribes. More than 40 years ago, CRITFC assisted in developing provisions for the Northwest Power Act's energy planning and fish and wildlife requirements. Since then, it has supported all four of our member tribes' goals for improving the conditions of the Columbia Basin's anadromous fish populations.

We are proud to offer to the region this **2025 Tribal Pacific Lamprey Restoration Plan**. It represents a sincere effort to re-establish an important resource for the Columbia Basin and especially for the Native people that have relied on these fish since time immemorial.

Looking forward, we appreciate the engagement of the other sovereigns and partnerships within the region and their desire to collaborate in the implementation of the many recommendations contained within this 2025 Tribal Pacific Lamprey Restoration Plan. Making the recommendations and actions in this plan a reality will take much collaboration and hard work, but we believe it is essential for the preservation of our Pacific lamprey and many other fish species we honor and are obligated to protect.

Sincerely,

Aja K. DeCoteau
Executive Director

Nez Perce Tribe

Confederated Tribes of the Umatilla Indian Reservation

Confederated Tribes and Bands of the Yakama Nation

Confederated Tribes of the Warm Springs Indian Reservation of Oregon

Confederated Tribes of the Warm Springs Reservation of Oregon

KEY ACRONYMS USED IN THIS DOCUMENT

TPLRP Tribal Pacific Lamprey Restoration Plan

Treaty Tribes within the Columbia River

CTUIR Confederated Tribes of the Umatilla Indian Reservation

CTWSRO Confederated Tribes of the Warm Springs Reservation of Oregon

NPT Nez Perce Tribe

YN Confederated Tribes and Bands of the Yakama Nation

Inter-Tribal Organization

CRITFC Columbia River Inter-Tribal Fish Commission

Columbia and Snake River Dams

BON Bonneville Dam (USACE)

CRB Columbia River Basin, including Willamette River

IHR Ice Harbor Dam (USACE)

JDA John Day Dam (USACE)

LGR Lower Granite Dam (USACE)

LGS Little Goose Dam (USACE)

LMN Lower Monument Dam (USACE)

MCN McNary Dam (USACE)

PUDs Public Utility Districts

TDA The Dalles Dam (USACE)

Federal Agencies

BPA Bonneville Power Administration

NOAA National Oceanographic and Atmospheric Administration

USACE U.S. Army Corps of Engineers

USBLM U.S. Bureau of Land Management

USBOR U.S. Bureau of Reclamation

USEPA U.S. Environmental Protection Agency

USFS U.S. Forest Service

USFWS U.S. Fish and Wildlife Service

USGS U.S. Geological Survey

State Agencies

IDFG Idaho Department of Fish and Game

ODFW Oregon Department Fish and Wildlife

WDFW Washington Department Fish and Wildlife

Non-Governmental Entity

PLCI Pacific Lamprey Conservation Initiative

Other Acronyms

RMU Regional Management Unit

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"The right to resort to...fishing places...was a part of larger rights possessed by the Indians upon exercise of which there was not a shadow of impediment and which were not much less necessary to the existence of the Indians than the atmosphere that they breathed..."

United States v. Winans 198 U.S. 371,381 (1905).

James Williams (Nez Perce) dipnetting Pacific lamprey in the Clearwater River near Spalding, Idaho, circa 1920.

EXECUTIVE SUMMARY

In 2011, the Columbia River treaty tribes completed the Tribal Pacific Lamprey Restoration Plan (2011 TPLRP) for the Columbia River basin (CRB). The 2011 TPLRP was the first comprehensive restoration guide for Pacific lamprey and contained a vision, goals and objectives, cultural context, lamprey life history, abundance/status, critical uncertainties/ limiting factors, and prioritized actions needed for recovery.

The Nez Perce Tribe (NPT), the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), the Confederated Tribes and Bands of the Yakama Nation (YN) and the Confederated Tribes of the Warm Springs Reservation of Oregon (CTWSRO), believed and conveyed that aggressive action was needed immediately, despite information gaps regarding Pacific lamprey life history and population dynamics.

Nearly fifteen years have passed, approximately one generation for a Pacific lamprey. Funding, staffing and progress continues to remain unacceptably slow. Yes, some progress has been made, but there is still much to do.

We are frustrated that sufficient and sustained resources are not immediately being made available quickly enough for lamprey recovery and tribal harvest of this important species. Passage through the Columbia, Snake and Willamette river dams is non-existent or completely inadequate. Regional partners cannot — or will not — provide a Pacific lamprey passage standard over these dams and passage is often difficult to measure, at best. In fact, in many cases we continue to be talking about the same things we talked about over 15 years ago.

Because of the changes we have seen, we have updated our 2025 Tribal Pacific Lamprey Restoration Plan (TPLRP) vision, goals, and objectives. We invite you to look closely at the entirety of this 2025 TPLRP and act with the urgency that this situation requires. These pages will reflect our continued interest and our obligation to the Creator to protect and restore lamprey populations and their habitats. We all share this obligation to our Creator and to our future children.

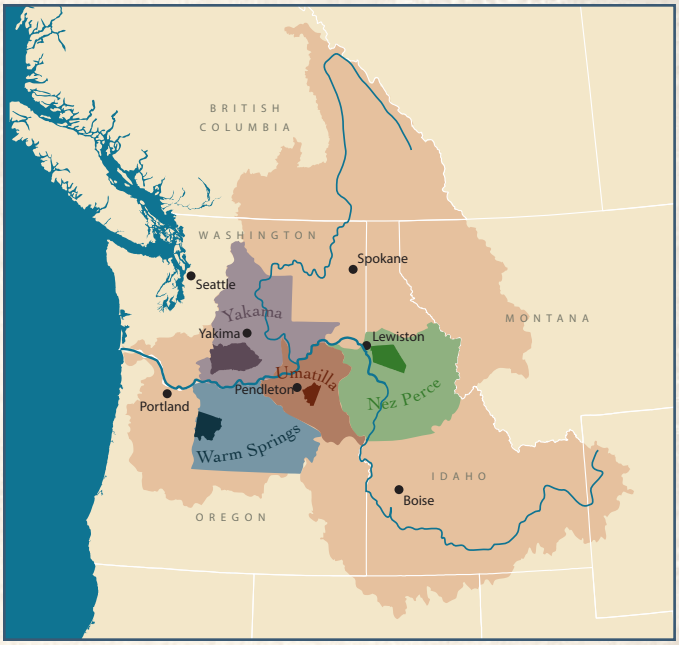


FIGURE 1. The Columbia River basin with reservations (dark shade) and ceded lands (lighter shade) of the four CRITFC member tribes.

With this 2025 TPLRP the Tribes demand accountability.

Steady progress, measured within a well-defined Adaptive Management framework is needed for all aspects of lamprey recovery. This includes greater efficiency in planning and design, timely implementation of actions and robust, effective research, monitoring and evaluation process. Accountability will demand annual reports, both technical and policy, that speak toward our progress and future priorities. Accountability will also require the resources we need to achieve measurable progress. The Tribes desire a greater role in various budgeting processes at all levels and funding for mainstem and tributary actions must be increased and be reliable over longer time periods.

The non-tribal communities must understand that many developments sanctioned by the federal, state and local governments have harmed the Tribes' most fundamental treaty-reserved right: ***to take fish at all of our usual and accustomed places.*** Now when we harvest Pacific lamprey, we must travel a long distance, primarily to one last location: Willamette Falls.

The lack of progress over the past decades is unacceptable. Adult passage throughout the basin must significantly increase. In the short-term, the highest priority is in the lower Columbia. Actions must provide passage for the 50% of the migrating adults that are "lost" and do not pass the Bonneville Dam and its reservoir. Passage through this location and in the upper Willamette River subbasin must be corrected before the CRB will begin seeing significant improvements in lamprey populations.

© David Herasimtschuk, Freshwaters Illustrated

Additionally, the region must begin working toward establishing passage standards for both adults returning to their spawning areas and for larvae/juveniles migrating to the Pacific Ocean. These standards must be related to more localized goals in lamprey abundance (abundance-based goals) that can be developed and will encourage restoration throughout the basin.

Although all actions identified in this 2025 TPLRP are high priority, the table below identifies those that are most needed in the near-term (1–10 years). This will require greater regional cooperation, participation and accountability. It will also require additional resources that will benefit many desired species, the river ecology, and the people of the region.

Priority Near-Term Actions that must be initiated and/or implemented within 1–10 years to obtain "reasonable progress" and accelerate Pacific lamprey restoration to an acceptable level.

Near-Term Actions Supporting the 2025 TPLRP Vision and Goals

VISION: Pacific lamprey are widely distributed in the CRB and throughout their entire range in healthy, self-sustaining, harvestable numbers that fully provide for tribal traditional, cultural, ceremonial, and spiritual uses. Lamprey are safe for consumption in large quantities by all members of the community and provide important ecological services to habitats where they reside for the entirety of their lifecycle.

NUMERIC GOAL: 1 million adults passing Bonneville Dam and 1 million adults passing Willamette Falls by 2035. By 2050 — Restore adult lamprey populations so that they can be harvested sustainably in as many historical locations locally and consumed safely in quantities historically available.

Priority Near-Term Actions	Responsible Parties	Section
1. **Secure additional and immediate research and monitoring funds** necessary to accelerate the implementation of restoration actions with greater confidence of their success.	**All Parties**	**All Sections**
2. **Increase capacity (staffing and funding)** to accelerate the implementation of restoration actions, with a focus on mainstem and tributary passage, excessive predation, and identification and cleaning of toxics in the water and sediments.	**All Parties**	**All Sections**
3. **Increase regional passage standards** for adult lamprey at mainstem dams to be **95% or higher**.	**USACE, PUDs**	**5.1**
4. **Implement LEAPP** (Lamprey Emergency Assisted Passage Program) at Columbia, Snake, and Willamette river dams.	**USACE, Tribes**	**5.1**
5. **Fix key areas that are known to impede or kill larval and juvenile lamprey at mainstem dams** (e.g., cooling water strainer screens) based on basin-wide acoustic telemetry (and other studies). Initial focus at IHR, LGR, MCN, and JDA. Options for barging must be considered if these fixes are not made immediately.	**USACE, PUDs**	**5.1**
6. **Obtain accurate annual passage estimates** for adult lamprey at all mainstem dams, including the Willamette River, and obtain highly precise passage counts for key mainstem dams to allow accurate and precise assessment of reach-to-reach conversion rates in the mainstem Columbia, Snake and Willamette rivers.	**USACE, PUDs**	**5.1**
7. **Obtain annual larvae/juvenile abundance estimates** at all dams, beginning at PUD structures, LGR, LGS, MCN, BON and Willamette Falls. Provide assessment of winter run sizes at suitable facilities (e.g. JDA, BON, and/or MCN).	**USACE, PUDs**	**5.1**
8. **Install a system of passage structures** (including wetted wall, LPS, and surface collectors) at key bottleneck locations to significantly address the incidence of "lost fish" in the CRB. Focus near-term work at PUD structures and BON, TDA, JDA, MCN, and IHR.	**USACE, PUDs**	**5.1, 5.2**

Near-Term Actions Supporting the 2025 TPLRP Vision and Goals *(continued)*

Priority Near-Term Actions	Responsible Parties	Section
9. **Apply rigorous high standards for lamprey restoration and protection to tributary environments** to ensure safe passage and connectivity across their life history.	All Parties	5.2
10. Develop models that **evaluate the effects of key host fish abundance and ocean regime changes** on lamprey.	NOAA Fisheries	5.3
11. Implement lamprey specific measures to **reduce the negative impacts of unnaturally high predation on lamprey**. Near-term focus on sea lion predation on adults concentrated below BON, juveniles and larvae predation by terns and gulls in the lower CRB, by smallmouth bass in the John Day, Umatilla, Yakima and Grande Ronde rivers, and by walleye in the mid-Columbia River. Develop/implement a basin-wide predation reduction plan.	WDFW, ODFW, IDFG, BPA	5.4
12. Partner with action agencies to **clean up contaminants** in lamprey-bearing streams.	EPA, USACE, State Agencies	5.5
13. **Continue using both adult and larval supplementation techniques** with improvements in facilities and capabilities.	Tribes, USACE, USFWS	5.6
14. **Predict or assess likely changes in regional and local lamprey habitat and distribution due to climate change** and manage adaptively. Initial focus should address effects of temperature and flow changes on mainstem adult and juvenile/larva passage and effects of these changes on larvae in Key Index Survey Sites for each RMU.	USFWS, USFS, USBOR, USBLM	5.7
15. **Preserve Traditional Ecological Knowledge** related to lamprey and restore intergenerational lamprey culture. Through partnerships, develop a comprehensive outreach program that helps educate a variety of audiences, including students, the general public, agency staff, managers, as well as state and federal legislators.	Tribes, USFWS, PLCI, All Parties	5.8
16. Initiate, identify, maintain, and expand **baseline population monitoring at key index sites** in each RMU using genetic and population monitoring (quantification of key life stages).	PLCI RMUs	5.9, 5.2
17. **Develop and adopt a life-cycle model** (for prediction of population dynamics) **and a regional species distribution model** (for intrinsic habitat potential) that can be used to evaluate passage requirements at various dams and assess restoration progress from other (completed or proposed) actions at various temporal or geographic scales.	USGS, All Parties	5.9
18. **Initiate and develop an Adaptive Management process**, including a Status and Trend Annual Report, for the CRB according to the framework identified in Section 6.3.	PLCI, All Parties	5.10

The lack of lamprey in our river systems is an environmental degradation and the lack of tribal harvest of toxin-free Pacific lamprey in usual and accustomed places is an ongoing degradation of treaty trust, treaty-reserved rights and our unique cultures. Our tribal members, and especially the children are losing important parts of our culture and our connections. This loss cannot continue.

1 Introduction

The 2011 Tribal Pacific Lamprey Restoration Plan is a call to action. Lamprey populations remain very low or are extirpated in many places. We have lost essentially all harvest and many healthy habitats are not populated with enough lamprey to reach "carrying capacity."

Additionally, our lamprey are contaminated with PCBs, mercury, and other toxins which they are exposed to throughout their life history (freshwater and ocean phases). The water is no longer clean. Once mercury and PCBs get into the water they get consumed by bacteria, insects, and other small organisms that fish eat. When fish eat these organisms, the contaminants are absorbed into the fish's flesh and fat rather than passing out of the fish as waste. Over time, the amount builds up to toxic levels. The bigger and older a fish is, the more likely it is to have eaten lots of smaller, contaminated organisms. Since lamprey feed off those larger and older fish, they are exposed to a much higher concentration of contaminants.

Yes, we may have a few more lamprey to harvest now than in 2011, but due to an existing consumption advisory (CRITFC Lamprey Consumption Advisory, October 5, 2022; *https://critfc.org/2022/10/05/lamprey-advisory/*), many members of our community will not eat them in traditional quantities.

> **"We must all work together to make limiting consumption a temporary solution because the tribes believe that the long-term solution to this problem isn't keeping people from eating contaminated fish — it's keeping fish from being contaminated in the first place."**
>
> **— Aja DeCoteau**
> Executive Director, CRITFC

2025 TPLRP Vision

Pacific lamprey are widely distributed in the Columbia River basin and throughout their entire range in healthy, self-sustaining, harvestable numbers that fully provide for tribal traditional, cultural, ceremonial, and spiritual uses. Lamprey are safe for consumption in large quantities by all members of the community and provide important ecological services to habitats where they reside for the entirety of their lifecycle.

2025 TPLRP Goals

- Regional efforts to restore Pacific lamprey populations throughout the CRB will increase immediately and adult returns throughout the region will expand quickly allowing for greater ecological contributions and substantially greater tribal harvest in treaty territories as well as usual and accustomed places.
- Pacific lamprey are provided with at least the same level of recognition, appreciation, and respect experienced by Endangered Species Act-listed species.
- Strategies that rely on long-term natural production and healthy, diverse and clean river systems are emphasized so that harvest is widely available and consumption is safe for all tribal members.
- Protect tribal sovereignty and treaty rights related to Pacific lamprey harvest and traditional, cultural, ceremonial, and spiritual use.
- Understanding by all people of the cultural, spiritual, ecological and economic value that lamprey provide are strongly supported.

© CRITFC

CRITFC Pacific lamprey outreach event at the Bonneville Hatchery Captive Brood Building.

Numeric Goals

- **2035** — 1 million adults passing Bonneville dam (from 1950s–1960s counts) and 1 million adults passing Willamette Falls
- **2050** — Restore adult lamprey populations so that they can be harvested sustainably in as many historical locations locally and consumed safely in quantities historically available.

2025 TPLRP Objectives

- **Mainstem Passage and Habitat:** Fix passage, survival, and habitat for Pacific lamprey in the mainstem Columbia, Snake, and Willamette rivers.
- **Tributary Passage and Habitat:** Fix passage problems and protect/restore important habitats in tributaries including the Willamette Valley System.
- **Oceans:** Ensure that Pacific lamprey and their hosts are protected in the estuary and ocean and improve water quality and reduce (eliminate) contaminants.
- **Predation:** Monitor, evaluate, and control excessive bird, fish, and mammal predation.
- **Water Quantity, Quality and Contaminants:** Evaluate and significantly reduce (eliminate) contaminant accumulation and improve water quality and quantity for all lamprey life stages.
- **Supplementation:** Supplement Pacific lamprey populations by using adult translocation and reintroduction of all life stages into areas where they have severely declined or are extirpated.
- **Climate Change:** Implement appropriate mitigation, resilience, and adaptation actions to protect lamprey populations and their environments from climate change.
- **Outreach and Education:** Conduct Pacific lamprey outreach and education by coordinating with public and private institutions and using a variety of forms to reach all age groups of tribal and non-tribal people.
- **Effective Population Size and Structure:** Ensure that the distribution, total abundance, and effective numbers of spawners of Pacific lamprey in the CRB population continues to grow to levels that are self-sustaining and can support tribal harvest and ecological contributions.
- **Research, Monitoring, Adaptive Management:** Develop and implement regional Research, Monitoring, and Adaptive Management to (1) inform tribal and regional policy about priority actions and research; and (2) accelerate our ability to implement important actions that will return lamprey populations to historic abundance and distribution.

The Tribal Pacific Lamprey Restoration Plan for the Columbia River Basin

The 2025 TPLRP maintains the same Vision and Goals discussed in the 2011 TPLRP. As more has been learned, objectives have been added or modified. Our principles remain the same and are now clearly stated. The Tribes note the widening gap between current Pacific lamprey status and our 2011 Goals: ***establishing our lack of progress***.

The region must answer: ***For how many years will we continue this environmental degradation and for how many generations will we prevent tribal members from harvesting their traditional foods?*** The Tribes are determined to restore lamprey populations and their habitats back to the abundance and health that our Creator provided for us. With this document, we describe how our vision and goals for Pacific lamprey will be realized.

Currently, restoration is not proceeding at the necessary rate; this can, and must, change. Foremost is an immediate commitment by the regional "players" to fully engage and participate. Restoration of our natural resources is not a spectator sport; it is not another meeting one must occasionally go to. Restoration requires immediate and long-term support for research, actions, monitoring, and funding. It will also require immediate implementation of a regional adaptive management process to support accountability, to use of our expanding knowledge and provide guidance for future decisions.

Pacific lamprey restoration will benefit multiple habitat-types, multiple species, environmental quality and will help build resilience toward climate change. These are benefits for all people. It is also important for us to realize that significant participation and greatly increased and sustained resources are required before progress toward these goals will be realized.

The 2025 TPLRP provides information on both Pacific lamprey and their role in tribal cultures:

- **Background information** (SECTION 3) and context about the Tribes and our values so that the reader can better understand and more fully appreciate the necessity, complexity and difficulty in restoring Pacific lamprey.
- **Regional Progress** made since the 2011 TPLRP (SECTION 4) toward Pacific lamprey restoration. Many actions discussed within this document can now be taken with confidence because we know more about their contribution toward restoration.

In our tribal languages, Pacific lamprey are called ***ksúyas, hésu*** or ***asúm***. Elders sometimes still refer to them as "eels."

Courtesy of CRITFC

"...the days before they put that Bonneville Dam in. The whole river... had a lot of whitewater, a lot of rapids. All of these fish here were in the river then, like your spring chinook, fall chinook, sockeye, steelhead, eels, sturgeon, suckers, whitefish — a lot of whitefish....there was a lot of fishing sites along the Columbia. I mean, it wasn't just like now [where] you either fish around The Dalles or go to Cascade Locks or somewhere where they got scaffolds going up. In those days there was so many fish you didn't have to [travel], heck you could catch 'em right from the bank if you had a good place to stand."

— Additional Oral Histories Related to Willamette Falls (Engum, 2020)

- **Actions are identified** (Section 5) that are required to address key limiting factors and restore Pacific lamprey populations. Critical uncertainties are addressed with specific research and monitoring needs, in addition to a framework for Adaptive Management to better understand the effects of our actions and to track progress. Additional and more detailed information about actions, and many other interesting aspects about Pacific lamprey are also found in **SECTION 6**.

Appropriately addressing each of the limiting factors is critical toward Pacific lamprey restoration. However, the Tribes view the dams on the lower Columbia River, Snake River and throughout the Willamette subbasin as the greatest near-term impediment toward achieving our goals. As such, the Tribes advocate for substantially greater resources, including staffing, within multiple agencies, to accelerate work to improve lamprey passage at dams for the Columbia, Snake, and Willamette rivers.

Because such a large number of adult Pacific lamprey are unable to pass the lower river (Bonneville Dam and reservoir, particularly and excessive predation below the dams) we strongly advocate for the USACE to mitigate these losses by working with the Tribes to implement the tribal "Lamprey Emergency Assisted Passage Program" (LEAPP). While most LEAPP lamprey will be released above the dams, many could be used for translocation into various rivers, including the lower Columbia River tributaries as a temporary measure to re-populate these streams with larval lamprey.

Additionally, the Tribes recognize and promote a very important notion that must be regionally acknowledged: as habitat restoration continues for the Regional Management Units (RMUs) within the CRB, it is essential to maintain Pacific lamprey larval populations at high densities (if not at carrying capacity). These larvae emit pheromones that attract migrating adults into watersheds for spawning and production. At this time, the Tribes don't believe that the pheromone signal is at the level it should be, and that there are not enough migrating adults able to reach key watersheds due to poor passage at

the mainstem Columbia, Snake, or Willamette river dams. This is why the adult translocation and larval production programs (and their future expansion) are fundamental to Pacific lamprey restoration.

As clearly stated within this document, the Tribes view this supplementation program as interim. Yes, we intend to expand the current program, in both lamprey numbers outplanted and in geographic distribution. But once our goals are met and sustained through natural production of lamprey, these interim supplementation programs will be terminated. The graphic below illustrates this concept by showing the planned increase in supplementation in the next 20+ years until natural production becomes established, remains stable, and eventually reaches our goal for abundance and genetic health.

Furthermore, the Tribes recognize that certain projects require more time to mature and become useful to lamprey. Some projects, such as passage structures over dams, may require only a few years to become fully functional. However, it is common for certain aspects of habitat restoration (e.g. revegetation, stream connectiveness to its floodplain, pool-riffle ratios) to mature after several decades. To accomplish reasonable progress and achieve our goals within the foreseeable future, implementing actions must be accelerated today. The lack of lamprey in our river systems is an environmental degradation and the lack of tribal harvest of toxin-free Pacific lamprey in usual and accustomed places is an ongoing degradation of treaty trust, treaty-reserved rights and our unique cultures.

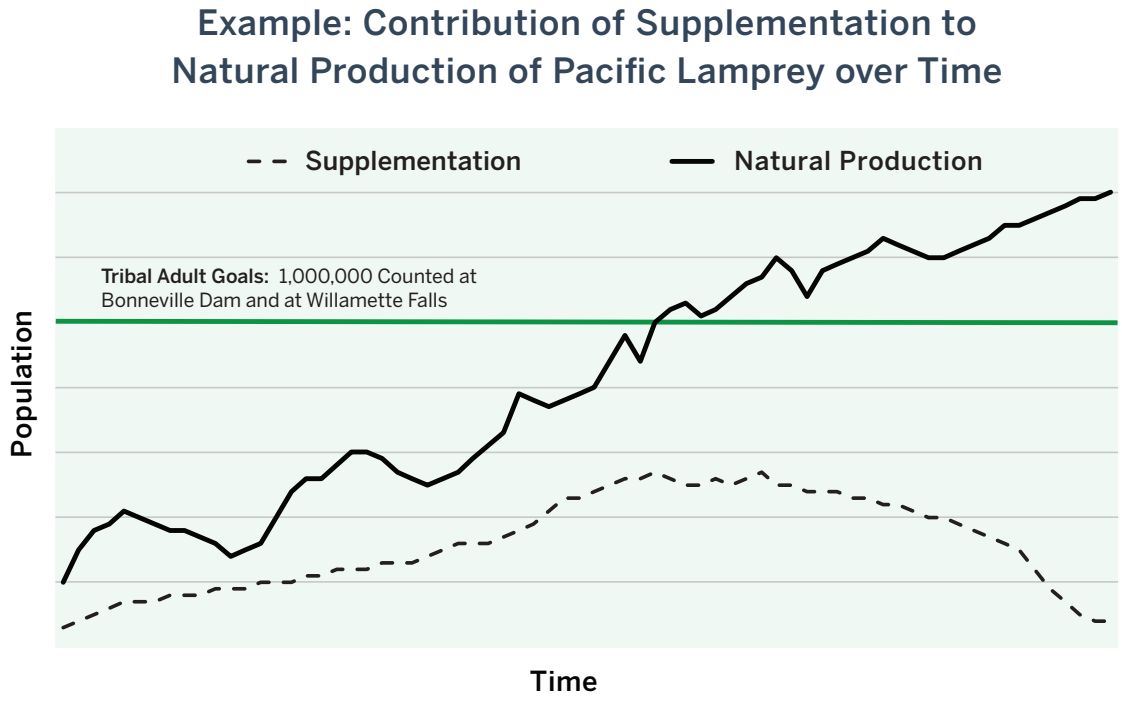
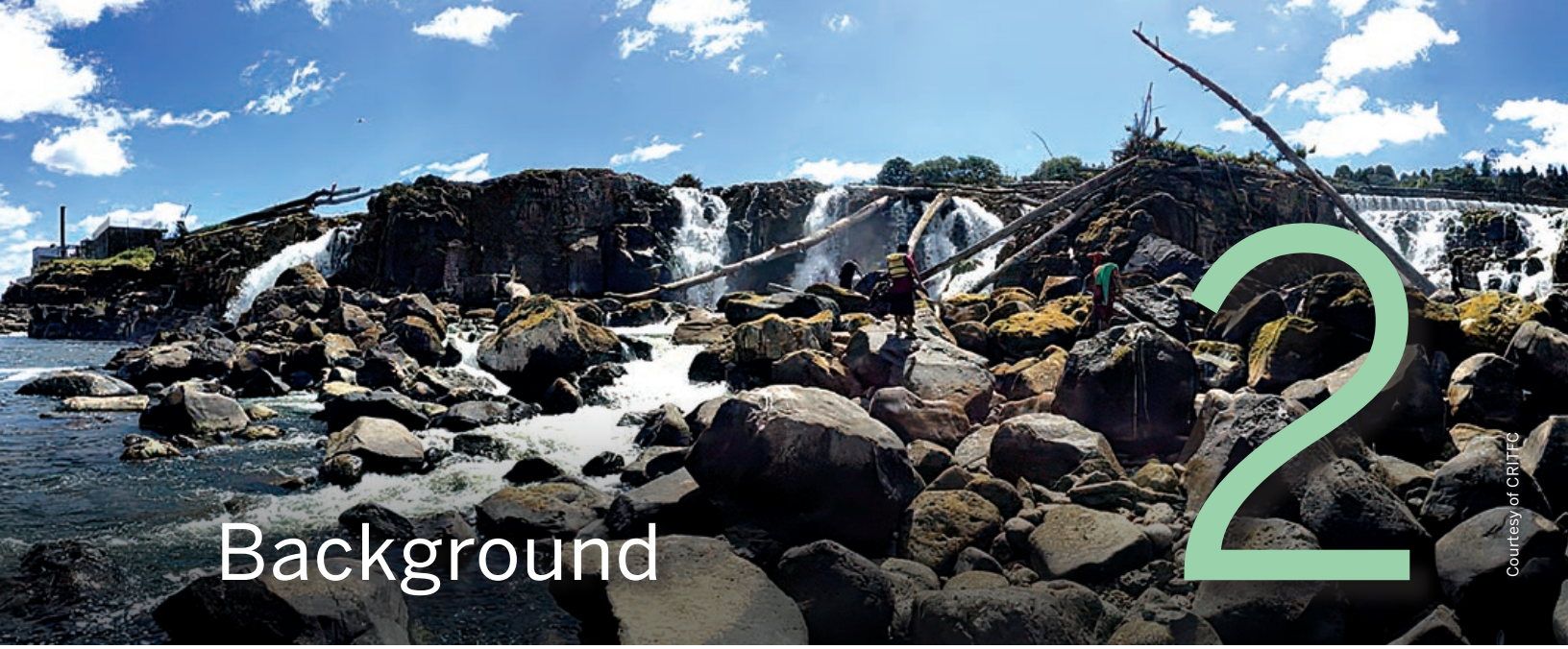


FIGURE 2. Hypothetical illustration of near- and long-term use of adult and larval supplementation practices to repopulate watersheds within the Columbia River basin.



2 Background

In the Columbia River basin, Pacific lamprey suffer from many factors limiting their populations, the greatest of which being the Columbia, Snake, and Willamette river dams. The abrupt and rapid decline of lamprey is evident not only from dam and Willamette Falls counts, but from the many stories our elders have shared.

From these stories we know lamprey were very abundant throughout much of the Columbia, Snake, and Willamette rivers and there were countless places to fish for Pacific lamprey. But now most of our harvest locations have been destroyed and there are no longer lamprey to catch. All the limiting factors discussed in this document are important and they all contribute to the lamprey's decline, but the Tribes believe that the development of the Federal Columbia River Power System (FCRPS) and the installation of myriad other dams is primarily responsible.

Passage through the Columbia, Snake, and Willamette river dams is inadequate. The scale of the problem is depicted for the lower Columbia River dams (image to the right). The grey areas indicate the relative abundance of adult lamprey approaching the Bonneville Dam and the greatly reduced numbers that pass each of these four lower-river dams.

FIGURE 3. Only a fraction of adult lamprey that approach each dam (shown in gray bars) are able to make it over, resulting in a much-reduced population upstream from the dams.

These, and the many developments sanctioned by the federal, state, and local governments, have harmed the Tribes' most fundamental treaty-reserved right — ***to take fish at all usual and accustomed places***. Now when we harvest Pacific lamprey, we travel a long distance, primarily to one last location: Willamette Falls.

The 2024 Tribal Circumstances Analysis published by the US Department of Interior documents the historic and ongoing impacts of the federal dams on the Columbia Basin tribes, including the historic and ongoing impacts on lamprey.[1]

The main fact concerning the disappearance of lamprey is that adult passage upstream is poor and juveniles passing downstream can die for trying. For example, based on conversion rates (upstream passage success from one dam to the next) from the late 1990s to present, for every 20,000 adults that approach Bonneville Dam about half will be blocked and unable to move upstream. Approximately only 1,200 (6%) of the run will make it to the confluence with the Snake River. Of the few moving up the Snake River (< 500), less than 100 get past Lower Granite Dam and reach the productive lamprey habitats in the upper tributary streams. And even fewer adults (< 50) move past Wells Dam in the Upper Columbia River and reach the productive lamprey habitats in the Methow and Okanogan subbasins.

In other words, the average daytime passage over Bonneville Dam continues to be a small fraction of historic daytime passage runs. Only about 15% of the lamprey that approach Bonneville Dam make it to the Warm Springs Reservation. Only about 10% and 3% of the run reaches much of the Umatilla and Yakama reservations, respectively. Passage to the Nez Perce and Umatilla territories of the Snake River and north end of the Yakama treaty territories is typically less than 1% of the run; the average percentage passing Lower Yakima River at Prosser Dam (an important historical harvest site) has averaged around 0.3%. Adult daytime counts at Lower Granite (Snake River) are sometimes fewer than 100 fish, and total counts at Wells Dam (Upper Columbia River) were < 10 fish for eight of the nine years between 2008–2016 (and zero fish in 2015).

We understand that some of these lamprey move into the tributaries away from the mainstem, but not in large quantities (and certainly not enough to harvest). **Yes, we can quibble with the numbers, but the overall story remains the same.**

Courtesy of CRITFC

Charlie McKinley mending a net on Big Island, Celilo Falls, 1952

[1] U.S. Department of the Interior, Historic and Ongoing Impacts of the Federal Dams on the Columbia Basin Tribes (July 2024) available at: https://www.doi.gov/media/document/tribal-circumstances-analysis.

2.1
Cultural Significance

Treaty fishing rights are not limited to salmon and steelhead but include lamprey, sturgeon, and many other species. The Tribes are resolute in their desire to restore healthy and abundant lamprey fisheries to all tribal usual and accustomed fishing places recognized by treaties with the United States. Since time immemorial, lamprey have been of great importance to most tribes throughout the Pacific Northwest. The CRITFC member tribes traditionally harvested lamprey in many locations throughout the mainstem Columbia, Snake, and Willamette rivers and their tributaries, but now are forced to travel extensively and harvest primarily at Willamette Falls.

"When the world was created, [the First Foods] said, I will give my body for the people that are going to be placed here after us. They gave themselves up so that we could live on this world."

— Wilson Wewa (CTWSRO)

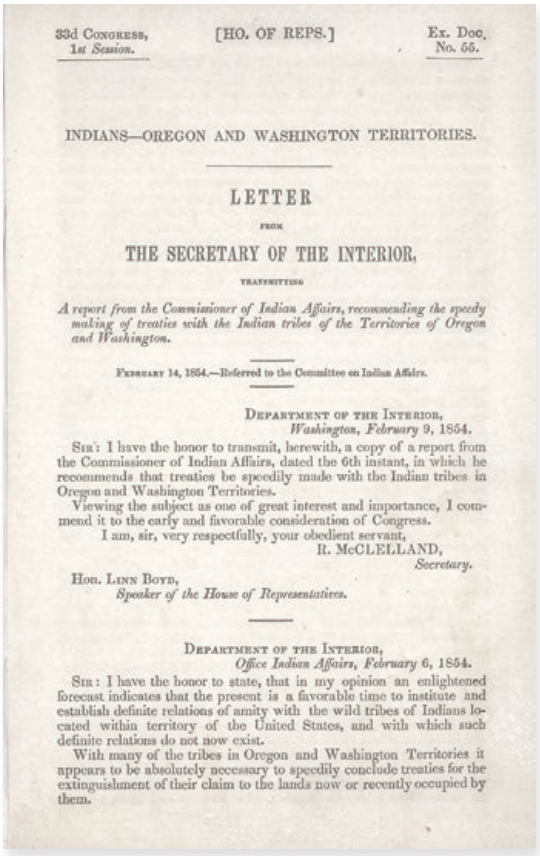
"Spiritually, [lamprey is] one of us."

— Elmer Crow Jr. (NPT)

2.2
Sovereignty, Treaties, and Reserved Rights

Sovereignty and formal government-to-government consultation are among the basic principles that guide this plan. They are also foundational to the relationship between federally recognized Tribal Nations and the United States, defining key aspects of the legal relationship between tribes, the US federal government, and the states.

Tribal people have lived on this land and with these waters for millennia — long before the United States existed. When they signed treaties with the federal government, the Nez Perce, Umatilla, Warm Springs and Yakama retained their inherent sovereignty and the authority to govern themselves. Tribal sovereignty includes the power to make and enforce laws, administer justice, manage and control Indian reserved lands, exercise tribal rights, and protect tribal resources. The unique and distinctive political relationship between the United States and Tribal Nations is defined by treaties, statutes, executive orders, judicial decisions, and the federal trust responsibility. The trust responsibility is a legally enforceable fiduciary obligation that requires the United States and its agencies to use their expertise and authority, in meaningful consultation with tribes, to safeguard tribal sovereignty, treaty rights, and Indian lands and resources.



33d Congress, 1st Session. [HO. OF REPS.] Ex. Doc. No. 65.

INDIANS—OREGON AND WASHINGTON TERRITORIES.

LETTER

FROM

THE SECRETARY OF THE INTERIOR,

TRANSMITTING

A report from the Commissioner of Indian Affairs, recommending the speedy making of treaties with the Indian tribes of the Territories of Oregon and Washington.

FEBRUARY 14, 1854.—Referred to the Committee on Indian Affairs.

DEPARTMENT OF THE INTERIOR,
Washington, February 9, 1854.

SIR: I have the honor to transmit, herewith, a copy of a report from the Commissioner of Indian Affairs, dated the 6th instant, in which he recommends that treaties be speedily made with the Indian tribes in Oregon and Washington Territories.

Viewing the subject as one of great interest and importance, I commend it to the early and favorable consideration of Congress.

I am, sir, very respectfully, your obedient servant,
R. McCLELLAND,
Secretary.

HON. LINN BOYD,
Speaker of the House of Representatives.

DEPARTMENT OF THE INTERIOR,
Office Indian Affairs, February 6, 1854.

SIR: I have the honor to state, that in my opinion an enlightened forecast indicates that the present is a favorable time to institute and establish definite relations of amity with the wild tribes of Indians located within territory of the United States, and with which such definite relations do not now exist.

With many of the tribes in Oregon and Washington Territories it appears to be absolutely necessary to speedily conclude treaties for the extinguishment of their claim to the lands now or recently occupied by them.

Source: Library of Congress / Public Domain / https://lccn.loc.gov/2022690809

A letter from the Secretary of the Interior, transmitting a report from the Commissioner of Indian Affairs, recommending the speedy making of treaties with the Indian tribes of the Territories of Oregon and Washington. February 14, 1854.

Treaties did not, as is frequently assumed, grant rights to Indians from the United States; rather, the tribes ceded certain rights to the United States government and reserved the rights they never gave away. Tribal governments use these treaties today to affirm and retain rights such as the sovereign right of self-government, fishing and hunting rights, and jurisdictional rights over their lands.

2.3
Tribal Harvest

Several tribes in the Columbia River Basin have historical connections to anadromous fish, but only the Nez Perce, Umatilla, Warm Springs, and Yakama tribes retain treaty-reserved rights to fish, and are legally recognized as co-managers of the Columbia River fishery. The Nez Perce, Umatilla, Warm Springs and Yakama tribes negotiated treaties in 1855, reserving the right to manage and harvest the natural resources on which their culture depends, including rights to water, land, fish, and other natural foods and medicines. Retaining the right to continue their fishing practices was a primary objective for the Tribes during the treaty negotiations. Each treaty contained a nearly identical provision securing for the Tribes the right to take "fish at all usual and accustomed fishing places in common with citizens of the United States."

In fact, it has been documented through past tribal interviews that at least 70 major harvest locations were frequently visited by tribal members from the four tribes, and certainly many more throughout the tributaries existed. As part of the trust responsibility, the federal government and its agencies have a duty to use their expertise and authority, in meaningful consultation with the Tribes, to safeguard treaty-reserved rights to harvest natural resources, such as salmon and lamprey, at usual and accustomed sites.

Courtesy of CTUIR

CTUIR tribal member Inez Spino-Reves, Twa'Wy, holding a lamprey prepared for drying, in 1998.

Unfortunately, many of these sites have been seriously degraded or completely lost. Dam construction, pollution, climate change, and habitat degradation have caused significant impacts or the inundation of many traditional fishing sites. For example, the construction of the Dalles Dam resulted in the complete inundation of Celilo Falls, a marketplace and fishing site at the center of tribal salmon culture, trade, history, and tradition. Despite these challenges, the four Tribes continue to exercise the sovereignty and treaty-protected rights to harvest and manage fisheries across the Columbia River basin.

The Dalles Dam

2.4
Traditional Ecological Knowledge and Science

Integrating traditional ecological knowledge (TEK) with contemporary science is one of the basic foundations of the 2025 TPLRP. Traditional ecological knowledge is the knowledge, practice, and belief about the relationships that exist between humans and the natural environment, rooted in a familial relationship with the plants, animals and the environment. It is passed down from many generations through oral traditions such as storytelling, songs, and ceremonies. For tribes of the Columbia Plateau, traditional ecological knowledge imparts cultural values and worldviews as well as specific practical knowledge, such as techniques and stewardship principles for fishing and hunting, gathering plants, roots and berries, and cultivating the land.

2.5
Ecological Significance of Pacific Lamprey

Ecosystems are complex and dynamic areas that contain plants, animals, microbes, and non-living components that function and interact together. Ecosystem services include the benefits people obtain from their ecosystems. Pacific lamprey are known to provide many ecological services and clearly play provisioning and supporting roles in ecosystem diversity and complexity. Abundant Pacific lamprey populations are critical to a healthy, balanced ecosystem. Evidence suggests that the Pacific lamprey was well integrated into the native freshwater fish community and as such had positive effects on the system.

The following are some examples of the important ecological services identified by TEK and contemporary science:

- Adult lamprey provide food to people and many terrestrial and aquatic animals.
- Adult lamprey, after spawning and dying, provide key marine-derived nutrients to interior and upland watersheds.
- Larval lamprey — also known as "the worms of the river bottom" can increase fine particulate organic material in substrate (after food digestion), increase oxygen redox potential within the streambed, which helps create macroinvertebrate hotspots, and are important for soil formation, primary production, and nutrient cycling.
- Lamprey act as an ecosystem engineer: burrowing in sediment as larvae and moving rocks when constructing their nests as adults.
- Larval, juvenile and adult lamprey are an important part of the food web and are preyed upon by white sturgeon, northern pikeminnow, walleye, sculpins, logperch, rainbow trout, salmonid fry, river otters, whales, pinnipeds, and various birds. Lamprey can act as a buffer to salmonid populations, as they are often preferentially eaten by these predators, reducing the pressure on salmonids, which share similar migration timings.
- Adult lamprey often travel collectively, making them easier for marine mammals to catch. Pound for pound, they offer more caloric value than adult salmonids.

Courtesy of USFWS / Public Domain

2.6
Climate Change

Climate change is real and, unfortunately, the effects appear to be in motion. We are witnessing changes in the seasons. Our roots and berries must be gathered sooner, and salmon returns are less predictable. Our people notice less snow in the mountains now, and there is less cool water during the summer when it was once abundant. The changes we see may not bode well for our future. Over the years to come, we may lose natural resources that are important to our culture and our heritage. Some of these losses may be irreversible (Yakama Nation Climate Action Plan, 2021)**.**

Pacific lamprey are dependent upon cold water. The changes that climate warming brings may be catastrophic. More of the winter snows will instead fall as rain. Snow that does accumulate will melt earlier. This results in more water traveling during the winter, leaving less for the hot summer months. The increased winter flows scour the riverbeds, disturbing rearing areas, and could cause physical damage to young lamprey. Lower summer flows increase water temperatures and reduce habitat available to lamprey and all native aquatic species. In the spring and summer, lamprey eggs may hatch too early. Adults could migrate too early and juveniles could leave too late to find food in the ocean.

The warmer summers will increase demand for hydropower resulting in decreased release of water to dam spillways. Less spillway releases mean more mortality for larval and juvenile migrants and higher costs for returning adults. When in the ocean, lamprey will face changing host availability, acidification, low oxygen zones, and reduced productivity. The years of collaboration, hard work, and millions of dollars spent on restoring lamprey could be undone by an ecosystem rendered inhospitable by climate change.

One of the most precious traditional teachings is the concept that "everything is connected." For thousands of years, the tribes lived in an appropriate and sustainable way on the earth. To properly address this threat, the world must be willing to listen and incorporate the traditional wisdom of the tribes into their activities and actions.

2.7
Institutional and Regulatory Context

The current management of Pacific lamprey provides a patchwork of measures that mirrors the many jurisdictions that lamprey cross in their lifetime. This cobbled-together regulatory scheme fails to provide substantive protections to this culturally and ecologically important species. As lamprey travels from their freshwater rearing areas into marine waters and across oceans, they pass through dozens of local, state, tribal, federal, and international jurisdictions. These entities are not equally committed to protection of Pacific lamprey and disconnects between Western and Native value systems make for disjunct management.

Nevertheless, the generally consistent classification of Pacific lamprey as imperiled implies that fisheries and natural resource managers agree that protections for this species are needed. The following provide current listings from the Columbia Basin states and federal government:

- **Idaho:** Species of Greatest Conservation Need (Tier 1) and Endangered (Idaho Wildlife Classification),
- **Oregon:** Sensitive Species (wildlife species, subspecies, or populations that are facing one or more threats to their populations, habitat quantity or habitat quality or that are subject to a decline in number of sufficient magnitude such that they may become eligible for listing on the state Threatened and Endangered Species List),
- **Washington:** Species of Greatest Conservation Need (SGCN) and a Priority Species (require protective measures for their survival due to their population status, sensitivity to habitat alteration, and/or recreational, commercial, or tribal importance),
- **U.S. Fish and Wildlife Service:** Species of Concern and Tribal-Trust Species,
- **Pacific Lamprey Conservation Initiative:** (Depending on geographic area) Presumed Extirpated, Possibly Extirpated, Unrankable, Critically Imperiled, Imperiled, and Vulnerable.

Based on treaties with the United States, Tribes are not only entitled to harvest Pacific lamprey but are also co-managers of this species. Because Pacific lamprey are a treaty-reserved resource and a tribal trust resource, the United States is obligated to not only ensure that harvest is shared, but also that the burden of restoring Pacific lamprey is shared equally. To date, this burden has largely been via voluntary acts, with the exception of some funding support received from the Columbia Basin Fish Accords (via Bonneville Power Administration), Pacific Lamprey Conservation Initiative, Pacific Lamprey Conservation Commission, and state- and federal-led requirements for Pacific lamprey protections that are required for federal re-licensing of dams.

2.8
Regional Progress

In this 2025 TPLRP (Section 4) we highlight progress within the CRB and we provide a clear assessment of regional shortcomings. In short, it is a mixed bag. Regional progress in both Policy and Collaboration recommendations are considered "Good". Before 2011, regional collaboration on Pacific lamprey was barely an idea — now it is established and growing. The Tribes view the Pacific lamprey Conservation Initiative as a favorable development, bringing many entities to the table at a policy level to learn and discuss restoration and outreach. However, one of the greatest challenges to overcome is obtaining long-term commitments for additional resources that are badly needed to accelerate our progress.

The Tribes view our progress toward outreach and in some technical areas as "Good." Public awareness and education have increased greatly since the 2011 TPLRP. Interesting, useful and fun public outreach is available, there are newspaper stories, and we are happy to see annual gatherings where our traditional ecological knowledge and contemporary science meet as equals. The region has learned much about lamprey life history, their genetics, population status, and biological needs. Supplementation programs are working very well, and our technical capabilities are much greater than in the recent past. These are positive steps that provide some hope the region will take better care of our lamprey.

However, the Tribes are very concerned about adult and larvae/juvenile passage over all dams within the CRB, both mainstem and tributary dams. Because the mainstem dams are the greatest impediment to regional lamprey recovery, the Tribes are very anxious to see strong and sustained progress in this area.

Unfortunately, lamprey counts past many dams are little improved from 12–15 years ago. Bonneville Dam and its reservoir to The Dalles Dam remains especially bad. There is no passage at Willamette River dams. Passage standards must be established. Passage research and implementation must accelerate.

Progress toward increased tribal harvest and the ever-present toxins within the few lamprey we catch continues to be frustrating. In the near-term, we must do better. We are also very disappointed that little or no progress has been made to control excessive predation and non-native species. Greater efforts and additional resources must be made available to make our ecosystems whole and healthy again.

Yes, progress has been accomplished. But there is still much to talk about and more to do.

Courtesy of CRITFC

Fishers from the Warm Springs and Yakama tribes at Willamette Falls collecting lamprey.

Courtesy of USFWS, Johanna Roy / Public Domain

3 Actions: Policy Directives

Dancers performing the Eel Dance at the grand opening of the Pacific lamprey exhibit at the Oregon Zoo in 2019.

Some managers in the region want the Tribes to "give them a number" (adult passage count) that will satisfy the regional passage requirement and the tribal harvest. We will not because we cannot. How can any one person or tribe know this?

But given our traditional ecological knowledge, embedded, and reflected within this 2025 TPLRP, we are guided toward the following actions, listed below, that are urgent and which we consider essential for the obtainment of our vision, our goals, and the recovery of Pacific lamprey.

The Tribes recognize that many of these actions will require a great deal of effort and funding. One of our intents is to become more fully integrated with local, state, and federal budgeting processes to ensure adequate resources are made available to achieve reasonable progress toward our vision and goals. It is important to remember that these efforts and resources will benefit many species and ecologies and will also benefit our people and their children. Below is a summary of the actions we believe are necessary. Details of each of these actions are discussed more fully in the 2025 TPLRP Technical Document.

3.1 Actions: Mainstem Passage and Habitat

Fix passage at all dams. The lack of progress over the past decades is unacceptable. Adult passage throughout the basin must significantly increase. In the short-term, the highest priority is in the lower Colombia. Passage within the Willamette River subbasin must also be addressed. Actions in the near-term must provide passage for the 50% of the migrating adults that are "lost" and do not pass the Bonneville Dam and its reservoir. Passage through this location and in the upper Willamette River subbasin must be corrected before the CRB will begin seeing significant improvements in lamprey populations. Passage standards are needed for both adults and juvenile lamprey that are commensurate with salmonid passage. Protective measures for downstream-migrating larvae and juveniles are needed to preserve habitat and prevent entrainment, impingement, and death.

TRIBAL OBJECTIVE

Fix passage, survival, and habitat for Pacific lamprey in the mainstem Columbia, Snake, and Willamette rivers.

ACTIONS NEEDED:

The federal government and other relevant entities must obtain accurate daily passage counts and establish an adult passage standard that is commensurate with salmonid passage for all mainstem dams. We urgently need to identify and fix all areas that obstruct or kill adult and juvenile lamprey at the dams. The USACE must embrace the Tribes' LEAP Program as an interim measure to repopulate naturally occurring lamprey in various watersheds. We must increase monitoring and research into lamprey passage at dams and use of reservoirs which includes assessment of winter run size using facilities that can operate during early season (e.g. JDA) and identify areas where protective actions will increase survival.

3.2 Actions: Tributary Passage and Habitat

Before lamprey can be sustained and thrive in our tributary streams, unimpeded access to high quality habitats must be made available. Acceleration of the restoration and protection of these habitats is needed. This will benefit everyone and all things.

TRIBAL OBJECTIVE

Fix passage problems and protect/restore important habitats in tributaries including Willamette Valley System dams.

ACTIONS NEEDED:

Continue and accelerate efforts to identify and fix areas at tributary dams, irrigation diversions, culverts, pump intakes, and other sources of mortality or delay for both adult and juvenile lamprey. Implement structural and/or operational fixes in a timely manner. Support restoration of stream habitat by protecting important lamprey habitat and increasing structural diversity and reconnection of floodplains in all areas important to lamprey productivity.

3.3 Actions: Oceans

Our oceans are growing sick with persistent over-harvest of fishes that are host species for Pacific lamprey. Pacific lamprey are exposed to contaminants during the ocean phase from their hosts. The ocean ecology and life of Pacific lamprey may remain mostly unknown, but it is important, and we must understand it and protect it.

TRIBAL OBJECTIVE

Ensure that Pacific lamprey and their hosts are protected in the estuary and ocean and improve water quality and reduce (eliminate) contaminants.

ACTIONS NEEDED:

CRITFC and its member tribes will work closely with regional partners to increase our understanding of Pacific lamprey in the ocean and mortality associated with ocean fisheries. Developing models and using other important tools, we must learn more about important host species, their population responses to overharvest and changing ocean conditions. All of these things contribute to lamprey productivity and are largely unknown at this time.

3.4
Actions: Predation

Predation on Pacific lamprey in environments that are heavily manipulated (e.g., dam tailraces) must be rigorously controlled. All restoration efforts are greatly diminished if unnatural levels of predation persist.

TRIBAL OBJECTIVE

Monitor, evaluate, and control excessive bird, fish, and mammal predation.

ACTIONS NEEDED:

Working with our regional partners, the Tribes will continue efforts to determine the timing, location, and life stages most affected by predation and identify where unnaturally high predator impacts are occurring. We will work to control or eliminate unnaturally high predator impacts on lamprey through a variety of predator control programs.

3.5
Actions: Water Quantity, Quality and Contaminants

Water quality must be significantly improved, and toxins eliminated. The Tribes want to drink the water from our rivers and eat Pacific lamprey again, as provided by our Creator.

Water quantity and flows within the tributary streams must be better managed to protect and restore not only lamprey but the entire ecosystem. Everything depends upon the water. Ecosystems and fishes need to be considered important stakeholders for water allocation and distribution.

TRIBAL OBJECTIVE

Evaluate and significantly reduce (eliminate) contaminant accumulation and improve water quality and quantity for all lamprey life stages.

ACTIONS NEEDED:

Working with the states and other regional partners, the Tribes will continue and expand toxicology studies and raise public awareness of contaminant effects on lamprey and other fishes. We must also increase monitoring of water quantity, quality and contaminants throughout the region and work to improve state and federal regulation and enforcement.

3.6
Actions: Supplementation

Propagation of larvae/juveniles and translocation of adults must be expanded to re-establish populations that are severely impacted or extirpated. The Tribes will continue this practice until it is no longer needed, and we look forward to that day.

TRIBAL OBJECTIVE

Supplement Pacific lamprey populations by using adult translocation and reintroduction of all life stages into areas where they have severely declined or are extirpated.

ACTIONS NEEDED:

The Tribes will continue to expand our current efforts for both adult translocation and supplementation through artificial propagation. Expansion of this work is needed in additional watersheds with few or extirpated lamprey populations. Expansion is also needed in our

research and monitoring to accelerate and advance our understanding of the effectiveness of these practices.

The Tribes will continue to advocate for supplementation and temporary mitigation for the substantial losses at mainstem and tributary dams. Due to the urgency to re-establish populations in upper watersheds, the Tribes want support from the USACE for accelerated development of the "Lamprey Emergency Assisted Passage Program" (LEAPP). Specifically, the Tribes advocate for an initial trapping facility below Bonneville Dam that is built, operated, and maintained to capture large numbers of migrating adult lamprey to be translocated above The Dalles Dam as a primary mitigation tool for passage issues at Bonneville Dam and its reservoir. This facility would be maintained and operated until sustained passage, commensurate with salmonid passage, is attained.

3.7
Actions: Climate Change

Climate change threatens to overshadow much of what we need to accomplish. All our planning and future work must account for this. We must build long-term resilience in all that we do.

TRIBAL OBJECTIVE

Obtain sufficient funding to take appropriate mitigation, resilience, and adaptation actions to protect lamprey populations and their environments from climate change.

ACTIONS NEEDED:

Member Tribes will work individually and collectively through CRITFC to implement climate change plans and actions that support mitigation, adaptation, and increased environmental resilience on our reservations and throughout our ceded lands. These actions will be in concert with strategies described in CRITFC's 2022 Energy Vision for the Columbia River Basin.

Climate change is real and, unfortunately, the effects appear to be in motion. We are witnessing changes in the seasons. Our roots and berries must be gathered sooner, and salmon returns are less predictable. Our people notice less snow in the mountains now, and there is less cool water during the summer when it was once abundant. The changes we see may not bode well for our future. Over the years to come, we may lose natural resources that are important to our culture and our heritage. Some of these losses may be irreversible.

— Yakama Nation Climate Action Plan, 2021

3.8
Actions: Outreach and Education

Our work can only be successful if we have greater public support. Outreach and education programs must be expanded and reach a greater variety of audiences and communities. Every agency and organization must participate and carry forward a common, hopeful, and realistic message regarding the importance of Pacific lamprey to the Tribes and the ecosystem.

TRIBAL OBJECTIVE

Conduct Pacific lamprey outreach and education by coordinating with public and private institutions and using a variety of forms to reach all age groups of tribal and non-tribal people.

Courtesy of CRITFC

2019 CRITFC Salmon Camp at the Nez Perce Tribe

ACTIONS NEEDED:

The Tribes will continue to establish, maintain, and expand a variety of learning networks and, with our regional partnerships, will secure additional resources and institutional commitments in outreach and education. Through these programs the Tribes will continue to communicate the importance of (1) Traditional Ecological Knowledge; (2) lamprey to our cultures; and (3) lamprey to the CRB and the consequences of failure to act.

3.9
Actions: Effective Population Size and Structure

Healthy lamprey populations belong in every watershed where they once existed before the dams. Make it like it was.

TRIBAL OBJECTIVE

Ensure that the distribution, total abundance, and effective numbers of spawners of Pacific lamprey in the CRB population continues to grow to levels that are self-sustaining and can support tribal harvest and ecological contributions

ACTIONS NEEDED:

The Tribes and our regional partners must maintain baseline Pacific lamprey monitoring and expand genetic sampling and research within each of the Regional Management Units (RMUs) throughout the basin. We need to understand the status of lamprey populations within various geographic scales and describe the current and potential capacity for habitats to support increasing lamprey numbers.

3.10
Actions: Research, Monitoring, Adaptive Management

Accountability, annual reporting and the rigorous use of Adaptive Management is central to our continued learning and our progress toward the goals and objectives found in the 2025 Tribal Pacific Lamprey Restoration Plan. We must all be clear about the urgency to act and be determined to obtain the funding for research, monitoring, and an adaptive management process that is needed to be successful.

TRIBAL OBJECTIVE

Develop and implement regional Research, Monitoring and Adaptive Management to (1) inform tribal and regional policy about ongoing and priority actions and research and (2) accelerate our ability to implement important actions that will return lamprey populations to historic abundance and distribution.

Courtesy of USFWS, John Heil / Public Domain

ACTIONS NEEDED:

Work with regional partners to develop a structured and effective Adaptive Management framework to measure accountability and progress toward lamprey recovery. CRITFC, in coordination with the Pacific Lamprey Conservation Initiative, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and other regional partners are called upon to support this framework, which includes a status and trend annual report, continued development of life-cycle modeling, and other tools that will track progress for all areas (planning, research, implementation, monitoring and population responses) covered within the 2025 TPLRP.

> **"The eel was part of the July feast...because along with the salmon... this is what our older people tell us...that when the time began the foods were created. The foods were here before us...and they said that the foods made a promise on how they would take care of us as Indians, and the eels was one of those who made a promise to take care of us."**
>
> **— Umatilla Tribal elder**

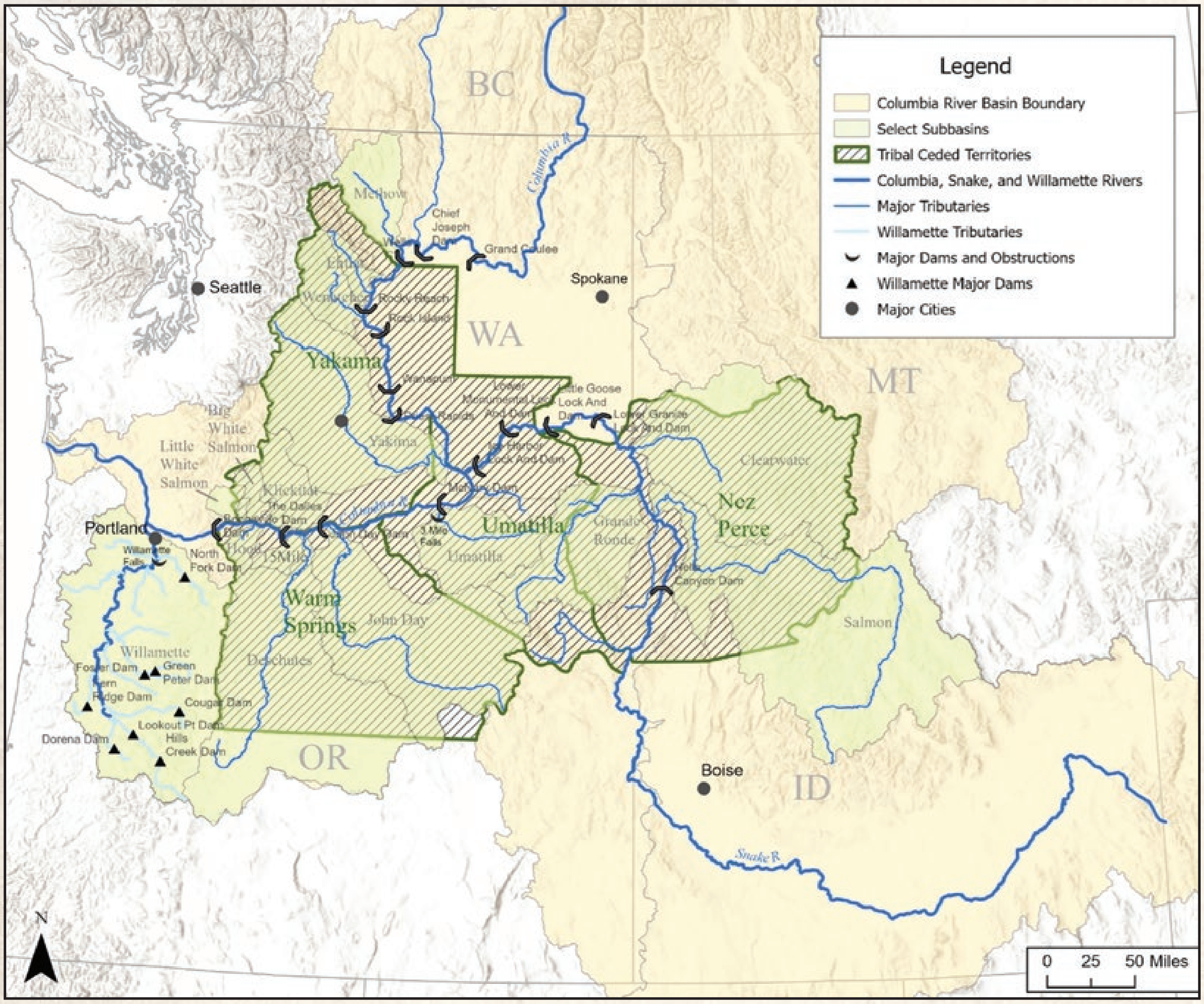
A Final Thought

Tribal wisdom teaches that we, the living, are only borrowing the earth from our future children. It is our obligation to the Creator and to our future children that we protect all creatures on earth and leave our rivers and homelands better than we found them. This is our challenge. This is our promise, through thousands of generations, to our children and to their children.

Today, we have many challenges in front of us and there are many uncertainties about how best to proceed. However, we continue to learn that together we can accomplish common goals.

Camp of Billy Barnhart (Umatilla) on Umatilla River, circa 1903.

The Columbia River Basin



Nez Perce Tribe

Confederated Tribes of the Umatilla Indian Reservation

Confederated Tribes and Bands of the Yakama Nation

Confederated Tribes of the Warm Springs Reservation of Oregon

Columbia River Inter-Tribal Fish Commission (CRITFC)
700 NE Multnomah St., Suite 1200 • Portland, Oregon 97232 • www.critfc.org