



MEMORANDUM

Oregon Department of Fish and Wildlife

Date: August 7, 2007

To: Tom Friesen – STEP Coordinator

From: Kevin Goodson – Conservation & Recovery Program

Subject: Review of Umpqua Fishermen's Association STEP Propagation Application

I have reviewed the STEP Propagation Program Application for the Umpqua Fishermen's Association (UFA) Umpqua fall Chinook hatchery program. My comments are provided below. Let me know if you need any clarification.

- It appears that the current hatchery fall Chinook releases that occur throughout the Umpqua have not significantly interfered with the recovery and sustainability of Umpqua fall Chinook. The level of hatchery fish on the spawning grounds appears to be low. The potential for ecological interactions, however, is fairly high with unfed fry and fingerling releases, although it is not currently possible to quantify the effect of such interactions. The increase of fingerling releases by 100,000, as proposed in this application, is likely to increase the impact, if any, that hatchery releases have on the recovery and sustainability of Umpqua fall Chinook. The release strategy is also changing and all releases of hatchery fall Chinook under this program will now be occurring in one location. This could change the level of hatchery strays and ecological interactions. For these reasons, it is difficult to determine with any certainty whether this program as proposed will be consistent with the recovery and sustainability of Umpqua fall Chinook. For this reason, it is important that the monitoring called for below be implemented. If the current program is having a very minimal impact, it is likely that the proposed changes will not be significantly inconsistent with the recovery and sustainability of Umpqua fall Chinook.
- The need for this program increase has not been adequately described. Based on harvest tag returns, the Alsea and Siuslaw fall Chinook populations to the north of the Umpqua have provided 20 and 60 percent more harvest respectively (1993 through 2002) than the Umpqua without the use of hatchery augmentation. There is no known reason to suggest that the Umpqua cannot provide reasonable harvest levels without augmentation. The information provided on the contribution to the estuary and freshwater fisheries from the current program also suggests that the proposed increase in hatchery fingerling releases

will contribute less than 100 fish to these fisheries. It is not clear whether this level of contribution is cost effective when the cost of removing wild fall Chinook adults is included.

- This program is similar to the STEP propagation programs in the Coos Basin. Release strategies and monitoring for the UFA STEP fall Chinook program should strive to be consistent with those outlined as conditions of renewal for the Coos STEP programs.
- ODFW has conducted research over the last several years in the Umpqua to possibly use the Umpqua fall Chinook as a Pacific Salmon Treaty indicator stock. If this population becomes an indicator stock, it will be necessary to describe the level of hatchery influence on the spawning grounds. Even if these fish are not used as an indicator stock, the level of hatchery fish spawning in areas outside of Calapooya Creek should be monitored. The current proposal calls for 13% of the fingerling/pre-smolt release to be fin-clipped. To have enough marked fish returning to the Umpqua to allow for a valid estimate of hatchery fish in natural spawning areas will require at least 25% of the fish released to be marked (fin-clipped). This should be a condition of the program if approved. With the desequestering of the adipose fin clip, use of an adipose fin clip for this program should be considered. Use of this mark should provide some efficiency in volunteer marking efforts that could allow more than 25% of the releases to be marked.
- The release of unfed fry does not allow marking and will make evaluation of hatchery influence more difficult and uncertain. It will also compromise the evaluation of this program to the fishery. Unfed fry releases are believed to contribute at very low levels, but have never been evaluated, so there is some uncertainty as to their fishery contribution, as well as their impact to naturally produced fish.
- While the unfed fry releases do not require a fish propagation license, or approval from the Commission, the appropriateness of this practice is questionable and should be reviewed. The program will mine wild fall Chinook for broodstock and will require at least 40 pair of fish to be collected to provide for the unfed fry releases. These fish would likely contribute the same, if not more, to the fishery if they spawned in natural areas rather than used for unfed fry releases.
- Monitoring should be implemented to evaluate the performance of this program, for both fishery contribution and level of hatchery fish spawning in areas outside of Calapooya Creek. Regular angler surveys or log books should be used to gauge the proportion of program fish caught in the mainstem fishery. Trapping or spawning surveys in at least the South Umpqua should be conducted with a goal of observing an adequate number of adults to allow for a reasonable estimate of hatchery fish proportions. This should be a condition of the program if approved.
- The HGMP needs to be further revised to reflect the current program and its goal. Currently, most of the HGMP describes the program as a natural production supplementation program and identifies releases into areas that it appears in the propagation program application are no longer going to receive fish. This confusion needs to be resolved.



Memorandum

OREGON DEPARTMENT OF FISH AND WILDLIFE

INTRADEPARTMENT

UMPQUA WATERSHED DISTRICT

Date: June 6, 2007

To: File

From: Dave Loomis *DWL*

Subj: Calapooya Fall Chinook- UFA Application

I have the following comments per recommended approval of the Fish Propagation Project Application by the Umpqua Fishermen's Association for a supplemental fall Chinook for the Calapooya (Umpqua)

- 1) The CWT data shows 20% commercial harvest and 15% freshwater harvest. No data is present for ocean sport fishery. The application states "majority of harvest will be for sport". This needs to be clarified as to which statement is accurate or is there going to be some difference of harvest rates on the hatchery fish compared to the wild fish that would change this predicted rate for ocean and freshwater fisheries. The data presented suggests about a 200 fish harvest from this production or about 115 in the commercial fishery and 85 in the freshwater fishery. This equates to only a 2% increase in the freshwater harvest in the mainstem Umpqua and estuary. To validate and emphasize the importance of this project as a significant supplementation to the fishery given the large number of volunteer hours, the staff time and investment of funds for monitoring; and the removal of about 200 wild fish for brood, there needs to be a well-defined plan for creating of the positive benefit of the project, as suggested in the application.
- 2) Access agreements for the project are for the UFA members only, not ODFW, and are not for the length of the project (90 day notice of termination). Prior to the presentation for Commission approval, I recommend that access agreements are secured for 5-years (minimum), for ODFW employees, and are coordinated with Realty Section for proper wording and approval. Without these agreements, I would question the investment of volunteer and ODFW time and funding as being "secure" to meet a net benefit.
- 3) I recommend and support the project with the monitoring and inventory suggestions in the application as adopted formal permit conditions (finmarking, spawning surveys, creel surveys), and that it is clearly stated who is responsible for each of the activities.

Umpqua Fishermen's Association STEP

Calapooya Fall Chinook

Proposal Review By:
Shaun Clements
ODFW Stock Assessment Biologist

Type of Rearing Project

A: The HGMP calls for a return of 10-15 spawners per mile in a target stream (a stream that is underutilized by adult spawners). While the release numbers are adequate to provide for this in the Calapooya it isn't clear whether this tributary is underutilized by wild spawners. Based on the HGMP spawners/mile should be less than 4 to warrant a release. The data in Part IV section D suggests that spawners/mile is above this level although the most recent data was from 2004. The program is aimed at providing more sport harvest rather than focusing on reseeding underutilized habitat in a manner consistent with the HGMP.

B: no comment

C: Unless the Calapooya Stream is underutilized by adult spawners I don't see how this program addresses any of the factors limiting natural production.

D: no comment

E: See comment A: the HGMP calls for this program to target underutilized habitat and provide for additional harvest opportunities.

F:

Location of Rearing Project

No comment

Operation:

a-m: No comment

n: This program proposes to mark 25000 fish using a maxillary clip. This is most likely because of the historical preference of ODFW to avoid using the ad clip in these programs. If it was desired the ad clip could now be utilized in place of the maxillary clip. It is unlikely that ODFW will CWT any Chinook releases in the Umpqua basin in 2008 unless outside funding is available. Therefore, there will be no way to accurately evaluate the contribution of this release to the fishery. The value of the marking will be qualitative in terms of documenting whether any fish stray into other sections of the basin although at this level of marking it is highly unlikely that clipped fish will be observed during spawning surveys in the Umpqua/Cow Creek. It is not clear from the proposal whether the spawning surveys in 2010-12 will be conducted by ODFW, STEP or both.

Facility information

No comment

Project monitoring:

- a) no comment
- b) There is no monitoring of juvenile survival/distribution following release. The proposal instead describes the sampling of adult returns for previous years releases when fish were also CWT'd.
- c) There is no systematic monitoring of adult returns to the release site. Even for the fish that were CWT'd and are returning in 2007-09 the survival rate will be difficult to assess due to the random nature of sampling. Determining survival rates for this release group will depend on the ability to determine the expansion factor associated with the reporting of CWT'd fish caught in the freshwater fishery. There is no information about how this will occur therefore it is assumed that data will be qualitative only.
- d) There is no mention about whether the fish released in this program will be monitored on the spawning grounds in the Calapooya stream on return (2010-2012). Without spawning ground surveys it will be difficult to know whether the project achieves the goal of 12-15 spawners/mile set out in the HGMP.



MEMORANDUM

Oregon Department of Fish and Wildlife

Date: June 27, 2007

To: File

From: Guy Chilton

Subject: Calapooya Fall Chinook - UFA Application

Fish Propagation would like an addition to section **(f)** **Is consistent with the goals of the Hatchery Management Policy and the NFCP** which states that all hatchery record keeping required by the Fish Hatchery management Policy will be completed and submitted in a timely manner.