Northwest Power and Conservation Council

September 4, 2013

MEMORANDUM

TO: Fish and Wildlife Committee Members

FROM: Tony Grover, Fish and Wildlife Division Director

SUBJECT: Update on Columbia basin Salmon and Steelhead Recovery Planning

Elizabeth Holmes Gaar, NOAA Fisheries, will update the Committee on the status of Columbia River basin recovery planning and implementation for salmon and steelhead listed as threatened or endangered under the Endangered Species Act. She also will overview recovery plan components and the potential relationships and synergies between the recovery plans and the Council's Fish and Wildlife Program.

The Endangered Species Act requires NOAA-Fisheries to develop and implement recovery plans for salmon and steelhead species listed under the Act. Recovery plans identify viability criteria, limiting factors, and actions needed to restore threatened and endangered species to the point that they are again self-sustaining elements of their ecosystems and no longer need protection. Although recovery plans are guidance, not regulatory documents, the Act envisions recovery plans as the central organizing tool for guiding and coordinating recovery efforts across a wide spectrum of federal, state, tribal, local, and private entities. Recovery planning is an opportunity to find common ground among diverse interests, obtain needed protection and restoration for salmon and their habitat, and secure the economic and cultural benefits of healthy watersheds and rivers. Recovery planning is a collaborative effort that draws on the collective knowledge, expertise, and actions of communities and partnerships.

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NOAA FISHERIES
Northwest Region

Columbia River Salmon and Steelhead Recovery Updates

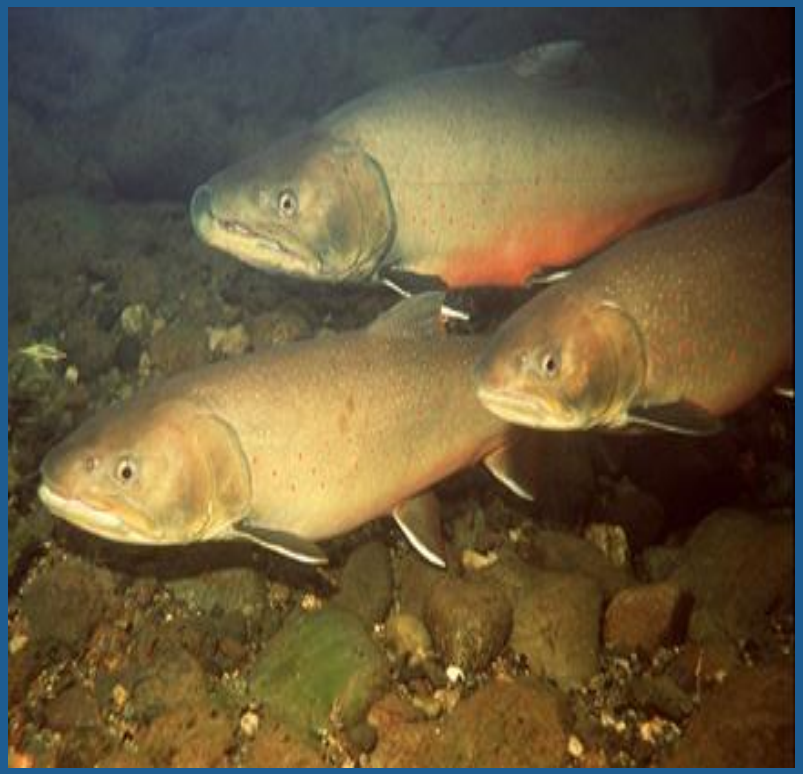
NW Power and Conservation Council
September 10, 2013

Elizabeth Holmes Gaar
NOAA Fisheries, NW Region

Presentation Topics

- Context and History
- Status of Columbia Basin salmon and steelhead recovery plans
  - Emphasis on Snake River Recovery Plan
- Recovery plan components and links to Fish and Wildlife Program components
- Collaborative Recovery infrastructure

Context - ESA and FWP Purposes



ESA Purpose:

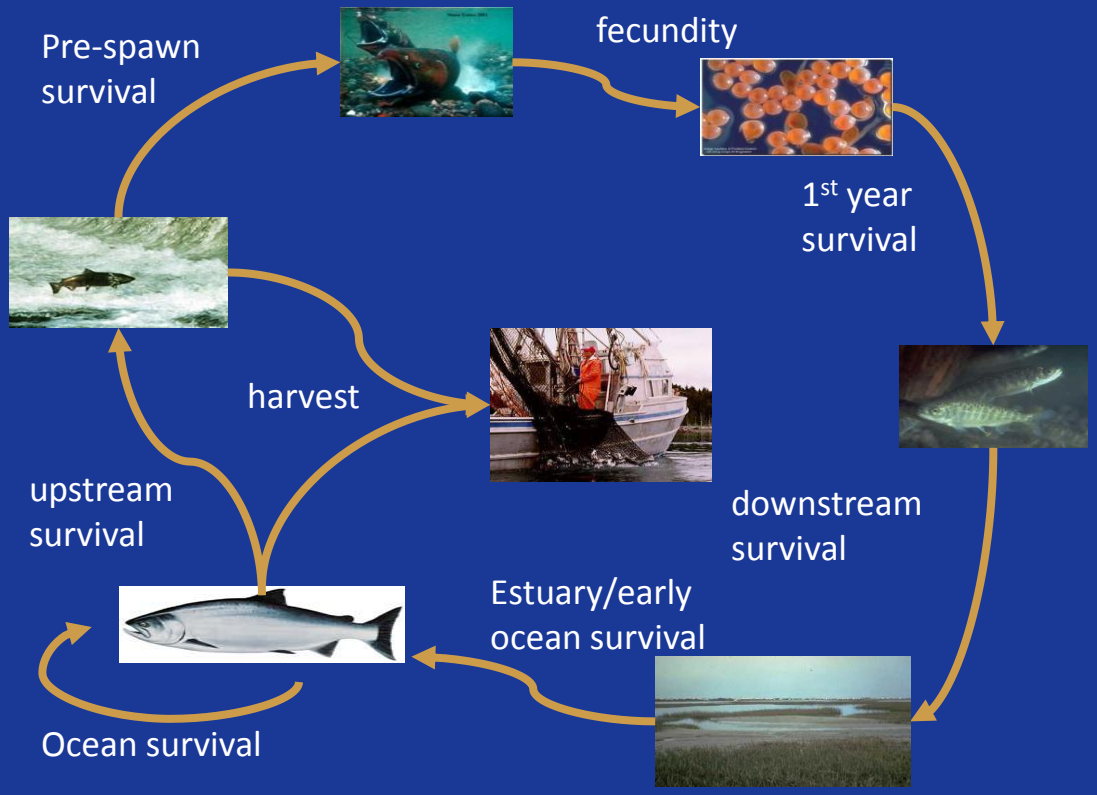
Conserve the ecosystems upon which endangered and threatened species depend

Provide a program to conserve endangered and threatened Species

NWPA FWP purpose:

Protect, mitigate, enhance

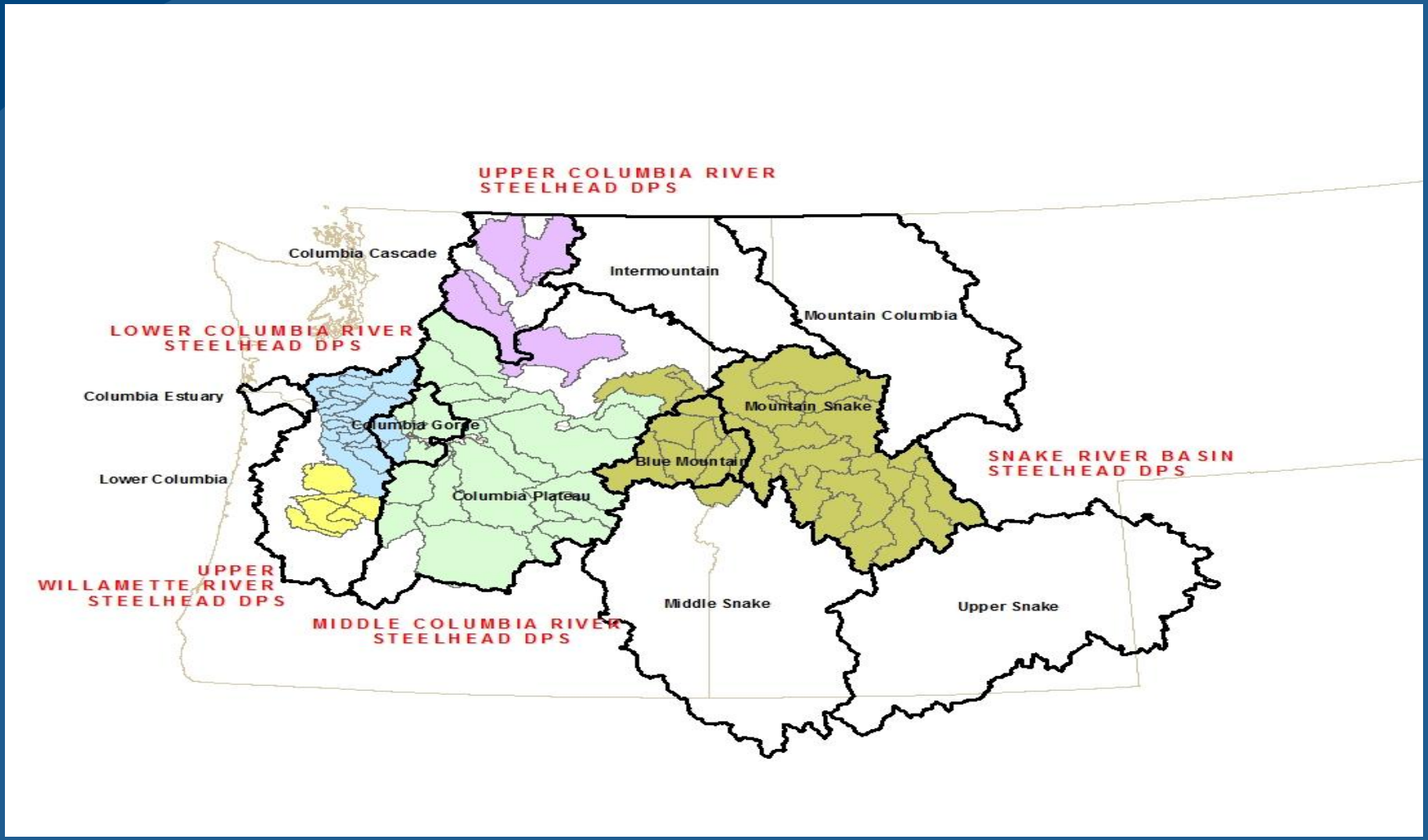
Context - Life Cycle Approach



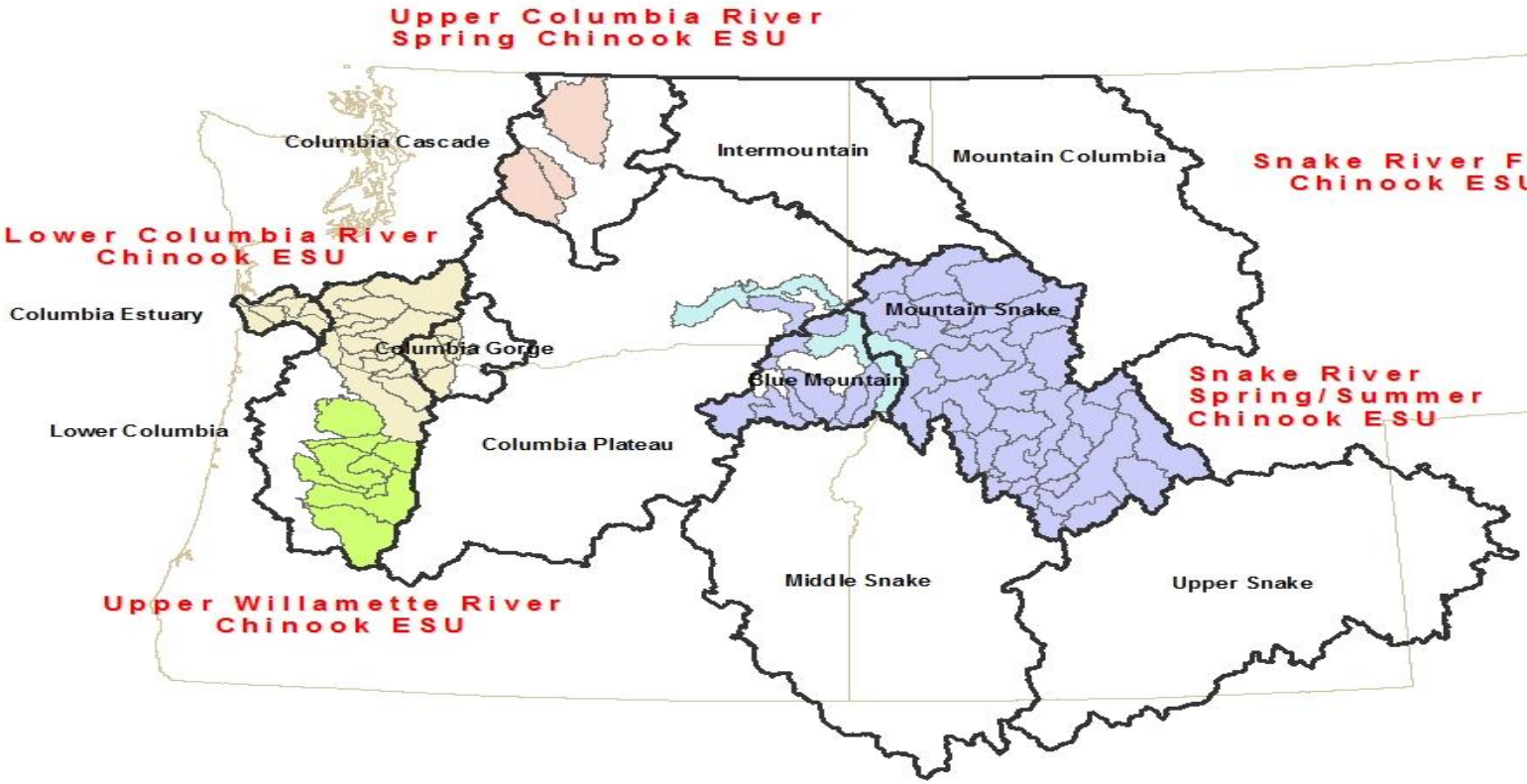
History and Context: FWP Subbasin Plan and Recovery Plan Evolution

- 2004 – 2005 Subbasin Plans: Assessments + Management Plans.
  - NOAA worked closely with Council so could build recovery plans from subbasin plans
  - Represented best available science at the time
- 2007 – Upper Columbia Recovery Plan
- 2009 - Mid C Steelhead Recovery Plan
- 2013 - Lower Columbia and Willamette Recovery Plans
- 2014 - Proposed Snake Recovery Plan
- 2015 - Final Snake Recovery Plan

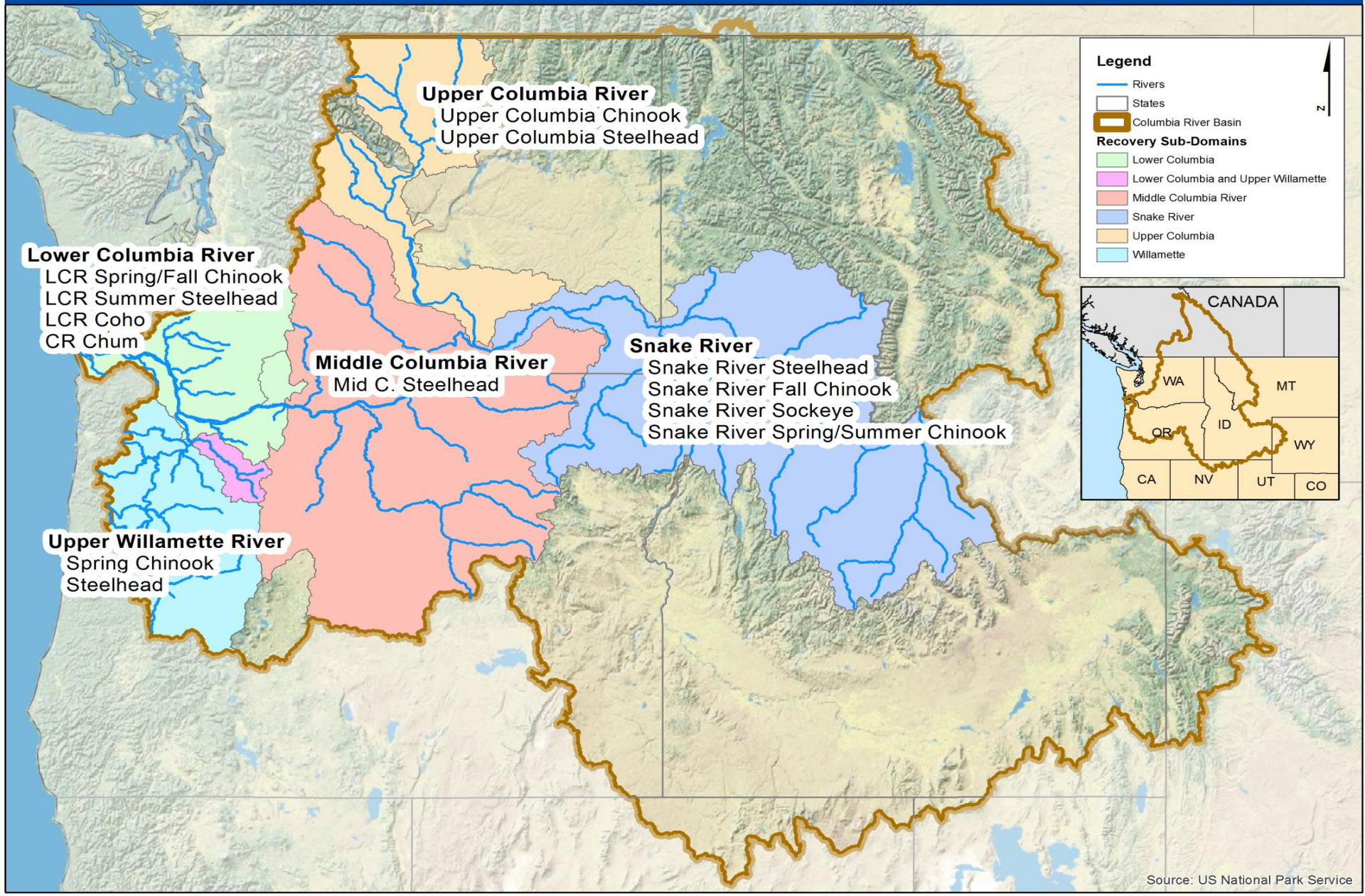
Context: provinces and steelhead distribution



Context: Provinces and Sp/Su Chinook



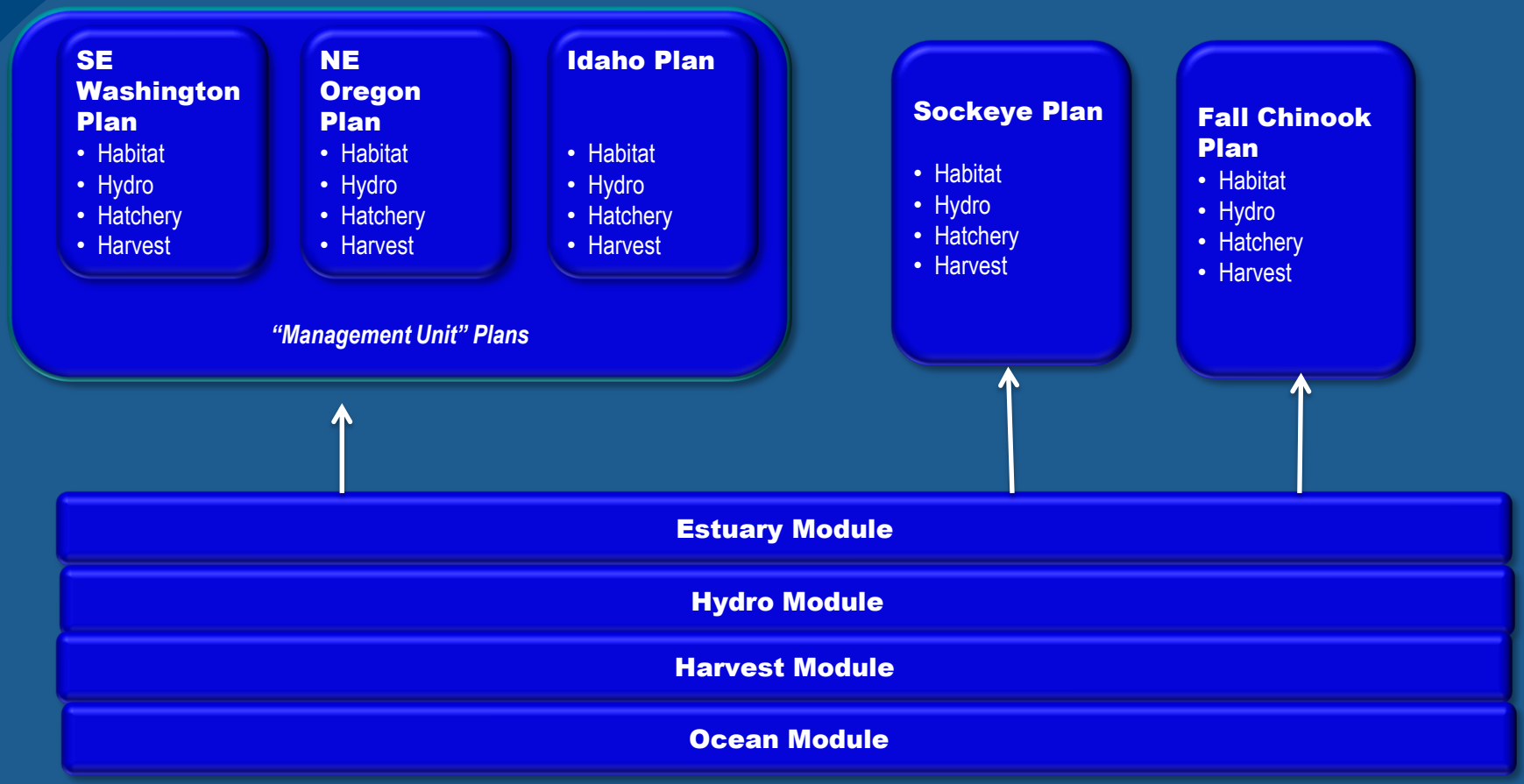
Columbia River Basin Listed Salmon and Steelhead



Architecture of Snake River Recovery Plans

- addresses all four listed species -

Spring/Summer Chinook & Steelhead "Roll-up" Plan



Status - Snake Recovery Plan Schedule

Early 2014 – Notice of Proposed Recovery Plans

2015 – Final Recovery Plans

2018 – Update Plans

Recovery Plan Updates

Recovery Components

- Recovery objectives & criteria (viability & threats)
- Broad Sense goals
- Current status
- Limiting factors & threats
- Site-specific actions
- Estimates of time & costs to recovery
- Research, monitoring & evaluation to track progress
- Adaptive management built into implementation systems

Components: Recovery Viability Objectives

- Abundance and productivity combinations sufficient to maintain genetic, life history and spatial diversity and exhibit demographic resilience to environmental perturbations.

- Spatial structure: such that the species is distributed in a manner that insulates against loss from a local catastrophic event and provides for recolonization if such an event occurs.

- Diversity such that natural production will be sustained across a range of conditions, allowing for adaptation to changing environmental conditions.

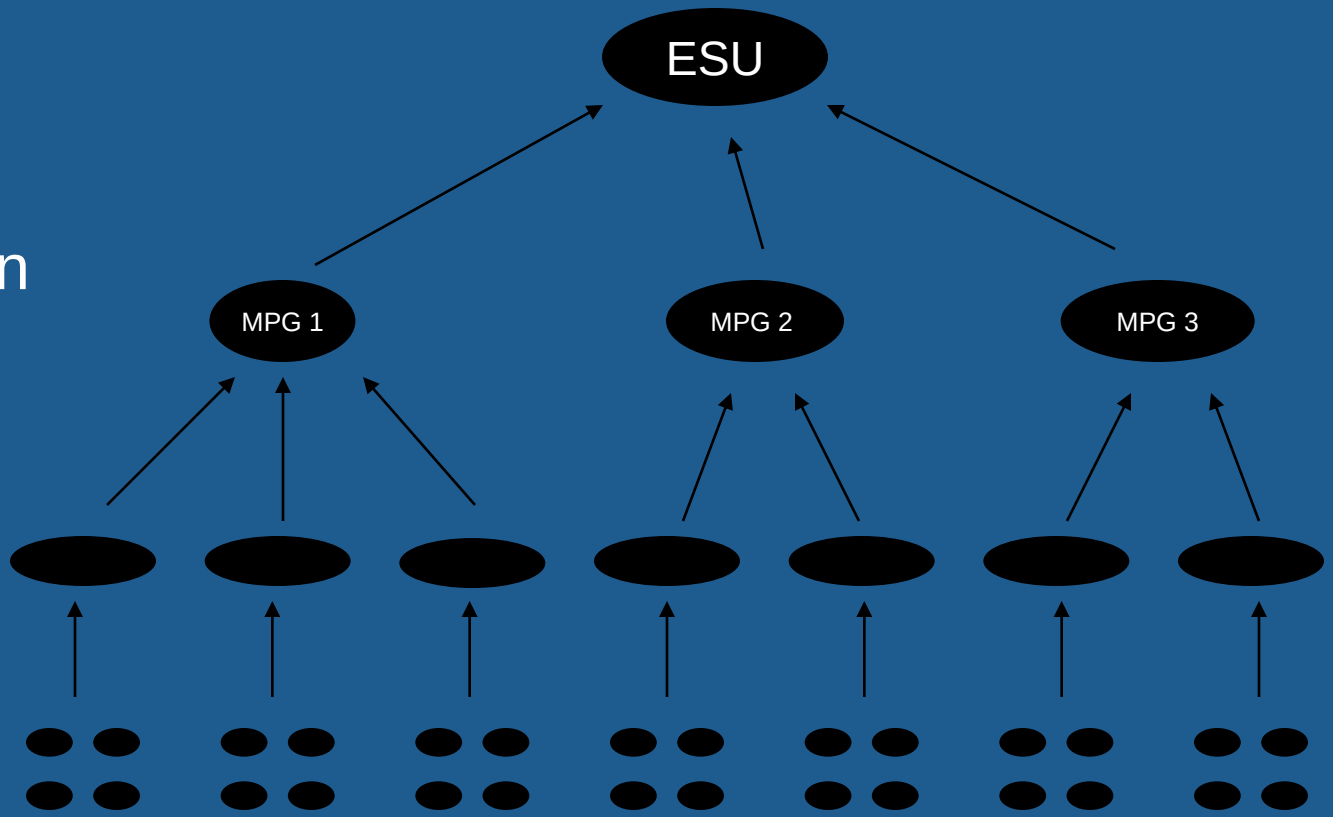
Components: Viability Criteria: Hierarchical Framework

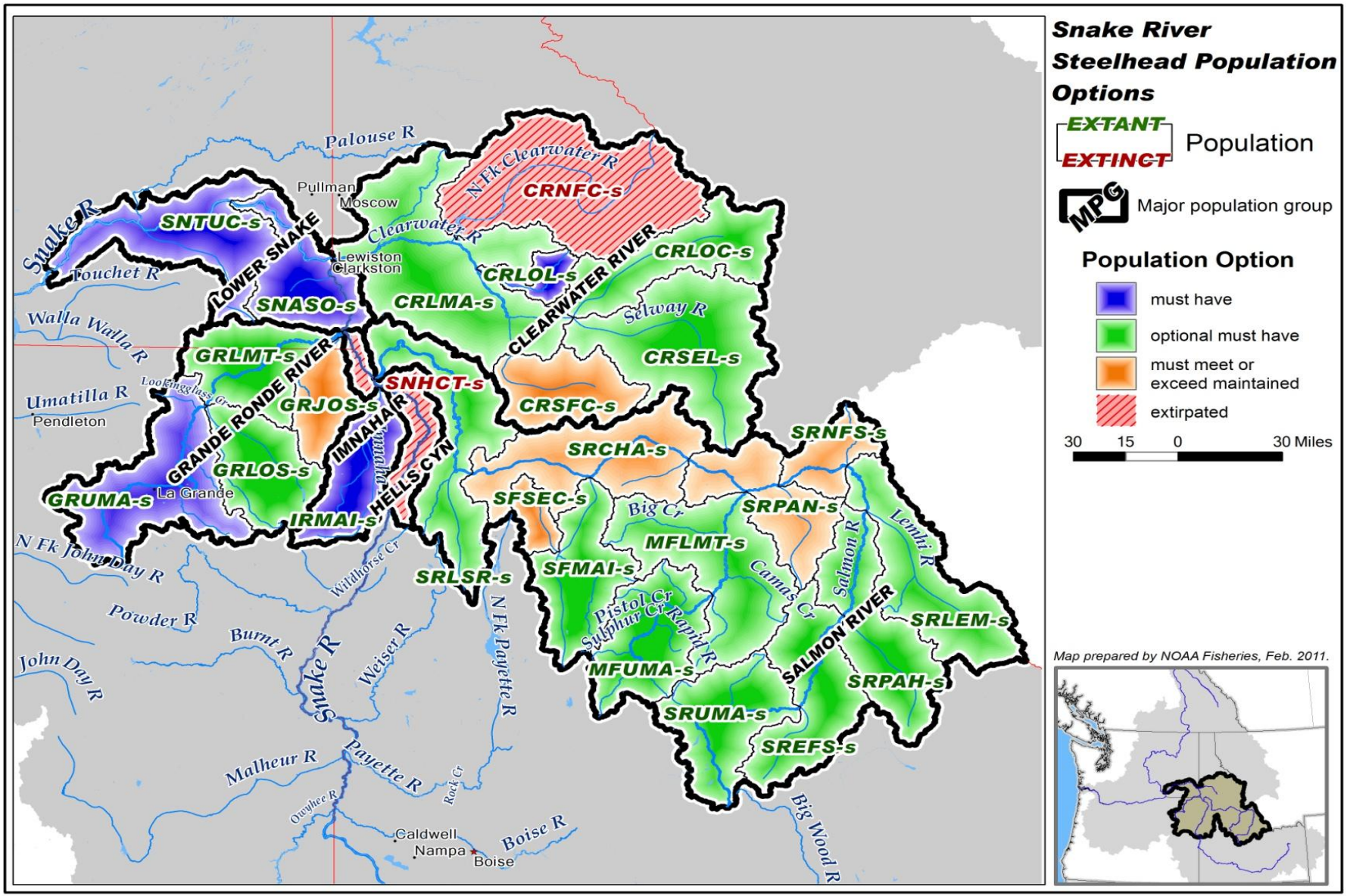
ESU Status

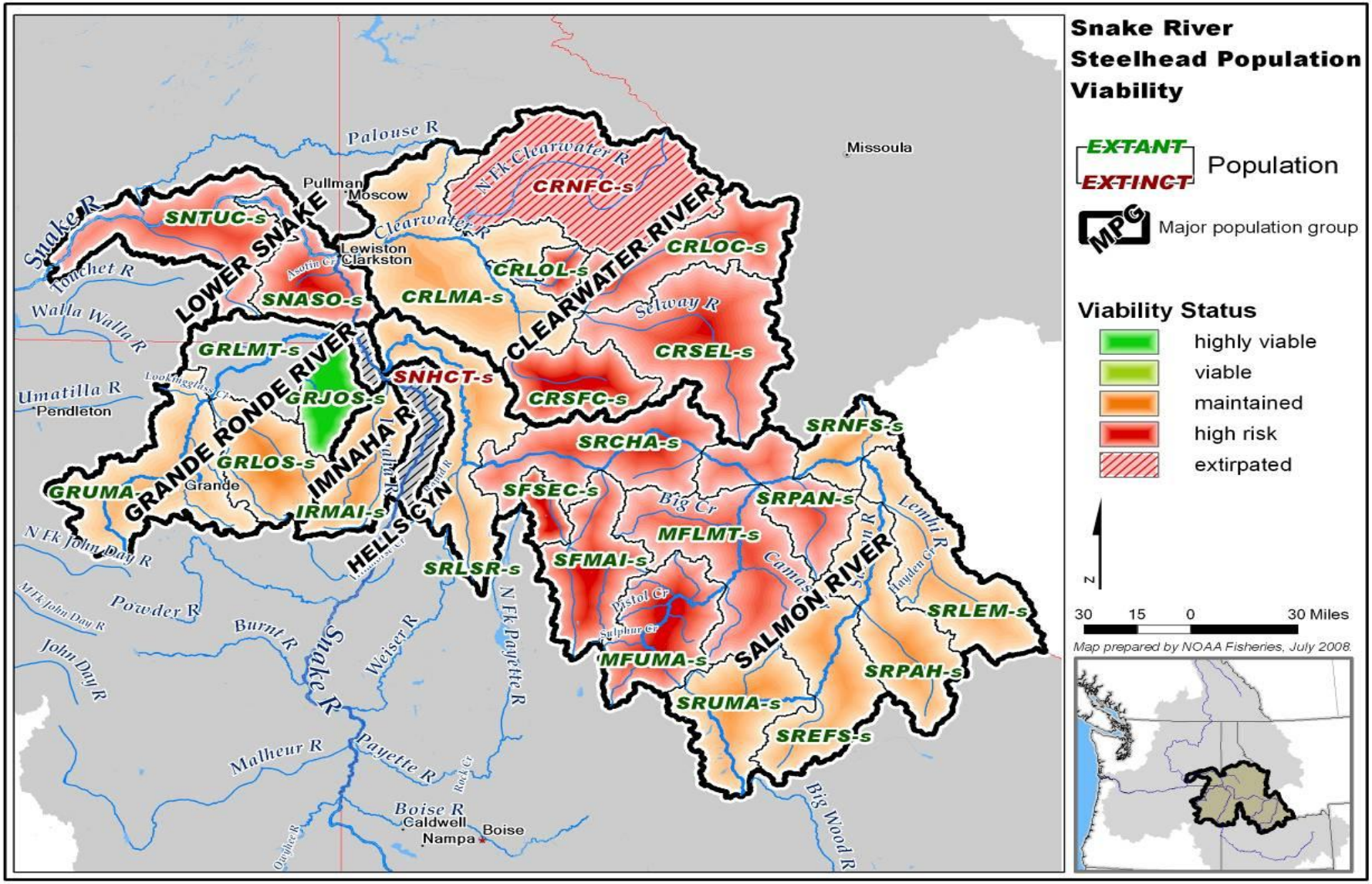
Major Population Group Status

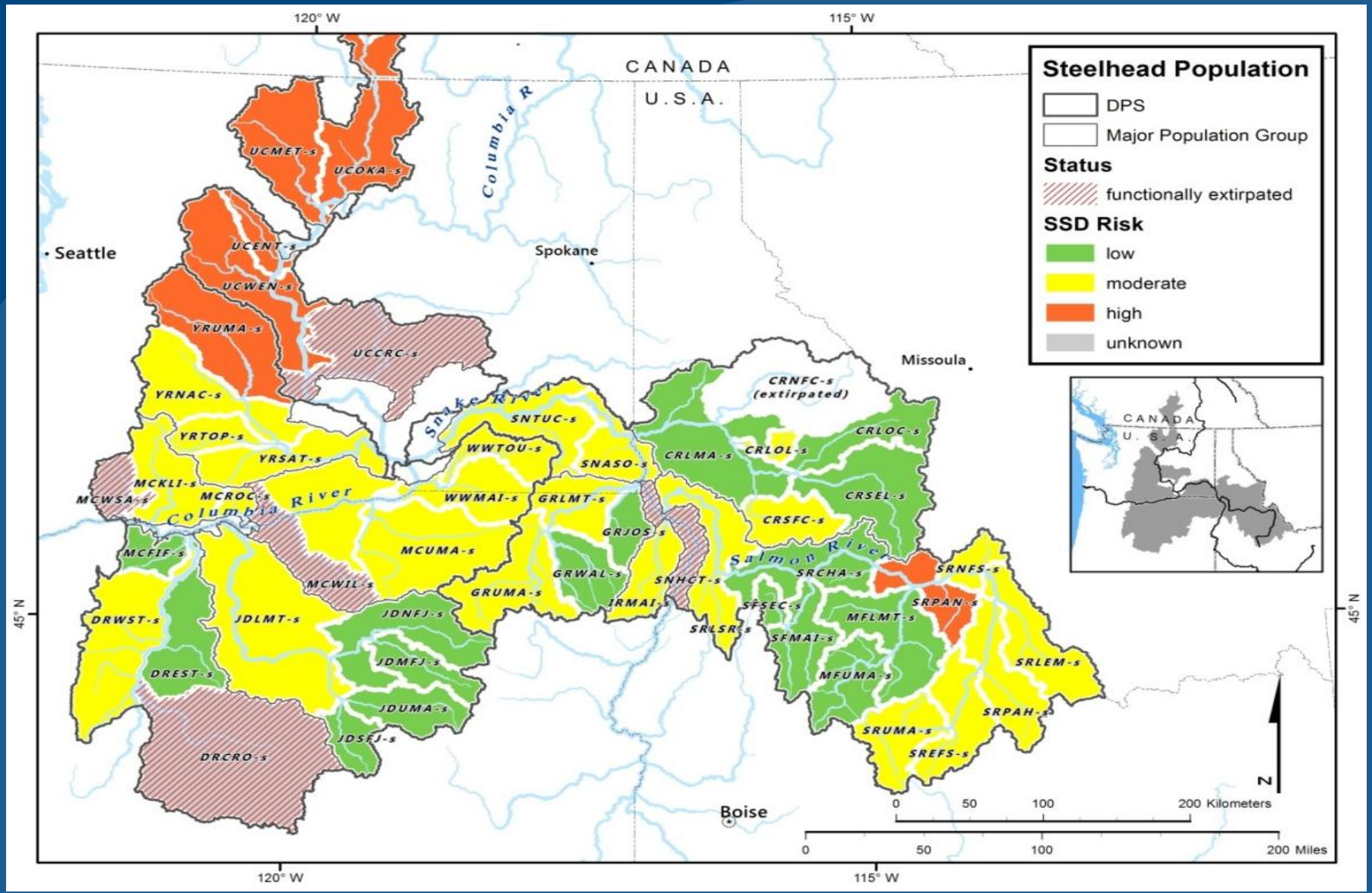
Pop Status

Pop Attributes




Snake River Steelhead Population Options
EXTANT
EXTINCT
Population
MPG
Major population group
Population Option
must have
optional must have
must meet or exceed maintained
extirpated
30 15 0 30 Miles
Map prepared by NOAA Fisheries, Feb. 2011.
Palouse R
Pullman
Moscow
N Fk Clearwater R
CRNFC-s
Clearwater R
Lewiston
Clarkston
CRLOC-s
CRLOL-s
CLEARWATER RIVER
Snake R
SNTUC-s
Touchet R
LOWER SNAKE
SNASO-s
CRLMA-s
Selway R
Walla Walla R
GRLMT-s
GRANDE RONDE RIVER
SNHCT-s
CRSEL-s
Umatilla R
Looking Glass Cr
GRJOS-s
CRSFC-s
Pendleton
IMNAHA R
Imnaha R
SRNFS-s
SRCHA-s
GRLOS-s
HELLS CYN
GRUMA-s
La Grande
SFSEC-s
Big Cr
SRPAN-s
IRMAI-s
MFLMT-s
Lemhi R
N Fk John Day R
Wildhorse Cr
SFMAI-s
SRLSR-s
Powder R
Burnt R
Pistol Cr
Sulphur Cr
Rapid R
Camas Cr
Salmon R
SRLEM-s
John Day R
Weiser R
N Fk Payette R
MFUMA-s
SALMON RIVER
SRPAH-s
Snake R
SRUMA-s
Malheur R
Payette R
SREFS-s
Owyhee R
Rock Cr
Caldwell
Nampa
Boise
Boise R
Big Wood R

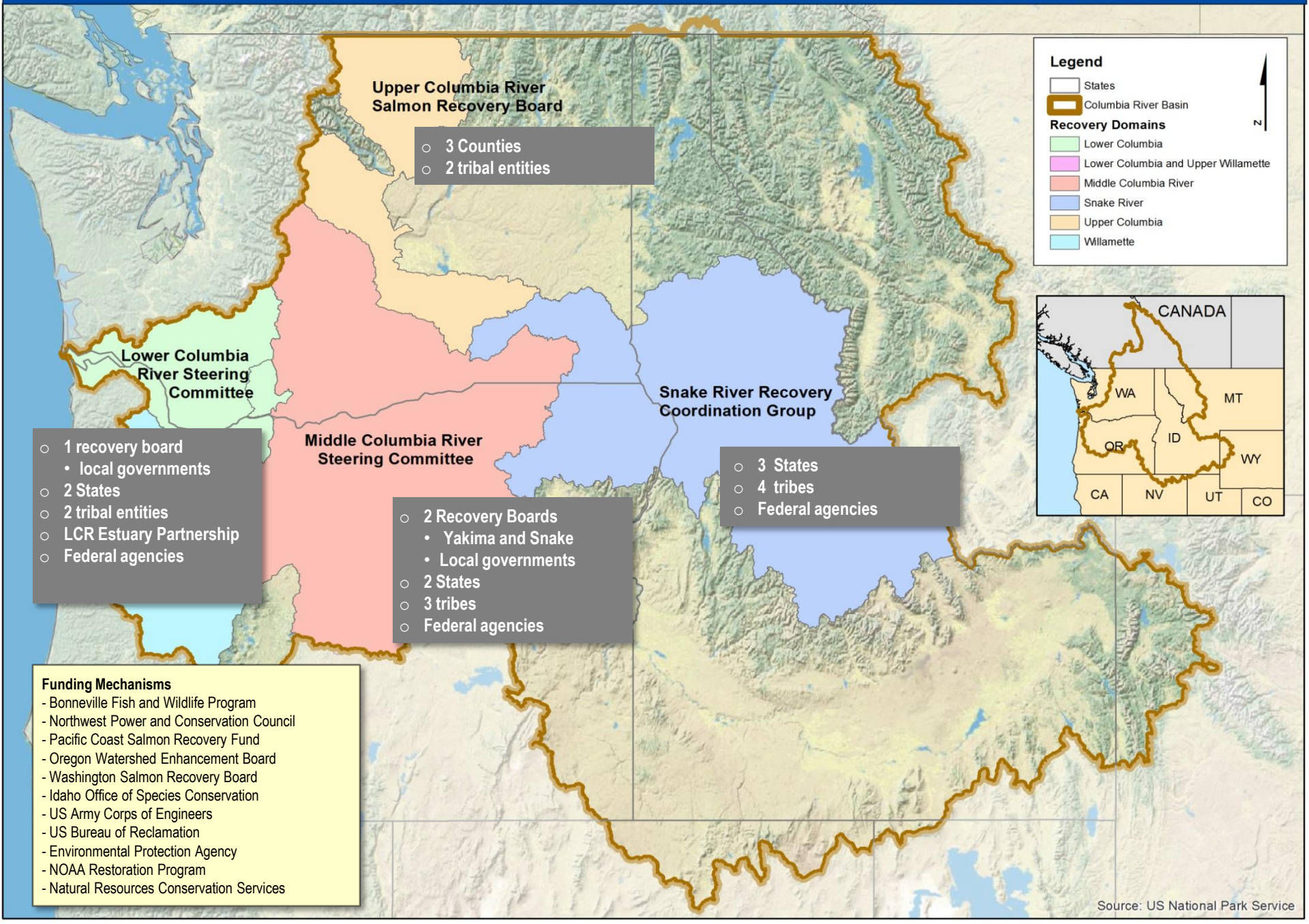

Snake River Steelhead Population Viability
EXTANT
EXTINCT
Population
MPG
Major population group
Viability Status
highly viable
viable
maintained
high risk
extirpated
N
30 15 0 30 Miles
Map prepared by NOAA Fisheries, July 2008.
LOWER SNAKE
CLEARWATER RIVER
GRANDE RONDE RIVER
IMNAHA R
HELLS CYN
SALMON RIVER
SNTUC-s
CRNFC-s
CRLOC-s
CRLOL-s
SNASO-s
CRLMA-s
GRLMT-s
CRSEL-s
SNHCT-s
GRJOS-s
CRSFC-s
SRNFS-s
SRCHA-s
GRLOS-s
GRUMA-s
SFSEC-s
SRPAN-s
IRMAI-s
MFLMT-s
SFMAI-s
SRLSR-s
SRLEM-s
MFUMA-s
SRPAH-s
SRUMA-s
SREFS-s
Palouse R
Pullman
Moscow
Missoula
N Fk Clearwater R
Clearwater R
Lewiston
Clarkston
Snake R
Touchet R
Asotin Cr
Walla Walla R
Selway R
Umatilla R
Pendleton
Lookingglass Cr
Grande
Big Cr
Lemhi R
Hayden Cr
N Fk John Day R
Camas Cr
Pistol Cr
Sulphur Cr
M Fk John Day R
Powder R
Burnt R
John Day R
Weiser R
N Fk Payette R
Malheur R
Payette R
Rock Cr
Boise R
Caldwell
Nampa
Boise
Owyhee R
Big Wood R


120° W
115° W
CANADA
U.S.A.
Columbia R
Seattle
Spokane
Missoula
Boise
Snake River
Columbia River
Salmon River
45° N
Steelhead Population
DPS
Major Population Group
Status
functionally extirpated
SSD Risk
low
moderate
high
unknown
UCMET-s
UCOKA-s
UCENT-s
UCWEN-s
YRUMA-s
UCCRC-s
YRNAC-s
YRTOP-s
YRSAT-s
MCKLI-s
MCWSA-s
MCROC-s
MCFIF-s
MCWIL-s
DRWST-s
JDLMT-s
DREST-s
DRCRO-s
JDNFJ-s
JDMFJ-s
JDUMA-s
JDSFJ-s
MCUMA-s
GRUMA-s
WWTOU-s
WWMAI-s
SNTUC-s
SNASO-s
GRLMT-s
GRJOS-s
GRWAL-s
IRMAI-s
SNHCT-s
SRLSR-s
CRNFC-s (extirpated)
CRLMA-s
CRLOL-s
CRLOC-s
CRSEL-s
CRSFC-s
SRCHA-s
SFSEC-s
SFMAI-s
MFUMA-s
MFLMT-s
SRNFS-s
SRPAN-s
SRLEM-s
SRPAH-s
SRUMA-s
SREFS-s
CANADA
U.S.A.
N
0 50 100 200 Kilometers
0 50 100 200 Miles

Recovery Components provide a Strategic Framework

- Limiting Factors – best available science assessments and common language (data dictionary)
- Strategies – habitat, hatchery, harvest, hydro
- Site specific Actions –based on strategies, limiting factors and priority areas
- Evaluation
  - Habitat Status and Trend and Fish Response
    - Columbia Habitat Monitoring Program (CHaMP) in coordination with others, i.e. PiBo
    - Intensively Monitored Watersheds (IMWs)
  - FCRPS
  - Hatcheries
  - Harvest
  - Estuary and Ocean
- Adaptive Management and Updates

Local Columbia River Recovery Implementation



Infrastructure: Columbia River Salmon Recovery

Local Subbasin Influence

Lower Columbia Steering Committee
- Habitat
- Hydro
- Hatchery
- Harvest

Mid Columbia Steering Committee
- Habitat
- Hydro
- Hatchery
- Harvest

Upper Columbia Recovery Board
- Habitat
- Hydro
- Hatchery
- Harvest

Snake Recovery Coordinat Group
- Habitat
- Hydro
- Hatchery
- Harvest

Basin-Wide and More

- **FCRPS BiOp**
- **Fish & Wildlife Program**
- **Mainstem & Ocean Harvest Agreements**
- **Estuary Plan**
- **Ocean Science & Climate Change**
- **Other Funding Programs – PCSRF, OWEB, GSRO, etc**

Next

- 2018 and beyond
- Long Term recovery that goes beyond ESA
- Basin-wide strategies

2015 – Final Recovery Plans

2018 – Update Plans

Questions?

Potential extra slides

Recovery Funds: Upper Col Example

- BPA non-accord – 3.5 million
- PUDs – 3.0 million
- SRFBd 2.0 million
- Yakama MOA 6.0 million
- Colville MOA 3.0 million
- BOR 4.0 million
- Other 1.0 million

PCSRF Funding and Results: Interior Columbia (FY2000-FY2012)

Performance Measures

Metric	Completed	Remaining
Instream Habitat		
Stream Miles Treated	254.00	85.00
Wetland Habitat		
Acres Created	23.0	5.0
Acres Treated	1,148.0	37.0
Land Acquisition		
Acres Acquired or Protected	88,754.0	9,075.0
Stream Bank Miles Acquired or Protected	3,011.00	525.00
Riparian Habitat		
Stream Miles Treated	3,763.00	787.00
Acres Treated	44,964.0	13,283.0
Upland Habitat		
Acres Treated	410,822.0	19,947.0
Fish Passage		
Barriers Removed	162	30
Miles Opened	3,422.00	658.00
Fish Screens		
Screens Installed	1,675	43
Research and Monitoring		
Stream Miles Monitored	46,245.00	6,075.00
Planning and Assessment		
Stream Miles Assessed	2,859.00	199.00

Funds

Source	Funds
PCSRF	$146,962,456
State	$149,252,158
Other	$187,208,390
In-Kind Volunteers	$1,295,537
In-Kind Donated Labor	$8,202,246
In-Kind Other	$17,187,717
report total:	**$510,108,503**

2,175 total projects

PCSRF Funding and Results: Willamette/Lowe Columbia (FY2000-FY2012)

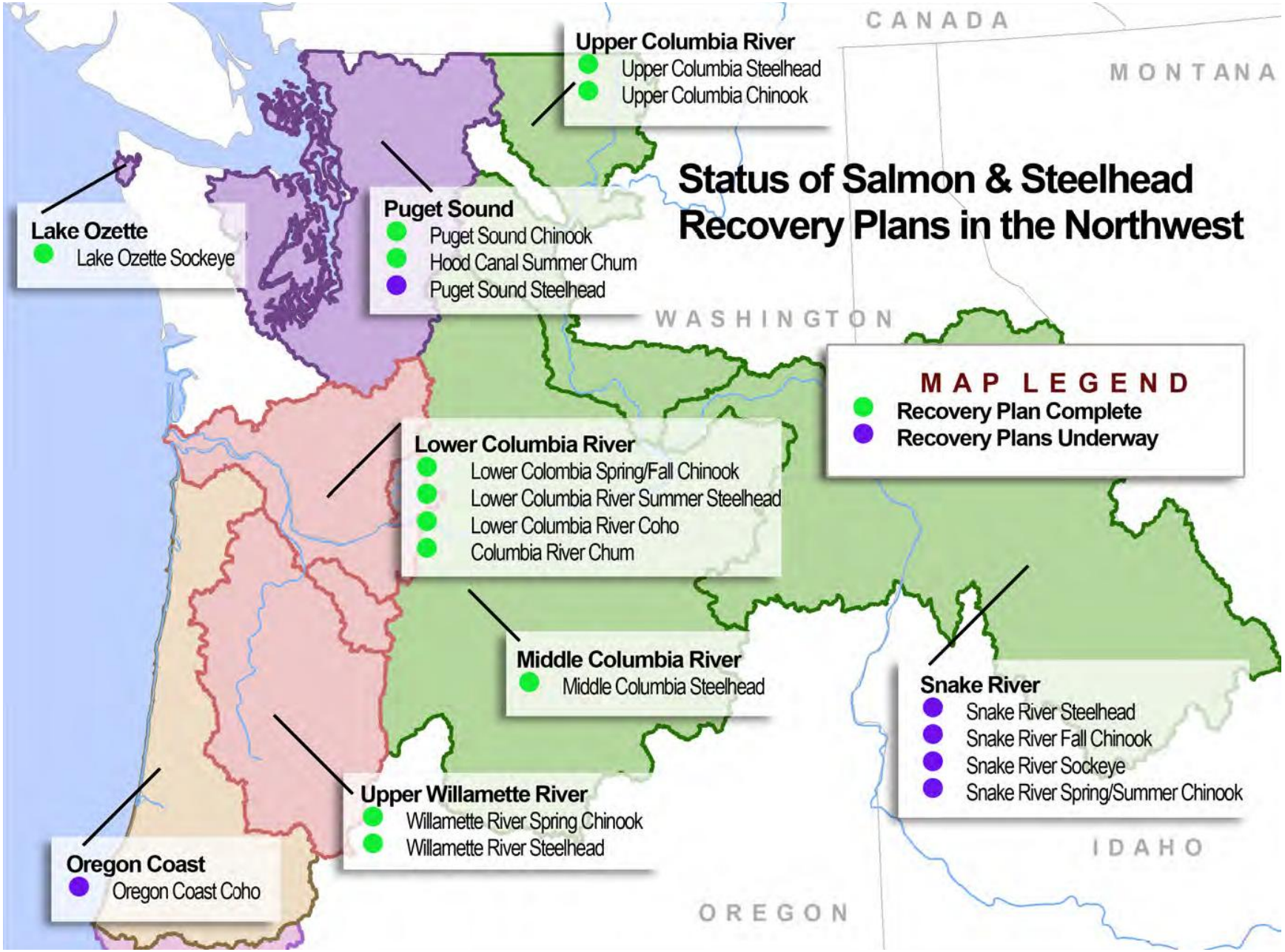
Performance Measures

Metric	Completed	Remaining
Instream Habitat		
Stream Miles Treated	116.00	81.00
Wetland Habitat		
Acres Created	176.0	.0
Acres Treated	4,353.0	168.0
Estuarine Habitat		
Acres Created	51.0	.0
Acres Treated	437.0	289.0
Land Acquisition		
Acres Acquired or Protected	5,834.0	45.0
Stream Bank Miles Acquired or Protected	60.00	6.00
Riparian Habitat		
Stream Miles Treated	941.00	326.00
Acres Treated	14,600.0	5,097.0
Upland Habitat		
Acres Treated	9,358.0	1,606.0
Fish Passage		
Barriers Removed	48	1
Miles Opened	1,063.00	69.00
Fish Screens		
Screens Installed	3	1
Hatchery Fish Marked		
Fry/Smolt Marked And Released	21,900,000	220,000
Research and Monitoring		
Stream Miles Monitored	20,103.00	4,557.00
Planning and Assessment		
Stream Miles Assessed	3,784.00	1,515.00

Funds

Source	Funds
PCSRF	$103,871,710
State	$65,611,880
Other	$78,820,629
In-Kind Volunteers	$7,377,544
In-Kind Donated Labor	$7,203,000
In-Kind Other	$20,165,212
report total:	**$283,049,976**

1,612 total projects


CANADA
MONTANA
Upper Columbia River
Upper Columbia Steelhead
Upper Columbia Chinook
Status of Salmon & Steelhead
Recovery Plans in the Northwest
Lake Ozette
Lake Ozette Sockeye
Puget Sound
Puget Sound Chinook
Hood Canal Summer Chum
Puget Sound Steelhead
WASHINGTON
MAP LEGEND
Recovery Plan Complete
Recovery Plans Underway
Lower Columbia River
Lower Colombia Spring/Fall Chinook
Lower Columbia River Summer Steelhead
Lower Columbia River Coho
Columbia River Chum
Middle Columbia River
Middle Columbia Steelhead
Snake River
Snake River Steelhead
Snake River Fall Chinook
Snake River Sockeye
Snake River Spring/Summer Chinook
Upper Willamette River
Willamette River Spring Chinook
Willamette River Steelhead
IDAHO
Oregon Coast
Oregon Coast Coho
OREGON