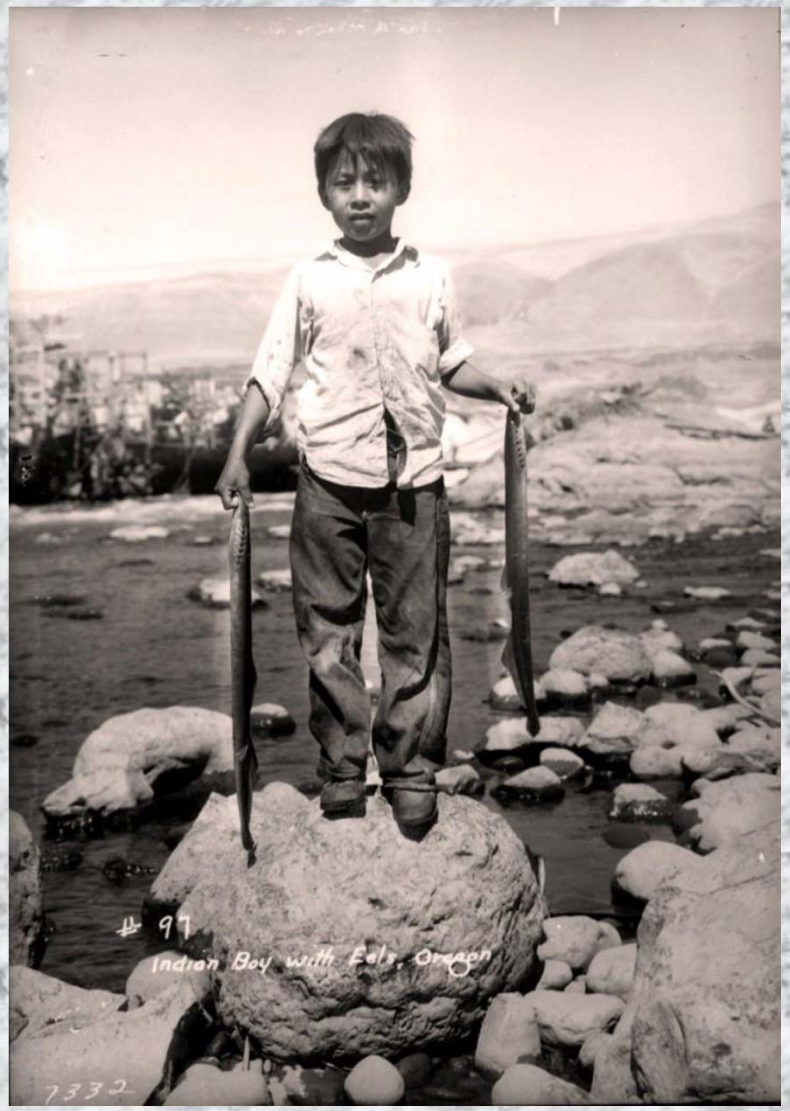


Welcome!

Pacific Lamprey Policy Committee 5-Year Review

Oregon Convention Center

Portland, Oregon

December 5, 2017

A special tribute to Roy Hunter Sampsel.

Look at the wonderful progress we have made together.
And we must continue to be committed to make that happen.

That the future of this river – The future of this great resource –
And how it works and how it continues to work should be a great inspiration to us, and to the world.

And I am honored to have been a part of it – and continue to be.

Thank you.

May he rest in peace,
knowing that his important contributions
will always be appreciated and remembered.

https://www.youtube.com/watch?v=BeeQy8ZPskM

Purpose of this Policy Review

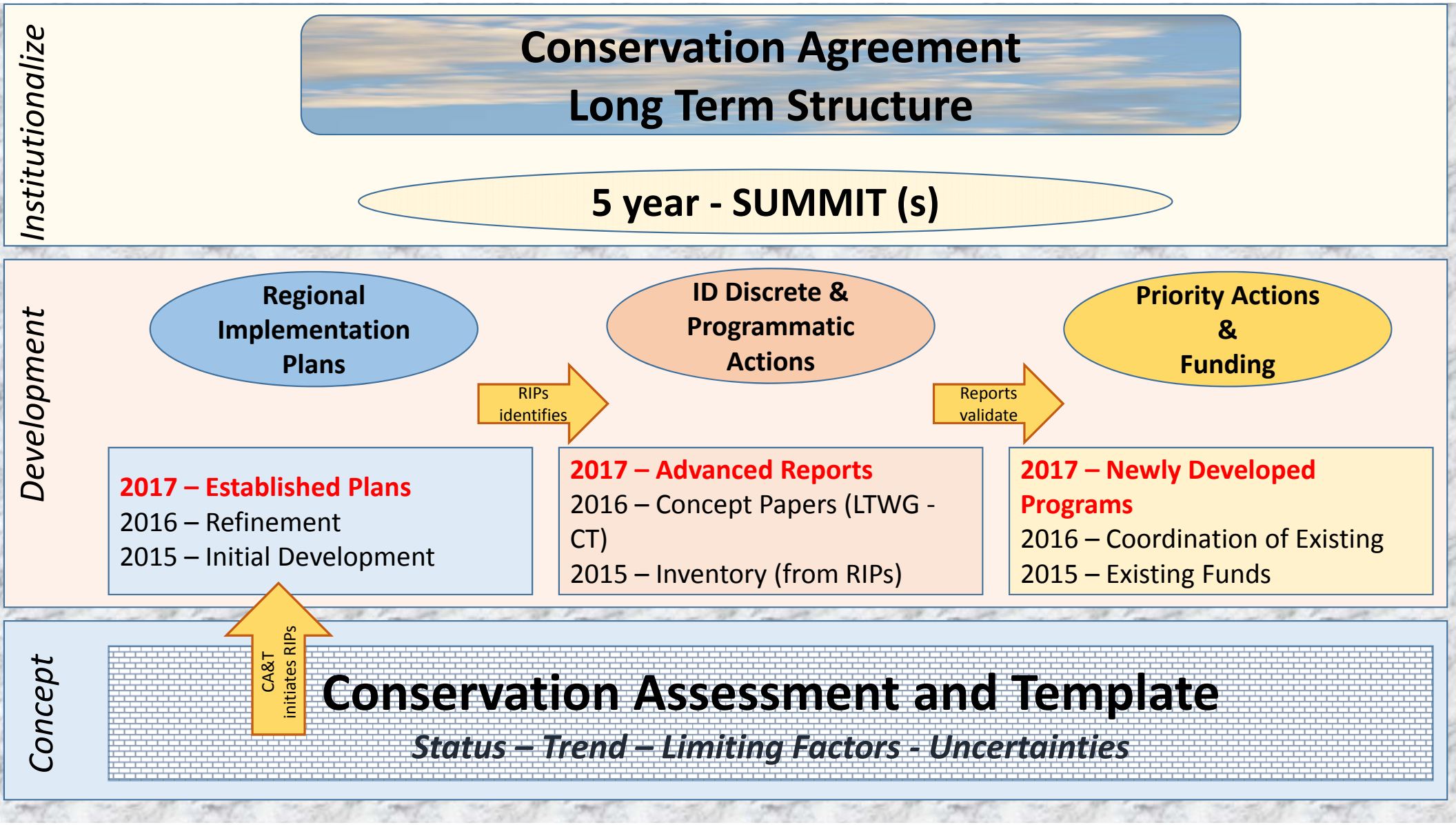
- Reaffirm our commitment for another five years to the Pacific Lamprey Conservation Agreement.
- Recognize that most of the technical, scientific and administrative foundation of the PLCA is complete, is substantive and is sound.
- **Refocus our efforts now towards *Advancing Implementation*.**
- Learn about progress made over the last 5 years in the status assessment, Regional Implementation planning and outreach
- Understand our evolving relationship with the National Fish Habitat Partnership and improve collaboration within and between our own agencies.
- Funding is critical. We must find ways and means within our own capacity and reach out in a multi-level policy approach to support implementation of needed restoration actions for lamprey.

Agenda Review – Opening Comments
Open Table

Changes seen from the past.

Changes needed for the future.

Where do we go from here?


Institutionalize
Conservation Agreement
Long Term Structure
5 year - SUMMIT (s)
Development
Regional Implementation Plans
ID Discrete & Programmatic Actions
Priority Actions & Funding
RIPs identifies
Reports validate
2017 – Established Plans
2016 – Refinement
2015 – Initial Development
2017 – Advanced Reports
2016 – Concept Papers (LTWG - CT)
2015 – Inventory (from RIPs)
2017 – Newly Developed Programs
2016 – Coordination of Existing
2015 – Existing Funds
Concept
CA&T initiates RIPs
Conservation Assessment and Template
Status – Trend – Limiting Factors - Uncertainties

Progress Report
& Advancing Implementation

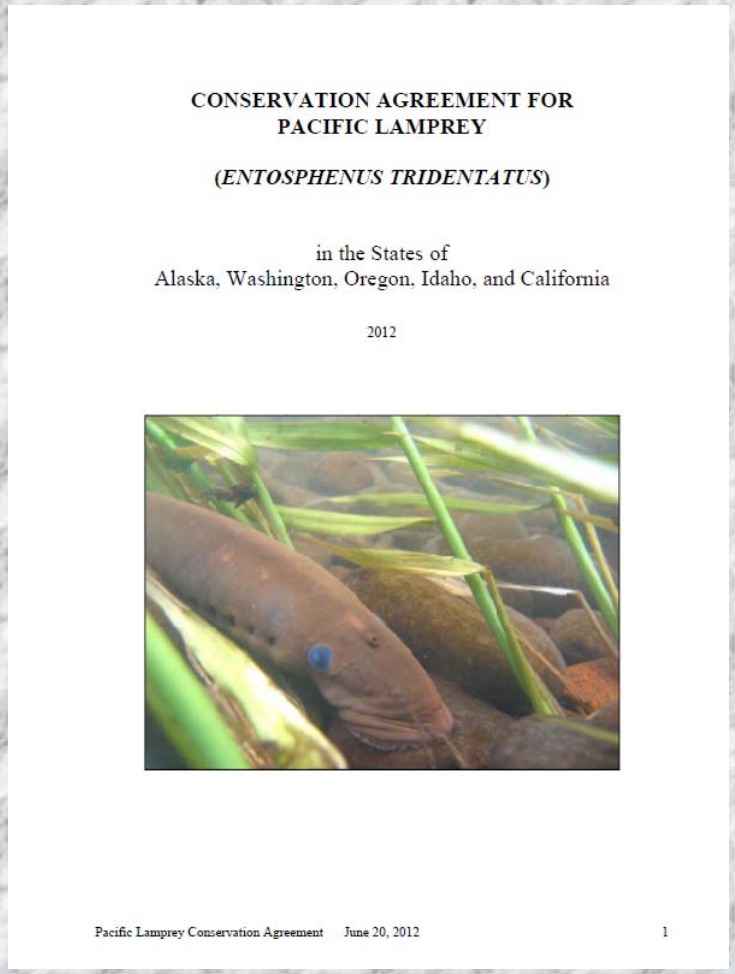
Reaffirming our Agreement

Another five years.

Advancing Implementation

What does this mean for our policy staff?

What does this mean for our technical staff?



CONSERVATION AGREEMENT FOR
PACIFIC LAMPREY

(*ENTOSPHENUS TRIDENTATUS*)

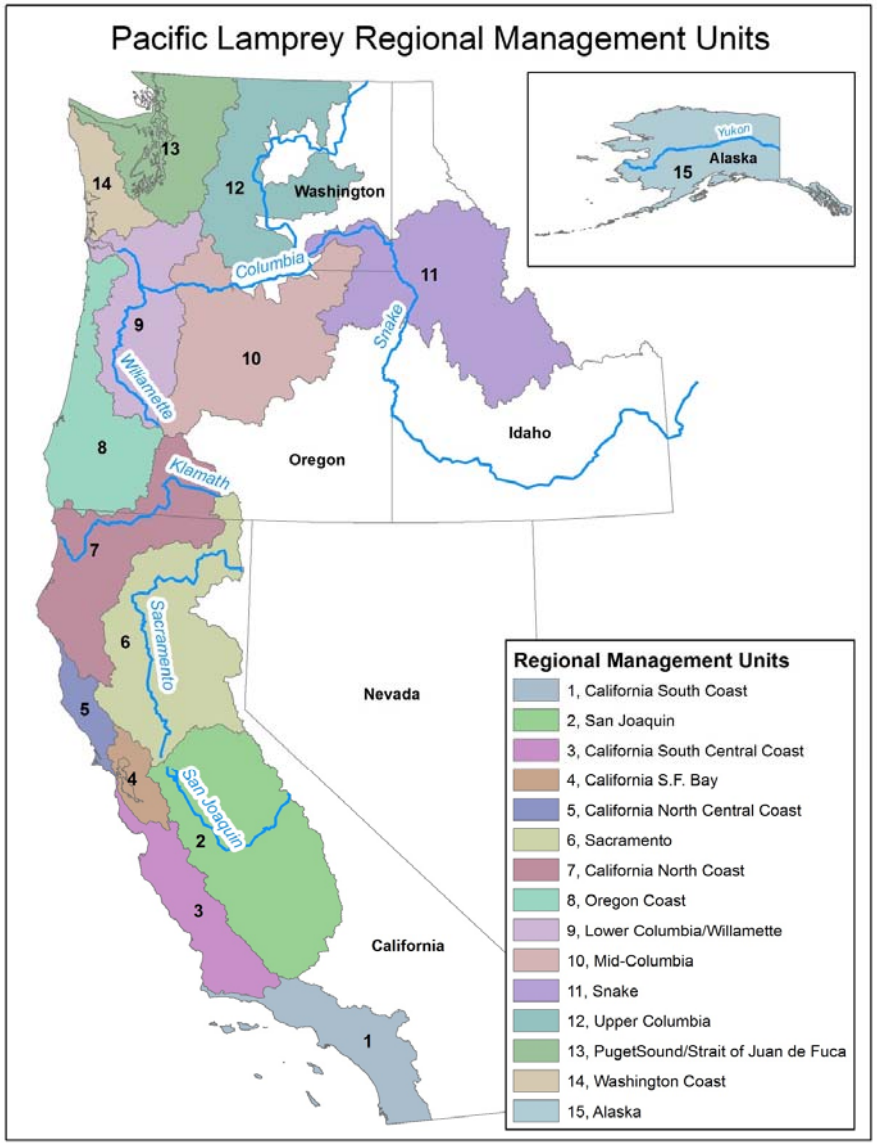
in the States of
Alaska, Washington, Oregon, Idaho, and California

2012

Conservation Team Progress

1. Updated Risk Assessment
2. Regional Implementation Plans
3. High Priority Projects

Pacific Lamprey Regional Management Units



- Columbia and Snake Rivers – Jen Poirier, USFWS
  - Willamette
  - Lower Columbia
  - Mid-Columbia
  - Upper Columbia
  - Snake
- Mainstem Columbia and Snake Rivers – Jen Poirier, USFWS and Mike Langeslay, USACE
- Coastal OR, WA – Kelly Coates, Cow Creek Tribe of Umpquas
  - North Coast OR
  - South Coast OR
  - Coastal WA
  - Puget Sound
- California – Damon Goodman, USFWS and Stewart Reid, Western Fishes
  - North Coast
  - North Central Coast
  - South Coast
  - South Central Coast
  - San Francisco Bay
  - San Joaquin
  - Sacramento
- Alaska and Ocean – Christina Wang, USFWS

Columbia Basin Regional Management Units

Risk Assessment results, RIP and project highlights

Lamprey 5 year Policy Review
December 5th, 2017

Jen Poirier – U.S. Fish and Wildlife Service
Erin Butts – U.S. Fish and Wildlife Service

NatureServe Risk Assessment

- 2017 Assessment utilized same model and methods

- One modification to current/historic occupancy
  - Master et al. 2012

- 2011 = area of occupancy visually estimated
  2017 = area of occupancy calculated

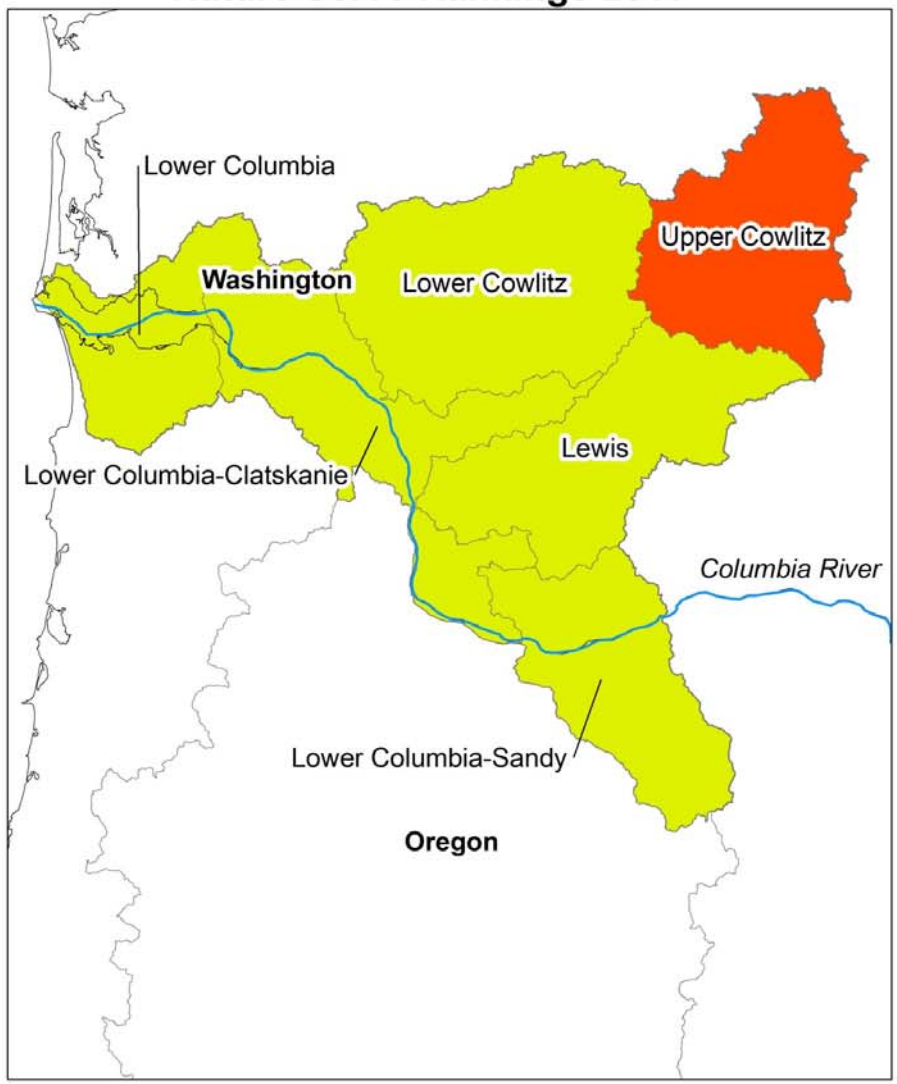
- Calculation generally more conservative

- Resulted in change of occupancy ranking values in many HUCs

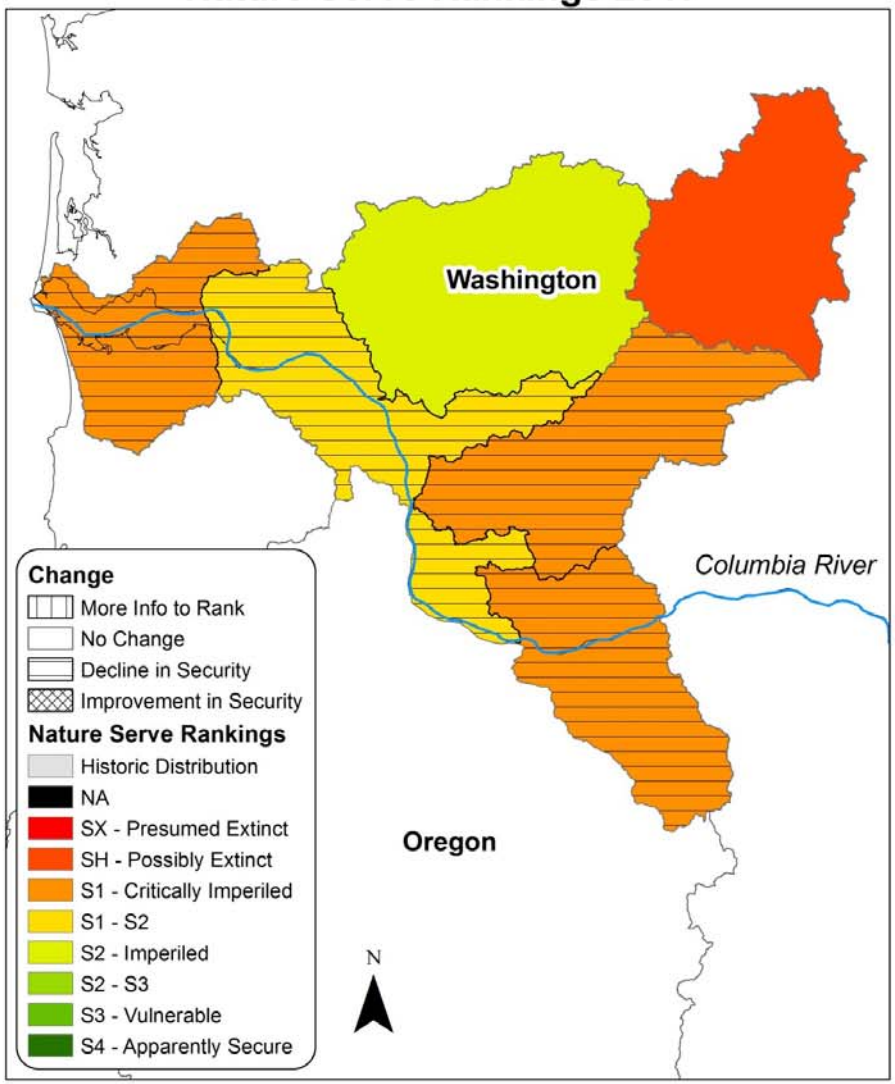
Lower Columbia Sub-Unit

Lower Columbia/Willamette RMU Lower Columbia Basin HUCs:

Nature Serve Rankings 2011

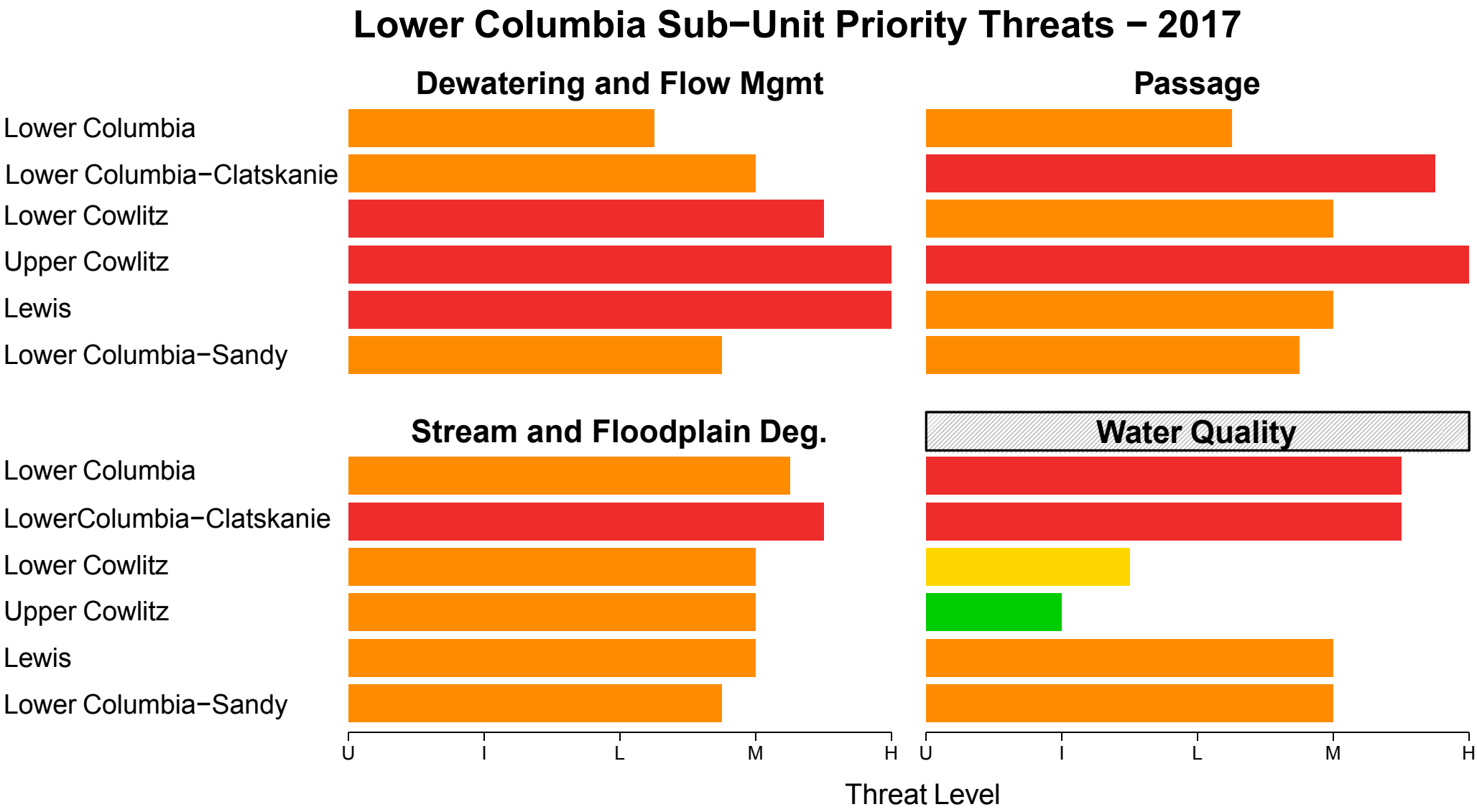


Nature Serve Rankings 2017



Positive Changes!

- New estimates of abundance in 3 HUCs!
- Information from Oregon Department of Fish and Wildlife (ODFW)
- Abundance estimates are conservative
- Work will enable us to better estimate Short Term Trend in future Assessments


Lower Columbia Sub−Unit Priority Threats − 2017
Dewatering and Flow Mgmt
Passage
Lower Columbia
Lower Columbia−Clatskanie
Lower Cowlitz
Upper Cowlitz
Lewis
Lower Columbia−Sandy
Stream and Floodplain Deg.
Water Quality
Lower Columbia
LowerColumbia−Clatskanie
Lower Cowlitz
Upper Cowlitz
Lewis
Lower Columbia−Sandy
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Threat Level

Lower Columbia Regional Implementation Plan (RIP) Priority Projects

Passage:

1. Assessment of fish hatchery diversions to identify potential passage barriers

Hatchery barrier dam & fishway

Stream and Floodplain Degradation:

1. Assessment of adult or larval lamprey use in areas that have seen recent habitat restoration vs areas that have not seen treatment (2 projects)

Lower Columbia Sub-Unit Project Highlights

- Deepwater sampling to document distribution and habitat use of larval lamprey in Columbia River mainstem (USFWS)
- Laboratory and field study investigating salinity tolerance and larval lamprey occurrence in tidally influenced estuarine stream (USFWS)
- Lamprey spawning surveys in Oregon tributaries (ODFW)

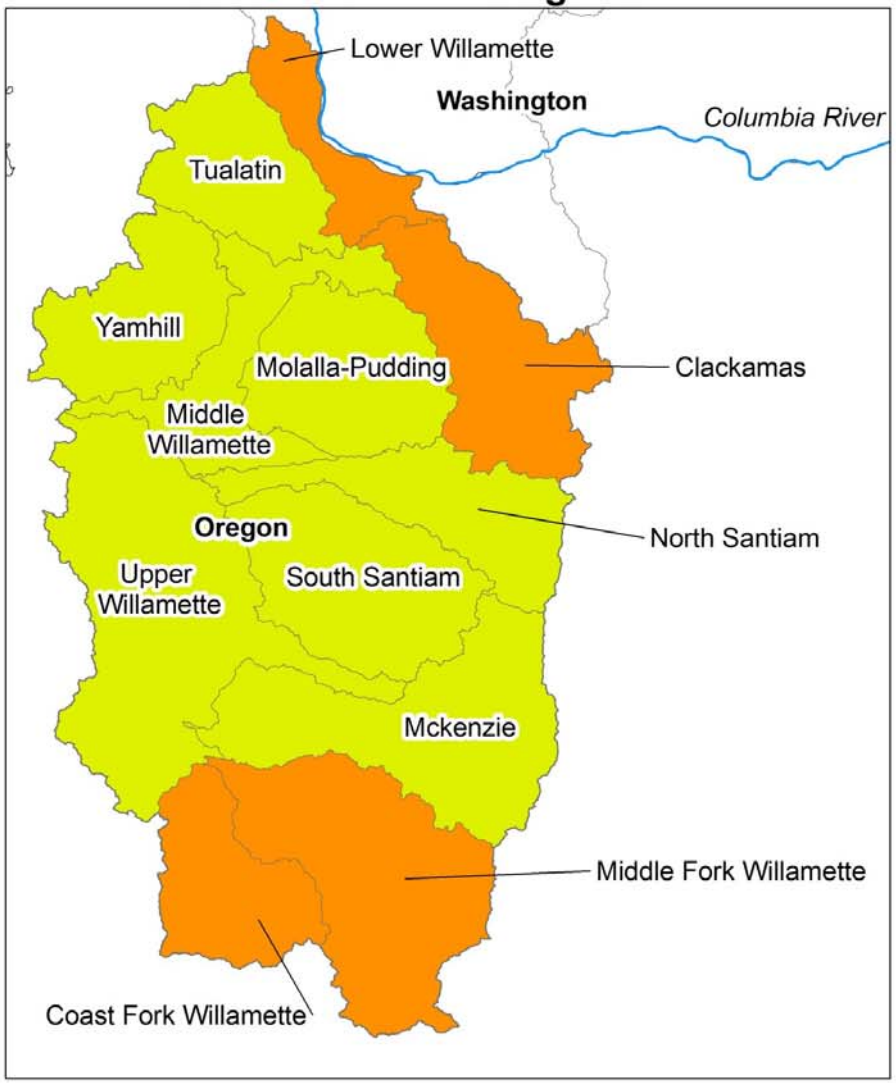
Deepwater electrofisher

Willamette Sub-Unit

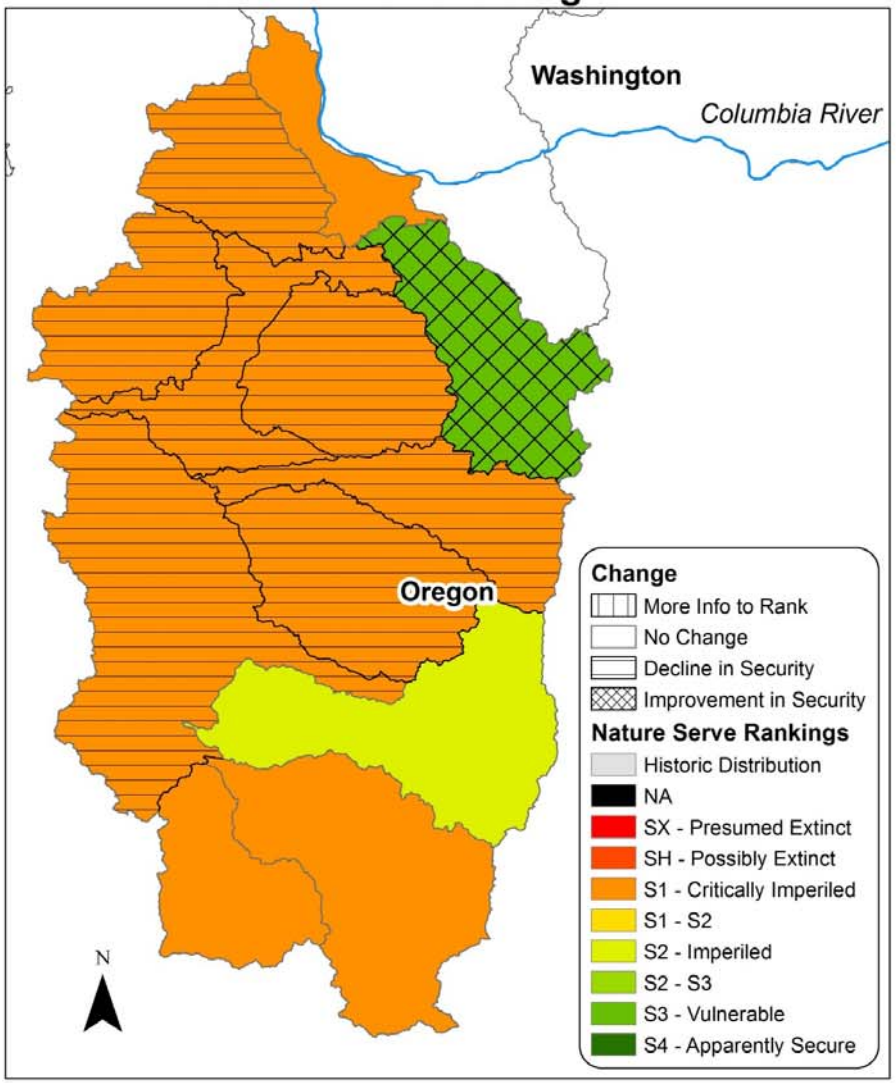
- Sub-Unit includes Willamette River mainstem and 12 HUC4 tributaries within geographic boundary of Willamette Basin
- Basin heavily influenced by multiple large dams and human development

Lower Columbia/Willamette RMU Willamette Basin HUCs:

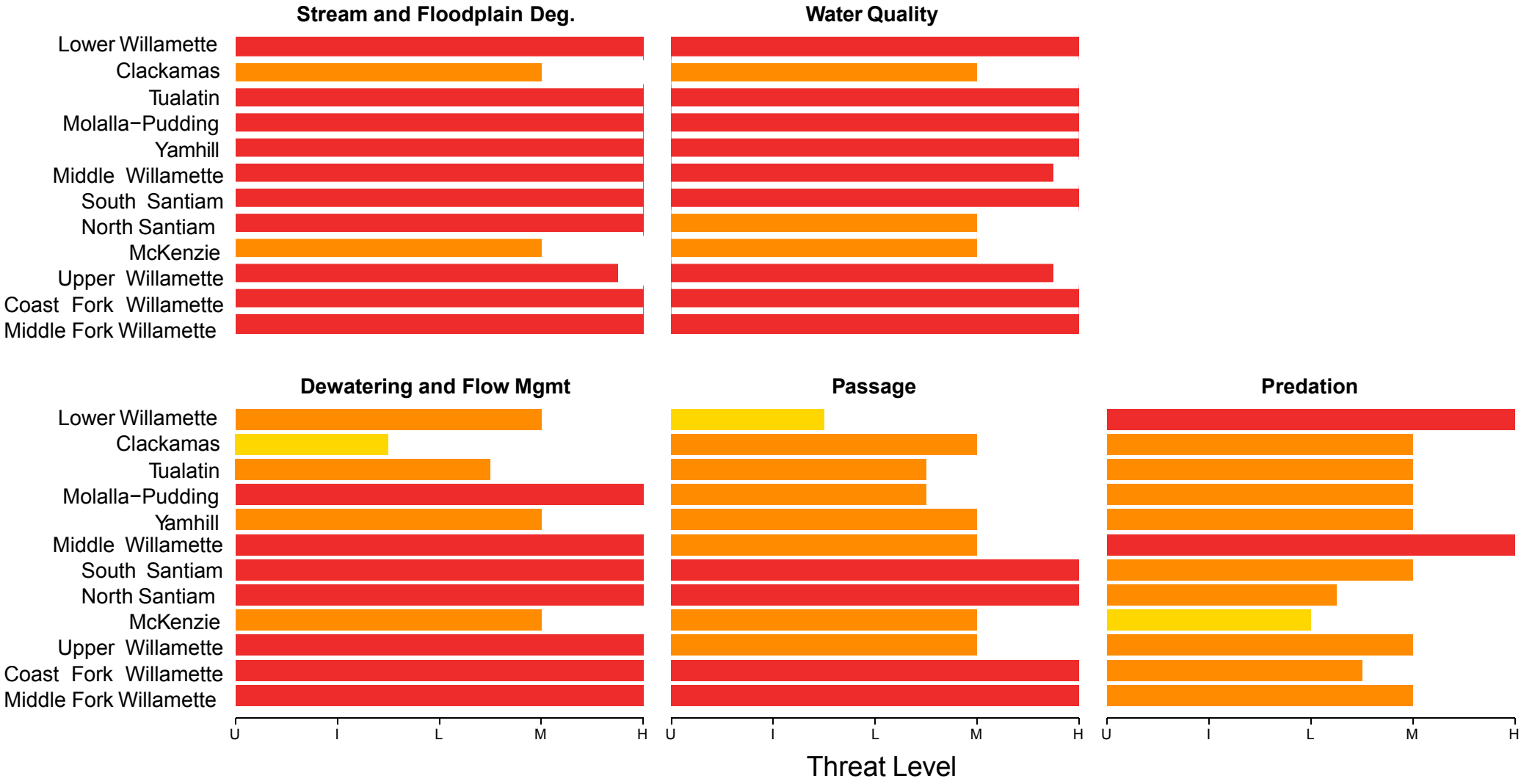
Nature Serve Rankings 2011



Nature Serve Rankings 2017



Willamette Sub−Unit Priority Threats − 2017



Willamette RIP Priority Projects

Stream and floodplain Degradation:

1. Lower South Fork McKenzie River floodplain enhancement project

Passage:

1. Improve counts of Pacific Lamprey at Leaburg Dam on McKenzie River

Small Population Size:

1. Estimate effective population size of Pacific Lamprey above North Fork Dam on Clackamas River

North Fork Reservoir (Clackamas River)

Willamette Sub-Unit Project Highlights

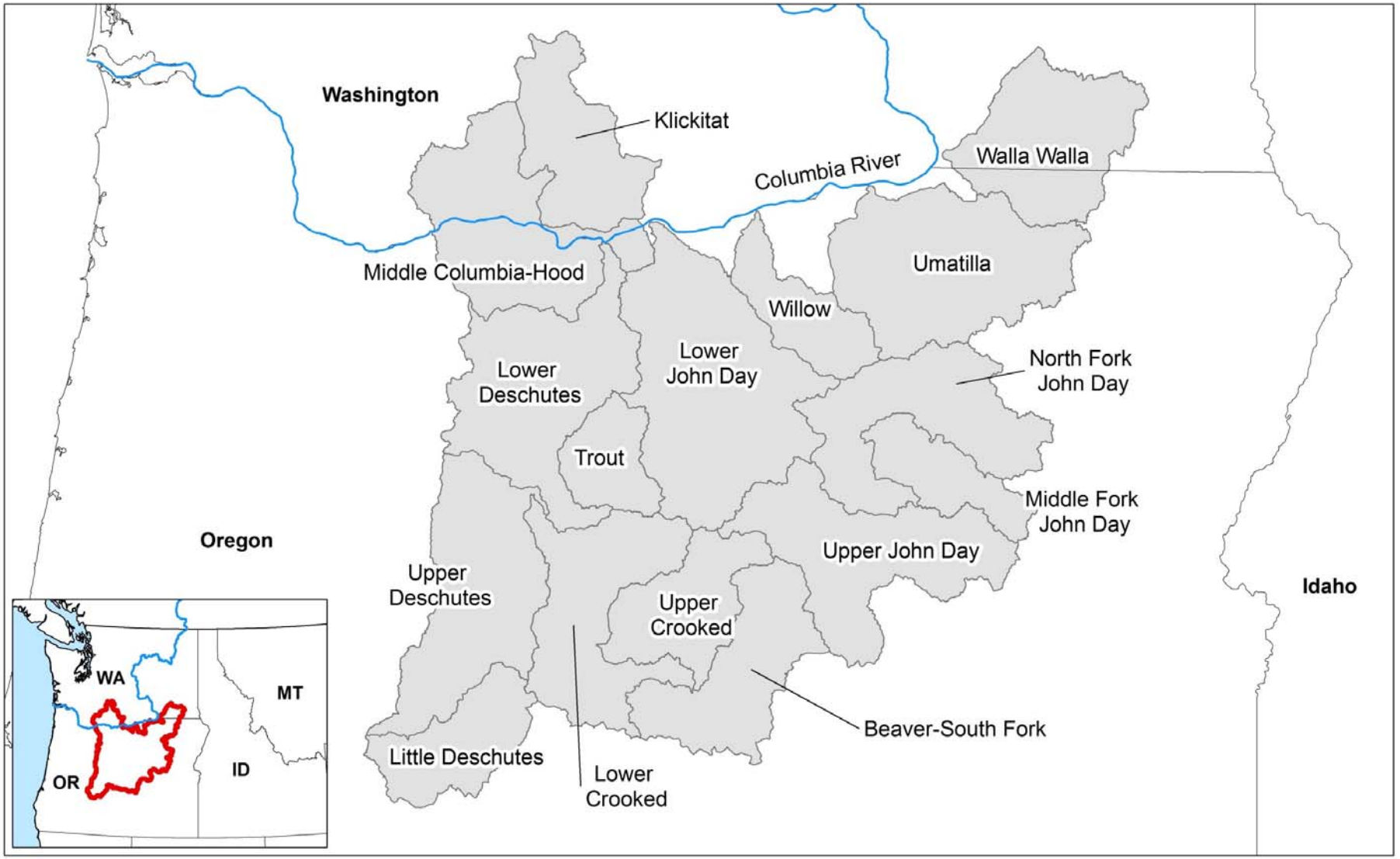
- Fall Creek Reintroduction and Fish Passage Project (CTGR, USACE)

- Clackamas River Fish Passage Improvements (PGE)
  - Floating surface collector at NF Dam collected 17,000 juvenile lamprey in 2017

- Ongoing assessment of Pacific Lamprey abundance at Willamette Falls (CTWS)
  - Average abundance estimate (2010-2016) 182,224 adults (at falls) and 65,446 (passing falls)

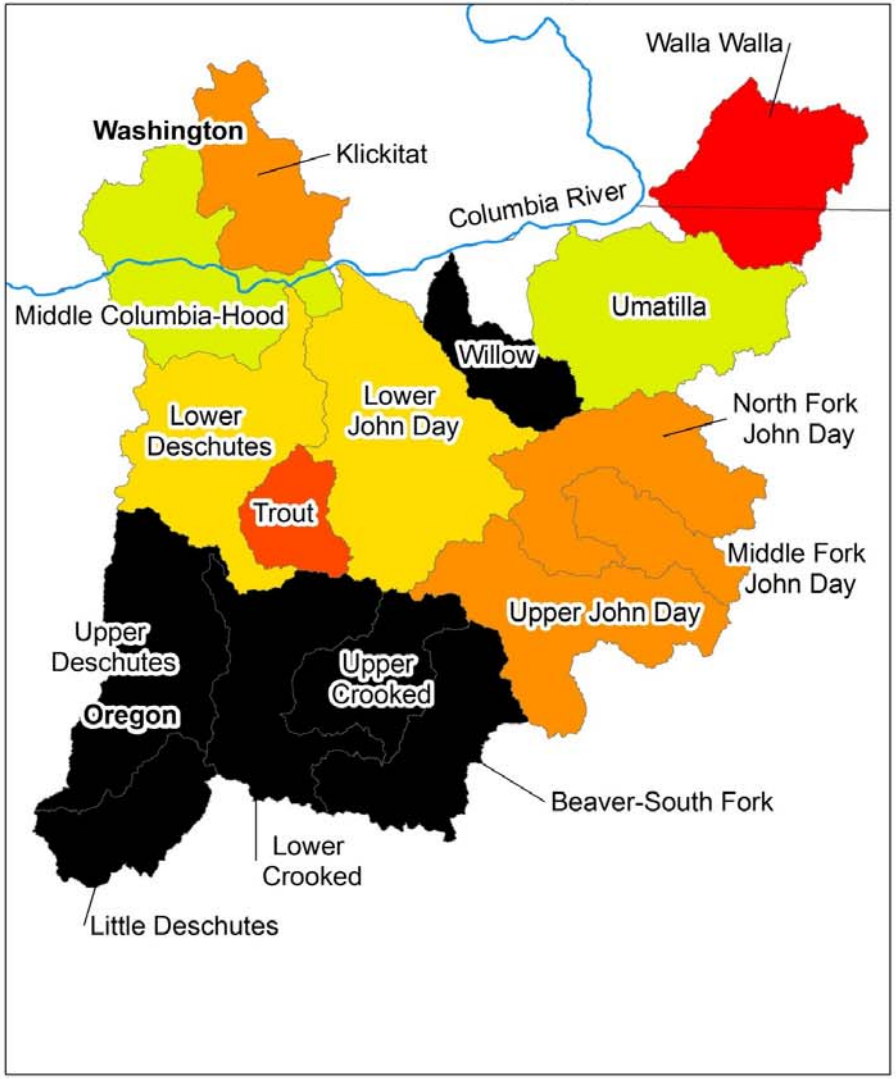
Passage ramp at Willamette Falls

Mid-Columbia RMU HUCs

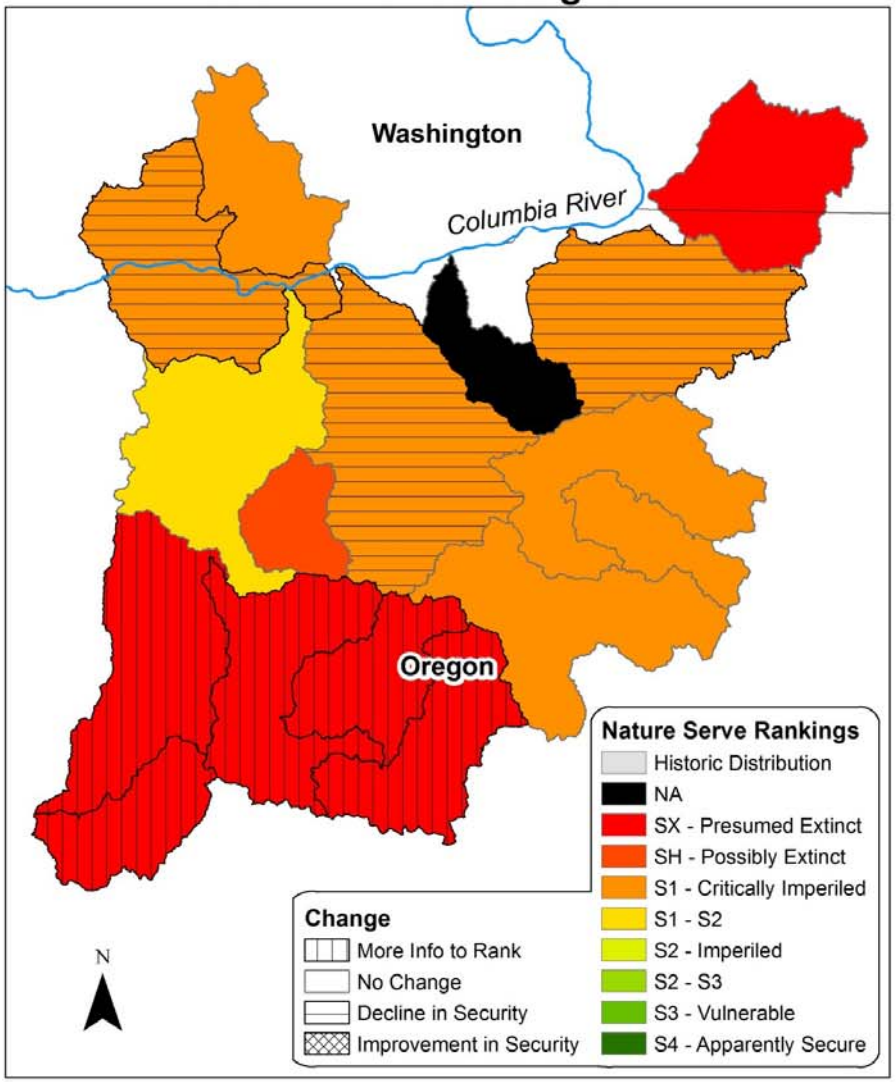


Mid-Columbia RMU HUCs:

Nature Serve Rankings 2011



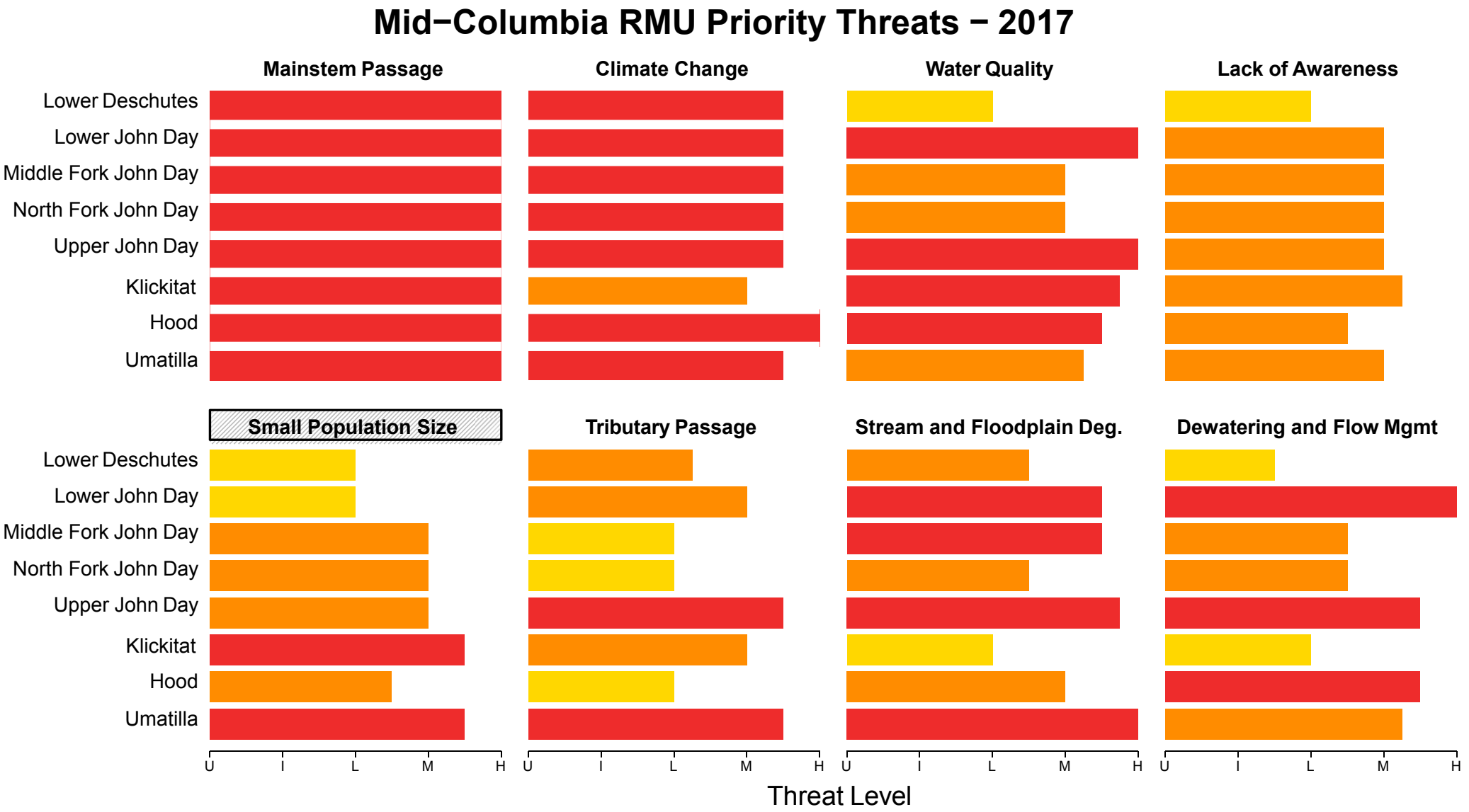
Nature Serve Rankings 2017



Two notable changes in Mid-Columbia RMU

1. Substantial increase in population size in Umatilla subbasin

2. Decline in short term population trend from 10-30% to 50-70% in Klickitat subbasin


Mid−Columbia RMU Priority Threats − 2017
Mainstem Passage
Climate Change
Water Quality
Lack of Awareness
Small Population Size
Tributary Passage
Stream and Floodplain Deg.
Dewatering and Flow Mgmt
Lower Deschutes
Lower John Day
Middle Fork John Day
North Fork John Day
Upper John Day
Klickitat
Hood
Umatilla
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Threat Level

Mid-Columbia RIP Priority Projects

Passage:

1. Adult passage improvements in Klickitat subbasin
    - Klickitat Hatchery Weir
    - Lyle Falls LPS
2. Characterization of juvenile outmigration within Umatilla River and FCRPS dams
3. Data gathering workshop to develop new screening criteria for larval/juvenile lamprey

Dewatering and Flow Management:

1. Data gathering workshop to identify ways to reduce mortality of lamprey during dewatering periods associated with irrigation diversions

Fill Knowledge Gap:

1. Data gathering workshop to develop/refine outmigration sampling techniques for juvenile lamprey

Klickitat Hatchery Weir

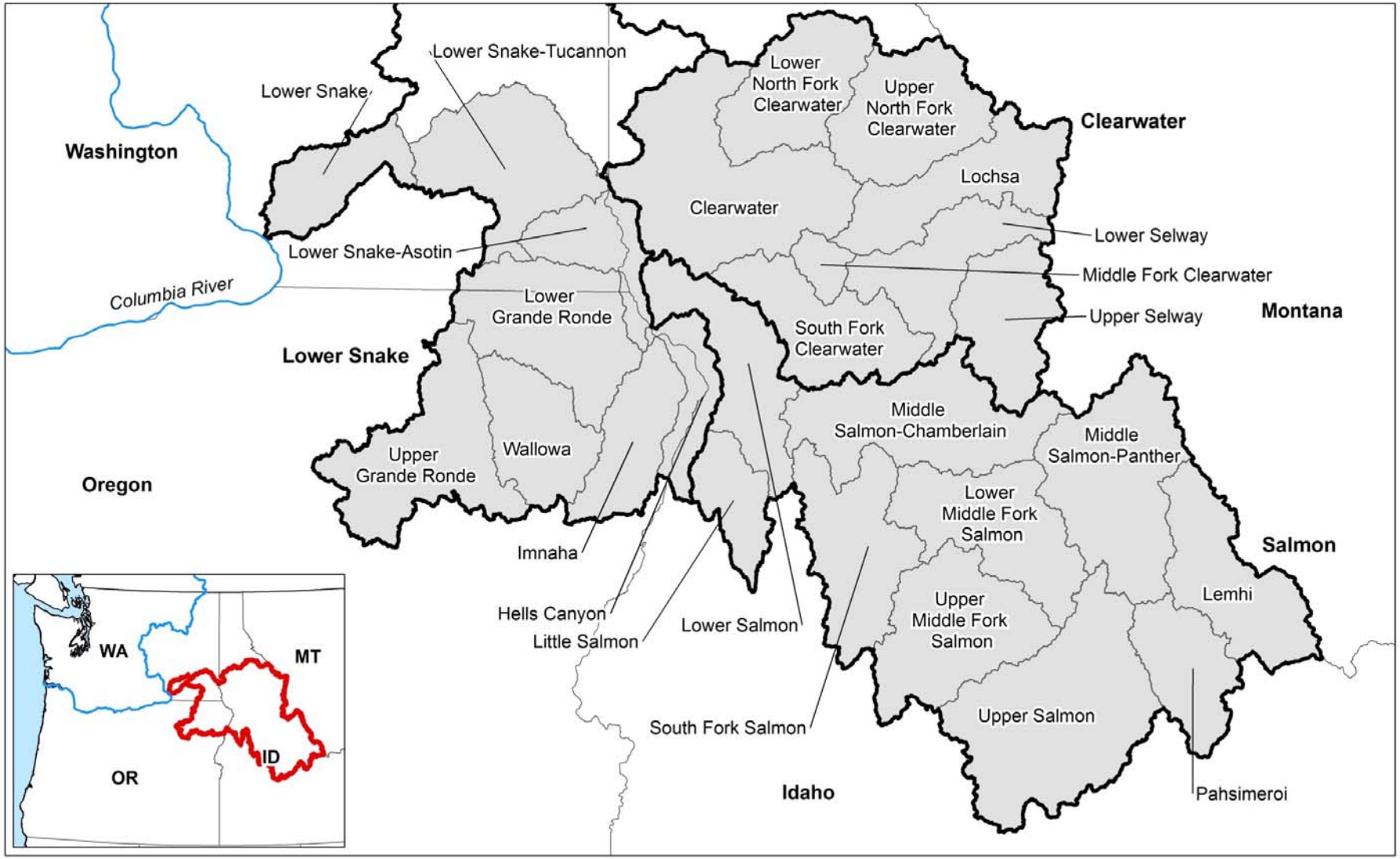
Mid-Columbia Project Highlights

- Translocation of adults in Umatilla subbasin (CTUIR)

- Ongoing distribution surveys in Rock Cr., Klickitat R., White Salmon R., and Wind R. (YNFP)

- Occupancy/density surveys throughout Hood RMU (CTWS)
    - Pacific Lamprey distribution has expanded into East Fork Hood River approx. 27 km beyond the former site of Power Dale Dam
- Documentation of larval lamprey occupancy above former site of Condit Dam on the White Salmon River (USFWS)

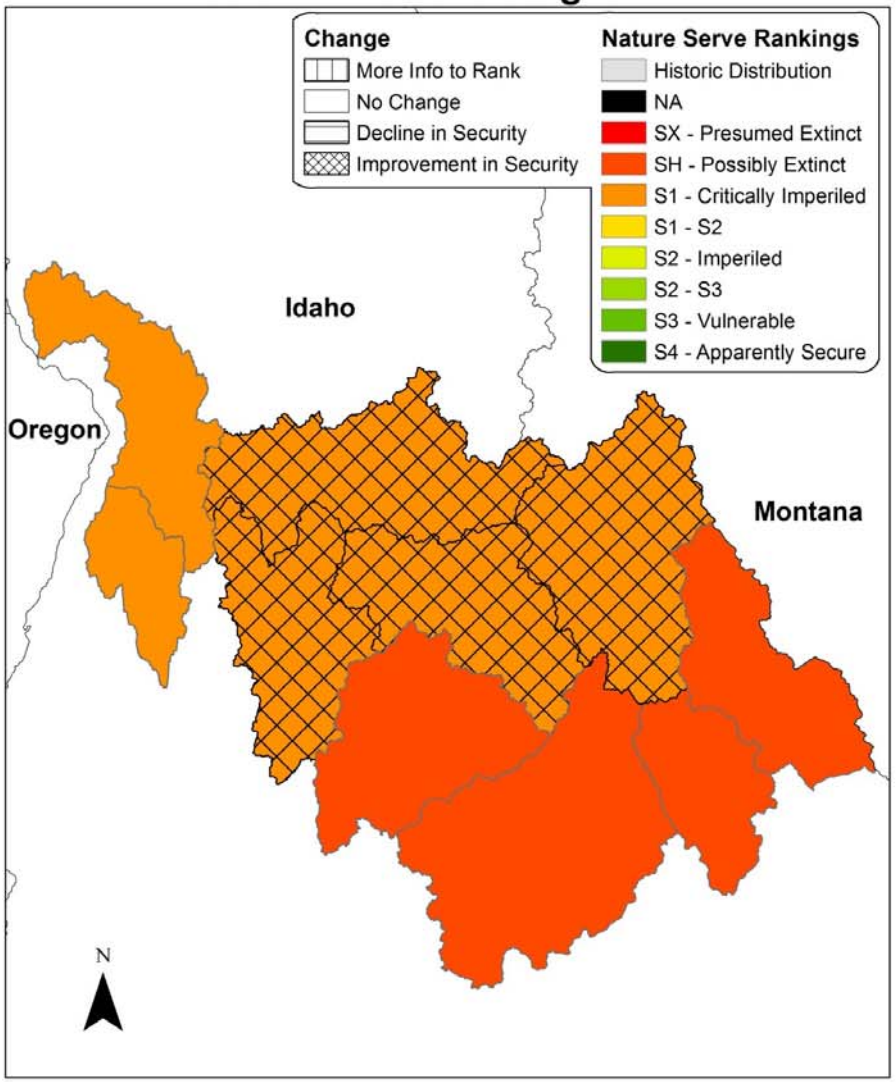
Snake RMU HUCs: Sub-Basins



Snake RMU Salmon Basin HUCs:

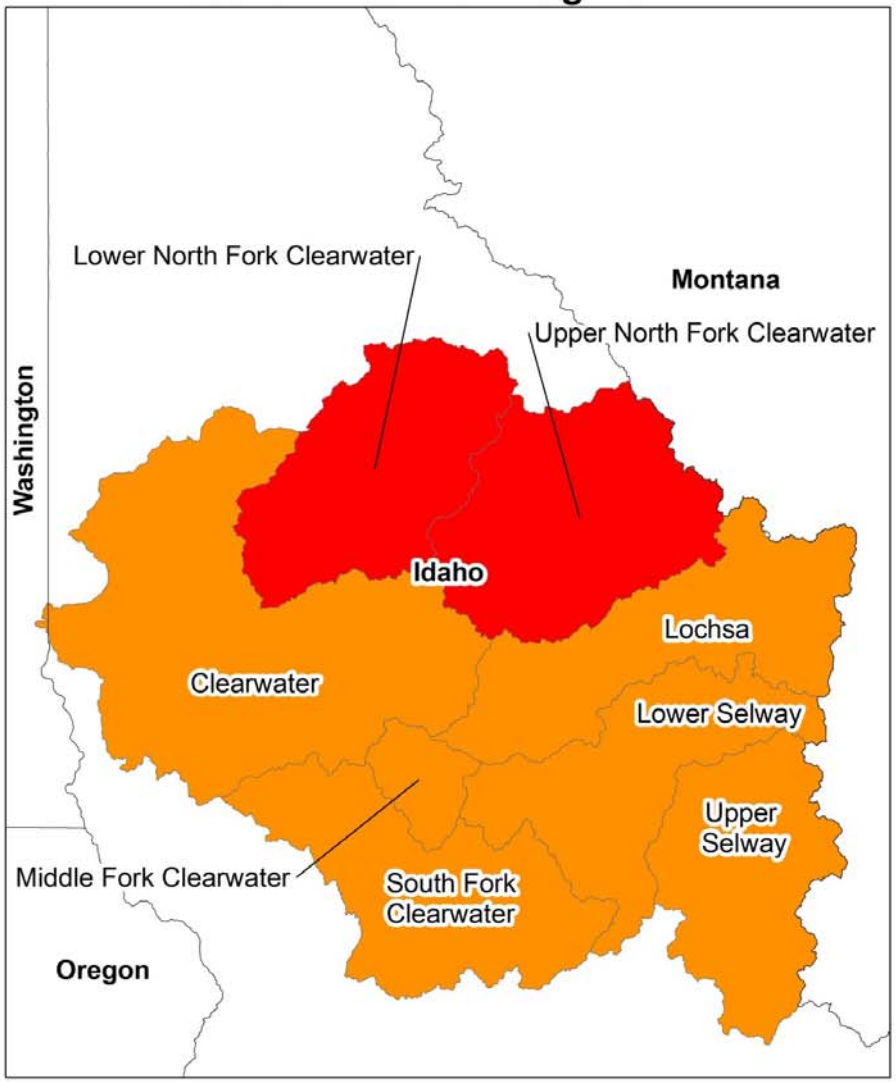
Nature Serve Rankings 2011

Nature Serve Rankings 2017

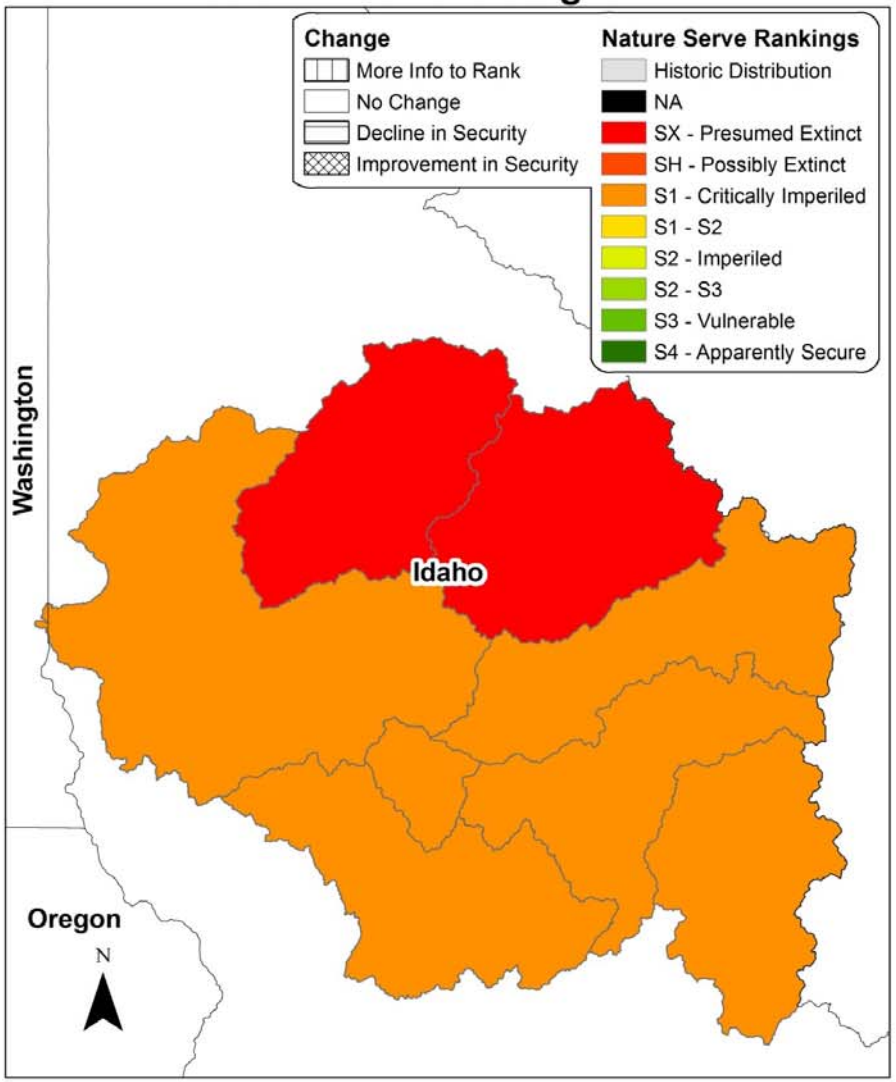


Snake RMU Clearwater Basin HUCs:

Nature Serve Rankings 2011

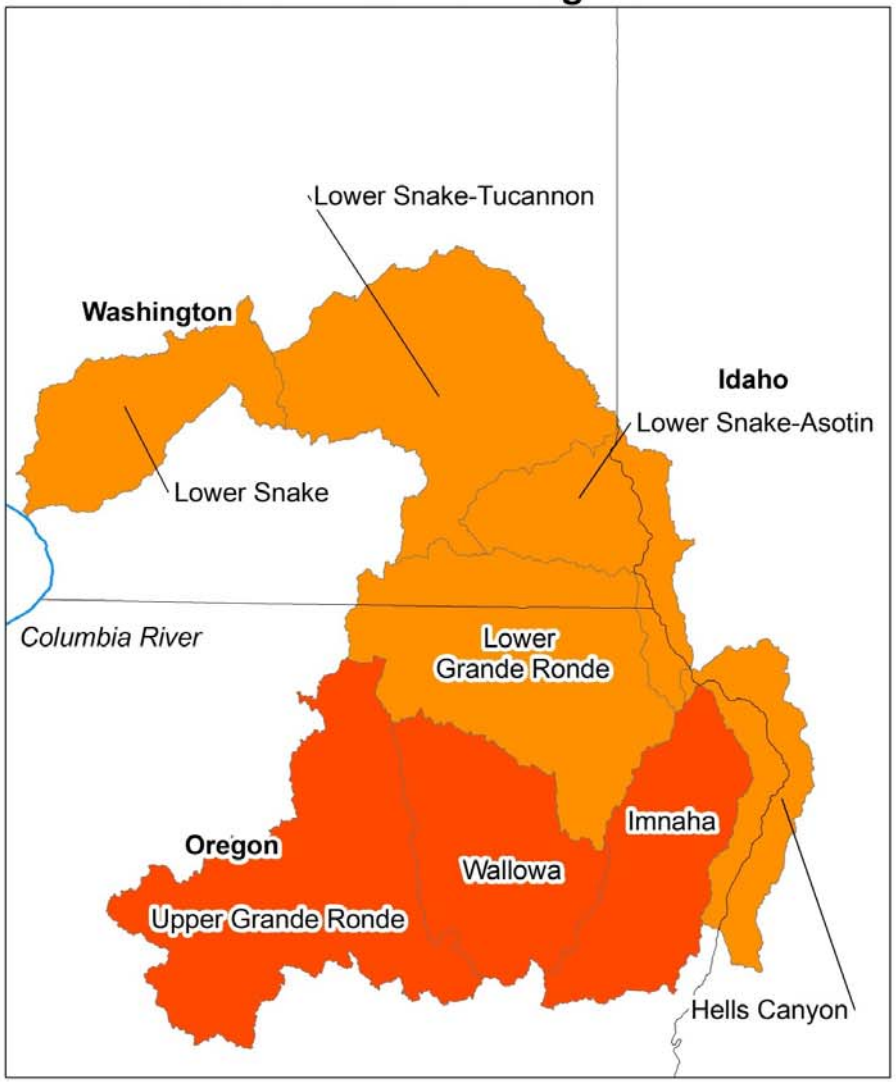


Nature Serve Rankings 2017

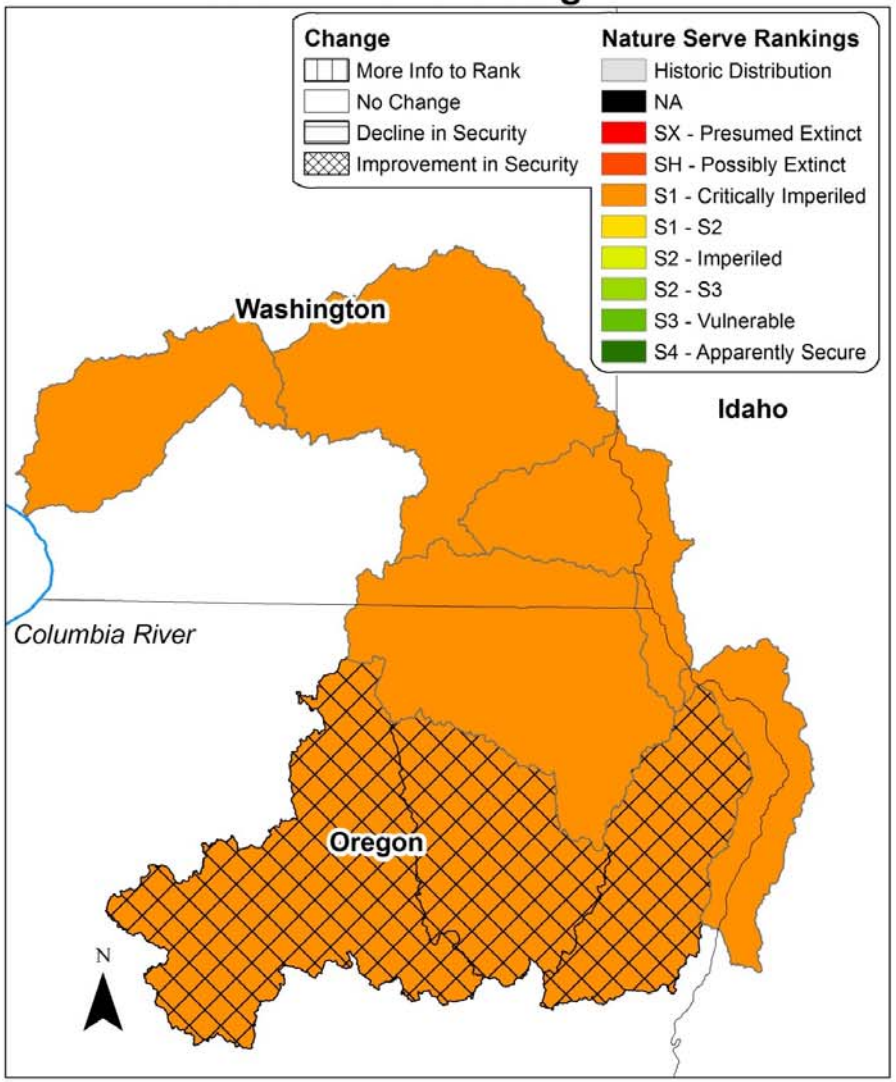


Snake RMU Lower Snake Basin HUCs:

Nature Serve Rankings 2011

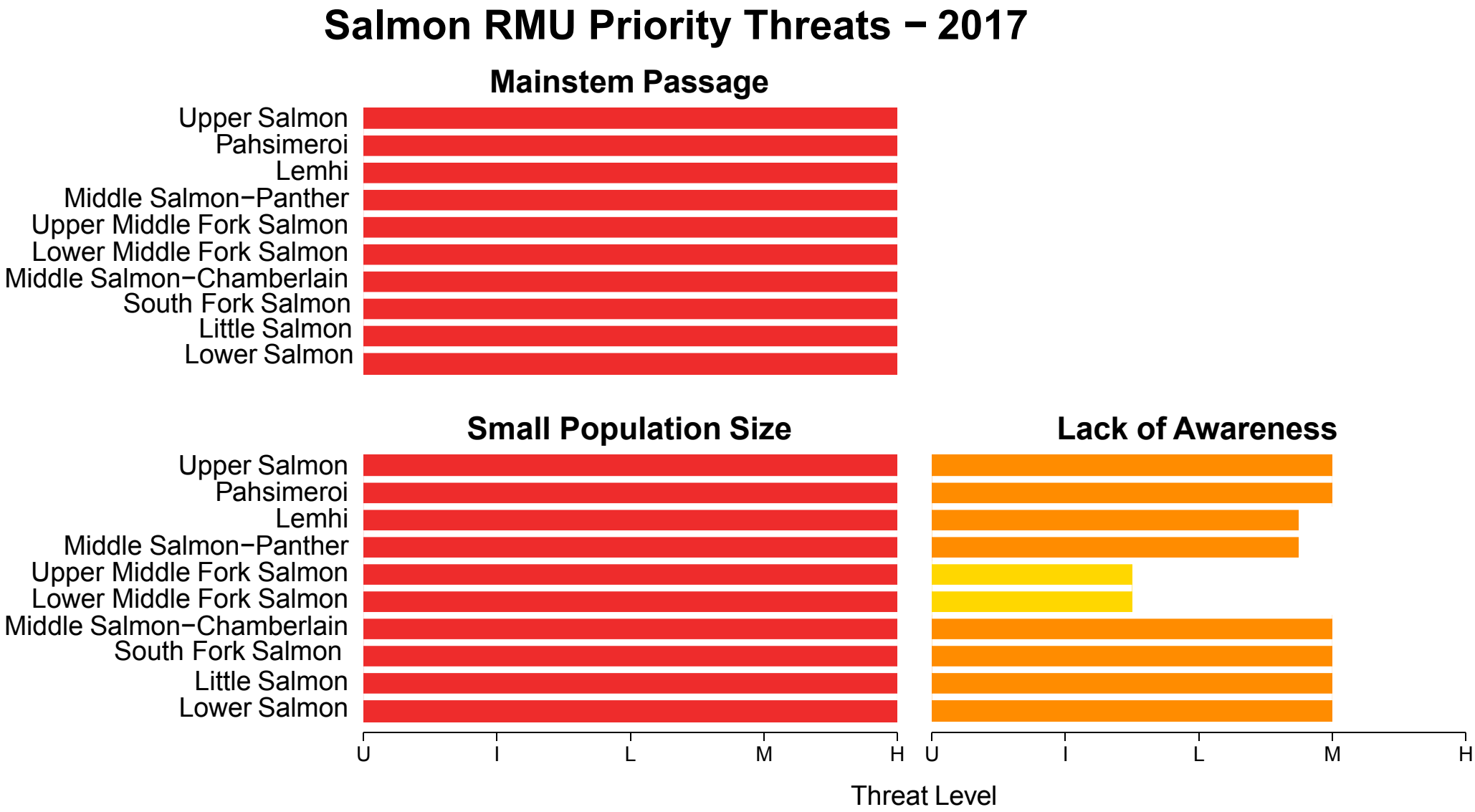


Nature Serve Rankings 2017



Cumulative Passage to Snake Region

Combined impact of mainstem passage impediments is highest priority threat to Pacific Lamprey in the Snake River Region


Salmon RMU Priority Threats − 2017
Mainstem Passage
Upper Salmon
Pahsimeroi
Lemhi
Middle Salmon−Panther
Upper Middle Fork Salmon
Lower Middle Fork Salmon
Middle Salmon−Chamberlain
South Fork Salmon
Little Salmon
Lower Salmon
Small Population Size
Lack of Awareness
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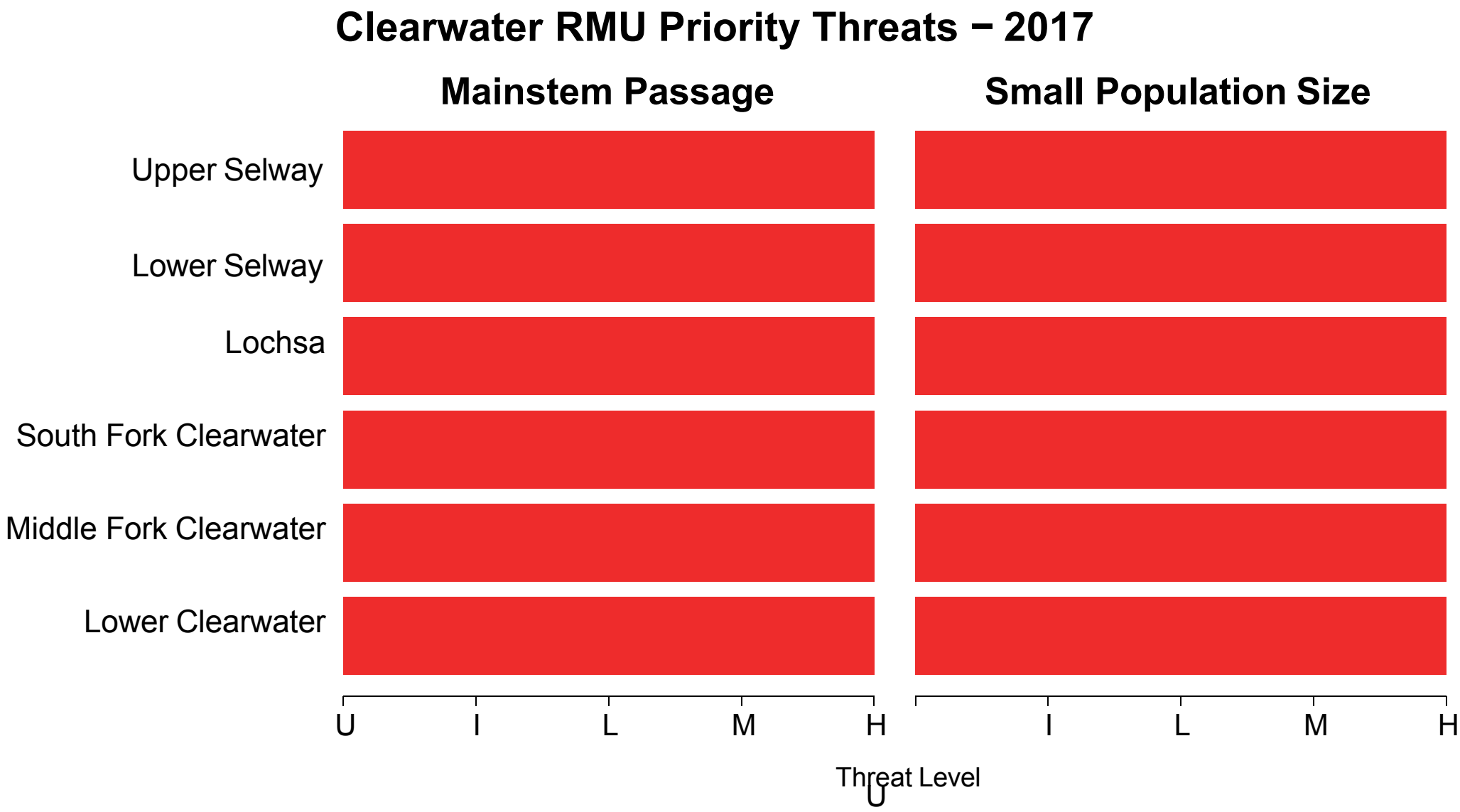
Threat Level


Clearwater RMU Priority Threats – 2017
Mainstem Passage
Small Population Size
Upper Selway
Lower Selway
Lochsa
South Fork Clearwater
Middle Fork Clearwater
Lower Clearwater
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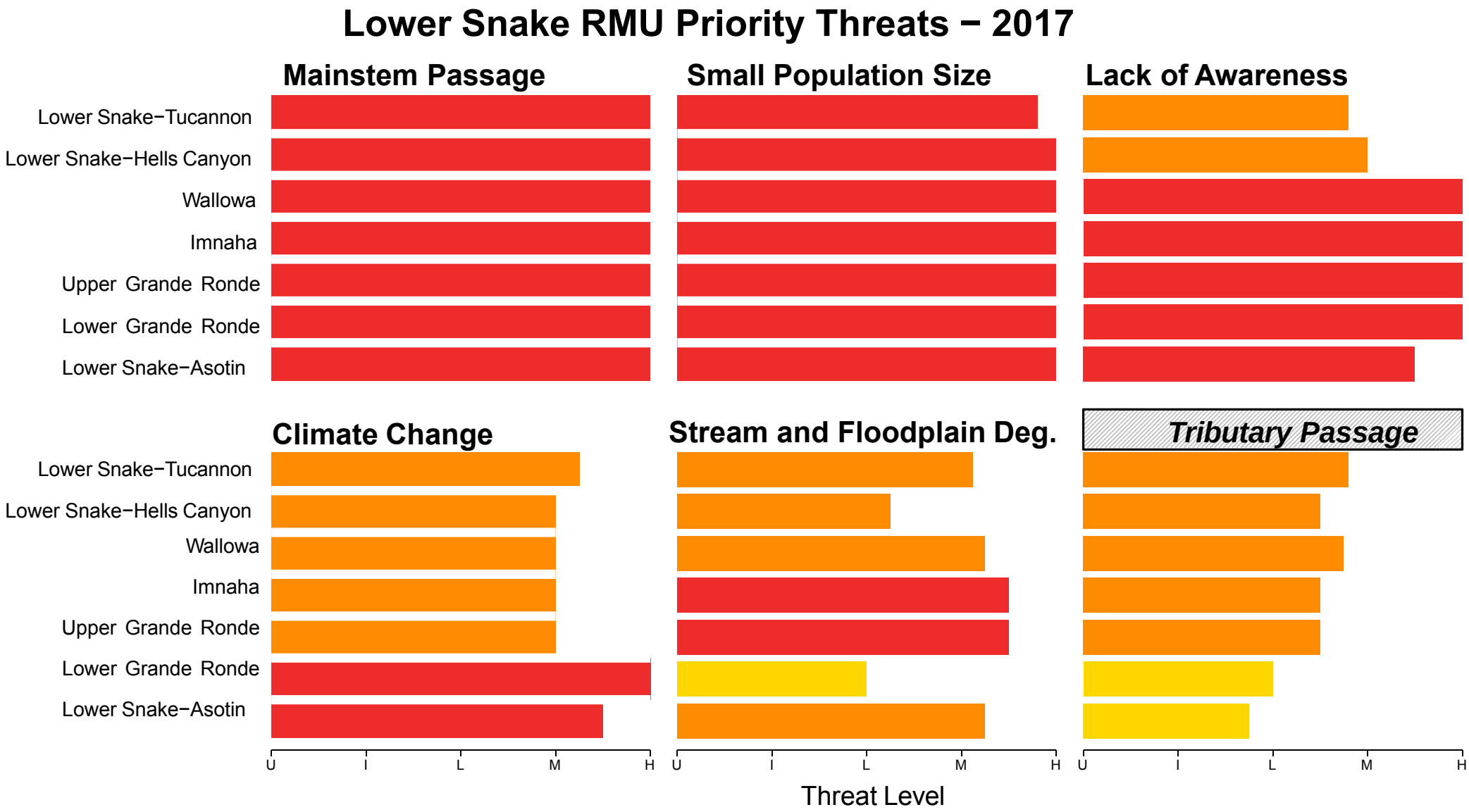
Threat Level
U


Lower Snake RMU Priority Threats − 2017
Mainstem Passage
Small Population Size
Lack of Awareness
Climate Change
Stream and Floodplain Deg.
Tributary Passage
Lower Snake−Tucannon
Lower Snake−Hells Canyon
Wallowa
Imnaha
Upper Grande Ronde
Lower Grande Ronde
Lower Snake−Asotin
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Threat Level

Snake Region RIP Priority Projects

Passage:

1. Assess the Starbuck Diversion for efficacy of lamprey passage (Tucannon River)

Small Population Size:

1. Adult Pacific Lamprey translocation and assessment (NPT)

Fill Knowledge Gap:

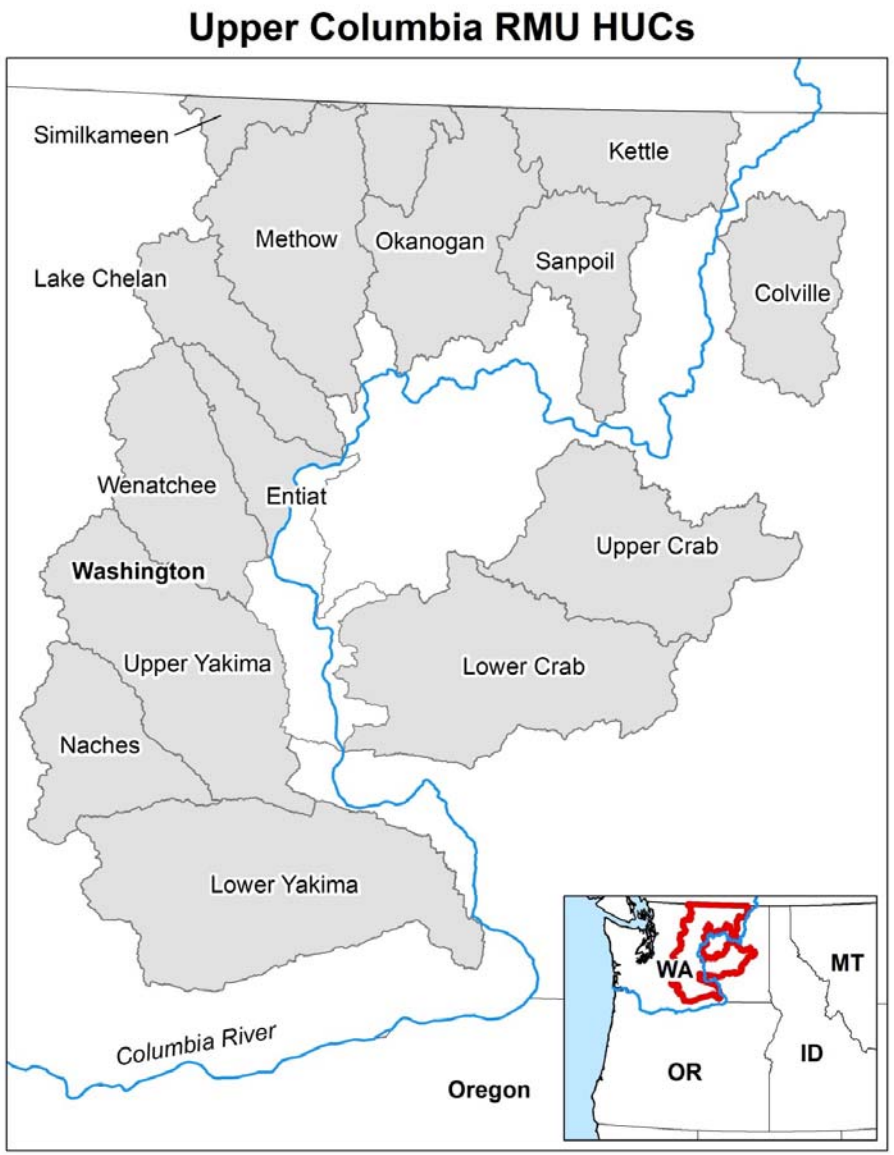
1. Develop eDNA sampling and processing methods and protocol to facilitate low-cost observations of lamprey distribution

Snake Region Project Highlights

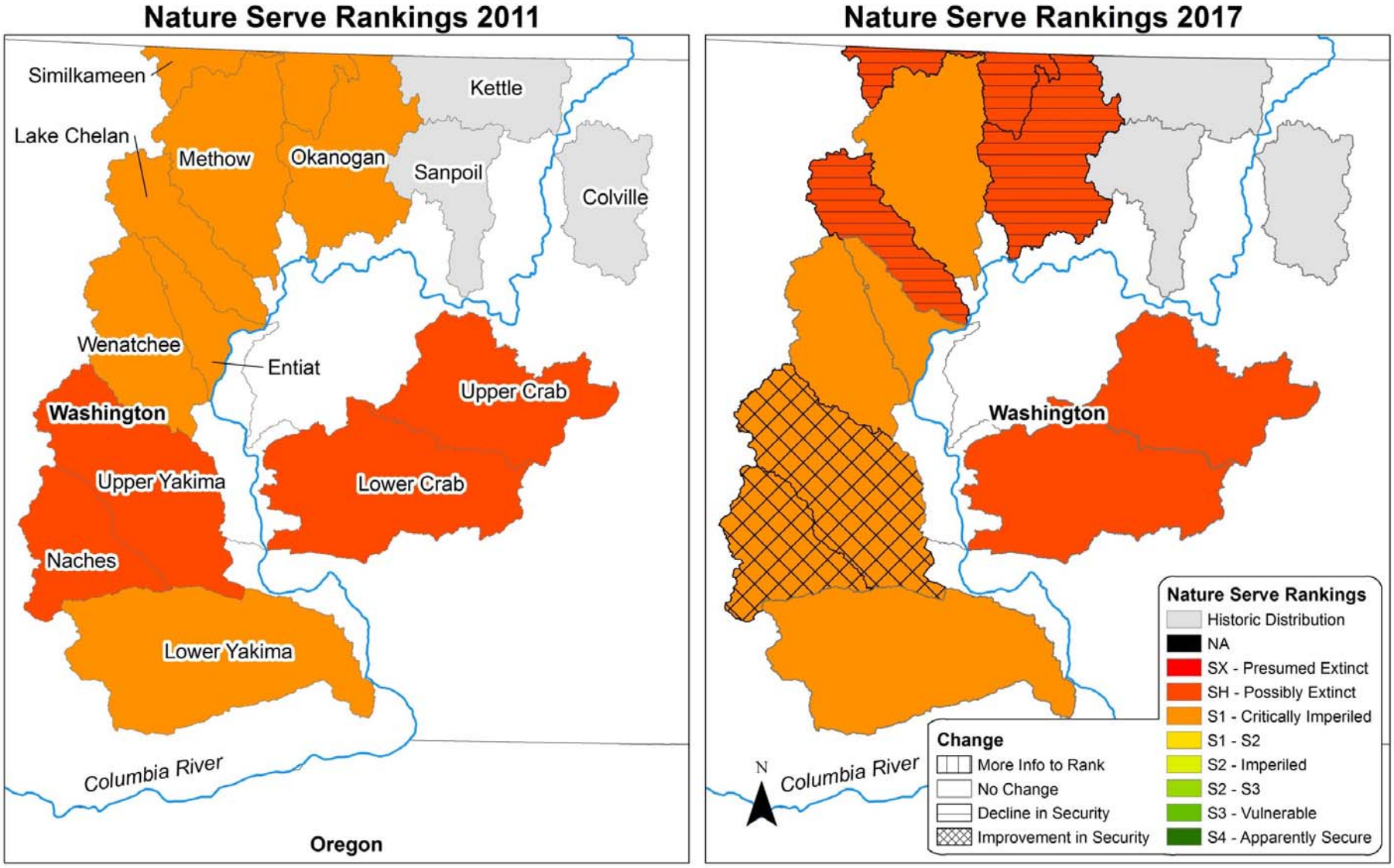
- Adult translocation in Clearwater, Salmon and Lower Snake drainages (NPT) (2007-present)
- Adult translocation in Grande Ronde River (CTUIR) (2015-present)
- USFWS Idaho Fish Health Lab and Dworshak NFH staff perform health exams and administer drug treatment to adults prior to outplanting
- Electrofishing for juveniles to document reproduction in streams which were supplemented with adults (NPT, USFWS)
- Fish salvage on Lolo Creek (NPT, USFWS, USFS)

Upper Columbia

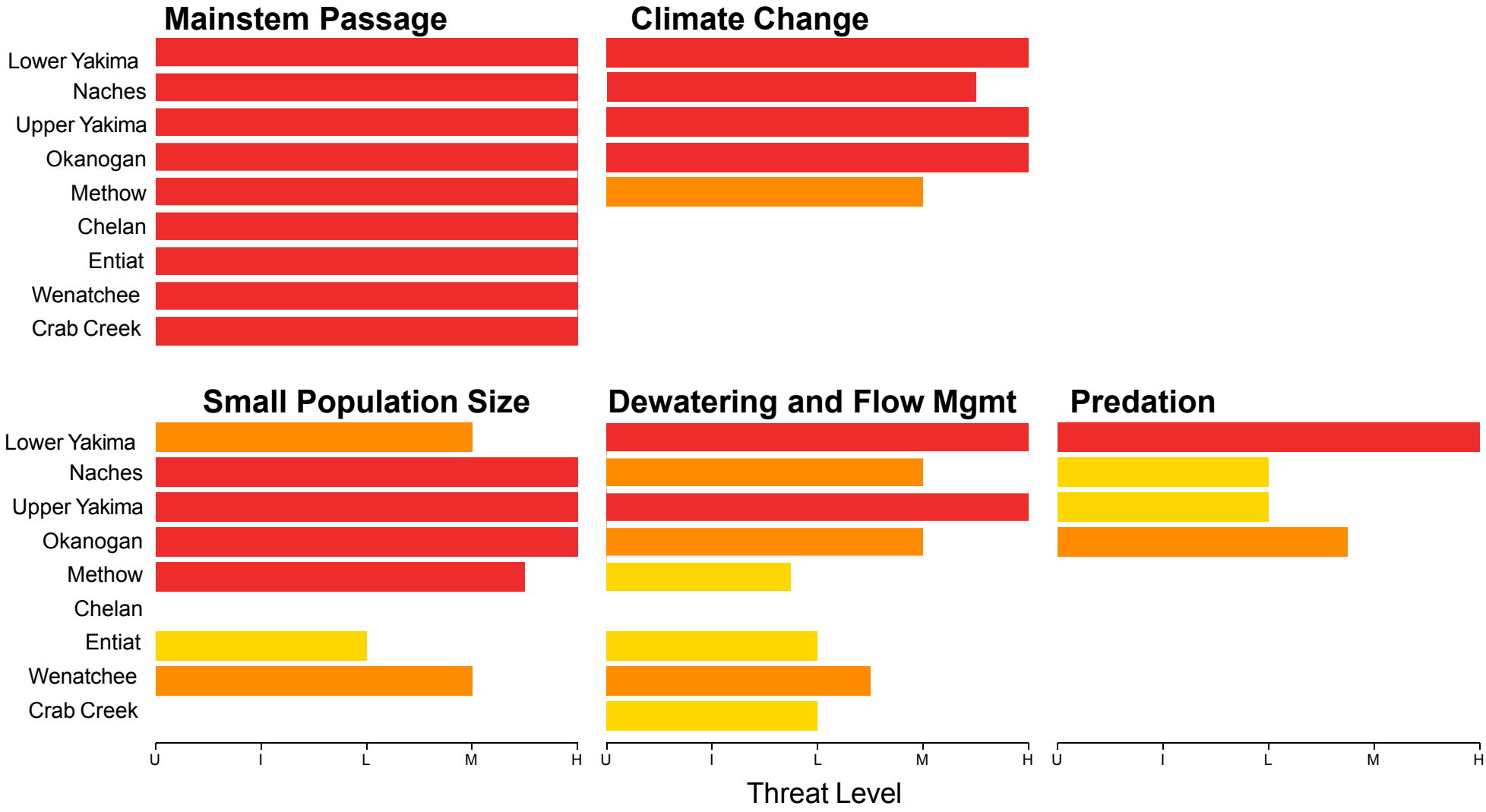
- RMU includes tributaries to the Columbia River that are upstream of the confluence with the Snake River
- Present limit to anadromy is Chief Joseph Dam at Rkm 876



Upper Columbia RMU HUCs:



Upper Columbia RMU−Unit Priority Threats − 2017



Upper Columbia RIP Priority Projects

Passage:

1. Improve passage at five lowermost dams in Yakima Basin

2. Identify feasible solutions that reduce/eliminate juvenile mortality due to entrainment into major diversions (Yakima Basin and Wenatchee subbasin)

Small Population Size:

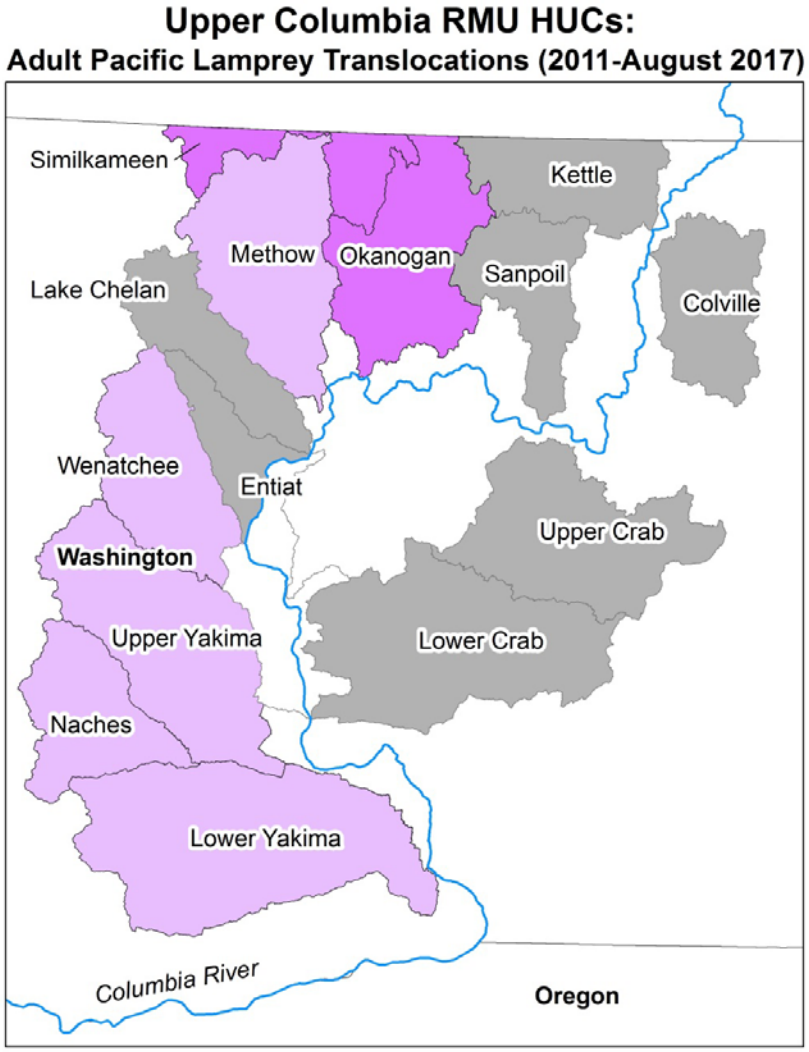
1. Adult translocation and larval/juvenile supplementation in functionally extinct subbasins including Yakima, Wenatchee, and Methow

Water Quality:

1. Assess impacts of key contaminants on spawning adults and newly hatched larvae. Evaluate rate of vertical transmission of contaminants from parents to offspring.

Upper Columbia Highlights: Translocation

- Since 2011, adult lamprey have been translocated to 7 Upper Columbia HUCs
- In August 2017, lamprey were released for the first time in the Okanogan and Similkameen rivers, systems where lamprey were possibly extinct



Upper Columbia Highlights: Distribution

Lampetra in Methow, Entiat, and Wenatchee rivers

Surveyed new systems: Okanogan River, Mad River, Peshastin Creek, Chelan River

Electrofishing ←

eDNA →

Upper Columbia Highlights: Passage

- Prosser Dam historically poor lamprey passage (~50%)
- 2 Vertical Wetted Walls installed 2016 (3rd in 2017)
- 1 of 2 VWWs passed lamprey
- Experimental structures: optimize location & operations

Lamprey Passage System at Prosser Dam

Prosser Dam LPS
VWW in Action!

Contacts for more information on Columbia Basin RMUs:

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Jody Brostrom (Snake Basin)
Jody_Brostrom@fws.gov

RD Nelle (Upper Columbia)
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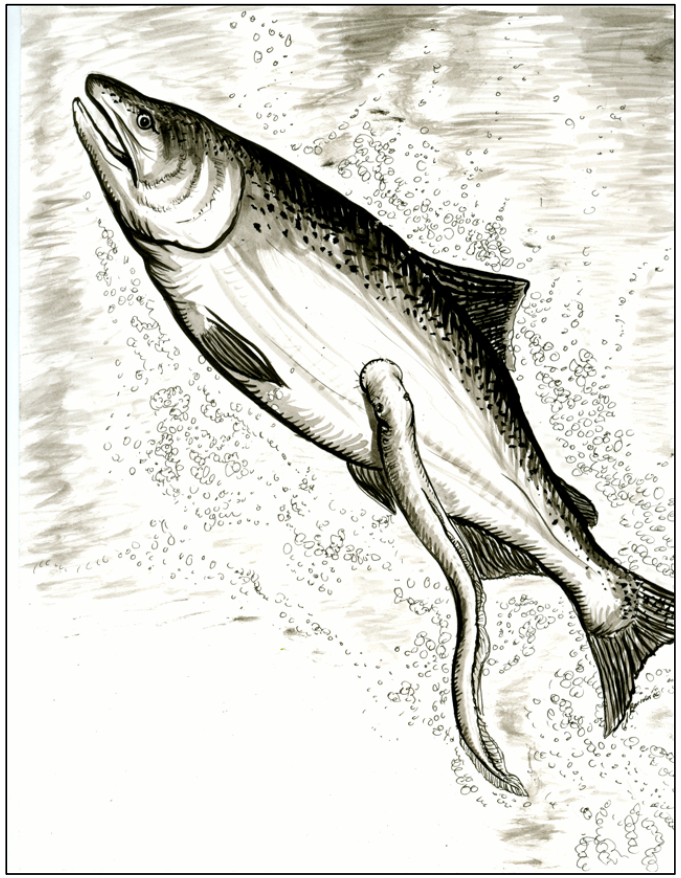
Ann Grote (Upper Columbia)
Ann_Grote@fws.gov



Columbia River Mainstem Regional Management Unit

Project Highlights

Lamprey 5 year Policy Review
December 5th, 2017

Jen Poirier – U.S. Fish and Wildlife Service
Mike Langeslay– U.S. Army Corps of Engineers

Grant County PUD

- Priest Rapids Dam
- Wanapum Dam

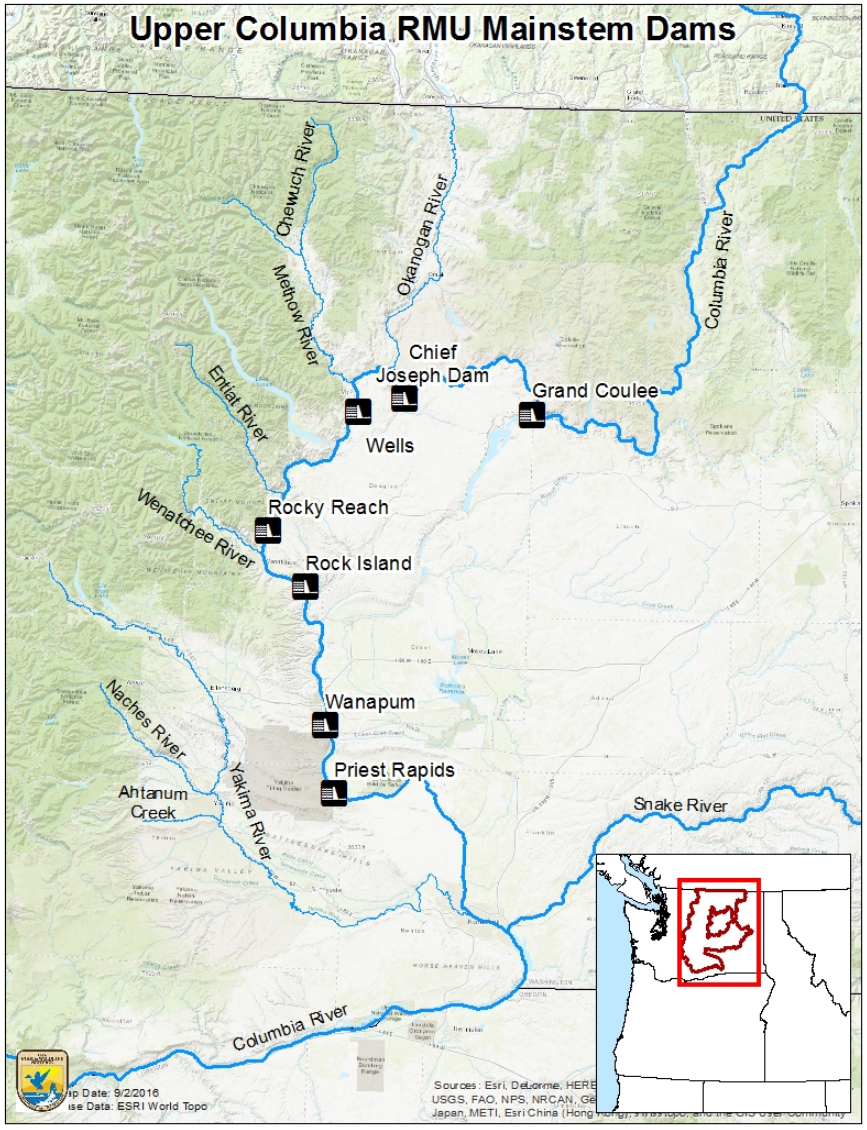
Chelan County PUD

- Rock Island Dam
- Rock Reach Dam

Douglas County PUD

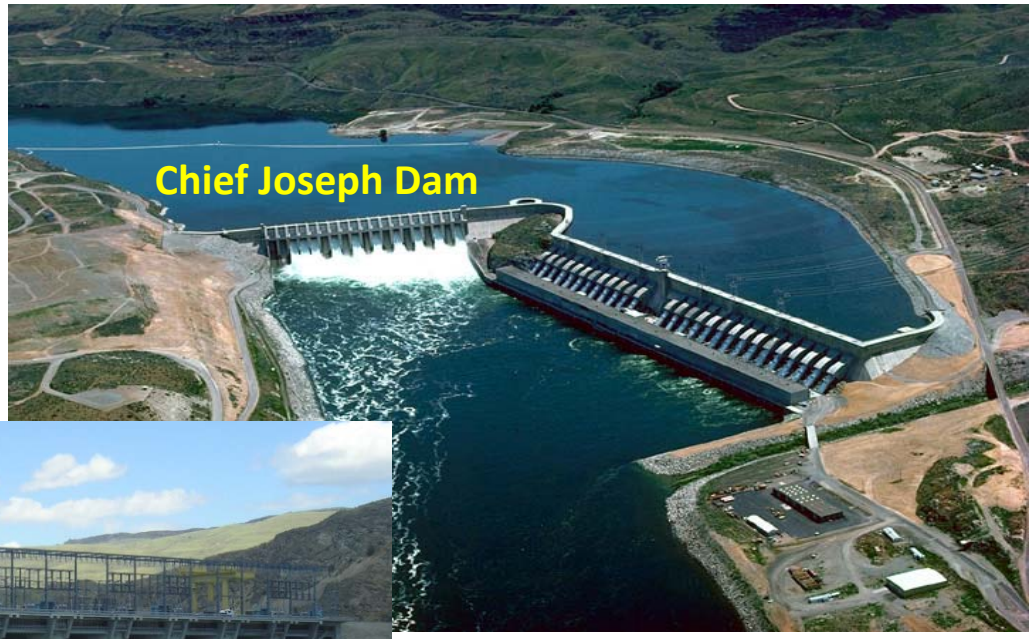
- Wells Dam

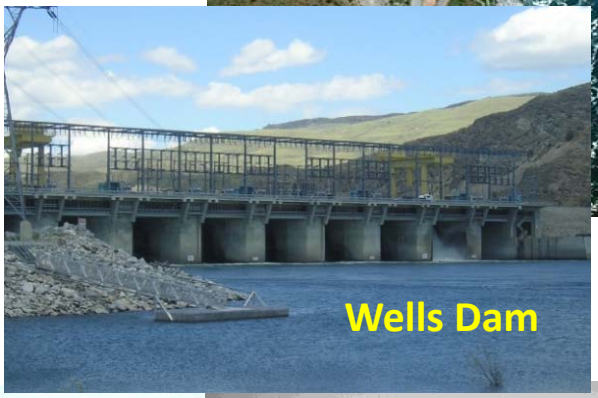
Chief Joseph Dam – limit to anadromy

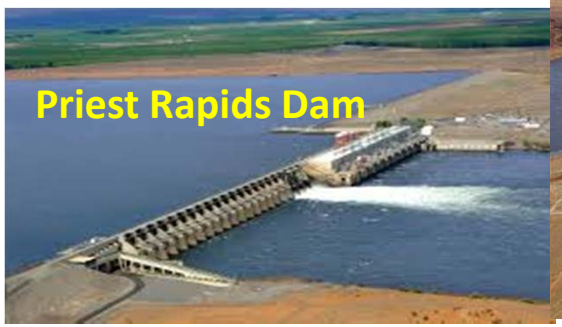


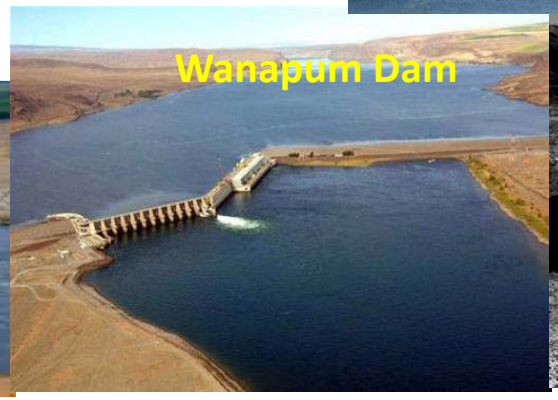
Pacific Lamprey Management Plans generally guide:

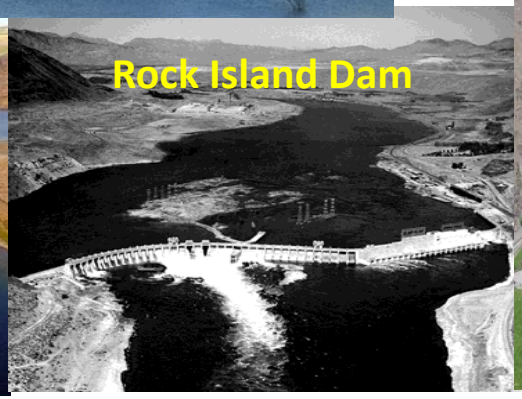
- How to address project related impacts
- Implementation of protection
- Mitigation
- How to develop monitoring and assessment programs.

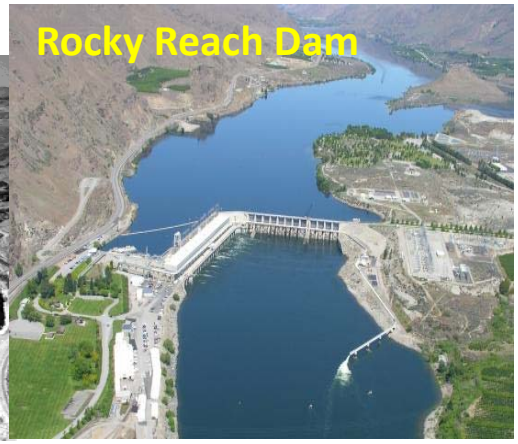












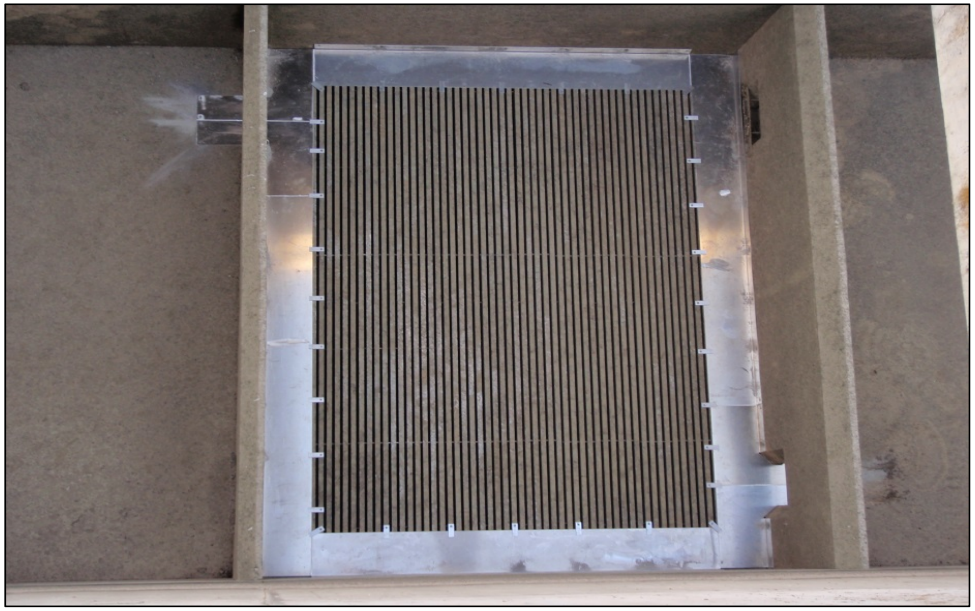
Grant County PUD Highlights

Fishway Modifications at Priest Rapids & Wanapum

- Plating over metal floor grating
- Ramps at perched orifices
- Lamprey traps
- Fish count crowders

Passage efficiencies using HDX PIT tags

- 84% at Priest Rapids Dam
- 87% at Wanapum Dam



Plating on fishway floor

Chelan County PUD Highlights

Fishway Modifications at Rocky Reach

- Plating over floor diffusers
- Ramps at perched orifices
- Plating in auxiliary water supply

Fishway extension at Rock Island Dam

Passage efficiencies using FDX PIT tags

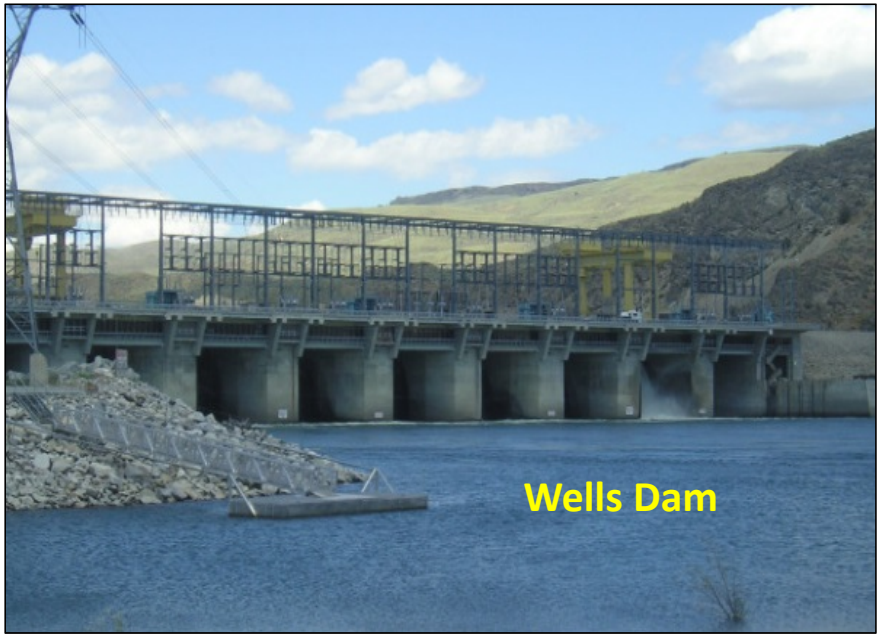
- 98.9% in 2016
- 97.3% in 2017(study still ongoing)

Plating and ramps at fish counter entrance

Douglas County PUD Highlights

Fishway Modifications at Wells Dam

- Grating near count window to provide more accurate counts
- Added secondary entrance to fish ladder using bollards and reduced velocities
- Tested reduced head differential at ladder entrance
- Added additional HDX/FDX PIT detector in ladder



Passage efficiencies

- 55% and 67% per ladder
- Poor lamprey movement approaching Wells Dam has hampered efficiency tests

COLUMBIA AND SNAKE RIVER MAINSTEM REGIONAL IMPLEMENTATION PLAN

Prepared by Mike Langeslay

Prepared for the Pacific Lamprey Conservation Agreement Policy Committee

05 December 2017

"The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."

US Army Corps of Engineers ®

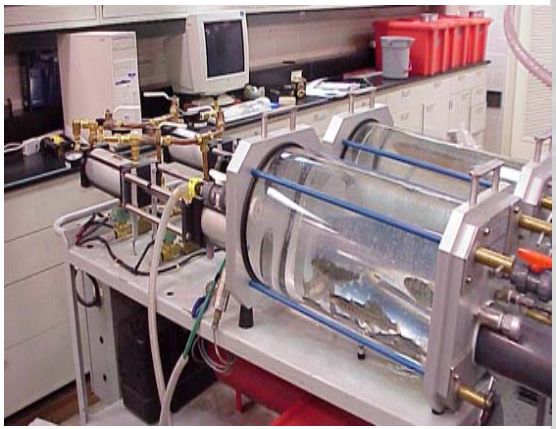
U.S.ARMY

US Army Corps of Engineers

U.S.ARMY

1996-2007 LAMPREY PASSAGE EFFORTS

- Adults
  - Low passage success (<50% total dam passage efficiency)
  - High attrition rates as fish move upstream through the system
  - Ladder problem areas identified
  - Lab studies on swimming performance
  - Alternative lamprey passage structure developed
- Juveniles
  - Turbine intake screen criteria developed
  - Lab studies on effects of hydraulic shear and pressure changes
  - Lab studies on swimming performance
  - Mark-recapture methods explored



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2008 COLUMBIA BASIN FISH ACCORDS

- Focus on lamprey passage at Corps dams
- Calls for Corps to develop a 10-year plan with Tribes and FWS
- Commitment for Corps to fund lamprey work at approximately $5 million per year over the 10 years
- Commitment to work closely with Tribes to adaptively manage actions

Columbia Basin Fish Accords
2008-2018

US Army Corps of Engineers

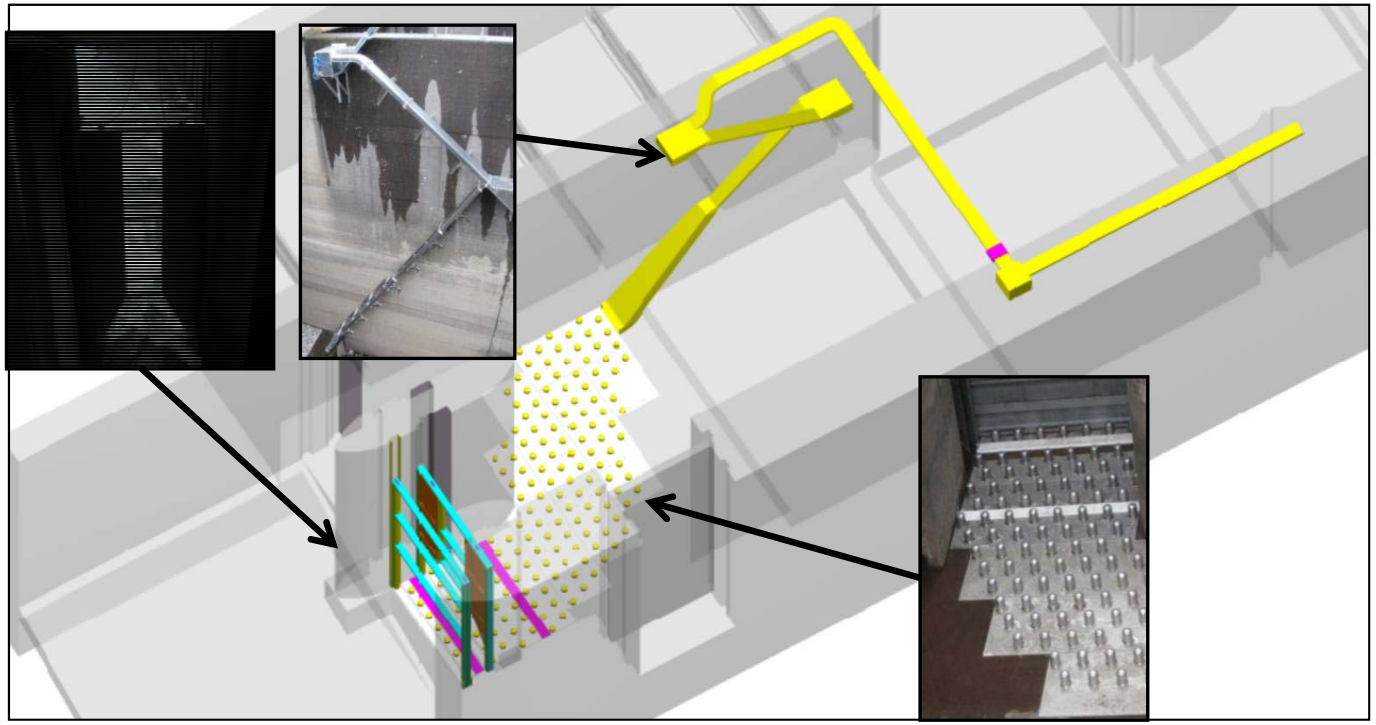
U.S.ARMY

2008 – 2017 ACCOMPLISHMENTS

Adult passage examples – Lamprey Passage Structures

2008 – 2017 ACCOMPLISHMENTS

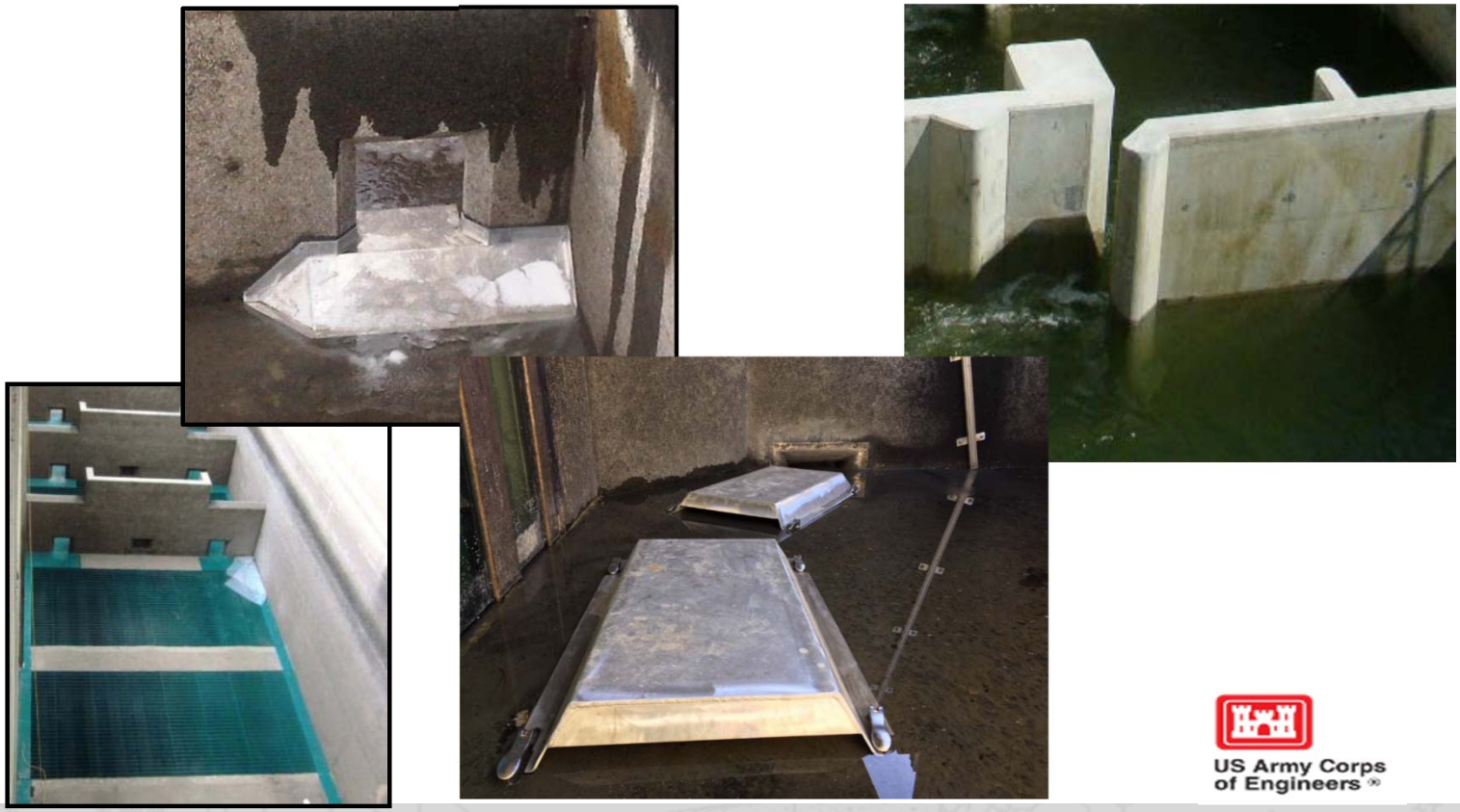
Adult passage examples: Ladder Entrance Modifications



US Army Corps of Engineers

2008 – 2017 ACCOMPLISHMENTS

Adult passage examples: Modifications within Ladders



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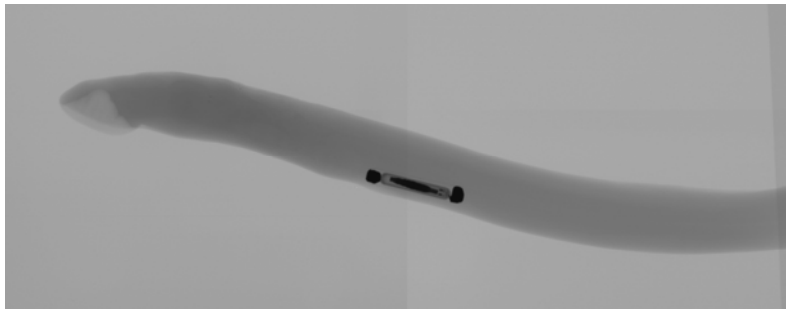
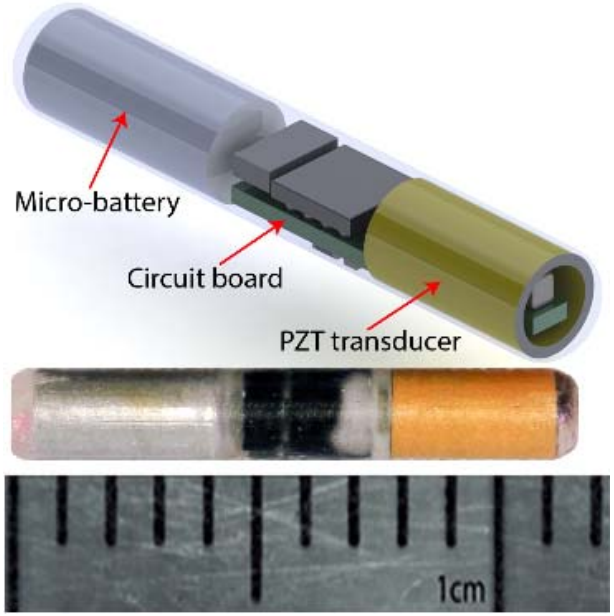
2008 – 2017 ACCOMPLISHMENTS

Juvenile lamprey passage





US Army Corps of Engineers

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2018-2019 PLANNED ACTIVITIES

- Additional within-ladder modifications at Bonneville, The Dalles, and John Day
- Lamprey passage structure improvements and expansions at Bonneville and John Day
- New entrance structure at Ice Harbor
- Tribal adult lamprey collection improvements
- Summary report of Accord implementation 2008-2018

US Army Corps of Engineers

U.S.ARMY

QUESTIONS?

Photo courtesy of Chris Peery

Coastal Oregon Regional Management Unit (RMU)

Assessment Findings, RIPs and Progress

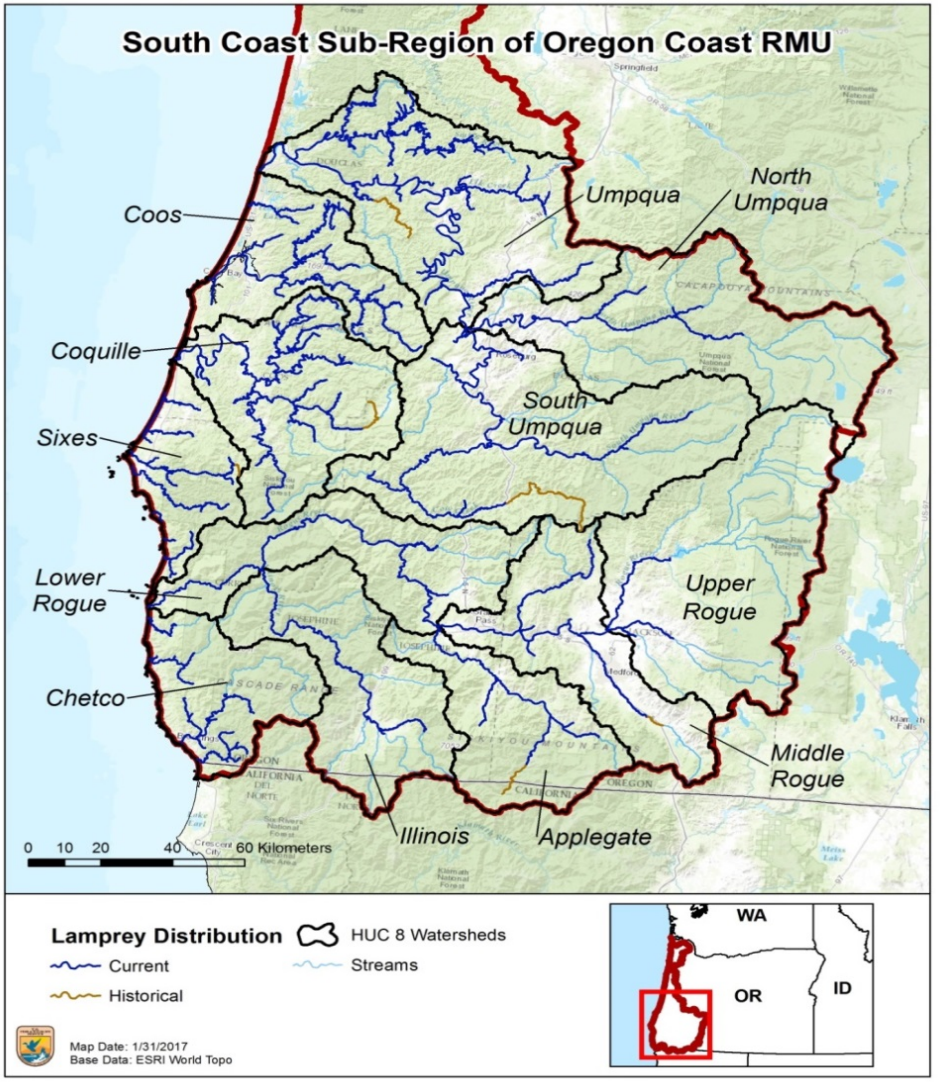
Lamprey 5 year Policy Review

December 5th, 2017

Kelly Coates-Cow Creek Umpqua Tribe

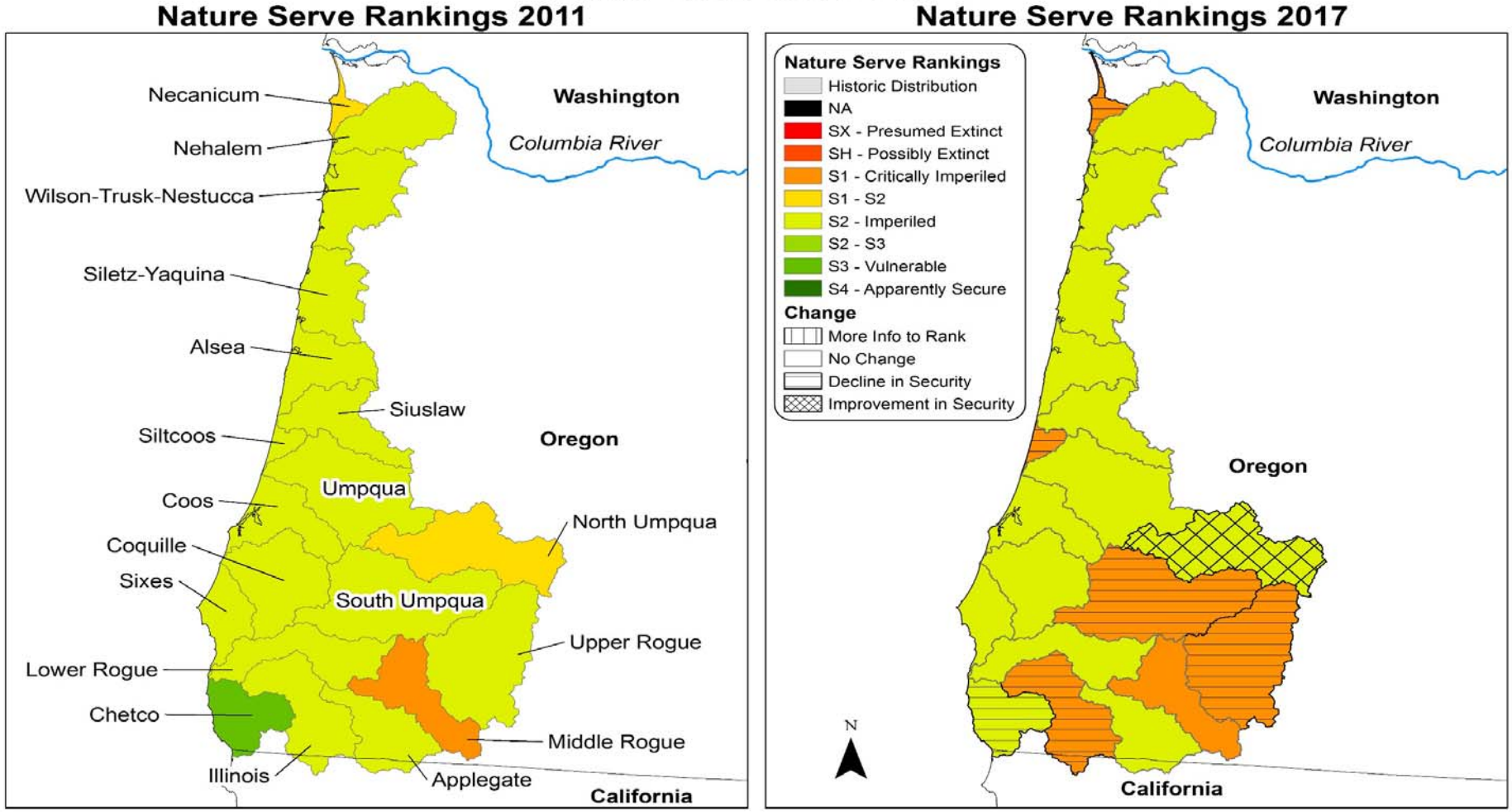
Jennifer Poirier and Erin Butts.-U.S. Fish and Wildlife Service


North Coast Sub-Region of Oregon Coast RMU
Necanicum
Nehalem
Wilson-Trask-Nestucca
Siletz-Yaquina
Alsea
Siuslaw
Siltcoos
0 5 10 20 30 Kilometers
Lamprey Distribution
Current
Historical
HUC 8 Watersheds
Streams
Map Date: 2/7/2017
Base Data: ESRI World Topo
WA
OR
ID


South Coast Sub-Region of Oregon Coast RMU
Coos
Coquille
Sixes
Lower Rogue
Chetco
Umpqua
North Umpqua
South Umpqua
Upper Rogue
Middle Rogue
Illinois
Applegate
0 10 20 40 60 Kilometers
Lamprey Distribution
Current
Historical
HUC 8 Watersheds
Streams
Map Date: 1/31/2017
Base Data: ESRI World Topo
WA
OR
ID

Nature Serve Risk Assessment Updates

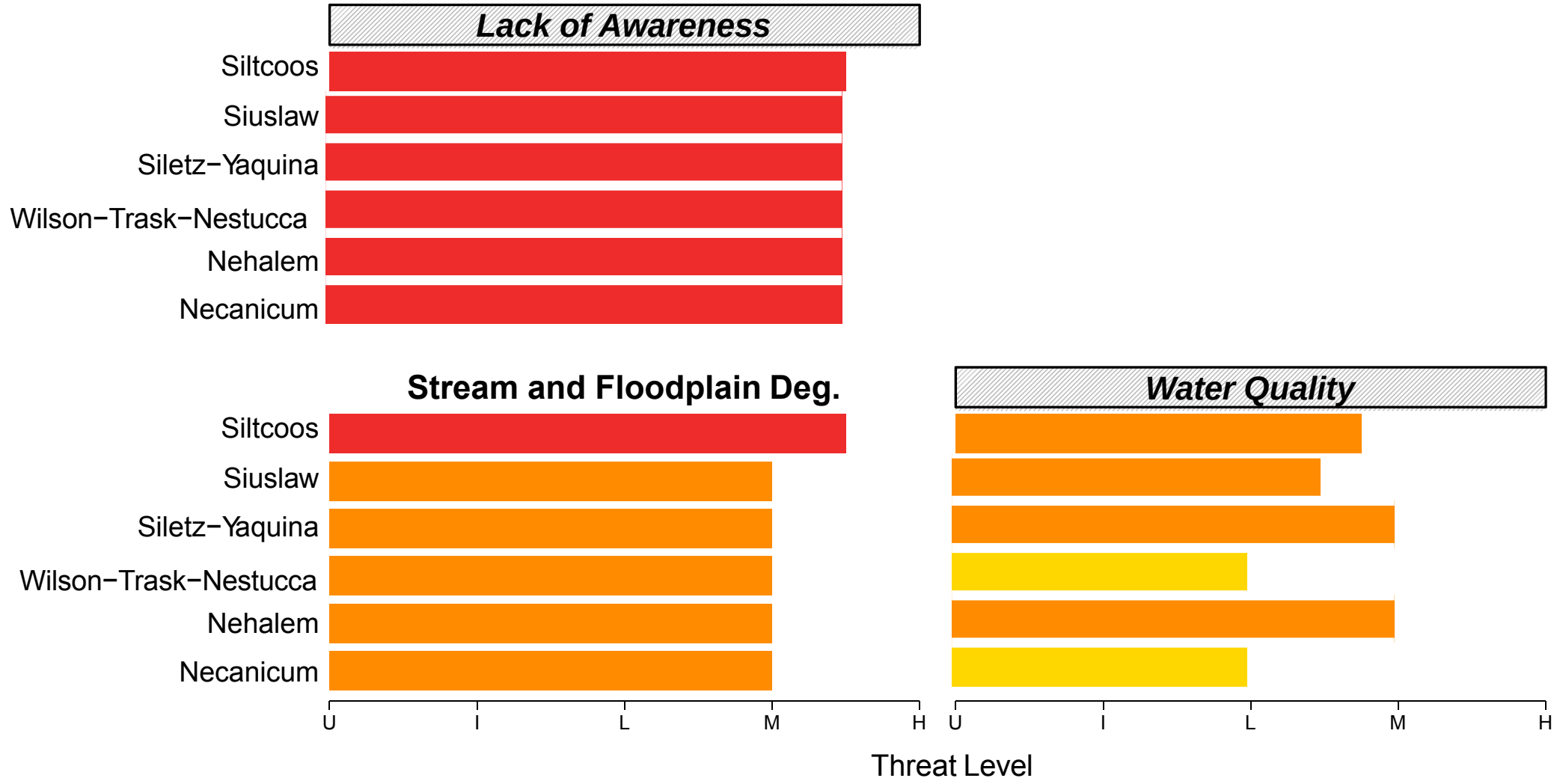
Oregon Coast RMU HUCs:



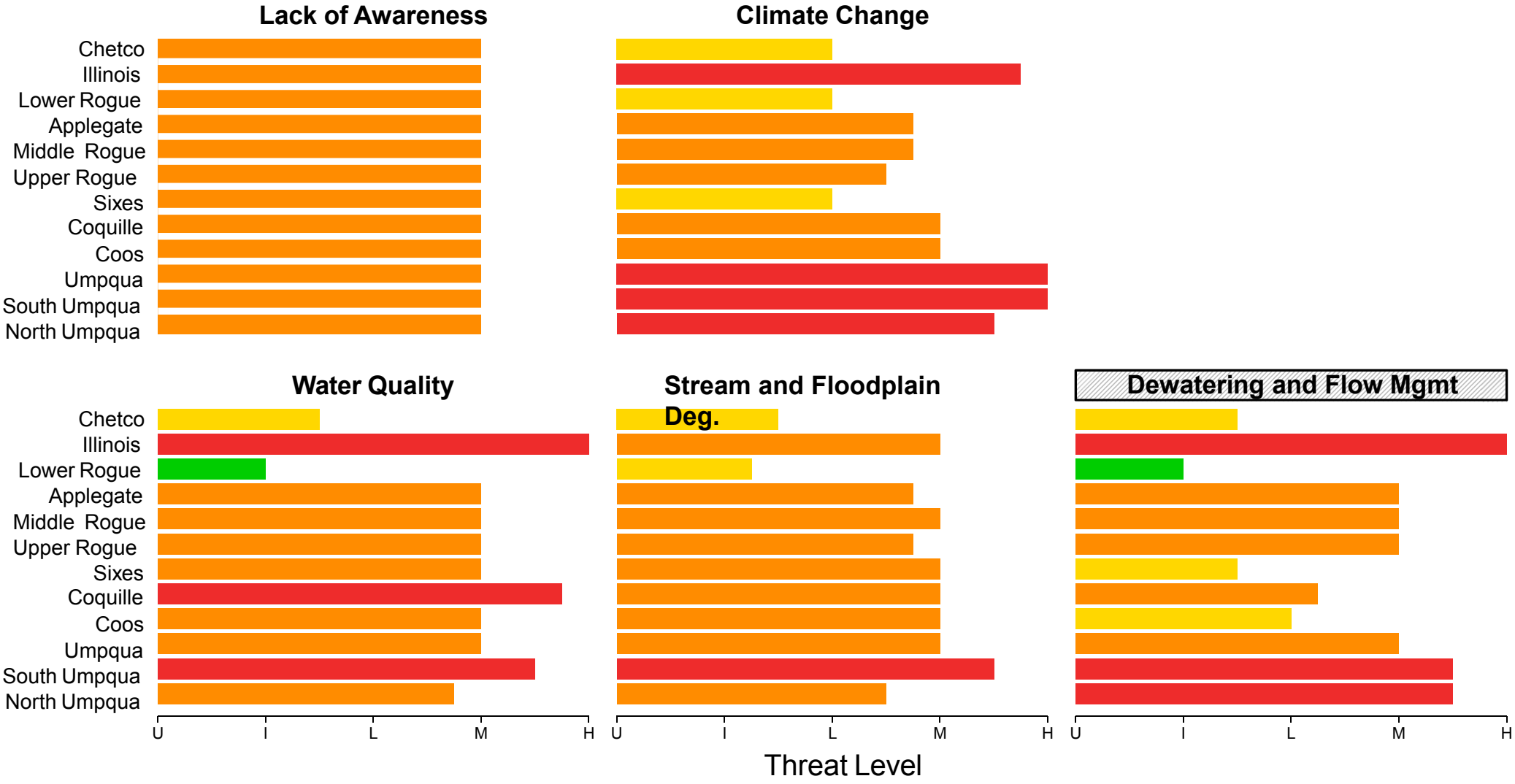
Risk Rank Changes

- Changes in the Necanicum, South Umpqua and Chetco are likely correlated with the increase in the overall threats scope to a ranking of high.
- Changes in the Upper Rogue and Illinois are likely the result re-calculating the area of occupancy (which resulted in a general lowering of current occupancy and ratio ranking values), but may also be associated with ranking population size and short term trend as Unknown.
- The improvement in Risk Rank in the North Umpqua is associated with the increase in population size and stabilization of short term trend.
- Notable Changes in population Demographics
  - ODFW Oregon coast abundance estimates
  - North Umpqua population increases

North Coast Sub–Unit Priority Threats – 2017



South Coast Sub–Unit Priority Threats – 2017



Progress in Addressing Threats to the RMU

North Coast

Monitoring and Evaluation:

1. Lamprey Spawning Surveys in Coastal Oregon and the Lower Columbia River: Distribution, Timing, and Development of Relative Abundance Indexes
2. Population Monitoring in the North Fork Alsea River and Eel Lake Basins
3. Larval Lamprey Use in Tidal Habitats

Stream and Floodplain Degradation:

1. OK Ranch Habitat Enhancement Project

Passage Improvement:

1. Coho Creek Culvert Removal and Replacement

Progress in Addressing Threats to the RMU

South Coast

Monitoring and Evaluation:

1. Repair Lamprey Counting Mechanism at Winchester Dam

Lack of Awareness and Monitoring and Evaluation:

1. Linking Larval Lamprey Habitat with Strategic Habitat Restoration Approaches

Stream and Floodplain Degradation:

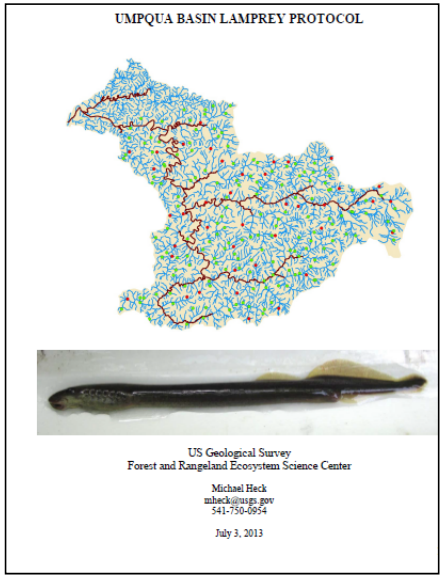
1. Twelvemile Creek Stream Restoration

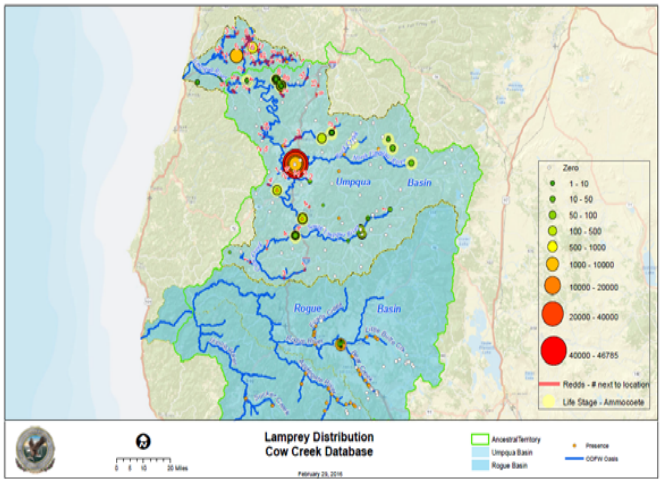
Monitoring and Evaluation and Passage Improvement:

1. Rogue Basin Lamprey Distribution, Passage and Video Monitoring Project

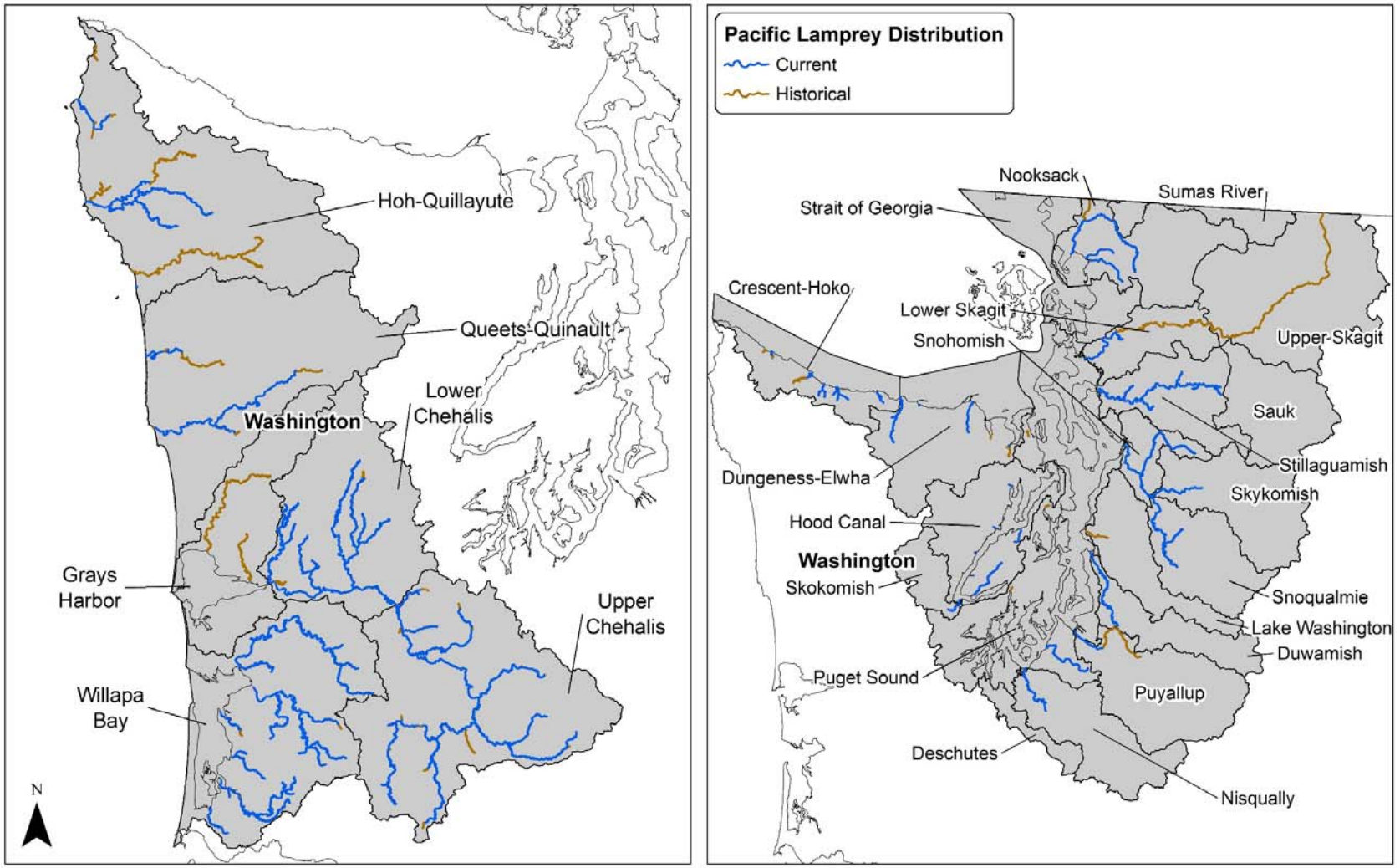
Lamprey Work in the South Coast

- Umpqua and Rogue Basin lamprey database and presence/absence surveys
- Smallmouth bass predation on lamprey study*
- Cow Creek Umpqua Tribal youth lamprey education
- Lamprey habitat mapping above Soda Springs Dam in the North Umpqua River
- Rogue Basin fish passage barrier removals
- Grizzly Peak Lamprey Work Group
- Winchester Dam lamprey Ramp





Washington Coast and Puget Sound RMU HUCs: Known Distribution Data



Questions?

Photo by K. Coates

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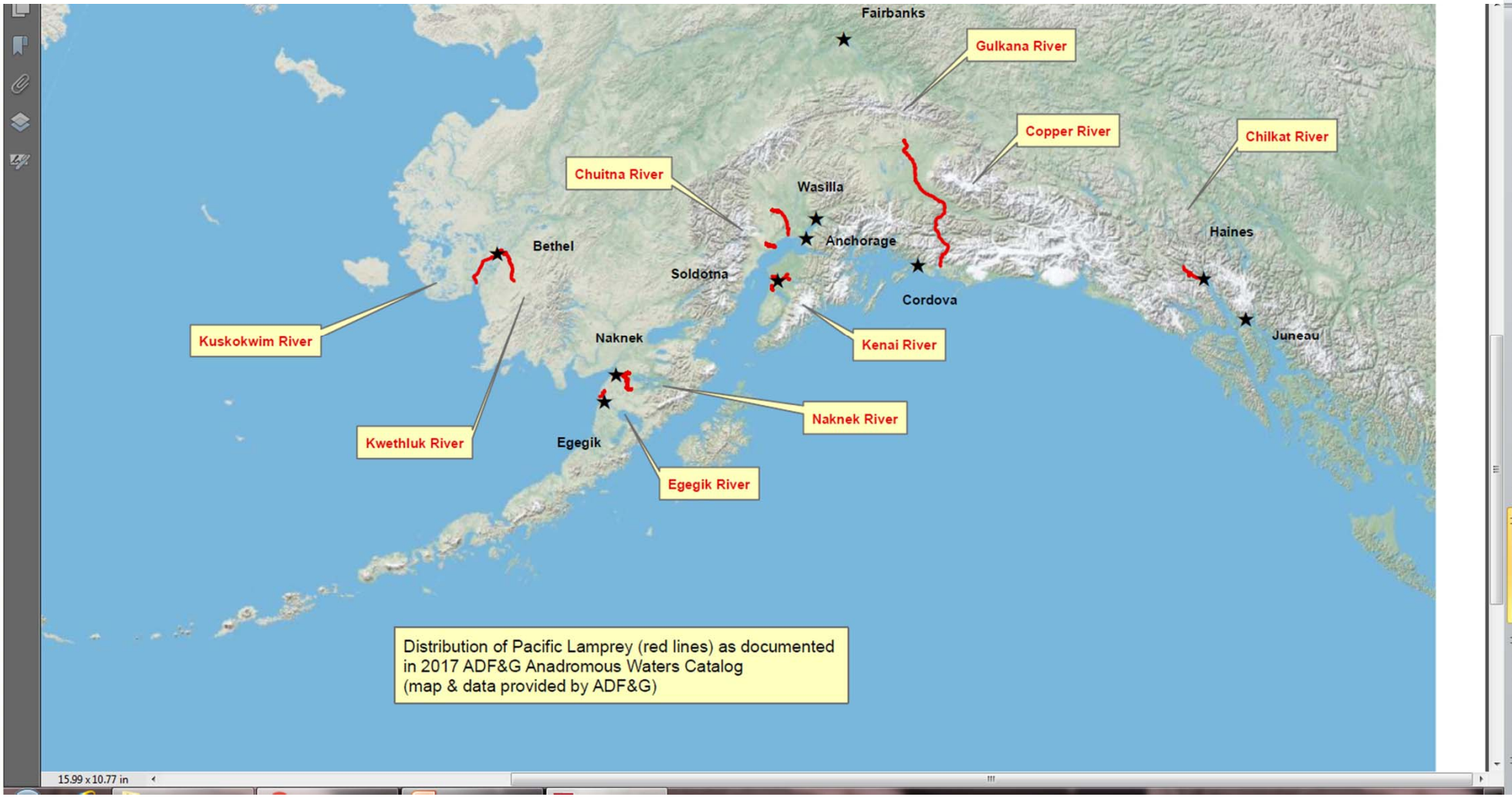
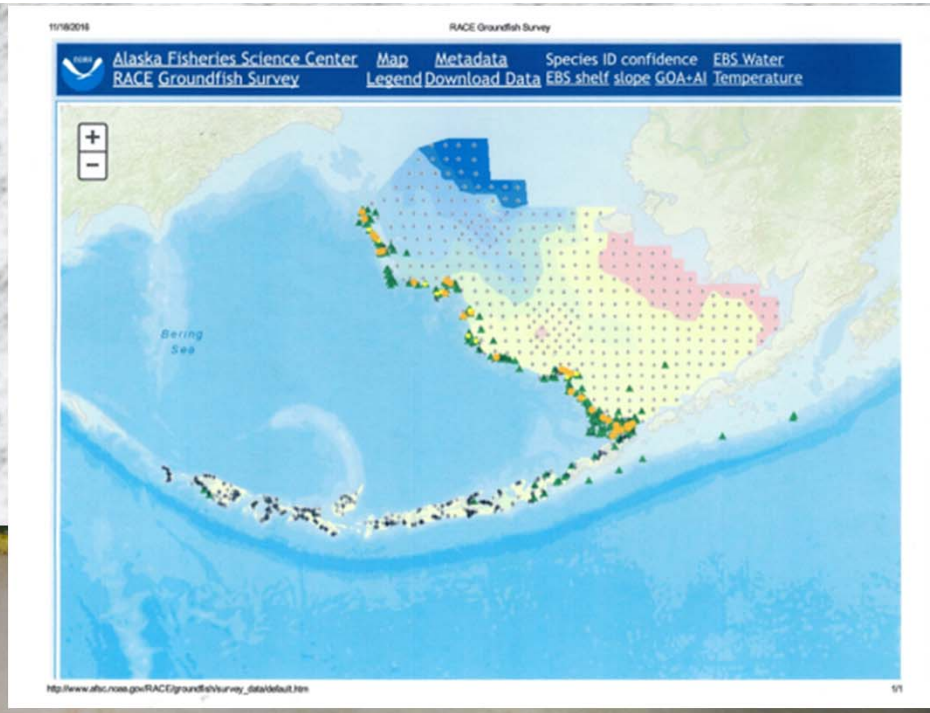
Distribution of Pacific Lamprey in Alaska



North Pacific Ocean RIP

- Host fish: Walleye Pollock, and Pacific Hake, Pacific Herring, Chinook Salmon, Pacific Cod.
- Found throughout the water column, most commonly found between the surface and 500 m
- Lack of information is biggest threat, prey availability, changing ocean conditions
- Analysis of hake fishery lamprey catch
- Population genetic analysis
- Natal origin and age by statolith
- Host fish



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National Fish Habitat Partnership Update

Pacific Lamprey Conservation Agreement
Policy Committee 5-Year Review
December 5, 2017

Emily Greene
NFHP Board Staff

NATIONAL FISH HABITAT PARTNERSHIP






What is the National Fish Habitat Partnership?

The National Fish Habitat Partnership seeks to protect, restore, and enhance the nation's fish and aquatic communities through:

- Partnerships that foster fish habitat conservation
- Non-regulatory, voluntary conservation actions
- Leveraging investments

NATIONAL FISH HABITAT PARTNERSHIP






In The Beginning…

- In 2001, the Sport Fishing and Boating Partnership Council supported an ad hoc group of fisheries professionals to develop the National Fish Habitat Action Plan.
- Create a conservation system similar to the North American Waterfowl Management Plan.

NATIONAL FISH HABITAT PARTNERSHIP

National Fish Habitat Action Plan

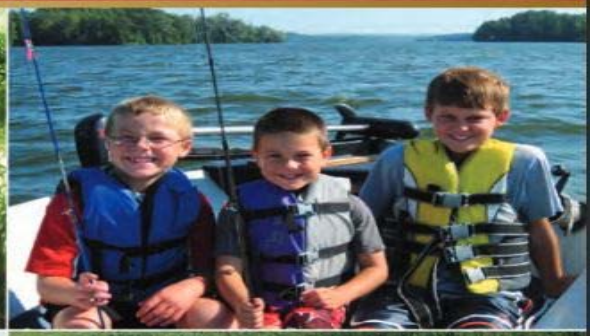
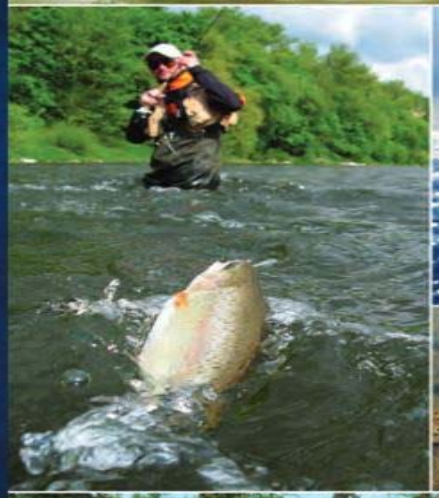
2nd Edition

Cooperation

Investment

Stewardship

NATIONAL FISH HABITAT PARTNERSHIP










NFHP Mission

Our mission is to protect, restore and enhance the nation's fish and aquatic communities through partnerships that foster fish habitat conservation and improve the quality of life for the American people.

NATIONAL FISH HABITAT PARTNERSHIP






NFHP Goals

- Protect and maintain healthy aquatic systems.
- Prevent further degradation of fish habitat.
- Enhance and restore fish habitat.
- Increase quality and quantity of fish habitats to achieve diversity.

NATIONAL FISH HABITAT PARTNERSHIP






Federal Caucus

National Fish Habitat Board

Partners Coalition

Joint staff

Science & Data Committee

Communications Committee

Ad-Hoc Committees

Partners (states, tribes, federal agencies, NGOs, landowners, etc.)

Fish Habitat Partnerships

Aquatic Habitat Conservation Projects

Beyond the Pond

NATIONAL FISH HABITAT PARTNERSHIP






National Fish Habitat Board Responsibilities

- Develop national conservation goals
- Establish criteria for *Fish Habitat Partnerships*
- Measure and communicate progress
- Increase public and private focus on aquatic habitat
- Recommend the best use of funds
- Advocate policy (non-Federal members)
- Guide Board member and staff resources
- Produce *"Status of Fish Habitats in the United States"* report every 5 years

NATIONAL FISH HABITAT PARTNERSHIP






National Fish Habitat Board

State Government Representatives (6)

Federal Government Representatives (5)

Indian Tribal Representation (1)

American Fisheries Society (1)

Sportfishing (4)

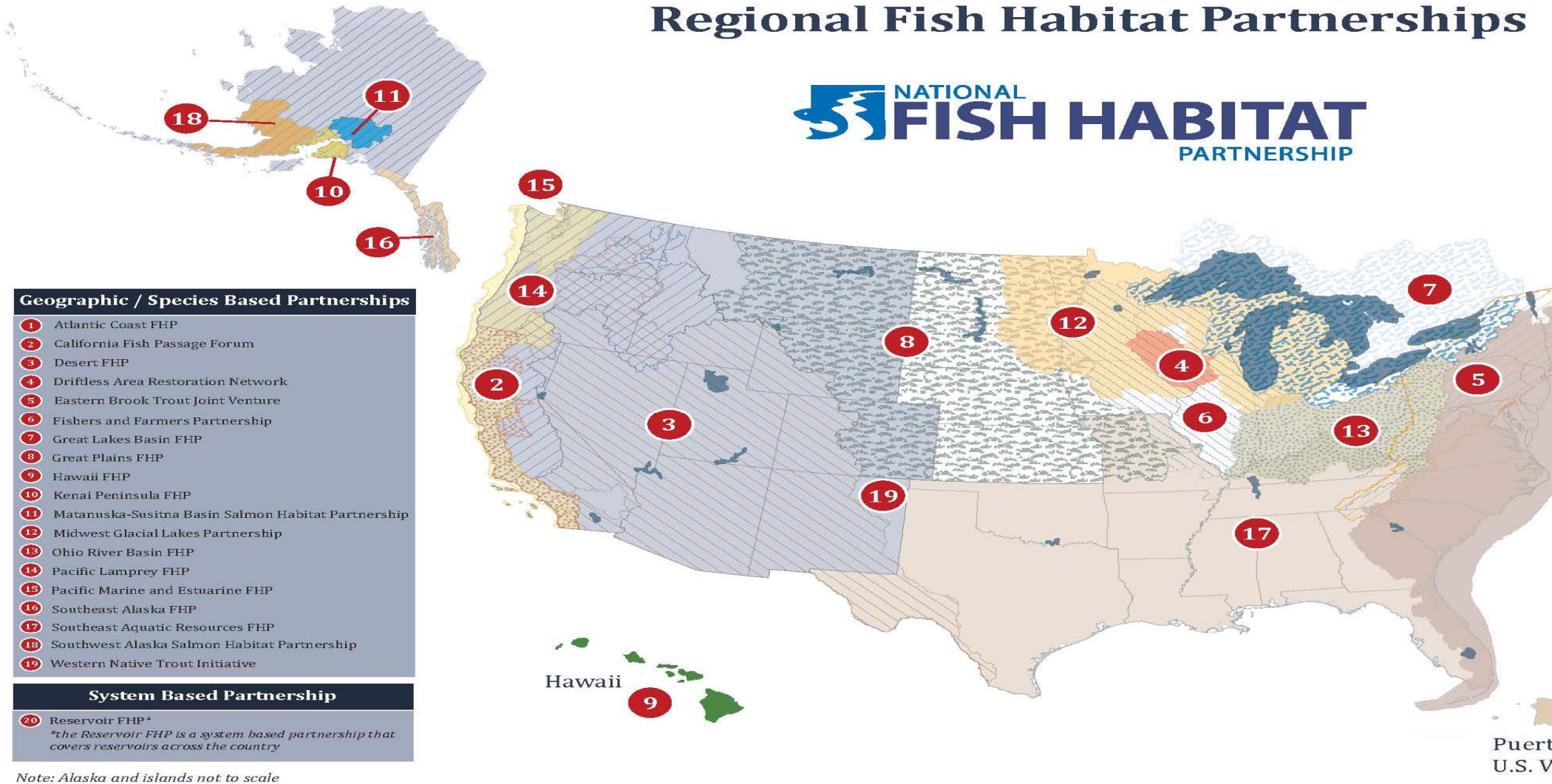
Commercial fishing (2)

Land and aquatic resource conservation organizations (2)

NATIONAL FISH HABITAT PARTNERSHIP

Regional Fish Habitat Partnerships

NATIONAL FISH HABITAT PARTNERSHIP



Geographic / Species Based Partnerships

1. Atlantic Coast FHP
2. California Fish Passage Forum
3. Desert FHP
4. Driftless Area Restoration Network
5. Eastern Brook Trout Joint Venture
6. Fishers and Farmers Partnership
7. Great Lakes Basin FHP
8. Great Plains FHP
9. Hawaii FHP
10. Kenai Peninsula FHP
11. Matanuska-Susitna Basin Salmon Habitat Partnership
12. Midwest Glacial Lakes Partnership
13. Ohio River Basin FHP
14. Pacific Lamprey FHP
15. Pacific Marine and Estuarine FHP
16. Southeast Alaska FHP
17. Southeast Aquatic Resources FHP
18. Southwest Alaska Salmon Habitat Partnership
19. Western Native Trout Initiative

System Based Partnership

20. Reservoir FHP*

**the Reservoir FHP is a system based partnership that covers reservoirs across the country*

Note: Alaska and islands not to scale

Includes current fish habitat partnerships, approved by the NFHP Board, June 2016.






Fish Habitat Partnerships

- **Develop** mutually beneficial priorities across multiple partners
- **Secure, leverage, and distribute** resources for habitat protection, restoration and enhancement
- **Coordinate** information sharing and conduct **outreach** to enhance understanding and support for fish habitat
- **Support scientific research**, fish habitat assessments, and development of decision support tools

NATIONAL FISH HABITAT PARTNERSHIP






NFHP Progress

- **National Fish Habitat Action Plan Update (2012)**
- **Federal MOU: Interior, Commerce, and Agriculture (2012)**
- **National Assessments: 2010, 2015**
  - Defines scope of conservation needs

- **20 Partnerships: 500 projects in 46 states**
  - Pacific Lamprey Fish Habitat Partnership in June 2016
- **Established 501(c)3 - Beyond the Pond (2015)**
- **Progress on National Fish Habitat Conservation Through Partnerships Act (ongoing)**






Beyond the Pond 501(c)3

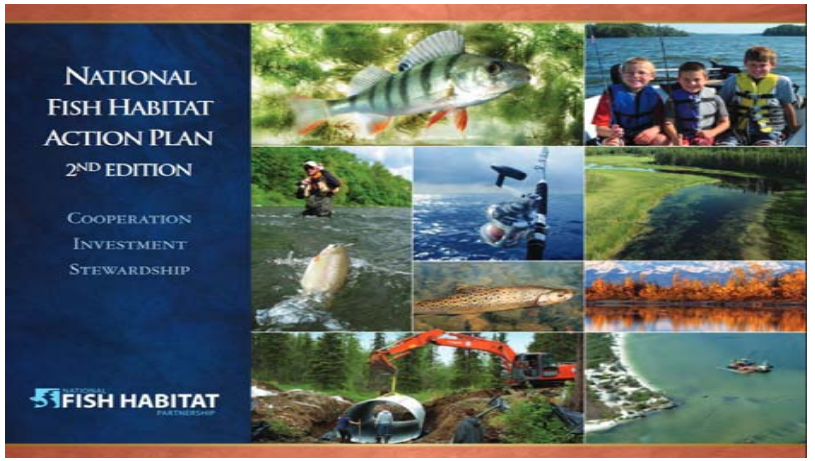
- The 501(c)3 foundation for the National Fish Habitat Partnership (IRS Approved-June 2015)
- **Sole purpose is to raise additional funds for FHPs for on-the-ground conservation projects**
- Board of Directors established
- Bylaws/Charter/participation from FHPs established
- More information at:

http://beyondthepondusa.com/






WWW.FISHHABITAT.ORG



NATIONAL FISH HABITAT PARTNERSHIP

Pacific Lamprey Fish Habitat Partnership

- The Pacific Lamprey Fish Habitat Partnership became the 20th partnership of the National Fish Habitat Partnership
- Not eligible for coordination or project money yet
- Beyond the Pond 501(c)3 can receive money for the Lamprey FHP

Co-Chair Report – Important Activities

Outreach Plan

- *Policy Engagement Strategy*
- *Website and Data Clearinghouse*

Conservation Team Funding Table

BPA / NWPCC Cost Savings Program

- *Lamprey Funding Proposal*

Outreach Plan

Co-Chair Recommendation

Outreach Plan has three general strategies:

1. Policy Engagement with legislative contacts (preliminary development)
   - *increased funding opportunities.*
2. Technical Resources (well developed)
   - *USFWS Website*
   - *USFWS Data Clearinghouse*
3. General Public (no organized development through CT)
   - *USFWS Website*
   - *Locally Developed Materials (potential support from Conservation Team)*

Outreach Plan – Policy Engagement

Co-Chair recommendation - very simple approach, initially.

2-pager narrative emphasizing:

- *Importance to tribes / unique ecological contributions*
- *Rapid decline / extirpations throughout much of its range*
- *Conservation Agreement / regional support / relationship with NFHP*
- *Priority projects / relationship with salmonids / costs (the ask)*

8 ½ X 14 color – glossy brochure

- *Side 1 emphasizing the Conservation Agreement administrative structure / benefits of investments (funding needs)*
- *Side 2 emphasizing biology / key limiting factors / priority projects*

[Technical Resources www.fws.gov/pacificlamprey](www.fws.gov/pacificlamprey)

Pacific Lamprey

Add View Manage Item

Summary

The goal of this project is to enable and enlist our partners to address information needs identified in the Pacific Lamprey Conservation Agreement to promote Pacific Lamprey conservation. This will be accomplished by: 1) collaboratively collecting occupancy and distribution data; and 2) providing a Pacific Lamprey data clearinghouse for all partners.

Child Items (17)

- Adult Passage
- Artificial Propagation
- Biology
- Climate Change
- Contaminants
- Distribution
  - *Pacific lamprey (Lampetra tridentata) distribution and status by HUC8*
  - *Pacific lamprey (Lampetra tridentata) distribution in California as of 2002*
  - Pacific Lamprey Known Observations and Distribution
  - Pacific Lamprey Nature Serve Rankings
  - *River lamprey (Lampetra ayresi) distribution and status by HUC8*
  - Sampling Techniques
- Dredging
- Genetics
- Habitat
- Habitat Restoration
- Identification
- Juvenile Passage/Entrainment
- Miscellaneous
- Ocean

Map »

Spatial Services

ScienceBase WMS :

https://www.sciencebase.gov/catal

Communities

- Pacific Region, Region 1
- U.S. Fish and Wildlife Service

Associated Items

Associate an Item

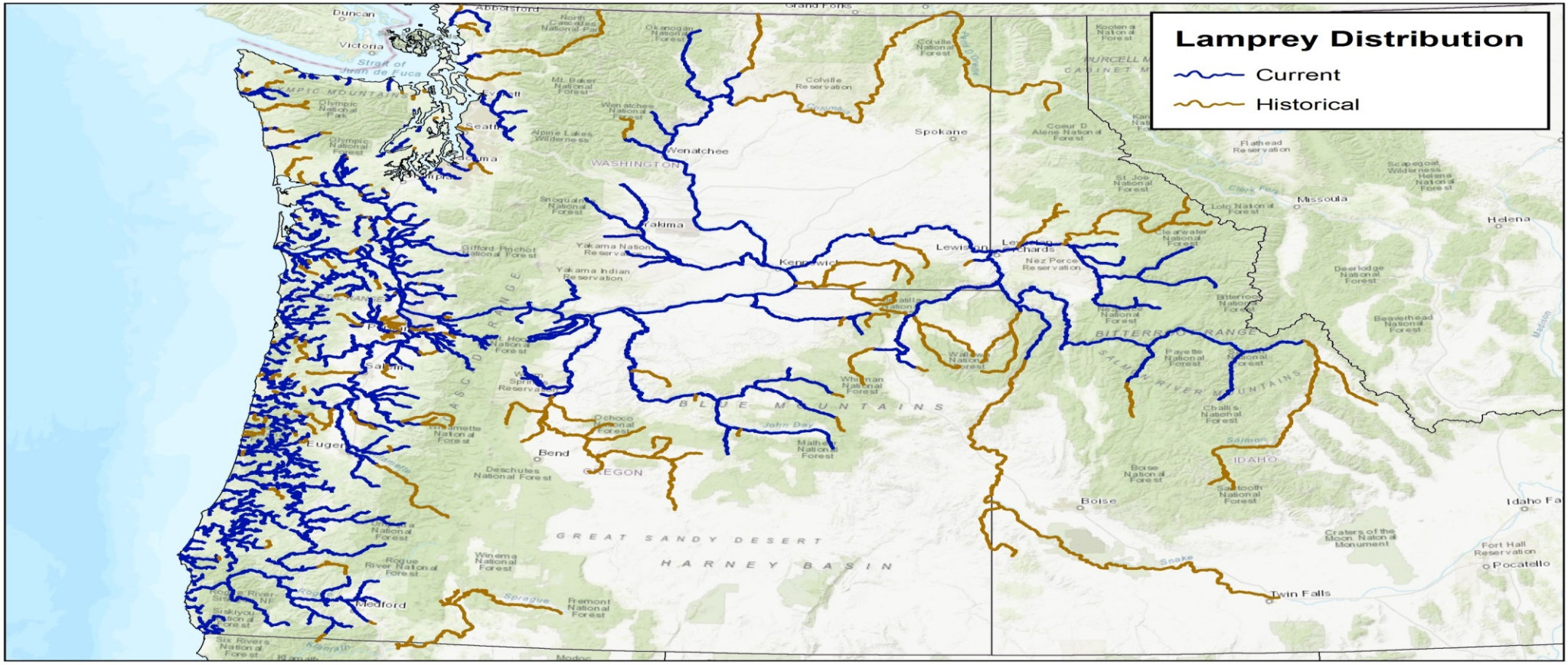
Tags

Subject : Pacific Lamprey

Distribution Data

www.fws.gov/pacificlamprey
Erin_butts@fws.gov

Current and Historic Known Distribution of Pacific Lamprey



Produced in the Columbia River Fish and Wildlife Conservation Office
Base Data: ESRI World Topo
Map Date: 9/1/2016

Pacific Lamprey Story Map

www.tinyurl.com/PacificlampreyStorymap

A story map

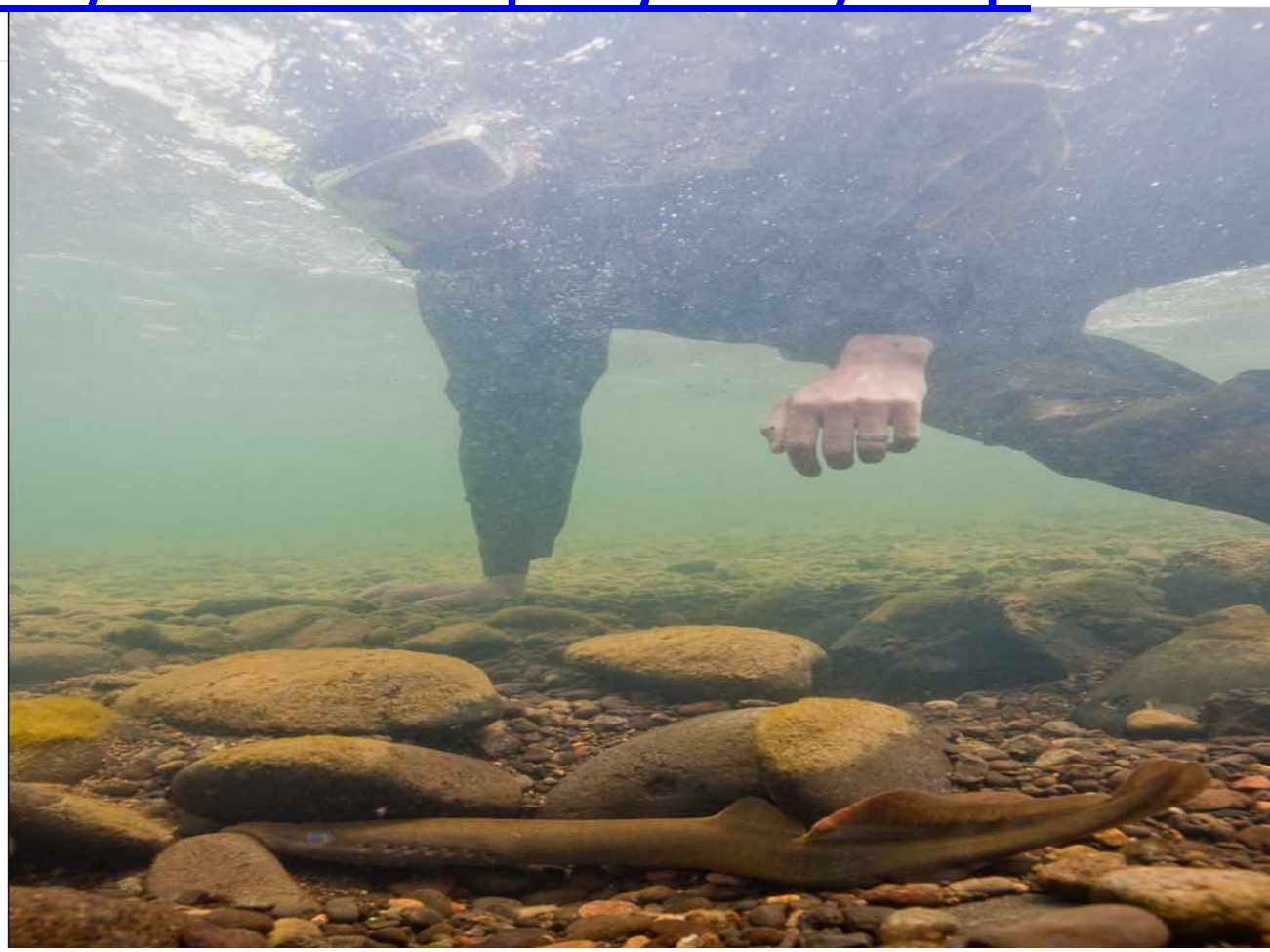
Pacific Lamprey

Scroll through the story map to learn more about Pacific Lamprey or click on a section below to jump to your area of interest:

Lamprey Biology
Importance
Threats
Distribution
Conservation Initiative
Conservation and Restoration Efforts
Lamprey Partnership
Links for additional information

Photo above and photo at right courtesy of Jeremy Monroe, Fresh Waters Illustrated.

Pacific Lamprey (*Entosphenus tridentatus*) are agnathan fish.



NWPCC/BPA Cost Savings Program

- Umbrella proposal for the Pacific Lamprey Conservation Initiative has been developed
- High Priority Projects from Columbia and Snake River Regional Implementation Plans will be considered
- Conservation Team evaluates projects
  - Project rationale
  - Threats addressed
  - Feasibility
  - Partner engagement

Lamprey Existing Funding Table Working Draft

Example of information on the Table

Agency Program	Funding Source Title	Types of projects and applicants	Current / Recent Application to Pacific Lamprey	Average / Range of Available Funds
US Fish and Wildlife Service	Pacific Northwest Funds	Region 1 funds available for Passage, Habitat restoration, and Monitoring and evaluation	Example Projects: Yakima River adult lamprey passage study and structure development. Warm Springs hatchery adult lamprey passage structure. Umatilla River adult lamprey passage structure at 3-mile dam and Westland diversion dam	$50-60K per project. Approximately $100-150k per year

Click here to see Draft Funding Table

Policy Discussion – Key Questions

Action Plan for the next 5-Years

- *What are our priorities? How do we fund them?*
- *Can we improve our organization, coordination and effectiveness?*

How can regional policy more directly empower - energize local policy directives – to *Advance Implementation*?

- *Can regional policy better facilitate and / or motivate local collaboration and improve access to funding?*
- *Can existing programs be modified – or new programs be established?*

How do we – as a policy group effectively participate in Advancing Implementation?

Money is not everything, but it helps. (B. Obama)

Policy Discussion – Multi level Engagement

- Lamprey implementation occurs primarily at the local levels – with regional support.
- Can regional policy better encourage and institutionalize lamprey recovery and important research at local levels (RMU) in collaboration with multiple entities?
  - *Are policy staff within the RMUs empowered to encourage technical staff and advance implementation? Can this be improved?*
- Do regional and local policy staff discuss lamprey recovery within your agency (or between agencies) on a daily, weekly, monthly basis – like we do with salmon?

Policy Discussion – Additional Resources

1. Can we modify existing programs to also include lamprey recovery?

2. Can we develop new lamprey specific programs?

- *Can state funding entities better participate? (OWEB, WA SRFB)*
- *How do we improve funding outside of the Columbia River?*
- *Can we better cost share with the new – existing BPA funds?*
- *Are there NGO funding opportunities?*

Next Steps

- Review of the 2018 Conservation Team Calendar
- Few Words about Technical Workshop (Dec 6-7) at CRITFC (5th Floor)
- Final Thoughts? Observations?

Draft - Conservation Team Calendar - 2018

1. **Distribution of funds** from BPA:
   - Late Winter – distribution of 2018 funds
   - Autumn – (Hopefully) selection and distribution of 2019 funds.
2. Explore ways to **re-align existing funding programs** for all regions.
3. Refine the **project proposal and selection process**.
4. Refine and sharpen the **Regional Implementation Plans**.
5. **Incorporate new findings** from the Lamprey Technical Work Group(s) into Best Management Practices and dissemination of information.
6. Explore ways to **better engage local, state and federal policy managers** to include lamprey restoration as a management priority.
7. Refine and **implement outreach and education** of Conservation Agreement to state and federal policy / legislative bodies.
8. Assist in shaping future **PIT Tag monitoring policy direction**. (HD vrs FD)

Dec 6-7th Technical Information Exchange

***Purpose** is to share new findings so that new knowledge and technologies can be used throughout the lampreys range, as appropriate*

Special presentations / discussions include:

- eDNA – applications
- Passage
- Artificial Propagation
- Translocation & Genetics

Workshop is intended to occur annually

Final Thoughts

- **Special Thanks** to the Conservation Team for their continued support.
  - Our work has just begun!
- Recognition of Co-Chair Howard Schaller (retired) who endlessly provided:
  - Passion, persistence and persuasion
  - Leadership and great humor
  - Experience and insights
  - All – with a relaxed smile and humility.

Thoughts? Observations? Suggestions? Wisdom?

Elmer Crow, Nez Perce Tribe

Mecklenburg et al. 2002

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