



AN OVERVIEW OF BULL TROUT RECOVERY IN THE YAKIMA BASIN

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Yakima Basin Fish & Wildlife Recovery Board

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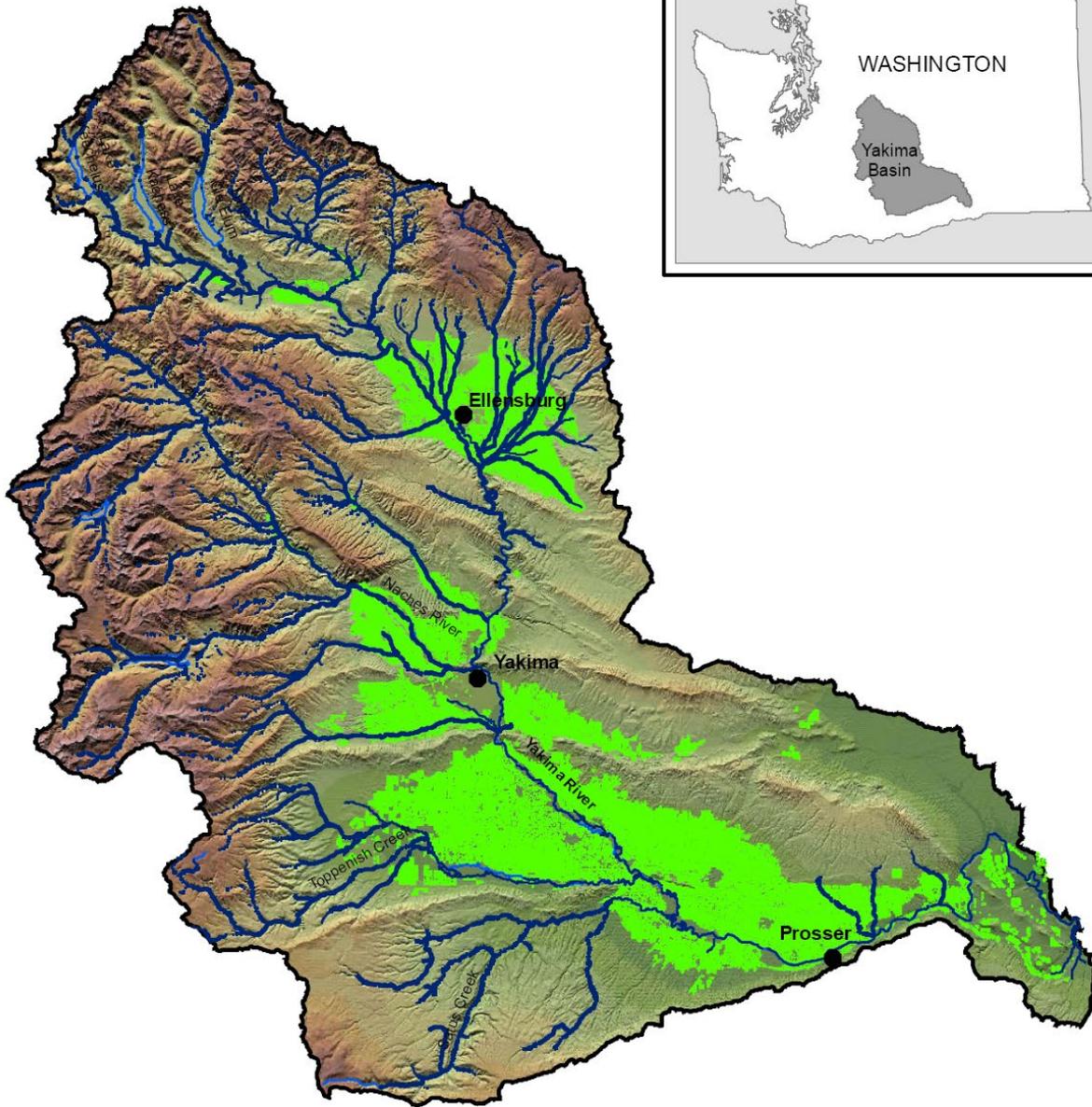
An Independent Non-Profit

Board of Tribal, County and City
Elected Officials

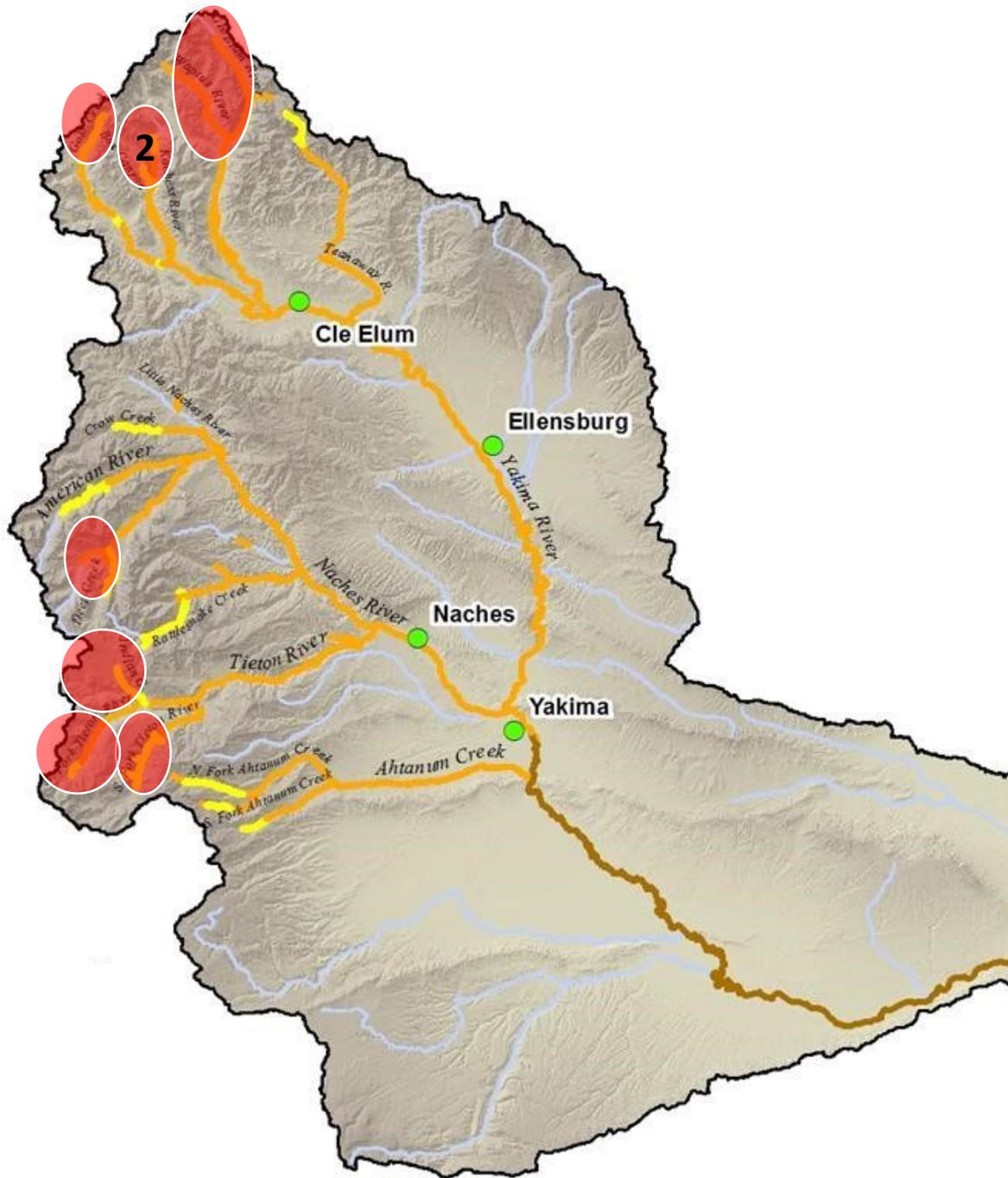
Lead Entity for SRFB Grants

Regional Recovery Board focusing
on writing & implementing
recovery plans for ESA-listed fish

**HERE TODAY WITH THANKS TO ALL
OUR MANY PARTNERS!**



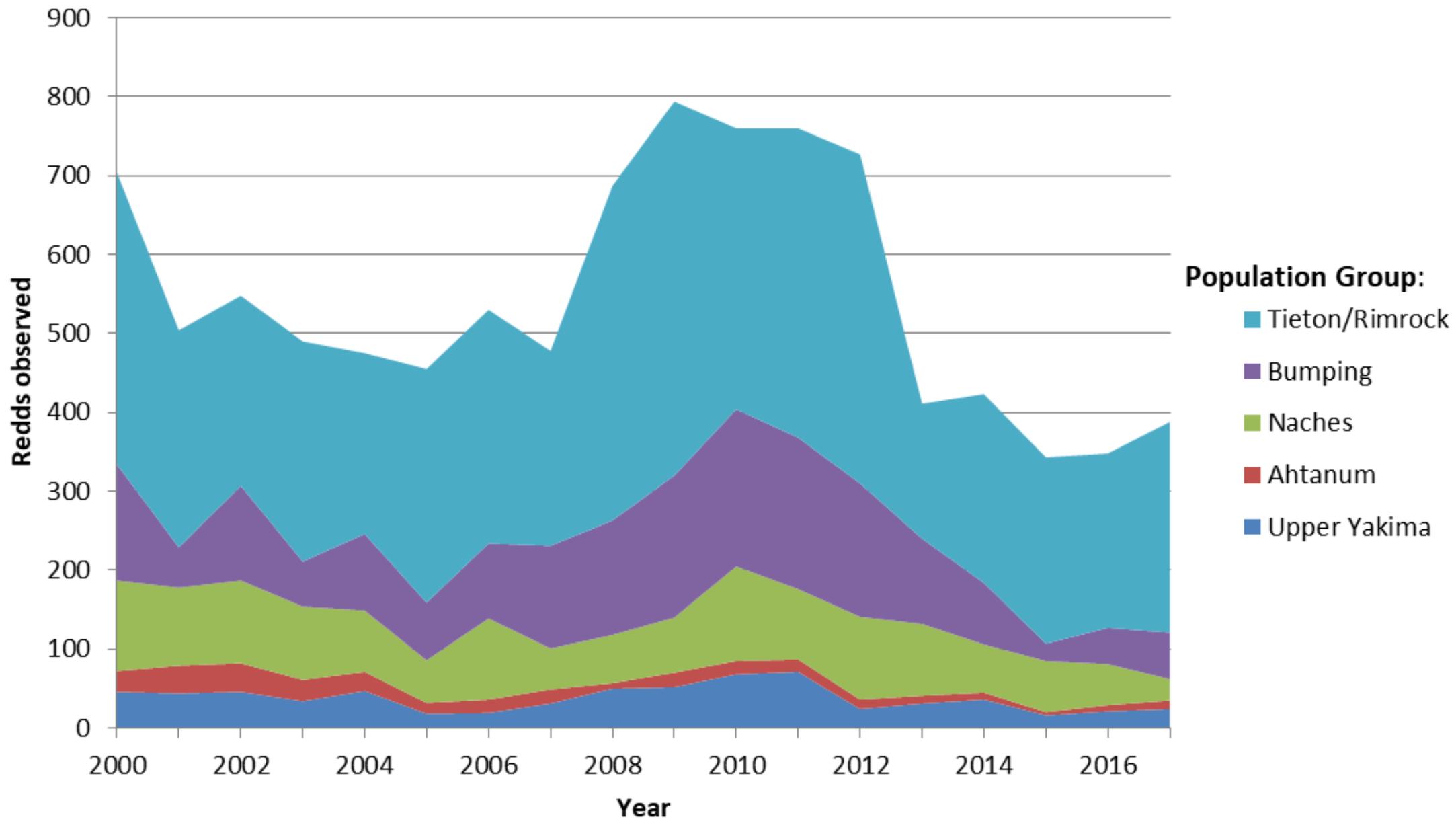
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13+ BULL TROUT POPULATIONS

- All spawning and rearing in cold headwaters
- 1 recently extirpated
- 1 functionally extirpated
- 5 at extreme low abundance
- 9 above Bureau of Reclamation Dams

Yakima Basin Bull Trout Redd Counts



HISTORY IN YAKIMA OF:

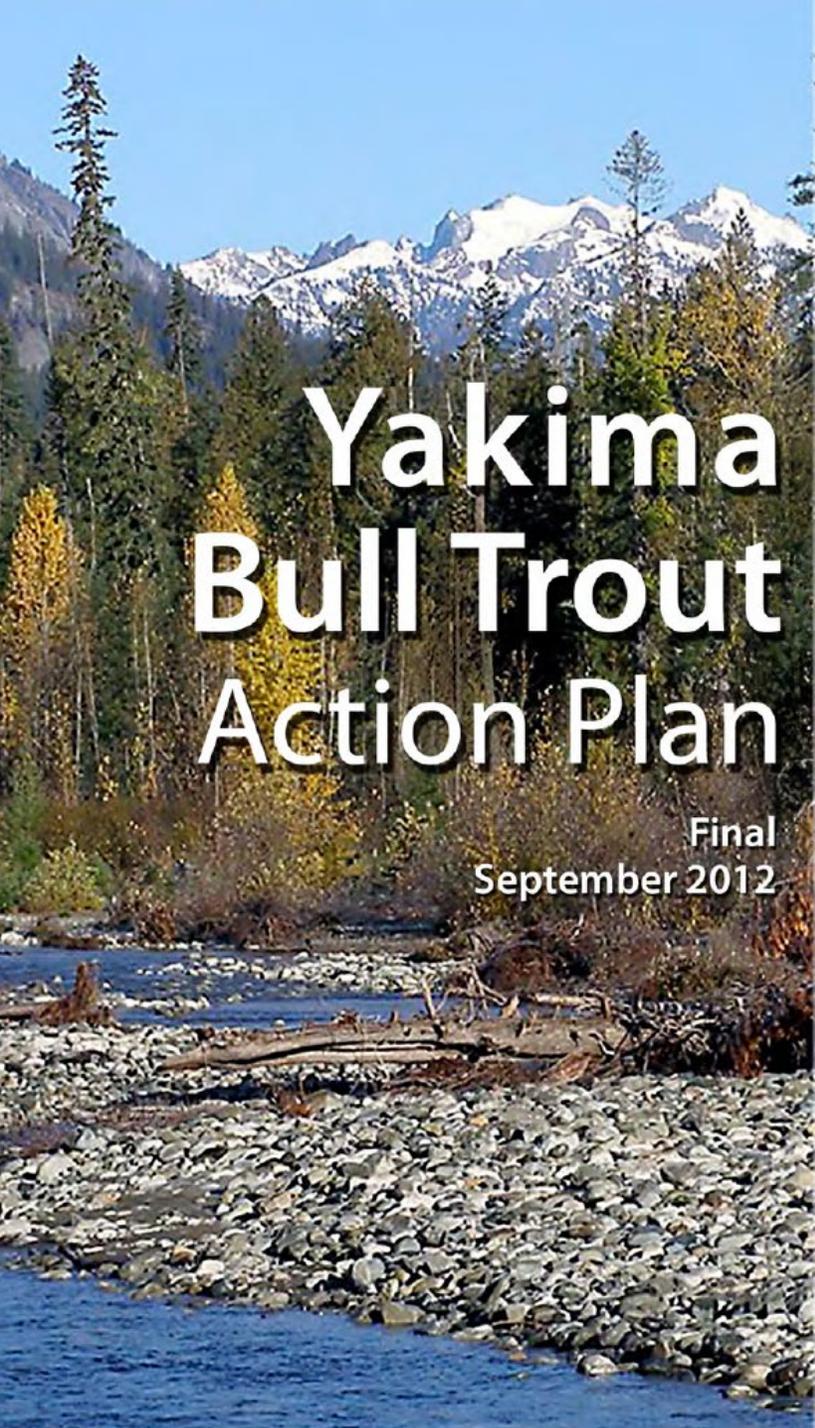
- Local WDFW leadership
- Distribution surveys
- Annual redd counts
- Adjustment of fishing regulations
- US Forest Service and ESA protections
- USFWS engagement



Bull Trout Working Group

- Meets every other month
- Strong attendance; all welcome
- Great chance to share and coordinate bull trout activities
- Group identifies shared priorities & tracks progress
- Convened by the YBFWRB





Yakima Bull Trout Action Plan

Final
September 2012



Written in 2012;
updated in 2017-18

INCLUDES POPULATION SPECIFIC:

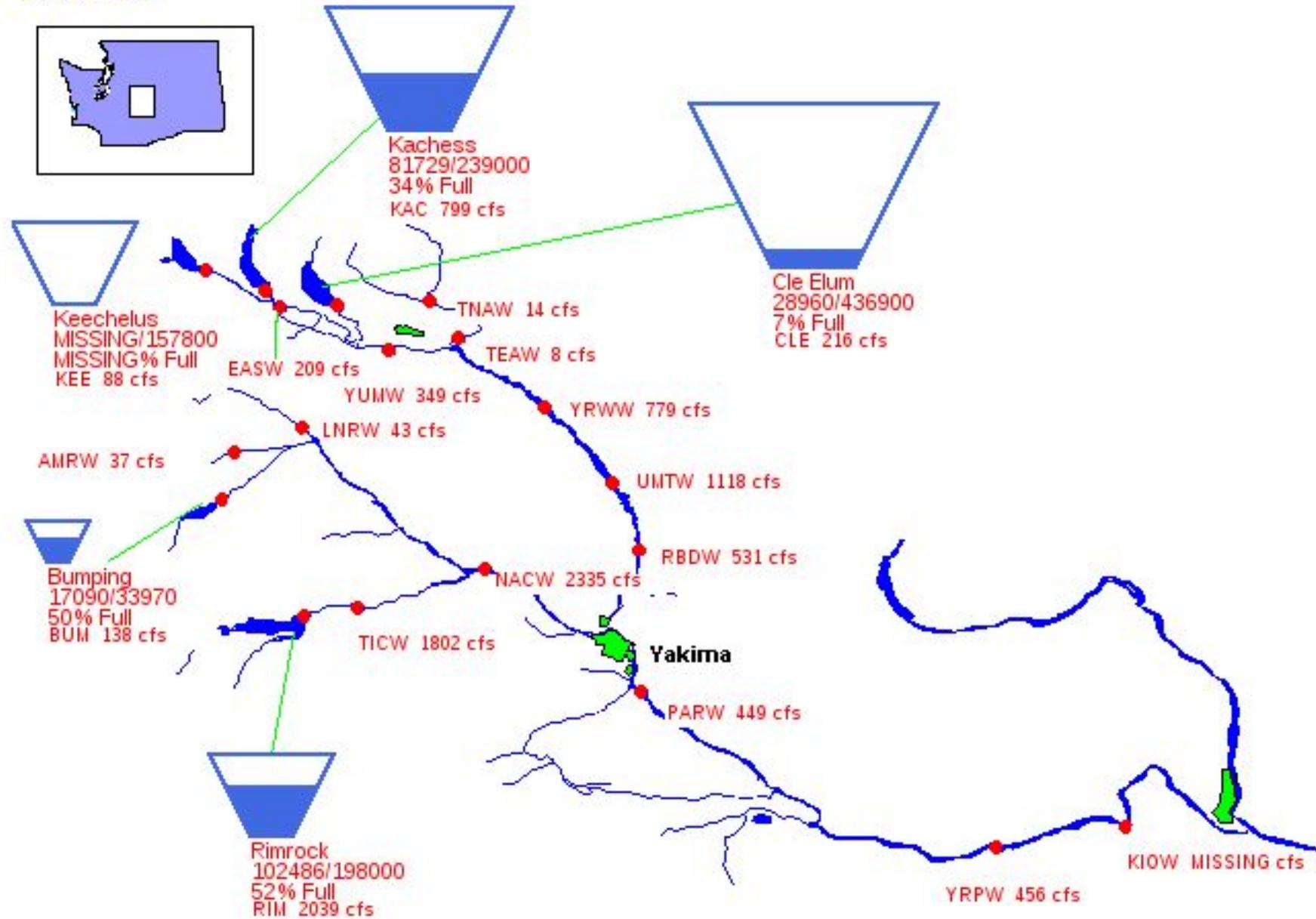
- Compilation of existing data
- Assessment of threats/limiting factors
- Identification of actions

DOES NOT INCLUDE:

- Specific goals for populations
- Prioritization between populations
- Criteria for delisting & recovery

Bureau of Reclamation, Pacific Northwest Region Major Storage Reservoirs in the Yakima River Basin

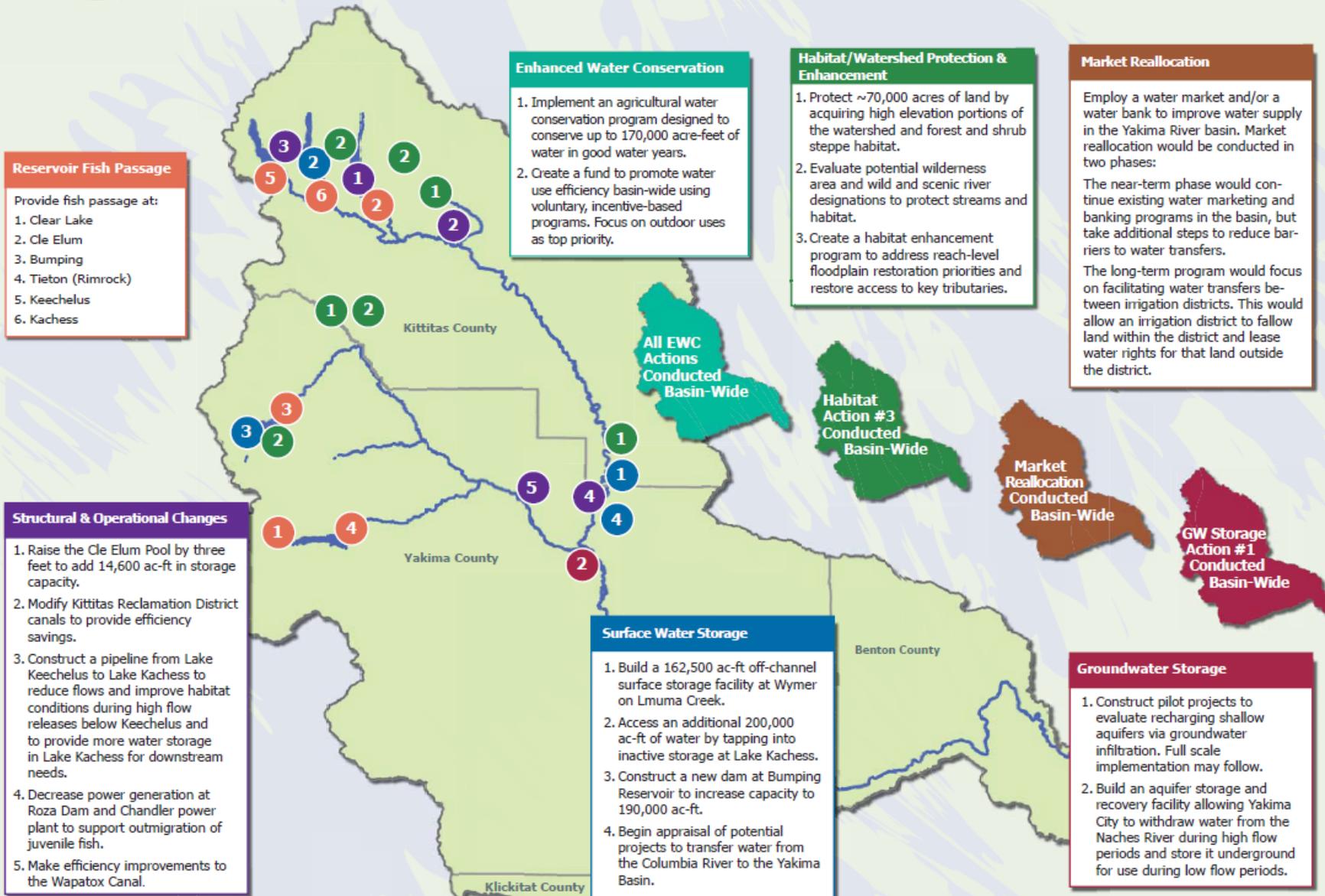
09/14/2015





BUILDING A FUTURE FOR WATER, WILDLIFE AND WORKING LANDS

YAKIMA RIVER BASIN INTEGRATED WATER RESOURCE MANAGEMENT PLAN



Reservoir Fish Passage

Provide fish passage at:

1. Clear Lake
2. Cle Elum
3. Bumping
4. Tieton (Rimrock)
5. Keechelus
6. Kachess

Enhanced Water Conservation

1. Implement an agricultural water conservation program designed to conserve up to 170,000 acre-feet of water in good water years.
2. Create a fund to promote water use efficiency basin-wide using voluntary, incentive-based programs. Focus on outdoor uses as top priority.

Habitat/Watershed Protection & Enhancement

1. Protect ~70,000 acres of land by acquiring high elevation portions of the watershed and forest and shrub steppe habitat.
2. Evaluate potential wilderness area and wild and scenic river designations to protect streams and habitat.
3. Create a habitat enhancement program to address reach-level floodplain restoration priorities and restore access to key tributaries.

Market Reallocation

Employ a water market and/or a water bank to improve water supply in the Yakima River basin. Market reallocation would be conducted in two phases:

The near-term phase would continue existing water marketing and banking programs in the basin, but take additional steps to reduce barriers to water transfers.

The long-term program would focus on facilitating water transfers between irrigation districts. This would allow an irrigation district to fallow land within the district and lease water rights for that land outside the district.

Structural & Operational Changes

1. Raise the Cle Elum Pool by three feet to add 14,600 ac-ft in storage capacity.
2. Modify Kittitas Reclamation District canals to provide efficiency savings.
3. Construct a pipeline from Lake Keechelus to Lake Kachess to reduce flows and improve habitat conditions during high flow releases below Keechelus and to provide more water storage in Lake Kachess for downstream needs.
4. Decrease power generation at Roza Dam and Chandler power plant to support outmigration of juvenile fish.
5. Make efficiency improvements to the Wapatox Canal.

Surface Water Storage

1. Build a 162,500 ac-ft off-channel surface storage facility at Wymer on Lmuma Creek.
2. Access an additional 200,000 ac-ft of water by tapping into inactive storage at Lake Kachess.
3. Construct a new dam at Bumping Reservoir to increase capacity to 190,000 ac-ft.
4. Begin appraisal of potential projects to transfer water from the Columbia River to the Yakima Basin.

Groundwater Storage

1. Construct pilot projects to evaluate recharging shallow aquifers via groundwater infiltration. Full scale implementation may follow.
2. Build an aquifer storage and recovery facility allowing Yakima City to withdraw water from the Naches River during high flow periods and store it underground for use during low flow periods.

YBIP Bull Trout Actions

- Funding significant habitat projects
- Completing major fish passage projects at Clear Creek & Cle Elum Dams
- Funding the Bull Trout Task Force
- Supporting Yakima Nation hatchery rearing and reintroduction efforts
- Addressing reservoir bed passage
- Funding Bull Trout Work Group costs



In Summary, in the Yakima we have:

- A long history of bull trout conservation
- A good group of people focused on bull trout
- A strong plan to guide our actions
- Significant financial and political support from YBIP

BUT...

How Does the
Yakima Fit into the
Big Picture?



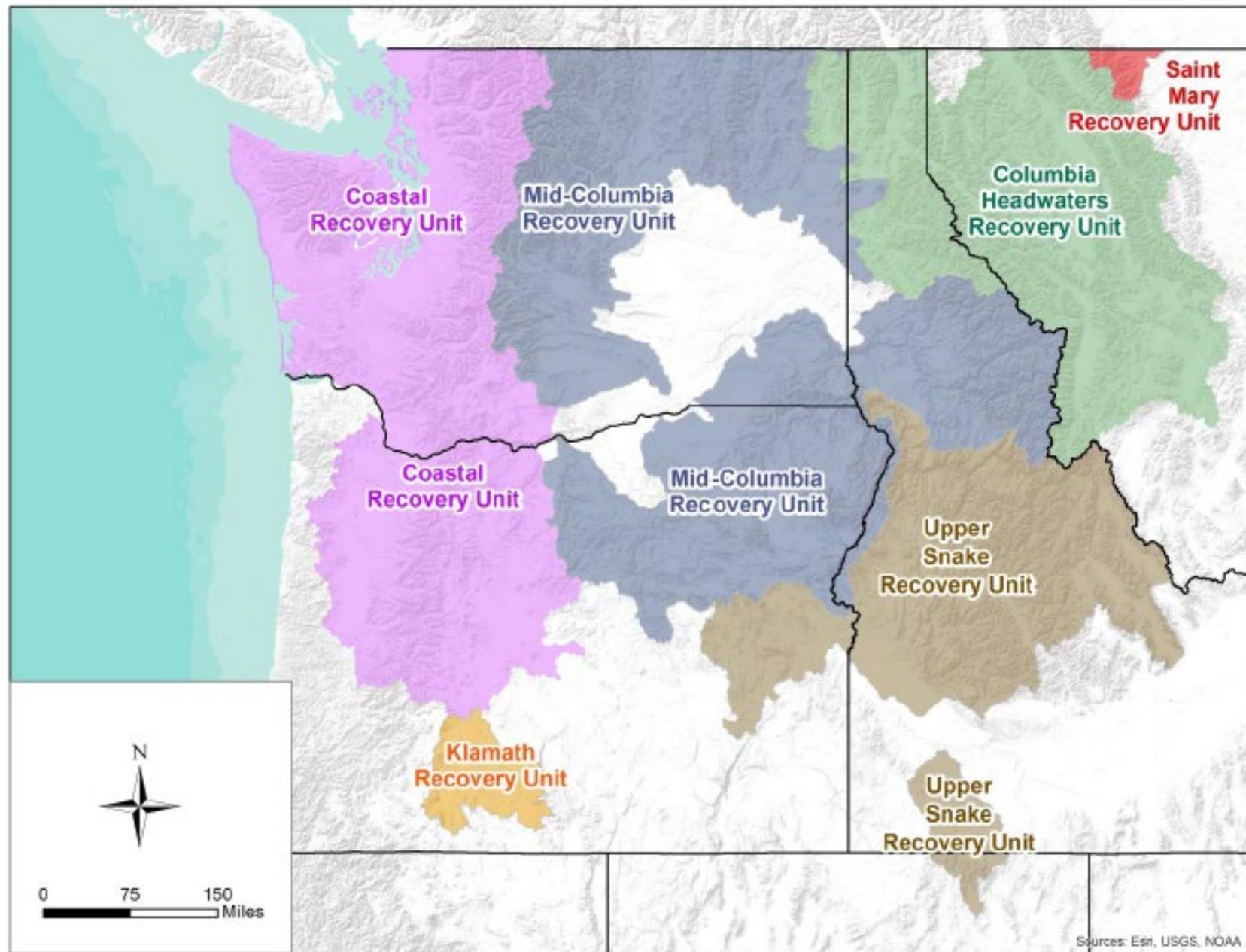
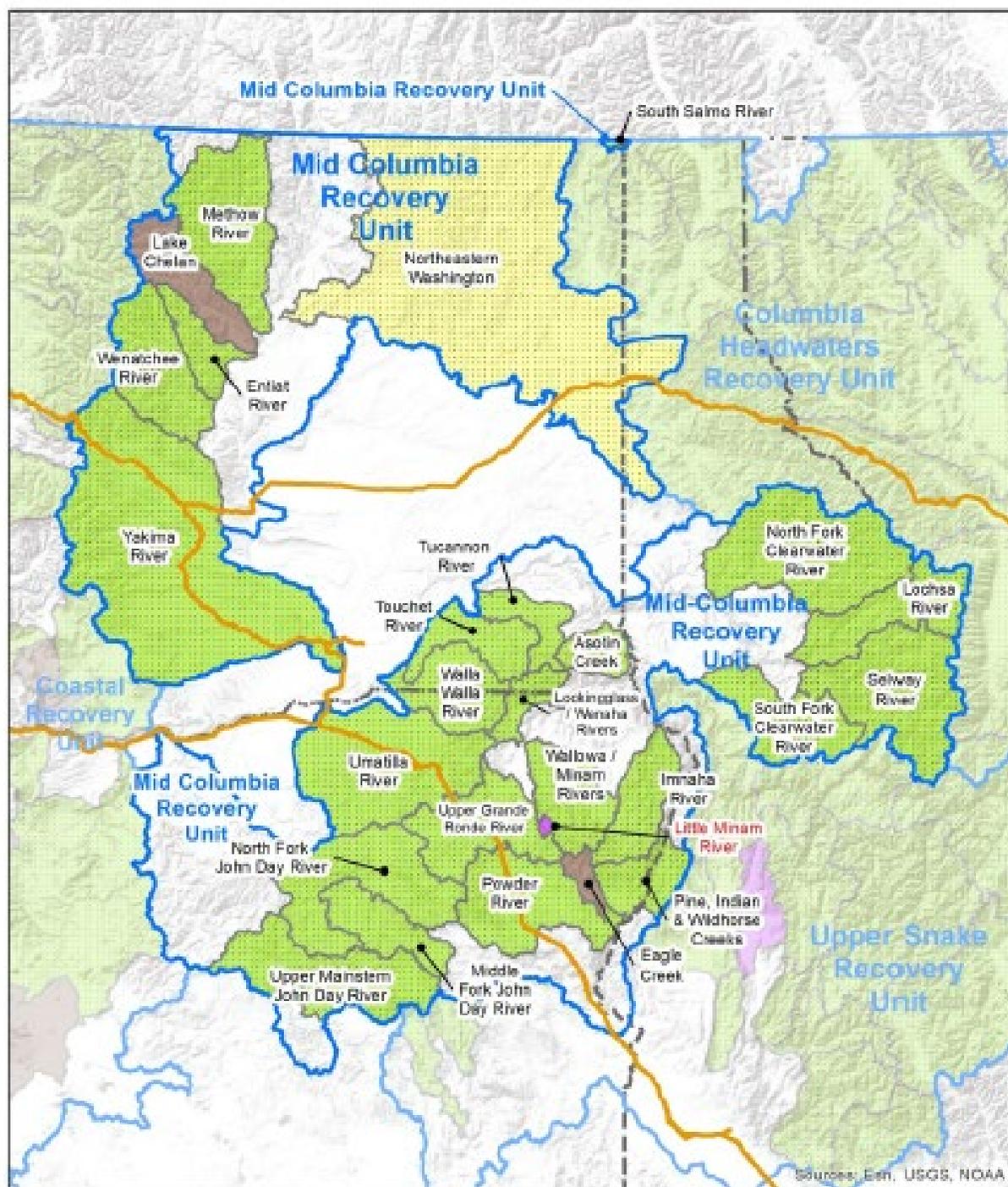


Figure 4. Locations of the six bull trout recovery units in the coterminous United States.



Core Areas

- Asotin Creek
 - Entiat River
 - Innaha River
 - Little Minam River
 - Lochsa River
 - Lookingglass / Wenaha Rivers
 - Methow River
 - Middle Fork John Day River
 - North Fork Clearwater River
 - North Fork John Day River
 - Pine, Indian & Wildhorse Creeks
 - Powder River
 - Selway River
 - South Fork Clearwater River
 - South Salmo River
 - Touchet River
 - Tucannon River
 - Umatilla River
 - Upper Grande Ronde River
 - Upper Mainstem John Day River
 - Walla Walla River
 - Wallowa / Minam Rivers
 - Wenatchee River
 - Yakima River
- Historic Core Areas**
- Eagle Creek
 - Lake Chelan
- Research Needs Area**
- Northeastern Washington

Legend

Core Areas

- Complex
- Simple
- Historic
- Research Needs Area

Recovery Units

States

Major Roads

0 25 50 100 Miles



Assessing Mid-C Recovery Unit Viability

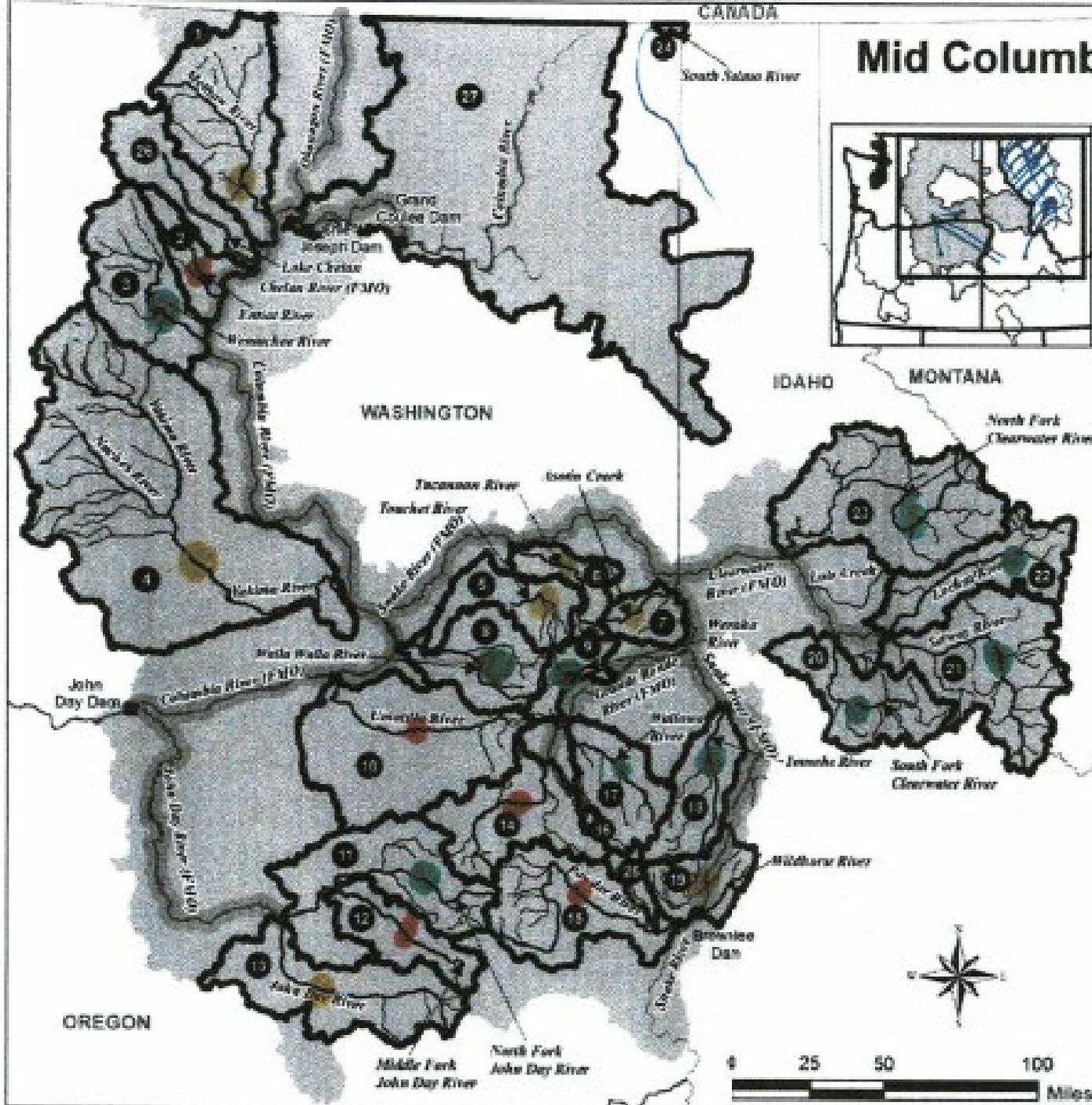
From p 46-47 of the Recovery Plan:

1. The Mid Columbia Recovery Unit has 24 core areas
2. To be viable, 18 or more Core Areas must be viable
3. In those 24 core areas there are with 142 local populations
4. To be viable, there at least 107 local populations in the Recovery Unit
5. A Core Area can be viable even if significant risks of extirpation remain for <25% of the populations in a core area

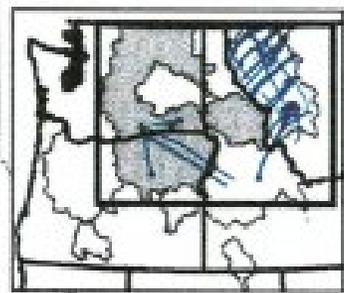
Assessing Core Area Viability

- Appendix M of the USFWS Recovery Plan proposes a qualitative threats assessment process
- The USFWS Recovery Plan does not set quantifiable abundance or productivity goals
- ODFW worked with USFWS to build off Appendix M and complete consistent threats assessments for all core areas in Oregon
- USFWS will complete a 5 year review of Listing Status in 2020

Mid Columbia Recovery Unit



- Core Areas**
- 1 Methow River
 - 2 Entiat River
 - 3 Wenatchee River
 - 4 Yakima River
 - 5 Touchet River
 - 6 Tucannon River
 - 7 Asotin Creek
 - 8 Walla Walla River
 - 9 Lookingglass/ Wenaha Rivers
 - 10 Umatilla River
 - 11 North Fork John Day River
 - 12 Middle Fork John Day River
 - 13 Upper Mainstem John Day River
 - 14 Upper Grande Ronde River
 - 15 Powder River
 - 16 Little Minam River
 - 17 Wallowa/Minam Rivers
 - 18 Imnaha River
 - 19 Pine, Indian, and Wildhorse Creeks
 - 20 South Fork Clearwater River
 - 21 Selway River
 - 22 Lochsa River
 - 23 North Fork Clearwater River
 - 24 South Salmo River
- Historic Core Areas**
- 25 Eagle Creek
 - 26 Lake Chelan
- Research Needs Areas**
- 27 Northeastern Washington



A Very Rough Analysis of the Mid-C RUIP

Lochsa River	17	Yakima River	15	Powder River	10
North Fork Clearwater River	12	Methow River	10	Upper Grande Ronde	6
Selway River	10	Tucannon River	5	Middle Fork John Day	3
Imnaha River	8	Touchet River	3	Entiat River	2
North Fork John Day River	7	Pine/Indian/ Wildhorse	3	<i>Umatilla River</i>	1
Wenatchee River	7	Upper Mainstem John Day River	2	<i>5 Core Areas</i>	0
Wallowa/Minam	6	<i>Asotin Creek</i>	1		
South Fork Clearwater River	5	<i>7 Core Areas</i>	38		
Lookingglass/ Wenaha	4				
Walla Walla River	3		19	Green or Yellow Core Areas	
Salmo River (South Fork of Salmo River)	1			<i>18 Viable Core Areas required to delist</i>	
<i>Little Minam</i>	1				
<i>12 Core Areas</i>	81		119	Populations in Green or Yellow Core Areas	
				<i>Only 104 required for Delisting</i>	

A Strategic Approach to Recovery

1. Significant funding and political support needs to be secured
2. Tough decisions need to be made about where and where not to invest
3. Given small isolated populations and climate change, we may not be able to recovery all populations
4. We need consistent methods to assess core area viability and key threats
5. Decisions need to be coordinated with USFWS, three states & many tribes

ONLY A GOOD STRATEGY CAN ANSWER THESE ?s!

- What will it take to delist? Can we set a bar and communicate it to stakeholders, or will the bar always move on us?
- Is it okay if some local populations decline or disappear if others in a core area are doing well?
- Are there areas where limited habitat and predicted climate change mean we shouldn't invest?
- How do we respond if partners say we might as well be one of the 25% of Core Areas not required for recovery?