



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
650 Capitol Mall, Suite 5-100
Sacramento, CA 95814-4700

JAN 15 2014

MEMORANDUM FOR: Administrative Record (AR) for the Designation of a Nonessential Population of Central Valley Spring-run Chinook Salmon Below Friant Dam in the San Joaquin River, California (ARN: 151422SWR2010SA00361) and the AR for the Biological Opinion on the Long-term Operation of the Central Valley Project and State Water Project (CVP/SWP Opinion) (ARN: 151422SWR2006SA00268)

TO: *Maria Rea*
Maria Rea, Assistant Regional Administrator, California Central Valley Office

THROUGH: Garwin Yip, Water Operations Branch Chief, West Coast Region *Garwin Yip*

FROM: Rhonda Reed, San Joaquin Branch Chief, West Coast Region *Rhonda Reed*

SUBJECT: 2014 (January 2014 – December 2014) Technical Memorandum (2014 Tech Memo) Regarding the Accounting of San Joaquin River Spring-run Chinook Salmon at the Central Valley Project and State Water Project Sacramento-San Joaquin Delta Pumping Facilities

NMFS has prepared this technical memorandum to fulfill the following purposes:

- 1) Fulfill one of the requirements of the *Designation of a Nonessential Experimental Population of Central Valley Spring-run Chinook Salmon Below Friant Dam in the San Joaquin River, California* (70 FR 79622, December 31, 2013) to release an annual technical memorandum that “calculates and documents the proportionate contribution of Central Valley (CV) spring-run Chinook salmon originating from the reintroduction to the San Joaquin River and deduct or otherwise adjust for this share of CV spring-run Chinook salmon take when applying the operational triggers and incidental take statements associated with the NMFS 2009 Biological Opinion [Long-term operations of the Central Valley Project/State Water Project] or subsequent future biological opinions, or Section 10 permits.”
- 2) Present the methodology that will be employed in 2014 to ensure precise identification of each spring-run Chinook salmon entrained or otherwise taken by operations of the Central Valley Project (CVP) and State Water Project (SWP) as originating from the San Joaquin River reintroduced population or Sacramento River basin such that the reintroduction will not impose more than *de minimus* water supply reductions, additional storage releases, or bypass flows on unwilling third party water users.
- 3) Present the spring-run Chinook salmon release and monitoring plans for 2014.



1. Calculations of incidental take:

Incidental take calculations and adjustments to the incidental take estimates pursuant to the CVP/SWP Opinion are unnecessary for 2014 because all of the spring-run Chinook salmon released in the San Joaquin River will be adipose fin-clipped and coded wire tagged (CWT).

2. Physical Marking and Accounting Methodology:

All juvenile spring-run Chinook salmon released into the San Joaquin River as part of the San Joaquin River Restoration Program (SJRRP) will be CWTed and adipose fin-clipped so that they can be distinguished from any other juvenile Chinook salmon release group. Because these fish will be adipose fin-clipped, they will be exempted from take prohibitions under the existing 4(d) rule (70 FR 37160, June 28, 2005). As a result, reintroduced spring-run Chinook salmon will not be counted toward the incidental take limits and trigger levels provided under all applicable biological opinions and Endangered Species Act section 10 research permits for operation of any and all facilities of the CVP/SWP (outside of the Friant Division of the CVP). Spring-run Chinook salmon released by the SJRRP may also be passive integrative technology (PIT) tagged or acoustically tagged, depending on objectives for the SJRRP's 2014 monitoring and research efforts.

Biologists at the CVP/SWP fish facilities will record, measure and sacrifice all adipose fin-clipped fish (as currently undertaken via facility Standard Operating Procedures). The CWTed fish will be processed within 24 hours and reported to the California Department of Fish and Wildlife (CDFW), which will report the CWT results to the Data Assessment Team (DAT) and Delta Operations for Salmonids and Sturgeon (DOSS) group within 24 hours.

3. Genetic Analysis:

Genetic analysis of spring-run Chinook salmon at the CVP/SWP fish facilities may become necessary to distinguish these fish from other Chinook salmon once natural production is occurring within the San Joaquin River and adipose fin clipping of all juvenile spring-run Chinook salmon reintroduced into the San Joaquin River is no longer possible. NMFS and the SJRRP will coordinate with the winter-run Chinook salmon genetic sampling effort planned for 2014 at the CVP/SWP fish facilities to confirm that the information being collected (*i.e.*, tissue samples) can be used for reintroduced spring-run identification at a later date, if needed.

In addition, because juvenile Feather River Hatchery spring-run Chinook salmon (the source of the 2014 SJRRP releases) have not to date been identifiable using the Genetic Stock Identification method, efforts will be made in 2014 to sample parental stock so that a Pedigree Analysis could be performed in the future if necessary to distinguish reintroduced spring-run Chinook salmon.

4. Release Plans:

A total of approximately 54,400 juvenile spring-run Chinook salmon from the Feather River Hatchery will be released into the San Joaquin River downstream of Friant Dam in spring 2014 as part of the SJRRP. In addition, excess spring-run Chinook salmon juvenile production (yearlings) from the San Joaquin River Salmon Conservation and Research Facility brood year (BY) 2012 may be released to the San Joaquin River in order maintain broodstock target levels. The numbers of surplus BY2012 broodstock yearling released will be determined in the early spring 2014.

The exact release location, date and numbers of fish per release group are dependent on water year type, physical river conditions within the SJRRP Restoration Area (the San Joaquin River from Friant Dam to the Merced River confluence), and fish availability and size, which will not be known until early spring. Target release timing, location and numbers of fish per release will be identified and posted on the SJRRP website when determined.

The U.S. Fish and Wildlife Service (USFWS) will issue pre-release notifications via email to interested stakeholders and agencies approximately one week prior to fish release. A second notification will be made to the same list immediately after the fish release. A memorandum summarizing the CWT releases will be prepared for the DOSS group with details regarding the releases, marks, and CWT codes. Release information will also be reported to the Regional Mark Processing Center website (<http://www.rmhc.org>).

5. Monitoring Plan:

Juvenile spring-run Chinook salmon released through the SJRRP will be monitored through the San Joaquin River to determine migration timing and pathways, and juvenile survival. The scope of monitoring will depend on where fish are released within the Restoration Area.

Two rotary screw traps are anticipated to be operated in the Restoration Area when sufficient velocities allow for drum rotation and operations are safe for field personnel. These rotary screw traps are anticipated to be located in Reach 1 and Reach 2 downstream of San Mateo Road to record presence and migration patterns. The rotary screw traps are anticipated to be deployed prior to the release of SJRRP tagged juvenile spring-run salmon into the river and operated until the SJRRP study activities are completed. Mark-recapture studies using fall-run Chinook salmon are planned for 2014 by the SJRRP to set the groundwork for determining rotary screw trap efficiencies leading to use of the rotary screw trap data for Chinook salmon abundance calculations.

NMFS has determined (based on discussions with the water contractors) that tracking juvenile salmon migration through the lower San Joaquin River beyond the current monitoring efforts in place by other programs does not have value this year. There are two current monitoring efforts that will track juvenile salmon in the lower San Joaquin River; beach seining conducted by the USFWS; and trawling at Mossdale conducted by CDFW. In addition, some of the released spring-run will be PIT-tagged, allowing them to be tracked through the lower San Joaquin River using the PIT-tag arrays in place for the 6-Year Steelhead Study pursuant to the SJRRP (USFWS/Reclamation).

6. Timeline:

Once final juvenile spring-run Chinook salmon release information is available, this information will be posted to the SJRRP website at www.restoresjr.net. Beginning in February 2014, NMFS will hold monthly meetings to discuss implementation of this 2014 Tech Memo and to prepare for the development of the 2015 Tech Memo. NMFS will also convene a series of technical meetings, including representatives of state and federal resource agencies and water agencies, to develop guidance and a framework for effectively identifying and distinguishing juvenile spring-run Chinook salmon produced in the San Joaquin River that may be collected in the CVP/SWP fish facilities once natural production is occurring in the San Joaquin River, likely beginning in 2017. This effort will inform the proportional incidental take calculations.

7. Revision:

NMFS developed this memorandum to govern activities for one year only. As a result, it will have no effect after January 15, 2015. NMFS intends to prepare a new memorandum by January 15, 2015, to govern activities during 2015.

8. Adjustments to CVP/SWP Opinion:

No adjustments are needed in 2014 because all reintroduced spring-run Chinook salmon will be adipose fin-clipped and these are not included in the operational triggers and incidental take limits.