Northwest Power and Conservation Council

June 1, 2004

MEMORANDUM

TO: Council Members

FROM: Bruce Suzumoto

SUBJECT: NOAA status review and hatchery listing policy

On May 28, 2004 NOAA Fisheries released their proposed listings for the Columbia Basin and West Coast salmon and steelhead populations. These proposed listings stem from the September 2001 ruling of the Oregon U.S. District Court. The court ruled that the 1998 Oregon Coast coho listing decision made improper distinctions when it included both hatchery and wild fish in the Oregon coast coho ESU, and then listed only the wild population under the ESA. The court sent the case back to NOAA so that it could reconsider its listing decision.

For the Columbia Basin highlights of the new listing decision include:

- The Upper Columbia steelhead is proposed for downlisting from endangered to threatened status.
- The Lower Columbia River coho salmon would move from candidate status to threatened status.
- All other Columbia Basin listings would remain the same.
- Although the status report does not propose major changes in the current classification of listed stocks, many of these stocks are in much better off than when they were first listed.
- Two Columbia Basin populations with the greatest potential for delisting include Snake River fall chinook and Middle Columbia River steelhead.
- Both the proposed listing determinations and the draft hatchery policy will be published in the Federal Register early next month and will be open for public comment for 90 days.
- The proposed listings would become final determinations a year from now.

The newly released hatchery policy will take into account the genetic relatedness of hatchery populations to listed populations to decide if can be used to rebuild stocks. A "moderate" level of genetic divergence will be allowed.

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Highlights of 2004 Proposed Listing Determinations for 27 ESUs of Pacific Salmon and Steelhead

Today's Action

Today, Conrad C. Lautenbacher, Jr., (U.S. Navy, ret.), Administrator of the National Oceanic and Atmospheric Administration (NOAA), and D. Robert Lohn, Northwest Regional Administrator for NOAA Fisheries announced the release of a new hatchery policy, status reviews and proposed listing determinations for 27 populations (called "evolutionary significant units" (ESUs)) of Pacific salmon and steelhead.

Background

Beginning in the early 1990's, NOAA Fisheries listed 26 ESUs of salmon and steelhead as either threatened or endangered in Washington, Oregon, Idaho, and California. In September 2001, an Oregon federal district court held that NOAA Fisheries improperly failed to account for hatchery populations in its ESA listings. In February 2004, the Ninth Circuit Court of Appeals denied a petition for appeal of the *Alsea* decision.

The listing determinations and status reviews are based upon a report produced in early 2003 by NOAA Fisheries' Biological Review Team detailing the biological status of naturally spawning stocks, as well as its assessment of the effects of hatchery programs on ESU viability and conclusions from the Artificial Propagation Evaluation Workshop held in April 2004.

Highlights of Selected Status Reviews and Proposed Listing Determinations

- *2 ESU Improvements from Endangered to Threatened.* The status report proposes 23 ESUs warrant listing as "threatened." Previously, NOAA Fisheries had 20 ESUs listed as threatened. Following the reviews, 2 previously "endangered" listings (Sacramento River winter-run chinook and Upper Columbia River steelhead) improved to "threatened" status. In addition, one ESU that had been a "candidate" for listing, Lower Columbia coho, was proposed as a "threatened" status, and one that had previously been listed as threatened, Oregon Coast coho, was proposed to be re-listed as "threatened."

- *1 Listing Change from Threatened to Endangered.* The report proposes that 4 ESUs (Snake River sockeye, Upper Columbia River spring chinook, Southern California steelhead and Central California Coast coho) warrant listing as "endangered" species. Previously, NOAA Fisheries had 5 ESUs listed as endangered. The Central Coast coho status was a change from "threatened" to "endangered." The State of California also proposed listing of this ESU under the state ESA.

- *Puget Sound Chinook ESU.* While the status of this ESU is proposed by NOAA Fisheries to remain threatened, the status report recognizes "significant and positive actions to address limiting factors" of Puget Sound chinook, including: implementation of the Washington Forests and Fish

agreement for timber practices, the Washington Department of Transportation's Routine Road Maintenance plan implemented by the Tri-County governments, the Puget Sound hatchery reform project, and ongoing habitat and harvest management programs. The report also expresses NOAA Fisheries' support for the Shared Strategy recovery planning process, and encourages it to continue to meet necessary commitments to address limiting factors of the ESU.

- *Snake River Fall Chinook ESU.* While the status of this ESU is proposed by NOAA Fisheries to remain threatened, the report notes that "actions under the 2000 Federal Columbia River Power System biological opinion and improvements in hatchery practices have provided some encouraging signs in addressing the ESU's factors for decline." The report also acknowledges that hatchery stocks from the Lyons Ferry hatchery have contributed to encouraging increases in return fall chinook salmon n recent years.

- *Oregon Coast Coho ESU.* The status of this ESU is proposed by NOAA Fisheries to remain threatened. However, the report recognizes the "significant contributions" the Oregon Plan has made or encouraged toward conserving salmon and steelhead populations, and states that if, upon completion of the State of Oregon's scientific review of problems causing the previous decline and also an analysis showing that the Oregon Plan and/or other conservation efforts substantially mitigate ESU extinction risk, NOAA Fisheries will re-open the listing determination to consider the best and most recent scientific and commercial data available.

- *Middle Columbia River Steelhead ESU.* The status of this ESU is proposed by NOAA Fisheries to remain threatened. However, the report recognizes dramatic increases in abundance throughout the ESU, positive short-term productivity in all production areas. The report states that NOAA Fisheries views this ESU as "an exceptional opportunity to secure specific conservation measures that would help ensure the ESU's viability over the long term and likely bring the ESU to the point where ESA protections are no longer necessary," and that in the event that certain actions are undertaken to address limiting factors prior to the final listing determination, NOAA Fisheries will re-open the listing determination for this ESU.

- *Upper Columbia River Steelhead ESU.* The status of this ESU is proposed by NOAA Fisheries to have improved from endangered to threatened. The report notes that NOAA Fisheries' assessment of the effects of hatcheries on the ESU's extinction risk concluded that hatchery programs collectively mitigate the immediacy of extinction risk in-total in the short term, but the contribution in the foreseeable future is uncertain.

- *Sacramento Winter Run Chinook ESU.* The status of this ESU is proposed by NOAA Fisheries to have improved from endangered to threatened. The report notes "harvest and habitat conservation efforts have substantially benefited the ESU's abundance and productivity over the past decade," including: changes in Central Valley Project and State Water Project operations and other actions undertaken pursuant to implementation of the Central Valley Project biological opinion; changes in ocean harvest pursuant to the ocean harvest biological opinion and habitat restoration efforts as a result of the CALFED program and other habitat restoration projects.

More information about the status reviews and listing determinations of each of the 27 listings of Pacific salmon and steelhead will become available on May 28, 2004 at: http://www.nwr.noaa.gov.

Overview of NOAA Fisheries' Proposed Hatchery Listing Policy & Proposed Listing Determinations

Rob Walton
Salmon Recovery Division
NOAA Fisheries – Northwest Region
June 8, 2004

Background:

- The ESA provides for listing species, sub-species or distinct population segments (ESUs).
- NOAA's policy for delineating ESUs is unchanged from the 1993 artificial propagation interim policy:

  Genetic resources important to the species' evolutionary legacy may reside in hatchery fish as well as in natural fish, in which case the hatchery fish can be considered part of the biological ESU in question.

Background, Continued

- Two Federal Courts have ruled that once NOAA Fisheries lists an ESU it cannot subdivide the ESU and list only a subset:

  Alsea Valley Alliance *v* Evans 161 f.Supp.2d 1154 (d.Oreg. 2001), appeals dismissed, 358f.3d1181(9th cir. 2004) (listing invalid; listing struck down)

  Modesto Irrigation District *v* Evans CIV-F-02-6553 OWW (E.D. Calif., May 12, 2004) (listing invalid but left in place)

Summary

- NOAA Fisheries received petitions seeking to delist or redefine and list several ESUs.
- NOAA Fisheries initiated status review of all west coast ESUs.
- NOAA Fisheries' Revised Hatchery Listing Policy Proposed in Federal Register

  (69 FR 31354; 6/3/04)

Summary, Continued

NOAA's Proposed Listing Determinations:

- Are based on two federal court rulings.
- Utilized the Proposed Hatchery Listing Policy
- Incorporated updated scientific information
- Resulted in only two proposed changes in PNW: Upper Columbia Steelhead from Endangered to Threatened and Lower Columbia River coho proposed as threatened.

Summary of Hatchery Listing Policy

- Administration has reaffirmed its commitment to habitat protection and restoration.

- Central tenet: ". . .apply this policy in support of the conservation of naturally-spawning salmon and the ecosystems upon which they depend."

Summary of HLP Continued

- Status determinations will be based upon the likelihood of extinction of an entire ESU.

- Artificial Propagation presents both potential benefits and risks to the biological status of salmon and steelhead ESUs

Summary of HLP continued

Potential benefits of artificial propagation

- Artificial propagation has been shown to be effective in bolstering the numbers of naturally spawning fish in the short term under certain conditions. Genetic resources can reside in hatchery-origin fish.

- One example is “captive broodstock” programs for sockeye and other ESUs.

Summary of HLP continued

Potential risks of artificial propagation

- Long term deleterious consequences of artificial propagation may outweigh the short-term advantages.

- Ongoing research, monitoring and evaluation is therefore needed.

Summary of HLP continued

Determining the status of ESUs

- In determining the status of ESUs, consider abundance, productivity, spatial distribution and genetic diversity ("Viable Salmonid Populations McElhany *et al* 2000).

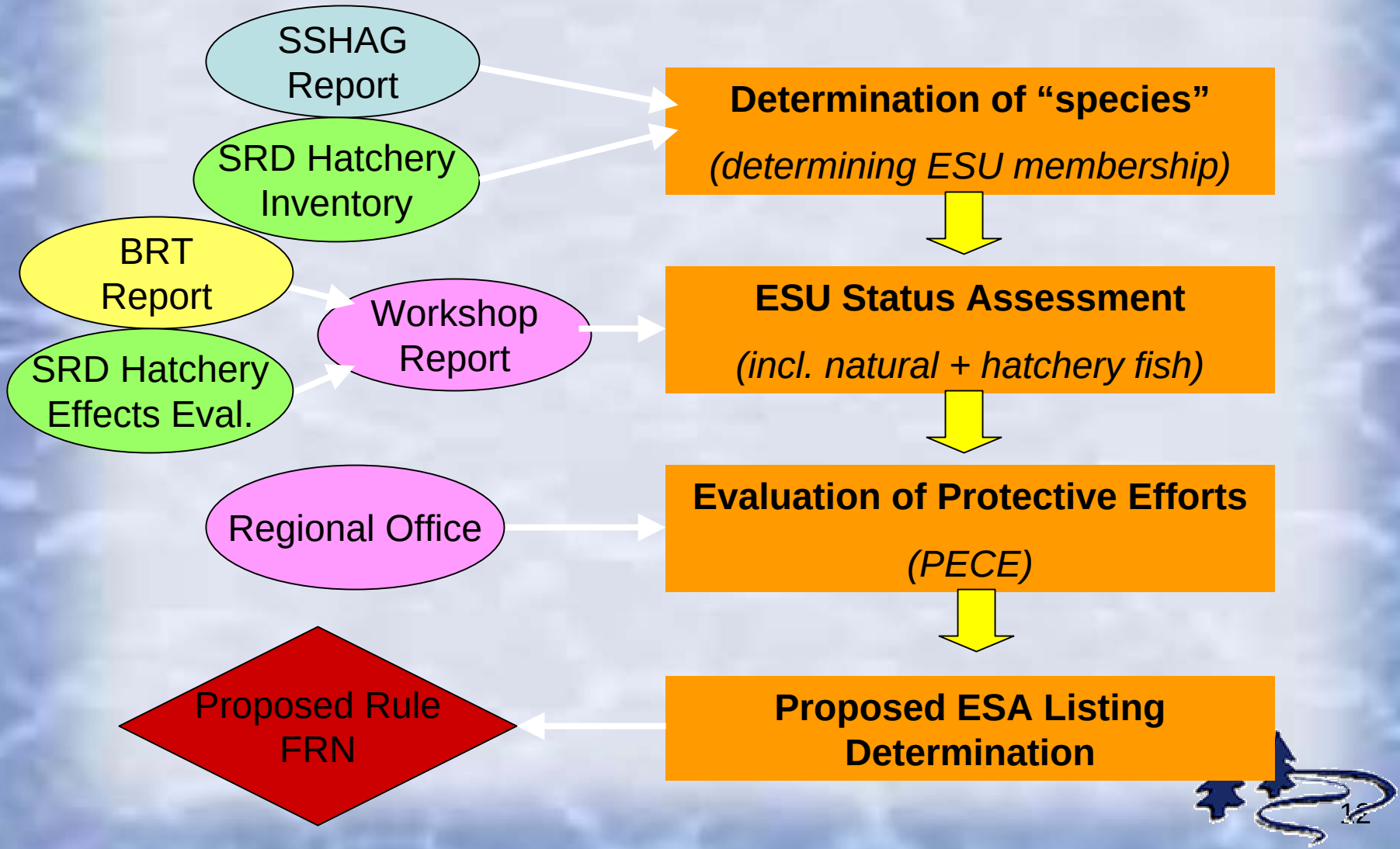
- "High abundance of one population by itself is not adequate to show that the ESU is viable."

Summary of HLP continued

Are hatchery fish included in ESUs?

- Hatchery origin fish will be included in an ESU provided the level of genetic divergence between the hatchery stocks and the local natural populations are no more than what would be expected between closely related populations within the ESU.

ESA Status Review Process



Proposed Listing Determinations in the Pacific Northwest

- Only Two Proposed Changes:

  Upper Columbia River Steelhead from Endangered to Threatened

  Lower Columbia River Coho: from candidate to threatened.

Overview of artificial propagation programs for eighteen Evolutionarily Significant Units of salmon and steelhead.

Evolutionarily Significant Unit (ESU)	Finding ESA Status in 2001	May 2004	Total number of artificial propagation programs – May 2004	Programs included in the ESU and listed – May 2004	Programs included in the ESU – October 2001	Programs included in the ESU and listed – October 2001
Puget Sound Domain						
Puget Sound Chinook	Threatened	Threatened	37	22	36	5
Hood Canal Summer Chum	Threatened	Threatened	8	8	8	0
Ozette Lake Sockeye	Threatened	Threatened	1	1	1	0
Snake River Domain						
Snake River Sockeye	Endangered	Endangered	1	1	1	1
Snake River Spring/Summer Chinook	Threatened	Threatened	16	15	12	12
Snake River Fall Chinook	Threatened	Threatened	3	3	1	0
Snake River Steelhead	Threatened	Threatened	16	6	4	2
Upper Columbia Domain						
Upper Columbia Spring Chinook	Endangered	Endangered	8	6	5	5
Upper Columbia Steelhead	Endangered	**Threatened**	4	4	3	3
Middle Columbia Domain						
Middle Columbia Steelhead	Threatened	Threatened	9	4	3	0
Lower Columbia/Willamette Domain						
Lower Columbia Chinook	Threatened	Threatened	25	17	16	0
Columbia River Chum	Threatened	Threatened	3	3	4	0
Lower Columbia Steelhead	Threatened	Threatened	28	7	7	7
Lower Columbia Coho	[not warranted]	**Threatened**	31	31	na†	na†
Upper Willamette Chinook	Threatened	Threatened	7	7	5	0
Upper Willamette Steelhead	Threatened	Threatened	2	0	0	0
Oregon Coast Domain						
Oregon Coastal Coho	Threatened	Threatened	8	5	9	0
Southern Oregon/Northern California Coastal Coho	Threatened	Threatened	3	3	5	0
Totals			**210**	**143**	**120**	**35**

† Not applicable. Not included in October 2001 determination.

June 4, 2004

Why Didn't NOAA Propose More Changes?

- The emphasis is still on conservation of naturally spawning salmon and the ecosystems upon which they depend. Hatcheries can't solve fundamental ecosystem problems.

- For many ESUs, hatchery programs continue to pose a risk to listed ESUs. NOAA Fisheries needs your help in continuing to improve the performance of hatchery programs.

Protective Regulation

• For ESUs listed as threatened, NMFS will, where appropriate, exercise its authority under section 4(d) of the ESA to allow the harvest of listed hatchery fish that are surplus to the conservation and recovery needs of the ESU in accordance with approved harvest plans.

• Hatcheries can play an important role in fulfilling trust and treaty obligations with regard to harvest of some Pacific salmonid populations and provides a mechanism for using hatchery fish that are surplus to the conservation and recovery needs of the ESU.

The following documents are currently available for review and comment:

- *Federal Register* notice:

The proposed Hatchery Listing Policy
Hatchery Programs Inventory and Effects Evaluation
Updated Biological Review Team (BRT) Report

To access these documents on the Internet, and for more information, visit

http://www.nwr.noaa.gov/1srd