Justification for

RESOLUTION ON THE DEVELOPMENT OF INSTREAM FLOW PROGRAMS

AFS members in the Southern Division states were contacted regarding which methods their state uses to determine instream flows. Eight states provided information.

The information revealed that some states are still using a single flow statistic ($7Q_{10}$) which was designed to identify the volume of water needed to meet point discharge water quality thresholds. The $7Q_{10}$ is a flow statistic used to simulate drought conditions in water quality modeling to evaluate waste load allocation. The $7Q_{10}$ refers to the lowest average streamflow expected to occur for seven consecutive days with an average frequency of once in ten years and for some streams the $7Q_{10}$ flow is zero. The $7Q_{10}$ drought flow is inadequate to conserve aquatic life or ecological integrity. For most streams, this flow is less than 10% of the average annual flow and can be expected to result in severe degradation of aquatic communities if it becomes the only flow protected in a stream (Tennant, 1976a, 1976b). The $7Q_{10}$ is not an instream flow method. It has often been misused as an instream flow for keeping fish alive.

In some states the state fish and wildlife department does not have the authority to determine instream flows which are set by another state agency.

In some states the agency which determines instream flows does not consult with the state fish and wildlife agency regarding what flows are necessary to maintain and enhance viable aquatic resources.

There are many beneficial uses including fish and wildlife resources which all compete for the right to use streamflow. Instream flows for fish and wildlife should receive equal consideration as any other request for water allocation.

Natural resource managers are faced with the complicated task of protecting and restoring public values while honoring existing uses. To meet this responsibility, managers are challenged to identify appropriate methods to quantify instream flow needs and defend the methods they use and results they obtain. In the absence of a consensus on acceptable protocols and policies, this task has proven difficult for some state fish and wildlife agencies.

In 1998 the Instream Flow Council was formed to provide guidance in developing instream flow programs which resulted in the publication Instream Flows for Riverine Resource Stewardship (Annear et. al. 2004).The recommendations contained in that publication comprise the critical elements in this resolution. Officers and members of the Instream Flow Council have reviewed and edited this resolution.

Literature Cited

Annear, T., I. Chisholm, H. Beecher, A. Locke and 12 other authors. 2004. Instream flows for riverine resource stewardship, revised. Instream Flow Council, Cheyenne, WY.

Tennant, D. L. 1976a. Instream flow regimes for fish, wildlife, recreation and related environmental resources. Fisheries 1(4):6-10.

Tennant, D. L. 1976b. Instream flow regimes for fish, wildlife, recreation and related environmental resources. Pages 359-373 in J. F. Osborn and C. H. Allman, editors. Instream Flow Needs. Bethesda, MD: Special publication of the American Fisheries Society.