The Middle Columbia River Salmon Recovery Region is in central Washington along the east slope of the Cascade Mountains. The landscape is dominated by forests and dry, shrub-steppe hills with agriculture and urban development concentrated in the valleys. The region includes the Columbia, Yakima, Klickitat, and Big White Salmon Rivers, and Rock Creek. There are two lead entities in the region.
Listed Fish
Steelhead (threatened) – 1999
Bull trout (threatened) – 1998

Major Factors Limiting Recovery
- Degraded floodplain and channel structure
- Riparian degradation
- Degraded water quality and temperature
- Impaired stream flows in tributaries
- Excessive sediment
- Barriers to fish passage in tributaries
- Impacts of mainstem flow regulation
- Mortality from Columbia River hydropower dams

Recovery Plan Snapshot
- Time frame – 15 years
- Estimated cost – $406 million

Recovery Plan Implementation
Current five-year implementation schedule identifies $106 million in habitat project needs.

Regional Recovery Organization
Yakima Basin Fish and Wildlife Recovery Board

Threats to Salmon Recovery
Recovery in the Middle Columbia River Salmon Recovery Region is vulnerable to climate change impacts and impacts of diversions, storage, and river regulation for out-of-stream water users. Complex floodplain fish habitat also has been reduced due to flow changes and development. Major threats in this region are:

Climate Change will increase stream temperatures and tributary summer and fall low flows.

Human Population Growth and Development will contribute to changes in flows in the region’s rivers due to irrigation water storage and delivery for farms and towns, and change hydrology for land use and development.

Uncertain Long-Term Funding for implementation of recovery actions (federal, state, and other sources) will challenge our ability to stay the course.

Federally Recognized Tribes
Yakama Nation

Counties
Benton, Kittitas, Yakima, and Klickitat
Are listed populations abundant and productive?

**FISH: ABUNDANCE TRENDS**

- Graph shows wild adult and juvenile abundance data for the Yakima Major Population Group (MPG) of the Middle Columbia River’s Distinct Population Segment (DPS). The DPS is the scale at which species are listed and de-listed under the federal Endangered Species Act.
- Data for the Walla Walla MPG can be found in the Snake River regional overview.
- Bar charts show the number of returning adult wild fish, separated by what was harvested and what returned to spawn.
- Juvenile data exist but are under review, and trends were not available for this report.

DATA SOURCES: WASHINGTON DEPARTMENT OF FISH AND WILDLIFE AND TRIBES

**FISH: STATUS SUMMARY**

- 2010 status ratings are determined by the Washington Department of Fish and Wildlife and tribes.
- Includes listed and non-listed species.

DATA SOURCE: WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

<table>
<thead>
<tr>
<th>PERCENT OF STOCKS BY STATUS RATING</th>
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<tbody>
<tr>
<td>NON-LISTED SPECIES</td>
</tr>
<tr>
<td>Chinook</td>
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<tr>
<td>Coho</td>
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<tr>
<td>LISTED SPECIES</td>
</tr>
<tr>
<td>Steelhead</td>
</tr>
<tr>
<td>Bull Trout</td>
</tr>
</tbody>
</table>

**HEALTHY** | **DEPRESSED** | **CRITICAL** | **INSUFFICIENT DATA** | **EXTINCT**
Is water clean enough to support wild salmon?

WATERSHED HEALTH:
WATER QUALITY

- Water quality is measured by a Water Quality Index. This is a number that aggregates water quality data at a monitoring station for temperature, acidity, fecal coliform bacteria, dissolved oxygen, nutrients, and sediments from October 1 to September 30.
- Only four sampling stations are reflected in this index.

DATA SOURCE: WASHINGTON DEPARTMENT OF ECOLOGY
What are trends in salmon funding?

**PLAN IMPLEMENTATION:**
**FUNDING**

- Total Salmon Recovery Funding Board-related funding was $33 million in state and federal, and local match from 1999-2010. 2010 data are preliminary.

- Charts to the right reflect all money administered by the Salmon Recovery Funding Board through the Pacific Coastal Salmon Recovery Fund, salmon recovery fund (state match), Family Forest and Fish Passage Program, Pacific States Marine Fisheries Commission, and hatchery reform.

- The table of percentages below reflects funding from the Pacific Coastal Salmon Recovery Fund and salmon recovery fund (state match) only – the two primary funding sources for grants through the Salmon Recovery Funding Board. The large statewide monitoring projects funded by the board are reflected in the statewide funding overview, not in individual regional overviews.

**DATA SOURCE: WASHINGTON RECREATION AND CONSERVATION OFFICE**

### DISTRIBUTION OF PACIFIC COASTAL SALMON RECOVERY FUND AND SALMON RECOVERY FUND (STATE MATCH) BY CATEGORY

<table>
<thead>
<tr>
<th></th>
<th>PROJECTS</th>
<th>ADMIN.</th>
<th>MONITORING</th>
<th>TOTAL</th>
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<td>1999</td>
<td>85%</td>
<td>15%</td>
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<td>0%</td>
<td>0%</td>
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<td>0%</td>
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<td>0%</td>
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<td>0%</td>
<td>0%</td>
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<td>8%</td>
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<td>0%</td>
<td>0%</td>
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<tr>
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<td>18%</td>
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<tr>
<td>2010</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>$2,114,319</td>
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</table>
Are public resources used cost-effectively and efficiently?

**PLAN IMPLEMENTATION:**

**RECOVERY PLAN IMPLEMENTATION**

- Major limiting factors are identified in recovery plans, and are based on federal listing determinations. These are the main habitat factors that must be addressed for recovery.

- Percentages are averages of progress toward implementing actions addressing each major habitat limiting factor. They do not reflect the biological response of fish.

- Estimates of progress are based on best professional judgement.

- Recovery plan implementation is relatively recent—from 4 to 6 years.

DATA SOURCE: YAKIMA BASIN FISH AND WILDLIFE RECOVERY BOARD
Are public resources being used cost-effectively and efficiently?

**PLAN IMPLEMENTATION:**

**WATERSHED PLANNING SUMMARY**

Of the three full Water Resource Inventory Areas (WRIAs) and two partial WRIAs participating in the Watershed Planning Act, all have county-adopted watershed plans. The WRIAs are: Klickitat (30), Rock-Glade (31), Lower Yakima (37), Naches (38), and Upper Yakima (39 only that portion in Yakima County).

**Watershed Planning Highlights and Outcomes**

- Klickitat (WRIA 30): A water availability study is occurring and water budgets are being developed.
- Rock-Glade (WRIA 31): The planning unit and lead agency are conducting a water quality improvement and protection project for Rock Creek.
- Lower Yakima, Naches, and that part of Upper Yakima in Yakima County (WRIAs 37 and 39): The planning unit is not active, while other groups and entities in the basin carry on with water management work.

**DATA SOURCE:** WASHINGTON DEPARTMENT OF ECOLOGY

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**PLAN IMPLEMENTATION:**

**FISH PASSAGE AND HABITAT PROJECTS**

- Map shows fish and habitat protection and restoration project locations from 2000 to 2010.

**DATA SOURCES:** WASHINGTON RECREATION AND CONSERVATION OFFICE, WASHINGTON DEPARTMENT OF FISH AND WILDLIFE, WASHINGTON DEPARTMENT OF NATURAL RESOURCES, NORTHWEST INDIAN FISHERIES COMMISSION, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, NORTHWEST FISHERIES SCIENCE CENTER, U.S. FOREST SERVICE, BONNEVILLE POWER ADMINISTRATION, REGIONAL FISHERIES ENHANCEMENT GROUPS

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**Map notes:**
- Fish Passage and Habitat Projects
- Priority Habitat Areas

36 miles
Are hydroelectric facilities operating in a fish friendly manner?

PLAN IMPLEMENTATION:
DAMS WITH FISH PASSAGE STANDARDS

- Mainstem Columbia River dams are not included in this regional indicator.

- Performance standards for passage vary by dam and may be set by a Federal Energy Regulatory Commission license, a Corps of Engineers 401 water quality certification, or a Habitat Conservation Program.

- Dams recently may have received new federal licenses with fish passage improvements to meet new standards, for which passage success is not yet determined.

- Many dams are operating in non-anadromous fish zones and are not included in this indicator.

DATA SOURCE: WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

Are streams accessible to wild salmon?

PLAN IMPLEMENTATION:
FISH PASSAGE BARRIERS

- Number of barriers corrected are estimates. Because of incomplete reporting, these numbers are expected to be lower than actual values.

- Stream miles opened reflects the number of miles estimated to be opened to fish passage by year.

DATA SOURCES: WASHINGTON DEPARTMENT OF FISH AND WILDLIFE, WASHINGTON DEPARTMENT OF NATURAL RESOURCES, WASHINGTON DEPARTMENT OF TRANSPORTATION, WASHINGTON RECREATION AND CONSERVATION OFFICE, FORESTS AND FISH, U.S. FOREST SERVICE, BUREAU OF LAND MANAGEMENT
Is water clean enough to support wild salmon?

PLAN IMPLEMENTATION: WATERSHED CLEANUP PLANS

- Cleanup plans address water quality impairments covered by total maximum daily load management plans.

DATA SOURCE: WASHINGTON DEPARTMENT OF ECOLOGY

Do rivers and streams have flows that support wild salmon?

PLAN IMPLEMENTATION: STREAMFLOW

- Water restored to streams includes water from purchases, donations, or leases. The focus is on summer low flow periods and in-stream reaches where water availability is a limiting factor for fish.

- An acre-foot is one foot of water covering one acre of land.

- 60 percent (3 of 5) of the WRIAs in the region have in-stream flows set (by the federal government).

DATA SOURCE: WASHINGTON DEPARTMENT OF ECOLOGY
**Do hatchery practices protect wild salmon?**

**PLAN IMPLEMENTATION:**

**HATCHERY PROGRAMS MEETING SCIENTIFIC STANDARDS**

- Standards are recommendations from the Hatchery Scientific Review Group, an independent scientific panel established and funded by Congress to assemble, organize, and apply the best available scientific information for hatchery reform.

- Programs are defined as a single release or group of smolt releases, that come from the same broodstock and are released in the same watershed. Releases from a broodstock into a different watershed, are considered to be independent hatchery programs.

- Data are for Washington Department of Fish and Wildlife hatchery programs.

- Washington Department of Fish and Wildlife data are not available at the regional scale prior to 2010.

**DATA SOURCE: WASHINGTON DEPARTMENT OF FISH AND WILDLIFE**

<table>
<thead>
<tr>
<th>Program</th>
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<th>2008</th>
<th>2010</th>
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</thead>
<tbody>
<tr>
<td><strong>COHO</strong></td>
<td>N/A</td>
<td>N/A</td>
<td>0%</td>
</tr>
<tr>
<td><strong>STEELHEAD</strong></td>
<td>N/A</td>
<td>N/A</td>
<td>33%</td>
</tr>
</tbody>
</table>

1 program

6 programs