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Five Year Status Reviews: Overview and Steelhead DPS summaries

Tom Cooney – Northwest Fisheries Science Center

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Largely excerpted from:

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Endangered Species Act 5-year Reviews for West Coast Salmon and Steelhead

Mike Ford, Tom Cooney – Northwest Fisheries Science Center
Garth Griffin – Northwest Regional Office

Northwest Power and Conservation Council
March 6, 2012

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Outline

- Overview of 2011 NMFS' 5-year Reviews
  - Background
  - Process and products
  - Updated viability assessments
  - Evaluation of listing factors
  - Findings
- Looking ahead to the next 5-year Reviews in 2015

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ESA Requirements for 5-Year Reviews

Section 4 of the ESA requires Secretary to:

At least once every five years, review the list of T&E species and determine based on that review whether the species should:

—Retain its current listing status;

—Be removed from the list;

—Be changed from an endangered to a threatened species; or

—Be changed from a threatened to an endangered species.

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Announcement of Salmon and Steelhead 5-Year Reviews

- On March 18, 2010, we announced 5-year reviews for 27 species of salmon and steelhead in CA, OR, WA, ID
- 60-day comment period; letters to Tribes
- Co-manager review of biological data and viability analyses
- Released findings on Aug. 15, 2011

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5-Year Review Process

- Northwest Fisheries Science Center reviewed new information and produced an updated report on ESU/DPS viability.
- Recovery Domain teams of specialists from the regional office reviewed new information on ESA listing factors.
- Information from these two sources was integrated into 5-Year Review Reports that provide the basis for our listing classification conclusions.

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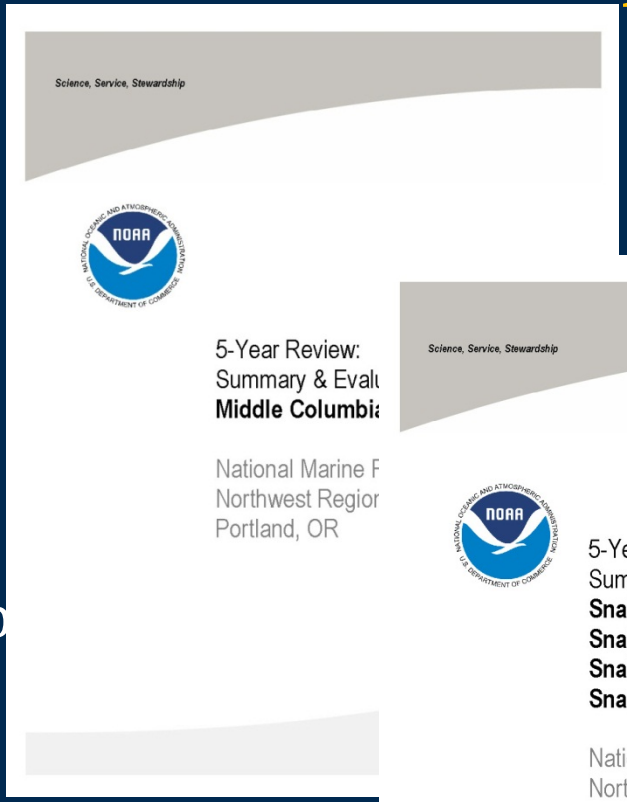
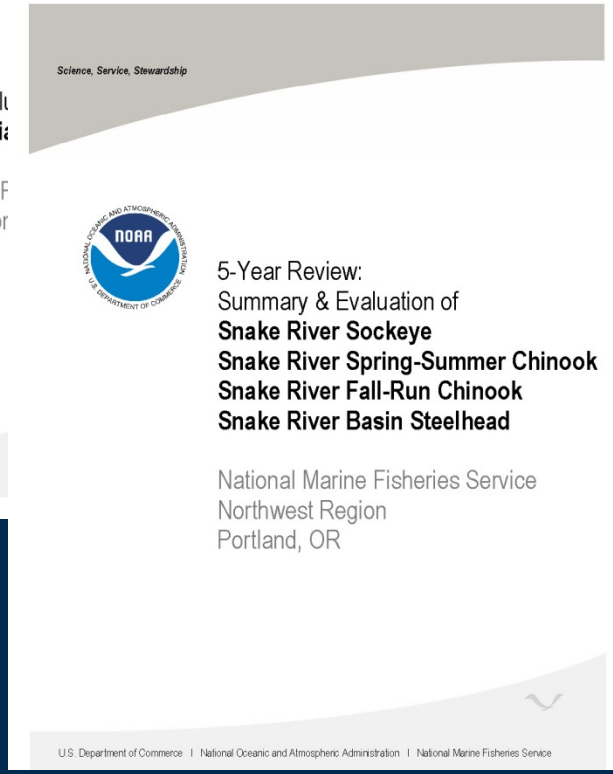
5-Year Review Domain Reports

<u>Each report contains</u>:

- Updated information on ESU/DPS viability
- Recommended ESU/DPS boundary adjustments
- Recommended changes to ESU/DPS hatchery membership
- New information on listing factors
- Listing classification conclusion





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2011 5-Year Review Findings

- No changes in ESA listing status
- No changes in ESU or DPS boundaries
- Some changes to hatchery membership
    - Terminated programs
    - New programs

status assessment, and additional information concerning these species are available on the Southwest Region's Web site: *http://swr.nmfs.noaa.gov/*.

With regard to the salmon and steelhead species subject to this notice of availability, we evaluated information that has become available on the species since they were previously reviewed in 2005 (70 FR 37160) and 2006 (71 FR 834), respectively. After considering the best available information, our 5-year reviews recommend that each of these species should remain listed as determined in 2005 and 2006. Our reviews also recommend that the southern boundaries of two species (California Coastal Chinook salmon and Central California Coast coho salmon ESUs) should be extended. Finally, our reviews also recommend that six hatchery stocks should be removed from the California Coastal Chinook salmon ESU based on information demonstrating the hatchery programs propagating these stocks have been terminated since the last status review.

In furtherance of these recommendations, we have already proposed to change the southern boundary of Central California Coast coho salmon (76 FR 6383). We will consider proposing the adjustment of the species boundary and hatchery status for California Coastal Chinook salmon in a separate rulemaking. We conclude that these 5-year reviews meet the requirements of the ESA.

Authority: 16 U.S.C. 1531 *et seq.*

Dated: August 8, 2011.

Therese Conant,

Deputy Chief, Endangered Species Division, Office of Protected Resources, National Marine Fisheries Service.

[FR Doc. 2011–20459 Filed 8–12–11; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Parts 223 and 224

RIN 0648–XA535

Endangered and Threatened Species; 5-Year Reviews for 17 Evolutionarily Significant Units and Distinct Population Segments of Pacific Salmon and Steelhead

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of availability of 5-year reviews.

SUMMARY: NMFS Northwest Region announces the availability of 5-year reviews for 11 evolutionarily significant units (ESUs) of Pacific salmon (*Oncorhynchus sp.*) and 6 distinct population segments (DPSs) of steelhead (*Oncorhynchus mykiss*) in Oregon, Washington, and Idaho as required by the Endangered Species Act of 1973, as amended (ESA). The purpose of the reviews was to evaluate whether the listing classifications of these salmonids remains accurate or should be changed. After reviewing the best available scientific and commercial data, we conclude that the 11 ESUs of Pacific salmon and 6 DPSs of steelhead in Oregon, Washington, and Idaho shall remain listed as determined in 2005, 2006, and 2007.

ADDRESSES: Additional information about the 5-year reviews may be obtained by visiting the NMFS Northwest Regional Office Web site: *http://www.nwr.noaa.gov/*, or by writing to us at: NMFS Northwest Region, 1201 Lloyd Blvd., Suite 1100, Portland, OR 97232.

FOR FURTHER INFORMATION CONTACT: Eric Murray (503) 231–2378.

SUPPLEMENTARY INFORMATION:

Background

Under the ESA, a list of endangered and threatened wildlife and plant species must be maintained. The list is published at 50 CFR 17.11 and 50 CFR 223.102 (for animals) and 17.12 (for plants). Section 4(c)(2)(A) of the ESA requires that we conduct a review of listed species at least once every 5 years. On the basis of such reviews under section 4(c)(2)(B), we determine whether any species should be removed from the list (delisted), or reclassified from endangered to threatened or from threatened to endangered. During 5-year reviews, we consider the best scientific and commercial data available, including new information that has become available since the last listing determination or most recent status review of a species.

On March 18, 2010, the NMFS Northwest and Southwest Regional Offices announced initiation of 5-year reviews of Pacific salmon ESUs and steelhead DPSs (75 FR 13062). Both ESUs and DPSs are treated as 'species' under the ESA, and we use the term 'species' to refer to both in the remainder of this notice. At the time of our announcement, we requested information on species viability, protective efforts, and threats to the species from the public, concerned governmental agencies, Tribes, the scientific community, environmental entities, and other interested parties.

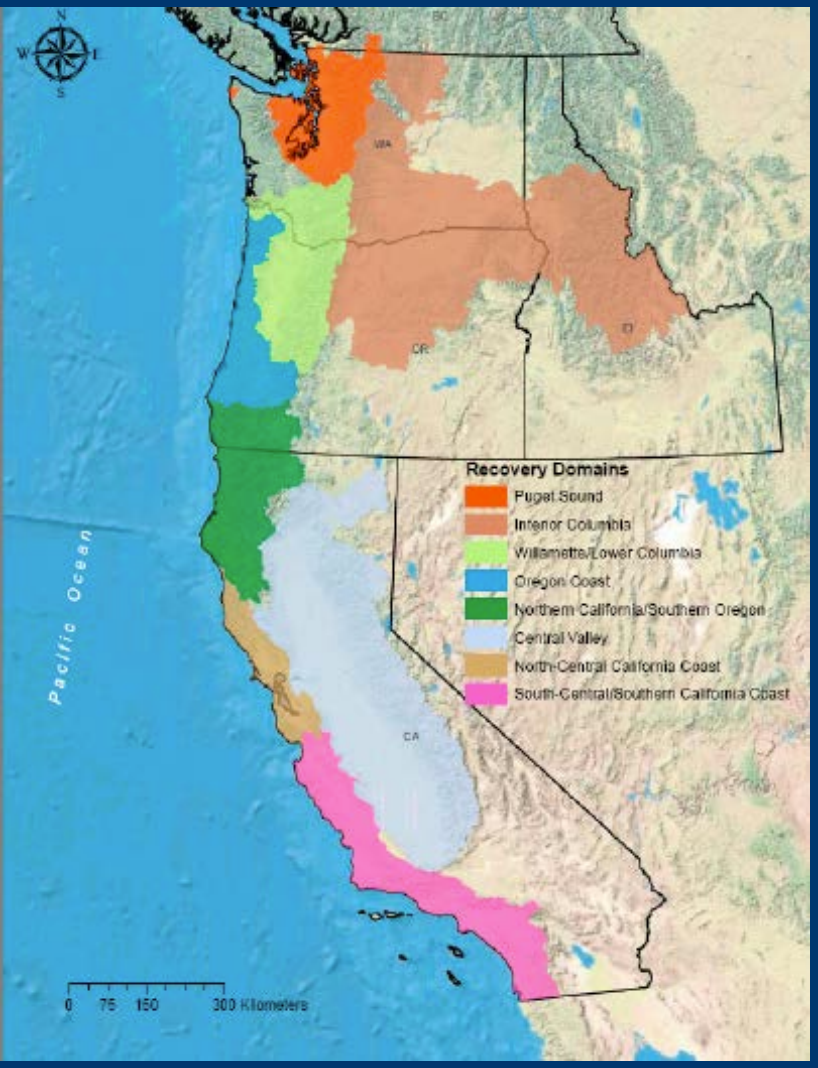
This notice addresses the following salmon species: (1) Upper Columbia River spring-run Chinook salmon; (2) Snake River spring/summer-run Chinook salmon; (3) Puget Sound Chinook salmon; (4) Lower Columbia River Chinook salmon; (5) Upper Willamette Chinook salmon; (6) Snake River fall-run Chinook salmon; (7) Hood Canal summer-run chum salmon; (8) Columbia River chum salmon; (9) Lower Columbia River coho salmon; (10) Snake River sockeye salmon; and (11) Ozette Lake sockeye salmon. We did not complete a 5-year review for the Oregon Coast coho salmon because, as part of a legal settlement, we previously agreed to conduct a new review of the status of this species. On June 20, 2011, we issued a final rule re-promulgating the threatened listing for Oregon Coast coho salmon (76 FR 35755).

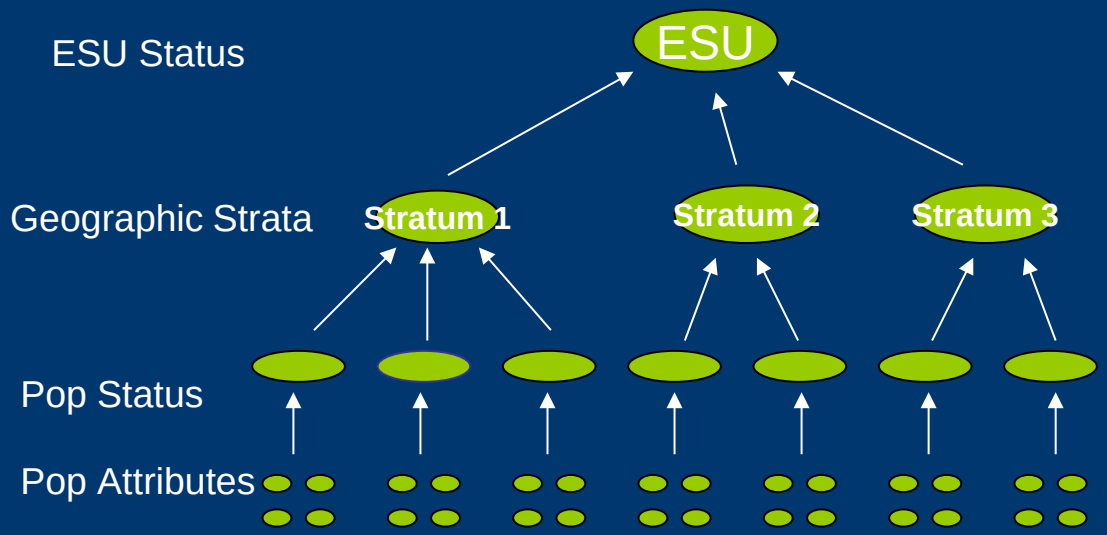
This notice also addresses the following steelhead species: (1) Upper Columbia River steelhead DPS; (2) Middle Columbia River steelhead DPS; (3) Snake River Basin steelhead DPS; (4) Lower Columbia River steelhead DPS; (5) Upper Willamette steelhead DPS; and (6) Puget Sound steelhead DPS. Information about these species can be found at our Northwest Regional Web site: *http://www.nwr.noaa.gov/*.

We used a two-step process to complete the reviews of the listed salmonid species in Oregon, Washington, and Idaho. First, we asked scientists from our Northwest Fisheries Science Center to collect and analyze new information about species viability. To evaluate viability, our scientists apply the Viable Salmonid Population (VSP) concept. The VSP concept relies on evaluating four criteria—abundance, productivity, spatial structure, and diversity—to assess species viability. They also considered new genetic and biogeographic information regarding species' boundaries. At the end of this process, the science team prepared a report detailing the results of their analyses. This report is available at our regional Web site.

Salmon management biologists from our Northwest Regional Office completed the second step in the review process. These biologists, organized into geographically-based teams, reviewed new information related to the five ESA section 4(a)(1) factors, which we consider when determining if a species should be listed as threatened or endangered or be de-listed. These are: (1) The present or threatened destruction, modification, or curtailment of the species' habitat or range; (2) overutilization for

Updated Viability Assessments

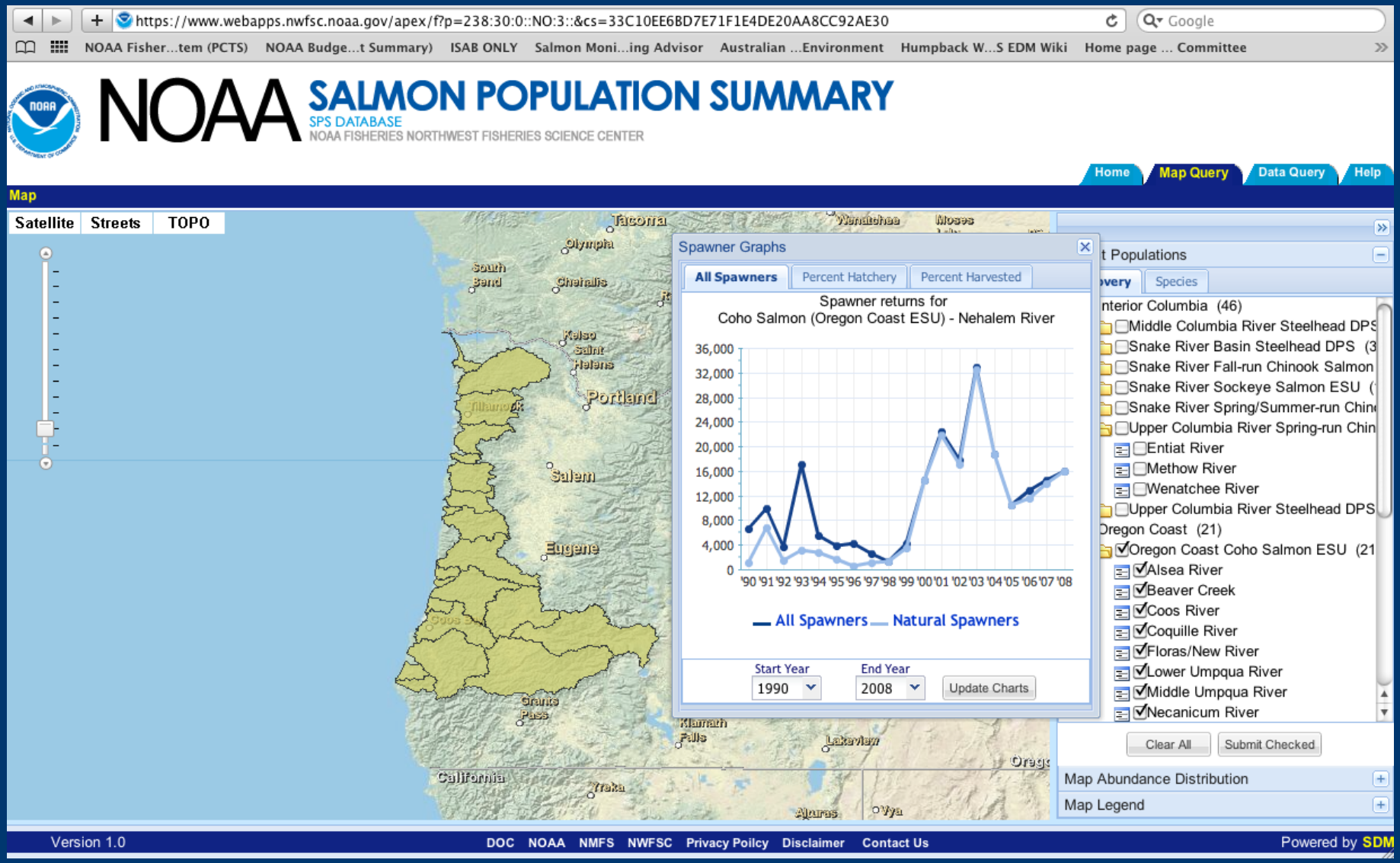




<u>Population status</u>:

- Abundance (e.g., natural-origin spawning)
- Productivity (trend, recruits/spawner, modeled)
- Spatial structure (distribution, habitat)
- Diversity (life-history, hatchery/wild)

Spawning Abundance and Composition



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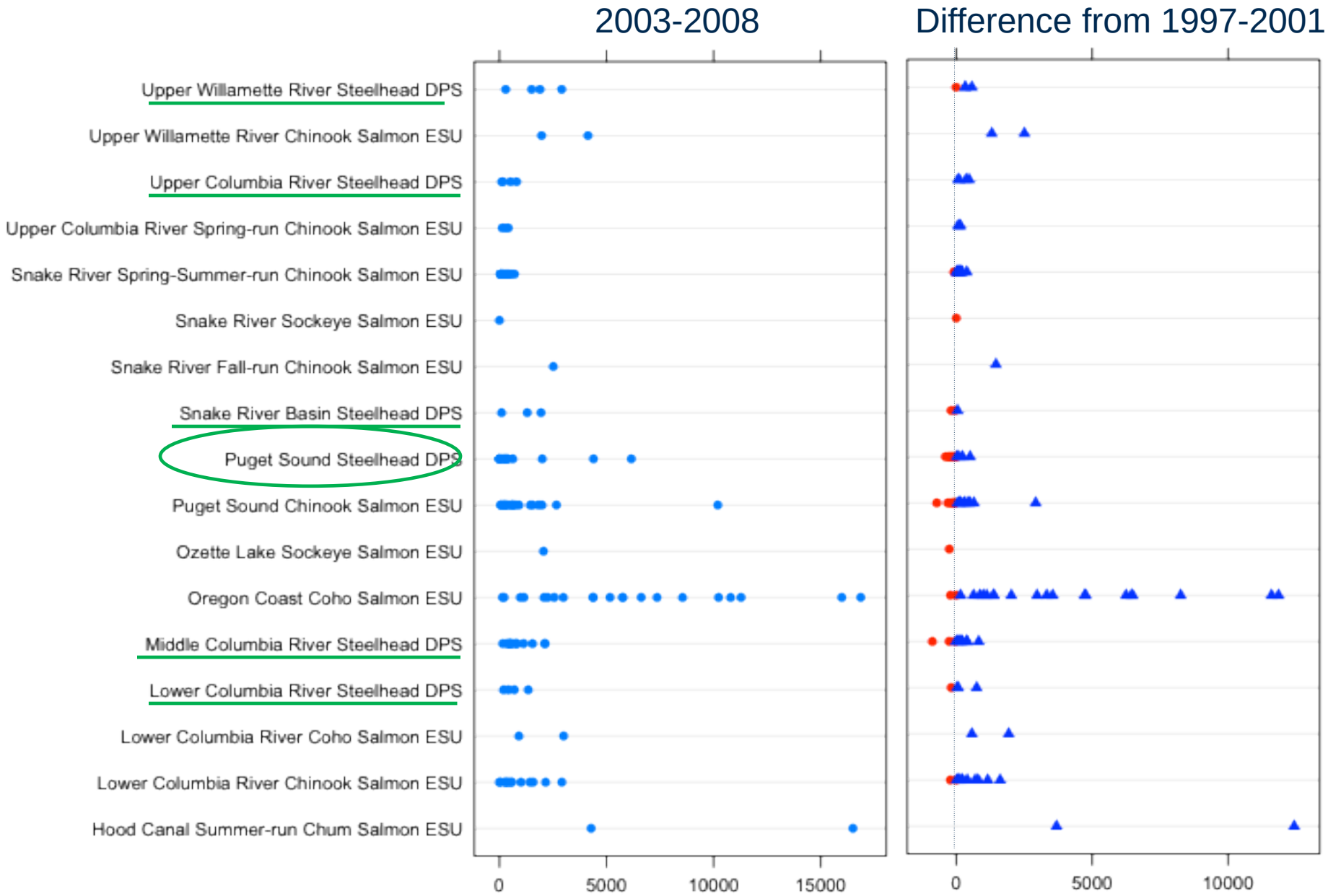
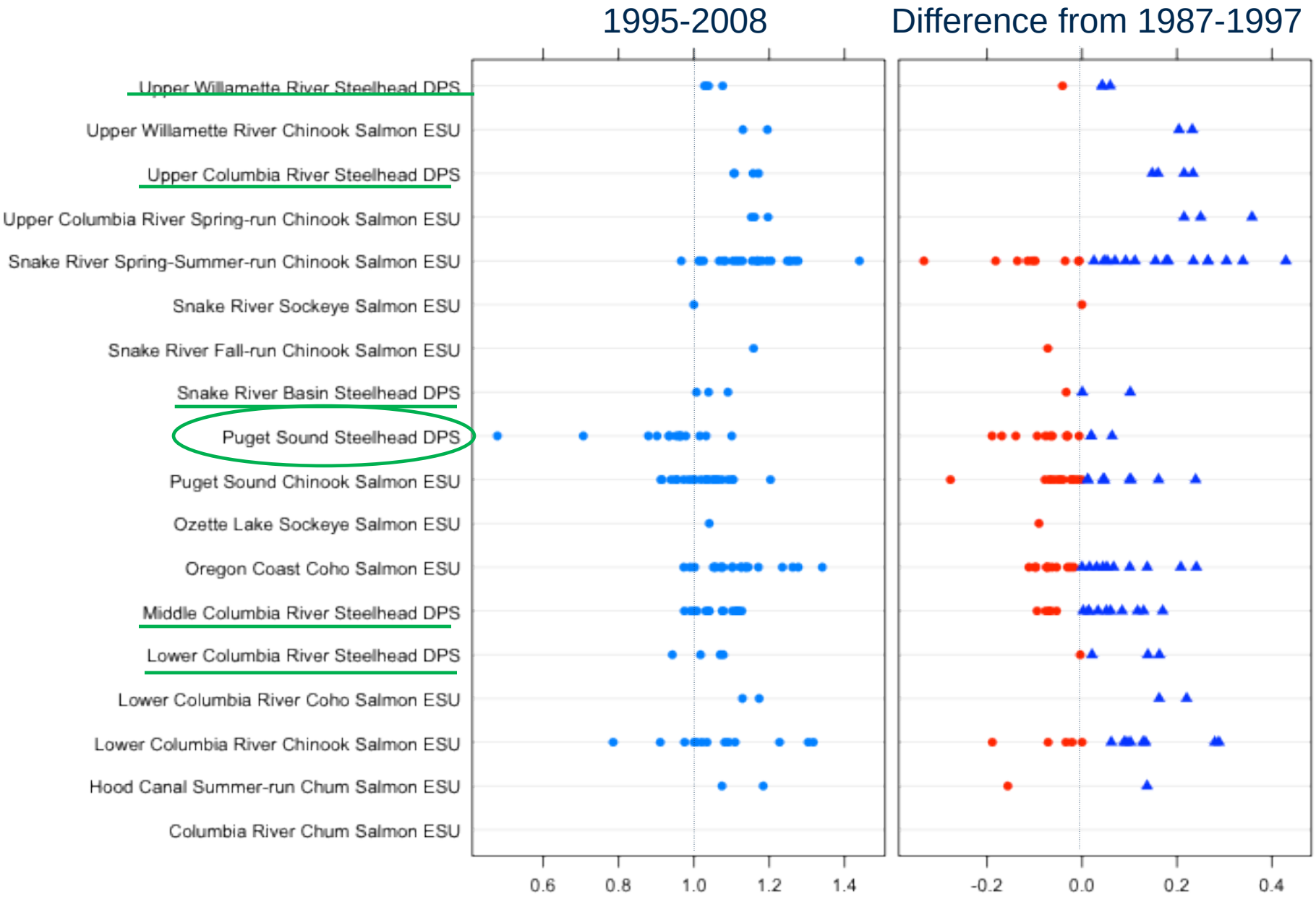
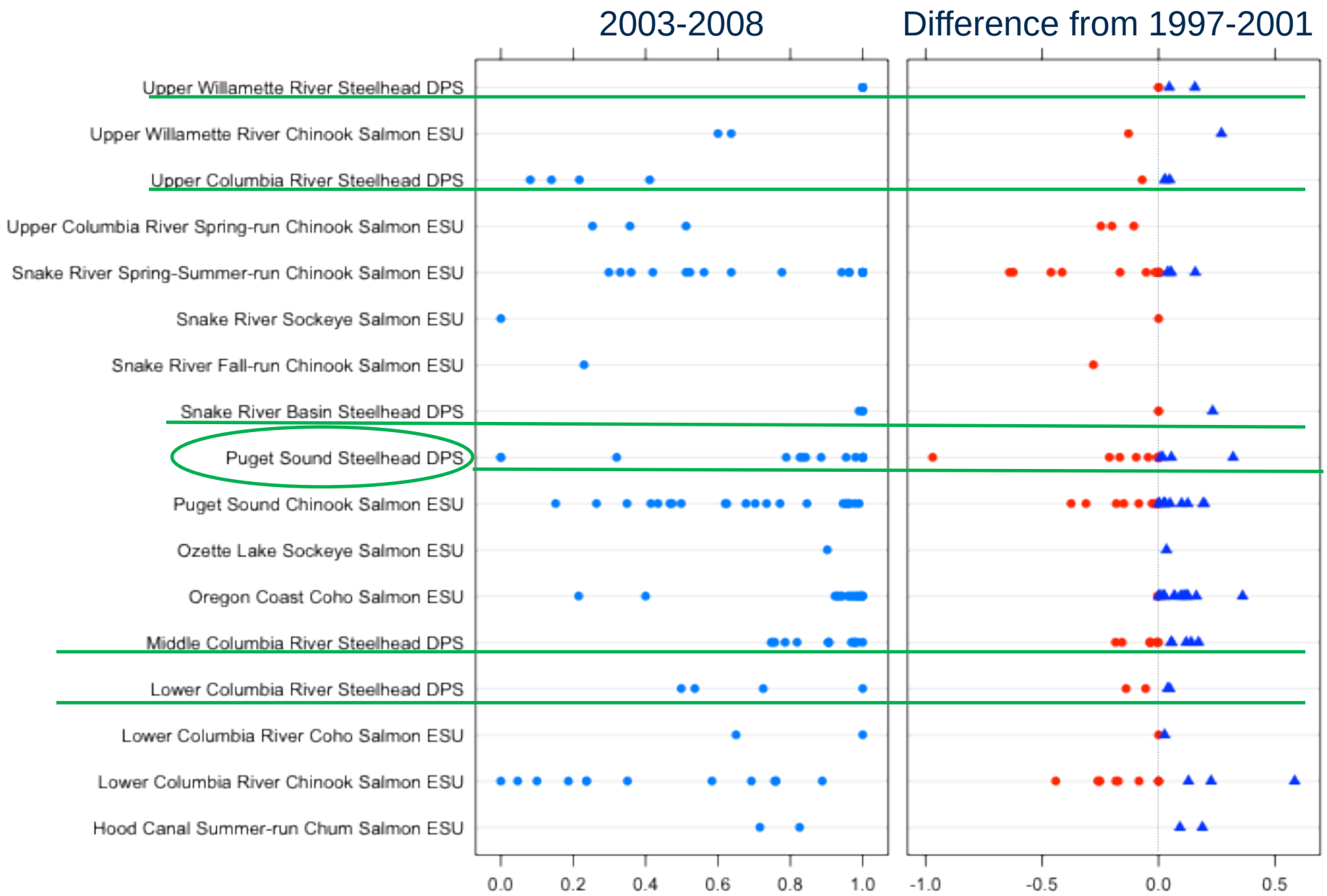
Summary – abundance (natural origin)



Summary – trend (natural origin)



Summary – fraction natural origin



Summary – spatial structure and diversity

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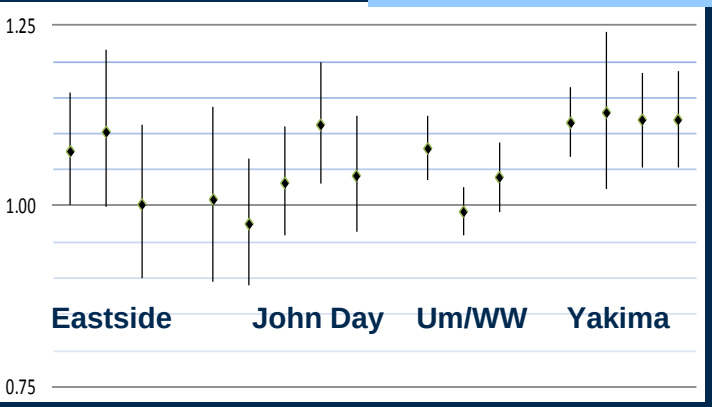
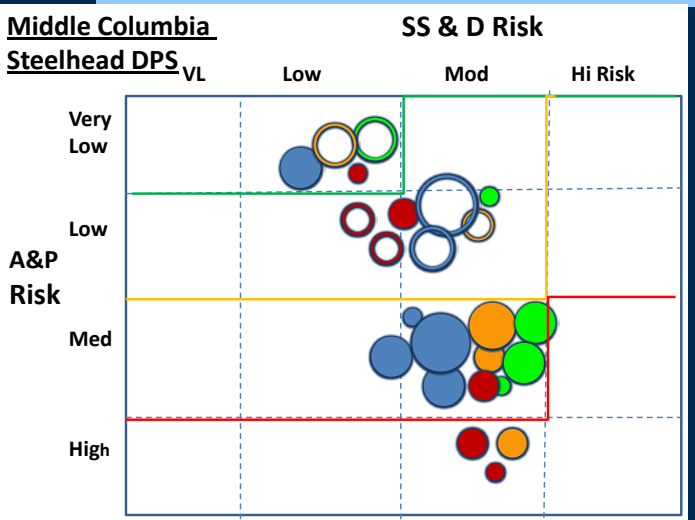
Mid-Columbia Steelhead

Trends (1995-2008)



Viability (current vs VSP minimum)



Recent Trends: Short term trends generally positive across MPGs

- Consistently positive for Yakima MPG populations relative to status at listing
- Avg. natural abundance trends for Fifteen Mile (Eastside MPG), Touchet (UM/WW MPG) and MF John Day slightly below 1.0
- **2010 estimates of natural origin spawners above recent range for several populations**

Viability Status: Three populations met minimum viability criteria

- (NF John Day & Fifteen Mile = HV; E. Deschutes = V)

Three populations remain rated at High Risk

- Upper Yakima, Westside Deschutes, Rock Creek(?)

Anticipated information prior to next 5 year reviews

- Direct estimates for Yakima populations (currently extrapolated from aggregate counts at Prosser and Roza)
- Extended data series for Klickitat and Touchet
- Improved SAR series at DPS (and potentially MPG levels)
- Habitat condition indices at population and MPG scale

Snake River Steelhead

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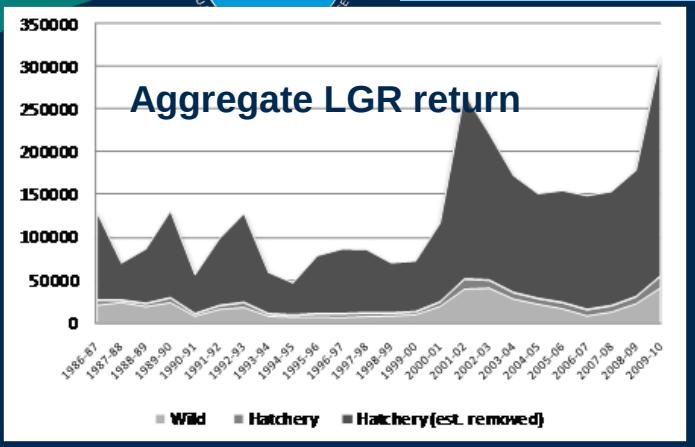
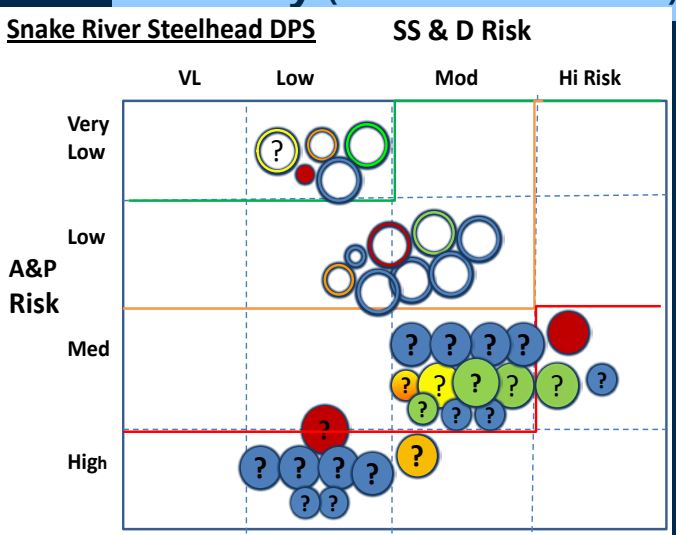
Trends (1995-2009)



Viability (current vs VSP minimum)



Current Trends:

- Available data limits direct estimates of population status to two populations in the Grande Ronde basin.
  - Natural origin abundance and productivity increased for both the Joseph Creek and Upper Grande Ronde
- Aggregate natural returns at Lower Granite increased relative to previous BRT review
  - Subtracting those estimates from aggregate count at Lower Granite Dam indicates many remaining populations likely at higher risk levels

Viability Status:

- High level of uncertainty regarding most populations in the DPS. Earlier review assigned A&P based by assumed A and B run
- Diversity risks inferred to vary considerably across remaining populations based on juvenile sampling, inferences from habitat conditions, proximity of some populations to major hatchery facililties

Anticipated information prior to next 5 yr review

- Direct estimates for many Snake River populations (or groupings) based on genetic mixed stock assessment, directed PIT tag assessment projects.
- Preliminary results indicate Idaho populations may reflect a range of combinations of A and B run timings
- Habitat condition indices at population scale.

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Willamette Steelhead DPS

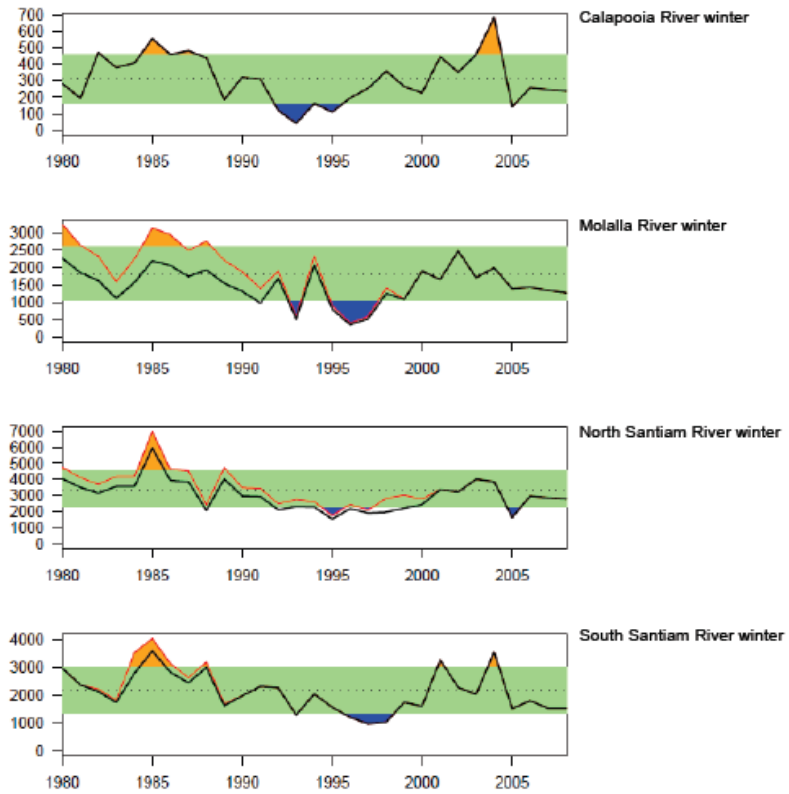

Figure 104. Spawner abundance of upper Willamette steelhead populations by year. The dark line indicates natural-origin spawner numbers and the light line indicates total natural spawners (including naturally spawning hatchery fish). The dotted line is the long-term (whole time series) mean of the total spawners and the shaded area indicates ±1 SD around the mean.

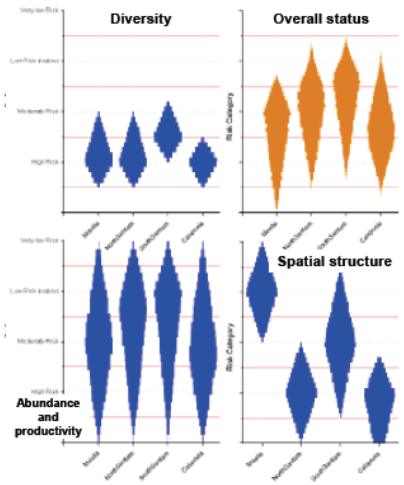

Figure 102. Status of upper Willamette steelhead populations. (Reprinted from McElhany et al. 2007.)

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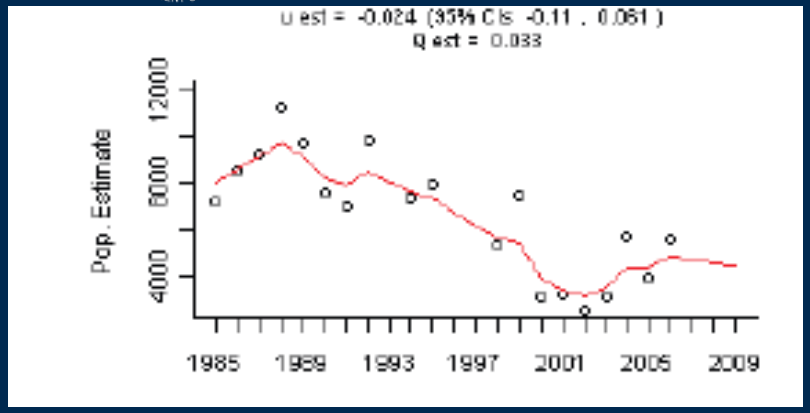
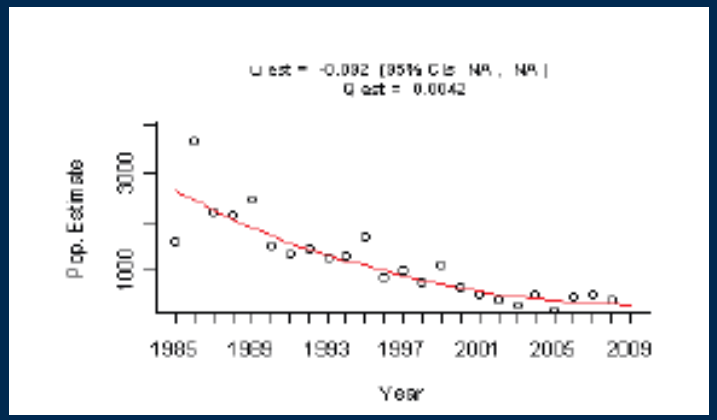
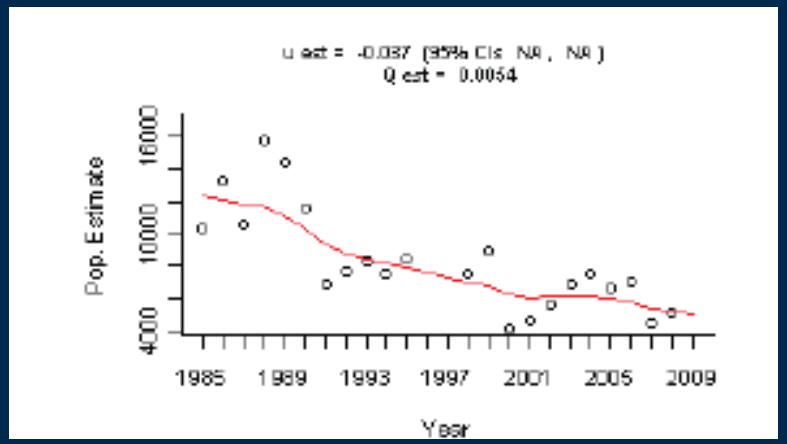
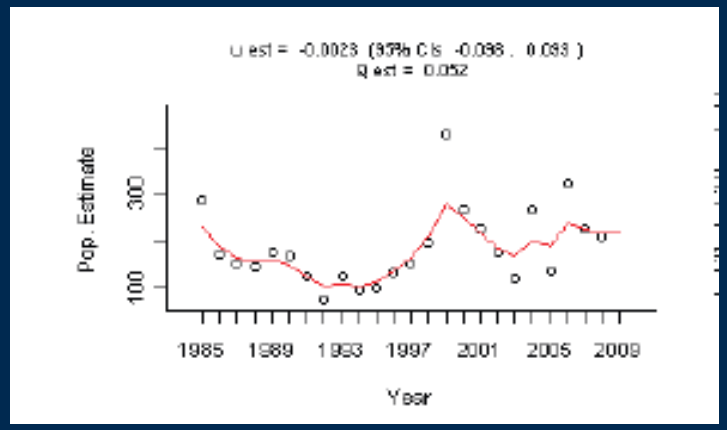
Examples: Puget Sound populations









Hood Canal

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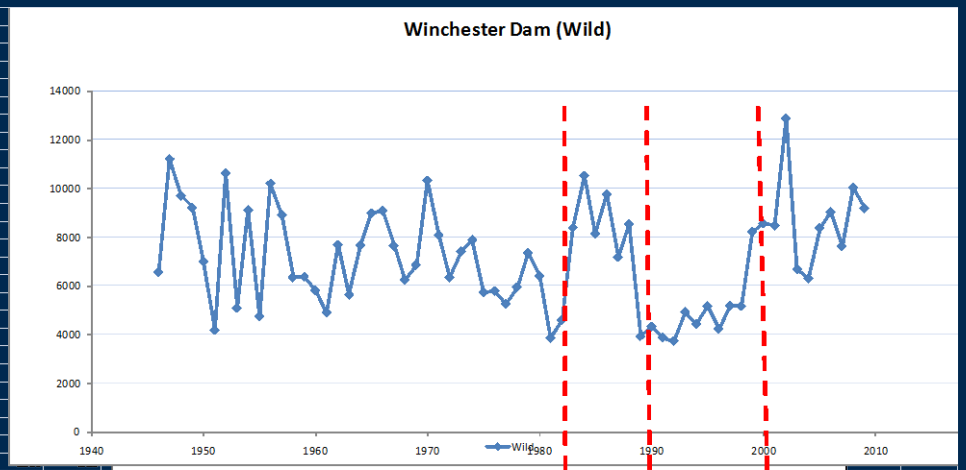
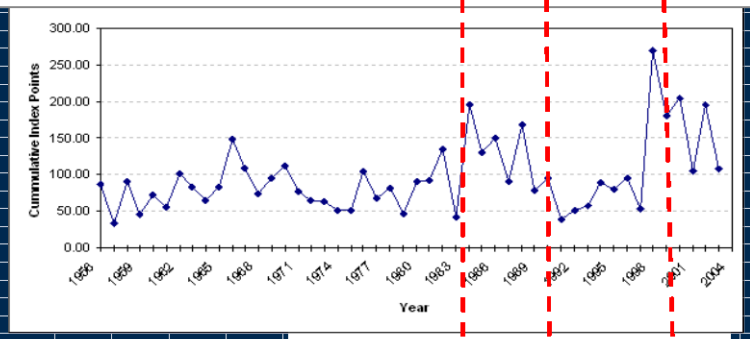
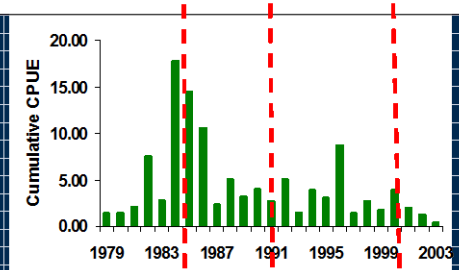
Long term abundance series comparisons



Umpqua (Oregon Coast) Dam count



Skeena (BC) Test fishery



Lower Fraser R (BC) Test fishery

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Summary of Updated Viability Assessments

- Mostly positive trends since listing
- Some populations meet or exceed viability criteria (but most do not)
- No ESUs meet viability criteria
- No change in risk category

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Looking to the next 5-year review in 2015

- We hope to include:
  - New and improved population status and trend data
  - Analyses of implemented projects relative to identified limiting factors and priority actions
  - Evaluation of more specific and quantifiable threats criteria
  - New habitat and other monitoring data to inform a more quantitative evaluation of the ESA listing factors
- Keen interest expressed among our regional partners in collaborating on compilation of data and analyses to inform next five-year reviews
- NOAA would like to coordinate closely with the Council in developing our approach to the next 5-year reviews.

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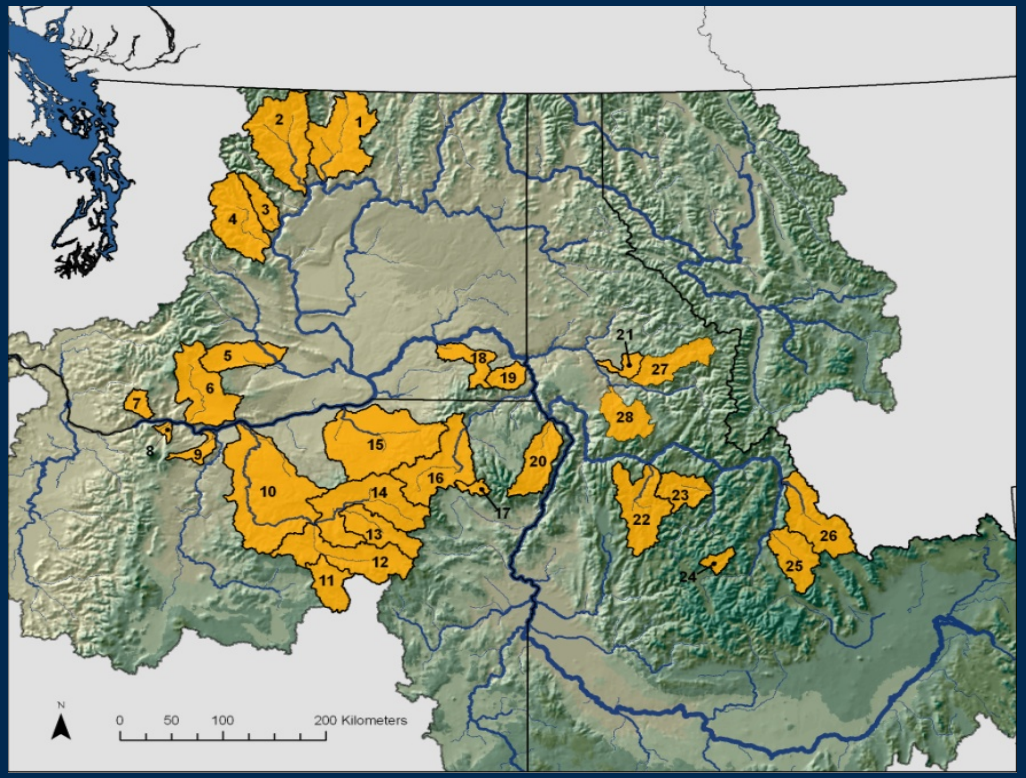
Improved Habitat Information:

- Considering project effectiveness
  - TetraTech
  - IMWs
  - CHaMP



CHaMP

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Questions?

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