Snake River Dams

The potential removal of the four Lower Snake River dams in southeastern Washington has sparked intense debate, balancing ecological concerns with economic, energy, and community interests. A leaked proposal from ongoing federal negotiations reveals the Biden administration's willingness to consider dam removal to save endangered salmon and steelhead populations. This move is part of a broader commitment to invest over $1 billion in habitat restoration and renewable energy for the Columbia Basin, particularly benefiting tribal lands.

Background: The Ecological Crisis

The Snake River, a major tributary of the Columbia River, once supported millions of salmon, including Chinook, steelhead, coho, and sockeye. However, salmon populations have collapsed due to overfishing, habitat destruction, rising water temperatures, and the construction of the four Lower Snake River dams: Ice Harbor, Lower Monumental, Little Goose, and Lower Granite. Built in the 1960s and 70s by the U.S. Army Corps of Engineers, these dams transformed a free-flowing river into a series of reservoirs, creating warm, stagnant waters that are deadly for migrating fish.

Federal scientists warn that without immediate intervention, 13 salmon and steelhead runs face a high risk of extinction. This crisis also threatens Southern Resident orcas, which rely on salmon as a primary food source. The National Oceanic and Atmospheric Administration (NOAA) concluded in 2022 that dam removal is essential to prevent these extinctions.

The Proposed Plan

The leaked proposal results from over two years of negotiations involving federal agencies, the Biden administration's environmental advisors, conservation groups (led by Earthjustice), the state of Oregon, and the Nez Perce Tribe. If ratified, the plan would pause a 2021 lawsuit challenging federal dam operations, pending implementation of commitments to salmon restoration.

Key components include:

- Investing $1 billion over the next decade in renewable energy, fish passage improvements, habitat restoration, and hatcheries.
- Exploring the removal of the four dams, with the acknowledgment that "the science is clear" on the need for dam breaching to save salmon.
- Developing alternative energy solutions, particularly for tribal communities, to replace hydropower lost from dam removal.

Benefits of Dam Removal

1. Ecological Restoration: Removing the dams would restore 150 miles of free-flowing river, reducing water temperatures, improving fish passage, and reviving critical spawning habitats. This would benefit not only salmon but the entire river ecosystem, including birds, mammals, and aquatic plants.
2. Tribal and Cultural Revitalization: For tribes like the Nez Perce, salmon are central to their culture, economy, and treaty rights. Dam removal would honor these treaties, restore traditional fishing grounds, and support tribal sovereignty.

3. Long-Term Economic Gains: Healthy salmon populations support commercial and recreational fisheries, which are vital to local economies. Increased river recreation, such as rafting and tourism, could also boost revenue.
4. Renewable Energy Transition: While the dams provide hydropower, the plan includes investments in alternative renewable energy sources, such as solar and wind, to maintain energy security and create new jobs.

Costs and Concerns of Dam Removal

1. Energy Reliability and Costs: The dams generate about 1,000 megawatts of electricity, enough to power 800,000 homes. Critics, including Republican lawmakers and energy groups, argue that removing the dams could raise electricity costs, reduce grid reliability, and increase greenhouse gas emissions from fossil fuel-based energy needed to fill the gap.
2. Agricultural Impacts: The dams provide irrigation for farms and enable barging routes for transporting crops. Removing them could disrupt agricultural supply chains, requiring expensive infrastructure changes to maintain irrigation and shift to rail or truck transport.
3. High Upfront Costs: The total cost of dam removal, including sediment management, infrastructure modifications, and environmental monitoring, could reach billions of dollars. This raises concerns about the financial burden on taxpayers and local communities.
4. Environmental Risks: Dam removal could release accumulated sediments, potentially containing toxins, into the river, harming water quality and aquatic life. Careful sediment management would be crucial to mitigate these risks.

Arguments for Maintaining the Dams

Opponents of dam removal, including Rep. Dan Newhouse (R-WA) and industry groups like Northwest RiverPartners, argue that the dams are critical for the Pacific Northwest's economy, energy grid, and transportation systems. They emphasize:

- Reliable, Carbon-Free Energy: The dams provide consistent, emissions-free hydropower, supporting the region's clean energy goals.
- Agricultural Dependence: Farmers rely on the dams for irrigation and efficient crop transport via barges, which is more fuel-efficient than trucking.
- National Security Concerns: The hydropower contributes to grid stability, which some argue is vital for national security and economic resilience.

References

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