# Summary

AFS Policy Statement #3:
Nonpoint Source Pollution
(Abbreviated)

Nonpoint source pollution is probably the most pervasive and ubiquitous water quality problem in North America. Nonpoint source pollution results from nearly every type of human activity and land use, including urban and industrial stormwater runoff, livestock and crop production, forestry, mining, construction activity, and hydrological modifications. The principal pollutants associated with nonpoint sources are sediment, nutrients, biocides, natural organic wastes, waste heat, acid mine drainage, salinity, radioactivity, microbial pollutants, heavy metals, and airborne pollutants falling in the form of acid rain.

The magnitude and cumulative effects of nonpoint source pollutants impart a profound impact on aquatic resources. The pollution typically occurs on an intermittent basis and in small increments from widely dispersed areas that may include many categories. Nonpoint sources generally cannot be monitored at their point of origin, and their source is not readily traceable. Furthermore, it is frequently impossible to distinguish human-induced from naturally occurring nonpoint source pollution. Consequently, few definitive data exist that quantitatively document the cause-and-effect relationships between nonpoint source pollutants and the degradation of fisheries and other aquatic resources.

The effects of nonpoint source pollutants include direct and indirect mortality, habitat modification or destruction, streamflow depletion or modification, reproduction and behavioral changes, and many others. The regulation of land use and associated land management practices has been identified as the only effective means of controlling nonpoint source pollutants.

The AFS policy regarding nonpoint source pollution is to:

1. Encourage fisheries and aquatic scientists to become involved in the early stages of resource or land-use planning at the federal, state, provincial, and local levels; especially in the implementation of plans.

2. Encourage fisheries and aquatic scientists to play key roles in the identification and inventory of aquatic and wetland habitat resources particularly sensitive to nonpoint source pollutants associated with changes in land-use practices, including quantification and documentation of impacts.

3. Encourage research and development efforts focused on innovative land-use management guidelines; and material recycling, reuse, and control practices designed to maximize aquatic habitat preservation, rehabilitation, or enhancement related to nonpoint source activities.

4. Encourage development of water quality criteria and standards to reflect the diffuse and intermittent nature of nonpoint source pollutants.

5. Encourage research on the direct and indirect impacts of diffuse source atmospheric pollutants, such as acid precipitation, fugitive dust, and heavy metals on aquatic and wetland resources.

6. Encourage evaluation of the effectiveness of various recommended management and land-use practices, strategies, and procedures in mitigating impacts on fisheries and aquatic resources.

7. Encourage development and implementation of a monitoring program to evaluate the adequacies and effectiveness of best management practices from the fisheries perspective.

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8. Encourage incorporation of fisheries restoration and enhancement features into any water quality management plans, and specifically into best management practices.

9. Support and endorse efforts to coordinate and focus federal, state, provincial, and local participation and expertise on wastewater management, land-use planning, and plan implementation designed to minimize negative impacts on fisheries.

10. Support adequate staffing, funding, and authority for federal, state, and provincial government agencies responsible for fisheries management to encourage effective participation in planning, inventory, and development of nonpoint source control issues affecting aquatic resources.

11. Insist on an environmental assessment for all major land-use changes that may significantly change or increase nonpoint source discharge impacts on aquatic ecosystems.

12. Encourage establishment and enforcement of nonpoint source waste load allocations on a watershed basis, in combination with ecologically sound management practices to prevent or minimize localized destruction of wetland and aquatic resources.

13. Insist on close evaluation and regulation of land application and underground disposal techniques for industrial and municipal wastes.

14. Insist on close regulation of chemical fertilizer and biocide applications.

15. Oppose conversion of marginal wildlands in arid areas to irrigated agricultural areas until impacts of such action on aquatic resources from the standpoints of accelerated instream flow depletions and nonpoint source pollution are fully understood.

16. Support incentives for application of ecologically sound land-use practices in mining, agriculture, silviculture, construction, urban development, and other nonpoint source categories.

17. Encourage use of fisheries technology, constructed wetlands, or aquaculture for cleansing waters derived from nonpoint sources, recycling of materials, and production of beneficial sport and food fisheries as a means of utilizing wastes from nonpoint sources.

18. Support rigorous enforcement of federal, state, provincial, and local laws, regulations, and standards pertaining to nonpoint source pollution problems.

19. Encourage the review of educational curricula (at all levels), retraining of governmental personnel and the public, and effective transfer of new and innovative information to eliminate use of outdated techniques for nonpoint source pollution.

20. Support programs designed to increase public awareness of the magnitude of nonpoint source pollution problems, and to increase the use of public support and involvement in solving nonpoint source pollution problems.