

# Salinas Valley Water Coalition

33 El Camino Real • Greenfield, CA 93927  
(831) 674-3783 • FAX (831) 674-3835



Hand-Delivered and Transmitted via Email

Monterey County Water Resources Agency  
Reservoir Operations Advisory Committee

August 31, 2017

Re: Agenda Item #6, Consider receiving an updated Operation Policy for Nacimiento Dam and make recommendations to staff for moving the document forward

Dear Committee Members;

The Salinas Valley Water Coalition (SVWC) thanks Monterey County Water Resources Agency (Agency) staff and its Board of Directors for their willingness to form an ad-hoc committee (Committee) to develop an updated Operation Policy Manual (Policy Manual) for Nacimiento and San Antonio reservoirs. The last Policy Manual updates were approved in 2000 for Nacimiento Reservoir and in 2001 for San Antonio Reservoir, so the updates are important. I participated in the ad-hoc Committee on behalf of the SVWC, and the SVWC appreciates having had the opportunity to provide input on development of an updated Policy Manual. The SVWC appreciates the effort that Agency staff put into working with the ad hoc Committee. Although the SVWC supported moving this draft Policy Manual forward for review with the Reservoir Operations Committee, the public and stakeholders, the SVWC objects to the Draft Policy Manual that Agency staff is presenting to you today for the following reasons.

1. Water Rights: At the outset of the process for updating the Policy Manual, Agency staff agreed with the ad hoc Committee members that the purpose of updating the existing manuals is to clearly document the principles governing the Agency's operation of the reservoirs. The SVWC is concerned that the current draft Policy Manual ignores the first, and most fundamental, principle governing reservoir operations: Doing no harm. In this case, that means protecting prior downstream water rights and limiting reservoir operations to storage and regulation of excess flows for later release to augment natural recharge of the Salinas Valley Groundwater Basin (Basin) in a way that protects steelhead trout. During the ad hoc Committee proceedings, certain Agency staff said the Policy Manual should not consider prior downstream water rights of riparian and overlying landowners. But when the State Water Resources Control Board (State Water Board) approved the water rights authorizing construction and operation of Nacimiento and San Antonio reservoirs, it said the new reservoirs were "SUBJECT TO VESTED RIGHTS." And when the State Water Board approved a new water right permit authorizing the Agency to use the full, built storage capacity of Nacimiento Reservoir, it did so based on the Agency's promise that prior downstream water rights would not be injured, because the reservoir would only capture excess flows that would otherwise waste to the ocean. The existence of the Agency's reservoirs is conditioned on protecting prior downstream riparian and overlying rights (i.e., "vested rights") by operating them to ensure ongoing availability of the

water that would be naturally available to downstream rights if the reservoirs did not exist. The updated Policy Manual should acknowledge that fundamental principle of doing no harm and focusing the Agency on operating the reservoirs to store excess flows that would otherwise waste to the ocean and to regulate this excess to augment natural recharge to the Basin.

2. The Biological Opinion: During the ad hoc Committee proceedings, certain Agency staff said the National Marine Fisheries Service Biological Opinion (BO) for the Salinas Valley Water Project (SVWP) supersedes any and all reservoir operating principles and dictates how the Agency must operate the reservoirs. That is incorrect. Instead, the BO applies only to the Agency's storage and regulation of *excess flows* for purposes of *augmenting natural recharge* of the Basin. The BO says as much and does not prohibit the Agency from bypassing natural reservoir inflows for purposes of preserving natural water availability for prior downstream riparian and overlying water rights. Agency staff misunderstands that basic principle and erroneously assumes that the BO governs more than the SVWP's storage and regulation of *excess flows* for purposes of augmenting natural recharge. But the BO is clear that it applies to the SVWP, and the SVWP (*i.e.*, reservoir operations) only stores and regulates excess flows that would waste to the ocean and, by definition, cannot be used by prior downstream riparian and overlying water rights.

3. The SVWP: The SVWP provides for conservation releases during the irrigation season. The Agency must operate the SVWP as intended and described in the 2003 Engineer's Report to provide the benefits of the Project, and such operation must be described in the Operation Policy. Specifically, the Operation Policy must incorporate the essential components of the SVWP, which include the reoperation of the Nacimiento Reservoir to allow for "approximately 29,000 AFY (average over hydrologic record) of additional stored water that would be available for conservation releases (*i.e.*, recharge of the groundwater aquifers) and downstream diversion." (SVWP Engineer's Report, p. 2-2.)

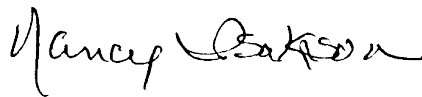
3. The Nacimiento Reservoir "rule curve": All significant reservoirs operate under some kind of "rule curve" defining how much water may be safely held in storage at different times of the year. Rule curves typically require a reservoir to bypass natural inflow during the wet season to preserve storage space adequate to absorb a large storm event without exceeding the dam's capacity to safely "spill" excess inflow without causing dam failure. The volume of that empty storage space is called a "flood pool." The SVWP modified Nacimiento Dam's spillway to increase its spill capacity and to modify the Dam's rule curve to allow higher storage levels during the wet season. Use of that additional capacity to store excess storm flows (called "reoperation") created the SVWP's approximately 29,000 AFY of additional average annual water supply yield over pre-SVWP reservoir operations. During the ad hoc Committee proceedings, Agency staff said the flood pool for winter operations is between elevations 787.75-800 feet above mean sea level, based on Nacimiento Dam's O&M Manual. Our review of the O&M Manual did not reveal any flood pool or rule curve to govern how the Agency will operate Nacimiento Reservoir during the wet season from February 1<sup>st</sup> through March 31<sup>st</sup> (in contrast to previous Agency O&M Manuals that did specify a flood pool or rule curve). The deletion of the Nacimiento rule curve is a significant departure from previous Agency policy governing operation of Nacimiento Reservoir. While the draft Policy Manual includes some discussion of flood control operations, there is a complete lack of information detailing how the Agency will balance its flood control duties with its duties to store excess inflows for regulation (*i.e.*, for release during the dry season, called "conservation" releases, because the regulation avoids this water wasting to the ocean). The draft Policy Manual omits the rule curve used to define the re-operation of Nacimiento Reservoir pursuant to the SVWP.

Accordingly, the draft Policy Manual fails to incorporate the SVWP's centerpiece -- re-operation of Nacimiento Reservoir to create the 29,000 AFY of additional average annual yield. That yield is what Zone 2C landowners voted to pay for when they approved the Zone 2C Assessment by an 85 percent margin. That yield is what the Agency promised when it published the 2003 SVWP Engineer's Report providing the technical basis for the Zone 2C Assessment. Absent a rule curve showing how the Agency will operate Nacimiento Reservoir to produce the SVWP's 29,000 AFY of yield within the 787.75 to 800 ft flood pool, the Agency is breaking its promise to Zone 2C Assessment payers. The need for operational flexibility is understood, but the unexplained rejection of the SVWP's rule curve and recent departure from past operating practices eliminates transparency and hides the rationale for the Agency's reservoir operations in a proverbial "black box." That is the exact opposite of what the updated Policy Manual is supposed to do.

Enclosed with this letter, please find a copy of staff's Draft Nacimiento Dam Operation Policy with the SVWC's comments inserted in "comment boxes" pursuant to Agency staff's request. We also enclose the Reservoir Operations Draft Manual completed by the SVWC. This Draft Manual was submitted to Agency staff and the ad-hoc committee for their consideration for inclusion in the Draft Nacimiento Dam Operation Policy. Although all these comments were previously submitted to Agency staff during the ad hoc Committee proceedings, the majority of these comments were disregarded and are not addressed in the staff's draft Policy Manual.

In conclusion, the SVWC wants to work with the Agency in its efforts to develop an Operation Policy Manual for the reservoirs that truly, and accurately, reflects the manner in which they should be operated. That includes operating principles that will avoid harming prior downstream water rights and while augmenting natural recharge of the Basin by the 29,000 AFY promised when the Agency approved the SVWP and persuaded landowners to approve the Zone 2C Assessment required to pay for the SVWP pursuant to Proposition 218.

Thank you for your consideration of these comments.

A handwritten signature in black ink, appearing to read "Nancy Isakson". The signature is fluid and cursive, with the first name "Nancy" being more prominent than the last name "Isakson".

Nancy Isakson, President  
Salinas Valley Water Coalition



NACIMIENTO AND SAN ANTONIO RESERVOIR JOINT OPERATIONS  
GUIDANCE MANUAL

MONTEREY COUNTY WATER RESOURCES AGENCY

Recommended by

RESERVOIR OPERATIONS COMMITTEE (DATE)

ADOPTED BY THE BOARD OF DIRECTORS (DATE)

[Type text]

## TABLE OF CONTENTS

## 1.0 INTRODUCTION

Nacimiento and San Antonio Dams were built and are maintained by funds from property owners of the Salinas Valley. The dams are operated for the benefit of the property owners through benefits assessments. The Agency's operation of the two dams is consistent with well-established and proven criteria used to operate hundreds of similar dams throughout the country.

Since the construction and operations of the Nacimiento and San Antonio dams and reservoirs in 1957 and 1967, respectively, the Monterey County Water Resources Agency (MCWRA) and its predecessor, the Monterey County Flood Control and Water Conservation District, have always operated the dams as a combined system to provide for flood control and downstream beneficial uses of the conserved water.

Early on, the facilities were operated based on oral and written policies passed on from one Agency staff member to another. In the 1990s, it became apparent that a written policy formally adopted by the MCWRA Board of Supervisors was needed for both Nacimiento and San Antonio dams. In September of 1992, the MCWRA established *Water Conservation Release Priorities for Nacimiento Dam*, setting clear priority for releases of stored/conserved winter runoff. In August 1997, the MCWRA approved *Nacimiento and San Antonio Reservoir Joint Operations and Guidance Manual*.

Changes to the operations of the dams and reservoirs occurred in 2010 when the Salinas Valley Water Project (SVWP) was constructed upon voter approval and subsequent creation of the Zone 2C assessment district. The goals of the SVWP are to re-operate the Nacimiento and San Antonio dams and reservoirs to increase recharge to the Salinas River Groundwater Basin (Basin) to hydrologically balance the Basin; address seawater intrusion through the construction of a diversion facility [i.e., Salinas River Diversion Facility (SRDF)]; and to provide flood protection.

Prior to the construction and operations of the SVWP in 2010, the MCWRA prepared a combined Environmental Impact Report and Environmental Impact Statement (SVWP EIR/EIS), which was certified by the MCWRA in June 2003. The SVWP EIR/EIS reviewed certain baseline conditions and included certain mitigation measures to address potentially significant impacts to riparian habitats and fishery flows, which were incorporated into the SVWP. The MCWRA also engaged in formal consultation with the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) due the SVWP's potential to adversely impact South-Central California Coast steelhead (*Oncorhynchus mykiss*), which is listed as threatened under the federal Endangered Species Act (ESA), and its designated critical habitat. NMFS, upon formal consultation with MCWRA, issued a biological opinion (SVWP BO) and an incidental take statement for the SVWP. The flow prescriptions set forth in the BO were then incorporated in the State Water Resources Control Board's Order WR 2008-0037 DWR amending the water right license and permit for the dams and reservoirs.

The MCWRA subsequently modified the SVWP and prepared an Addendum to the SVWP EIR, which was certified by the MCWRA on July 31, 2007. The Addendum included the same environmental baseline and mitigation measures as the SVWP EIR/EIS.

This Nacimiento and San Antonio Reservoir Joint Operations Guidance Manual (Manual) is to consolidate all existing operational procedures, permits, and requirements into a single concise report for the operations of the dams as a combined system.

## 1.1 Manual Purpose

- 1.1.1 To provide real time, seasonal and planned operating decisions for the joint operation of Nacimiento and San Antonio Reservoirs.
- 1.1.2 To incorporate the operational changes with the SVWP, including the environmental baseline and mitigation measures in the SVWP EIR/EIS and the Addendum and the flow prescriptions in the SVWP BO.
- 1.1.3 To protect the water rights of the MCWRA and riparian and overlying owners of the Salinas River and Salinas River Groundwater Basin.

## 1.2 Project Owner and Operator

Monterey County Water Resources Agency (MCWRA) is the project owner responsible for maintenance, physical operation and dam safety and must operate the dams consistent with the SVWP and its EIR/EIS, SVWP BO, and SWRCB permits and licenses. In order to meet these responsibilities, the MCWRA collects assessment fees from landowners of various assessment districts in exchange for special benefits received over and above the benefits conferred on the public at large.

## 1.3 Authority

The Agency was legislatively created pursuant to Monterey County Water Resources Agency Act, 1990 Stats. 1159, 1991 Stats. 1130, 1993 Stats. 234, and 1994 Stats. 803 (Agency Act) and is a public entity organized and existing under the laws of State of California. The Agency Act defines the purpose, powers and authority of the Agency. Under the Agency Act, the MCWRA's responsibilities include, among others, "to provide for the control of the flood and storm waters of the MCWRA and the flood and storm waters of streams that have their sources outside the MCWRA, but which streams and flood waters flow into the Agency, and to conserve those waters for beneficial and useful purposes by spreading, storing, retaining, and causing those waters to percolate into the soil within the Agency..." (Agency Act §§4,8.)

## 1.4 Responsibilities

### 1.4.1 Governance

The MCWRA is governed by a nine-member Board of Directors (Directors) whose members are appointed by a five-member of the Monterey County Board of Supervisors (Supervisors). The Supervisors has overall responsibility for passing ordinances, addressing legal actions and matters, setting rates and adopting budgets. The Directors adopt and amend the reservoir operations guidelines, establish reservoir release schedules, adopt other related Agency policies, guidelines and procedures and appoint the Reservoir Operations Committee.

### 1.4.2 Reservoir Operations Committee.

The Reservoir Operations Committee was established as an Ad-Hoc Committee in December 1993; as a standing committee in October 1996; and as an advisory Committee in April 2016 by the MCWRA.

The Reservoir Operations Committee is composed of three Directors, the Chair of the Board of Directors, and 14 non-Director members. The Chair appoints non-Director members to the Committee as follows:

- One representative of a Salinas Valley City; one representative each of the Pressure, East Side, Forebay, Upper Valley and Arroyo Seco groundwater subareas; and three members of the public at large. The Committee also promotes the attendance and participation of the San Luis Obispo County Public Works Department, Monterey County Parks Department, Water Management Advisory Committee, and the Salinas River Channel Coalition.

The purpose of the Reservoir Operations committee is to review all matters pertaining to Nacimiento and San Antonio Reservoirs. The committee does not make binding decisions on those matters. Rather, the committee makes recommendations on those matters that are to be considered by the MCWRA Directors.

#### 1.4.3 Agency Staff

The General Manager, or his designee, is responsible for the safe and professional operation of Nacimiento and San Antonio dams consistent with MCWRA policies, permits, and requirements discussed above. The dams will be operated in accordance with this Manual, using the professional judgment of qualified engineers. The dams will be operated with safety considerations and considerations for flood control, water conservation and to halt seawater intrusion for the health of the basin.

### 1.5 Regulating Agencies

- 1.5.1 State Water Resources Control Board - Manages surface water rights through issuance of permits and licenses.
- 1.5.2 California Department of Water Resources Division of Dam Safety - Inspects dams on a regularly scheduled basis and requires a strict adherence to the designated flood control rule curve.
- 1.5.3 National Oceanic Atmospheric Administration's National Marine Fisheries Service (NMFS) - Conducted formal consultation with the U.S. Army Corps of Engineers on the issuance of a section 404 permit to the MCWRA for the SVWP. NMFS issued a Biological Opinion and an incidental take statement, dated June 21, 2007, for South-Central California Coast steelhead (*Oncorhynchus mykiss*), which is listed as threatened under the ESA.
- 1.5.4 U.S. Fish and Wildlife Service (USFWS) – Conducted formal consultation with the U.S. Army Corps of Engineers on the issuance of a section 404 permit to the MCWRA for the SVWP. USFWS issued Biological Opinion and an incidental take state, dated July 24, 2007, for western snowy plover (*Charadrius alexandrinus nivosus*), which is listed as threatened under the ESA.
- 1.5.5 National Weather Service (NWS), National Oceanic and Atmospheric Administration (NOAA). NWS/NOAA have legal responsibilities for issuing weather forecasts and flood warnings.
- 1.5.6 Federal Energy Regulatory Commission (FERC) - FERC has jurisdiction as a result of the installation and operation of the hydroelectric power generation facility on Nacimiento in 1987. As discussed below, the generation of power is an incidental benefit to the release of water for downstream beneficial use.<sup>1</sup>

---

<sup>1</sup> SVWP FEIR, page 2-395



## 2.0 DESCRIPTION

### 2.1 Watershed and Groundwater Basin

The Salinas River watershed is comprised of two parts, an upper watershed, that resides primarily in San Luis Obispo County and is primarily unregulated by any large reservoirs; and the lower watershed which is found primarily in Monterey County. The Nacimiento and San Antonio watersheds are the largest tributaries to the Salinas River lower watershed, and are regulated by their respective reservoirs primarily to meet flood control and water conservation objectives. The Arroyo Seco River is other major unregulated watershed that provides significant winter flood flows to the Salinas River and influences flood control operations for the two reservoirs. There are many smaller tributaries and subwatersheds contributing runoff and recharge to the Salinas River Groundwater Basin.

### 2.2 Water Rights

#### 2.2.1 Nacimiento

To help increase the utilization of Salinas River flows for groundwater recharge to the Basin and to provide flood control benefits, Nacimiento Dam and Reservoir was built in 1957. The State Water Resources Control Board (SWRCB) Division of Water Rights issued License 7543 to MCWRA on November 4, 1965, pursuant to permitted Application 16124; issued License 12624 to MCWRA on December 2, 1965 (amended April 22, 1990), pursuant to permitted Application 16761; and issued Permit 21089 to MCWRA on March 23, 2001, pursuant to Application 30532. The priority of License 7543 is November 4, 1954. The priority of Amended License 12624 is December 2, 1955. The priority of Amended Permit 21089 is April 23, 1996. Permit 21089 allows for diversion and storage of an additional 27,900 afy in the Nacimiento Reservoir.

On November 8, 2004, MCWRA filed a petition to change the place of use and add a point of re-diversion under Licenses 7543 and 12624 and Permit 21089. The SWRCB adopted Order WR 2008-0037 DWR on September 5, 2008 amending the licenses and permits to include:

1. Collection of water from October 1 of each year to July 1 of the succeeding year;
2. Diversion to storage of 377,900 acre-feet per year (afy);
3. Maximum withdrawal of 180,000 afy;
4. Place of use to include 421,435 acres comprising MCWRA Zone 2C assessment zone;
5. A point of diversion to include the Salinas River Diversion Facility (SRDF); and
6. Flow prescriptions in accordance with the SVWP BO issues by NMFS on June 20, 2007.

San Luis Obispo County is entitled to 17,500 afy and has recently developed a project to begin taking the water. The MCWRA reservoir operations to-date have included the small amount of deliveries to the lakeside residents in San Luis Obispo County, under the 1959 Agreement, which total a minimum of approximately 1,300 AFY.<sup>2</sup>

---

<sup>2</sup> SVWP DEIR, page 5.3-5.

### 2.1.2 San Antonio

San Antonio Dam and Reservoir were completed in 1967, and the SWRCB issued Permit 012261 on \_\_\_\_\_ and License 012624 on April 26, 1990. The priority for this appropriative right is December 2, 1955. Under this license:

1. San Antonio Reservoir has a maximum capacity of 335,000 afy;
2. Maximum storage right of 220,000 afy to be collected from October 1 through July 1 of the succeeding;
3. Maximum annual withdrawal rate of 210,000 afy;
4. Place of use to include 421,435 acres comprising MCWRA Zone 2C assessment zone;
5. A point of diversion to include the Salinas River Diversion Facility (SRDF);
6. Flow prescriptions in accordance with the Biological Opinion issued by NMFS on June 20, 2007

### 2.2 MCWRA's Appropriative and Landowners' Riparian and Overlying Water Rights

A person who owns real property abutting or contiguous to a watercourse (riparian) or overlying a groundwater basin (overlying landowner) has a corresponding right to divert or produce water for use on his or her riparian or overlying land within the watershed. *People v. Skirokow* (1980) 26 Cal.3d 301, 307; *City of Pasadena v. City of Alhambra* (1949) 33 Cal.2d 908; *Phelps v. State Water Res. Control Bd.* (2007) 157 Cal.App.4th 89, 116. "Riparian" surface water rights arise from ownership of land adjacent to a natural stream. Riparian rights extend to surface water that is naturally available from the stream. "Overlying" groundwater rights arise from ownership of land overlying a groundwater basin. Overlying groundwater rights extend to groundwater that is naturally available.

Riparian and overlying rights exist and may be exercised if: (1) the water source is a natural water supply; (2) the land where the water is used is contiguous to or overlying the water source; and (3) the land where the water is used is located within the watershed of the water source. *Rancho Santa Margarita v. Vail* (1938) 11 Cal.2d 501, 528-529; *Pleasant Valley Canal Co. v. Borror* (1998) 61 Cal.App.4th 742.

Salinas Valley landowners' riparian rights extend to natural flows in the Salinas River (including flows from upstream tributaries, like the Nacimiento and San Antonio rivers). The landowners' overlying rights extend to naturally occurring groundwater from the Basin underlying their land. The naturally occurring groundwater includes water originating as recharge from Salinas River natural surface flows.

In California, a water rights "priority" system determines who gets how much water, if any, during a shortage. The characterization of a water right determines its relative priority to the source of supply. Under the priority system, the riparian and overlying owner's right to a natural water source is superior to an appropriative right in the same source. *Peabody v. City of Vallejo* (1935) 2 Cal.2d 351; *Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist.* (1935) 3 Cal.2d 489.

The MCWRA holds appropriative surface water rights for the two reservoirs. Under the preceding water rights priority principles, MCWRA may only collect to storage those Nacimiento and San Antonio stream flows during October 1 to July 1 of each year that are surplus to the reasonable beneficial needs of downstream riparian and overlying landowners.

The availability of surplus water for appropriation by the MCWRA depends on the

reasonable and beneficial water needs of downstream riparian and overlying landowners compared to the natural flows available to meet those needs—all under a given hydrologic condition (e.g., during particular days, weeks or months of a wet year, average year or dry year). The MCWRA must operate the reservoir(s) in a manner that bypasses sufficient natural inflow to maximize recharge of Salinas River and of the Basin, consistent with MCWRA's existing water right permits/licenses and in a manner so as not to cause harm to landowners' reasonable and beneficial use of their riparian and overlying senior water rights.

### 2.3 Description of Facilities

Nacimiento and San Antonio Reservoirs operate as a system and are jointly operated to provide maximum benefits. The spillway crest at Nacimiento is at elevation 787.75 ft. with inflatable gates that can be raised to an elevation of 800 ft.

The Nacimiento Dam has two outlets. The High Level Outlet Works (HLOW) is composed of twin 8' x 8' square steel slide gates and cast concrete tunnels located under the center of the spillway at an elevation of 755 feet. The maximum elevation during flood stage is 825 feet, with a maximum temporary capacity of 538,000 acre feet and a temporary surface area of 7,149 acres.<sup>3</sup> The HLOW are designed to provide capacity for drawdown of the flood storage pool when discharges greater than the capacity of the low-level outlet works is required.

The Low Level Outlet Works (LLOW) is a 53-inch diameter pipe located near the southern side of the Dam. The inlet to the LLOW consists of three 42-inch butterfly valves for emergency closure and operated from a control building on the dam crest. A steel trash rack with 12-inch by 6-inch nominal size openings is provided on each intake. The steel outlet conduit is encased in reinforced concrete and lined with ½-inch of mortar. The conduit terminates with a six-branch outlet manifold. Five branches of the manifold are controlled by 24-inch rotating plug valves. Two of the five plug valves are designed for throttling discharges, whereas the other three valves can be operated safely only in the full open position. The sixth and farthest upstream branch is controlled by a 24-inch gate valve. The inlet to the LLOW is set in a concrete structure at an elevation of 670'. Releases from the LLOW can be made from either the manifold of 6 24-inch valves. The LLOW has a maximum capacity of approximately 600 cfs when the Lake elevation is 800 ft.

San Antonio Dam has an Outlet Works consisting of an 84-inch diameter, 1,085-foot long steel conduit located near the center of the Dam. The conduit leads through the dam embankment from a small intake structure to an outlet structure, which contains a Howell-Bunger type valve and supports a concrete house. The Outlet Works has a maximum capacity of 2,200 cfs when the reservoir elevation is 780 feet.<sup>4</sup>

---

<sup>3</sup> [http://www.mcwra.co.monterey.ca.us/reservoirs-dams/reservoirs-dams\\_overview.php](http://www.mcwra.co.monterey.ca.us/reservoirs-dams/reservoirs-dams_overview.php)

<sup>4</sup> [http://www.mcwra.co.monterey.ca.us/reservoirs-dams/reservoirs-dams\\_overview.php](http://www.mcwra.co.monterey.ca.us/reservoirs-dams/reservoirs-dams_overview.php)

### 3 HISTORICAL OPERATIONS AND SVWP

The MCWRA built and operates the reservoirs for two primary purposes: flood control and conservation of water through capture and storage of water during the wet season and subsequent controlled release of water for groundwater recharge and surface water deliveries. The Agency seeks to balance the flood control and water supply objectives, which at times, may not be compatible.<sup>5</sup>

Prior to the development of reservoir operations policies in the late 1990, the reservoirs were operated based on written and verbal guidelines which made it difficult for the public and policy makers to fully understand how the two reservoirs were being managed for the combined goals of flood protection and water conservation. The Directors formed the Reservoir Operations Committee, deciding that more comprehensive written policies and guidelines were needed for both Nacimiento and San Antonio dams. The MCWRA adopting the Nacimiento Dam Operation Policy in 2000 and the San Antonio Dam Operation Policy in 2001.<sup>6</sup> These are superseded by this Manual.

#### 3.1 Historical Operation

##### 3.1.2 Storage of Natural Flows and Operations

Prior to construction and operation of the Nacimiento and San Antonio reservoirs, rain falling in the watershed would gather into streams flowing into the Salinas River, which flowed into Monterey Bay. The Salinas River's bed is porous and those flows would naturally recharge the Basin. During wet winters, the natural flows exceeded the maximum groundwater recharge rate, causing flooding and discharging large quantities of fresh water into Monterey Bay. For the past 50 or years, the MCWRA has preserved landowners' riparian and overlying water rights while operating the reservoir to store excess water in the wet season for release during the dry season to artificially augment groundwater supplies.

Reservoir releases normally peak twice each year, during late winter or early spring for flood control purposes, and during the summer when controlled releases are made for downstream groundwater percolation. Normal low discharge periods have been in December and January and again in April and May. However, large flood releases have also occurred during these periods. During average to wet years, the MCWRA has historically been able to limit fluctuation of the reservoirs, drawing down the reservoir to the top of the conservation pool during December of each year. Then as winter precipitation slowed, river inflow was gradually stored in the reservoir through February and March. During this period reservoir releases have been controlled and water stored depending on flood potential, up to the spillway top of the designated flood pools. Historically, during April and May releases were normally kept to a minimum, thus maintaining maximum reservoir storage for summer releases. From June through December releases were made for downstream users and groundwater percolation, with the

---

<sup>5</sup> SVWP FEIR, page 2-395

<sup>6</sup> SVWP DEIR, page 5.3-4

reservoir storage being released principally during the summer months into October<sup>7</sup>.

### 3.1.3 Flood Control

The first priority for flood operations is to protect the dams. The dams were designed to retain the probable maximum flood (PMF) and to minimize flood risk and damage to downstream areas. Nacimientito and San Antonio Lakes store winter storms in a defined flood control pool. The PMF for Nacimientito was updated in 2001 and for San Antonio in 1999. Releases can then be timed to avoid adding flood flows to the unregulated runoff from the upper watershed. The objective is to let the peak flows from the upper watershed pass, then provide controlled releases from the combined flood pools. To the degree possible, the flood operations also seek to time reservoir releases such that the controlled releases do not add to the peak flood flows from the Arroyo Seco River. The amount of empty flood storage needed decreases in the spring, and the Lakes are allowed to fill up as the probability of major rain events and runoff decreases.

### 3.1.4 Water Conservation

The water right permits and licenses define what waters can be stored and conserved. Both reservoirs have defined conservation pools that retain winter runoff to be released down the Salinas River through the spring and summer to percolate through the river bed and recharge the Salinas River Groundwater Basin.

### 3.1.5 Water Storage Operating Ratio

Given the topography and hydrology of the region, the Nacimientito watershed generates three times the amount of runoff than that generated by the San Antonio watershed. Given this difference, the MCWRA historically operated the reservoirs to ensure the amount of empty storage space in Nacimientito Reservoir remained approximately three times that of San Antonio Reservoir. The MCWRA historically has had a target storage rule of 3:1 for Nacimientito and San Antonio reservoirs. The target storage ratio seeks to balance storage and releases between the two reservoirs to optimize water conservation and flood protection benefits. By maintaining the 3:1 ratio, the Agency effectively operated the two reservoirs as a single system in a way that maximized the reservoirs' flood protection and water conservation benefits.<sup>8</sup>

## 3.2 The Salinas Valley Water Project (SVWP)

The Salinas Valley Water Project (SVWP) has been approved, built and is being operated by the MCWRA. The SVWP resulted in planned changes to the operation of the two reservoirs. The SVWP includes:

1. Reoperation and maintenance of the existing reservoirs;
2. Construction of the Nacimientito Dam Spillway Modifications; and
3. Construction of the Salinas River Diversion Facility.

The first component, operation and maintenance of the existing reservoirs, includes direct operations and maintenance of the existing facilities, along with the associated activities of

---

<sup>7</sup> MCWRA Nacimientito Dam Emergency Action Plan, December 1996, included at attachment to the existing reservoir operations manual; Appendix V, page V-3

<sup>8</sup> SVWP FEIR, page 2-54

maintenance of the Salinas River channel, Salinas River mouth, cloud seeding, debris clearing, data collection and management, and other administrative tasks<sup>9</sup>.

The second component is construction of the spillway modifications at Nacimiento Dam. The proposed improvements include lowering of the existing spillway, installation of an inflatable dam on the new spillway sill, and enlargement of the spillway chute. The spillway modifications allow for changes in the way the reservoirs are operated for both flood control and water supply.

The third component is the construction of the Salinas River Diversion Facility, the point of diversion in the amended rights for the two reservoirs; an inflatable diversion structure and associated fish screen and pumping facilities that would allow for diversion of Salinas River water into the existing Castroville Seawater Intrusion Project (CSIP) distribution system. The purpose of the Diversion Facility is to halt seawater intrusion. It is important to point out that if the Nacimiento Lake were operated so that lake levels were not reduced below 730 feet in certain hydrologic conditions, modeling performed as part of the SVWP shows that seawater intrusion would not be halted and the objectives of the SVWP would not be met.<sup>10</sup>

In 2003, a successful assessment ballot proceeding pursuant to Proposition 218 approved and funded the SVWP. The MCWRA Board of Supervisors adopted Resolution No. 04203, which created Zone 2C as the benefit zone for SVWP. Within Zone 2C, each property was assessed in proportion to the special benefits conferred by the SVWP. Reservoir operations changed through SVWP in order to provide additional water for surface diversion and groundwater recharge; ensure adequate flood control capacity; maximize conservation releases; and halt seawater intrusion for the health of the basin.

The SVWP EIR contemplated the changes to the operations of the two reservoirs as follows:

“Once the SVWP is operational, the MCWRA would need to consider whether to revise its reservoir operation practices (including the maintenance of the 3:1 ratio in storage space between the two reservoirs) in order to reflect the larger spillways and the need for increased releases to recharge the Basin. The MCWRA intends to consider revision of these operations standards (including revisions that would lessen impacts on recreational impacts at Lake Nacimiento) as it gains experience in operating the reservoirs under these new conditions. Because any such changes will be the result of future experience gained through operating under real-time (rather than modeled) conditions, however, it is premature and speculative at this time for the MCWRA to commit to any specific changes.”<sup>11</sup>

The total amount of water in the watershed that flows through the reservoirs did not change substantially between pre-SVWP and post-SVWP. However, the timing of the releases changed, with the SVWP allowing more water to be retained at the reservoirs during the non-irrigation season (instead of being released as spills to allow for more flood storage), for release during the irrigation season.<sup>12</sup> The spillway modifications at Nacimiento Dam allowed changes in the way both reservoirs are operated, resulting in additional water for surface diversion and/or groundwater

---

<sup>9</sup> Salinas Valley Water Project, Engineers Report, RMC January 2003.

<sup>10</sup> SVWP FEIR, page 2-49

<sup>11</sup> SVWP FEIR, page 2-41

<sup>12</sup> SVWP, FEIR, page 2-44

recharge, assuring the provision of adequate flood control capacity, and maximizing conservation releases. Based on the hydraulic modeling conducted for the SVWP, it was determined that reoperation of both reservoirs could (1) increase the water available for surface diversion and/or groundwater recharge and (2) halt seawater intrusion.

The increased flexibility provided by the spillway modification is realized during the late winter and early spring when Nacimiento Reservoir levels have historically been maintained at a maximum elevation of 777 feet (per the currently accepted rule curve) for flood control operation and to accommodate existing spillway capacity. During normal and heavier rainfall years, this meant that MCWRA was forced to release water from the reservoir that could otherwise have been stored for conservation (i.e., recharge) uses later in the year during the late-spring/summer months. By increasing the capacity of the spillway and reoperating Nacimiento and San Antonio Reservoirs, more water can be stored during the winter/spring, while still passing the PMF, thus making more water available for release later in the year. Reoperation involves changes in the amount, frequency, and schedule for releases of water from the reservoirs into the Nacimiento and San Antonio rivers connecting to the Salinas River. Specifically, the average change in water elevation as a result of reoperation and spillway modification is a decrease from 13 to 16 feet from January to May, and from 19 to 27 feet lower from June to December as compared to pre-SVWP conditions. From July through December Nacimiento Reservoir will be operating below 730 feet.<sup>13</sup>

Although no physical modifications were required at San Antonio Reservoir, the operation and management of the two reservoirs are influenced by each other, and therefore, a change in operation at Nacimiento Dam translates into a change in operation at San Antonio Dam.<sup>14</sup> Releases from San Antonio Reservoir are generally higher during the summer months than under pre-SVWP conditions. Reoperation increases the releases from San Antonio Reservoir during the irrigation months to enhance groundwater recharge and meet diversion requirements. During the winter and early spring months, a reduction in releases should occur so that recharge and diversion occur during the April through October period.<sup>15</sup>

---

<sup>13</sup> SVWP DEIR, page 5.8-20 & Table 5.8-5

<sup>14</sup> SVWP Engineers Report, page 2-2

<sup>15</sup> SVWP Engineers Report, page 2-2

## 4 OPERATIONAL GUIDELINES AND POLICY

### 4.1 Preparation of Reservoir Conservation Release Schedule (Natural Flows and Fish Flows are Addressed Separately below)

Nacimientto and San Antonio Reservoirs are to be operated jointly to provide maximum water conservation and recharge, water quality (i.e., seawater intrusion) and flood control special benefits and is funded by the Zone 2C assessments. The operations must be consistent with water rights and prevailing local, state and federal laws.

Each year, MCWRA staff will draft a Preliminary Reservoir Release Schedule that will be consistent with this Manual. The purpose of the Preliminary Reservoir Release Schedule is to guide the MCWRA releases from both Nacimientto and San Antonio Dams and will be prepared each spring for consideration at the Reservoir Operations Committee April meeting. The Reservoir Operations Committee will recommend the Proposed Release Schedule to the Board of Directors for adoption during a noticed public meeting. The Reservoir Operations Committee will review the adopted Release Schedule monthly and make recommendations of changes as needed to the Board of Directors for their ultimate approval during a noticed public meeting.

### 4.2 Flood Operations Rule Curves and Constraints

The purpose of the rule curve is to insure that sufficient flood storage is available in the reservoir at the start of the Probable Maximum Flood (PMF), for routing the flood through the reservoir without overtopping the dam. Probable Maximum Precipitation (PMP) estimates from Hydrometeorological Report No. 36 (HMR 36), published by the National Weather Service<sup>16</sup>.

#### 4.2.1 Nacimientto

Nacimientto Reservoir may be filled with the inflatable gates (Obermier Weir) raised to an elevation of 800 ft. Based on this modification pursuant to, and as approved by, the SVWP, there is no required DSOD and FERC flood rule curve for Nacimientto Reservoir because the new spillway was designed to pass the PMF safely, without damage to the dam structure. However, the MCWRA has a flood control rule curve during the rainy season, in order to have sufficient storage available to reduce the risk of downstream flooding. Figure 1 shows the pre-SVWP and SVWP modified rule curve for Nacimientto Reservoir.<sup>17</sup>

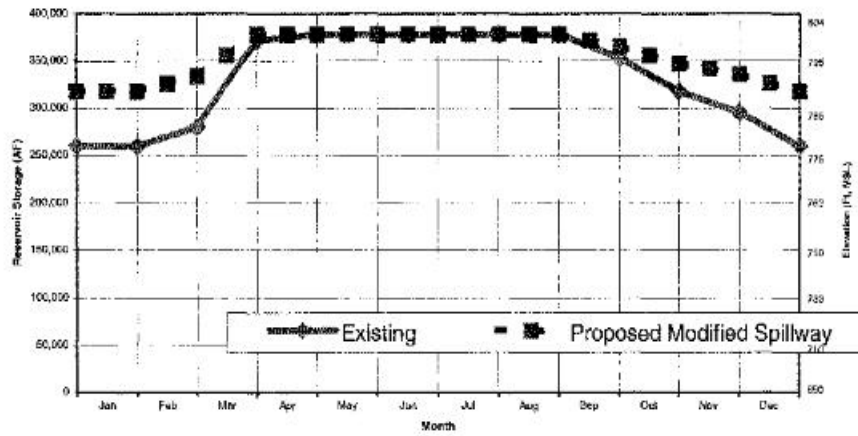
---

<sup>16</sup> The National Weather Service (NWS) has revised the PMP estimates for California, and replaced HMR 36 with a new report, HMR 58, published in January of 1999.

<sup>17</sup> SVWP FEIR, page 3-19



Figure 1 – Nacimientto Rule Curves



Source: MCWRA, 1997

Figure 5.3-4: Existing and Proposed Flood Control Space Requirements for Nacimientto Reservoir

The Tables below include the Nacimientto – flood control storage and the Nacimientto—Rule Curve.<sup>18</sup> These are the targets and rule curve for flood storage to be utilized by the MCWRA as its baseline for managing the operations of the reservoirs in order to meet the objectives of the SVWP.

<sup>18</sup> These assumptions included and utilized in the SVIGSM, pre-SVWP and post-SVWP with the Biological Opinion

### NACIMIENTO - FLOOD CONTROL STORAGE

	Pre-SVWP		Post-SVWP w/ BO		
Month	Storage (acre feet) Beginning	Storage (acre-feet) Ending	Storage (acre feet) Beginning	Storage (acre-feet) Ending	Difference (Ending)
1	267900	267900	317900	317900	50000
2	267900	267900	317900	333900	66000
3	322900	322900	333900	377900	55000
4	377900	377900	377900	377900	0
5	377900	377900	377900	377900	0
6	377900	377900	377900	377900	0
7	377900	377900	377900	377900	0
8	377900	377900	377900	377900	0
9	377900	377900	377900	365200	-12700
10	310900	310900	365200	347500	36600
11	281900	281900	347500	335900	54000
12	272900	272900	335900	317900	45000

NACIMIENTO - FLOOD CONTROL STORAGE				
(By Elevation)				
		Pre-SVWP	Post-SVWP & BO	
	Elevation	Storage (acre-feet)	Storage (acre-feet)	Difference/ Additional Capture
	825		538250	35000
	820		503250	33400
	815		469850	32050
	810		437800	59900
	800	377900	377900	
	790	323050	323050	
	780	272900	272900	
	770	227500	227500	
	760	186950	186950	
	750	150950	150950	
	740	119450	119450	
	730	92150	92150	
	720	69000	69000	
	710	50150	50150	
	700	35450	35450	
	690	24300	24300	
	680	16150	16150	
	670	10300	10300	
	660	6250	6250	
	650	0	0	

#### 4.2.1.1 Nacimiento Operating Elevations

1. Dead Pool: Elevation 670 feet, 10,300 acre feet, the invert of the Intake Structure of the LLOW. Water cannot flow by gravity out of the Lake below elevation 670 feet.

2. Minimum Pool: Minimum pool elevation is 670<sup>19</sup> - 687.8 feet, 10,300 acre feet - 22,300 acre feet. Water will not be released below this elevation by the MCWRA. San Luis Obispo County may take its water entitlement from below this elevation.
3. Conservation Pool Elevation: Elevation 670 – 787.75 feet. The storage above the Minimum Pool, 670 - 687.8 feet, and below the Flood Pool (defined below), 670 - 787.75 feet, is used to store water for release to the Salinas Valley for groundwater recharge, fish passage and the operation of the SVWP. The volume of the Conservation Pool is 289,013 acre feet – 311,313 acre feet.<sup>20</sup>
4. Flood Pool Elevation: Elevation 787.75 feet – 800 feet, 311,313 acre feet – 377,990 acre feet. The bottom of the Flood Pool is the spillway elevation 787.75, 311,313 acre feet. The top of the Flood Pool is the maximum lake elevation 800 feet, 377,900 acre feet. The size of the flood pool varies monthly based on flood probability.
5. Maximum Lake Elevation: The top of the raised Obermeyer spillway gate is at elevation 800 feet, 377,900 acre feet. This is the maximum Lake elevation that can be sustained, and is the level at which the Lake is considered full.
6. Top of Dam: The top of the Dam is at elevation 825 feet. This is the maximum temporary elevation the Lake will ever attain during the PMF. The MCWRA has flood easements around the Lake up to this elevation. The MCWRA requires any construction of habitable structures, or structures that can be damaged by inundation be above elevation 825 feet. Construction of any structures, such as boat ramps or roads; or grading, that occurs below elevation 825 feet requires approval from the MCWRA prior to beginning work.

#### 4.2.2 San Antonio

The MCWRA conducted hydrologic study based on HMR 58, updated PMF and revised the flood rule curves in 1999 (GEI, 1999). Based on the updated PMF and reservoir flood-routing analyses, MCWRA petitioned the DSOD to permanently remove the current seasonal storage restriction based on the DSOD mandated rule curve. Removing the rule curve allowed MCWRA to operate the reservoir for water supply and flood control without DSOD restriction.

---

<sup>19</sup> MCWRA Nacimiento Dam Emergency Action Plan, December 1996, included at attachment to the existing reservoir operations manual

<sup>20</sup> MCWRA Nacimiento Dam Emergency Action Plan, December 1996, included at attachment to the existing reservoir operations manual

#### 4.2.2.1 San Antonio Operating Elevations

1. Dead Pool: Elevation 645 feet, 10,000 acre feet.
2. Minimum Pool: Elevation 666 feet, 23,000 acre feet, is the minimum pool elevation. Water below elevation of 666 feet is reserved for fish and wildlife and wildlife storage.
3. Conservation Pool Elevation: The conservation pool which extends from minimum pool, 666 feet, to elevation of 774.5 feet, 305,000 acre feet of storage are the operation pool used to store water for later release to the Salinas River for groundwater recharge, fish passage, and the operation of SVWP.
4. Flood Pool Elevation: The flood pool extends from the conservation pool to the spillway elevation of 780 feet, 335,000 acre feet of storage. It varies monthly based on flood probability. The flood pool is intended to provide winter flood protection by maintaining the ability of the spillway to pass the PMF without overtopping the dam.
5. Maximum Lake Elevation: When the reservoir is full (elevation 780 feet), which is the crest of the spillway, it has a maximum storage capacity of 335,000 acre-feet, is 16 miles long, and has about 100 miles of shoreline. The maximum elevation during flood stage is 802 feet, with a maximum temporary capacity of about 477,000 acre-feet and a temporary surface area of about 7,500 acres.
6. Top of Dam: The crest of the dam elevation is 802 feet above mean sea level (msl) with a spillway crest elevation of 780 feet.

#### 4.3 Storage Operations Guidance and Target Objectives

The Nacimiento Dam flood control rule curve changes provide additional flood evacuation capability through the enlarged spillway. This change results in a reduction in the required empty storage space at Nacimiento Reservoir during some months. The target storage rule curve between Nacimiento and San Antonio also generally maintained the 3:1 ratio storage/release ration between the two reservoirs. The change in the target storage rule curve essentially results in less water having to be released from Nacimiento Reservoir and more being released from San Antonio Reservoir.<sup>21</sup>

#### 4.4 SVWP

Consistent with the approval of the SVWP, it is the policy of the Board that the joint reservoir operations will seek to;

1. Operate Nacimiento Lake starting from July through December so that lake levels are reduced below 730 feet in order to halt seawater intrusion.<sup>22</sup>

---

<sup>21</sup> SVWP FEIR, page 2-55

<sup>22</sup> If the Nacimiento Lake were operated so that lake levels were not reduced below 730 feet in certain hydrologic conditions, modeling performed as part of the SVWP shows that seawater intrusion would not be halted and the objectives of the SVWP would not be met. (Reference:

2. Provide a target average annual increase in storage of approximately 29,000 AFY (average over hydrologic record) to be made available for conservation releases (i.e., recharge of the groundwater aquifers) and downstream diversion.<sup>23</sup>
3. Provide a target of up to 11,000 acre feet per month for the April through August period<sup>24</sup> for diversion and recharge during the irrigation months.
4. The annual increase above the historical average in storage, recharge and diversions will be reported in the Reservoir Operations Annual report

#### 4.5 Use of Outlet Works to meet Flow Guidelines and Requirements

1. The Low Level Outlet Works of Nacimiento Dam shall be the primary outlet for releases. The capacity of the outlet is approximately 600 cfs and 585 cfs when the Lake elevation is 767, and at elevations less than 755, an optimal capacity of up to 585cfs.
2. When the need for releases exceeds the 600 cfs capacity of the LLOW, releases shall be made from the HLOW (high level gates) if the Lake elevation is above 755 and/or from the Obermeyer spillway gate if the lake elevation exceeds 787.75 feet or from San Antonio Reservoir.
3. The outlet works at San Antonio will be operated to meet the downstream flows consistent with the stage- discharge curves.

#### 4.6 Monitoring Natural Flow

1. The MCWRA must operate the reservoir(s) in a manner that bypasses sufficient natural inflow to maximize recharge of the Salinas River Groundwater Basin, consistent with MCWRA's existing water right permits/licenses and in a manner so as not to cause harm to landowners' reasonable and beneficial use of their riparian and overlying senior water rights.

#### 4.7 SVWP

1. Releases shall be consistent with the MCWRA appropriative water rights, SVWP, SVWP Engineer's Report, SVWP EIR and Addendum to the EIR.
  - a. Provide releases of natural inflow in the Nacimiento and San Antonio reservoirs in February and March for adult passage consistent with the SVWP (and as described in the Biological Opinion).
  - b. Provide releases of natural inflow in the Nacimiento and San Antonio reservoirs during July through September when MCWRA does not have the right to appropriate any excess water under its licenses/permits.
  - c. Provide releases of water as part of the SVWP reoperation of up to 11,000 acre feet per month from April through August, which is a covered activity in the NMFS' Incidental Take Statement.
  - d. During the period of December 1 to May 31 and while the Arroyo Seco daily average flow as measured at the USGS Arroyo Seco near Soledad gage is 173

---

SVWP FEIR, page 2-49.)

<sup>23</sup> SVWP Engineers Report, page 2-2

<sup>24</sup> SVWP Engineers Report, page 2-2

cfs or more or if daily average flow in the Salinas River measured at Paso Robles is 60 cfs or more, provide sufficient releases from Nacimiento and/or San Antonio reservoirs, such that Salinas River daily average flows upstream of Spreckels (measured at the USGS Spreckels gage or estimated from the Chualar gage) would not be below 155 cfs, and Salinas River daily average flows downstream of Spreckels would not be below 72 cfs<sup>25</sup>. (Mitigation Measure)

- e. During the period of December 1 to May 31 while the surface diversion facility is in operation and while the Arroyo Seco daily average flow as measured at the USGS Arroyo Seco near Soledad gage has been 173 cfs or more within the preceding 10 day period or if daily average flow in the Salinas River measured at Paso Robles has been 60 cfs or more within the preceding 10 day period, sufficient flow would be bypassed at the diversion facility to allow passage of steelhead to the Salinas River lagoon. A flow of 45 cfs from the dam site to the lagoon has been estimated as sufficient for passage when the lagoon is open to the ocean<sup>26</sup>. (Mitigation Measure)
- f. During the period of December 1 to May 31 and when the lagoon is closed and the surface diversion facility is in operation, the lagoon surface would be maintained at an elevation of not less than 3.0 feet NGVD by regulating the flow through the lagoon outlet gate. A minimum flow to the lagoon of 15 cfs will be bypassed at the diversion facility under these conditions. Flow through the outlet gate will be maintained at a level sufficient to allow passage of steelhead to the Old Salinas River channel during this period.<sup>27</sup> (Mitigation Measure)
- g. For adult Steelhead migration in the Upper Salinas Basin 155 cfs measured at Bradley, and 60 cfs in the Salinas River measured at Paso Robles will be released during the migration period for adults migrating upstream to spawn, which is from December 1 through April 15<sup>28</sup> (Environmental Baseline)
- h. For smolts, a minimum migration flow of 56 cfs in the Salinas River downstream of Spreckels, 112 cfs in the Salinas River upstream of Spreckels, and 173 cfs in the Arroyo Seco (depth criteria were relaxed from 0.6 feet to 0.4 feet) will be released for the period when smolts and post-spawning adults are migrating downstream, which is from January 15 to May 31.<sup>29</sup> (Environmental Baseline)

#### 4.8 Biological Opinion

Releases shall be consistent with the SVWP BO, which flow prescription has been incorporated into the SWRCB license and permit for Nacimiento Reservoir. The flow

---

<sup>25</sup> SVWP EIR, pg. 5-6-60; SVWC EIR Addendum, page 2-1

<sup>26</sup> SVWP EIR, pg. 5-6-60; SVWC EIR Addendum, page 2-1

<sup>27</sup> SVWP EIR, page 5-6-60; SVWC EIR Addendum, page 2-1

<sup>28</sup> SVWP EIR, page 5.6-60 & 5.6-61

<sup>29</sup> SVWP EIR, page 5.6-60 & 5.6-61

prescription in the SVWP BO was developed from MCWRA's *Salinas Valley Water Project Flow Prescription for Steelhead Trout*, dated December 11, 2005. The flow prescription developed therein is interrelated and interdependent of the covered activities under the Incidental Take Statement.

4.8.1 Release of water from Nacimiento and/or San Antonio Reservoirs will be made when combined water storage is 220,000 acre-feet or more (total storage in Nacimiento plus total storage in San Antonio). As such time when combined storage surpasses 220,000 acre-feet, releases will be made in accordance with triggers and flow criteria described in the Adult Upstream migration and Juvenile Passage to the Lagoon sections; and Releases of water from Nacimiento and/or San Antonio Reservoirs will be made for engineered smolt outmigration flows when combined water storage is 150,000 acre-feet or more (total storage in Nacimiento plus total storage in San Antonio).

4.8.2 The above 220,000 acre-feet minimum combined storage value is derived from the sum of the following uses:

Average annual conservation releases from reservoirs with the Project operational	. 172,000 AF
Average annual irrigation diversion	9,700 AF
Nacimiento Reservoir minimum pool	22,300 AF
San Antonio Reservoir dead pool	10,000 AF
Approximately two months' minimum releases from Nacimiento and San Antonio Reservoirs	6000 AF
Total	220,000 AF

4.8.3 ***Adult Steelhead Upstream Migration.*** Adult steelhead upstream migration triggers will be in effect from February 1 through March 31. When flow triggers occur, MCWRA intends to facilitate upstream migration of adult steelhead by insuring flows of 260 cfs at the Salinas River near Chualar (U.S. Geological Survey [USGS] stream gage 11152300) for 5 or more consecutive days when the river mouth is open to the ocean. To insure this minimum flow and duration, MCWRA will provide reservoir releases when necessary to augment natural flows. These reservoir releases will occur if the following triggers are met:

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 the Soledad gage (USGS stream gage 11152000), and
3. 173 cfs or higher flows are present at the Arroyo Seco below the Reliz Creek gage (USGS stream gage 11152050).

4.8.4 ***Downstream Migration of Smolting Steelhead.*** To facilitate the downstream migration of smolts and rearing juvenile steelhead in the Salinas River during normal category water years, MCWRA will provide, beginning March 15<sup>th</sup> (or April 1), reservoir



releases (i.e., block flow releases) of 700 cfs at Salinas River at Soledad for 5 days and 300 cfs at Salinas River near Spreckels for 15 days thereafter or until April 20 (or May 31), whichever is longer (totaling 45 Block-flow days) when the following flow triggers are met:

1. the water year type is dry-normal, normal-normal, or wet-normal,
2. combined storage of Nacimiento and San Antonio reservoirs is 150,000 AF or more, and
3. 125 cfs or higher at the Nacimiento River below Sapaque Creek gage (USGS stream gage 11148900), or 70 cfs at the Arroyo Seco below Reliz Creek gage (USGS stream gage 11152050).

**4.8.5 Downstream Migration of Juvenile and Post Spawn Adult Steelhead.** In some years, block flow releases for smolt migration may not occur because triggers for those releases are not met. However, in those years MCWRA will provide reservoir releases and SRDF bypass flows to enhance migration opportunities for juvenile steelhead and post-spawn adult steelhead (kelts).

Beginning April 1st, when smolt migration block flows are not triggered, MCWRA will provide reservoir releases under the following circumstances: For dry year-types, MCWRA will provide 2 cfs to the lagoon when the SRDF is operating or during aquifer conservation releases. For non-dry year-types, and if the combined reservoir storage is 220,000 AF or more, MCWRA will provide additional supplemental bypass flows. If the lagoon is open to the ocean, then MCWRA will provide 45 cfs to the lagoon for 10 days or until the lagoon closes to the ocean, whichever occurs first, then 15 cfs to the lagoon through June 30th, then 2 cfs as long as the SRDF is operating or during aquifer conservation releases. If the lagoon is not open to the ocean, then MCWRA will provide 15 cfs to the lagoon through June 30th, then 2 cfs as long as the SRDF is operating or during aquifer conservation releases.

**4.8.6 Spawning and Rearing Habitat in the Nacimiento River.** MWCRA will provide, through reservoir releases, steelhead spawning and rearing flows for the Nacimiento River below Nacimiento Dam. To provide spawning opportunities, 60 cfs from Nacimiento Reservoir will be released beginning the eighth day after the first adult steelhead passage day occurs on the Salinas River near Spreckels after January 1st. Until further studies are conducted to determine adequate rearing flows in the Nacimiento River below the reservoir during summer and fall, a minimum of 60 cfs will be released throughout the year as minimum rearing flow as long as the water surface elevation of Nacimiento Reservoir is above the elevation 687.8 feet mean sea level (msl) -- the reservoir's minimum pool.

#### 4.9 Drought Contingency<sup>30</sup>

Planning for and understanding how the SVWP would operate during drought conditions was a critical factor in the development of the SVWP. Drought contingency planning provides a means to manage the Salinas River Groundwater Basin during expected drought periods, such as the drought period of the late 1980's/ early 1990's. The SVWP has been designed to accommodate expected drought episodes (based on the drought of record that occurred in 1987-1991) while

---

<sup>30</sup> SVWP DEIR, page 3-25

continuing to meet its overall objectives.

The SVWP assumes the basic conjunctive use of ground and surface water during drought. Conjunctive use takes advantage of surface water supplies during periods of availability and preserves groundwater supplies for use during periods of drought or other periods when surface water supplies are not available. Surface water supply that would be derived through reservoir reoperation and river diversion is variable and would be constrained during drought periods.

The SVWP EIR/EIS utilized the Salinas Valley Integrated Ground and Surface Water Model (SVIGSM) to assess groundwater conditions that would result from the SVWP's continued in-stream groundwater recharge and the delivery of diverted Salinas River water. The underlying assumption is that groundwater pumping would occur where surface water deliveries are made. Drought contingency was evaluated against the historic droughts of record within the Salinas Valley during the 1949 - 1994 hydrologic period. The delivery of diverted Salinas River water during normal to wet years results in reduced groundwater pumping. This in turn results in increased groundwater levels. The SVIGSM evaluations assumed that groundwater is pumped whenever river diversions are not available or are not adequate to meet the needs of the designated delivery area. The results indicate that groundwater supplies are adequate to meet SVWP objectives without re-establishing intrusion in the Salinas Valley through droughts of historic record.

#### 4.10 Incidental Benefits

The below lists incidental benefits of the Nacimiento and San Antonio dams and reservoirs. The operations set forth in this Manual are not intended to operate to maximize any one of these incidental benefits.

##### 4.10.1 Recreation

Both the Nacimiento and San Antonio Reservoirs have provided recreational opportunities since the reservoirs began operation.<sup>31</sup> With the SVWP, it was anticipated that reduction in lake levels at Nacimiento and San Antonio Reservoirs (short and long term) would substantially affect recreational opportunities during the peak recreation season.<sup>32</sup>

The existing facilities at Lake Nacimiento Resort would be sufficient in most conditions to provide reservoir access under the SVWP. At lake level of approximately 690 feet, the surface area of the lake is approximately 760 acres, compared with 2,350 acres at a surface elevation of 730 feet and 5,370 acres at full capacity. Thus, while accessible, the small surface area of the lake makes boating less desirable, especially to water skiers. The extension of boat launch facilities at private homeowner association facilities, namely Heritage Ranch and Oak Shores, was found not to be feasible. This is due to the fact that existing facilities already extend to the lake bed at the locations of the launches. During low lake conditions, the area under the ramps, and for a large distance surrounding the ramps, is dry due to relatively flat topography. To access the lake, private property owners would be able to use the existing boat launch and proposed boat launch at

---

<sup>31</sup> SVWP Eng. Report, page 3-1

<sup>32</sup> SVWP DEIR, page 2-16.

Lake Nacimiento Resort, which provides deeper access than at Heritage Ranch and Oak Shores.<sup>33</sup>

At Lake San Antonio, boat launch facilities are operated by Monterey County Parks.<sup>34</sup>

The SVWP EIR concluded that recreational impacts were significant based on the expected number of days that reservoir levels would fall below a 730-foot threshold compared with Pre-SVWP conditions and that recreational resources at Lake Nacimiento and Lake San Antonio would be significantly affected by the SVWP.<sup>35</sup>

#### 4.10.2 Fishery in the Reservoirs

Nacimiento and San Antonio reservoirs are managed for largemouth bass production. Introduced exotic fish are primarily valued by sport anglers with largemouth bass the most popular game species.

San Antonio and Nacimiento Reservoirs do not provide habitat for protected species, nor do migratory fish pass through them. Native warmwater species are primarily stream fish that are able to use the reservoir during part or all of their life-cycle. The native species rely primarily on flowing streams for reproduction and their success in the reservoirs does not depend significantly on reservoir elevation or fluctuation.<sup>36</sup>

#### 4.10.3 Hydroelectric Plant

At the Nacimiento Dam, there is an indoor powerplant housing two small hydroelectric units. Unit one is a Francis turbine with rotor and stator capable of generating up to 4418 kVA. Unit two is an induction generator capable of producing 375 kW. The Powerplant was constructed in 1987 and is situated on the downstream slope at the base of the dam on the south side. The facility is under the jurisdiction of the Federal Energy Regulatory Commission (FERC).<sup>37</sup>

The hydroelectric plant at Lake Nacimiento was designed to take the normal water conservation releases from Lake Nacimiento into both the Nacimiento and Salinas Rivers and route them through the plant to convert the flow into electrical energy generating revenue for the MCWRA. Releases from the reservoir whether for groundwater recharge or for downstream diversion, are used to generate power at the hydroelectric plant. The

---

<sup>33</sup> SVWP FEIR, page 2-50.

<sup>34</sup> SVWP, FEIR, page-250

<sup>35</sup> SVWP, FEIR, page 2-48

<sup>36</sup> SVWP DEIR, pages 5-6.44 – 5.6-45; 5-6.85

<sup>37</sup>

[http://www.mcwra.co.monterey.ca.us/nacimiento\\_hydroelectric\\_plant/nacimiento\\_hydroelectric\\_plant.php](http://www.mcwra.co.monterey.ca.us/nacimiento_hydroelectric_plant/nacimiento_hydroelectric_plant.php)

generation of power is an incidental benefit to the release of water for downstream beneficial use.<sup>38</sup>

---

<sup>38</sup> SVWP FEIR, page 2-395

## Criollo, German Ext.4941

---

**From:** Bill Lipe <bill@ravaranch.com>  
**Sent:** Monday, July 31, 2017 4:55 PM  
**To:** Criollo, German Ext.4941  
**Cc:** Buche, Brent Ext.8982; Demers, Jason M. x4868; Benny Jefferson (bblaster1168@aol.com); David H. Hart (davidh.hart54@gmail.com); Dean Benedix; John Baillie (john@celeryhearts.com); Mark Nielsen; Melissa Duflock (mduflock@gmail.com); nisakson@mbay.net  
**Subject:** RE: Draft Nacimiento Dam Operation Policy comments  
**Attachments:** Draft Nacimiento Dam OperationPolicy\_2017-06-26\_BLIPE.pdf; 20170630 - MCWRA Draft Res Ops Manual v2 Cover Letter.pdf

Germán-

Attached is a copy of the Draft Nacimiento Dam Operation Policy (version 2) that contains my comments in 'comment boxes', as requested in your letter June 30, 2017. I've also attached the cover letter provided with the mailed copy, for which I will also comment.

In the letter, you stated that "most of the comments received last December were incorporated in the Policy with the exception of three main points", however much of the technical context in the Draft Reservoir Operations manual was omitted.

Regarding the three main points cited in the June 30, 2017 letter:

1. **Water Rights:** The various water right permit held by Monterey County Water Resources Agency (Agency) for the operation of the Nacimiento Dam must specifically address and acknowledge prior and senior water rights holders, as the operation of Nacimiento Dam is predicated on doing no harm/damages to these prior and senior water rights holders. The Operation Policy needs to have a statement that acknowledges no harm/damages regarding the benefits rate payers with prior and senior water rights holders downstream were promised. In addition, Chair Hart of the Monterey County Water Resources Agency Board of Directors stated on the public record at the September 19, 2016 meeting (begin at time marker 1:44:30) in regards to the Salinas Valley Water Coalition's Draft Manual presented to staff and a few directors on August 17, 2016, "There is a lot of water rights information and I know that some think that water rights shouldn't be part of the operations policy, some of it has to be."; addressing and acknowledging prior and senior water rights holders and the Agency's commitment to deliver benefits without harm, as promised by the Agency, lives up to Chair Hart's statement on the public record.
2. **Operational Criteria:** The letter states that the Biological Opinion modified and superseded any previously identified flow regimes in the final EIR/EIS for the Salinas Valley Water Project. There seems to be a consistent mantra by Agency staff that the Nacimiento and San Antonio Reservoirs can only be operated per the Biological Opinion, without any consideration for the Salinas Valley Water Project, which was the subject of the consultation, resulting in the Biological Opinion. The Salinas Valley Water Project specifically provides for conservation releases during irrigation season and the Agency must operate the Salinas Valley Water Project as intended and described in the 2003 Engineer's Report. These must be described in the Operation Policy, they must incorporate the essential components of the Salinas Valley Water Project, including the reoperation of the Nacimiento Reservoir to allow for the additional

catch (about 29,000 acre feet per year) to be made available for recharge of groundwater AND downstream diversion at the rubber dam, per the Salinas Valley Water Project Engineer's Report, p. 2-2.

3. **Flood Operations:** The letter indicates the Agency's identification of the flood pool operating ranges for winter operations between the elevations of 787.75 to 800 feet in the draft Reservoir Operations Manual. The letter also states that the process for making operational decisions is described in the draft Reservoir Operations Manual. In my review, I didn't find a flood pool rule that describes/details how the Agency intends to operate the Nacimiento Reservoir from February 1st through March 31st as previous manuals have provided. Not including the rule curve for the Nacimiento Reservoir is a critical omission from previous Agency documents. While some flood control operations are provided in the draft Reservoir Operations Manual, there isn't a single piece of information detailing how the Agency will balance flood control duties and water conservation duties. The most glaring omission is that the rule curve used to establish reoperation of the Nacimiento Reservoir described in the Salinas Valley Water Project is missing from the draft Reservoir Operations Manual. Specifically, reoperation of the Nacimiento Reservoir creates the approximate 29,000 acre feet per year of additional storage promised to the rate-payers in Zone 2C, and the water routed to the Salinas River Diversion Facility. Without a rule curve identifying how the Nacimiento Reservoir will produce the additional storage detailed in the Salinas Valley Water Project, within the 787.75 to 800 foot flood pool, the additional storage promised to rate payers in Zone 2C cannot be verified. There is obviously a need to have operational flexibility for flood control purposes, however operational details during winter months cannot be omitted as they are a critical component of the Salinas Valley Water Project's reoperation mandate, voted on and passed by rate payers in Zone 2C.

Thank you for the opportunity to provide input for this very important process. I look forward to the next meeting to discuss the next steps.

Kindest regards

Bill Lipe

O: 831.385.3285

M: 831.998.2963



---

**From:** Criollo, German Ext.4941 [mailto:criollog@co.monterey.ca.us]

**Sent:** Thursday, July 6, 2017 3:44 PM

**To:** Benny Jefferson (bblaster1168@aol.com) <bblaster1168@aol.com>; Bill Lipe <bill@ravaranch.com>; David H. Hart (davidh.hart54@gmail.com) <davidh.hart54@gmail.com>; Dean Benedix <dbenedix@co.slo.ca.us>; John Baillie (john@celeryhearts.com) <john@celeryhearts.com>; Mark Nielsen <marknielsen1@gmail.com>; Melissa Duflock (mduflock@gmail.com) <mduflock@gmail.com>; nisakson@mbay.net

**Cc:** Buche, Brent Ext.8982 <bucheb@co.monterey.ca.us>; Demers, Jason M. x4868 <DemersJM@co.monterey.ca.us>

**Subject:** Draft Nacimiento Dam Operation Policy comments

Reservoir Operations Policy Subcommittee members,

As agreed at our meeting this afternoon, please use the attached pdf file with the draft Nacimiento Dam Operation Policy (Policy) to submit your comments to me no later than July 31, 2017.

The next Reservoir Operations Policy Subcommittee will be held Thursday, August 10, 2017 at 1:00 pm. The plan is to have one more subcommittee meeting before bringing the draft Policy to the Reservoir Operations Advisory Committee.

Thanks

Germán

*Germán E. Criollo, PE*

Associate Hydrologist

**Monterey County  
Water Resources Agency**  
1441 Schilling Place  
Salinas, CA 93901

Phone (831) 755-4860  
Fax (831) 424-7935



**SAN LUIS OBISPO COUNTY FLOOD CONTROL  
AND WATER CONSERVATION DISTRICT**  
**Department of Public Works**  
**Wade Horton, Director**

October 12, 2017

Monterey County Water Resources Agency  
c/o Robert Johnson and Wini Chambliss  
893 Blanco Circle  
Salinas, CA 93901

RECEIVED

OCT 16 2017

WATER RESOURCES  
AGENCY

**SUBJECT:** Comments on MCWRA August 24, 2017 draft of the Nacimiento Dam Operation Policy

Dear Mr. Johnson and Ms. Chambliss:

San Luis Obispo County Flood Control and Water Conservation District (SLOCFC&WCD) has reviewed the draft update and recommends the changes as described on the attached. As a Nacimiento water entitlement holder, and a member of the Reservoir Operations Advisory Committee and the Reservoir Operations Policy Subcommittee, the SLOCFC&WCD appreciates the inclusion of our representative(s) on these committees and looks forward to our continued joint cooperative participation.

Please contact me at (805) 781-5458 if there is a need for further communication on the Draft Operation Policy update.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Hutchinson", written over a horizontal line.

**MARK HUTCHINSON**  
Deputy Director

Attachments

File: CF 622.330.01

L:\Utilities\2017\October\Naci Ops Update draft proposal.docxMT.mj

---

**Department of Public Works**

County Govt Center, Room 206 | San Luis Obispo, CA 93408 | (P) 805-781-5252 | (F) 805-781-1229  
pwd@co.slo.ca.us | slocounty.ca.gov

Attachment 2



San Luis Obispo County Flood Control and Water Conservation District  
Recommended Revisions  
to Monterey County Water Resources Agency August 24, 2017  
Draft Nacimiento Dam Operation Policy update  
October 10, 2017

1. Draft page 4 -see attached comments to Sections entitled *Nacimiento Water Project* and *Pertinent Nacimiento Reservoir Elevations on page labeled "35 of 63"*.
2. Draft Page 9 section labeled *San Luis Obispo County Agreement*. Revise as follows (**Bold Comments are the Revisions**):

The Agency's Water Rights License No. 7543 is subject to an agreement between the Agency 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 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 the Agency shall not make releases during the water year that result in 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 outlook 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 Nacimiento Water Agreement. (Appendix C).

3. Draft page 23 section labeled *California Department of Fish and Wildlife Requirements: The Agency needs to acknowledge that the SLO District water below EL 687.8 is not subject to the BO.*

provided for Unit 1. The high head runner is used for elevations above 735 feet. The low head runner is required for operation between elevations of 690 feet and 735 feet.

## **Nacimiento Water Project (NWP)**

The NWP is owned and operated by the San Luis Obispo County Flood Control and Water Conservation District (SLO District). The project, which came on line in 2007, consists of an intake system near Nacimiento Dam and approximately 45 miles of pipeline to deliver water to communities within San Luis Obispo County.

2010

## **Pertinent Nacimiento Reservoir Elevations**

The following reservoir elevations are referenced to NGVD29:

### **NWP Intake**

The NWP intake consists of a 48-inch diameter stainless steel pipe with screened intakes between elevation 660 feet and 780 feet allowing SLO District to pump water starting at elevation 670 ft. The intakes supply a 52-inch diameter ~~shaft~~ leading to a 180-foot deep, 20-foot diameter shaft and pump station.

steel-lined tunnel

### **Dead Pool**

The storage between the bottom of the reservoir and elevation 670 feet, the invert of the Intake Structure of the LLOW. The volume of the Dead Pool is 10,300 acre-feet (AF) but water cannot flow by gravity out of the reservoir below elevation 670 feet.

### **Minimum Pool**

The storage above the Dead Pool, elevation 670 feet, and below the Conservation Pool (defined below), elevation 687.8 feet, is the Minimum Pool. The volume of this pool is 12,000 AF which is reserved for use by the County of San Luis Obispo per the 1959 San Luis Obispo County Agreement<sup>3</sup>.

the sole

### **Minimum Recreation Elevation**

At an elevation of 730 feet most of the boat ramps around the reservoir are useable and most private property owners have access to the reservoir. The Agency, to the extent possible, will keep this elevation in mind when making the release schedule and consider a goal each year of keeping the Reservoir above 730 feet until after Labor Day.

<sup>3</sup> Article 11(j) of the October 19, 1959 Agreement (Appendix C).



**From:** [Mark Nielsen](#)  
**To:** [Criollo, German Ext.4941](#)  
**Subject:** Minimum Recreation Elevation for Lake Nacimiento  
**Date:** Wednesday, November 01, 2017 4:01:49 PM

---

Hi Herman,

I have forgotten to send you this note regarding a paragraph in the Nacimiento Dam Operations Policy manual.

It currently says:

**Minimum Recreation Elevation**

At an elevation of 730 feet most of the boat ramps around the reservoir are useable and most private property owners have access to the reservoir. The Agency, to the extent possible, will keep this elevation in mind when making the release schedule and consider a goal each year of keeping the Reservoir above 730 feet until after Labor Day.

Comments:

Most private property boat ramps are not usable below 750 ft. msl. The NRWMAC committee feels that most lake access for recreation by private owners is severely limited when the lake elevation drops below 750 ft. msl. Many community ramps are much farther up the Nacimiento River than the Nacimiento Marina as the lake is 18 miles long. Because the lake is narrower and not as deep farther upstream, launch ramps are quickly affected by drops in lake elevation. This requires boaters to drive to the marina to launch where they must pay a fee. The drive towing a boat on the windy roads is typically on the order of an hour each way.

As a note, the bottom of the relatively new marina ramp is at 750 feet.

Suggested change;

NRWMAC would like to see the Minimum Recreation Elevation noted to be set at 750 feet.

Let me know if you have any questions or comments.

**Mark**

310-729-6275 cell

# Salinas Valley Water Coalition

33 El Camino Real • Greenfield, CA 93927  
(831) 674-3783 • FAX (831) 674-3835



Hand-Delivered

Monterey County Water Resources Agency  
Reservoir Operations Advisory Committee

November 30, 2017

Re: Agenda Item #5, Consider receiving the Draft Nacimiento Dam Operation Policy and provide direction to staff

Dear Committee Members;

The Salinas Valley Water Coalition (SVWC) thanks Monterey County Water Resources Agency (Agency) staff and its Board of Directors for their willingness to form an ad-hoc committee (Committee) to develop an updated Operation Policy Manual (Policy Manual) for Nacimiento Dam. The last Policy Manual updates were approved in 2000 for Nacimiento Reservoir (aka 'dam'), so this update is important. I personally participated in the ad-hoc Committee on behalf of the SVWC, and the SVWC appreciates having had the opportunity to provide input on development of an updated Operation Policy Manual. They also appreciate the effort that Agency staff has put into working with the ad hoc Committee and your Committee in preparing the Draft before you today.

We supported moving this draft Operation Policy Manual forward for review with your Committee, the public and stakeholders, however, we cannot accept and support the draft Operation Policy Manual in front of you today for the following reasons.

1. **Water Rights:** At the outset of the process for updating the Policy Manual, Agency staff agreed with the ad hoc Committee members that the purpose of updating the existing manuals is to clearly document the principles governing the Agency's operation of the reservoirs. The SVWC is concerned that the current draft Policy Manual ignores the first, and most fundamental, principle governing reservoir operations: Doing no harm. In this case, that means protecting prior downstream water rights and limiting reservoir operations to storage and regulation of excess flows for later release to augment natural recharge of the Salinas Valley Groundwater Basin (Basin) in a way that protects steelhead trout. The draft Policy Manual does not consider prior downstream water rights of riparian and overlying landowners. When the State Water Resources Control Board (State Water Board) approved the water rights authorizing construction and operation of Nacimiento and San Antonio reservoirs, it said the new reservoirs were "SUBJECT TO VESTED RIGHTS." Further, when the State Water Board approved a new water right permit authorizing the Agency to use the full, built storage capacity of Nacimiento Reservoir, it did so based on the Agency's promise that prior downstream water rights would not be injured. The existence of the Agency's reservoirs is conditioned on protecting prior downstream riparian and overlying rights (i.e., "vested rights") by operating them



to ensure ongoing availability of the water that would be naturally available to downstream rights if the reservoirs did not exist. The updated Policy Manual should, at the very least, acknowledge that fundamental principle of doing no harm and focusing the Agency on operating the reservoirs to store excess flows that would otherwise waste to the ocean and to regulate this excess to augment natural recharge to the Basin. **The draft Nacimiento Dam Operation Policy Manual should be revised to include such a statement.**

2. The Biological Opinion: During different Committee proceedings, certain Agency staff have stated that the National Marine Fisheries Service Biological Opinion (BO) for the Salinas Valley Water Project (SVWP) supersedes any and all reservoir operating principles and dictates how the Agency must operate the reservoirs. This is just not true. Instead, the BO applies only to the Agency's additional capture of 29,000 acre-feet and excess flows for purposes of *augmenting or mimicking historic natural flows* of the Salinas River. The BO states, "The proposed reoperation would result in approximately 29,000 AFY of additional stored water that would be available for additional conservation releases (i.e., recharge of the groundwater aquifers), downstream diversion, as well as fish passage." (p. 10.) The BO relies on the Agency bypassing natural reservoir inflows and augmenting the flow to preserve steelhead habitat while also providing natural flow for prior downstream riparian and overlying water right holders. For example, the BO requires the Agency to provide "releases when necessary to augment natural flows" to insure "minimum flows and durations necessary "to protect adult steelhead upstream migration."

Agency staff misunderstands and has incorrectly assumed that the operations of the SVWP, the activity covered by the Incidental Take Statement, are superseded by the BO. Why seek coverage to implement a project, then ignore the project altogether? The BO describes the components of the SVWP that are covered under the Incidental Take Statement as follows: "MCWRA proposes a series of structural and program-based (operational) components (the SVWP)", which includes (1) "surface water deliveries and additional aquifer replenishment (aquifer conservation releases) by reoperating the Nacimiento and San Antonio reservoirs and modifying the Nacimiento Dam spillway" and (2) "seasonal river diversion facility with a small dam and diversion structure to impound and distribute increased spring, summer, and early fall reservoir releases (reoperated aquifer)" in order to "offset current groundwater pumping in some areas of the coastal Basin." (p. 7)

The SVWC acknowledges the complexity of reservoir operations, and the need to balance reservoir operations to achieve multiple objectives. The Agency must balance its operation to meet the requirements established by the SVWP, BO and the requirement to provide flood protection. However, these operational requirements are not mutually exclusive.

3. The SVWP: The SVWP provides for conservation releases during the irrigation season. The Agency must operate the SVWP as intended and described in the 2003 Engineer's Report, and as approved by (and promised to) the landowners/voters, in order to provide the benefits of the Project; such operation must be described in the Policy Manual. Specifically, the Policy Manual must be revised to incorporate the essential components of the SVWP, which include the reoperation of the Nacimiento Reservoir to allow for "approximately 29,000 AFY (average over hydrologic record) of additional stored water that would be available for conservation releases (i.e., recharge of the groundwater aquifers) and downstream diversion." (SVWP Engineer's Report, p. 2-2.) Absent the increase in storage provided by Nacimiento's spillway modifications and re-operation the Agency has failed to acquire the

additional water promised by the SVWP. In addition, the Agency must make good on its commitment to provide releases that meet the requirements of the SVWP during dry climatic seasons.

4. The Nacimiento Reservoir "rule curve": All significant reservoirs operate under some kind of "rule curve" defining how much water may be safely held in storage at different times of the year. Rule curves typically require a reservoir to bypass natural inflow during the wet season to preserve storage space adequate to absorb a large storm event without exceeding the dam's capacity to safely "spill" excess inflow without causing dam failure. The volume of that empty storage space is called a "flood pool."

The SVWP modified Nacimiento Dam's spillway to increase its spill capacity and to modify the Dam's rule curve to allow higher storage levels during the wet season. Use of that additional capacity to store excess storm flows (called "reoperation") created the SVWP's approximately 29,000 AFY of additional average annual water supply yield over pre-SVWP reservoir operations.

During Committee proceedings, and stated in the staff report for today's item, Agency staff has identified a "self-imposed" range of operating elevations within the flood pool (787.75 feet to elevation 800 feet) to provide adequate reservoir storage space during the winter. Our review of the O&M Manual did not reveal any flood pool or rule curve to govern how the Agency will operate Nacimiento Reservoir during the wet season from February 1<sup>st</sup> through March 31<sup>st</sup> (in contrast to previous Agency O&M Manuals that did specify a flood pool or rule curve). The deletion of the Nacimiento rule curve is a significant departure from previous Agency policy governing operation of Nacimiento Reservoir.

While the draft Policy Manual includes some discussion of flood control operations, there is a complete lack of information detailing how the Agency will balance its flood control duties with its duties to store excess inflows for regulation (i.e., for release during the irrigation season, called "conservation" releases, because the regulation avoids this water wasting to the ocean). The draft Policy Manual omits the rule curve used to define the re-operation of Nacimiento Reservoir pursuant to the SVWP. Accordingly, the draft Policy Manual fails to incorporate the SVWP's centerpiece -- re-operation of Nacimiento Reservoir to create the 29,000 AFY of additional average annual yield. That yield is what Zone 2C landowners voted to pay for when they approved the Zone 2C Assessment by an 85 percent margin. That yield is what the Agency promised when it published the 2003 SVWP Engineer's Report providing the technical basis for the Zone 2C Assessment.

Absent a rule curve showing how the Agency will operate Nacimiento Reservoir to produce the SVWP's 29,000 AFY of yield within the 787.75 to 800 ft flood pool, the Agency is breaking its promise to Zone 2C Assessment payers. The need for operational flexibility is understood, but the unexplained rejection of the SVWP's rule curve and recent departure from past operating practices eliminates transparency and hides the rationale for the Agency's reservoir operations in a proverbial "black box." That is the exact opposite of what the updated Policy Manual is supposed to do. The Policy Manual must be modified to include these items.

In conclusion, the SVWC continues to look for opportunities to work with the Agency in its efforts to develop an Operation Policy Manual for the reservoirs that truly, and accurately, reflects the manner they must be operated to provide the benefits the Salinas Valley property

owners pay for. That includes operating principles that will avoid harming prior downstream water rights and while augmenting natural recharge of the Basin by the 29,000 AFY promised when the Agency approved the SVWP and persuaded landowners to approve the Zone 2C Assessment required to pay for the SVWP pursuant to Proposition 218.

Thank you for your consideration of these comments.

A handwritten signature in black ink, appearing to read "Nancy Isakson". The signature is fluid and cursive, with the first name "Nancy" being more legible than the last name "Isakson".

Nancy Isakson, President  
Salinas Valley Water Coalition