

To: Scott Cantrell
Date: 5/3/99 2:45pm
Subject: Multi-species Conservation Strategy meeting
From: Deborah Mckee

1. Relationship between the MSCS and the ERP. How do they integrate? What is the baseline?

I understand based on our internal meeting this week that some of the material in the MCSC will be moved to the ERP. You will send us a new written description of the relationship based on the meeting? You will define the relationship between these processes and what is expected to remove jeopardy under the Federal ESA Section 7; what is expected to fully mitigate under NCCP, and what is expected to move towards recovery?.

2. Kevin asked How will the MSCS integrate with NFS Multi-species Recovery Plan for Pacific chinook salmon stocks and steelhead?

NMFS has informed the Department that they will be developing a "multi-species" recovery plan for the Central Valley. I talked with Dennis McEwan and I don't know if this is going to include steelhead - I assume it will. It will definitely cover the chinook stocks. It may take 2 years before they even begin. This would incorporate the CALFED process and address any additional issues that are out of CALFED's jurisdiction. Like ocean harvest. Jim Lecky (NMFS) asked me to contact the biostatisticians / modelers who prepared the recovery goals for the winter-run chinook salmon recovery plan and ask them to give us a proposal to prepare goals for Central Valley salmon. They did not specify steelhead but I spoke with Dennis McEwan and I would strongly recommend we ask all these listed and proposed salmonids be modeled at the same time. Until these numeric goals can be developed, we need to refrain from simply recommending a numeric goal that lacks scientific credibility since we will have a very difficult time admitting we knew it was inadequate to begin with but put it in as a place-holder anyway.

3. What are the assurances mechanisms that will guarantee conservation measures are implemented? How do we provide stakeholders assurances and yet remain flexible in regards to adaptively managing resources? I didn't stay till the end of the meeting and would like to know how this issue was addressed. I am very concerned with this issue. We

know based on experience that knowing exactly what are the right combinations of actions to attain recovery is impossible and it is a learning curve - we also know that it is very hard to prevent some new impact from diminishing past beneficial actions. Yet we will provide assurances like we did in the accord which has been anathema for spring run. What will the recourse be over what period of time if we don't see improvement? Should we set various levels of interim goals as we talked about during the salmon / CALFED / water retreat this last fall and winter. Still what will the recourse be?

4. My attempt at an interim GOAL for spring run chinook salmon:

Restore self-sustaining, properly functioning populations of Sacramento spring-run chinook salmon throughout a significant portion of their range within the Sacramento River watershed (including but not limited to Mill, Deer, Antelope, Butte, Big Chico, Beegum, South Fork Cottonwood, Clear, and Battle creeks; Yuba River) such that the danger of extinction in the foreseeable future is unlikely. A scientifically-based recovery criteria shall be developed by the Department of Fish and Game and provided to CALFED within ___ which considers the risk of extinction to populations both individually and collectively given population distribution within the Sacramento River watershed. Attainment of specified abundance criteria for spring-run populations shall cover a minimum 15 years which constitutes five times a generation time.

The geometric mean of a Cohort Replacement Rate for a significant proportion of the spring-run populations over the 15-year period will be greater than 1.0. Estimates of these criteria will be based on natural production alone and will not include hatchery-produced fish. If the precision for estimating spawning run abundance has a standard error greater than 25%, then the sampling period over which the geometric mean of the Cohort Replacement Rate is estimated will be increased by one additional year for each 10% of additional error over 25%.

I think we should use a similar approach to describing fall run and late fall and not just stick old doubling goals in which are not restoration / recovery but I am not going to kill for it - only for spring run since it is CESA listed. Who else is looking at the anad fish?

A few comments below please note:

and Conservation Measures for Species with "R" Management Goals

Species Goal Prescription	Species Prescription Conservation Measures
Mammals	
Winter-run chinook salmon (<i>Oncorhynchus tshawytscha</i> [wr])	
<p>The mean annual spawning abundance over any 13 consecutive years will be 10,000 females. The geometric mean of the Cohort Replacement Rate over those same 13 years will be greater than 1.0. Estimates of these criteria will be based on natural production alone and will not include hatchery-produced fish. If the precision for estimating spawning run abundance has a standard error greater than 25%, then the sampling period over which the geometric mean of the Cohort Replacement Rate is estimated will be increased by one additional year for each 10% of additional error over 25%.</p>	<p>1. Coordinate protection, enhancement, and restoration of occupied and historic winter-run chinook habitats with other federal, state, and regional programs (e.g., the San Francisco Bay Ecosystem Goals Project, the Anadromous Fish Restoration Program, USFWS recovery plans, the SB1086 program, and the Corps' Sacramento and San Joaquin Basin Comprehensive Study) that could affect management of current and historic habitat use areas to avoid potential conflicts among management objectives and identify opportunities for achieving multiple management objectives.</p>
<p>Note strike out</p>	<p>2. Implement management measures identified in the proposed recovery plan for the Sacramento River winter-run chinook salmon (NMFS 1997), conservation measures identified in biological opinions, and identified in DEFT reports that are applicable to Program actions and achieving CALFED objectives.</p>
<p>This is weird - why this out of the blue - we are trying to get red bluff gone if possible</p> <p>take out since all this is in the recovery plan and then to have this again as stand alone doesn't make sense</p>	<p>3. Manage operations at the Red Bluff diversion dam to improve fish passage, reduce the level of predation on juvenile fish, and increase fish survival.</p>
Central Valley fall-run chinook salmon (<i>Oncorhynchus tshawytscha</i> [fr])	

Species Goal Prescription	Species Prescription Conservation Measures
<p>Late-fall Sacramento run: Achieve species recovery by 1) increasing the number of wild spawning fish in the Sacramento River to a mean number of 22,000 fish and maintain the population such that it does not drop below 15,000 fish for 15 years, three of which are dry or critical and 2) achieving juvenile survival rates that approach pre-CVP and SWP levels following years when the adult populations are fewer than 15,000 fish in the Sacramento River.</p> <p>San Joaquin Fall Run: Achieve species recovery by 1) increasing the number of naturally spawning fish in the Stanislaus, Tuolumne, and Merced rivers to a median number of 20,000 fish and maintaining a three-year running average that does not drop below 3,000 fish for 15 years, three of which are dry and critical and 2) achieving smolt survival rates that approach pre-CVP and SWP levels when adult numbers decline to fewer than 3,000 natural spawning fish.</p> <p>Sacramento Fall Run: Restore self sustaining populations to all their native streams, except those above Shasta Reservoir, with numbers to exceed the average of both hatchery and wild origin from 1980-1998.</p>	<p>1. Coordinate protection, enhancement, and restoration of occupied and historic Central Valley fall-run chinook habitats with other federal, state, and regional programs (e.g., the San Francisco Bay Ecosystem Goals Project, the Anadromous Fish Restoration Program, USFWS recovery plans, the SB1086 program, and the Corps' Sacramento and San Joaquin Basin Comprehensive Study) that could affect management of current and historic habitat use areas to avoid potential conflicts among management objectives and identify opportunities for achieving multiple management objectives.</p>
	<p>2. Implement applicable management measures identified in the restoration plan for the Anadromous Fish Restoration Program (USFWS 1997), the recovery plan for the native fishes of the Sacramento/San Joaquin Delta (USFWS 1996), and measures identified CVPIA, CVAP, and DEFT reports that are applicable to Program actions and achieving CALFED objectives.</p>

Species Goal Prescription	Species Prescription Conservation Measures
	3. Operate hatcheries such that the maintenance and expansion of natural populations are not threatened by the release of hatchery fish.
	4. Conduct research to identify methods for censusing populations and to determine the distribution of spawning fish in Central Valley streams.
	5. Manage operations at the Red Bluff diversion dam to improve fish passage, reduce the level of predation on juvenile fish, and increase fish survival.
	6. Operate physical barriers in the Delta in a manner to assist in achieving recovery goals.
	7. Manage export flows from the San Joaquin River to improve conditions for upstream migration of adult fish (i.e., attraction flows).
	8. Conduct research to determine causes for low outmigration survival of fish from the San Joaquin River in the South Delta and identify and implement measures to improve outmigration survival.
Central Valley spring-run chinook salmon (<i>Oncorhynchus tshawytscha</i> [sr])	

Species Goal Prescription	Species Prescription Conservation Measures
<p>Restore self-sustaining populations in excess of 500 spawning fish in both Deer and Mill Creeks; increase the total number of spawning fish to levels commensurate with the carrying capacity of Antelope, Butte, Big Chico, Beegum, South Fork Cottonwood, and Clear creeks, and the Yuba River (if the Yuba River proves to still have natural run of spring-run chinook salmon); increase the number of wild spawning fish in Sacramento River tributaries to a mean number of 8,000 fish and maintain populations such that the numbers of spawning fish do not drop below 5,000 fish for 15 years, three of which are dry or critical years; and achieve smolt survival rates between Sacramento and Chipps Island that approach pre-CVP and SWP levels when the number of adults in the tributary streams is fewer than 5,000.</p>	<p>1. Coordinate protection, enhancement, and restoration of occupied and historic Central Valley spring-run chinook habitats with other federal, state, and regional programs (e.g., the San Francisco Bay Ecosystem Goals Project, the Anadromous Fish Restoration Program, USFWS recovery plans, the SB1086 program, and the Corps' Sacramento and San Joaquin Basin Comprehensive Study) that could affect management of current and historic habitat use areas to avoid potential conflicts among management objectives and identify opportunities for achieving multiple management objectives.</p> <p>How about saying that DFG and NMFs (if spring run are listed under the federal ESA) shall develop a multi-species anadromous salmonids recovery plan to facilitate guiding CALFED and other actions within the Central Valley. The plan shall be completed by January 2001. Seriously - that would be the best thing to put in here for. Put that for all the CV salmonids except winter-run where it is already done. For winter-run say that NMFs must finalize the plan by December 31, 1999.</p>
	<p>2. Implement applicable management measures identified in the restoration plan for the Anadromous Fish Restoration Program (USFWS 1997), the recovery plan for the native fishes of the Sacramento/San Joaquin Delta (USFWS 1996), recommended by DFG (CDFG 1998), identified in biological opinions, and identified in DEFT, CVPIA, and CVAP reports that are applicable to Program actions and achieving CALFED objectives.</p>
<p>What are these about????? I agree but it sticks out here - why not say develop a new isolated diversion system - this is where I am fuzzy - is this only for the 7 years or can we push for looking at meaningful things over 30 years</p>	<p>3. Operate physical barriers in the Delta in a manner to assist in achieving recovery goals.</p>
	<p>4. Manage operations at the Red Bluff diversion dam to improve fish passage, reduce the level of predation on juvenile fish, and increase fish survival.</p>

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