



# COLUMBIA BASIN FISH AND WILDLIFE AUTHORITY

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Coordinating and promoting effective protection and restoration of fish, wildlife, and their habitat in the Columbia River Basin.

**The Authority is comprised of the following tribes and government agencies:**

Burns Paiute Tribe

Coeur d'Alene Tribe

Confederated Salish and Kootenai Tribes of the Flathead Reservation

Confederated Tribes of the Colville Reservation

Confederated Tribes of the Umatilla Indian Reservation

Confederated Tribes of the Warm Springs Reservation

Confederated Tribes and Bands of the Yakama Nation

Idaho Department of Fish and Game

Kootenai Tribe of Idaho

Montana Department of Fish, Wildlife and Parks

National Marine Fisheries Service

Nez Perce Tribe

Oregon Department of Fish and Wildlife

Shoshone-Bannock Tribes of Fort Hall

Shoshone-Paiute Tribes of Duck Valley

U.S. Fish & Wildlife Service

Washington Department of Fish and Wildlife

**Coordinating Agencies**

Columbia River Inter-Tribal Fish Commission

Upper Columbia United Tribes

**DATE:** August 9, 2007  
**TO:** Members Advisory Group (MAG)  
**FROM:** Jim Uehara, Resident Fish Advisory Committee (RFAC) Chair  
**SUBJECT:** Amendment Strategy Workshop: RFAC Assignments

During the July 24-25, 2007, Amendment Strategy Workshop, the RFAC was specifically directed to develop: 1.) a process for assessing resident fish losses that have occurred due to hydro-development and operations throughout the Columbia River Basin, and 2.) a formula to compute the annual number/harvest of resident fish required to equal the annual anadromous fish losses due to hydro-development and annual operations.

### Fisheries Losses (Operational-Annual)

The RFAC would like to emphasize that the quantification of fisheries losses, due to hydro-development and operations, may be difficult because historical data are limited, and in some cases, only anecdotal information exists. To quantify riverine fish losses, the RFAC proposes implementing the following process; 1.) collect all available data from agency/tribal reports, data files, newspaper reports, and other historical accounts; 2.) when pre-impoundment data are available, repeat population estimates and compare to historic abundance estimates; and 3.) use fisheries data from similar representative streams to estimate losses in river and stream sections that no longer exist or are severely degraded; 4.) report fish losses as "annual losses".

### Fish Habitat Losses (Inundation)

Hydro-development throughout the Columbia River Basin resulted in the loss of mainstem and tributary stream habitat because of inundation. The inundated areas historically provided a variety of stream habitat types essential for the wellbeing of resident and fluvial fish. The inundated habitat provided fish species with spawning, juvenile rearing, migratory passage, and resident habitat. To quantify stream habitat losses, the RFAC proposes implementing the following process; 1.) determine the number of miles of stream/river habitat inundated (by stream order) 2.) identify the number of miles of stream habitat blocked due to road culverts associated with the hydro-development, and 3.) evaluate whether stream habitat above full pool has been degraded and is no longer available due to land management practice and the introduction of non-natives.

It is expected that complete mitigation for the fisheries and habitat losses, that are attributable to hydro-construction and operations, cannot be achieved onsite for any of the facilities. Consequently, offsite mitigation will be required to fully mitigate resident fisheries losses.

Conversion of Resident Fish Abundance/Harvest to Anadromous Fish Losses

The RFAC evaluated the potential of developing a formula to convert resident fish abundance/harvest to anadromous fish losses or past harvest estimates. Identifying values for the cultural experience of catching and harvesting as well the use of the fish for ceremonial, sustenance, and trade is unrealistic. Consequently, the RFAC was unable to develop a conversion formula for the replacement of anadromous fish losses with resident fish.

During the Amendment Strategy Workshop, the CBFWA anadromous and resident fish coordinators presented a draft amendment template for the group's consideration. Included in the template were sections pertaining to measures and strategies. The coordinators requested that the meeting participants review and consider approving the committees' request to use the template to formulate measures and strategies. Subsequently, the meeting participants advised the committees to use the template to continue to collect data. The RFAC recently discussed the proposed strategy and measure exercise associated with the CBFWA amendment strategy process; however, concerns were expressed that the MAG did not specifically direct the committee to develop strategies and measures. The RFAC requests that the MAG provide clarification regarding its expectations of the committees relative to the development of measures and strategies.