

## DEPARTMENT OF FISH AND GAME

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July 12, 1995

Mr. David Simpson, Director  
Mattole Watershed Salmon Support Group  
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Mr. Gary D. Peterson, Fisheries Biologist  
Mattole Watershed Salmon Support Group  
Post Office Box 229  
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Dear Messrs. Simpson and Peterson:

The Department of Fish and Game has reviewed the Mattole Watershed Salmon Support Group's (MWSSG) draft "Five-Year Management Plan for Salmon Stock Rescue Operations, 1994-95 through 1998-99 Seasons" (plan). We offer the following comments in addition to those provided in Ms. Linda Radford's letter of June 27, 1995. This second draft, which follows the Department's suggested outline, is far more comprehensive than the original version. Since the plan lists objectives for habitat improvement as well as for rearing, these objectives provide a broader context for the rearing plan and a good example for others. The authors should be commended for their efforts in the plan's preparation.

The plan proposes a production goal of 24,000 chinook smolt and 10,000 post smolt (fall release), in addition to removing up to 3,000 emigrating chinook smolts and rearing them over summer. The Department authorized an experimental smolt diversion and lagoon seining program in 1994 so that this plan could include an evaluation of both diverted smolts and chinook seined from the estuary after the mouth closed. We understand that the estuary temporarily closed for short periods after May 24, 1994, but complete closure did not occur until July 7, 1994, after all chinook smolts had left the estuary.

Two graduate theses (Young, 1987) (Busby et al., 1988) reported the almost complete loss of chinook juveniles trapped in the estuary in 1984, 1985 and 1987. Field surveys in 1991 and 1992 indicate that chinook smolts left the estuary prior to summer (Day and Barnhart, 1992) (Day and Barnhart, 1993). These smolts produced a resurgence (albeit small) of adult chinook in 1995. It is preferable to us to seine and rear salmon that are rescued from the estuary after closure as opposed to rearing those trapped as downstream migrants (DSM) that have a chance of reaching the ocean during the spring period. We note that the planned DSM trap location is just a few miles above the estuary so these fish have a relatively good chance of successfully reaching the ocean. Trapping emigrating smolts pose unnecessary risk to a depressed chinook population, therefore, we will not approve trapping and rearing of DSM chinook. However, we enthusiastically support rescue rearing of chinook trapped or seined from the estuary after the river mouth closes because these fish can be expected to die.

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We would like to work with you to solve the substantial problems associated with this option. The Department believes that progeny reared from adults remains the best strategy for your pond-rearing program and should be your first priority.

The Mattole River flow provided continuous access to the ocean through June and, based on our experience of Salmonid temperature preference, most migrated to the ocean as the river temperature increased. "Dynamics of Recovery" (1995) reported the river mouth closed at 140 cfs or less (mean about 85 cfs) between the years 1984 and 1994. It seems reasonable to prepare for seining once the flow reaches approximately 200 cfs and chinook salmon are identified in the lower river. This approach will take some additional coordination between MWSSG and Department field personnel but we look at this as a good opportunity for communication and developing partnerships.

We are sensitive to your concern regarding impacts from production fish on wild populations. Marking production fish will guarantee they will not be used in subsequent spawning efforts thus reducing the potential for abhorrent genetic changes.

We offer the following comments for you to amend and finalize your five-year plan.

Page 1      Stock Recovery

Restoring native Salmonid runs to self-perpetuating population levels is difficult because the warm, shallow estuary is a major bottleneck to production. It is not likely that the estuary will regain its ability to support oversummering chinook juveniles for considerable geologic time.

(a) Escapement Objectives

The US Fish and Wildlife Service (USFWS) figures for the Mattole River are not based on historic counts but rather an estimate of spawning habitat. The plan's objective should be to meet a known and obtainable spawner population. The stated objective for spawner numbers is high. A more realistic escapement objective is 1981-82 population levels.

(b) Include reasons for marking all cultured fish to exclude marked returning adults from future egg source (see [c] below).

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**Page 2            Project Prioritization**

The Department supports basin planning and project proposals based on a ranking or priority basis. This type of approach should guide the development of all future restoration projects.

**Monitoring and Evaluation**

The Department would like to develop a partnership approach with the MWSSG in all future fish monitoring efforts and evaluations to try to eliminate data gaps and ameliorate efforts of salmon stock recovery. We should meet each year in the summer to review data, exchange ideas and coordinate carcass survey and monitoring efforts.

**General Rearing Plan**

A postsmolt rearing program will tend to replace the estuary rearing which was lost due to aggradation of sand and gravel. The Department does not object to fingerling chinook releases but the first priority in pond-reared fish should be for postsmolts.

The downstream migrant data, water temperature and mortality data should have been appended and discussed.

**Page 6**            Although trapping is conducted on the basis of flow, it must be in accordance with the trapping and rearing permit. We agree flexibility may be necessary but any changes in trapping must be approved by the Department in advance.

**Page 34**          The USFWS figures for the Mattole River are not based on historic counts but rather an estimate of spawning habitat. The plan objective should be to maintain a known population level. The stated objective for spawner numbers is high. A realistic escapement objective such as the 1981-82 population is suggested.

**Page 36**          Explain the statement regarding high incidence of main stem spawning (how many? location?).

**Page 37**          State that the marking requirements for all hatch box progeny are used to exclude them from artificial production as returning adults.

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1. Escapement targets would be plausible if compared to realistic population numbers. How do the numbers compare to 1981-82?
2. Marked fish return from past fish releases should be addressed "and discussed.
3. Your data for all downstream migrant studies (since 1985) should be appended and discussed here. DSM data should be correlated with river flow and water temperature where possible.

**Page 40** The fin marking of juvenile hatchery reared salmon will not help assess the contribution to commercial and sport fisheries since fin marks are duplicated in other river systems. Coded wire tags are necessary for this type of assessment and the considerable cost and minimum numbers needed for tagging may prohibit the use of tags.

We recommend that you review our comments and make changes or supply the information as requested. If you have any questions, contact Associate Fisheries Biologist Mr. Larry Preston at telephone number (707) 441-5736.

Sincerely,



Richard L. Elliott  
Regional Manager

cc: Ms. Linda Radford  
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