SOUTHWEST ALASKA RAINBOW TROUT MANAGEMENT PLAN

Alaska Board of Fisheries
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INTRODUCTION

The Southwest Sport Fish Management Area includes all waters and drainages flowing into Bristol Bay north of Cape Menshikof, Kuskokwim Bay, and the Kuskokwim River and its tributaries from Aniak River downstream to Kuskokwim Bay (Figure 1). Within this 54,700 square mile area are some of the most productive salmon, rainbow trout, Arctic grayling, Arctic char, and Dolly Varden waters in the world.

Wild rainbow trout stocks of the region are world famous and are the cornerstone to a multimillion dollar sport fishing industry. Over 100 commercial guides and outfitters operate in Southwest Alaska offering services that range from outfitted but unguided float trips to luxurious wilderness lodge accommodations complete with daily fly-out fishing. Current prices for these services range from $1,500 to $4,000 per fishermen per week. In addition to lodges and outfitters, nearly 50 air taxis regularly fly fishermen throughout the area. Total economic value of the recreational fishery in Southwest Alaska is estimated at over $50 million per year. The area's rainbow trout resources are of tremendous economic value to the state and the region. Anglers travel from many parts of the country and the world to enjoy the unique opportunity of fishing for wild rainbow trout in the undeveloped, scenic landscape of southwestern Alaska.

Over 100,000 man-days of angling effort are expended annually in southwestern Alaska. Annual angling effort (all species) has nearly tripled since 1980 and estimated rainbow trout sport harvests have risen proportionally from 3,000 to 4,000 fish annually in the late 1970s to a recent average of 5,200 (1986-1990).

NEED FOR A MANAGEMENT PLAN

Since statehood in 1959, the Alaska Board of Fisheries has recognized the unique quality of the wild rainbow trout resources in Southwest Alaska by managing these fisheries with increasingly conservative regulations. The development of these regulations, however, has taken place on a stream by stream basis without the benefit of an areawide plan. As the rainbow trout sport fisheries in Southwest Alaska gained in popularity and economic potential and the state continued to grow, the need to develop and adopt a management plan became increasingly important. Public comment during the planning process dictated that the plan must establish policies that: (1) protect the biological integrity of the region's wild rainbow trout stocks, (2) provide recreational benefit to all users, and (3) maximize the economic potential of the area and state. The Alaska Board of Fisheries sets management policy and adopts fisheries regulations for all of Alaska on a region by region basis. Proposals for fisheries management plans or specific regulations are
Figure 1. Southwest sport fish management area.
submitted by both the Alaska Department of Fish and Game and the public. For the last decade there has been a dramatic increase in the number of proposals dealing with rainbow trout fisheries in southwestern Alaska. The Board of Fisheries struggled to address each proposal solely on its own merit with no overall policy to guide members or the public in shaping the regulations governing this valuable resource. The result was a reactive patchwork of regulations with no clear management objective.

In February of 1990 the Alaska Board of Fisheries adopted a comprehensive management plan for rainbow trout in Southwest Alaska. That plan provides guidance in the form of policy that gives the Board and the public a clear understanding of the underlying principles by which rainbow stocks are to be managed and provide guidance for the Board in developing future regulations.

Philosophy of the Policy

The overriding philosophy of the Southwest Alaska Rainbow Trout Management Plan is one of conservative wild stock management. The philosophy of conservative wild stock management is not new to fisheries management or to the state of Alaska and, in fact, probably best describes the present approach to management of rainbow trout in southwestern Alaska. Conservative wild stock management does not necessarily preclude limited harvest of rainbow trout for food or trophies. However, maximum yield principles which emphasize harvest are ruled out. Additionally, under a philosophy that emphasizes wild trout management, stocking or enhancement would be precluded. Mitigating losses of wild-stocks through enhancement or stocking is not a desirable management alternative.

Conservative wild stock management is predicated on both biological considerations and social concerns. Growth in the region's rainbow trout sport fisheries is inevitable, and by managing the area's wild rainbow trout stocks conservatively, the potential for serious long-term resource problems is minimized. From a social perspective, conservative wild stock management is consistent with the wishes and desires of most of the angling public presently utilizing the resource.

Public Review Process

One of the most important aspects of developing a management policy for any resource is that of public involvement. Throughout the development of this plan it was the expressed intent of the Department of Fish and Game and the Board of Fisheries that members of the public have several opportunities to comment. An extensive mailing list was developed that included, but was not limited to, all sport fishermen who purchased licenses in the management area in 1987; all members of the Fish and Game advisory committees; members of the guiding and outfitting industry; local village leaders, both city and tribal; government agencies operating within the area; and various Native corporations that are landholders in the area. Over 4,000 individuals and groups
received a copy of the draft plan for comment. Copies of the plan were also made available to everyone who desired one but was not included on the mailing list. A questionnaire with a prepaid return envelope was provided with each draft soliciting opinions concerning certain aspects of the plan.

The department presented the draft plan and policies at Fish and Game advisory committee meetings and the various fisheries meetings held throughout the area during 1988. Every reasonable effort was taken to make interested parties aware of the draft plan. In addition, the department participated in a formal national review of management of exceptional trout stream systems being conducted by the University of Wisconsin.

The review process took most of 1989. Following the public review and prior to the 1990 Board of Fisheries meetings, a second draft was completed incorporating public comment. The plan then went through a second review during the Board of Fisheries meeting prior to being acted upon by the Board. Throughout the process the public had an opportunity to comment and participate in the development of the final plan and policies.

RAINBOW TROUT MANAGEMENT POLICIES

The Southwest Alaska Rainbow Trout Management Plan contains policies which are intended to protect the biological integrity of the region's wild trout stocks and maximize their recreational benefit and economic potential. They provide management biologists within the Department of Fish and Game, Board of Fisheries members, and the public with clear policies to govern management of rainbow trout fisheries in southwestern Alaska and guide the development of sport fishing regulations designed to implement these policies.

Policy I

Native rainbow trout populations, will be managed to maintain historic size and age composition and at stock levels sufficient such that stocking is not needed to enhance or supplement the wild population.

This policy addresses the department's primary responsibility to ensure that resources are being managed on a sustained yield basis. It will ensure that management practices do not alter the historic size and age composition of rainbow trout stocks within the management area. Additionally, this policy addresses the desire to maintain wild rainbow trout throughout the area and that mitigating loss of wild stocks through enhancement or stocking is not a desirable management alternative.
Policy I will be realized by managing rainbow trout stocks in a biologically sound manner under a conservative yield philosophy. Consistent with this philosophy, the general bag and possession limits for rainbow trout within the area will not exceed two per day of which only one may be greater than 20 inches. More restrictive limits may be applied to satisfy the goals associated with waters designated for special management or to address a biological problem.

In the event that a biological problem with a rainbow trout stock becomes evident, Alaska Department of Fish and Game, Division of Sport Fish management personnel will react through emergency order authority with time and area closures designed to reduce angling mortality. In addition, the department can recommend that the Board of Fisheries take action to reduce bag and possession limits, designate size limits of harvestable fish, close areas and/or times to the taking of trout, and adopt methods and means restrictions to complement such regulations.

Policy II

A diversity of sport fishing opportunities for wild rainbow trout should be provided through establishment of special management areas by regulation. Selection of areas for special management will be based on criteria to be adopted by the Board of Fisheries.

Under this policy special management areas have been established to provide the sportfishing public with a variety of angling opportunities. Selection of waters for special management is based on criteria established by the Board of Fisheries designed to ensure the most suitable waters are selected.

Policy II has been implemented by establishing special management areas that provide the sport fishing public with a range of desired angling opportunities. In Southwest Alaska, special management may be designated as either Catch and Release or Trophy. To complement these harvest strategies, in waters designated as Catch and Release or Trophy areas, only unbaited, single-hook artificial lures may be used. Catch and Release or Trophy areas may further be designated as fly-fishing only. In waters not designated for special trout management, but during times when directed wild trout fisheries occur, the use of artificial lures (no single-hook restriction) will be considered depending on current harvest and effort levels.

Waters designated through regulation for special management will be selected according to a process that addresses stock status, location, historical use patterns, accessibility, aesthetics, geographical distribution of angling opportunities, and the economic return in terms of commerce generated and jobs created. Each candidate water will be ranked according to 11 criteria to determine its suitability for special management.
1. STOCK STATUS. To be considered for Catch and Release or Trophy designation, a candidate water must meet the biological objectives of conservative yield, which call for the maintenance of the historical size and age composition and stock levels of the rainbow trout population(s). Historical fisheries statistics will be used to make this determination. Any candidate water that meets the conservative yield objectives will be considered by the Board against criteria 2-11.

2. HISTORY OF SPECIAL MANAGEMENT. This is a subjective category that considers the public's perception of the history of rainbow trout fishing in the candidate water. It is assumed that a water which people associate with having provided "quality" trout fishing can more easily be managed for that purpose than a water with no history of fine trout fishing.

3. PROXIMITY TO LOCAL COMMUNITY. A stream is preferred if it is not located near enough to a permanent community to be commonly used and/or visited by local residents. The intent of this criteria is to avoid conflict with traditional consumptive use patterns of local residents.

4. LEGAL ACCESS. This refers to public ownership of the adjacent lands or the water being classified as navigable. A water with over 50% of its banks publicly owned, or a navigable designation, would be preferred.

5. OVERLAP WITH FRESHWATER NET FISHERIES. Special management areas should be seasonally and/or specially segregated from subsistence and freshwater commercial net fisheries.

6. ABUNDANCE AND SIZE OF RAINBOW TROUT. This refers to the number and average size of the catchable rainbow trout seasonally present in a candidate water. Waters with relatively high numbers of rainbow trout and waters with uniquely large rainbow trout would be favored for special management.

7. WATER CHARACTERISTICS. This refers to the habitat characteristics and appearances of a water. A stream with clear water and riffle-pool configuration with a gravel bottom would be preferred.

8. CLEAR GEOGRAPHICAL BOUNDARIES. This refers to the angling public's ability to clearly distinguish the legal regulatory boundary of a candidate special management area.
9. RELATIVE IMPORTANCE OF RAINBOW FISHERY TO SPORT FISHING INDUSTRY. A candidate water of high economic value to the sport fishing industry would be favored as an area for special management.

10. GEOGRAPHICAL DISTRIBUTION OF SPECIAL MANAGEMENT WATERS. The designation of a candidate water for special trout management should take into consideration its proximity to other special management waters and the availability of alternative locations not designated for special management.

11. RESEARCH, EDUCATIONAL, OR UNIQUE CONSIDERATIONS. Where necessary, waters may be designated for special management for research or educational reasons. This category recognizes unusual situations which would further diversify angling opportunity, such as the potential for a catch and release water near a rural community if local support is expressed.

Policy III
Management strategies should be consistent with the prudent economic development of the state's recreational sport fishing industry while at the same time acknowledging the intrinsic value of this fishery resource to the people of the State.

This policy acknowledges that Southwest Alaska's wild rainbow trout are of vital importance to the state's recreational industry and that wise development of commercial recreation is to the economic benefit of the region and the state. Management practices that maintain or enhance the marketability of high quality recreation would be favored under this policy.

Consideration of the economic impact to the recreational industry, of both the local area and the state in general, should be given in all regulatory actions regarding rainbow trout within the management area. Whenever possible, emergency orders and regulations should be structured to foster the prudent economic development of the industry.

To implement Policy III, department managers will recognize that due to the remoteness and logistical difficulty of travel, in southwestern Alaska, fishery closures may severely impact angling opportunity and the related recreational industry.

To assist the department with implementing Policy III, the Board of Fisheries has expanded the Department's emergency order authority to include not only the ability to effect time and area closures, but to also adjust bag limits and methods and means that if employed in-season could avoid disruptive closures.
PLAN IMPLEMENTATION

Regulations based on the Southwest Alaska Rainbow Trout Management Plan were adopted by the Alaska Board of Fisheries in February of 1990. These regulations were designed to implement the three management policies contained in the rainbow trout management plan. Specifically, the Board:

1. Expanded the Wild Trout Zone from the Iliamna drainage to include the drainages of Bristol Bay and Kuskokwim Bay and the Kuskokwim River from Aniak River downstream.

2. Established 8 catch and release areas (Figure 2).

3. Established 6 fly-fishing/catch-and-release-only areas (Figure 3).

4. Established 11 unbaited single-hook artificial lure only areas to protect rainbow trout stocks (Figure 4).

Adoption of regulations implementing the management policies contained in this plan is not expected to be a one-time effort. Rather, the implementation of these policies is an iterative process, using the policies contained in this plan as the framework for development of a very important and unique resource.
Figure 2. Catch and release special management areas.
Figure 3. Fly fishing/catch-and-release-only special management areas.
Figure 4. Unbaited, single-hook artificial lure areas.