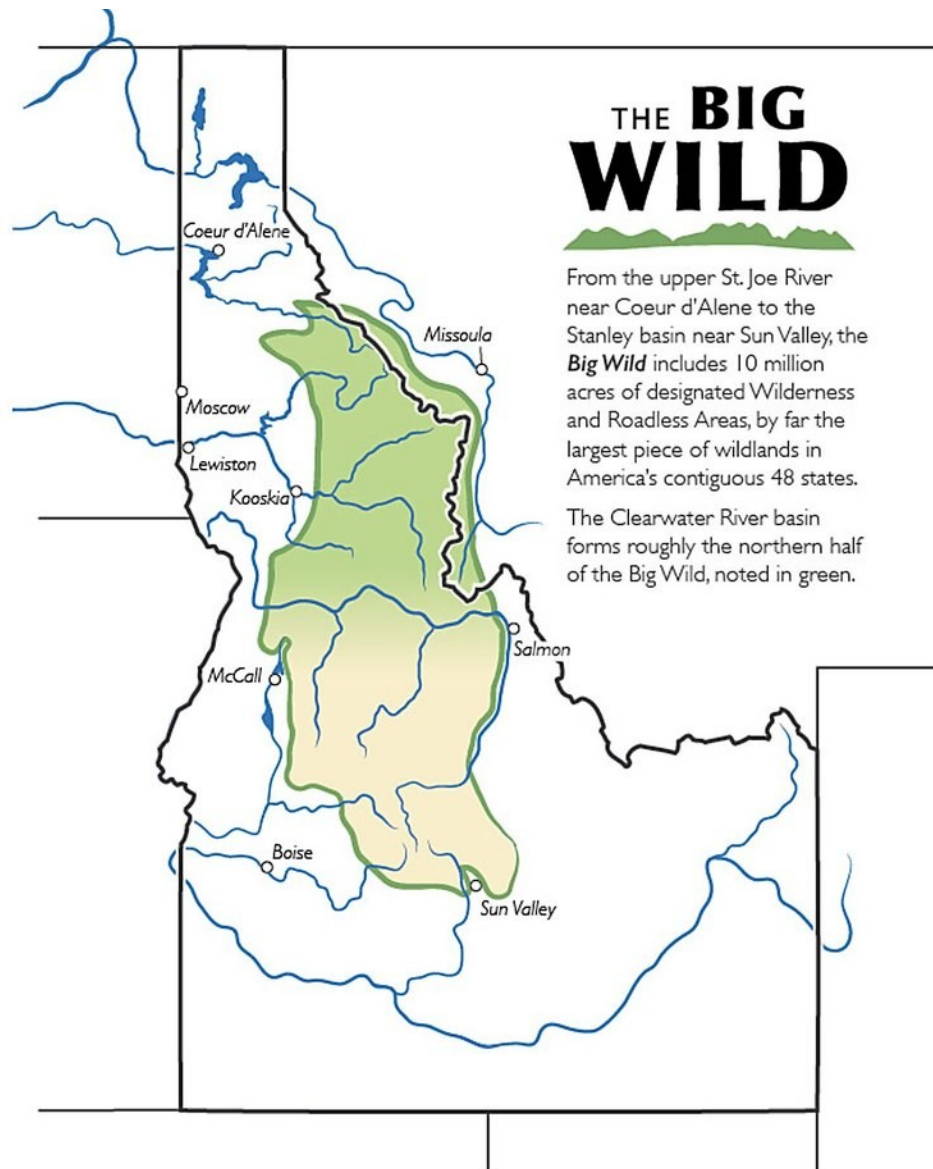


FRIENDS OF THE CLEARWATER

Clearwater River Salmon Sanctuary Initiative

Appendix A: Maps and Graphs

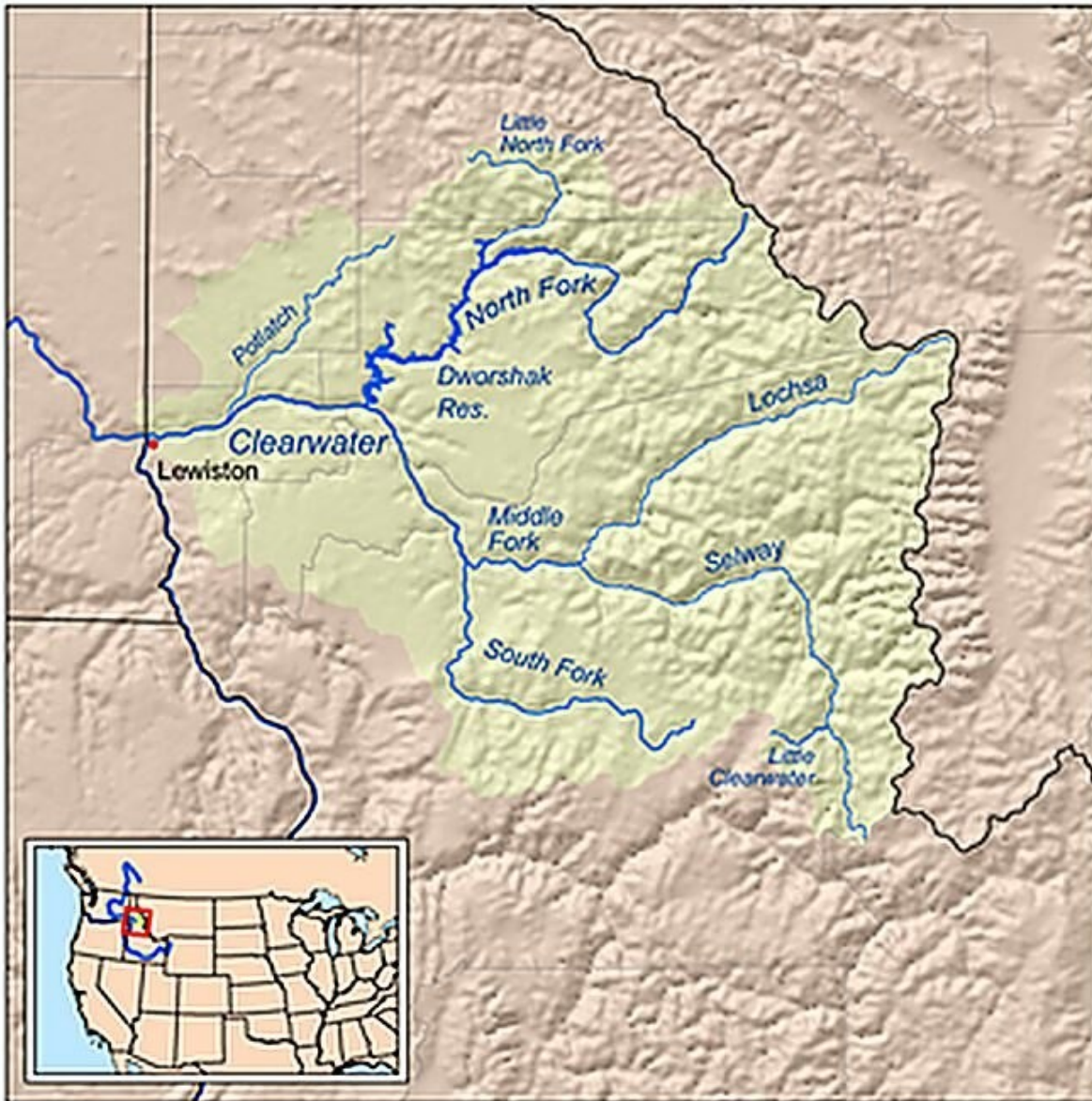
Map 1 | The Big Wild: The Heart of Idaho's Wild Country



Ten million acres of officially-designated Wilderness and Inventoried Roadless Areas form the largest wildlands expanse in the continental United States. The Clearwater River basin comprises roughly the northern half of the Big Wild.

Map by Friends of the Clearwater. <https://www.friendsoftheclearwater.org/big-wild/>

Map 2 | The Clearwater River Basin

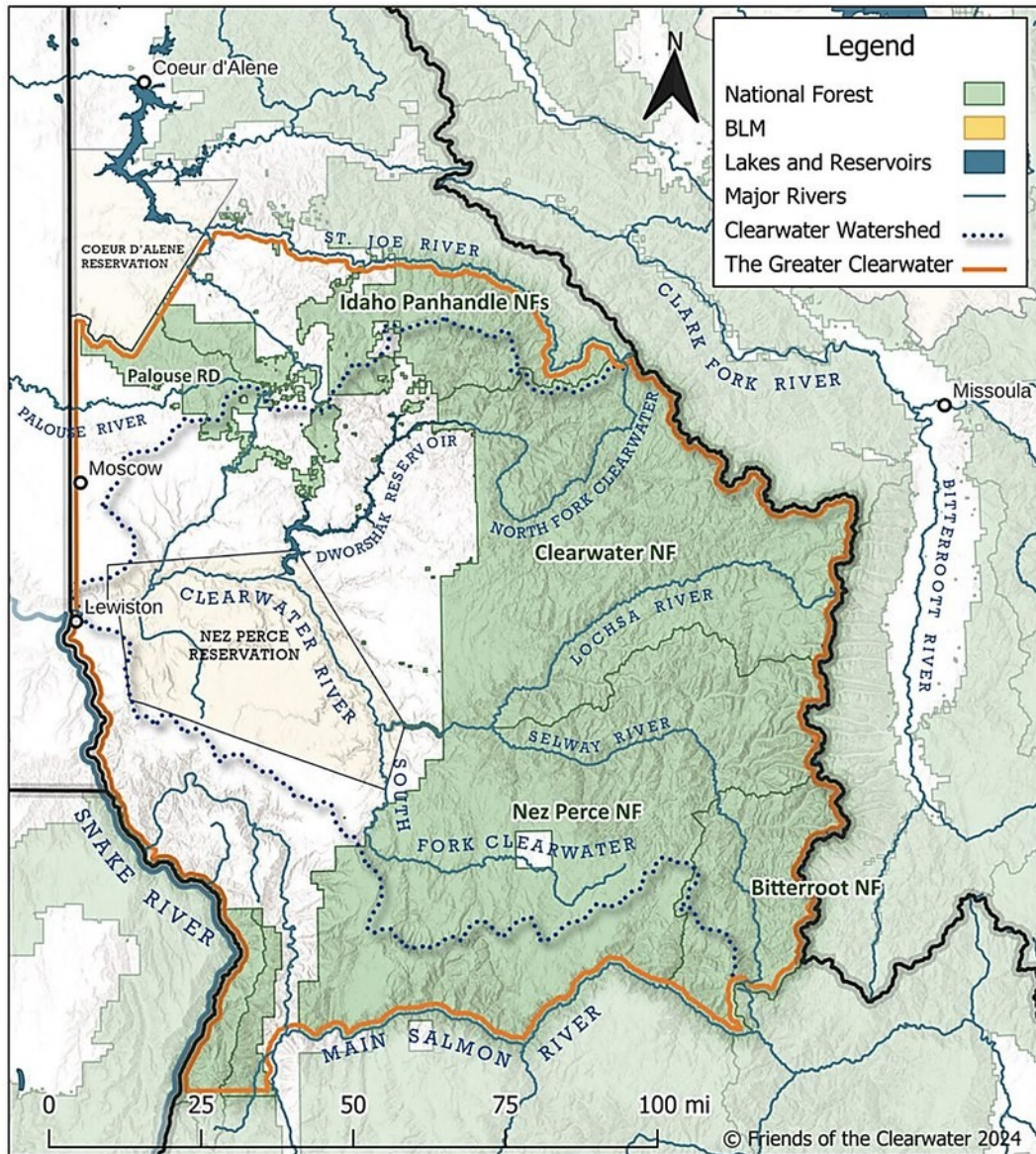


The Clearwater River basin spreads across north central Idaho, bordering Montana on the east and reaching the state of Washington on its west side. The basin includes three of the original eight rivers included in the Wild and Scenic Rivers Act of 1968—the Lochsa, Selway, and Middlefork of the Clearwater. The largest tributary to the Snake River by volume, the Clearwater River drains over six million acres and is home to four species of salmon, Pacific lamprey, bull trout and westslope cutthroat trout.

The basin contains 1,254 miles of suitable spawning-rearing habitat for Chinook salmon and 2,423 miles of such habitat for steelhead.

Map by Earth Justice. <https://www.americanrivers.org/river/clearwater-river/>

Map 3 | The Greater Clearwater



The Greater Clearwater refers to lands included in the Nez Perce-Clearwater National Forests, noted in dark green. The Clearwater River watershed is outlined by the blue dotted line. All of this land was once the homeland of the Nimiipuu, or Nez Perce Indians. Note the present day Nez Perce Reservation boundaries center-left.

Map by Friends of the Clearwater 2024 <https://www.friendsoftheclearwater.org>

Map 4 | Nez Perce Tribe (Nimiipuu) Aboriginal Territory

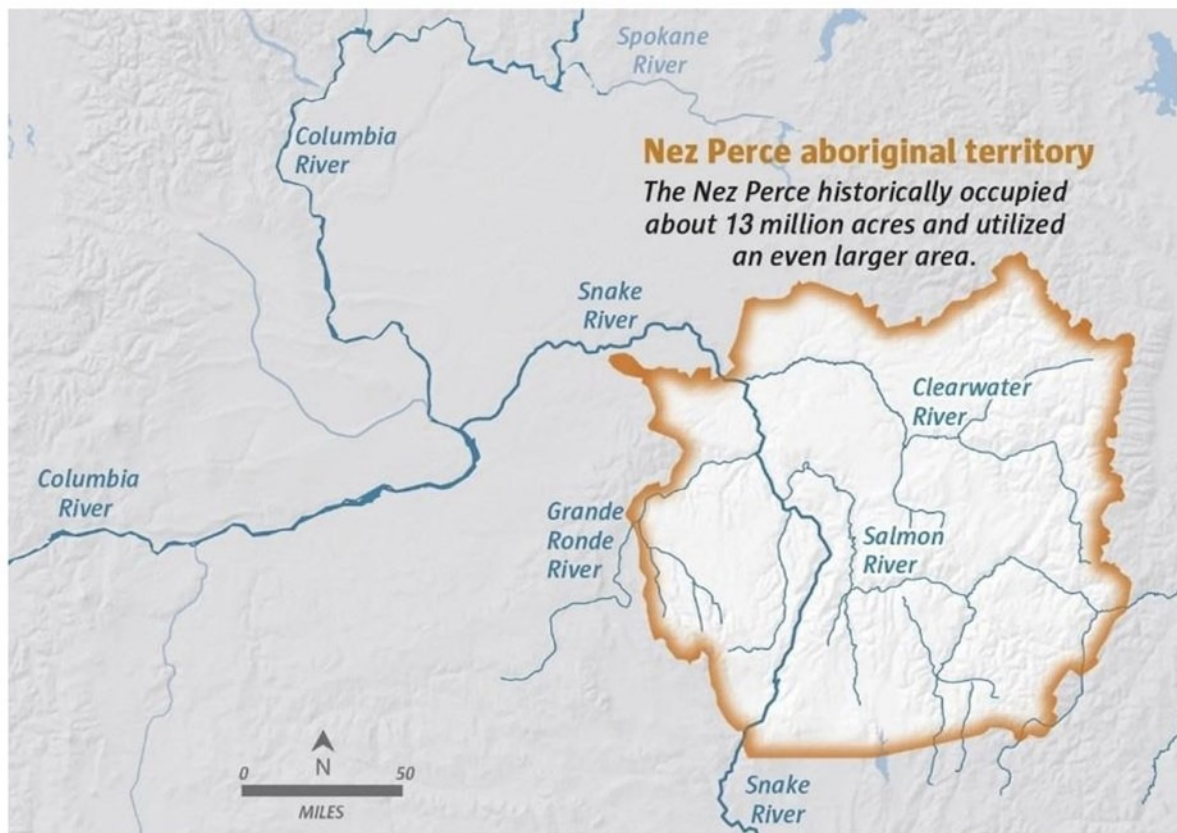


Figure 6: The Nez Perce Tribe alone occupied about 13 million acres of land and used an area from present day Montana and Wyoming to the tributaries of the Columbia and Snake rivers in present day Idaho, Washington, and Oregon.⁵⁸

Through treaties with the United States government (1855, 1863), the Dawes Act (1887) and the opening of the reservation to white settlement, the Nimiipuu lost 99% of their ancestral homeland. Today the Nez Perce Tribe plays a critically important role in protecting and restoring native fish species in the Tribe's ancestral homeland. (ICC = Indian Claims Commission)

Map 5 | Threatened and Endangered Snake River Salmon Returns 1995–2024



Snake River Wild Salmon Returns As of: 10/15/24

"Salmon runs have plummeted since the signing of the treaties and reservation executive orders that would protect the Tribes' harvest rights.[...] wild-origin returns of salmon to the Snake Basin are **0.1% to 2% of their historical abundance**, with many populations at or below a quasi-extinction threshold."

Historic and Ongoing Impacts of Federal Dams on the Columbia River Basin Tribes, Dept. of Interior

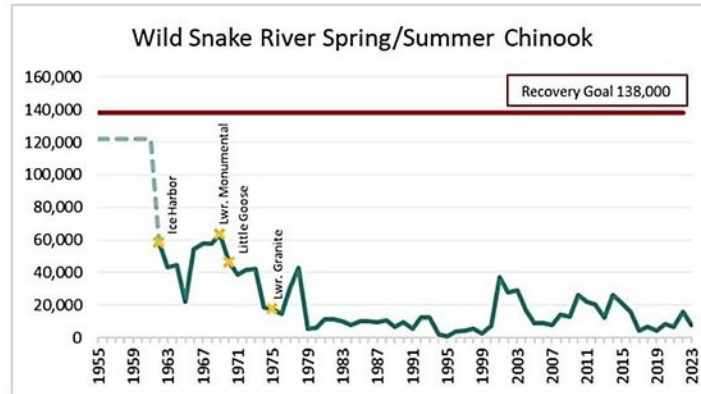
Spring/Summer Chinook - ESA Threatened (1992)

Historical: 1,000,000

Recovery Goal: Escapement of 138,000 wild adults per year

Year	Wild	Total
2020	8,565	30,129
2021	6,563	35,815
2022	16,048	70,562
2023	8,028	60,312
2024	11,354*	56,772

*Placeholder 20% of total run, until modeling produces accurate estimate.



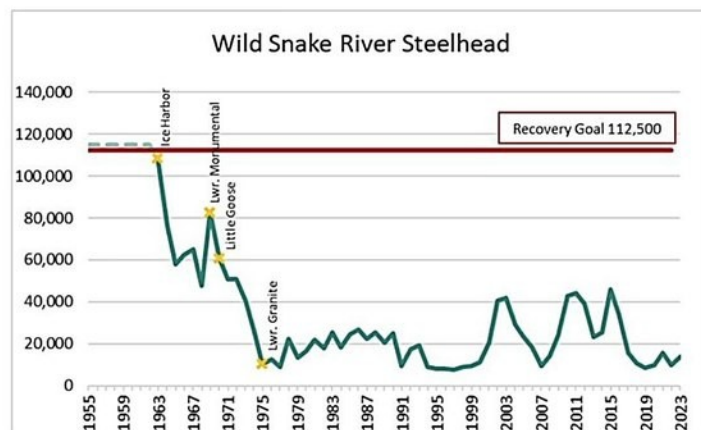
Steelhead - ESA Threatened (1997)

Historical: 600,000

Recovery Goal: Escapement of 112,500 wild adults per year

Year	Wild/Unclipped	Total
2020/21	15,478	61,315
2021/22	9,807	44,721
2022/23	13,631	76,203
2023/24	19,150*	68,895
2024/25	23,350*	82,851

*Unclipped hatchery fish not yet distinguished from wild.

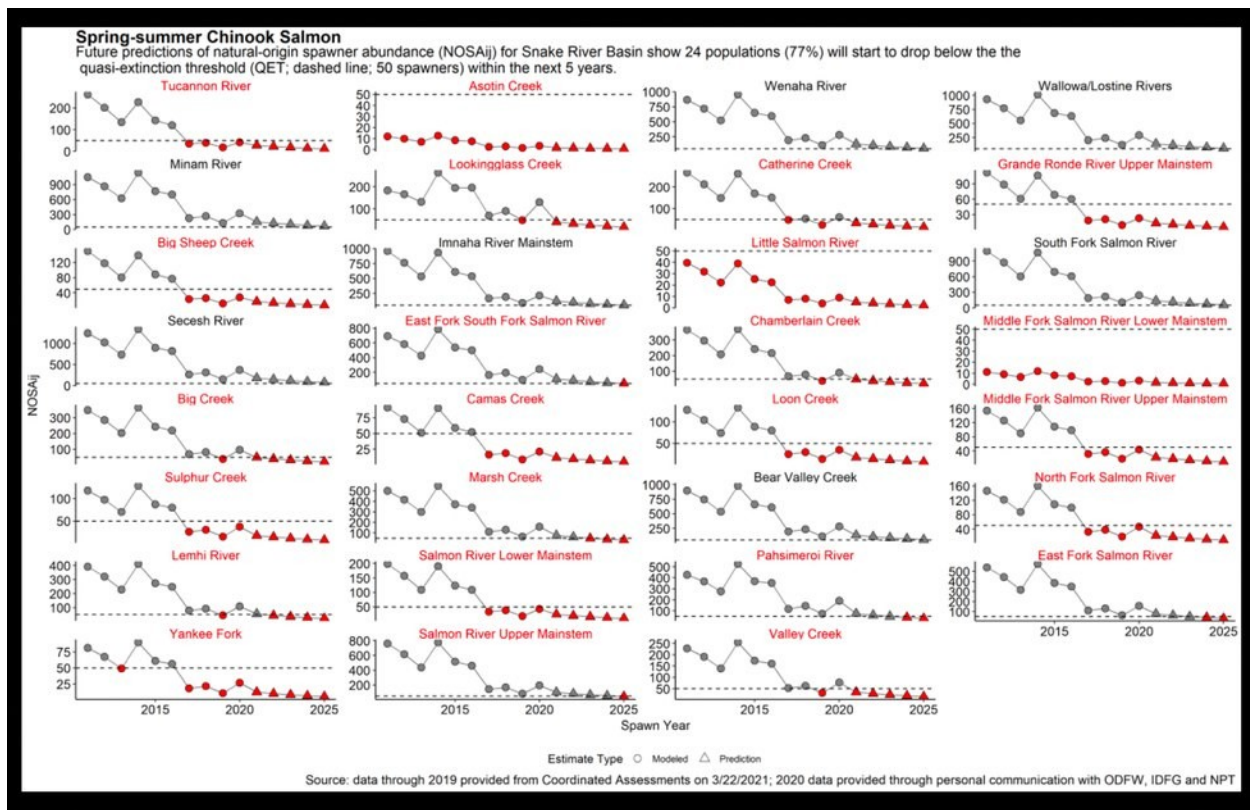


Both wild Snake River spring/summer Chinook salmon and wild steelhead adult return numbers dropped precipitously following the construction of the four lower Snake River dams. Similar declines have occurred on the Clearwater. Today adult fish returns represent approximately 1% to 2% of historic run sizes. Anadromous fish in some evolutionarily significant units (ESU) are in a quasi-extinction mode.

Graph by Idaho Rivers United based on data from the Fish Passage Center, Idaho Department of Fish and Game, and the Columbia Basin Partnership.

<https://static1.squarespace.com/static/60a6c34d62a20e102bb26220/t/671012c48f32ae371ca8b304/1729106629495/Fall+Return+Update+1+%281%29.jpg>

Map 6. Natural Origin spawner abundance for Snake River Basin spring-summer Chinook Salmon

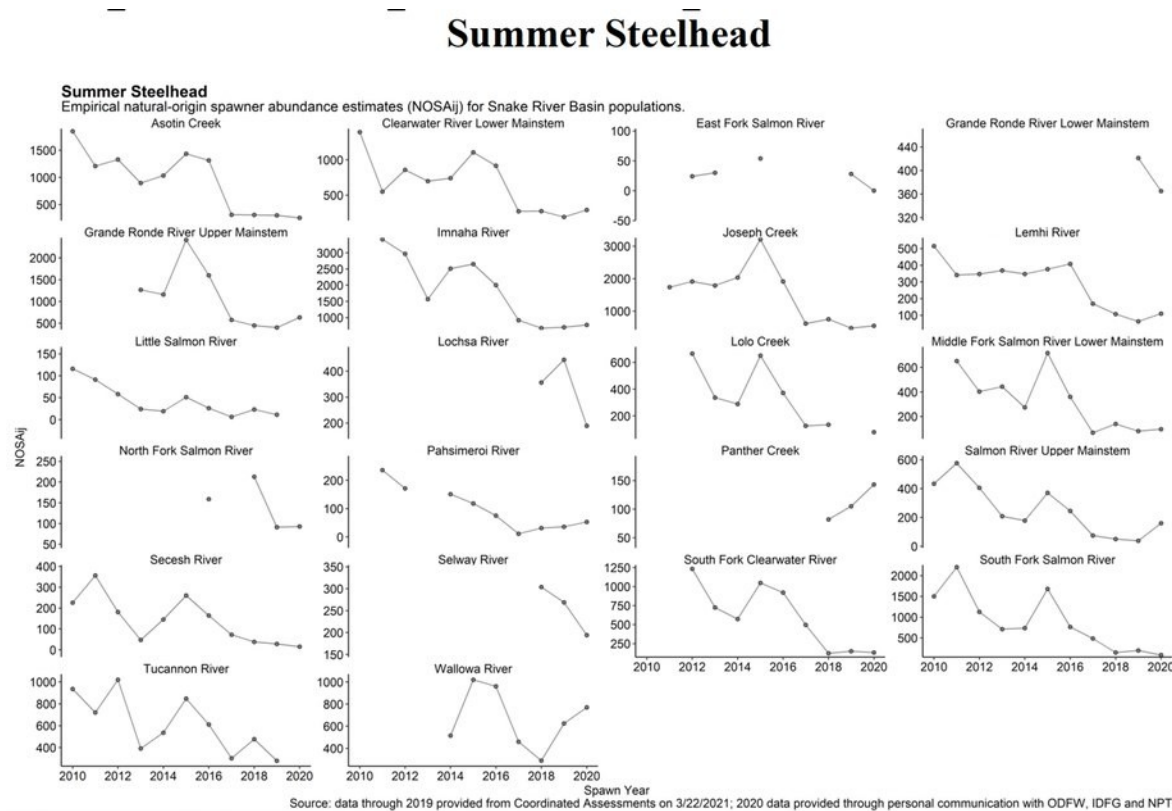


Snake River salmon and steelhead extinction occurs stream by stream, in what are called Evolutionarily Significant Units (ESU). Fish have evolved over thousands of years to return to their natal streams. Once the number of spawners returning to an ESU falls below 50 fish for four or more years, extinction is unavoidable. The 2021 report notes that “42% of the Snake Basin spring/summer Chinook populations have natural origin spawner abundance currently at or below QET.” (Quasi-Extinction Threshold of 50 fish).

This graph appears in the report *Sneke Basin Chinook and Steelhead Quasi-Extinction Threshold Alarm and Call to Action* prepared by the Nez Perce Tribe Fisheries Department

https://assets.nationbuilder.com/backbonecampaign/mailings/2308/attachments/original/Nez_Perce_quasi-extinction_threshold.pdf

Map 7 Natural Origin spawner abundance for Snake River Basin summer Steelhead



The Clearwater River was once a major producer of summer steelhead. The above graph shows the rapid decline in these fish during the ten years 2010-2020. Note the data for the Clearwater River Lower Mainstem, the Lochsa River, the Selway River, Lolo Creek and the Southfork Clearwater River.

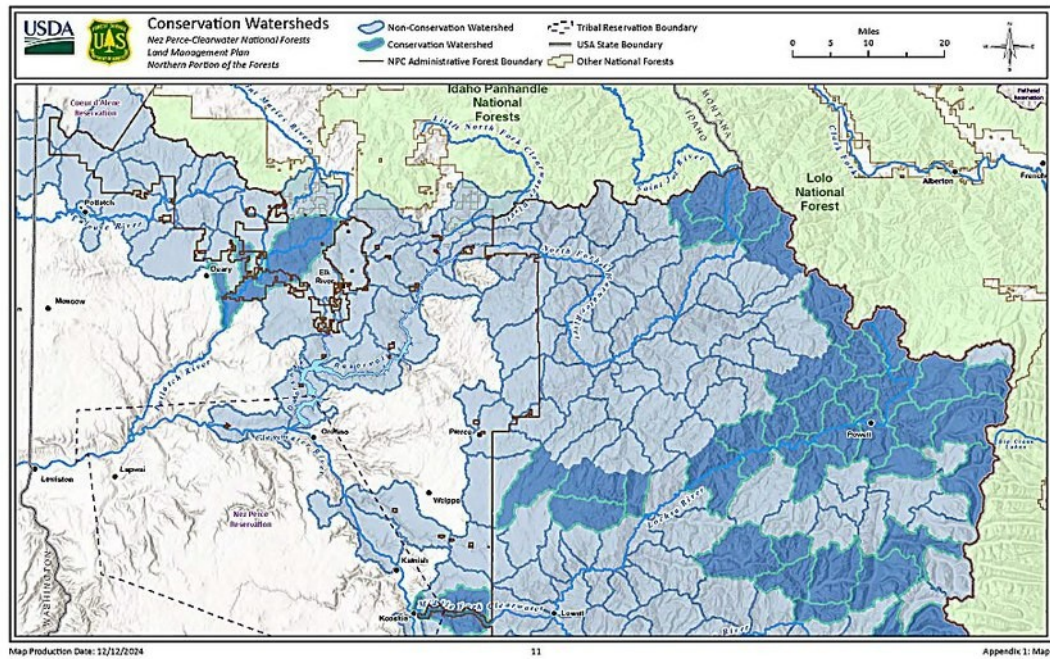
This graph appears in the report *SNAKE BASIN CHINOOK AND STEELHEAD QUASI-EXTINCTION THRESHOLD ALARM AND CALL TO ACTION* prepared by the Nez Perce Tribe Fisheries Department

https://assets.nationbuilder.com/backbonecampaign/mailings/2308/attachments/original/Nez_Perce_quasi-extinction_threshold.pdf

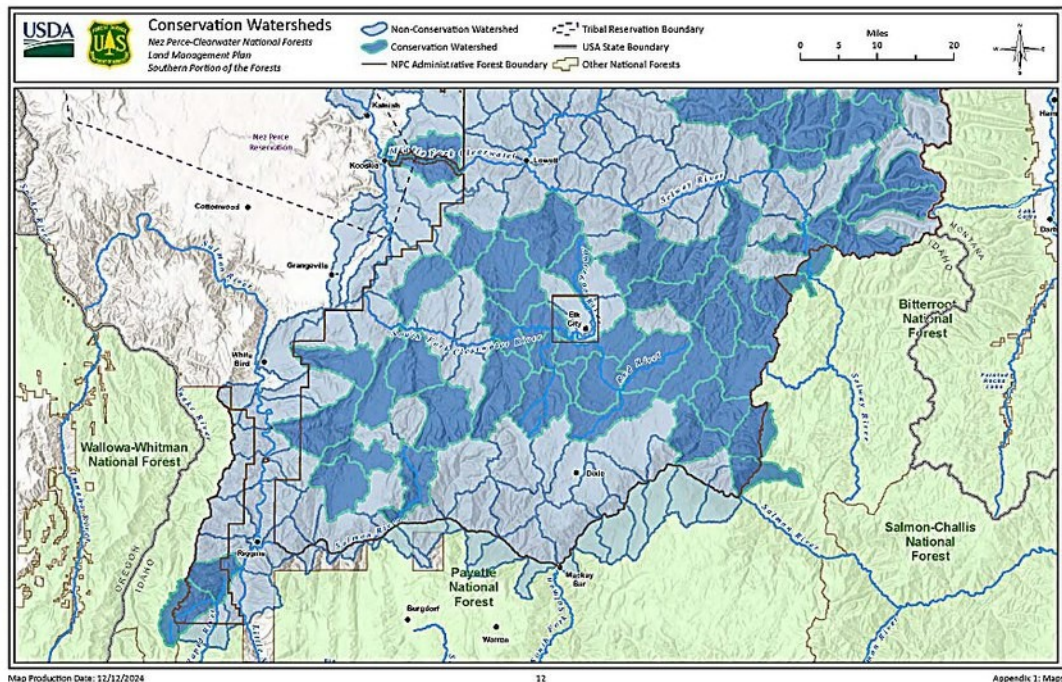
Map 8 | Nez Perce-Clearwater National Forests Conservation Watersheds in the NPCNF's 2025 Land Management Plan (northern and southern portions)

Appendix 1. Maps

Conservation Watersheds of the Nez Perce-Clearwater National Forests

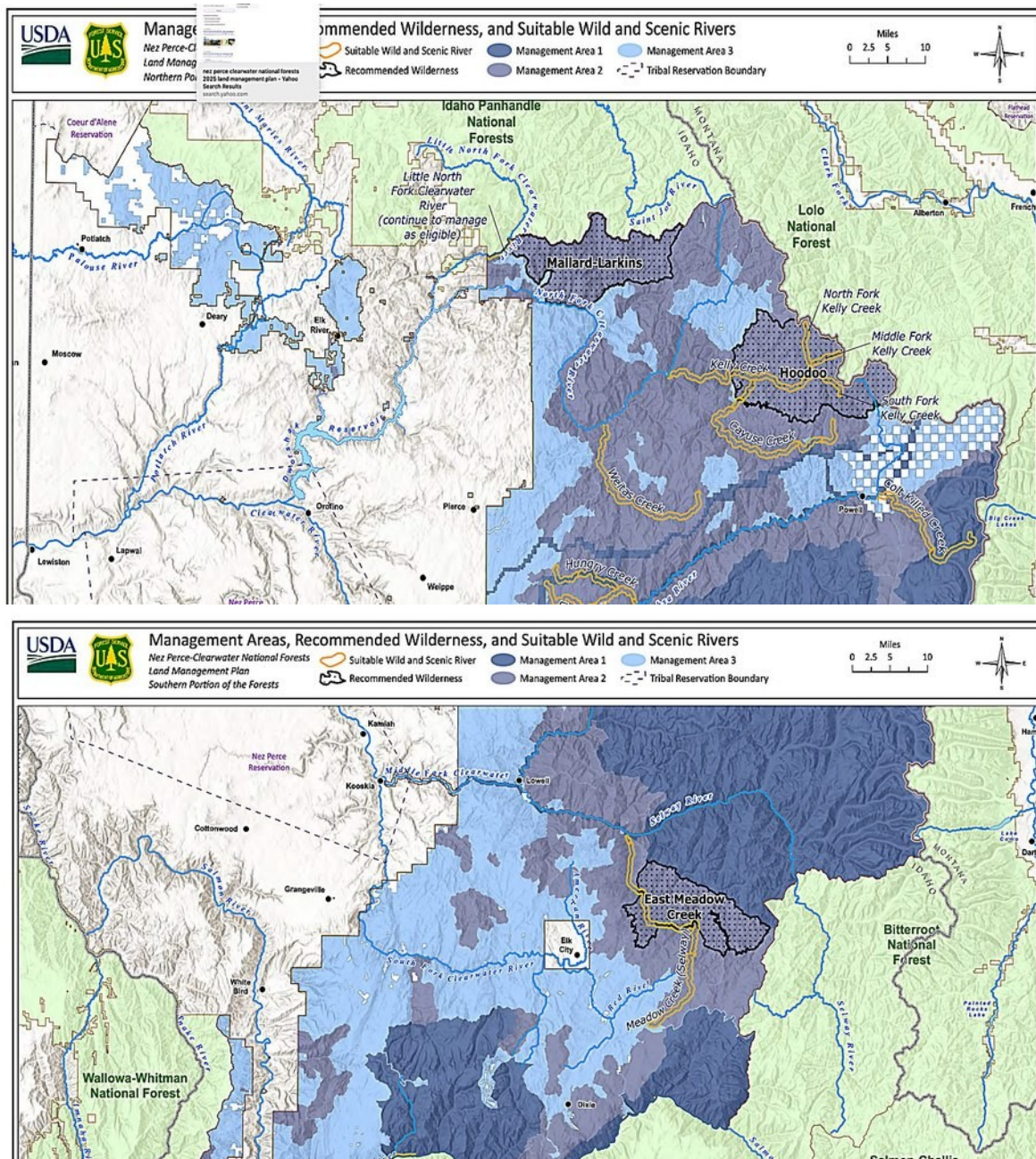


Appendix 1. Maps



The 2025 Land Management Plan identifies several watersheds within the Clearwater River basin as strongholds for threatened and endangered fish species and other fish of high conservation interest. The plan eliminates the earlier PACFISH/INFISH protections for riparian zones, as well as clearly defined standards for wildlife habitat. https://www.fs.usda.gov/sites/nfs/files/legacy-media/nezperce-clearwater/2025LMP_app1_011CWN.pdf

Map 9 | Management Areas, Recommended Wilderness, and Suitable Wild and Scenic Rivers — Northern and Southern Portions of Watershed

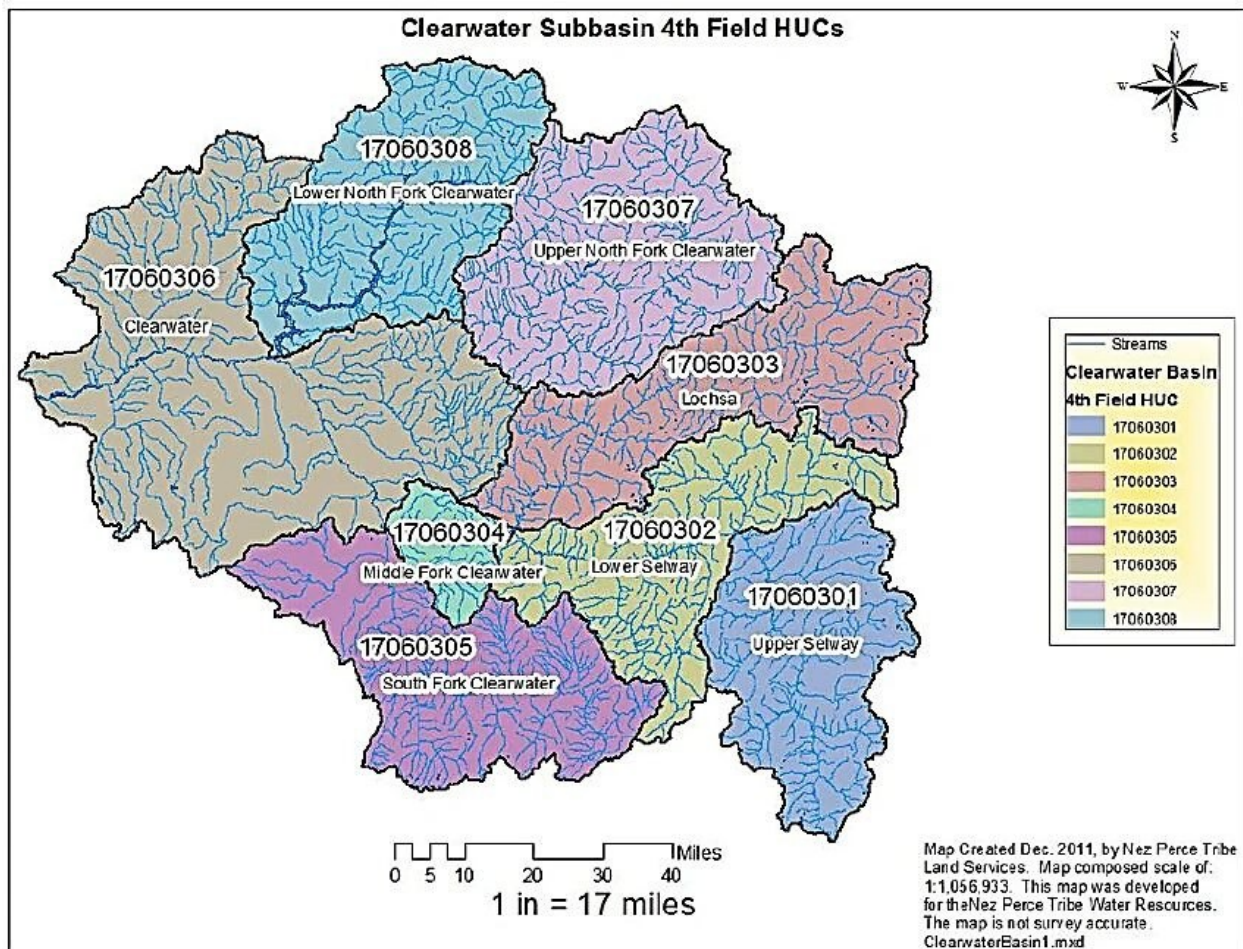


The 2025 forest plan identifies ten rivers and streams as “eligible” to become designated Wild and Scenic Rivers, including Hungry Creek, Fish Creek, the North, Middle and South Forks of Kelly Creek, Cayuse Creek, Colt Killed Creek, and Weitas Creek. The previous forest plan had selected over eighty streams and rivers as eligible, with a significant loss of protection for fish species in the new plan.

Recommended additions to the official Wilderness portions of the Clearwater River basin are represented by rows of dots circled by a black line. Nominees are titled Mallard-Larkins, Hoodoo, and East Meadow Creek. Designated Wilderness entails the greatest protections for fish habitat.

https://www.fs.usda.gov/sites/nfs/files/legacy-media/nezperce-clearwater/2025LMP_app1_003ManagementAreas.pdf

Map 10 | Clearwater River Subbasins to 4th Field Hydrologic Unit Codes for the Clearwater River Basin

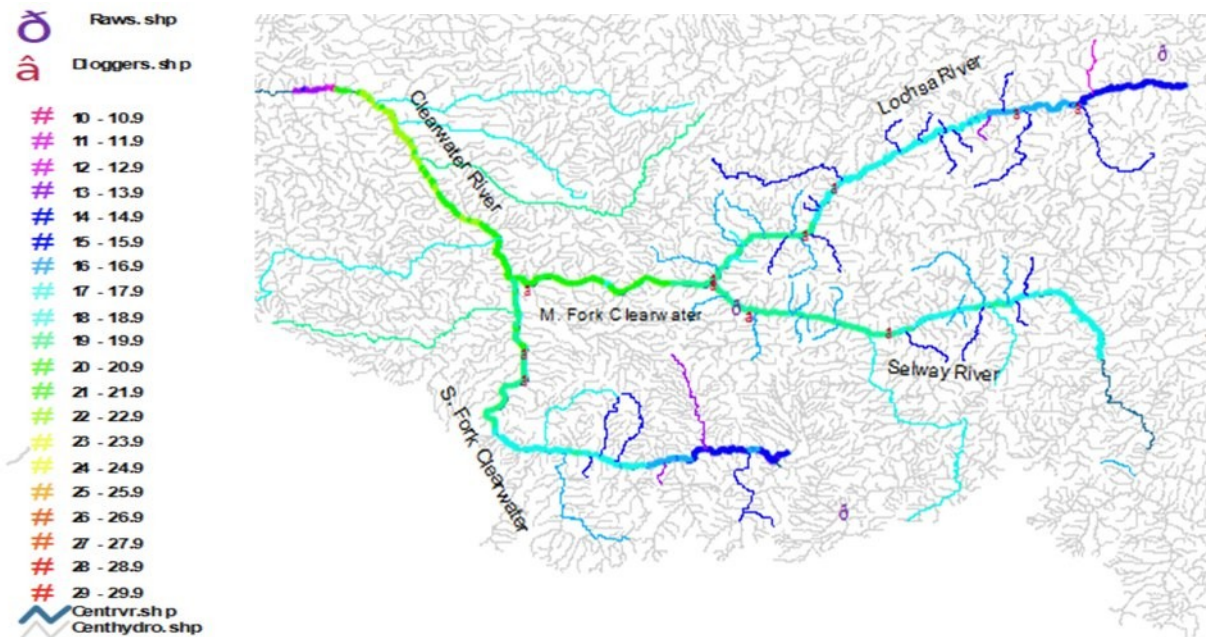


Hydrologic Unit Codes (HUCs) are a national system of mapping, naming and coding watersheds. The Clearwater Basin is a third code HUC (170603). This map shows the 8 fourth code HUCs that make up the Clearwater River basin.

Map developed 2011 for Nez Perce Tribe Water Resources;

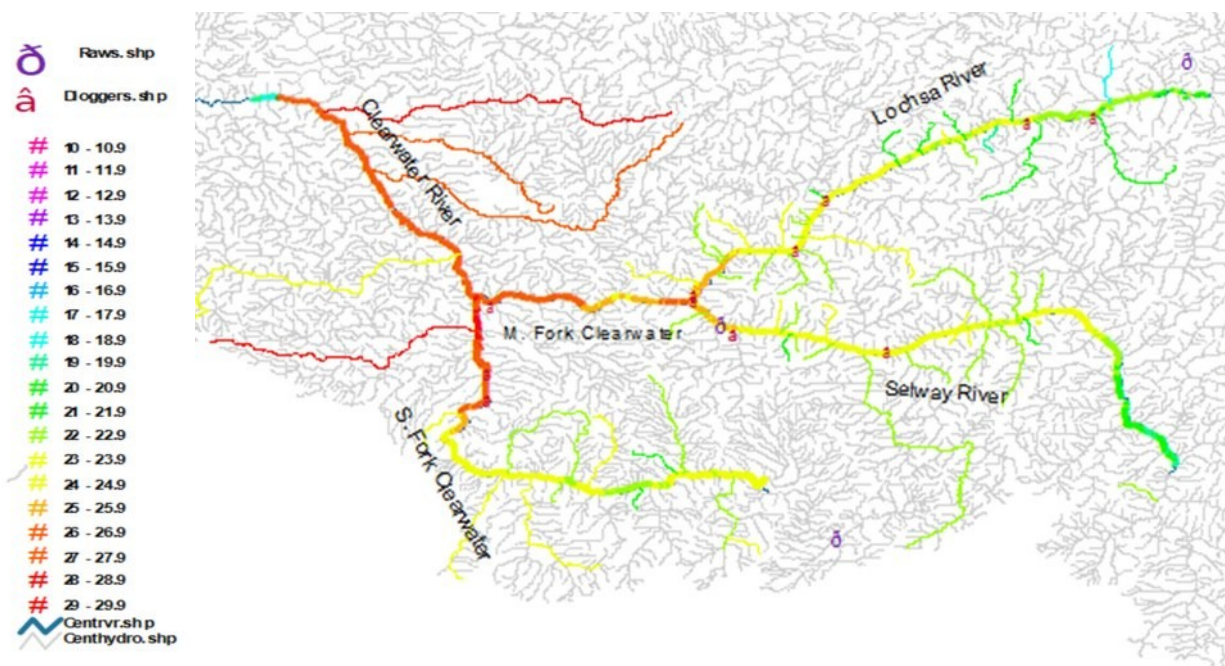
https://www.researchgate.net/figure/Clearwater-River-Subbasin-4th-Code-Hydrologic-Unit-Codes-HUCs_fig11_278727987

Map 11 | Clearwater River Basin — August a.m. Water Temperatures, Idaho Department of Water Quality, April 2000



Water temperature is a critical element in fish habitat. In August of 2000, the Idaho Department of Environmental Quality captured forward looking infrared (FLIR) imagery along the major streams in the Clearwater Basin. This map represents the morning images, taken between 6 am and 8 am, the coolest water temperatures of the day. Map by Idaho Department of Environmental Quality

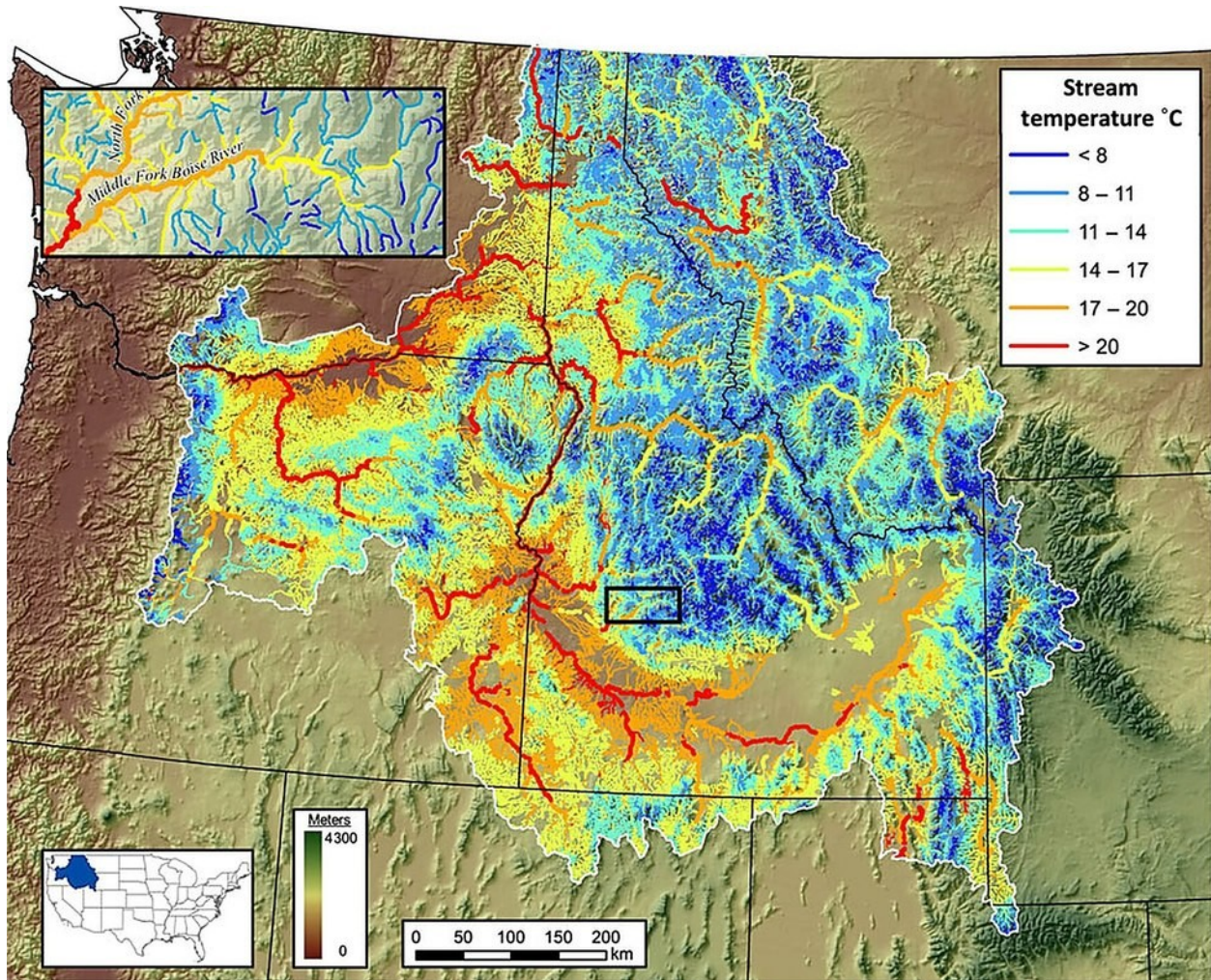
Map 12 | Clearwater River Basin — August p.m. Water Temperatures, Idaho Department of Water Quality, April 2000



The FLIR flights were repeated between 4 pm and 6 pm to capture the warmest water temperatures of the day. The contrast between morning and afternoon temperatures are obvious when comparing the two maps. The inflow of cool water in the North Fork Clearwater, released from Dworshak Reservoir, is apparent in the upper left corner of the map.

Map by Idaho Department of Environmental Quality

Map 13 | August Mean Temperature Map Including the Clearwater River Basin, 2015



The lands herein referred to as The Big Wild—including the Clearwater River basin—represent a large part of the Pacific Northwest “cold-water climate shield”—the waterways with the greatest potential for preserving salmonids as climate change continues to threaten the fishes' continued existence.

Map by U.S. Forest Service Research Center <https://research.fs.usda.gov/treesearch/47740>