

# MEMORANDUM

# State of Alaska

TO: John Holland, Regional Biologist  
F.R.E.D.

DATE: August 29, 1985

FILE NO:

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FROM: David Cantillon, Regional Supervisor  
Division of Commercial Fisheries

SUBJECT: Management Considerations  
For F.R.E.D. Proposed  
Chinook Facilities

The following are the Commercial Fisheries Division comments on the positive and negative management considerations for the proposed Orchard Lake and Warm Springs chinook enhancement facilities.

## Orchard Lake

Due to the proximity of rivers supporting natural stocks of chinook salmon, the opportunities for specifically targeting troll effort on chinook produced at this site will be very limited. The terminal harvest area where the hatchery chinook may reasonably be expected to segregate from the natural stocks is small (two miles in length or less). Fishing outside this area would place gear directly on the migrating mature natural stocks. Microwire tag information from Ketchikan area hatcheries is limited due to the small returns to date, but indications are that chinook released near Ketchikan are mainly harvested by normally conducted troll fisheries in the outer coastal areas of Southeast Alaska where targeting additional troll effort on Alaskan hatchery stocks is not practical. In summary, due to limited opportunity available to target trolling effort on chinook produced at the Orchard Lake site, most of the harvest in addition to that taken during normal troll openings would be taken by nets in a small terminal area. Because of the small size of the terminal area available, quality may be a problem.

## Warm Springs

This site is located well away from natural chinook producing systems. Trolling effort targeted on spring spawning runs of Alaskan chinook stocks has not traditionally occurred along the eastern Baranof shoreline. An early summer season to harvest a portion of the mature chinook returning to a hatchery in Warm Springs Bay should be possible without impacting Alaskan natural stocks. Certainly some chinook of other origins would be taken, but if the Warm Springs fish bite well in this area, it should prove to be a sound management approach to increase the non-terminal harvest of Alaskan hatchery chinook. Also, microwire tag return information from Chrystal Lake Hatchery and Little Port Walter releases indicate that a portion of the chinook released from the Warm Springs site may remain in the inside waters of central southeast Alaska where there may be some potential to target troll effort on them as immatures. The terminal area available where Warm Springs chinook may segregate from

other chinook stocks is small (less than two miles in length) and net fisheries harvesting chinook within this area may encounter poor quality fish. In summary, due to the potential to exercise management options to maximize the harvest of Warm Springs chinook outside a small terminal harvest area, this site is considered superior to the Orchard Bay site from a management and natural stock protection standpoint.

cc: Steve Pennoyer  
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