

# MEMORANDUM

# State of Alaska

TO: Steve Pennoyer, Director  
Commercial Fisheries Division  
Rupe Andrews, Director  
Sport Fish Division

DATE: April 18, 1980

FILE NO:

TELEPHONE NO:

FROM: Bob Wilbur *RW*  
Aquaculture Harvest Coordinator  
Commercial Fisheries Division  
Dept. of Fish & Game

SUBJECT: Turner Lake Enhancement

Please find attached a letter from Steve Haavig to the Commissioner requesting Departmental position on enhancement at Turner Lake. The attached draft response has been prepared for the management portions of the Commissioner's response. This draft was prepared by Don Stewart, Dave Cantillon, Don Ingledue, Dick Mariott, myself and has been approved and supported by all. If you concur with the draft response, please sign on the last page of the draft and/or note necessary changes and additions. I will have the various attachments noted in the response available for your inspection when I pick up your sign-off/comments at a time to be arranged. Following your sign-off Tom Kron will combine the management portion of the response with FRED's portion for the Commissioner's signature.

cc: Dave Cantillon  
Don Stewart  
Bob Armstrong ✓  
Dick Marriott  
Don Ingledue  
Steve Elliott

April 21, 1980

Dear Steve:

As early as 1961 the Department recommended that Turner Lake be designated a "high-quality recreational area". A "high-quality recreational fishing area" is defined by our region as "a watershed of outstanding natural aesthetic beauty in a wilderness setting with fishing characteristics that add up to an exceptional angling experience."

The rationale and criteria used for developing this definition and designating specific waters in Southeast Alaska are as follows:

- 1) There is and will be a future need for quality recreational fishing waters in Southeast Alaska.
- 2) Logging is rapidly encroaching on quality fishing areas. (out of the twenty systems designated as "high-quality areas" approximately one-half have since been logged to one degree or another).
- 3) Native wild fish populations should be maintained for future generations to enjoy.
- 4) Some watersheds should be kept in pristine conditions for future scientific study i.e., population dynamics, disease etc.
- 5) The genetic integrity of fish in the wild state should be maintained in some watersheds.

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a high-quality recreational fishing area (attachments 5 and 6). The following considerations were fundamental to that decision:

- 1) Cabin use at Turner Lake according to the U.S.F.S. has increased from 964 visitor days in 1970 to 2,100 visitor days in 1978, indicating that Turner Lake is very popular with recreationalists.
- 2) Turner Lake has unique populations of trophy size cutthroat trout as well as Dolly Varden and kokanee populations, as substantiated by Sport Fish Division fish population surveys. There is evidence to indicate that in Southeast Alaska, some non-anadromous systems (ie Turner Lake) produce trophy size cutthroat (Schmidt, A. 1978). In anadromous systems cutthroat are not as available to the angler during the summer months, most migrate out of the systems in May and return in September. (Armstrong, R. H. 1971). Also anadromous cutthroat are shorter lived and hence smaller than cutthroat in some non-anadromous populations.
- 3) A trip to Turner Lake is relatively inexpensive for Juneau locals as well as visitors who want a unique high-quality fishing experience.
- 4) Chinook salmon are also taken by anglers in the saltwater area adjacent to Turner Lake. Enhancement projects in Turner Lake would be likely to cause increased commercial fishing effort which would probably have detrimental impact on wild

chinook stocks. As an example in 1974 the gillnet fleet operated during the week of June 16 (Stat week 25) and incidentally captured 2,608 chinook salmon of which 1,387 were mature adult spawners. ~~In light of present commercial and sport fish stringent regulations in the area, this type of catch would be intolerable, to management biologists and user groups alike.~~ <sup>exceeds</sup>

- 5) The outlet area is an extremely popular sport fishery for pinks and any development in this area <sup>c</sup>ould detract from the experience.

606587 < The commercial fisheries aspects related to enhancing Turner Lake are not very favorable either. Although adult coho, sockeye, pinks and/or chums produced artificially at Turner Lake would contribute to gillnet harvests in the Taku area, large numbers of returns <sup>could</sup> ~~would~~ not be harvested, and they would eventually accumulate in and around the Turner Lake outlet. Harvest in this area could not be conducted, however, without significant interception of wild Taku River sockeye and pinks <sup>salmon stocks</sup> (see attachment 7). Development of a late run sockeye stock (i. e., August) would theoretically avoid this problem by providing temporal segregation from wild sockeye, but the technical feasibility of developing a late run sockeye stock is simply not predictable at this time. A late sockeye run could also overlap with wild pink, <sup>and coho and</sup> chum returns. Increased commercial effort needed to achieve a full harvest of artificially produced sockeye at Turner Lake would also be likely to increase the incidental harvest of king salmon <sup>As well as other</sup> ~~etc.~~

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The point in citing the above examples is that there has been, is now, and will be a future need for a diversified management program that considers all types of recreational anglers and that designating a specific number of high-quality recreational fishing areas in Southeast Alaska is a part of our Alaska Department of Fish & Game management program and philosophy that answers that particular demand. Further, the need for these high-quality recreational fishing areas has also been recognized by the Governor's Office and federal agencies as evidenced by Turner Lake's inclusion as a high-quality recreational fishing area in the Tongass Land Use Management Plan.

On December 6, 1977, Governor Hammond wrote John A. Sandor, Regional Forester with copies to the Honorable Ted Stevens, Mike Gravel, Don Young, Robert L. Leggett and John F. Seiberling regarding Potential Sites for Salmon Enhancement in Southeast Alaska (attachment 4) and attached a report "Salmon Enhancement in Southeast Alaska" prepared by Daniel M. Bishop, consultant, Environaid, for the two Southeast Alaskan Regional Aquaculture Associations. This document considered six rehabilitation/enhancement technologies. Turner Lake was considered among the many sites reviewed and was excluded because, among other management concerns, it was not consistent with the philosophy and management strategy for high-quality recreational fishing areas.

In 1979 ~~the F.R.E.D. Division requested Sport Fish Division to review~~ six possible fish ladder sites <sup>were reviewed</sup> in Southeastern ~~that were being considered~~ for inclusion in the 1980 Bond Issue. Turner Lake was one of the systems being considered, but it was rejected to facilitate its continuation as

Based on the above, our policy in the management of fish resources in these quality fishing waters is the preservation and maintenance of the natural ecosystems processes.

In 1972 the Department of Fish and Game under Joseph R. Blum, Chief, Habitat Section signature, recommended to Vincent N. Olson, Forest Supervisor, North Tongass National Forest that Turner Lake be studied for classification as a dispersed recreational area in the Tongass Multiple Use Plan under Federal Regulation U-3(a), (attachment 1). Which read in part "(a) Areas which should be managed principally for recreation use substantially in their natural condition . . .".

Again in 1972, Bob Armstrong gave a verbal presentation for the Department to the Seaton Congressional Committee in Juneau concerning the impacts of logging on fisheries resources and identified the need for "a select number of our outstanding fishing areas should be left in their natural state" (attachment 2).

In January of 1975 Governor Hammond gave a presentation to the American Fisheries Society in Juneau (attachment 3) that addressed the steps we should take to protect and utilize the full potential of Alaska's fishery resources. In step 5 pages 11 and 12 of the Governor's presentation he made it abundantly clear that we should "begin now to identify, classify and protect our outstanding recreational fishing waters throughout Alaska". On page 13 he points out that the Department has selected several outstanding fishing waters in Southeast Alaska that should be classified as dispersed recreation areas.

While partial solutions (i. e., mesh size, night vs. daylight fishing, timing manipulations of artificial stocks, carefully managed terminal effort, etc.) to the terminal area wild stock interception problems may offer some limited means of reducing negative impacts, the fact remains that none of these appear to offer sufficient protection for wild Taku stocks. This, coupled with the need to protect high-quality recreational values in Turner Lake itself, leads to the very clear and understandable conclusion that enhancement at Turner Lake simply is not a viable option. *at this time.*

Enhancement policies and statutory requirements have resulted in the Department guiding enhancement into areas where negative impacts on wild stocks can be minimized. Where options are limited, greater impacts on wild stocks may have to be accepted. Fortunately, in district 11 other options for enhancement do exist where impacts on wild stocks would be far less than at Turner Lake, and overall user benefits would, therefore, be greater. The Port Snettisham area with Crescent Lake, and possibly Indian Lake, Long Lake and even Canadian Lake is rich in enhancement potential and offers <sup>greater</sup> excellent terminal harvest potential as well. The United Southeast Alaska Gillnetters should find exploration of enhancement opportunities in the Port Snettisham area to be a more productive use of their time. The Department staff will be available to assist and encourage those efforts to the extent that time and funds allow.

Sign-off: Director, Sport Fish

*Approved  
C. Anderson  
4/22/80*

Director, Commercial Fisheries

*Approved  
Ph. Alch  
4/22/90*

Literature Cited

Armstrong, R. H. 1971. Age, Food and Migration of Sea-run Cutthroat Trout, at Eva Lake, Southeastern Alaska Trans. Amer. Fish. Soc. Vol. 100, No. 2. pp. 302-306.

Schmidt, A. 1978. Inventory and Cataloging. High-Quality Fisheries Waters in Southeast Alaska. Annual Performance Report. Federal Aid in Fish Restoration. Study G-I-R. Vo. 19. 124 pp.