



# Collaborative Recovery Planning & Implementation for the Middle Columbia River Steelhead DPS

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A topographic map of the western United States and southern Canada, showing various recovery domains for salmon. The domains are color-coded: red (northwest), yellow (north), orange (central), blue (east), green (west-central), light green (southwest), and teal (southern coast). A small area on the central coast is marked with diagonal hatching. The text 'West Coast Salmon Recovery Domains' is overlaid in the center in a large, bold, dark blue font.

# West Coast Salmon Recovery Domains



# Recovery Planning Status



## Lake Ozette

- Lake Ozette Sockeye

## Upper Columbia River

- Upper Columbia River Spring-run Chinook
- Upper Columbia River Steelhead

## Puget Sound

- Hood Canal Summer-run Chum
- Puget Sound Chinook
- Puget Sound Steelhead

## Snake River

- Snake River Sockeye
- Snake River Fall-run Chinook
- Snake River Spring/Summer-run Chinook
- Snake River Basin Steelhead

## Lower Columbia River

- Lower Columbia River Chinook
- Lower Columbia River Steelhead
- Lower Columbia River Coho
- Columbia River Chum

## Middle Columbia River

- Middle Columbia River Steelhead

## Upper Willamette River

- Upper Willamette River Chinook
- Upper Willamette River Steelhead

## Oregon Coast

- Oregon Coast Coho

- Final Recovery Plans Complete
- Public Review Draft Summer 2014
- Recovery Plans under Development



## Southern Oregon/Northern California Coast

- Southern Oregon/Northern California Coast Coho

## Central Valley

- Sacramento River Winter-run Chinook
- Central Valley Spring-run Chinook
- California Central Valley Steelhead

## North-Central California Coast

- California Coastal Chinook
- Northern California Coast Steelhead
- Central California Coast Coho
- Central California Coast Steelhead

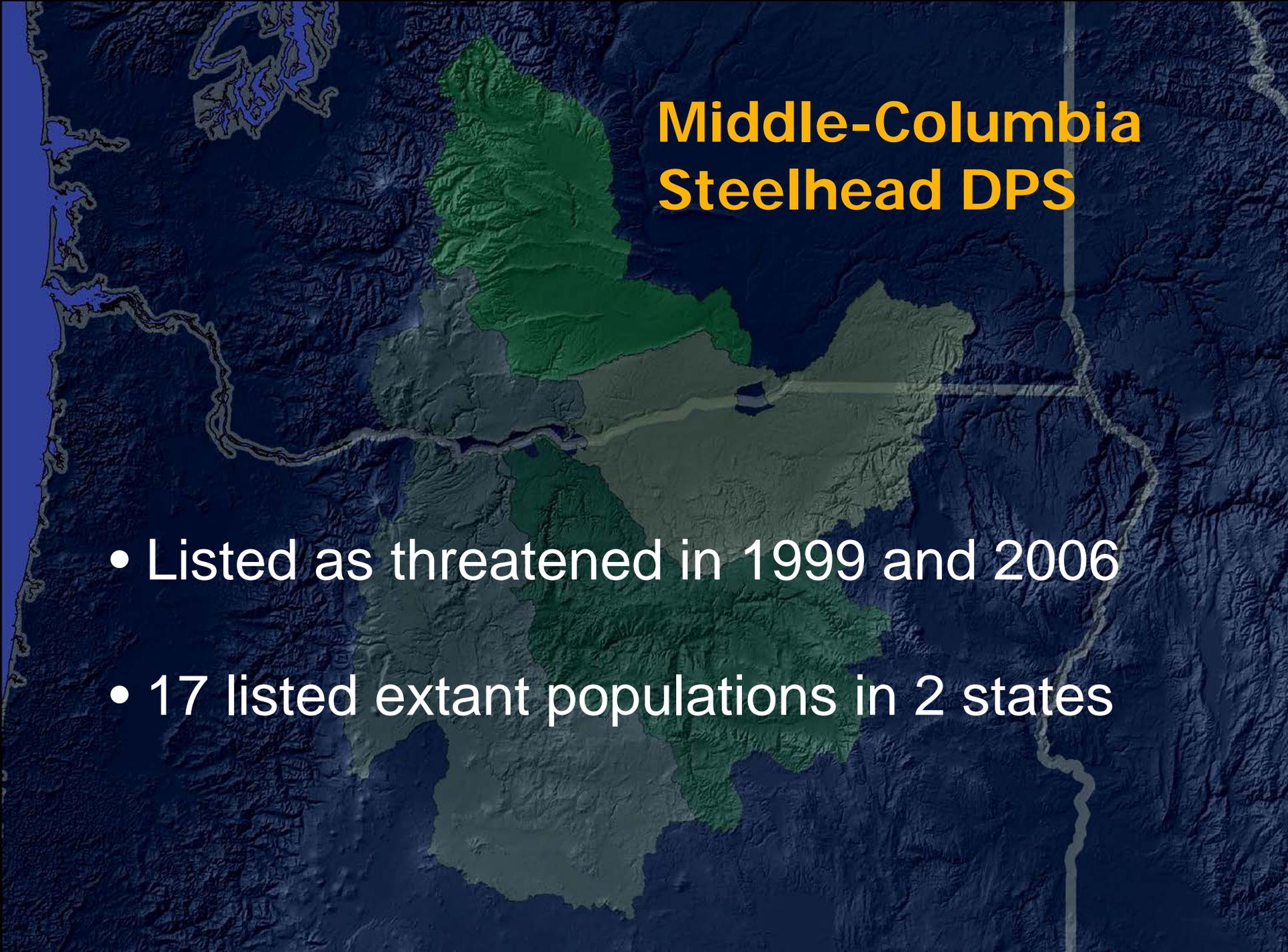
## South-Central/Southern California Coast

- South-Central California Coast Steelhead
- Southern California Steelhead

- Final Recovery Plans Complete
- Recovery Plans under Development

# Recovery Planning Status



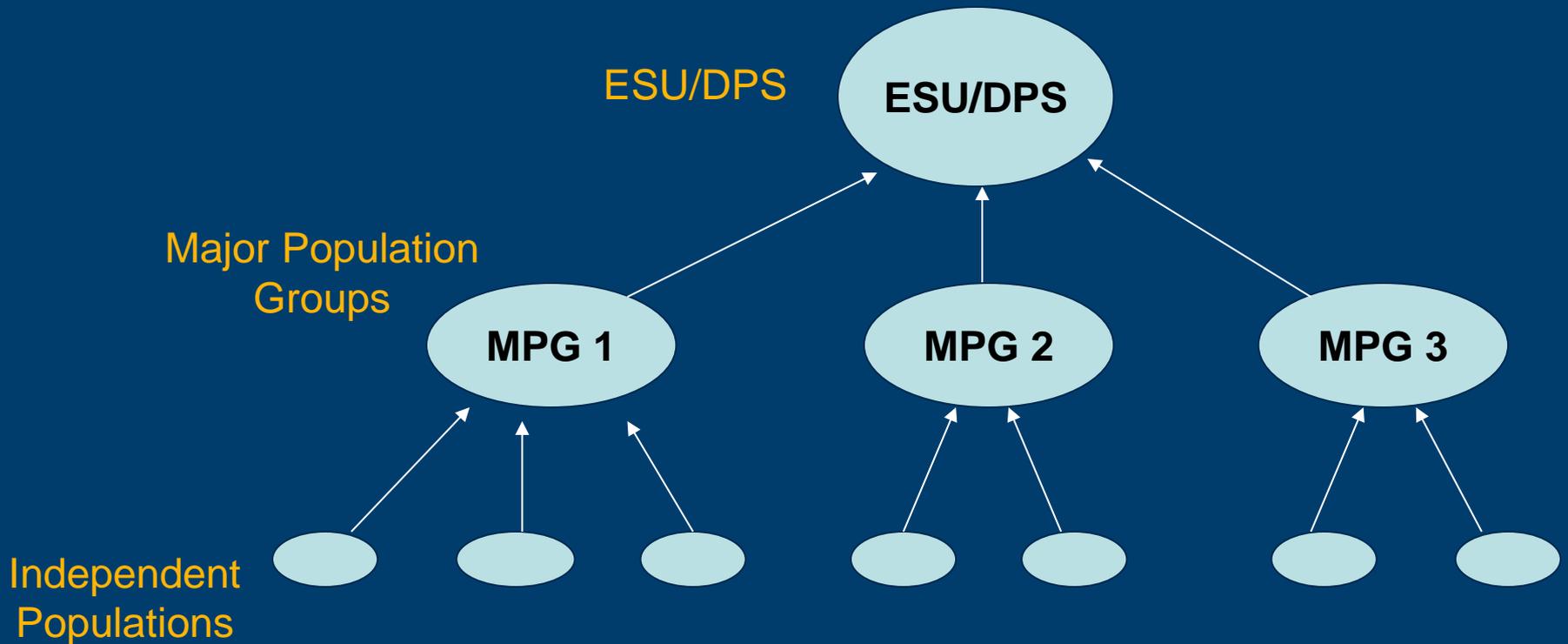
A topographic map of the Pacific Northwest region, showing the coastline on the left and the mountainous interior. A large area in the central and southern parts of the map is highlighted in shades of green and brown, representing the Middle-Columbia Steelhead DPS range. The Columbia River is visible flowing through the region. The text 'Middle-Columbia Steelhead DPS' is overlaid in yellow in the upper right quadrant.

## Middle-Columbia Steelhead DPS

- Listed as threatened in 1999 and 2006
- 17 listed extant populations in 2 states



# Hierarchy in Salmonid Population Structure



# Middle Columbia Steelhead DPS Structure

4 MPGs 20 populations

Two States

Washington

## Yakima Basin MPG

Status Creek  
Toppenish Creek  
Naches  
Upper Yakima

## Cascade Eastern Slope Tributaries MPG

Klickitat  
Rock Creek  
White Salmon \*  
Fifteenmile Creek  
Deschutes East  
Deschutes West  
Deschutes Crooked River\*

## Umatilla/Walla Walla MPG

Touchet River  
Walla-Walla  
Umatilla  
Willow Creek\*

Oregon

## John Day Basin MPG

Lower John Day  
North Fork John Day  
Middle Fork John Day  
South Fork John Day  
Upper John Day

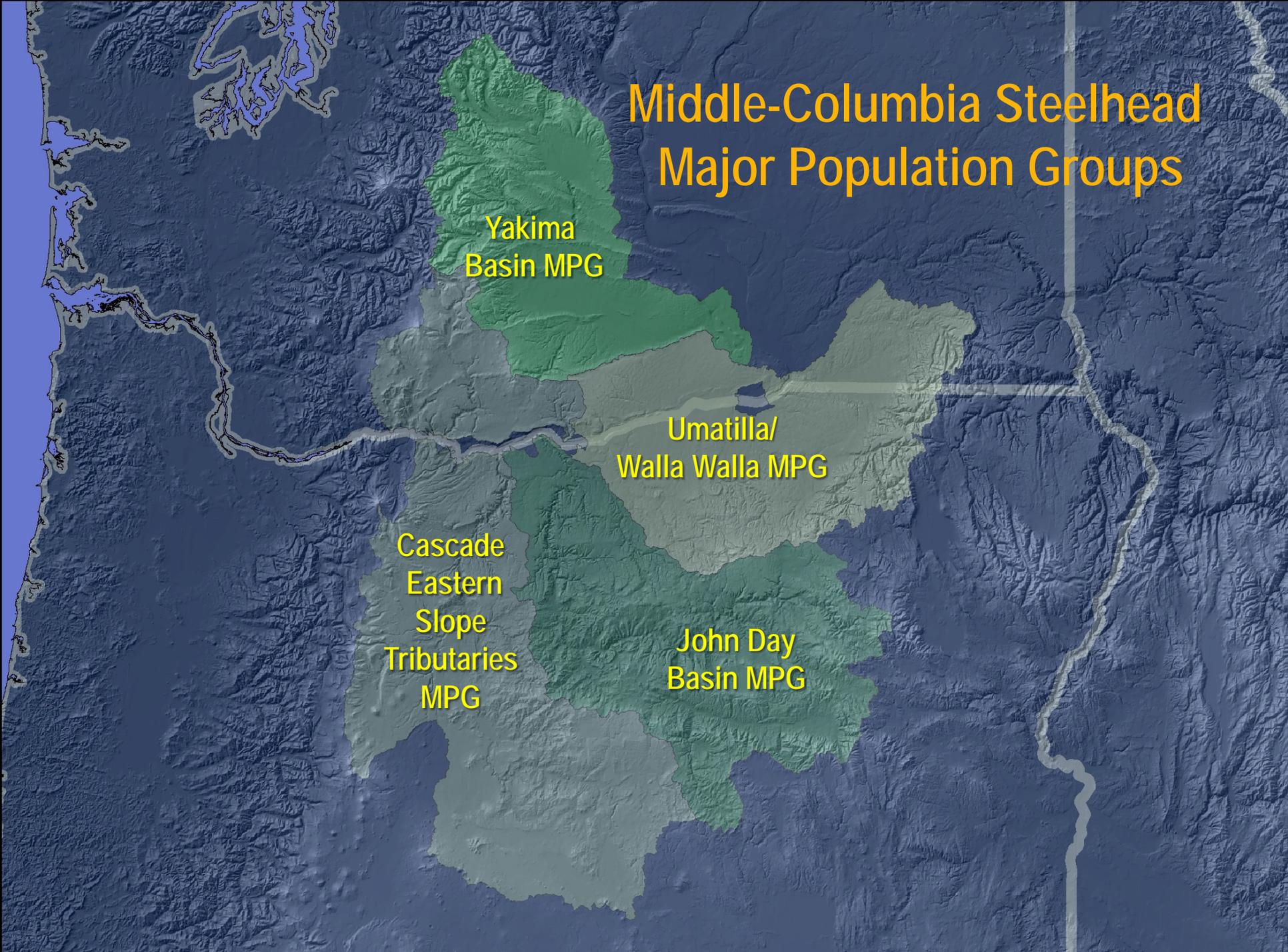
# Middle-Columbia Steelhead Major Population Groups

Yakima  
Basin MPG

Umatilla/  
Walla Walla MPG

Cascade  
Eastern  
Slope  
Tributaries  
MPG

John Day  
Basin MPG





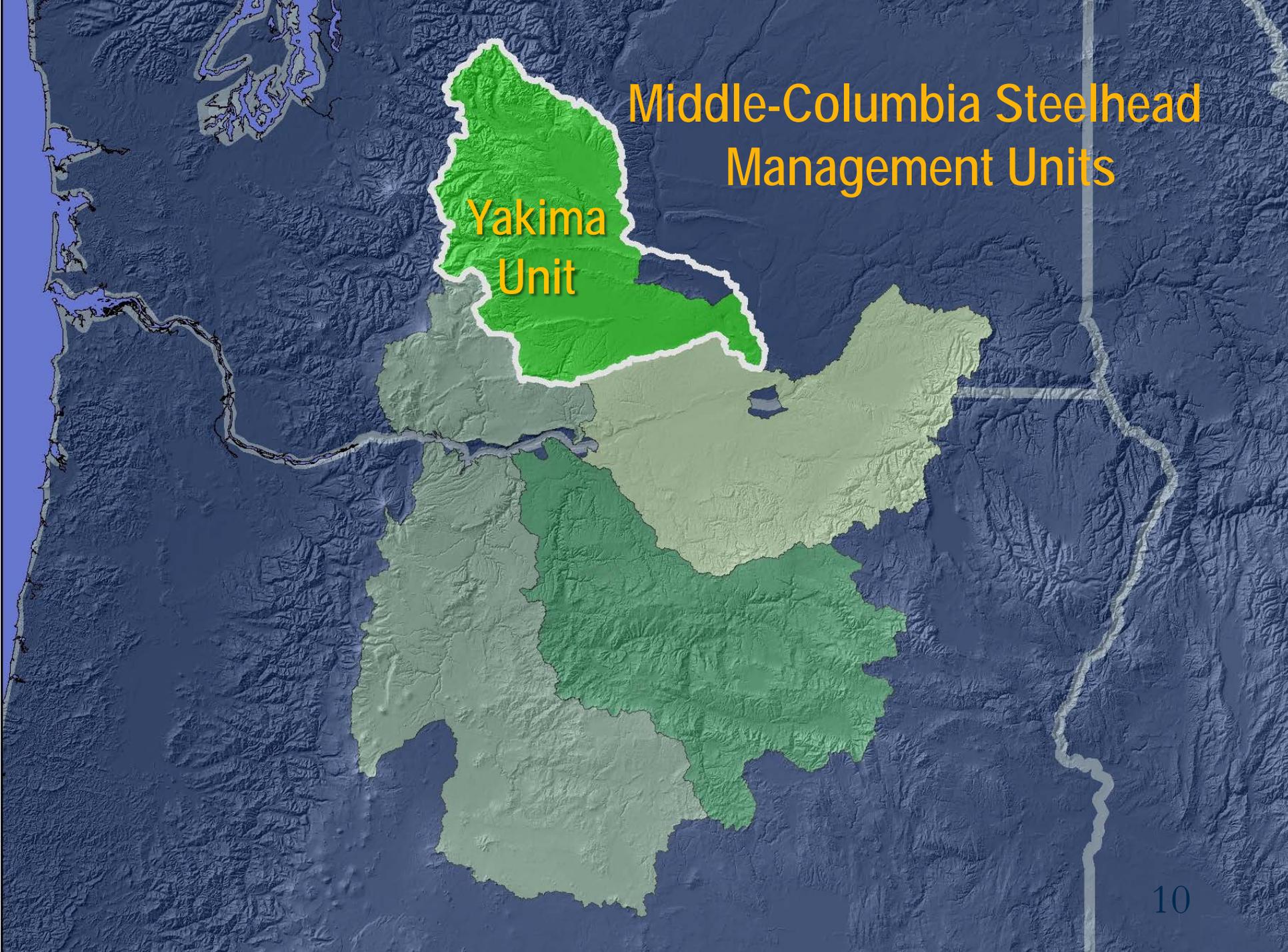
# Mid-C Steelhead DPS Recovery Plan

Prepared by NMFS based on 4 Management Unit (MU) Plans

<b>Washington Gorge MU</b> <ul style="list-style-type: none"><li>• <i>NOAA</i></li></ul>	<b>Yakima MU</b> <ul style="list-style-type: none"><li>• <i>Yakima Basin Fish &amp; Wildlife Recovery Board</i></li></ul>
<b>Oregon MU</b> <ul style="list-style-type: none"><li>• <i>ODFW</i></li><li>• <i>Oregon Sounding Board</i></li></ul>	<b>SE Washington MU</b> <ul style="list-style-type: none"><li>• <i>Snake River Salmon Recovery Board</i></li></ul>

# Middle-Columbia Steelhead Management Units

Yakima  
Unit

A topographic map of the Middle-Columbia region in Washington state, showing steelhead management units. The map is color-coded by elevation, with darker blues and greys representing higher elevations and lighter greens representing lower elevations. Several management units are outlined in white. The Yakima Unit, located in the upper left quadrant, is highlighted in a bright green color. Other units are shown in various shades of green and yellow. The text 'Middle-Columbia Steelhead Management Units' is written in yellow at the top right, and 'Yakima Unit' is written in yellow within the bright green area.

# Middle-Columbia Steelhead Management Units

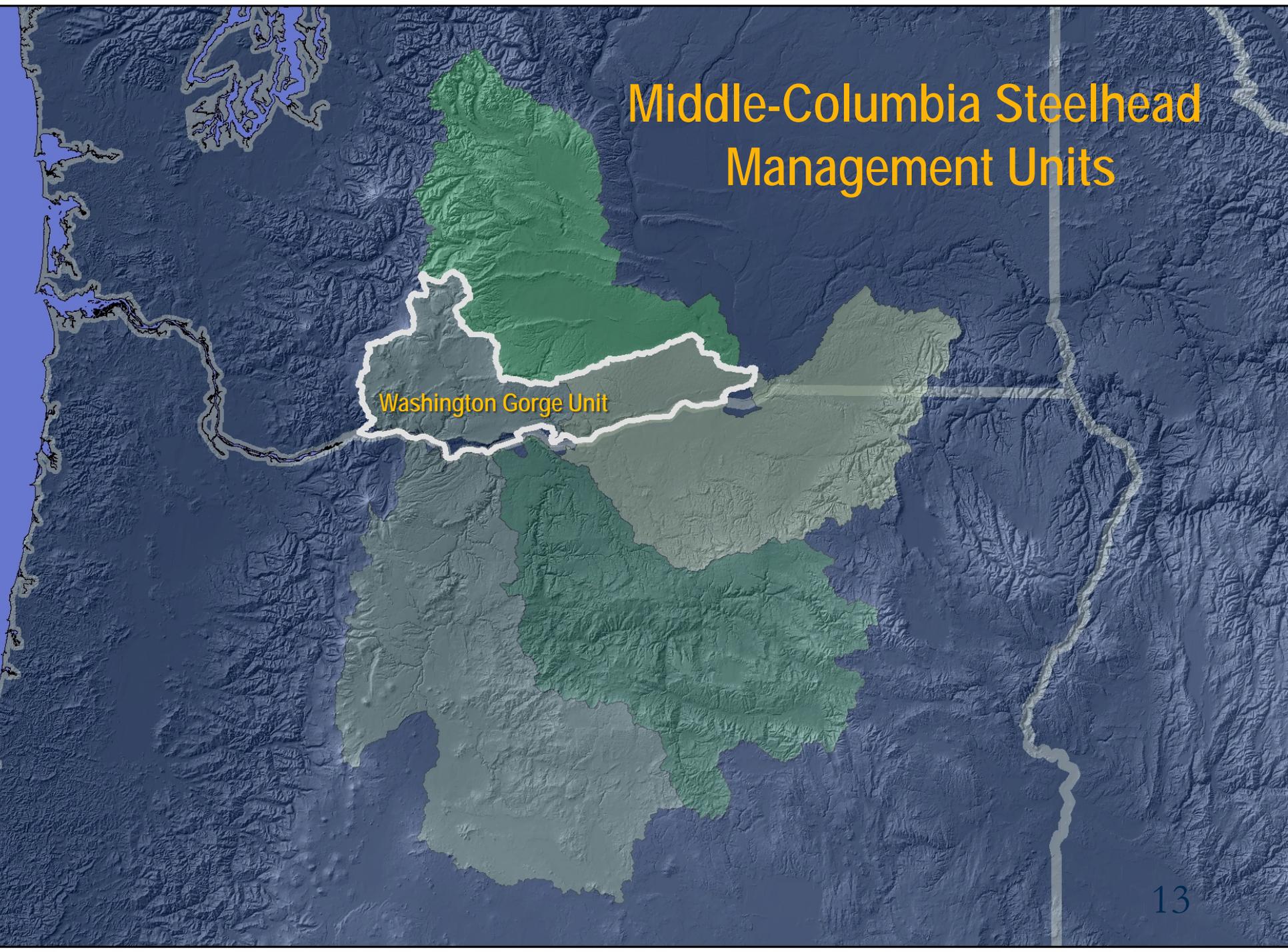
SE  
Washington  
Unit

# Middle-Columbia Steelhead Management Units

Oregon Unit

# Middle-Columbia Steelhead Management Units

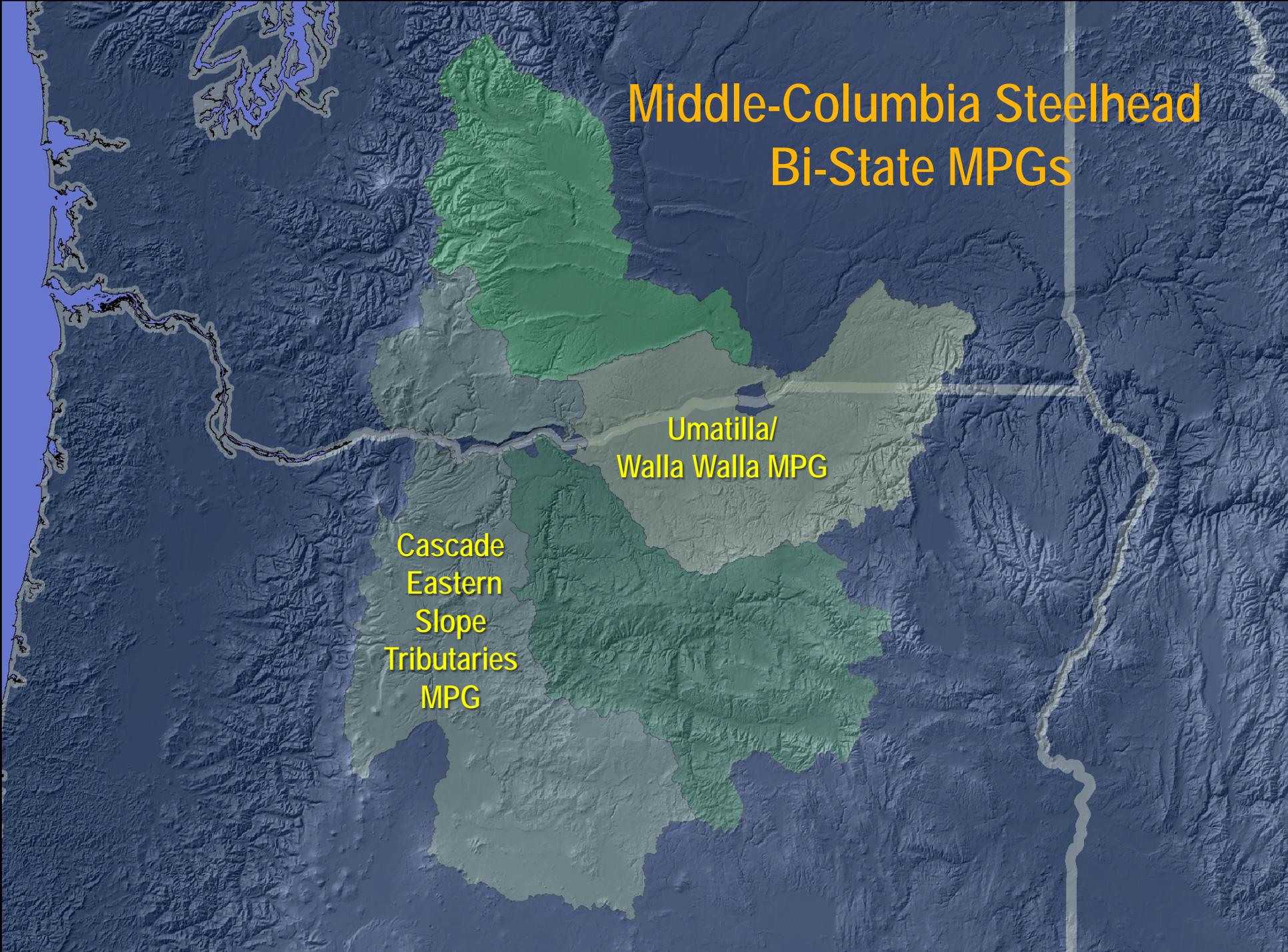
Washington Gorge Unit



# Middle-Columbia Steelhead Bi-State MPG

Umatilla/  
Walla Walla MPG

Cascade  
Eastern  
Slope  
Tributaries  
MPG





# What's in these Recovery Plans?

- Explanation of steelhead biology
- Recovery goals & criteria (biological viability & threats) \*
- Assessment of current status, limiting factors, & threats
- Recovery strategy & site-specific actions \*
- Estimates of time & costs to implement actions \*
- Research, monitoring, & evaluation to track progress

— \* Required under the ESA



# Biological Criteria

**Productivity:** number of adult spawner offspring produced per parent spawner

**Abundance:** number of parent spawners

**Spatial Structure:** geographic distribution of spawners

**Diversity:** genetic, phenotypic & life history diversity



## **NMFS' Overall Goal for DPS Viability**

- All four MPGs at viable (low risk) status
- Representation of all the major life history strategies historically present
- Representation of abundance, productivity, spatial structure & diversity attributes required for long-term persistence

# Middle Columbia Steelhead Population Viability

**EXTANT**

 Population

**EXTINCT**

 Major population group

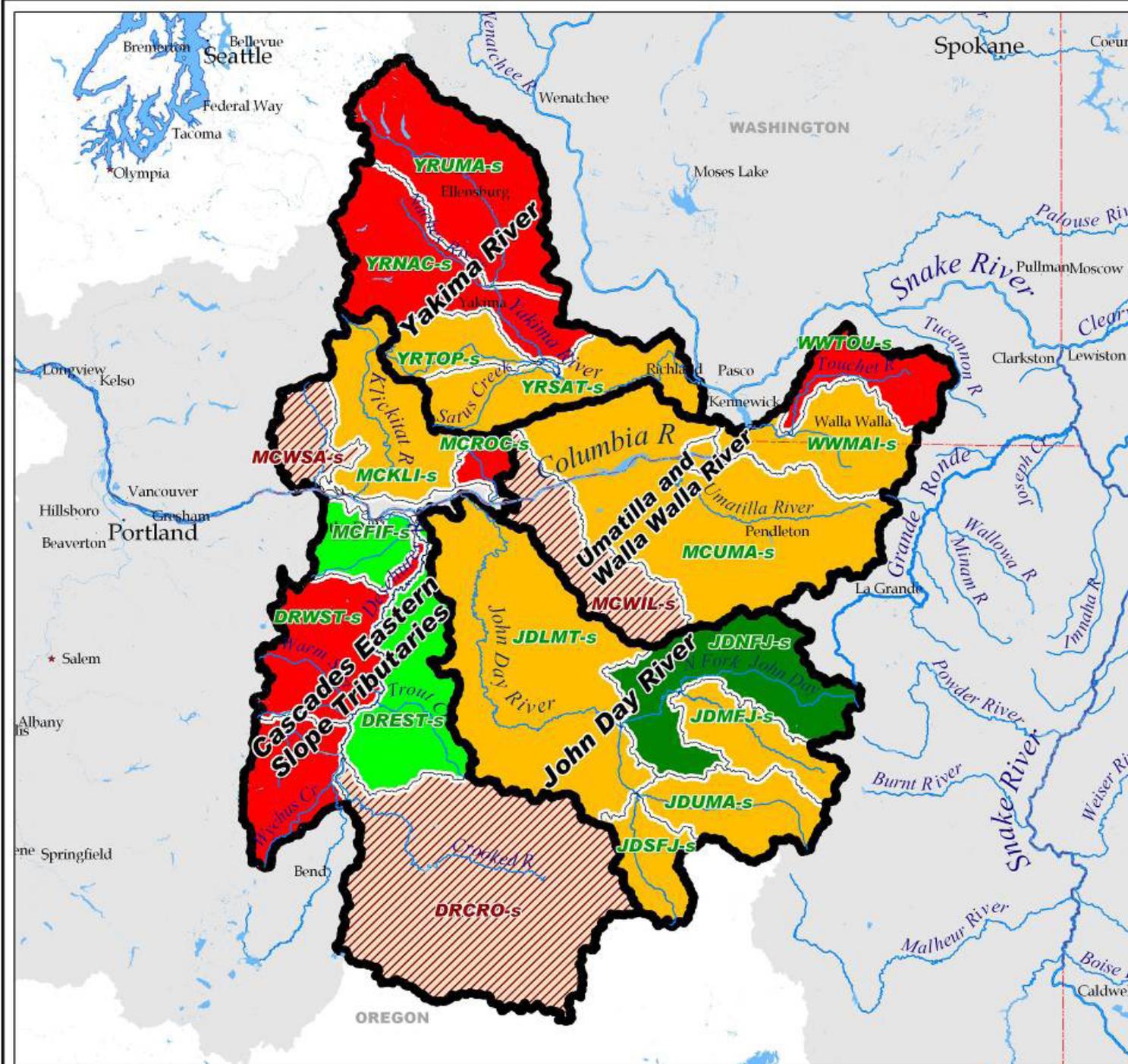
## Viability Status

-  highly viable
-  viable
-  maintained
-  high risk
-  extirpated



30 0 30 Miles

Map developed by NOAA Fisheries, April 2008.



Science, Service, Stewardship



## Washington Gorge

- WA Gorge Implementation Team

## Oregon

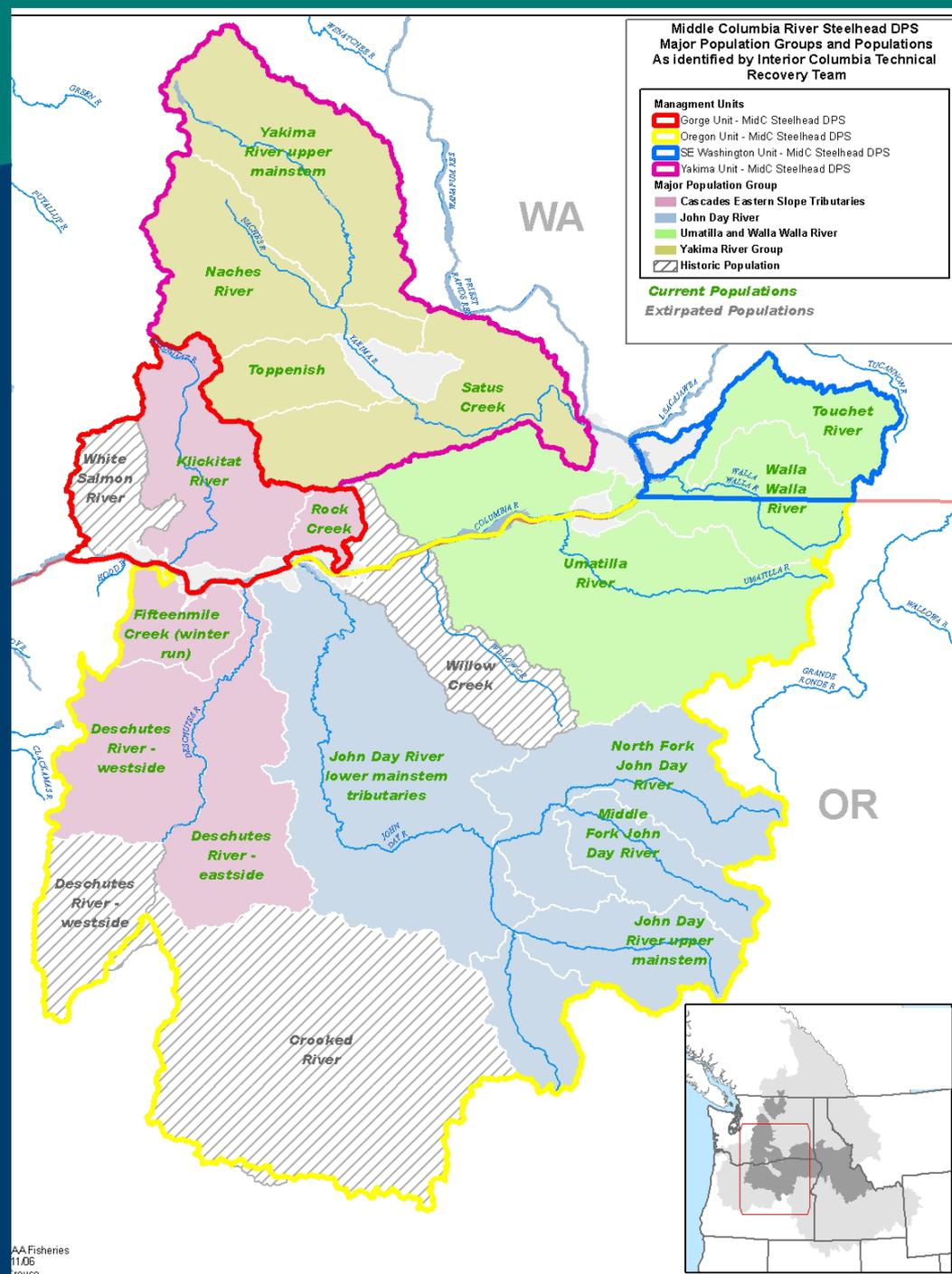
- ODFW
- Oregon Mid-C Implementation Team

## Yakima Basin

- Yakima Basin Fish and Wildlife Recover Board

## Southeast Washington

- (Lower) Snake River Salmon Recovery Board





Yakama Nation

WDFW

Harvest & Hatchery Co-Managers

Salmon Recovery

Habitat Managers

Yakama Nation

State/Local Habitat & Watershed Programs

Watershed Planning WRIAs 29b, 30, & 31

Lead Entity WRIAs 29b & 30

# Washington Gorge Recovery Plan Implementation Processes



# Washington Gorge Implementation Team

## Coordinator

National Marine Fisheries Service

## Co-Managers

- Yakama Nation
- Washington Dept Fish and Wildlife

## Federal/State and Local Entities

- WA Dept of Ecology
- County
- Conservation Districts



# Implementation/ Coordination

NMFS proposed to:

- Work with co-managers (State & Tribes), Counties, and funding agencies to assist in prioritizing and implementing highest priority actions
- Participate with Middle Columbia River Forum to:
  - Assist in sequencing recovery actions
  - Monitoring for adaptive management



# Mid-Columbia Steelhead Recovery Implementation Structure

Mid-Columbia Forum

Mid-Columbia Steering Committee

Mid-Columbia Science Team

State Technical & Support Teams



## Structure: Mid-Columbia Forum

Centerpiece of Mid-Columbia steelhead recovery implementation

Meets annually or as needed

Members:

- No formal membership
- Consists of federal, state, local, and tribal agencies; WA recovery boards; private parties; NGOs; other interested parties



## Structure: Mid-Columbia Forum (cont'd)

### Functions:

- Coordination and communication with Mid-C entities
- Advocate for recovery of Mid-C steelhead
- Promotes application of adaptive management in the DPS
- Provides recommendations for resource prioritization
- Networks with other multi-jurisdictional Columbia recovery planning groups (e.g. NW Power & Conservation Council, Lower C, Upper C, Snake)
- Provides a scientific interface with the Mid-C Science Team
- Coordinates and synthesizes RME efforts and activities



# Structure: Mid-Columbia Steering Committee

Guides / organizes the efforts of the Mid-C Forum

Meets quarterly or as needed

Members:

- NOAA (Convening Lead)
- OR: Governor's Natural Resources Offices (GNRO) and ODFW
- WA: Governor's Salmon Recovery Office (GSRO) and WDFW
- Tribes: Umatilla, Warm Springs, Yakama
- Snake River Fish Recovery Board
- Yakima Basin Fish and Wildlife Recovery Board
- Klickitat County



# Structure: Mid-Columbia Steering Committee (cont'd)

## Functions:

- Monitors implementation progress
- Identifies and coordinates DPS/MPG level recovery efforts
- Coordinates implementation actions between management units
- Provides coordination and interface with other regional governance bodies



# Structure: Mid-Columbia Science Team

Under development

Meets as needed

Members anticipated to be scientists from:

- NOAA (Convening Lead)
- States: ODFW and WDFW
- Tribes: Umatilla, Warm Springs, Yakama
- Other federal agencies
- Regional Universities and NGOs

Members identified based on skills and knowledge

Function:

- Provides technical and scientific support to the Mid-C Forum and Mid-C Steering Committee



# Structure: Other Technical Teams

Each State and Recovery Board has supporting technical teams

Focuses on specific needs of parent agencies and boards



# MC Forum/Steering Committee Implementation Achievements

- Information Sharing
- Format for Data Input to 5–yr Status Review
- Corps of Engineers “Bundling Initiative”
- Mid–Columbia ‘Overshoot’ Phenomenon



# MC Forum/Steering Committee Implementation Achievements

## Information Sharing:

- Each Forum meeting showcases individual projects or procedures underway at the watershed level to share lessons learned.
- e.g., Fifteenmile Action to Stabilize Temperatures (FAST) process early warning system alert to irrigators prompting a 'voluntary self-regulation' period to curtail the rate of their diversions to help avoid or lessen the intensity of high air temperature/low flow events, thereby reducing stream temperatures lethal to fish and temporarily restoring streamflows.



# MC Forum/Steering Committee Implementation Achievements

## Format for Data Input to 5-year Status Review:

- The Mid-Columbia Steering Committee coordinated and agreed on a template for gathering information for the upcoming review.
- The template, now being used West Coast Region-wide, clarifies data requirements for recovery coordinators and has the potential to make the 5-year status review analysis by NOAA more efficient.



# MC Forum/Steering Committee Implementation Achievements

## Corps of Engineers “Bundling” Initiative:

- States of OR and WA, along with Klickitat County, the Yakama, Umatilla and Warm Springs Tribes “bundled” high priority recovery actions under the jurisdiction of the Corps of Engineers to assist Corps in prioritizing resources toward efforts with maximum beneficial impact on recovery at the MPG/DPS levels.



# MC Forum/Steering Committee Implementation Achievements

## Mid-Columbia 'Overshoot' Phenomenon:

- The Mid-Columbia Steering Committee sponsored a November 2014 workshop to review results of independent research in the Middle Columbia River region on adult steelhead that overshoot their natal streams.
- Sixteen workshop presentations by scientists from: Corps of Engineers, NOAA Fisheries, USGS, ODFW, WDFW, Columbia River Intertribal Fish Commission, University of Idaho, Yakama, Umatilla and Nez Perce Tribes.



A topographic map of a region, likely a mountainous area, with a central text overlay. The map uses a color gradient from dark blue (low elevation) to light green (high elevation) to represent terrain. A prominent river system is visible, flowing from the upper left towards the center. Several areas are highlighted in different shades of green, indicating specific regions of interest. A semi-transparent horizontal bar is positioned across the middle of the map, behind the text. The word "Questions?" is written in a large, white, sans-serif font, centered on the map.

Questions?