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145,000 fish die in heat

The Untold Story Behind the Headlines

Portland, Ore. - - Earlier this month, local newspapers announced 145,000 fish mortalities at McNary Dam or in barges during record heat in July. While every fish mortality is of concern (actual mortalities revised to 122,000), the news articles failed to mention that during the same period of July 3 to July 23, over 4.5 million fish were collected and transported. That represents a 97.3 percent survival rate!

Science does not support the contention that mortality could have been lessened by not transporting the fish. Tribal representatives have argued that fish left to migrate in-river can find cold water areas of refuge to avoid temperature-related stress. However, there is no evidence that this occurs. Rather, predation research in John Day Reservoir shows that in-river migrating subyearling chinook suffer up to 40 percent mortality during warm months. Predators are more active and take the highest percentage of prey in the summertime. In-river passage would also subject these fish to mortality at dams located at John Day, The Dalles, and Bonneville. Conversely, fish transportation research indicates that 4 to 5 times as many fall chinook return from transport as from in-river passage. All of these factors were weighed carefully by the Corps and NMFS and it was determined safer for the fish to transport them.

Following consultation with NMFS, collection and transport continued with modifications in dam operations resulting in decreased fish mortality. The temperature problem and proposed operational changes were discussed in the Technical Management Team forum and the decision to continue collection and transport was made.

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The water temperature issue has not been portrayed accurately. Historical records clearly show seasonal water temperatures reached the mid-to-high 70s before the dams and reservoirs were built. Blaming “those huge reservoirs of hot water” for fish kill is misleading since historic records show that the river was warmer at this time of year *before* the reservoirs were created. Furthermore, the temperatures of tributary in-flows to the reservoirs remain high.

During the week of August 10, for instance, water temperatures in the Salmon River (undammed) were measured at 73 °F, the Snake River below the mouth of the Salmon at 76 °F, the Clearwater River above the mouth of the North Fork at 75 °F, and the North Fork at 50 °F (primarily because of cold water releases from Dworshak Dam). The temperature at Lower Granite Dam was 70 °F because of the mixing of cool water from the Clearwater River and hot water from the Snake River.

Though Umatilla tribal representatives criticized the Corps for not alerting them to high daily fish mortalities, the Corps did notify NMFS when mortalities exceeded 10,000 fish. Fish numbers and mortality information were readily available to the Confederated Tribes of the Umatilla Indian Reservation (and all others) via the Fish Passage Center Smolt Monitoring Program *at the same time the information became available to the Corps*. The Corps relies on the Smolt Monitoring Program for daily distribution of information to agencies and Tribes. It is the responsibility of the Fish Passage Center to disseminate information to the fishery agencies and tribes.

The tribes also were reported to have objected to handling fish when water temperatures top 70° degrees. Fish sampled at McNary Dam are handled by Washington Department of Fish and Wildlife (WDFW) personnel who work half time for the Transport Program and half time for the Smolt Monitoring Program . The Smolt Monitoring Program is carried out by the Fish Passage Center whose personnel handle the fish under permit to the NMFS. The WDFW staff at McNary made no recommendation to discontinue handling sampled fish.

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