

DEPARTMENT OF FISH AND GAME

416 NINTH STREET
SACRAMENTO, CALIFORNIA 95814

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January 22, 1979

Thomas Meehan Ph. D.
Project Manager
VTN
P. O. Box C-19529
Irvine, CA 92713

Dear Mr. Meehan:

Your letter of January 10 requested information regarding long term escapement goals and fishery yields for anadromous fish populations in the Trinity River.

It is my understanding that Paul Hubbell of my staff has contacted you by telephone and provided goals for escapements to Trinity River Hatchery and to the river for the salmon species, and a run size goal at both locations for steelhead.

The salmon escapement goals, exclusive of fishery catch, are as follows:

Adult king salmon, fall-run - 71,000 to the Trinity System,
including 9,000 at Trinity River Hatchery.

Adult king salmon, spring-run - 9,000 to the Trinity System,
including 3,000 at Trinity River Hatchery.

Adult silver salmon, 3,500 to the Trinity System, including
2,100 at Trinity River Hatchery.

The steelhead run size goal for the system is 50,000 adults. Of these, the escapement goal at Trinity Hatchery is 10,000 adults. The escapement goal for natural spawners in the system outside of the hatchery is undefined, and will vary with the angler catch that is achieved on the initial run of 50,000 adult steelhead.

So that we keep our terminology straight, please note that the term "escapement" is used to describe that portion of the potential spawning population that escapes the fisheries. That portion of the potential spawning population that is eventually caught by the fisheries is commonly referred to as the "catch" or "yield."

Thomas Meehan

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For several reasons, we are reluctant to establish yield or catch goals for the various fisheries operating on Trinity stocks. The harvestable surplus available from one year to the next is subject to variation caused by a multitude of factors, many of which are uncontrollable.

Streamflow and habitat in the upper Trinity are to a large degree manageable, and the restoration and maintenance of flows and habitat capable of supporting the indicated escapements is a realistic goal. Beyond that, the system becomes less manageable, and completely so by most of the agencies involved in the upper river.

Natural mortality among juvenile fish, in the lower rivers and in the ocean, is not only variable but largely uncontrollable. When the juvenile fish reach a size where fishing mortality becomes significant, regulatory management passes to a variety of other hands, including the Pacific Fishery Management Council, the California Legislature, the California Fish and Game Commission, and the Bureau of Indian Affairs and/or the Indians themselves.

Because of variation in survival from year to year, the harvestable surplus available to all fisheries could conceivably vary from one to three times the escapement goal. The management agencies involved in fishery regulation are generally aware of this fact, but the methods available for assuring that the total catch equals the harvestable surplus are imperfect.

Because of this imperfection, it is reasonable to expect actual escapement to fluctuate about the goal. For these reasons our immediate objective on the upper Trinity should be to maintain the amount and quality of habitat necessary to accommodate the escapement goal, recognizing that in any year we may fall short of or exceed it, depending upon our regulatory success elsewhere.

Sincerely,

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Director

cc: Paul Hubbell