Yale Lake, Clark County

Lower Columbia Salmon Recovery Region Indicators

Human Population: 544,500

Counties: Clark, Cowlitz, Lewis, Skamania, and Wahkiakum, and portions of Pacific and Klickitat.

Treaty Tribes: Treaty Tribes:
No Treaty Tribe Reservations are located in this Region. Cowlitz Tribe is federally recognized.

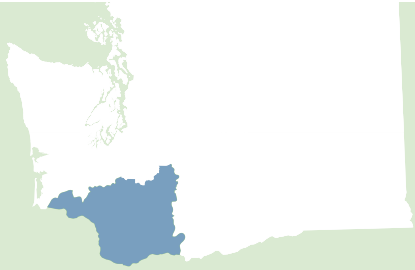
Listed Fish: Chinook (threatened), chum (threatened), steelhead (threatened), coho (proposed), bull trout (threatened).

Regional Recovery Organization:
Lower Columbia Fish Recovery Board (http://www.lcfrb.gen.wa.us/).

Recovery Planning Status:
Draft recovery plan for Washington portion of lower Columbia Chinook, steelhead, chum, bull trout, and coho delivered to NOAA-Fisheries December 2004.

WRIAs / Water Resource Inventory Areas

24 Willapa (Chinook and Wallicut rivers)
25 Grays-Elokoman
26 Cowlitz
27 Lewis
28 Salmon-Washougal
29 Wind/White Salmon



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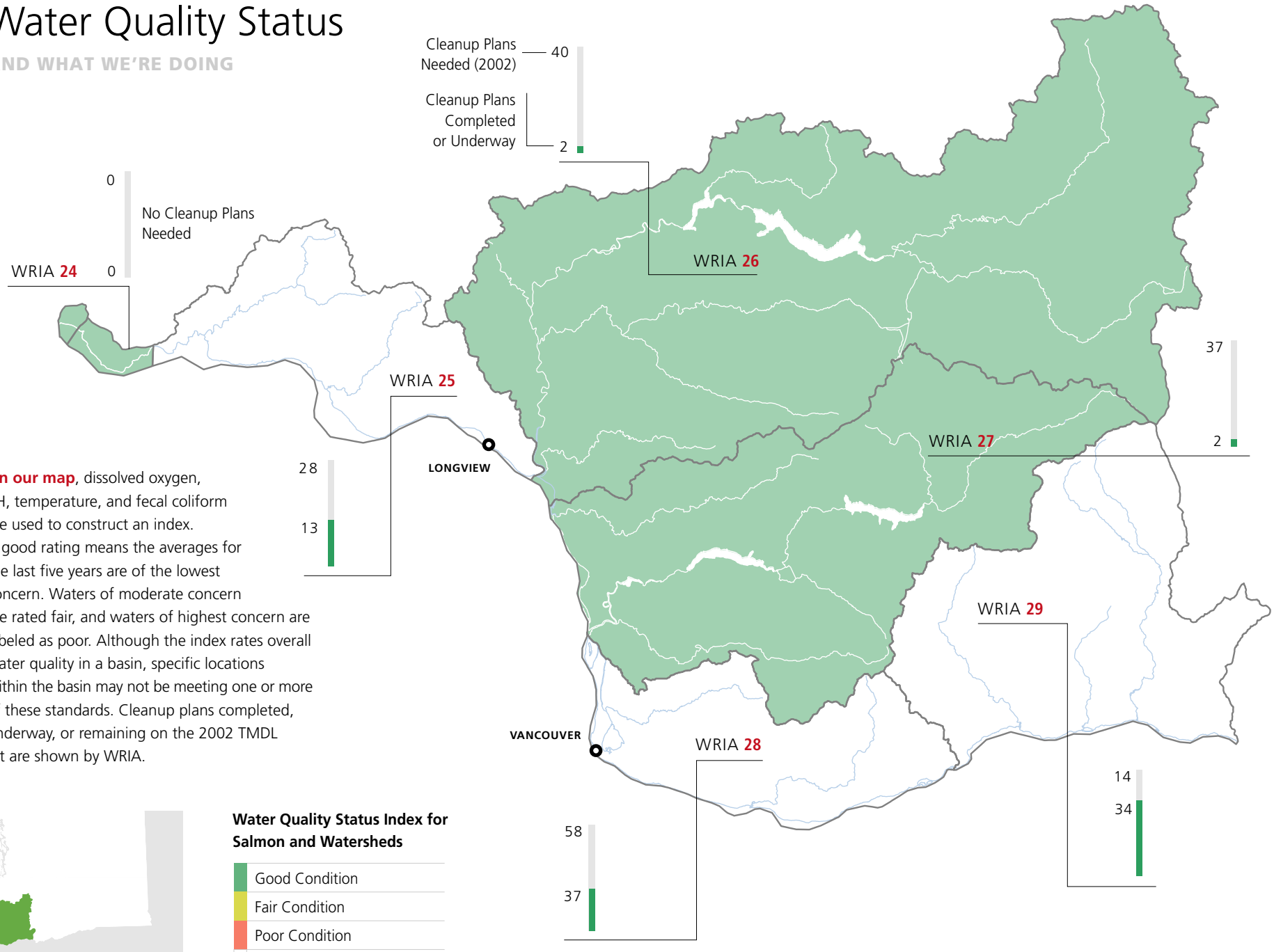
Water Quality Status

AND WHAT WE'RE DOING



On our map, dissolved oxygen, pH, temperature, and fecal coliform are used to construct an index. A good rating means the averages for the last five years are of the lowest concern. Waters of moderate concern are rated fair, and waters of highest concern are labeled as poor. Although the index rates overall water quality in a basin, specific locations within the basin may not be meeting one or more of these standards. Cleanup plans completed, underway, or remaining on the 2002 TMDL list are shown by WRIA.

Lower Columbia Salmon Recovery Region

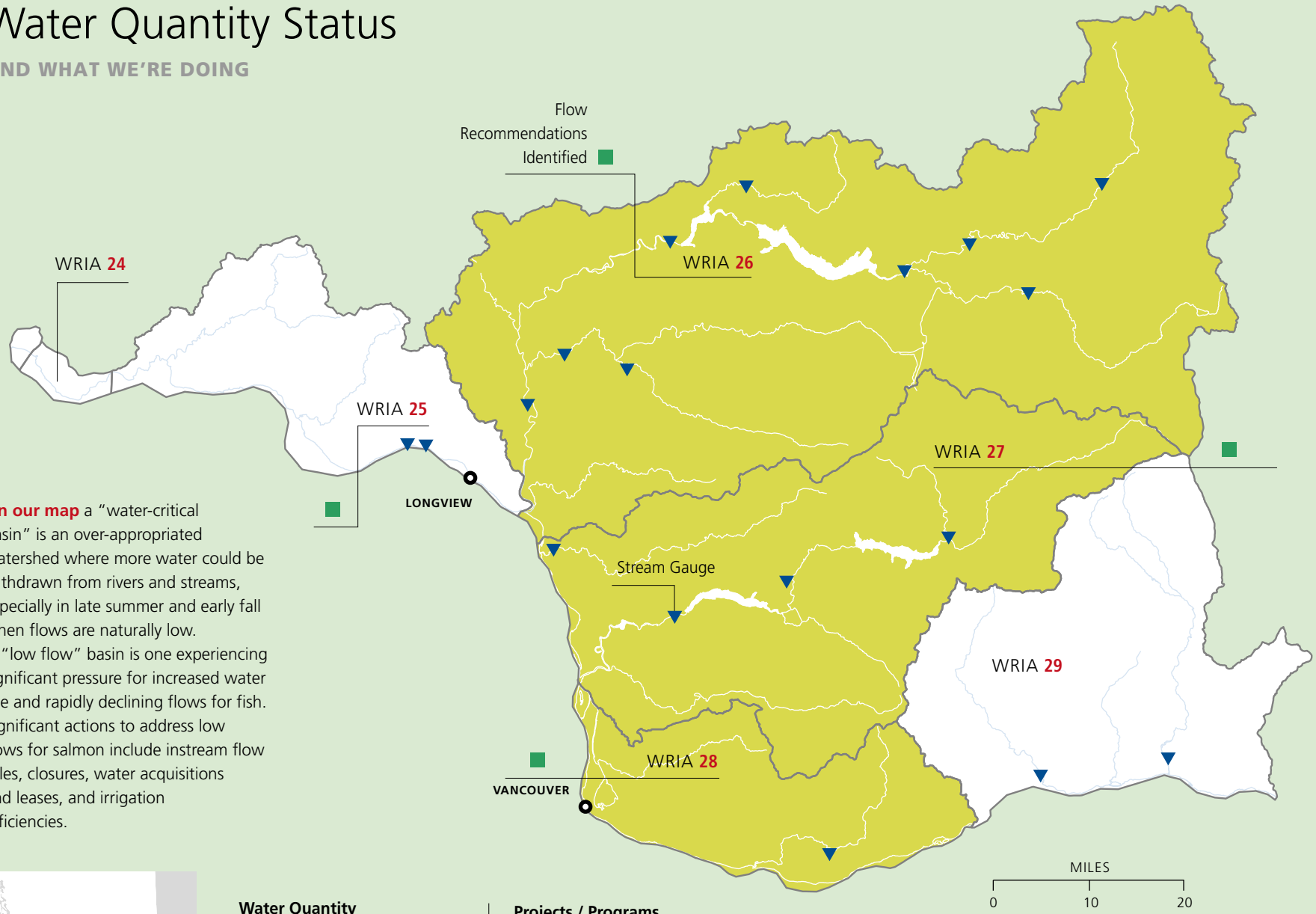
Water Quality Status Index for Salmon and Watersheds

- Good Condition
- Fair Condition
- Poor Condition
- Insufficient Data

DATA SOURCE: WASHINGTON DEPARTMENT OF ECOLOGY.

Water Quantity Status

AND WHAT WE'RE DOING



On our map a "water-critical basin" is an over-appropriated watershed where more water could be withdrawn from rivers and streams, especially in late summer and early fall when flows are naturally low.
A "low flow" basin is one experiencing significant pressure for increased water use and rapidly declining flows for fish. Significant actions to address low flows for salmon include instream flow rules, closures, water acquisitions and leases, and irrigation efficiencies.

Lower Columbia Salmon Recovery Region

Water Quantity Status Index for Salmon and Watersheds

- Low Flow
- Critical
- Not Categorized

Projects / Programs Addressing Water Quantity for Salmon and Watersheds

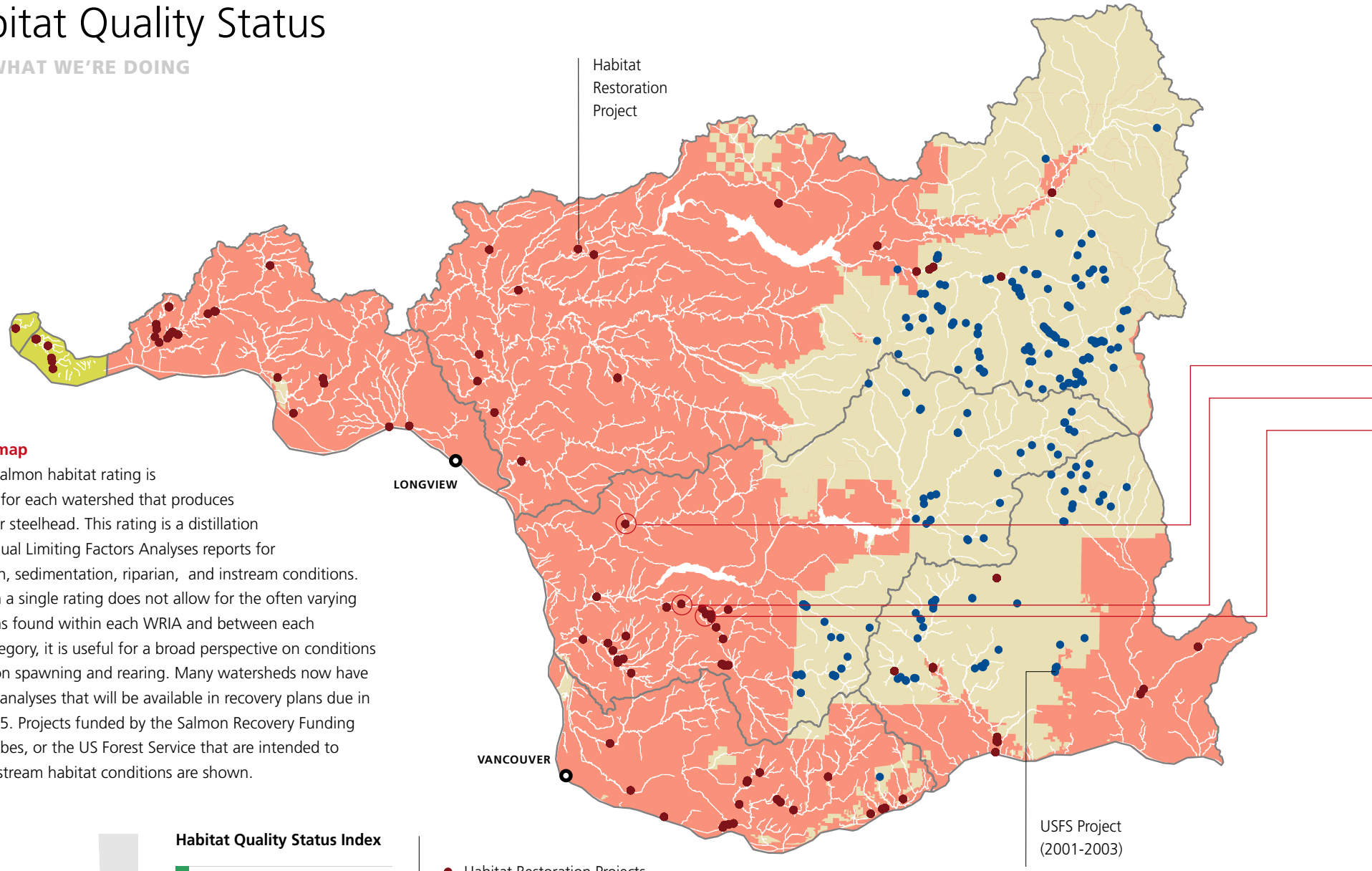
- Stream Gauges
- Flow Recommendations Identified

Region may share in annual 33,322 AF from various Columbia River leases.

DATA SOURCE: WASHINGTON DEPARTMENT OF ECOLOGY

Habitat Quality Status

AND WHAT WE'RE DOING



On our map
a single salmon habitat rating is depicted for each watershed that produces salmon or steelhead. This rating is a distillation of individual Limiting Factors Analyses reports for floodplain, sedimentation, riparian, and instream conditions. Although a single rating does not allow for the often varying conditions found within each WRIA and between each rated category, it is useful for a broad perspective on conditions for salmon spawning and rearing. Many watersheds now have in-depth analyses that will be available in recovery plans due in June 2005. Projects funded by the Salmon Recovery Funding Board, tribes, or the US Forest Service that are intended to improve stream habitat conditions are shown.

Lower Columbia Salmon Recovery Region

Habitat Quality Status Index

- Good Condition
- Fair Condition
- Poor Condition
- Insufficient Data
- Federal Lands

- Habitat Restoration Projects
- USFS Projects (2001-2003)

DATA SOURCE:
WASHINGTON CONSERVATION COMMISSION, INTERAGENCY COMMITTEE FOR OUTDOOR RECREATION, WASHINGTON DEPARTMENT OF FISH AND WILDLIFE, US FOREST SERVICE

MILES
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Skook Creek Barrier Removal
The project removed barriers and added streamside trees along a small tributary to the Cowlitz River. 10.8 miles of stream habitat historically used by anadromous fish were opened.

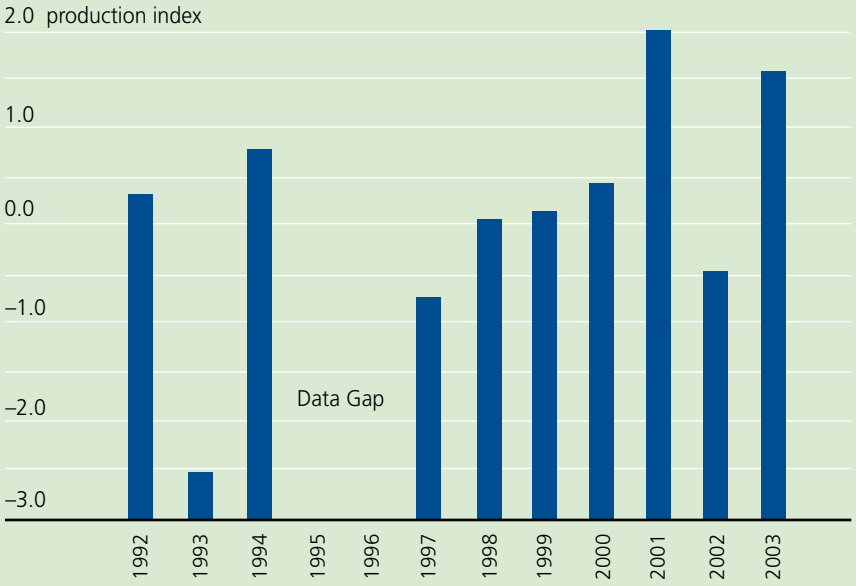
Doty Creek Habitat Restoration
Volunteers from Fish First restored stream complexity in over 4200 feet of a small creek.

Cedar Creek at Amboy Road
Removal and replacement of an old culvert opened up 4 miles of quality habitat in Cedar Creek, a major spawning and rearing area for steelhead, coho, and sea-run cutthroat trout.

Lower Columbia River Wild Steelhead

- Composite spawner abundance and target goal for 10 of 29 populations.
- Target goal from Lower Columbia Fish Recovery Board.

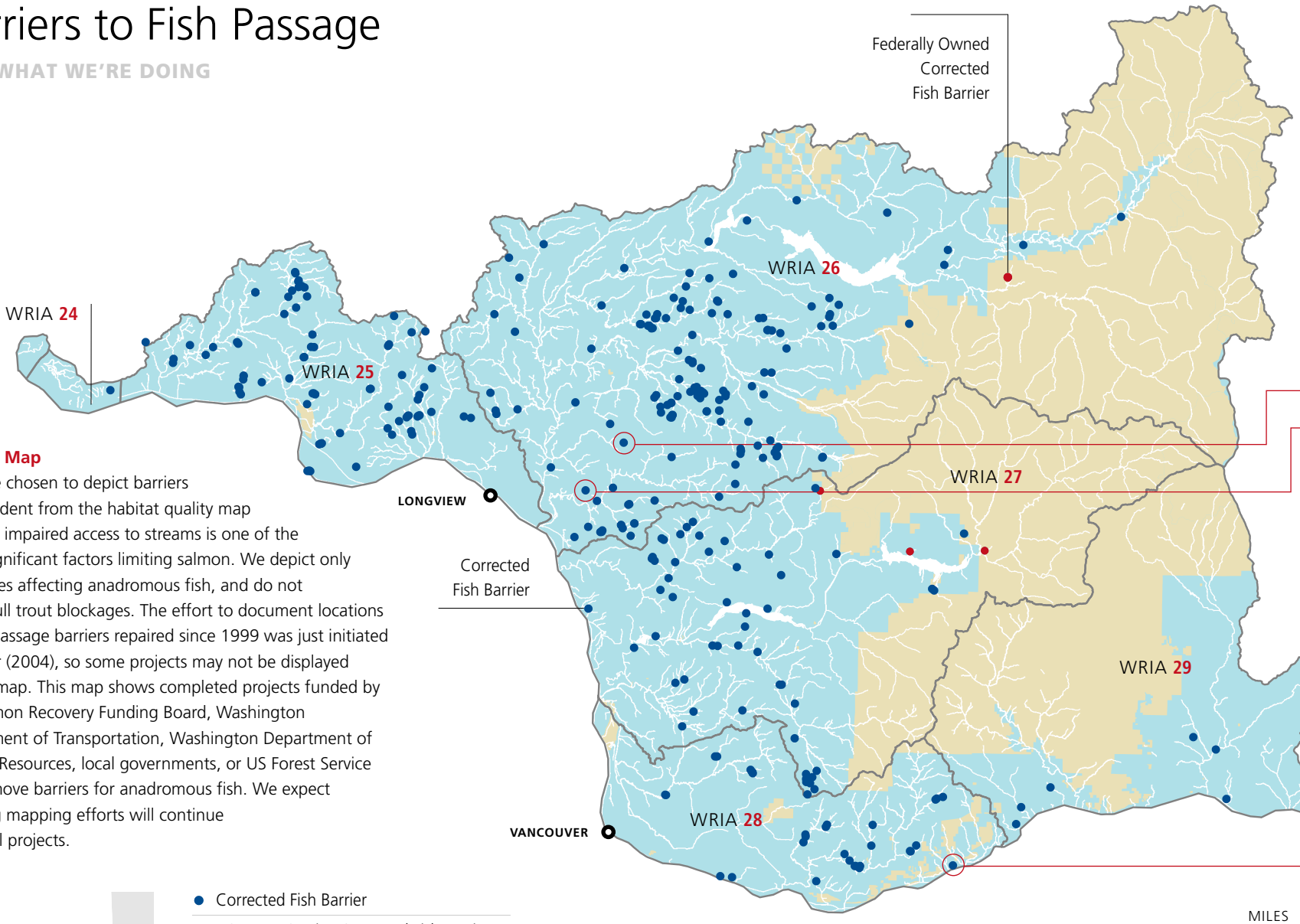
Lower Columbia River Wild Steelhead Smolt Production Index



DATA SOURCE: CRAWFORD AND VOLKHARDT (2004)

Barriers to Fish Passage

AND WHAT WE'RE DOING



On Our Map
we have chosen to depict barriers independent from the habitat quality map because impaired access to streams is one of the more significant factors limiting salmon. We depict only blockages affecting anadromous fish, and do not show bull trout blockages. The effort to document locations of fish passage barriers repaired since 1999 was just initiated this year (2004), so some projects may not be displayed on this map. This map shows completed projects funded by the Salmon Recovery Funding Board, Washington Department of Transportation, Washington Department of Natural Resources, local governments, or US Forest Service that remove barriers for anadromous fish. We expect ongoing mapping efforts will continue to reveal projects.

- Corrected Fish Barrier
- US Forest Service Corrected Fish Barrier
- Federal Lands

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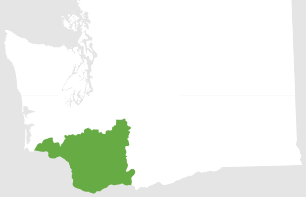
DATA SOURCE:
WASHINGTON DEPARTMENT
OF FISH AND WILDLIFE,
US FOREST SERVICE.



Lower Columbia Salmon Recovery Region

Unnamed Tributary to Coweeman River
The partners on this project included the Family Forest Fish Passage Program, Cowlitz Conservation District, Washington Department of Fish and Wildlife, and a landowner. Together they restored access to over 1/2 mile for coho, searun cutthroat, and steelhead.

Beaver Creek Fish Passage
The Family Forest Fish Passage Program provided funding to open up over six miles of Beaver Creek for use by coho, cutthroat, and steelhead by removing two culverts.

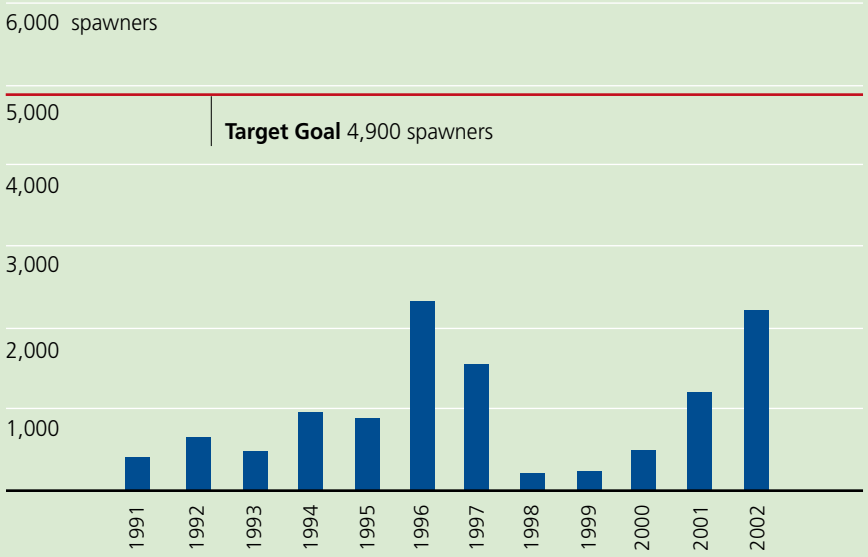
Duncan Creek Dam Fish Restoration
This project restored passage through a dam for chum, coho, and sea-run cutthroat trout. Duncan Creek is one of only a handful of streams on the Columbia River that have supported chum production.

Lower Columbia River Wild Chum

- Composite in terms of spawners per mile for 2 of 10 populations.
- Target goal from Lower Columbia Fish Recovery Board.

Lower Columbia River Wild Chinook

- Composite spawner abundance and target goal for 2 of 20 populations.
- Target goal from Lower Columbia Fish Recovery Board.



DATA SOURCE: CRAWFORD AND VOLKHARDT (2004)