

Working to restore viable and sustainable populations of salmon, steelhead and other at-risk species through collaborative, economically sensitive efforts, combined resources, and wise resource management of the Upper Columbia Region.



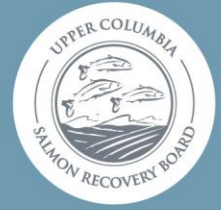
DRAFT AGENDA

UCSRB Directors' Special Meeting
Thursday, October 6, 2022
9:00 AM – 10:00 AM

*Join via webinar: <https://meet.goto.com/323965429>
Join via teleconference: 1-872-240-3212 access code: 323-965-429

Time	Topic	Presenter
9:00 AM	Call to Order and Welcome	Chair Shannon Adams
9:05 AM	Foster Creek Letter of Support for WA Dept. of Ecology Grant <ul style="list-style-type: none">• Review Draft Letter of Support• Questions and Discussion• Approve Foster Creek Letter of Support	Chair Adams Amanda Ward Directors Directors
9:20 AM	Pacific Lamprey Conservation Agreement <ul style="list-style-type: none">• Overview of Signatory vs. Letter of Support Risks and Benefits• Review Draft Letter of Support for the Pacific Lamprey Conservation Initiative• Questions and Discussion• Approve Signatory or Letter of Support for the Pacific Lamprey Conservation Initiative	Chair Adams Tracy Bowerman Bowerman Directors Directors
9:55 AM	Public Questions and Comments	Chair Adams
10:00 AM	Wrap-Up and Adjourn Meeting	Chair Adams

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October 6, 2022

Washington Department of Ecology
Attention: ??
P.O. Box 47600
Olympia, WA 98504-7600

To Whom it May Concern:

The Upper Columbia Salmon Recovery Board (UCSRB) supports Foster Creek Conservation District's (FCCD's) application to the Washington Department of Ecology's ??? Program for continued work in the Foster Creek watershed, northern Douglas County.

UCSRB's mission is to restore viable and sustainable populations of salmon, steelhead and other at-risk species in the Upper Columbia region. Foster Creek is one of the few salmon bearing streams in Douglas County and is particularly important due to its location immediately downstream of Chief Joseph Dam. Surveys have documented steelhead spawning within the last mile of the creek and also indicate the potential for brown trout and sculpin presence in Foster Creek's headwaters.

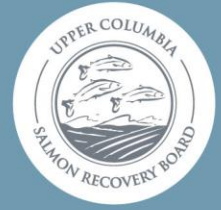
Sedimentation is a limiting factor for salmonid spawning in Foster Creek, and other water quality impairments negatively impact rearing for all fish species. The proposed project presents an opportunity to address sediment inputs and continues the gathering of data to support fish habitat suitability within the Foster Creek watershed. This project aligns with the mission of the UCSRB and funding this work would allow FCCD to continue their collaborative efforts to improve habitat and build on the work previously accomplished within the Foster Creek watershed.

Don't hesitate to contact me if you have any questions or require additional information from the UCSRB.

Sincerely,

Shannon Adams
Chairwoman, UCSRB

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Summary of potential benefits and risks related to signing or supporting the Pacific Lamprey Conservation Agreement

The Pacific Lamprey Conservation Agreement represents a cooperative commitment among signatories and supporters to leverage available resources (both human and capital) to reduce threats to Pacific Lamprey in the face of climate change and to improve their habitats so that the species can express their full life cycle, including use of adult migration corridors. The Agreement also aims to improve the status and support treaty-reserved and tribal harvest, as well as traditional tribal use of lamprey.

Cooperative efforts through the Agreement intend to increase awareness of and restore and protect Pacific Lamprey through the following objectives (see agreement for more details):

- 1) Identify global issues that are impacting Pacific Lamprey;
- 2) Evaluate Pacific Lamprey population structure;
- 3) Identify and characterize Pacific Lamprey status within the Regional Management Units (RMUs);
- 4) Identify and implement actions to enhance watershed conditions within the RMUs;
- 5) Restore Pacific Lamprey within the RMUs and across their range;
- 6) Promote data sharing;
- 7) Promote outreach and education.

What it means to be a signatory:

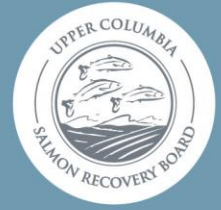
The parties to this Agreement will include interested tribes, states, federal agencies, non-governmental organizations, and other stakeholders. The parties who sign the Agreement will be called signatories. Upon signing, the signatories agree to coordinate their resources where possible, in terms of personnel and operational funding, and to seek additional funding to implement conservation actions for Pacific Lamprey to the extent that progress toward conservation objectives is measurable and documented. Signatories also agree to the extent practicable to implement those conservation actions outlined in the RIPs.

What it means to be a supporter:

Parties that are not signatories to the Agreement can participate and engage in PLC activities and initiatives and develop additional cooperative actions (e.g., letters of support, etc.) in support of PLCI. These non-signatory parties will be called supporting entities and are also encouraged to participate in regional implementation planning, the Assessment, and other PLCI committees and workgroups.

No Action	Supporter	Signatory
<p><u>Benefits</u></p> <ul style="list-style-type: none"> • No additional action required by staff or Board 	<p><u>Benefits</u></p> <ul style="list-style-type: none"> • Acknowledgement to Tribal partners as well as the region as a whole that UCSRB recognizes the cultural importance of lamprey and supports conservation of this resource • Opportunity to help improve public awareness of and habitat conditions for an important species • Staff have Board support to engage in lamprey-related actions where appropriate (and when recognized as an appropriate use of limited resources) • Expanded opportunities to collaborate with partners (e.g., YN and Confederated Tribes of the Colville’s tribal members and biologists and USFWS) to facilitate information sharing • Expanded opportunities for funding (for UCSRB and partners) to include lamprey conservation in ongoing work, including education, outreach, and project implementation 	<p><u>Benefits</u></p> <ul style="list-style-type: none"> • Unequivocal acknowledgement to Tribal partners as well as the region as a whole that UCSRB recognizes the cultural importance of lamprey and supports conservation of this resource • Opportunity to help improve public awareness of and habitat conditions for an important species • Staff have Board support to engage in lamprey-related actions where appropriate (and when recognized as an appropriate use of limited resources) • Expanded opportunities to collaborate with partners (e.g., YN and Confederated Tribes of the Colville’s tribal members and biologists and USFWS) to facilitate information sharing • Expanded opportunities for funding (for UCSRB and partners) to include lamprey conservation in ongoing work, including education, outreach, and project implementation
<p><u>Risks</u></p> <ul style="list-style-type: none"> • Failure to include lamprey in regional conservation education and actions may contribute to further decline 	<p><u>Risks</u></p> <ul style="list-style-type: none"> • As all actions associated with this agreement are voluntary and at the discretion of each organization, there are essentially no real risks associated with supporting this Agreement • Perceived risks include: (1) a perception that lamprey conservation actions are mandatory rather than voluntary (risk can be mitigated with clear communication), and (2) staff and partners could see lamprey conservation as a distraction from salmon work (risk can be obviated with clear internal work plans) 	<p><u>Risks</u></p> <ul style="list-style-type: none"> • As all actions associated with this agreement are voluntary and at the discretion of each organization, there are essentially no real risks associated with supporting this Agreement • Perceived risks include: (1) a perception that lamprey conservation actions are mandatory rather than voluntary (risk can be mitigated with clear communication), and (2) staff and partners could see lamprey conservation as a distraction from salmon work (risk can be obviated with clear internal work plans)

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Pacific Lamprey Conservation Initiative (PLCI) Follow up response from Ralph Lampman with Yakama Nation.

What are the seven goals of the PLCI?

The 7 goals/objectives outlined in the most updated agreement. Cooperative efforts through the agreement intend to increase awareness of and restore and protect pacific Lamprey through the following objectives:

1. Identify global issues that are impacting Pacific Lamprey
2. Evaluate Pacific Lamprey population structure
3. Identify and characterize Pacific Lamprey status within the Regional Management Units (RMUs)
4. Identify and implement actions to enhance watershed conditions within the RMUs
5. Restore Pacific Lamprey within the RMUs and across their range
6. Promote data sharing
7. Promote outreach and education

Who else is on the signatory list?

- There were 33 signatories in 2012. We believe there will be considerably more in 2022 (but still a little too early to tell). Below are some examples of other entities that have decided to sign (i.e. becoming a signatory) this year (most relevant to UCSRB):
 - ✓ Yakima Basin Fish and Wildlife Recovery Board
 - ✓ Mid-Columbia Fisheries Enhancement Group
 - ✓ Methow Salmon Recovery Foundation
 - ✓ Oregon Watershed Enhancement Board
 - ✓ WA Department of Ecology (Office of Columbia River)
 - ✓ Many others
- Grant County PUD and Chelan County PUD provided letters of support for the Initiative in 2012.
- From the Mid-Columbia Fisheries Enhancement Board: “Our board was persuaded that signing the agreement was fully compatible with, and would not blur, our focus on salmon recovery. Some felt that there are natural synergies in our activities that could be better captured by a clear relationship between our organizations. In other words, what’s good for salmon is likely to be good for lamprey, and vice versa. For example, some MCF projects might be leveraged in small ways to broaden the distribution of benefits to lamprey.”

What are some examples of Pacific Lamprey projects Ralph Lampman has worked on and completed?

The Yakama Nation Fisheries Pacific Lamprey Project (created in 2008) has worked on a variety of Pacific Lamprey restoration projects. I'll list them below (as bullet points):

- Adult translocation restoration from Lower Columbia River hydro dams to YN ceded lands streams/rivers (Yakima, Wenatchee, Methow subbasins, and mainstem Columbia River are the primary recipient areas). This started in 2011 in Yakima and 2015/2016 in Methow/Wenatchee. We have conducted some translocation work in Klickitat and White Salmon River as well.
- Monitoring of adult movement after release via PIT tags.
- Implementation of adult passage improvement projects in the Yakima and Klickitat subbasins (primarily using a combination of aluminum chutes and PVC pipes).
- Artificial propagation and out planting of early life stage Pacific Lamprey (4 strategic release sites in Upper Yakima & Naches subbasins).
- Rescue and surveys of larval/juvenile lampreys from irrigation canals in summer and fall seasons after dewatering (primarily from the Yakima Basin, but also some in Wenatchee/Methow).
- Juvenile monitoring via screw traps, juvenile traps, PIT tagging, and acoustic tagging.
- Index and exploratory monitoring of larval/juvenile lamprey using electrofishing in YN ceded lands.
- Research into contaminants/pollutants
- Research into predation of larval/juvenile lampreys
- Research into eDNA and eRNA for lamprey
- Other research related to lamprey limiting factors (many publications available on these if interested)

Some examples of projects that the YN Pacific Lamprey Project has applied for and worked on using PLCI funding are below:

- Klickitat River passage improvements; Yakama Nation and Washington Department of Fish and Wildlife (WDFW); \$25,000
- Reduce entrainment of larval and juvenile lamprey at dams in the upper Columbia River; U.S. Bureau of Reclamation (BOR), WDFW, Yakama Nation, U.S. Fish and Wildlife Service (USFWS), and Chelan County Public Utility District; \$62,630
- Improve dam passage of juvenile lamprey in the lower Yakima River and Columbia rivers; U.S. Geological Survey, BOR, Yakama Nation, and irrigation districts; \$37,292.
- Development of eRNA marker for lamprey management; \$25,000
- eDNA & lamprey bile acids monitoring to assess the impacts of adult translocation in the Upper Columbia Basin above Wells Dam; \$27,884.93

How lamprey struggle with dam passage, how it is different from Salmon?

Unlike salmon, an adult Pacific Lamprey (PL) are not fast swimmers. When velocity is higher than ~3 ft/sec, they switch to suctioning (instead of free swimming) and rely on attachable surfaces to navigate the water (in natural settings, these would be substrate/rocks, but in man-made structures, they attach to concrete in the ladders). Many dams have 90-degree corners in the weirs that make it very challenging to suction their way through the fish ladders. The passage efficiency at each dam is still at 50-90% (mostly 50-70%). Some dams prevent virtually passage by all PL (Tumwater Dam, Roza Dam are some examples). Many PL are lost in between dams and some dams allow lamprey to pass without being counted (via opening in picketed lead, etc.), further complicating the escapement numbers at each dam and what quantity of lamprey are able to reach where in the Columbia River Basin. Historically, PL occupied essentially many of the streams and rivers that anadromous salmon occupied (all the way to Columbia Lake BC in upper Columbia River in Canada). They prefer low gradient streams/rivers, so most similar to adult Chinook (spring/fall), but also occupy some of the streams/rivers that only steelhead / coho occupy as well. They are mostly nocturnal when migrating upstream (as well as downstream).

For more info on this topic, see this white paper (Ralph was a co-author):

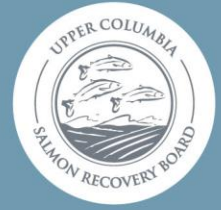
<https://www.pacificlamprey.org/wp-content/uploads/2022/08/2022.06.06-Lamprey-Psg-White-Paper.pdf>

A nice presentation by Uni of Idaho on ACOE passage monitoring:

<http://www.critfc.org/wp-content/uploads/2014/04/FOOS-tech2-keefers.pdf>

Juvenile lamprey passage has been largely a black hole, but the YN along with partners (USGS, BOR, YKFP, PNNL) has conducted some juvenile acoustic telemetry in the Lower Yakima River in the last few years and a hydro dam study at Lower Granite Dam and lower Snake River reaches (by USACOE and PNNL) has just completed in 2021. More studies are outlined in the next few years leading all the way to the Bonneville Dam. Preliminary results indicate that juvenile passage is equally bad as adult passage.

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October 6, 2022

Pacific Lamprey Conservation Initiative
c/o Stan Allen
Pacific States Marine Fisheries Commission
205 SE Spokane Street, Suite 100
Portland, OR 97202

Dear Mr. Allen,

The Upper Columbia Salmon Recovery Board (UCSRB) is pleased to offer our support for the Pacific Lamprey Conservation Initiative. The purpose of this agreement is in alignment with UCSRB's mission to restore viable and sustainable populations of salmon, steelhead, and other at-risk species through collaborative, economically sensitive efforts, combined resources, and wise resource management of the Upper Columbia region.

The UCSRB recognizes that Pacific Lamprey have profound ecological and cultural significance for our region. We support data sharing, communication and outreach, and restoration efforts related to lamprey conservation to the best of our capacity. When possible, we will integrate lamprey conservation into our ongoing efforts to improve stream habitat and fish passage in the Upper Columbia Region.

Sincerely,

Shannon Adams
Chairwoman, UCSRB

-2022 Conservation Agreement for Pacific Lamprey Signature Page-

Upper Columbia Salmon Recovery Board

123 Easy Street

Wenatchee, WA 98801

Shannon Adams, Chairwoman

Upper Columbia Salmon Recovery Board

Date