



**COUNTY OF SONOMA  
AGENDA ITEM  
SUMMARY REPORT**

**Clerk of the Board Use Only**  
**Meeting Date**                      **Held Until**  
 \_\_\_/\_\_\_/\_\_\_                              \_\_\_/\_\_\_/\_\_\_  
**Agenda Item No:**                      **Agenda Item No:**  
 \_\_\_\_\_                                      \_\_\_\_\_

**Department:**  
 Sonoma County Water Agency

( ) 4/5 Vote Required

**Contact:**  
 Randy D. Poole

**Phone:**  
 526-5370

**Board Date:**  
 10-04-05

**Deadline for Board Action:**

**AGENDA SHORT TITLE:**  
 Management and Recovery of California Coastal Chinook Salmon

**REQUESTED BOARD ACTION(S):**

1. Authorize the General Manager/Chief Engineer to initiate discussions with PG&E concerning the health of the Chinook population in the Russian River, the significance of the Russian River Population to the ESU, and how this population relates to the management of the Eel River diversion;
2. Direct the General Manager/Chief Engineer to initiate discussions among the appropriate regulatory agencies and stakeholders with the goal of developing criteria and plans to operate the Potter Valley Project (PVP) for the benefit of both Russian River and Eel River fisheries;
3. Authorize the General Manager/Chief Engineer to sign and submit the letter to the National Marine Fisheries Service (Attachment A-2) that proposes a number of possible harvest management actions that could benefit Coastal Chinook;
4. Direct the General Manager/Chief Engineer to work with the PFMC and appropriate regulatory agencies with the implementation of field studies suggested in the letter to the PFMC;
5. Direct the General Manager/Chief Engineer to work with local law enforcement agencies to enhance enforcement of current regulations and to work with the appropriate regulatory agencies and stakeholders to consider modifying existing sport fishing regulations to be more protective of Chinook if necessary.
6. Direct the General Manager/Chief Engineer to work with the appropriate regulatory agencies and stakeholders to develop a scope of work for the preparation of a Coastal Chinook recovery plan.

**CURRENT FISCAL YEAR FINANCIAL IMPACT**

<u>EXPENDITURES</u>		<u>ADD'L FUNDS REQUIRING BOARD APPROVAL</u>	
<b>Estimated Cost</b>	\$ _____	<b>Contingencies</b>	\$ _____
<b>Amount Budgeted</b>	\$ _____	<b>(Fund Name: )</b>	
<b>Other Avail Approp</b>	\$ _____	<b>Unanticipated Revenue</b>	\$ _____
<b>(Explain below)</b>		<b>(Source: )</b>	
<b>Additional Requested:</b>	\$ _____	<b>Other Transfer(s)</b>	\$ _____
		<b>(Source: )</b>	
		<b>Add'l Funds Requested:</b>	\$ _____

**Explanation (if required):**

**Prior Board Action(s):**

10/26/04 Board Action Federal Endangered Species Act (FESA) Sonoma County Water Agency Responsibility-Recovery Planning.  
 04/23/02 Resolution 02-0435 MOU for Recovery Planning in relation to Federal Endangered Species Act.  
 08/15/00 Board Action Federal Endangered Species Act (FESA) Sonoma County Water Agency Responsibility.

**Alternatives - Results of Non-Approval:**

Successful recovery of Coastal Chinook populations may be delayed.

**Background:**

Since the inception of the Sonoma County Water Agency's Fisheries Enhancement Program (FEP) in 1996, the Agency has dedicated significant resources toward the goal of improving fisheries resources of the Russian River. During the past decade, the Agency has made significant progress toward this goal. The Agency has sponsored important policy initiatives, completed the Biological Assessment for the Russian River Section 7 consultation for the Agency's and US Army Corps facilities, and completed major projects like the Healdsburg Dam Fish Ladder, Mumford Dam removal and Crocker Creek projects. In planning for the future, the Agency and other stakeholders need to move past reacting to the listings under the Endangered Species Act (ESA), and toward species recovery.

Chinook Salmon in the Russian River are part of the California Coastal Chinook Evolutionarily Significant Unit (ESU) which includes every river south of the Klamath River to and including the Russian River. The Russian River is one of the few rivers within the ESU where there are accurate estimates of current population size which ranges annually from about 1500-6000 Chinook. The status of Chinook in the remaining basins is largely unknown, but the Russian River population is a significant component of the ESU.

While the FEP's original scope was limited to the Russian River watershed, species recovery for the ESU requires a broader and more regional approach. As a result, Agency staff has reviewed a number of opportunities and constraints affecting the recovery of salmonid populations in this ESU. These opportunities and constraints and the proposed Agency role in each area is described below.

Conjunctive Operation of Potter Valley Project (PVP) and Lake Mendocino

Depending on the year, flows released from Lake Mendocino can be critically important for Russian River Chinook. In the "dry spring" years of 2002 and 2004, water levels in Lake Mendocino were extremely low when the Chinook began returning to the Russian River and there was a significant risk of mortalities. The Agency, the National Marine Fisheries Service (NMFS), the California Department of Fish and Game (CDFG), and the North Coast Regional Water Quality Control Board worked closely together to manage flows out of Lake Mendocino to maximize the benefit of the remaining water for Chinook. In 2005, the conditions are the opposite, and storage levels in Lake Mendocino are high and conditions would remain favorable even with reduced diversions from the PVP (the PVP is operated by Pacific Gas and Electric). Many of these "feast or famine" scenarios could be tempered through conjunctive operation of Lake Mendocino and the Potter Valley Project to maximize benefit to fisheries in both the Russian and Eel River watersheds. Current operation guidelines are tied to complex formulas that frequently fail to accurately describe the observed conditions and needs of the fisheries in either river. Re-operation would review the resources and needs of both systems on an annual basis and allow NMFS, CDFG and other stakeholders to make minor, but potentially meaningful changes on an as-needed basis. Potential actions could include modifying flows, changing storage strategies, or diversion timing to maximize opportunities in either wet or dry years.

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Continued...

**Attachments:** Biological Opinion (A-1); Draft letter to National Marine Fisheries Service (A-2)

**On File With Clerk:**

**CLERK OF THE BOARD USE ONLY**

**Board Action (If other than "Requested")**

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\_\_\_\_\_  
\_\_\_\_\_

**Vote:**

## **Background (continued):**

### Development of an Effective System for Predicting and Reducing the Take of Coastal Chinook Stocks in the Commercial Salmon Fishery

Models used by the Pacific Fisheries Management Council (PFMC) and NMFS show that Coastal Chinook may have been harvested at rates ranging between 24 and 52% over the past few years (Attachment A, Biological Opinion). Harvesting over half of the ESU has obvious effects on recovery efforts. Unfortunately, the models used by the PFMC and NMFS to make decisions allowing harvest do not have enough data or validation to verify or reliably reduce these impacts. Agency staff has drafted a letter (Attachment B) that proposes a number of possible harvest management actions that could benefit fisheries to the PFMC. The Agency is willing to assist the PFMC and other regulatory agencies with the implementation of field studies suggested in the letter.

### Increased Enforcement of Existing Sport Fishing Regulations

Agency staff proposes working with CDFG to assist with enforcement sport fishing regulations. Budgetary constraints at CDFG do not allow for sufficient warden coverage in many areas, including the Russian River. Additional enforcement could be conducted by off-duty or retired law enforcement officers.

### Potential Modification of Sport Fishing Regulations

If enhanced enforcement is deemed insufficient to reduce impacts to Chinook, Agency staff proposes working with CDFG to modify sport fishing regulations to be more protective of Chinook salmon. Coastal Chinook are impacted by sport fisheries in the ocean and the Russian River. While many coastal rivers have regulations that protect these stocks, this is not the case in the Russian River. Agency staff recommends proposing that CDFG consider a seasonal ocean closure around the mouth of the Russian River similar to the closure in place at the mouth of the Klamath River. The closure would only need to be in place for less than two months a year to provide a significant improvement in refuge for Chinook schooling outside of the mouth of the Russian River waiting to return to spawn. Also, once in the Russian River, Chinook salmon are subject to continued fishing pressure. Although current regulations do not allow for the retention of Chinook, many anglers target them for catch and release. While Chinook fishing is technically closed, fishing for other species, such as steelhead, is permitted. However steelhead do not ordinarily enter the river until mid-December, which is long after the Chinook run has peaked. Allowing fishing for other species provides a "loophole" for anglers targeting Chinook, while claiming to be fishing for other species. While catch and release Chinook fishing does not contribute to a direct reduction of stocks, stress and latent hooking mortalities can have a significant impact on returning salmon during this important life history phase. This loophole also provides cover to poachers who have no intent on releasing any fish that are hooked. For these reasons, Agency staff proposes that CDFG investigate the feasibility of a brief closure of all fishing on the Russian River during the Chinook migration period. This closure would begin in early October and end by Thanksgiving. This would be of significant benefit to Chinook, while not impacting the hatchery-based steelhead fishery.

While numerous stakeholders may have concerns about these proposed activities, their implementation is important to achieve the goal of ESU recovery. Achieving recovery should result in a robust and sustainable fishery that can be managed over the long-term for the benefit of environmental, recreational, commercial, tribes, municipalities, agriculture and other stakeholders.

## **Background (continued):**

### **REQUESTED BOARD ACTION(S):**

Agency staff is recommending the Board:

1. Authorize the General Manager/Chief Engineer to initiate discussions with PG&E concerning the health of the Chinook population in the Russian River, the significance of the Russian River Population to the ESU, and how this population relates to the management of the Eel River diversion;
2. Direct the General Manager/Chief Engineer to initiate discussions among the appropriate regulatory agencies and stakeholders with the goal of developing criteria and plans to operate the Potter Valley Project (PVP) for the benefit of both Russian River and Eel River fisheries;
3. Authorize the General Manager/Chief Engineer to sign and submit the letter to the National Marine Fisheries Service Pacific (Attachment A-2) that proposes a number of possible harvest management actions that could benefit Coastal Chinook;
4. Direct the General Manager/Chief Engineer to work with the PFMC and appropriate regulatory agencies with the implementation of field studies suggested in the letter to the PFMC;
5. Direct the General Manager/Chief Engineer to work with local law enforcement agencies to enhance enforcement of current regulations and to work with the appropriate regulatory agencies and stakeholders to consider modifying existing sport fishing regulations to be more protective of Chinook if necessary.
6. Direct the General Manager/Chief Engineer to work with the appropriate regulatory agencies and stakeholders to develop a scope of work for the preparation of a Coastal Chinook recovery plan.

**DRAFT**

September 22, 2005

Mr. Rodney McGinnis  
National Marine Fisheries Service  
Southwest Region  
501 West Ocean Boulevard, Suite 4200  
Long Beach, CA 90802-4213

**RE: SECTION 7 CONSULTATION ON THE EFFECTS OF OCEAN SALMON FISHERIES ON CALIFORNIA COASTAL CHINOOK SALMON**

Dear Mr. Mc Ginnis:

The Agency recently reviewed the Section 7 Consultation (consultation) regarding the "Effects of Ocean Salmon Fisheries on California Coastal Chinook Salmon" dated June 13, 2005. We are concerned about the approach taken by National Marine Fisheries Service (NMFS) in the consultation and offer the following comments for your consideration.

The Sonoma County Water Agency (Agency) is located within the Russian River watershed in northern California. The Russian River is the southern boundary of the California Coastal Chinook (coastal Chinook) Evolutionary Significant Unit (ESU). The Russian River is also located within the central California coast coho and steelhead ESUs. The Agency has a vested interest in Russian River fisheries and has actively participated in the recovery planning for these ESUs. We are currently working with NMFS to expedite the preparation of a Recovery Plan for coastal Chinook.

The Agency's primary concern is the continued use of Klamath River stock and harvest models as a surrogate even though the original and subsequent consultations acknowledge that there is no scientific basis to support this management approach. While we recognize that coastal Chinook data is limited, introducing further uncertainty into the management of this ESU does nothing to conserve this protected resource.

Given the uncertainty of coastal Chinook stocks and potential harvest impacts the Reasonable and Prudent Alternatives (RPA) do not provide the necessary protection warranted under the Endangered Species Act. Assuming the surrogate used in the consultation is a reasonable approach it can be concluded that this ESU has been harvested at a rate ranging from 15 to 52 percent depending on year class. Under the ESA it would seem that this level of impact would result in more protective measures occurring until the impacts could be more accurately assessed.

This would seem to be particularly critical in a species where the adult population only has a single opportunity to reproduce.

Mr. Rodney McGinnis  
National Marine Fisheries Service Southwest Region  
September 22, 2005  
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Significant opportunities exist to improve the management of these stocks. As discussed in the RPAs, a better understanding of this ESU could be accomplished through genetics analysis or more conventional techniques such as coded wire tags (CWT). While the RPA discusses genetic identification in the context of a future study, Bodega Marine Lab (BML) has already developed a real-time Chinook stock genetics identification methodology that has been in use for the management of winter-run Chinook since the mid-1990s. The consultation also incorrectly states "the genetic composition of the Russian River Chinook is not known." Coastal Chinook (including the Russian River) were added to BML's Chinook genetics database in 1999 while under contract for the Agency. The ability to genetically identify Chinook stocks (including the coastal ESU) already exists, however a sampling program to collect the tissue and a facility to process the samples remains to be developed.

While the use of CWTs is not discussed further in the latest consultation, there are opportunities to explore the viability of this method. The Agency samples out-migrating Chinook smolts in the Russian River via a series of rotary screw fish traps every spring. This sampling effort provides an ideal opportunity for marking coastal Chinook with CWTs and could be expanded to other streams throughout the ESU. Unlike the genetics approach, the sampling and processing of ocean-caught CWT marked Chinook is an on-going program.

Until this ESU is better understood, the Agency recommends that simple and effective conservation measures be instituted immediately. The Agency requests that NMFS work with the California Department of Fish and Game to develop simple changes to sport fishing regulations that would protect coastal Chinook adults as they return to spawn. Potential changes could include seasonal closures around river mouths for all rivers supporting coastal Chinook (as has been done for the Klamath River) and in-river closures during the Chinook spawning season. Agency biologists have observed intense ocean sport fisheries at the mouth of the Russian River, as well as significant in-river pressure, at a time when the only other returning salmonids in the river are state and federally endangered coho salmon. We have previously submitted documents to NMFS that clearly show that there is essentially no overlap between Chinook and steelhead in-migration within the Russian River. A closure protective of coastal Chinook would have very little, if any, impact on the hatchery-supported steelhead sport fishery.

We hope that our comments can assist NMFS in its efforts to conserve and recover this important fisheries resource. The Agency hopes that some of the suggested measures will be implemented soon, as continued over-harvest could potentially necessitate re-listing the ESU. The Agency is willing to assist NMFS and the Pacific Fisheries Management Council in accomplishing this goal. If you have any questions or comments regarding Agency studies of coastal Chinook in the Russian River, please contact Sean White of our Natural Resources Section at 707.547.1908 or via email at [seanw@scwa.ca.gov](mailto:seanw@scwa.ca.gov).

Sincerely,

Randy Poole  
General Manager/Chief Engineer

Jb:rs3/u/cl/jablodow/fisheries/white/chinooksect7comments.doc