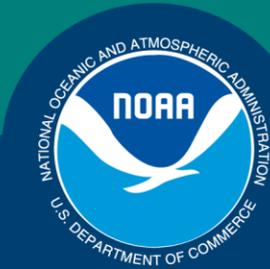




Science, Service, Stewardship



Proposed Snake River Sockeye Recovery Plan

**Snake River Coordination Group Meeting
November 12, 2014**

**NOAA
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SERVICE**

NOAA



Topics

- Highlights from Proposed Recovery Plan
- Questions from public comments





Process to Develop Draft Recovery Plan



- NMFS forms Sockeye TAC: Spring 2012
- Held six TAC meetings: June 2012 to January 2014
- TAC provided technical information, review and comment
- Regularly briefed Snake River Coordination Group
- Posted draft chapters on NMFS Snake River web page

Recovery Plan 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

Permanent artificial barrier (adult) on Stanley Lake Creek

Stanley Lake

Valley Creek

Crooked Creek

Iron Creek

Goat Creek

Little Redfish Lake

Fishhook Creek

Redfish Lake

Redfish Lake Creek

Decker Creek

Hell Roaring Creek

Yellow Belly Lake

Pettit Lake

Alturas Lake

Sunbeam Dam (1910 - 1934)

Stanley

Redfish Lake Creek Trap

Sawtooth Hatchery

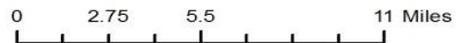
Operational / management barrier (adult) on Salmon River

Intermittent natural barrier (adult) on Yellowbelly Lake Creek

Sawtooth Mountains



This map is for reference only.



-  Hatcheries
-  Cities
-  Barriers
-  Streams
-  Lakes



Draft Recovery Plan Chapters:

Section 2: Biological Background



- Spawn in Sawtooth Valley, rear for one to three years in lakes then migrate 900 miles downstream to ocean
- Captive broodstock program for Redfish Lake population started in 1991
- Returns are increasing



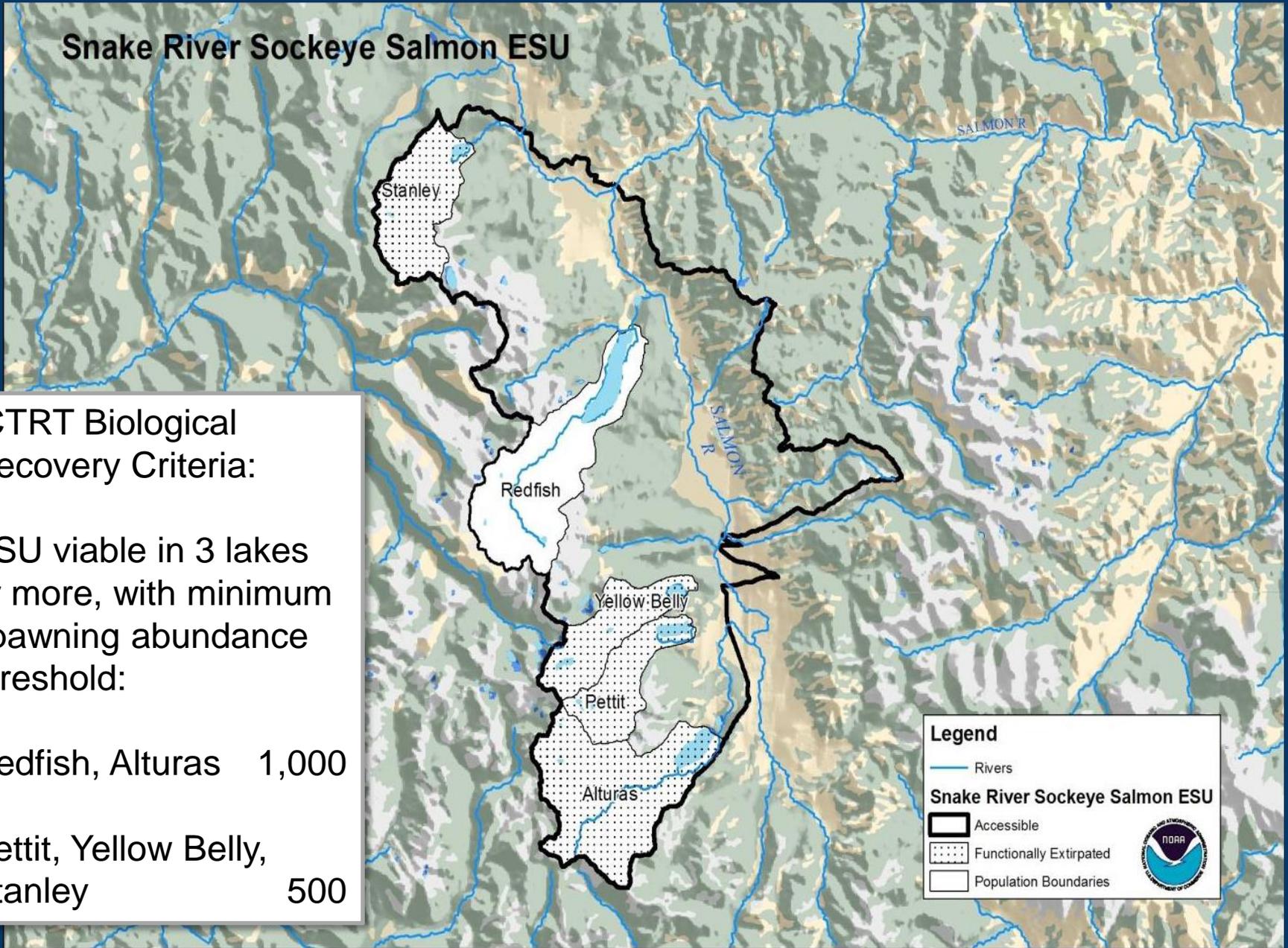
Draft Recovery Plan Chapters:

Section 3: Recovery Goals



- Primary goal is to ensure the species is viable and no longer needs ESA protection
- ICTRT biological viability criteria
- Threats criteria

Snake River Sockeye Salmon ESU



ICTRT Biological Recovery Criteria:

ESU viable in 3 lakes or more, with minimum spawning abundance threshold:

Redfish, Alturas 1,000

Pettit, Yellow Belly, Stanley 500



Draft Recovery Plan Chapters:

Section 5: Limiting Factors and Threats



- Habitat: Natal lakes and full life cycle
- Hydropower
- Hatcheries
- Fisheries
- Predation, disease, competition and toxics
- Climate change



Draft Recovery Plan Chapters:

Section 6: Recovery Strategy

- Adaptive Management
- *Local level* (Sawtooth Valley and upper Salmon River)
 - Conserve genetic and life history diversity, spatial structure
 - Phased reintroduction strategy
- *Regional level* (migration corridor, estuary, plume, ocean)
 - Implement 2008/2010 FCRPS BiOp RPAs
 - Continue research and monitoring survival
- *Key Information Needs*
 - Options for spatial structure
 - Improving sockeye passage, lake research





Section 7: Actions

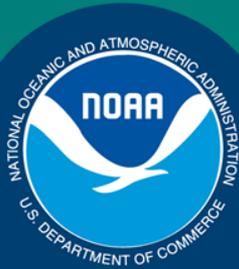
Recommendations for sequencing actions:

- Implement current captive broodstock program
- Reestablish self-sustaining anadromous sockeye populations in Redfish, Pettit and Alturas Lakes
- Protect and enhance existing habitat conditions and concern ecological processes
- Improve survival for all life stages in the migration corridor
- Carry out research, monitoring and evaluation actions



Sections 8-10

- Section 8: Effects Analysis
- Section 9: Time and Cost
 - Five-year period costs are \$20,293,955
 - Total cost: \$101,469,775 (over next 25 years)
- Section 10: Implementation
 - Partners
 - Implementation teams



Section 11: RM&E & Adaptive Management

- Phases for recovery
 - Phase 1: Captive broodstock
 - Phase 2: Re-colonization of Redfish and other lakes
 - Phase 3: Local adaptation
- Types of monitoring
 - Status and trends
 - Action effectiveness
 - Implementation and compliance
 - Key information needs
- Identify monitoring objectives for each recovery phase
- Adaptive management



Questions from Public Comments

- General edits, clarifications and map corrections
- Expand discussion to clarify viability criteria ratings
- Expand threats and limiting factors discussion to include relative impact of one limiting factor versus another; which limiting factor, if corrected, would provide the most significant recovery potential?
- Questions why recovery plan defers to FCRPS BiOp for hydrosystem actions
- Add summary points from draft Ocean Module



Questions from Public Comments

- Modify mainstem FCRPS operations to advance recovery of ESA-listed salmon and steelhead
- Lake trout risk to native fish
- Future role of sockeye hatcheries and concern about overdependence on hatcheries
- Need to describe how contingency plan will be developed (add to Chapter 10)
- Range of new actions proposed for Sawtooth NRA
- Improve analysis of survival by life stage and SARs

A large group of salmon is swimming in clear, shallow water. The fish are mostly oriented in the same direction, moving from the background towards the foreground. The water is a vibrant turquoise color, and the sandy bottom is visible through the water, creating a pattern of light and shadow. The text "Next steps to finalize Proposed Plan" is overlaid in the center of the image in a bright yellow font.

Next steps to finalize Proposed Plan