

Salinas River Operations Habitat Conservation Plan

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Salinas River Operations Habitat Conservation Plan Technical Advisory Committee

This document provides a foundation of standards and guiding principles for a Technical Advisory Committee to advise and provide recommendations during the development of water management operational scenarios to be evaluated as part of the Salinas River Operations Habitat Conservation Plan.

Standards: a level of quality or achievement that is considered acceptable or desirable.

Standards are in place to ensure that basic needs are met by partners through clearly defined behaviors that are acceptable.

Guiding Principles: guide an organization towards its goals.

Guiding Principles are in place to ensure we continue to move toward our goals with flexibility and unity of effort.

Introduction

Prior to being formally established in 1991, the Monterey County Water Resources Agency (MCWRA) was the Monterey County Flood Control and Water Conservation District, established in 1947 and organized as a division of the Public Works Department of the County of Monterey. MCWRA provides services related to the control of flood and storm waters in Monterey County, conservation, protection of water quality, and reclamation of water. MCWRA is a public agency created by the State of California pursuant to the Monterey County Water Resources Agency Act (California Water Code, Appendix 52).

MCWRA owns and operates two dams along with associated reservoirs. Nacimiento Dam is on the Nacimiento River, a tributary to the Salinas River. Nacimiento Dam is approximately 12.3 river miles upstream of the Nacimiento River's confluence with the Salinas River and forms the Nacimiento Reservoir, with a maximum storage capacity of approximately 377,900 acre-feet. San Antonio Dam, on the San Antonio River is approximately 8.6 river miles upstream of its confluence with the Salinas River. San Antonio Dam forms the San Antonio Reservoir, with a maximum storage capacity of approximately 335,000 acre-feet of water. The Nacimiento and San Antonio Rivers enter the Salinas River at river miles 108 and 104, respectively, from its mouth at the Pacific Ocean in Monterey Bay.

MCWRA is in the process of developing a habitat conservation plan (HCP or Plan) and applying for incidental take permits (ITPs) for certain species listed under the federal Endangered Species Act (ESA) and for identified species that may become listed in the future. The Salinas River Operations HCP is a comprehensive plan that is intended to provide an effective framework to protect, enhance, and restore natural resources within the portions of Monterey and San Luis Obispo Counties where activities carried out by MCWRA occur. Additionally, the HCP is intended to support the proposed issuance of ITPs for federally threatened and endangered species regulated by the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS; collectively,

Services). The ITPs would provide take coverage to MCWRA for reservoir operations and various other projects and activities associated with the long-term management of the Salinas River and other waterways in Monterey County. MCWRA has been working extensively with the Services and other relevant agencies and stakeholders on HCP development. As part of HCP development, it was deemed necessary as part of the HCP Public Outreach process to develop a technical advisory committee consisting of relevant stakeholder technical experts to provide recommendations specific to the development of water management operational scenarios to be analyzed and considered for the HCP.

This document was developed to provide a foundation of standards and guiding principles and identify the HCP technical advisory committee's (HCP-TAC) purpose, mission, and goals and objectives to be used in the development of water management operational scenarios to be considered for the HCP.

Purpose and Mission

The HCP-TAC's purpose is to assist in the development and evaluation of water management scenarios considered for the Salinas River Operations HCP by providing a forum for soliciting feedback and recommendations from interested stakeholders through representation by relevant technical experts during the water management evaluation process. The HCP-TAC is focused specifically on technical issues related to MCWRA water management responsibilities in the Salinas River basin.

The mission of the HCP-TAC is established as follows:

The mission of the Salinas River Operations Habitat Conservation Plan Technical Advisory Committee shall be to provide a forum for identifying and constructively outlining recommendations to the Monterey County Water Resources Agency specific to the water management operational scenarios to be considered for evaluation as part of the Salinas River Operations HCP development process.

MCWRA will form the HCP-TAC in the fall of 2023 and provide relevant background materials to members for review in preparation for convening meetings beginning in early 2024. All HCP-TAC meetings will be limited to technical experts with specific knowledge and expertise identified in this document. Meeting notes and key recommendations will be collated and made available on the HCP project website.

Goals and Objectives

The goal of the HCP-TAC is to develop and provide technical recommendations to be considered during the development of water management scenarios for the Salinas River Operations HCP. Specific objectives include but are not limited to:

- Provide expert advice and recommendations to the HCP development team regarding flow release triggers specific to species conservation, including migration, spawning, and rearing conditions for South-Central California Coast steelhead.

- Provide expert advice and recommendations to the HCP development team regarding reservoir release strategies to meet existing water conservation goals related to groundwater recharge and Salinas River Diversion Facility (SRDF) operation.

Roles and Responsibilities

MCWRA (permit applicant) is leading development of the HCP and will be ultimately responsible for development of the Plan, including making final decisions regarding the content of the Plan. The Services are providing guidance to MCWRA to ensure their respective permit issuance criteria may be met and permits successfully issued. The Services will participate in the development of the Plan to provide information on procedures, respective statutory requirements, and other technical information. Ultimately, USFWS and NMFS will be the agencies responsible for determining if all permit application requirements are met and, if so, approving the HCP, and issuing incidental take permits. A team consisting of key individuals from the two Services, MCWRA, and the project consultants, will provide direction, guidance, advice, strategic decision making, and assistance in developing the HCP. In general, this team will oversee and support the general course of development and organization of the Plan.

Formation of the HCP-TAC

The HCP-TAC was developed as part of the HCP Public Outreach process to solicit input from relevant stakeholder technical experts. The HCP-TAC includes individuals with expertise in the following fields:

- Hydrology
- Hydrogeology
- Hydrologic modeling
- Civil engineering
- Ecology
- Fish and wildlife biology
- Geomorphology

HCP-TAC Members (ordered alphabetically by organization)

HCP-TAC members include representatives from local stakeholder groups, federal and state wildlife agencies, local water resource agencies, and other technical experts with foundational knowledge related to the Salinas River basin and water management.

The U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), California Department of Fish and Wildlife (CDFW) and the Monterey County Water Resources Agency (MCWRA) are using in-house staff as HCP-TAC members.

- Curtis Weeks, PE – Arroyo Seco Groundwater Sustainability Agency
- Krissy Atkinson, Senior Environmental Scientist (Alternate: Zachary Crum, District Fish Biologist) – CDFW
- Ross Clark, Program Director – Central Coast Wetlands Group

- Patrick Breen, Water Resources Manager – Marina Coast Water District Groundwater Sustainability Agency
- William Stevens, Natural Resource Management Specialist (Alternate: Joel Casagrande, West Coast Region Fisheries Biologist) – NMFS
- Robert Abrams, PhD, PG, CHg – Salinas Basin Water Alliance
- Derrik Williams, PG, CHg – Salinas Valley Basin Groundwater Sustainability Agency
- Dwight Smith, PG, CHg – Salinas Valley Water Coalition
- Tim Frahm, Central Coast Steelhead Coordinator – Trout Unlimited
- Mark Ogonowski, Senior Fish and Wildlife Biologist (Alternate: Leilani Takano, Assistant Field Supervisor) – USFWS

Facilitation and Support

- Jason Demers – Monterey County Water Resources Agency
- Amy Woodrow, PG – Monterey County Water Resources Agency
- Marinn Browne – Monterey County Water Resources Agency
- Bernadette Clueit, HCP Project Manager – ICF
- Tania Carlone – Consensus Building Institute

Decision Rule

The HCP-TAC is an advisory group formed to provide recommendations to the HCP development team. When possible, the HCP-TAC will work together to provide recommendations supported by the entire group. When full group support is not possible, the differing views will be recorded and reported to MCWRA and the HCP development team to be taken into consideration.

Guiding Principles to Develop Operational Scenarios

- Operational scenarios considered under the HCP will need to meet existing project and program goals and be consistent with the mission of the Agency.
- MCWRA operates Nacimiento and San Antonio Reservoirs under regulatory authorizations as well as through legal agreements (Appendix B). These regulatory authorizations and legal agreements will be considered as part of any water operations protocol brought forth by the TAC.
- MCWRA is a public agency charged with the long-term management of water resources in Monterey County and is also the flood control agency for Monterey County. Therefore, any releases of water from Nacimiento or San Antonio Reservoirs will be made with consideration given first to safety, including flow conditions and the structural integrity of Nacimiento and San Antonio Dams.
- MCWRA operates Nacimiento and San Antonio Reservoirs in coordination for multiple benefits including flood protection, groundwater recharge, operation of the SRDF, water supply, fish migration, fish habitat requirements, agriculture, and recreation.
- All considered water management operational scenarios will be analyzed using the Salinas Valley Operational Model (SVOM).
- Operational releases from Nacimiento and San Antonio dams (collectively, Dams) will be designed to meet regulatory and legal agreements while minimizing impact to species listed

under the Federal Endangered Species Act (ESA) and proposed for inclusion in the HCP. Factors to be considered include, but are not limited to, the following.

- Operational releases that ensure passage conditions for adult and smolt steelhead trout life stages on a water year type basis using findings from the Critical Riffle Analysis.
- Operational releases that ensure adequate water is available for juvenile steelhead in the Nacimiento and San Antonio Rivers during their rearing period.
- Operational releases that ensure adequate water is available for adult steelhead in the Nacimiento and San Antonio River during their spawning period.
- Operation of the Salinas River Diversion Facility to ensure that sufficient water is available to facilitate the passage of adult and smolt steelhead through the fish ladder located at the facility during water diversion periods.

HCP-TAC Meeting Structure

HCP-TAC meetings will be led by the project consultant (ICF) who is responsible for convening and presiding over meetings and ensuring meeting agendas are followed. The project consultant will guide the meeting discussions and ensure all recommendations are adequately captured and reported out to the appropriate parties once the meeting has concluded.

Whenever possible, HCP-TAC meetings will be held in person at a MCWRA meeting location. Given the technical aspects of the topics to be discussed, in-person meetings are expected to be most effective. Similarly, meetings may be structured more in a workshop format which might include longer meeting periods to ensure relevant topics and content are sufficiently covered during the meeting.

HCP-TAC meetings or workshops may include presentations by the project consultant, MCWRA Staff, or other members of the committee depending on the topics/issues on the meeting agenda. Following each meeting, detailed meeting notes including summaries of discussions and key recommendations will be distributed to HCP-TAC members and posted to the HCP project website.

APPENDICES

Appendix A: *Definition of Terms*

Appendix B: *Monterey County Water Resources Agency's Water Rights and Agreements*

Appendix A: Definition of Terms

Adult Steelhead Upstream Migration Releases – Reservoir releases made to facilitate upstream migration of adult steelhead between February 1st- March 31st, when triggers are met. If the 1) combined storage of Nacimiento and San Antonio reservoirs is greater than 220,000 AF, 2) 340 cfs or higher flows are present at the Arroyo Seco near Soledad gage (USGS streamflow gage 11152000), and 3) 173 cfs or higher flows are present at the Arroyo Seco below the Reliz Creek gage (USGS streamflow gage 11152050), MCWRA will provide flows of at least 260 cfs at the Salinas River near Chualar (USGS streamflow gage 11152300) for five or more consecutive days, when the river mouth is open to the ocean.

Block Flow Releases – Reservoir releases made to facilitate the downstream migration of smolts and rearing juvenile steelhead in the Salinas River beginning March 15th in normal-category type years. The following triggers must be met for releases to be made 1) water year type is dry-normal, normal or wet-normal, 2) combined storage of Nacimiento and San Antonio reservoirs is 150,000 AF or more on March 15th, and 3) 125 cfs or higher at the Nacimiento River below Sapaque Creek gage (USGS streamflow gage 111489000) or 70 cfs at the Arroyo Seco below Reliz Creek gage (USGS streamflow gage 11152050). Amount and duration of block flow depends on when the flows are triggered.

Conservation Pool – Water in reservoirs used for groundwater recharge, operation of the Salinas River Diversion Facility, water supply, fish migration, and fish habitat requirements. Volume of 289,013 acre-feet between 687.8 feet and 787.75 feet in Nacimiento Reservoir and volume of 282,000 acre-feet between 666 feet and 774.5 feet in San Antonio Reservoir.

Conservation Releases – Water discharged for the purpose of recharging the groundwater basin.

Dead Pool – The storage between the bottom of the reservoir and elevation 670 feet for Nacimiento Reservoir, the invert of the intake structure of the low-level outlet works, and elevation 645 feet for San Antonio Reservoir, the invert of the intake structure of the outlet works. The volume of the Dead Pool is 10,300 acre-feet in Nacimiento Reservoir and 10,000 acre-feet in San Antonio Reservoir. Water cannot flow out by gravity out of Nacimiento Reservoir below 670 feet elevation and out of San Antonio below 645 feet elevation.

Downstream Migration of Juvenile Steelhead and Kelts Releases – Reservoir releases and SRDF bypass flows made to enhance migration opportunities for juvenile steelhead and post-spawn adult steelhead (kelts) made in years when block flow releases for smolt migration don't occur by April 1st.

Dry Year – Water year in which unimpaired annual mean flow at the USGS streamgage on the Arroyo Seco near Soledad (USGS streamgage 11152000) falls in the 75-100% percentile of mean annual flows ranked in descending order (as defined in the Salinas Valley Water Project Flow Prescription for Steelhead Trout in the Salinas River).

Environmental Compliance – Conforming to any environmental regulatory requirements currently imposed or those that become imposed in the future.

Flood Pool – Water used to temporarily store flood water during the winter. Volume of 66,587 acre-feet between 787.75 feet and 800 feet in Nacimiento Reservoir and volume of 30,000 acre-feet between 774.5 feet and 780 feet in San Antonio Reservoir.

Maximum Reservoir Elevation – Maximum reservoir elevation that can be sustained, and the level at which the reservoir is considered full. Elevation of 800 feet in Nacimiento Reservoir and 780 feet in San Antonio Reservoir.

Minimum Releases – Reservoir releases made to provide steelhead spawning and rearing habitat flows. Minimum releases are 60 cfs from Nacimiento Dam as long as the water surface elevation of Nacimiento Reservoir is above 687.8 feet, and 10 cfs from San Antonio Dam as long as the water surface elevation of San Antonio Reservoir is above 666 feet.

Minimum Pool – The storage above Dead Pool and below Conservation Pool. This is between elevation 670 feet and 687.8 feet in Nacimiento Reservoir. The volume of this pool is 12,000 acre-feet which is reserved for use by the County of San Luis Obispo per the 1959 San Luis Obispo County Agreement. In San Antonio Reservoir, minimum pool is between elevation 670 feet and 687.7 feet, with a volume of 12,000 acre-feet.

Minimum Recreation Elevation – Lowest Nacimiento Reservoir elevation at which most of the boat ramps around the reservoir are useable and which most private property owners have access to the reservoir.

Natural Flow – Water that would exist in a stream at a given point in time in the absence of human activity (Source: https://www.waterboards.ca.gov/waterrights/board_info/faqs.html)

NWP Intake Elevation – Lowest Nacimiento Reservoir elevation at which San Luis Obispo County can take water through the Nacimiento Water Project. Elevation of 670 feet.

Operations Ratio – The ratio of empty space in the conservation pools of San Antonio and Nacimiento Reservoirs, with Nacimiento as the numerator. Historically, this ratio was defined as 3 to 1, and reservoir releases were made in such a manner that the ratio was reached prior to halting releases at onset of the rainy season.

Salinas River Diversion Facility (SRDF) – A component of the Salinas Valley Water Project that consists of an inflatable Obermeyer dam and a river intake structure to provide treated river water to growers within the Castroville Seawater Intrusion Project service area. This facility is located approximately 5 river miles upstream of the mouth of the Salinas River.

Salinas Valley Water Project (SVWP) – A project developed by MCWRA and Salinas Valley interests that consists of the modifications of the spillway at Nacimiento Dam and the construction of the Salinas River Diversion Facility, near the city of Marina. The goals of the project are to help stop seawater intrusion, improve flood control, recharge Salinas Valley groundwater, and improve conditions for steelhead trout.

Top of Dam – The dam crest. Elevation of 825 feet at Nacimiento Dam and 802 feet at San Antonio Dam.

Water Year – The 12-month period from October 1st through September 30th. The water year is designated by the calendar year in which it ends, and which included 9 out of the 12 months. For examples, the year ending on September 30th, 1959 is called “1959 water year”.

Water Year Type – Determination of water year type (e.g. dry, normal, wet) is made based on unimpaired annual mean flows at the USGS streamgage on the Arroyo Seco near Soledad (USGS Streamgage 11152000). Annual mean flows are ranked in descending order and stream flow corresponding to the 25th and 75th percentile are selected as the thresholds. Wet years are defined as flows below the 25th percentile, Normal years between the 25th and 75th percentile, and Dry years above the 75th percentile. Year type determinations are made on March 15th (preliminary) and April 1st (official) of each year. (as defined in the Salinas Valley Water Project Flow Prescription for Steelhead Trout in the Salinas River).

Appendix B: Monterey County Water Resources Agency's Water Rights and Agreements

Nacimiento Reservoir

Water Rights License 7543 – License for Diversion and Use of Water, No. 7543, from the California State Water Resources Control Board, was issued November 4, 1965.

This license was last amended September 5, 2008 to specify that the place of use of water from this license changed to include 421,435 acres of land comprising MCWRA's Zone 2C assessment zone, to add a point of rediversion at the Salinas River Diversion Facility (SRDF), and to add fish flow requirements that were consistent with the June 21, 2007, National Marine Fisheries Service (NMFS) biological opinion issued to the U.S. Army Corps of Engineers (biological opinion).

License No. 7543 gives MCWRA the right to store 350,000 AF from October 1 of each year to July 1 of the succeeding year and to withdraw a maximum of 180,000 AF per year. The purpose of use are for irrigation, domestic, municipal, industrial, and recreational uses.

Documents for this can be found in Appendix B of the Nacimiento Dam Operation Policy:

<https://www.co.monterey.ca.us/Home/ShowDocument?id=63151>

Water Rights Permit 21089 – Permit for Diversion and Use of Water, No. 21089, from the California State Water Resources Control Board, was issued March 23, 2001. This permit was last amended September 5, 2008, to specify that the place of use of water from this license changed to include 421,435 acres of land comprising MCWRA's Zone 2C assessment zone, to add a point of rediversion at the SRDF, and to add fish flow requirements that were consistent with the NMFS biological opinion.

The original reservoir volume computations submitted and subsequently approved in License No. 7543, were based on United States Geological Survey (USGS) Quad sheets from the 1940s. In the early 1990s, aerial surveys with increased accuracy showed that the actual volume of Nacimiento Reservoir was greater than the 350,000 AF in License 7543. In order to correct this discrepancy, MCWRA filed water rights Application No. 30532. Nacimiento Dam has never been modified in any way to increase storage and the reservoir volume is unchanged from the time of the dam's construction, with the exception of the inflow of silt from natural runoff which has decreased storage volume.

As a result of this application, MCWRA has a permit to collect to storage 27,900 AF per annum from October 1 of each year to July 1 of the succeeding year. The total quantity of water collected to storage under this permit and License 7543 shall not exceed 377,900 AF per year.

Documents for this can be found in Appendix B of the Nacimiento Dam Operation Policy:
<https://www.co.monterey.ca.us/Home/ShowDocument?id=63151>

Water Rights Permit 19940 – Permit for Diversion and Use of Water, No. 19940, from the California State Water Resources Control Board, was issued December 31, 1986. Permit 19940 gives MCWRA the right to divert up to 500 cfs through the Hydroelectric Plant from January 1 to December 31 of each year for irrigation, domestic, municipal, industrial and recreational uses. Diversion under this permit is incidental to releases being made for other purposes.

Documents for this can be found in Appendix B of the Nacimiento Dam Operation Policy:
<https://www.co.monterey.ca.us/Home/ShowDocument?id=63151>

San Luis Obispo County Agreement – MCWRA’s Water Rights License No. 7543 is subject to an agreement between MCWRA and SLO District which gives SLO District the right to use 17,500 AF of water annually from Nacimiento Reservoir. The SLO District Board has adopted a policy designating a portion of the total, approximately 1,750 acre-feet per year (AFY), for use around Nacimiento Reservoir; Heritage Ranch Community Services District (HRCSD) has agreements with SLO District which collectively entitle HRCSD to use 889 AFY of the 1,750 AFY; pursuant to these agreements, HRCSD takes its allotment from a well gallery in the Nacimiento River downstream of the Dam. SLO District can use up to the remaining 15,750 AF per water year through the NWP. The agreement also provides that MCWRA shall not make conservation releases during the water year that result in a reservoir elevation below 687.8 feet on September 30 of each year in order to assure SLO District of its rights and entitlements to water under the terms of the agreement (i.e. in order to assure the maintenance of a minimum storage pool of 12,000 AF above the present low-level outlet works for SLO District use). The original agreement is dated October 19, 1959, and it has been amended six different times in 1959, 1967, 1970, 1977, 1988, and 2007. These documents are collectively referred to as the SLO County Agreement.

Documents for this can be found in Appendix C of the Nacimiento Dam Operation Policy:
<https://www.co.monterey.ca.us/Home/ShowDocument?id=63151>

Nacimiento Water Company Agreement – The 1984 agreement with MCWRA allows the Nacimiento Water Company a water allocation of up to 600 AF per year to be extracted from wells within the floodage easement of Nacimiento Reservoir. The Nacimiento Water Company shall pay MCWRA quarterly for water from the allocation on the basis of AF used at a rate determined by this agreement.

Documents for this can be found in Appendix D of the Nacimiento Dam Operation Policy:
<https://www.co.monterey.ca.us/Home/ShowDocument?id=63151>

San Antonio Reservoir

Water Rights License 12624 - License for Diversion and Use of Water, No. 12624, from the California State Water Resources Control Board, was issued December 2, 1965 and amended April 22, 1990. This license was most recently amended September 5, 2008 to specify that the place of use of water from this license changed to include 421,435 acres of land comprising MCWRA's Zone 2C assessment zone, to add a point of rediversion at the SRDF, and to add fish flow requirements consistent with the June 21, 2007, National Marine Fisheries Service BO.

License No. 12624 gives MCWRA the right to store 220,000 AF from October 1 of each year to July 1 of the succeeding year and to withdraw a maximum of 210,000 AF per year for municipal, domestic, industrial, irrigation, and recreational uses.

The amended license can be found on the CA State Water Resources Control Board website:
https://www.waterboards.ca.gov/waterrights/board_decisions/adopted_orders/orders/2008/wro2008_0037dwr.pdf