Yellowstone River Conservation District Council
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POSITION STATEMENT

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Fish Passage Position Statement

Position Statement: The Yellowstone River Conservation District Council (YRCDC) supports and encourages efforts within the Yellowstone River Basin to seek and develop mutually agreeable solutions in order to provide fish passage and prevent entrainment into water intake or diversion points while maintaining water supplies for irrigation.

Introduction

Fish passage and agricultural irrigation are two resource issues intertwined along the Yellowstone River. Free flowing river water is needed for either or both to occur and prosper. Where irrigation water is derived by diversion structures spanning the entire river channel it can affect movements or migrations of various fish species. Where water is withdrawn from the river either via gravity diversions or pumps, there is a risk of entraining fish. Data have established that the distributions and movements of many species of Yellowstone River fishes, one of which is the federally endangered pallid sturgeon, are affected by low-head diversion dams. In addition, studies for some unscreened diversions indicate that substantial numbers of fish can be entrained at water diversion points annually. Across the United States and locally, fish passage and entrainment protection measures have been utilized effectively to prevent loss of fish, restore connectivity with habitat, and increase fish abundance without negatively affecting agricultural practices.

Background

Researchers have suggested that blockage of seasonal migrations for spawning and feeding may be a leading cause of the decline in fishes native to large river systems (Trenka 2000, Helfrich et al. 1999, Elser et al. 1977). Along with fish passage, entrainment is an issue that needs to be assessed at each diversion point or intake structure. For example, Heibert et al. (2000) conducted an entrainment study on Intake Diversion Dam and found 36 species of fish passed into the irrigation canal during their sample years (1996, 1997, and 1998). Additionally, 14 species of fish were found entrained behind the Shirley Pumping Plant of the Buffalo Rapids Project (Montana Fish Wildlife and Park, unpublished data).

Because numerous barriers and points of entrainment exist in the Yellowstone River basin, it is necessary to evaluate each project on an individual basis in order to identify the best options for fish passage and entrainment protection that are mutually agreeable to both the land owners/irrigators and funding agencies.

The following list provides a few examples of the types of projects this position statement supports:

- The recently completed T and Y dam bypass project and SH dam removal on the Tongue River;
- Efforts at Intake and Cartersville Dams on the Yellowstone River;
- Pryor Creek and the Yellowstone River confluence area;
- Chadbourne Dam on the Shields River;
- Fish screening efforts at Buffalo Rapids Irrigation District's Shirley Pumping Plant.

Agencies involved with Yellowstone River Basin fish passage projects are; Montana Fish Wildlife and Parks, U. S. Fish and Wildlife Service, U. S. Bureau of Reclamation, and U. S. Army Corps of Engineers, and the Natural Resources Conservation Service. Non-government entities include The Nature Conservancy and Trout Unlimited.

Role of the YRCDC

The governor, state government agencies, and regional citizens are looking to the YRCDC for leadership in managing the Yellowstone River. YRCDC, made up of a coalition of conservation districts, has both resource management and producers' well-being as goals. The position taken by the YRCDC is based on recent science findings and past collaborative efforts between agency personnel and private land owners/irrigators. This position seeks to eliminate conflict between economic and conservation interests and supports the YRCDC's role as a grass roots supporter of wise use of resources.

References

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Elser, A. A., R. C. McFarland, D. Schwehr. 1977. The Effects of altered streamflow on fish of the Yellowstone and Tongue Rivers, Montana. Technical report No. 8. Yellowstone Impact Study. Montana Department of Natural Resources, Helena.

Helfrich, L. A., C. Liston, S. Hiebert, M. Albers, and K. Frazer. 1999. Influence of low-head dams on fish passage, community composition, and abundance in the Yellowstone River, Montana. Rivers 7 (1):21-32.

Trenka, R. 2000. Community Structures and Habitat Associations of Fishes of the Lower Tongue and Powder Rivers. Master's Thesis. Montana State University, Bozeman.