



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON, D.C. 20240



IN REPLY REFER TO:

September 16, 1966

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Memorandum

To: All Field Offices

From: ~~Asst. Dir.~~ Assistant Director, Operations

Subject: Management of Aquatic Resources in Natural and Historical Areas

Management objectives and principles and guidelines for fish stocking have been established and approved to serve as the basis for the management of aquatic resources within natural and historical areas. The statement supersedes the fishery resources management guidelines previously incorporated in the National Park Service "Administrative Manual," Volume VI, Ranger Activities, Part 2, Chapter 5, pages 3-8, under the title "Protection and Management of Wildlife and Fish; Policies -- Fishing."

A copy of the statement is enclosed for immediate implementation in the management of aquatic resources and fishing activities. It will be incorporated in the "Wildlife Management Handbook," Part 2, Aquatic Resources, Natural and Historical Areas, which is now being processed for early release.

This memorandum shall be retained until the handbook has been received.

Edurn Kenner

PRINCIPLES

Principles of aquatic resources management, approved to implement the three objectives, are as follows:

Aquatic Environments

1. Waters that originally were without fish life and are now barren of fishes shall be perpetuated in their natural fishless condition.
2. Waters shall be selected to be representative examples of the aboriginal aquatic conditions. Such waters which contain nonnative species shall be restored to a fishless condition or shall have populations of native species reestablished upon the removal of the nonnative forms.
3. Aquatic environments shall be maintained or restored by natural means when possible.
4. Artificial modifications of lakes, streams, and other bodies of water that alter natural aquatic environments and surrounding landscapes shall be avoided. When unavoidable due to construction, pest control, sewage disposal, or other programs, these modifications shall be temporary in nature and shall be limited to the greatest extent possible, and measures shall be taken immediately to correct the situation and bring about as rapid recovery of the natural conditions as possible. When the aquatic environment has been so changed by man that restoration by natural measures is improbable, artificial modification of a physical nature may be required.
 - a. Types of artificial modifications that shall not be permitted include: construction of stream "improvement" devices; the erection of dams or gratings at outlets of lakes; the blasting of fishways in streams; and the artificial fertilization of waters.
 - b. Types of modifications that may be considered include: the development of barriers in streams to prevent the movement of nonnative fishes into park waters from sources outside the park boundary when such obstructions do not impair essential movements of native fishes; the removal of natural log jams and beaver dams that interfere with the natural movements of migratory native fishes when determined essential for the perpetuation of the fish populations; and the construction of road culverts and bridges when properly designed to facilitate the passage of fishes and the protection of aquatic resources.



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OBJECTIVES AND PRINCIPLES FOR THE MANAGEMENT OF AQUATIC RESOURCES
AND GUIDELINES FOR FISH STOCKING IN NATURAL AND HISTORICAL AREAS
ADMINISTERED BY THE NATIONAL PARK SERVICE¹

OBJECTIVES

Marine and freshwater aquatic ecosystems in natural and historical areas administered by the National Park Service shall be managed to achieve three primary objectives, as follows:

1. The protection, perpetuation, and restoration of the natural aquatic environments, native fishes, and the associated fauna and flora.
2. The provision for recreational fishing by the conservative and controlled use of native and nonnative fish populations designed for sport fishing purposes by regulations and measures that will insure high quality fishing as part of the park experience without endangering the basic fish supplies or impairing the wildlife, scenic, scientific, ecological, and historical values of the park and their enjoyment by other visitors.
3. The regulation of commercial fishing, where this activity is permitted by laws, so that commercial fishing will not endanger basic stocks of fishes and other aquatic organisms nor impair basic park values and visitor uses.

¹ Approved by Assistant Director Howard W. Baker, August 19, 1966.
Incorporated in the "Wildlife Management Handbook," Part 2: "Aquatic Resources, Natural and Historical Areas".

Native Species

5. Native species of aquatic life shall be protected and perpetuated in waters in which they are endemic.

a. All native fishes, not specifically designated as sport or commercial fishes in the long-range aquatic resources management plan, shall be given full protection and shall not be intentionally reduced or eliminated solely in the interest of improving conditions for recreational fishing.

b. Fishes, designated as sport or commercial fishes, shall receive adequate protection by regulation of the catch by fishermen.

c. Eggs may be taken from native fishes only for the purpose of perpetuating a native form. Egg-taking operations for other purposes within natural or historical areas are rarely justified.

6. Native fish species shall be reestablished in representative waters when feasible.

Fishing

7. Fishing shall be maintained in waters designated for fishing primarily by reliance upon wild self-sustaining populations of fishes and shall be regulated so that the total catch does not exceed the natural replenishment capabilities of individual fish populations.

a. Native species shall receive first consideration in management for sport fishing.

b. Nonnative fishes, designated as sport species, may be utilized in management for recreational fishing when it is impracticable to replace the nonnative fishes with native fish species.

8. Fishing may be maintained and managed in waters designated for sport fishing, secondarily, by judicious use of hatchery or transplanted fishes in waters in which natural spawning is absent or inadequate to support the desired level of fishing.

a. Populations of native species may be supplemented by periodic stocking of hatchery fishes of native strains or species.

b. Populations of nonnative species may be supplemented by periodic stocking of hatchery or transplanted fishes when restoration of native forms is impracticable.

9. Fishing shall be excluded from specific waters when adequate investigations determine that fishing and associated activities impair wildlife, scenic, scientific, ecological, and historical values of primary significance.

Regulations

10. Regulations shall provide for the protection and perpetuation of aquatic resources and shall govern fishing activities.

Public Information About Fishing

11. Public information releases about fishing in natural and historical areas shall be factual, but not promotional, in purpose. It shall emphasize the quality of the recreational and esthetic values of the angling experience and an appreciation of the unspoiled environment rather than the catch as the primary reward of this visitor-use activity.

Investigations and Research

12. The facts required to achieve the objectives shall be secured through investigations and research of the park aquatic ecosystems and studies of visitor-use activities, including fishing. Aquatic life resources and waters shall be inventoried and fishing activities shall be identified.

Long-Range Aquatic Resources Management Plan

13. A long-range plan shall be drawn up to provide continuity and direction for the annual aquatic resources management program in areas where aquatic resources or fishing activities are significant. In areas where aquatic resources are of minor importance, and fishing activity directed toward them is limited or totally lacking, an aquatic resources status statement shall be prepared.

Cooperative Activities

14. Cooperation with the U. S. Fish and Wildlife Service, the U. S. Public Health Service, and other Federal agencies and the appropriate state agencies in the management of aquatic resources shall be encouraged within the scope of National Park Service responsibilities.

GUIDELINES FOR FISH STOCKING

Purposes

1. The stocking of hatchery fishes or the transplanting of fishes from other waters shall be (a) to reestablish populations of native fishes or (b) to maintain fishing in waters designated for sport fishing in which natural reproduction of wild fishes is insufficient to support the desired level of recreational fishing.

2. When hatchery fishes are planted, they shall be stocked for long-term benefit to the sport fishery. They shall be stocked sufficiently ahead of the anglers and at a size that will insure that the fishes are essentially wild in color, form, and wariness when caught.

3. Stocking of hatchery fishes for short-term benefit or to provide fish for immediate return to the fisherman during the current season, frequently termed "put-and-take-stocking," shall not be undertaken. Such stocking supports and encourages an artificially created recreational experience incompatible with the fundamental concept of resources management within natural and historical areas.

Species

4. Fishes native to the water being stocked or to the immediate drainage shall be given first consideration in stocking operations.

5. No species of nonnative fishes, other aquatic animals, and aquatic plants shall be introduced into waters in which the species is not already present.

6. Nonnative fishes may be stocked to support fishing in designated waters in which the species are now present after adequate investigations have demonstrated that the elimination of existing populations of non-native fishes and the restoration by native fishes are impracticable and that the desired level of fishing can be maintained only by supplementary planting of fishes.

7. Nonnative fishes shall not be stocked in a water when there is danger that the fishes resulting from the planting may move into other waters located inside or outside the park boundaries and prove detrimental to established populations of other species.

Size

8. Fingerling trout may be stocked in lakes designated for sport fishing in which the need for supplementary stocking has been established.

9. Stocking of eyed eggs, fry or fingerling trout in streams will normally be confined to operations directed toward the restoration of populations of trout following the eradication of nonnative species or the reduction of fish populations due to natural catastrophies such as floods or droughts. (Various reliable studies on streams of varying sizes throughout the Nation have demonstrated that where conditions are suitable for the survival of trout, natural wild populations are maintained at maximum carrying capacity by natural reproduction and that the stocking of trout at fingerling size or less results in negligible or no benefit to the sport fishery.)

10. Adult fishes may be transplanted from waters containing wild populations of native species for use in (a) the reestablishment of native species or (b) the replenishment of native fish populations.

Numbers

11. The number of fishes stocked in a specific water during any year shall depend upon the prevailing natural conditions, the size and species composition of existing fish populations, the anticipated fishing pressure, and an evaluation of the success realized from previous plantings made in the particular water. Numbers of fish planted shall be limited to those necessary to reestablish a native species or to support the desired level of fishing without overutilizing natural aquatic foods or without resulting in retarded growth of the fishes due to overcrowding.

Definite numbers of trout actually used in an individual planting operations will depend upon the size range of fishes available in the hatchery. The number shown on the stocking schedule will be for fish within a definite size range and the number may have to be increased or decreased according to size available to achieve the desired stocking objective.

Frequency

12. Frequency of stocking shall depend upon existing biological conditions and upon anticipated fishing pressures. Rotation of stocking over a period of years in backcountry lakes located in close proximity will result in dispersal of fishing effort and the impact upon the environment and fish populations.