

Resolution to Support Protection of Fishes and Mussels and Their Habitat Associated with the Construction, Modification, or Removal of Dams and Other Hydraulic Structures

Whereas, placement of public and private dams and other hydraulic structures (e.g. drop structures) for power generation and flood control purposes has played an important part in the economic development of the State of Wisconsin; and recognizing that numbers of these structure no longer serve the purpose for which they were constructed (e.g. hydropower generation or navigation) or other purposes (e.g. stormwater management or recreation and aesthetics); and

Whereas, these structures have frequently been in place for a considerable period of time and consequently have accumulated significant quantities of sediments and other potential contaminants, these structures form a barrier to fish migrations, and failure of these structures pose a risk to fish and aquatic habitat, humans, and property as a consequence of failure; and

Whereas, research has shown that without recognition of the historic accumulation of materials with the dam basin and active management to mitigate this legacy, sediments and other potential contaminants will be transported from the impoundment, conveyed significant distances downstream, and deposited within stream channels to the detriment of fish and aquatic organisms; and

Whereas, research has shown that dams alter the hydrological system in which they are placed, transform lotic systems to lentic systems, leading to fundamental changes in water quality, thermal regimes, other habitat features, the fishery and mussel composition and diversity as well as fragmentation of aquatic habitat necessary to support a healthy sustainable fishery by restricting access during one or more critical life history stage including refuge from predation and environmental extremes such as drought, flood, and temperature; juvenile rearing; feeding; and, spawning of fishes and other organisms; and

Whereas, research has shown that such negative impacts to fishes are cumulative where multiple dams exist within a particular watershed or river system; and

Whereas, research has shown that dam removal or retrofit to provide and/or enhance fish passage can lead to restoration of lotic habitat, and diversity and abundance of fish and aquatic life within a previously impounded stream reach; and

Whereas, it is recognized that numbers of structures have exceeded their design life, are no longer maintained, no longer serve a beneficial purpose, fail to meet current safety standards, or lack the economic resources to repair or replace them; and

Whereas, it is further recognized that the removal or replacement of said structures has been adopted by the State of Wisconsin as a policy; and

Whereas, the State of Wisconsin has determined that full consideration of the potential for the spread of Aquatic Invasive Species (AIS) and measures to minimize the risk of spreading non-native species in general and AIS in particular are to be recognized.

Therefore be it Resolved, that the Wisconsin Chapter of the American Fisheries Society supports ongoing maintenance, repair, and retrofitting of dams to promote upstream and downstream fish passage and connectivity, without compromising the structural integrity of crossings, public safety, and passage of flood flows; and

Be it Further Resolved, that the Wisconsin Chapter of the American Fisheries Society supports the preparation of abandonment and associated stream channel restoration plans as part of the design of new, or reconstructed, dams and prior to abandonment of existing dams; and

Be it Further Resolved, that the Wisconsin Chapter of the American Fisheries Society recognizing the potential damages arising from the uncontrolled release of sediments from the impoundment, which is manifested as erosion in the basin and deposition in the downstream reaches, supports the inclusion of provisions to protect upstream reaches from erosion and downstream reaches from sedimentation by prohibiting excessive sediment transport from the impoundment during and after dam removal; and

Be it Finally Resolved, that the Wisconsin Chapter of the American Fisheries Society shall form a subcommittee to provide inter alia information, project experience, and protocols, including measures to minimize the risk of spreading non-native species in general and Aquatic Invasive Species (AIS) in particular, to guide potential dam removal and dam retrofit fish passage projects.

Submitted by your Environmental Issue Committee Chair, Thomas M. Slawski, PhD, Past President of Wisconsin Chapter of the American Fisheries Society
January 31, 2011