

Oregon Coast Coho ESU— Southern Populations

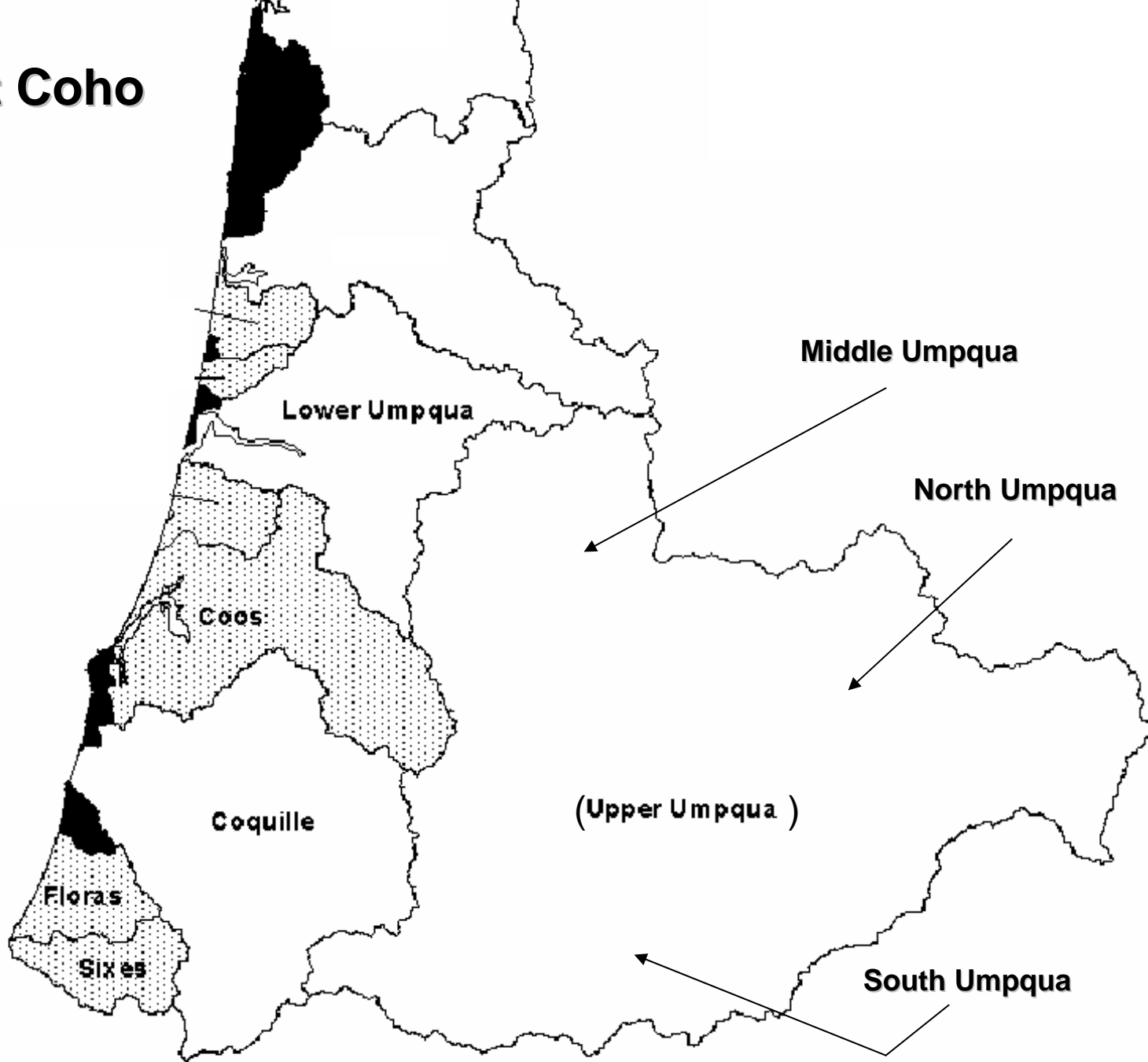
Limiting Factors/Threats And Management Considerations

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Oregon Coast Coho ESU— Southern Populations Management Considerations:

- **Prioritization of basins for coho**
- **Limiting Factors/Threats**
- **Habitat**
- **Harvest**
- **Hatcheries**
- **Research Ideas/Needs**

South Coast Coho Populations



Assessments Available/Used

- **2005 Oregon Plan Coho Assessment**
- **Watershed Council Assessments—**
 - **Coos: Assessed at “Region” level within Basin (e.g. direct Bay tribs., slough system tribs.); Coos Lowland Assessment Project**
 - **Coquille: Assessed on subwatershed level (major forks plus mainstem); stream-based detail**
 - **Umpqua: Assessed on finer scale than forks; based on project schedule; Umpqua Watershed Council**
 - **New River/Sixes: Basin assessments with stream/reach detail**
- **ODFW District/Research Assessments**
 - **Basin Fish Management Plans**
- **Others:**
 - **Coquille Tribe Limiting Factors Assessment and Coho Basin Plan: finer scale (forks and individual streams)**

Prioritization of Basins for Coho

- **First priority: move North Umpqua from fail to Pass +**
- **Exclude Sixes from desire to move toward Pass (small pop'n.)**
- **For habitat protection and restoration, all basins are same priority (Umpqua, Coos, Coquille, Floras/New River, Sixes)**
- **Dependent populations —still to be determined: Twomile Cr. captured by New River; Johnson Cr. hasn't had recent observations of coho salmon.**

Priority Areas for Coho Restoration:

- **For all Southern populations:**
 - High Intrinsic Potential (HIP) in lowland reaches
 - Ag. Lands and *Private/Private Indus. Forest*
 - Urban/Municipal: protection, restoration
- **Umpqua:**
 - Lower Ump. highest priority for restoration
 - Potential hatchery coho alternatives
 - Hydro. mitigation opportunities (flow, stream restoration, passage)

Priority Areas for Coho Restoration (cont.):

- **Coos/Coquille**
 - lowland/wetland connectivity
 - mid/upper basin stream complexity
- **New River/Sixes:**
 - protection
 - lake and floodplain/channel rearing potential

Other Co-occurring Fish to Consider:

- **Fall Chinook**
- **Spring Chinook (Ump.)**
- **Winter Steelhead**
- **Summer Steelhead (Ump.)**
- **Cutthroat trout**
- **Chum salmon (Coos/Coquille—“non-viable”)**
- **Lamprey**
- **Other non-game fish (Native and Non-Native)**

Major Limiting Factors

- **Coastal population areas have “Stream complexity” as Primary LF—different aspects (LWD, floodplain connectivity, off-channel rearing, channelization)**
- **Middle/South Umpqua: Water Quantity**
- **North Umpqua: Hatchery Impacts**
- **Nearly all have “Water Quality” as Secondary LF**
- **Other LF assessed at finer scales (e.g. sediment)—encourage assessments at finer scales**

Future Threats

- **Water Demand increasing**
- **Urban/Residential Development—
floodplain encroachment, wetland loss**
- **Human impacts on water quality—
chemical/sediment inputs, spills, temp. inputs**
- **Reduction in restoration resources or
societal commitment**
- **Competing societal concerns (e.g.
Education, Health Care)**

Habitat

- **Habitats most limiting:**
 - **Winter habitat:** off-channel refugia, complexity, connectivity to lowland wetlands
 - **Summer habitat:** temperatures, water quantity (Coast range = rainfall dependent; S. Umpq. withdrawals), water quality, complexity
- **Areas of Focus:**
 - **Riparian condition:** shading, future LWD, sediment inputs
 - **Channelization:** loss of complexity, floodplain function, in/out passage

Habitat Strategies

- **Emphasize protection:** urban and lowlands; work through land use planning and incentives
- **Wetland restoration/re-connection**
- **Investigate tidegate function:** passage issues.... but positive aspects?
- **Inventory/Ground-Truthing/Understanding of HIP habitats** and other assessment information → coordinated prioritization of restoration efforts

Habitat Strategies (cont.)

- **Improve incentives for protection, LWD, Ag./Forest buffers (CREP, WRP, etc.)**
- **Addressing future water demand:**
 - storage
 - conservation
 - Municipal Water Mgmt. and Cons. Plans
- **Beaver mgmt. and experiments:** identify “amenable” areas for beaver research

Restoration Focus

- **Future Focus** (some initial progress):
 - **Complex, overwinter habitat—majority of HIP is on pvt. Agric., pvt. Forest, or Urban/municipal**
 - **Floodplain connectivity—Lowland/wetland is primarily Agric.**
- **Past/Present Focus:**
 - **Stream restoration in forested mid- to upper watersheds— pvt. timber companies**
 - **Riparian restoration in lower watershed Ag. lands**

Harvest

- **High fishing mortality rates on coho in 1960's – 1980's**
- **Major reduction in ocean fishing mortality under Amendment 13**
- **No current in-basin harvest of wild coho**
- **Potential for conservative in-basin harvest in Coos, Coquille, Umpqua in moderate to good ocean conditions**
- **Limited potential for harvest in Sixes/New River due to small pop. sizes**

Hatcheries

- **Historic hatchery releases reduced—only relatively small programs remain**

Historic Hatchery Releases

- **Coos:**
 - 1908-58 stocks: Coos, Necanicum, Tenmile, Coquille, Klaskanine, Alsea
 - Numbers: 0.7 to 8.8 million (all life stages)
 - Pvt. Aquaculture: 1976-89—0.5 to 11.8 million
 - Stocks: Puget Sound, Alsea, Wash. Coast, Rogue
- **Coquille:**
 - Total of 6.5 million Col. R. stock coho, 1908-58
 - Since 1980: 50,000 to 120,000 smolts
 - Hatchbox fry, 1980-91: 10,000 to 960,000
 - Rogue R. fry stocked 1980-81; 400,000+ both yrs.
- **Umpqua:**
 - similar in magnitude to Coos and Coquille

Current Hatchery Releases

Rock Cr. Hatchery

45,000 S. stock

60,000 N. stock

Lower Umpqua

Coos

Coquille

Upper Umpqua

Floras

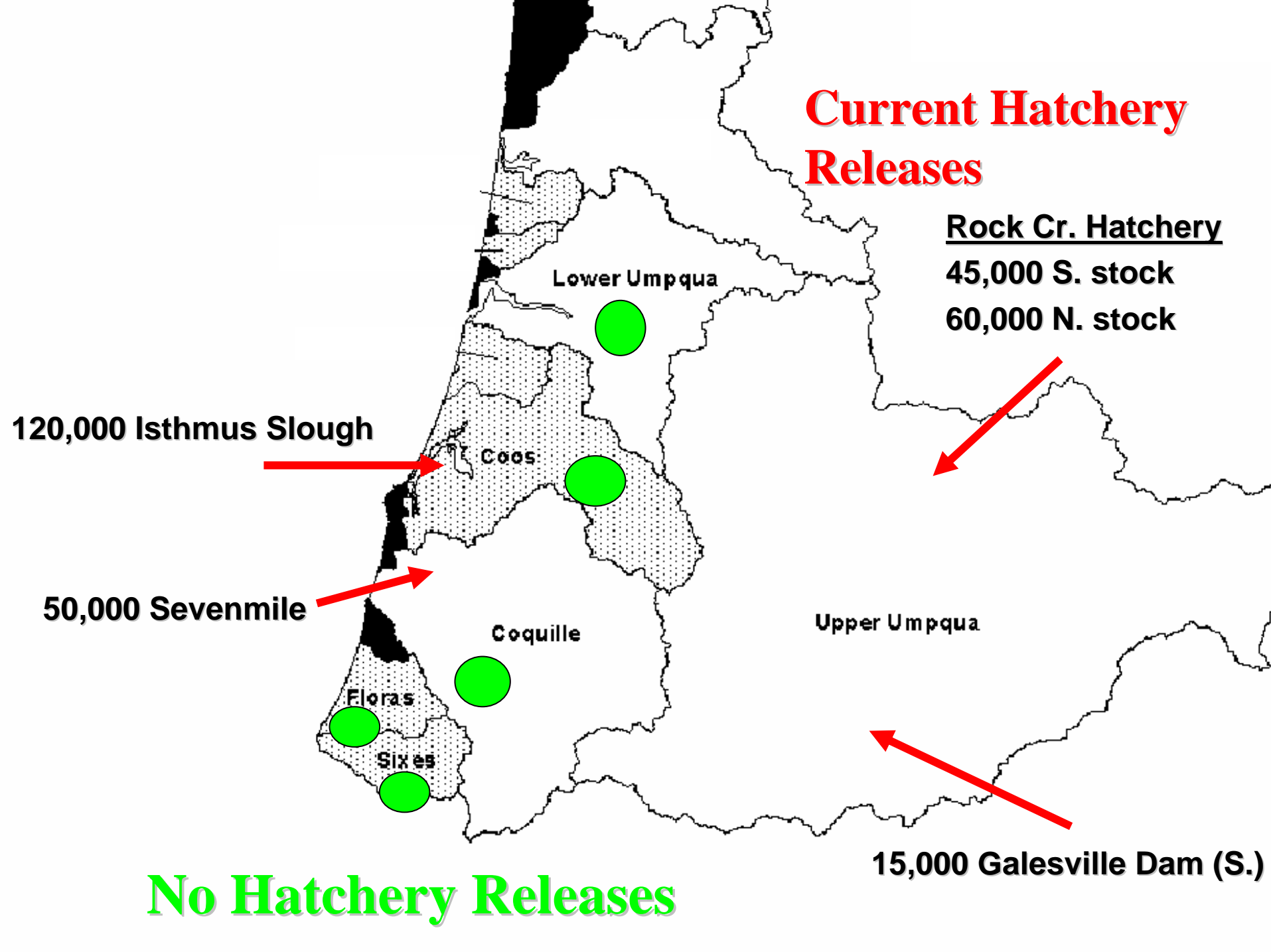
Sixes

15,000 Galesville Dam (S.)

120,000 Isthmus Slough

50,000 Sevenmile

No Hatchery Releases



Hatchery Strategies

- **Recognized impact in North Umpqua—**
 - **Hatchery Alternatives under Consideration:**
 - **Maintain current program**
 - Evaluate whether recent changes have addressed bottleneck
 - Pursue ways to remove/sort hatchery fish
 - Improve wild coho productivity through increased habitat restoration
 - **Eliminate hatchery program**
 - **Adjust stocks used —use only N. stock in N. Ump. R.**
 - **Eliminate N. Ump. stocking; add new Winchester Cove release**
 - **Eliminate N./S. Umpqua; Winchester Cove only (Smith R. stock)**

Hatchery Strategies (cont.)

- **Coos/Coquille**—current direction to move toward elimination of hatchery releases, with conservative wild coho harvest in years of good survival; primarily incidental to chinook fisheries
- **No hatchery releases in Sixes/New R.**

Research Ideas/Needs

- **Wetland/floodplain function and restoration methods**
- **Inventory/Ground-Truthing/Understanding of HIP habitats**
- **Tidegate function: benefits and detriments**
- **Better link from project effectiveness to overall watershed improvement** (OWEB Workshop)
- **Determine juv. coho distribution/use in New R. basin lakes, Coquille V. floodlands, etc.**
- **Beaver experiments: benefits and suitability**