Draft

Inter-Mountain Province Summary

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Prepared for the
Northwest Power Planning Council

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Geographic Description

Located in northeastern Washington, the Inter-Mountain Province consists of all Columbia River mainstem reservoirs and associated tributaries above Chief Joseph Dam (River Mile (RM) 541.1) and below the U.S. border (Figure 1). For this review, the following subbasins have been evaluated:

1. Rufus Woods (including the Nespelem River);
2. Lake Roosevelt (including the Kettle and Colville rivers);
3. San Poil River; and
4. Spokane River.

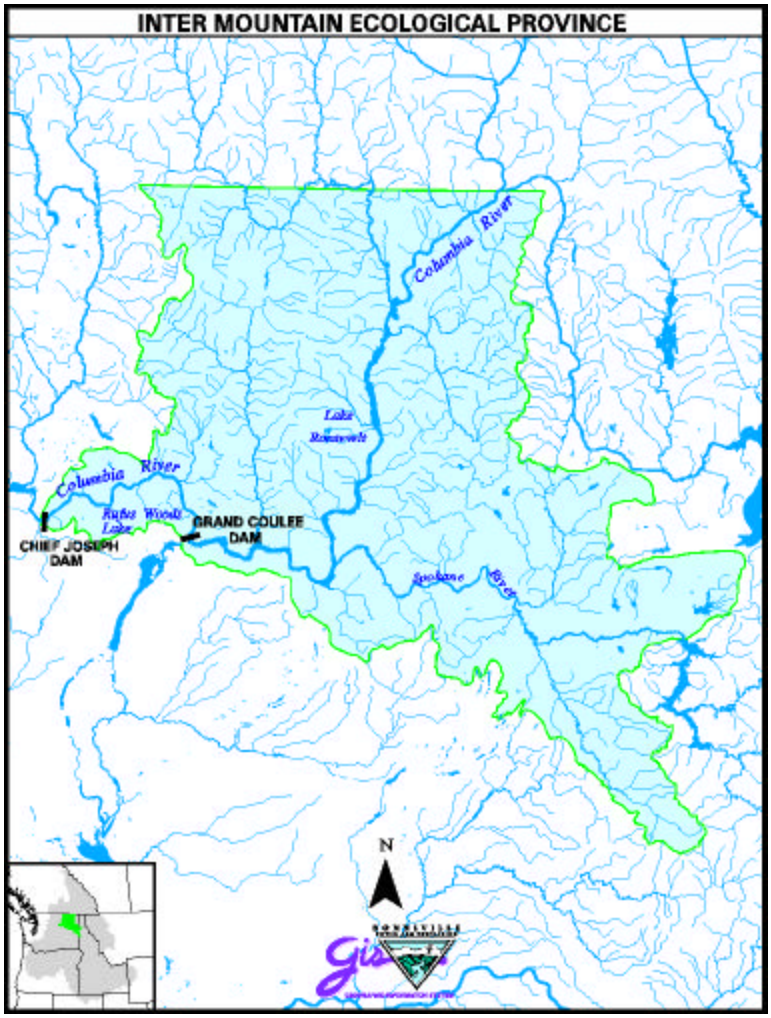

Figure 1. Inter-Mountain Province.

Fish and Wildlife Resources

Habitat Description

Aquatic Conditions

Historically, the upper Columbia River was a fluvial system. However, in 1939 and 1958, Grand Coulee Dam (RM 596.6) and Chief Joseph dams were completed, thus creating a series of reservoirs with limited biological connectivity. The low flow velocities of the reservoirs typically results in non-stratified deep environments with fine sediments, warmer water conditions, elevated dissolved atmospheric gasses, and unnatural flow regimes that are unsuitable for native resident fish populations.

The creation of hydropower caused rapid economic expansion within the basin resulting in the intensification of mining, logging, road building, and agriculture. These activities contributed to the general decline in fish and wildlife habitat. As a result, survival of native fish and wildlife species has been compromised whereas non-native species and less desirable native species are thriving.

Terrestrial Conditions

Prior to impoundment, the terrestrial system consisted of contiguous core areas. However, current land uses continue to destroy habitat contiguity. To counter habitat loss, wildlife managers are actively acquiring management rights to contiguous properties, thus fostering ecosystem functions that benefit terrestrial and aquatic habitats and associated wildlife and aquatic species.

The effects of human activities have profoundly impacted the province's landscape. Historically, floods and fire resulted maintained balanced terrestrial habitats. However, the effects of these processes have been minimized through channelization, diking, hydroelectric development, and fire suppression. In addition, land uses such as grazing, irrigation, dry land farming, mining, logging, and human settlement have changed the natural function of lands throughout the province.

Fish and Wildlife Status

The fish and wildlife populations and associated habitats throughout the province began to change with the completion of Grand Coulee Dam in 1939. Through the years, habitats have been altered, species extirpated, and non-native species/stocks introduced. Since the completion of Grand Coulee Dam, few resources have been allocated to evalauate the effects that the dam has imposed on the environment. In the mid-1980's, fish and wildlife managers began to recognize the need to understand the populations and ecological status of the altered environment. However, due to the complexities of the altered ecosystem and the lack of funding to study the system, little is known about the subbasins in the Inter-mountain Province relative to other subbasins throughout the Columbia River Basin.

Resident Fish

Fish communities existing throughout the province are a product of development and management practices. Thirty-six native and non-native resident fish species have been identified (Scott and Lemieux 1999). Due to severely altered habitat, water pollution, non-native species introductions, and loss of marine derived nutrients provided via anadromous fish runs; the persistence of native resident species assemblages throughout the province have been jeopardized. Managers are protecting native fish populations by enhancing habitats where feasible and enforcing regulations. Non-native subsistence and recreational opportunities are implemented to maximize artificially created habitats and minimize negative impacts to native populations.

Anadromous Fish

Historically, 11 anadromous fish stocks existed in the Inter-Mountain Province. However, with the completion of Chief Joseph and Grand Coulee dams, all anadromous populations have been extirpated upstream from Chief Joseph Dam. Prior to hydroelectric development, anadromous fish were likely an ecological keystone species, thus their extirpation has negatively impacted the entire province including Native American and Euro-American communities. Tribal fish management entities of Upper Columbia United Tribes (UCUT) are currently examining the feasibility of reintroducing anadromous fish above current blockages. Successful reintroduction will restore a more natural ecosystem function. Data suggest that some native stocks may be available for use as donor stocks.

Wildlife

There are 328 wildlife species identified in the Inter-Mountain Province: 9 amphibians, 14 reptiles, 220 birds, and 85 mammals (Johnson, 2000, personal communication. The population status of these species is as follows: 6% increasing, 13% decreasing, 30% percent stable, 33% unknown, 18% not determined. Wildlife managers are protecting terrestrial habitats by acquiring management rights to contiguous core areas through easements and purchases, then enhancing habitats to function naturally.

Fish and Wildlife Goals

The Province fish and wildlife goal is to have a functioning Upper Columbia Basin ecosystem that supports appropriate harvest and cultural and economic practices and the long-term sustainability of native fish and wildlife species in native habitats where possible.

Implementation will fulfill the national, state and the regional obligations under treaties and executive orders with northwest Indian tribes, treaties with Canada, and applicable resource protection, restoration and enhancement statutes and regulations. In the long term, UCUT is and will continue seeking to restore passage of anadromous species of fish above Chief Joseph and Grand Coulee Dams.

The Washington Department of Fish and Wildlife (WDFW) has identified general fish and wildlife goals and strategies for eastern Washington, including areas encompassed by the Inter-Mountain Province and its associated subbasins. The re-establishment of

anadromous fish passage into blocked areas is supported in principle through the WDFW Wild Salmonid Policy (WSP). Feasibility analysis to identify corrective measures necessary to provide passage and habitat improvements needed to promote successful re-introduction and sustainable establishment of appropriate anadromous stocks is warranted prior to such a major management action.