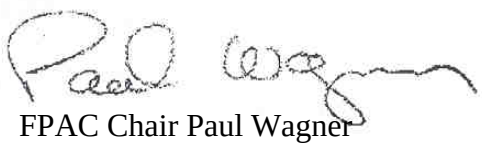
State, Federal and Tribal Fishery Agencies Joint Technical Staff Memo

Columbia River Inter-Tribal Fish Commission
Idaho Fish and Game
Oregon Department of Fish and Wildlife
NOAA National Marine Fisheries Service
US Fish and Wildlife Service
Nez Perce Tribe

TO: CBFWA Members Advisory Group



FROM: FPAC Chair Paul Wagner

SUBJECT: Review of Corps' Draft Plan for Addressing Pacific Lamprey Passage (2007-2011)

DATE: June 14, 2007

Cc: CBFWA Anadromous Fish Advisory Committee, Lamprey Technical Work Group

The Fish Passage Advisory Committee members, comprising technical staffs of the above fisheries agencies, have reviewed the U.S. Corps Engineers Draft Plan for Addressing Pacific Lamprey Passage (2007-2011) and support the recommended revisions to the document (enclosure). The issue of lamprey passage needs to be addressed expeditiously at the mainstem dams. The fisheries agencies support actions to be taken that are salmon compatible, acknowledging that years of research have determined that it is unlikely that fish ladders can be modified to wholly accommodate both salmonids and lamprey.

A summary of the key features of the lamprey passage plan follows;

- Diffuser grating size in the fish ladders should be reduced from the current size of 1" to a size of 3/4". These changes should be pursued in a methodical manner at the projects and evaluated as the changes are made. A smaller grating size will increase the velocity through the gratings and the effects of those changes must be considered on a project by project basis.
- Screen criteria for juvenile lamprey at corps' projects should be modified to 1.75 open space for the VBS, ESBS, and other screens that encounter juvenile lamprey at the hydro projects.
- Plates along the walls of the adult ladders over floor diffusers should be added to aid in adult lamprey passage in the ladders by providing attachment locations.

- The corners of adult ladder facilities should be rounded to better accommodate lamprey passage. This modification should be pursued at a project that has at least two ladders and one should be modified. Once again this modification will have a minor hydraulic effect which should be evaluated before proceeding with this modification to all fish ladders.
- Flows provided through the auxiliary water system during nighttime hours should be reduced to facilitate lamprey passage. The affect of this change may be the greatest on the passage of sockeye, which have the highest rate of nighttime passage. Once again, this change should be made and evaluated on per project basis.
- Continued efforts should be made in the development of lamprey adult passage devices. Where applicable, adult lamprey passage systems may offer the best opportunity to avoid any potential passage conflicts among species.
- A combination of lamprey improvement measures (i.e., structural ladder modifications, ladder velocity adjustments, etc.), rather than a single "fix," is likely to be required to achieved desired dam-specific passage efficiencies.
- Continued efforts should be made to develop tags to gain more information on the passage behavior of both adult and juvenile lamprey.

The agencies are pleased to see a plan has been developed for lamprey passage and support its timely implementation.