A Special Meeting of the

BOARD OF DIRECTORS
OF THE
CENTRAL COAST WATER AUTHORITY

will be held at 2:00 p.m., on Thursday, June 9, 2022
at 255 Industrial Way, Buellton, California
and
Rincon Room, 1021 Anacapa Street, Santa Barbara, California

Members of the public may participate by video call or telephone via
URL: https://v.ringcentral.com/join/597324184
or by dialing (650) 419-1505 and entering access Code/Meeting ID: 597324184 #

Public Comment on agenda items may occur via video call or telephonically, or by submission to the Board Secretary via email at lfw@ccwa.com no later than 8:00 a.m. on the day of the meeting. In your email, please specify (1) the meeting date and agenda item (number and title) on which you are providing a comment and (2) that you would like your comment read into the record during the meeting. If you would like your comment read into the record during the meeting (as either general public comment or on a specific agenda item), please limit your comments to no more than 250 words.

Every effort will be made to read comments into the record, but some comments may not be read due to time limitations. Please also note that if you submit a written comment and do not specify that you would like this comment read into the record during the meeting, your comment will be forwarded to Board members for their consideration.

Pursuant to Government Code section 54957.5, non-exempt public records that relate to open session agenda items and are distributed to a majority of the Board less than seventy-two (72) hours prior to the meeting will be available on the CCWA internet web site, accessible at https://www.ccwa.com.

I. Call to Order and Roll Call

II. CLOSED SESSION

A. CLOSED SESSION: CONFERENCE WITH REAL PROPERTY NEGOTIATORS
Government Code section 54956.8
Property: *Warren Act Contract*
Agency negotiator: *Ray Stokes*

B. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION
Significant exposure to litigation pursuant to Government Code § 54956.9(d)(2)
Number of cases: 1

Agenda Item II, the Closed Session, is anticipated to take 30 minutes. The remainder of the Meeting will start no earlier than 2:30 p.m.

III. Return to Open Session

A. Report on Closed Session Actions (if any)

IV. Public Comment – (Any member of the public may address the Board relating to any matter within the Board's jurisdiction. Individual Speakers may be limited to five minutes; all speakers to a total of fifteen minutes.)

V. Executive Director's Report

✸ A. Temporary Warren Act Contract Between CCWA and United States Bureau of Reclamation
Staff Recommendation:
1. Adopt Resolution No. 2022-05 for Approval of Temporary Warren Act Contract No. 22-WC-20-5954 with United States Bureau of Reclamation approving the Temporary Warren Act Contract and authorizing the Chair of the Board to execute the Temporary Warren Act Contract; and

2. Authorize the Chair of the Board to do and cause to be done any and all acts and things necessary or appropriate to allow for CCWA's continued use of the Cachuma Project on a temporary, interim, or emergency basis for a period not to exceed 90 days.

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✸ Indicates attachment of document to original agenda packet.

continued

VI. **Reports from Board Members for Information Only**

VII. **Items for Next Regular Meeting Agenda**

VIII. **Date of Next Regular Meeting: June 23, 2022**

IX. **Adjournment**

CENTRAL COAST WATER AUTHORITY

MEMORANDUM

June 6, 2022

TO: CCWA Board of Directors

FROM: Ray A. Stokes
Executive Director

SUBJECT: Consideration of Resolution No. 2022-05 for Approval of Temporary Warren Act Contract No. 22-WC-20-5954 with United States Bureau of Reclamation

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SUMMARY

For consideration by the Board of Directors, Staff has prepared a Resolution for approval of a short-term Warren Act Contract with the United States Bureau of Reclamation ("Reclamation"), Contract No. 22-WC-20-5954 (the "Temporary Warren Act Contract"). The Temporary Warren Act Contract is necessary to continue the annual introduction, storage, and conveyance of up to 13,750 acre-feet of water acquired by or available to CCWA from or through the State Water Project ("CCWA Water") into Cachuma Project facilities for delivery to CCWA's South Coast Participants[1] beyond June 22, 2022, when the existing 1995 Warren Act Contract ("1995 Contract") expires. The term of the Temporary Warren Act Contract would commence on the date executed by Reclamation (the "effective date") and extend through September 30, 2024.

Staff also requests that the Board authorize the Chair of the Board to obtain Reclamation's approval for CCWA's continued use of the Cachuma Project for a limited period of time, not to exceed 90 days, in the event Reclamation is delayed in executing the Temporary Warren Act Contract, including extending the 1995 Contract for a short period of time or other temporary, interim, or emergency use of the Cachuma Project as may be permitted by Reclamation.

RECOMMENDATION

Staff recommends that the Board of Directors:

1. Adopt Resolution No. 2022-05 for Approval of Temporary Warren Act Contract No. 22-WC-20-5954 with United States Bureau of Reclamation approving the Temporary Warren Act Contract and authorizing the Chair of the Board to execute the Temporary Warren Act Contract; and

2. Authorize the Chair of the Board to do and cause to be done any and all acts and things necessary or appropriate to allow for CCWA's continued use of the Cachuma Project to introduce, store and/or convey in Cachuma Project facilities water acquired by or available to CCWA from or through the State Water Project for delivery to the CCWA South Coast Participants on a temporary, interim, or emergency basis for a period not to exceed 90 days.

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[1] Carpinteria Valley Water District, the City of Santa Barbara, Goleta Water District, Montecito Water District, La Cumbre Mutual Water Company, La Cumbre Mutual Water Company, Morehart Land Co., and Raytheon Systems Co.

DISCUSSION

1. Background

CCWA was formed as a Joint Powers Agency formed pursuant to Government Code section 6500 et seq. and the Joint Exercise of Powers Agreement dated August 1, 1991, as amended, to construct necessary facilities to deliver supplemental water supplies from the State Water Project to communities in San Luis Obispo and Santa Barbara Counties.

In 1994, Reclamation released an Environmental Assessment ("EA") pursuant to the National Environmental Policy Act ("NEPA") that analyzed the construction of an extension of the State Water Project Coastal Branch that would allow the annual introduction, through issuance of a long-term Warren Act Contract, of CCWA Water into the Cachuma Project facilities for delivery to CCWA's South Coast Participants. Reclamation issued a Finding of No Significant Impact ("FONSI") under NEPA on January 3, 1995 and subsequently issued a 25-year Warren Act Contract to CCWA that allowed the annual introduction, storage, and conveyance of up to 13,750 acre-feet of water acquired by or available to CCWA from or through the State into Cachuma Project facilities for delivery to the CCWA South Coast Participants for municipal and industrial uses ("1995 Contract"). The Coastal Branch and CCWA facilities were completed in 1997 and introductions of CCWA water under the 1995 Warren Act Contract began in 1997.

CCWA's 1995 Contract expires on June 22, 2022. CCWA water has been and continues to be a much-needed supplemental water supply for the South Coast, especially during drought conditions. Particularly in light of current drought conditions, the status quo—expiration of the 1995 Contract on June 22, 2022 without a new contract—could lead to a water supply emergency on the South Coast. Specifically, CCWA is currently attempting to purchase supplemental water supplies for some of the South Coast Participants under the CCWA 2022 Supplemental Water Purchase Program. Without a new contract, CCWA will be unable to deliver these supplemental water supplies, potentially risking the water purchased and the ability of one or more South Coast Participants to meet their water supply needs.

CCWA has therefore requested that, subject to compliance with applicable environmental laws, Reclamation enter into a short-term Warren Act Contract to continue the introductions, conveyance, and storage of CCWA Water into the Cachuma Project facilities for delivery to the CCWA South Coast Participants on the same terms and conditions as the 1995 Contract. Execution of the Temporary Warren Act Contract would allow time for CCWA and Reclamation to pursue and study the impacts of a new long-term Warren Act Contract for the same purpose. It would also allow time for Reclamation and the National Marine Fisheries Service ("NMFS") to finalize the re-consultation on the Cachuma Project under the Endangered Species Act ("ESA"), which process is not anticipated to be complete by June 22, 2022.

2. Temporary Warren Act Contract

CCWA and Reclamation have negotiated the Temporary Warren Act Contract. The key terms of the Temporary Warren Act Contract are:

Term: The Temporary Contract will take effect upon execution by Reclamation's Contracting Officer and will continue until September 30, 2024. The 1995 Contract expires on June 22, 2022. Accordingly, Reclamation's execution of the Temporary Contract should occur on or before June 22, 2022. (¶ 2.)

Quantity: The Temporary Contract authorizes CCWA to introduce up to13,750 acre-feet per Year (October 1 – September 31) of Non-Project Water[2] into Lake Cachuma and to store and/or convey that water to the Operating Non-Federal Entity for delivery to the South Coast Participants. (¶ 3(a).) This is the same quantity as authorized under the 1995 Contract.

Transition between Existing and Temporary Contract: The Temporary Contract expressly authorizes CCWA to store and convey Non-Project Water already delivered to Lake Cachuma under the 1995 Contract and to continue to introduce, store and/or convey Non-Project water for the period between the effective date and October 1, the commencement of the new Year. (¶ 3(a).)

Excess Capacity: CCWA's right to introduce Non-Project Water into Lake Cachuma is limited to the right to use Excess Capacity. (¶ 3(a).) "Excess Capacity" means capacity in the Project Facilities in excess of that needed to meet the Project's authorized purposes, as determined solely Reclamation. In the event of Lake Cachuma spills, CCWA's Non-Project Water is the first to spill from the lake. (¶ 3(f).) CCWA's Non-Project Water is also subject to seepage and evaporation losses. (¶ 3(g).)

Rate: The rate charged by Reclamation pursuant to the Temporary Contract is subject to change (increase) each Year, which begins on October 1, based on the formula set forth in Exhibit B of the Temporary Contract. Accordingly, the rate may adjust two times during the term of the Temporary Contract. The rate for the period between the effective date and September 30, 2022 is $95.39/acre-foot (see Temporary Contract, Exhibit B). The rate does not include the $43/acre-foot charge that CCWA pays to COMB pursuant to the 1995 Memorandum of Understanding for the Creation of a Trust Fund between CCWA and the Cachuma Project Authority and Reclamation.

COMB: COMB is the Operating Non-Federal Entity. COMB is not a party to the 1995 Contract or Temporary Contract. Pursuant to the 1956 O&M Contract between Reclamation and COMB, Reclamation transferred responsibility for the operation and maintenance (O&M) of a portion of the Project Facilities and the costs of such O&M to COMB.

3. Short-Term Interim or Temporary Measure If Necessary To Avoid Gap In CCWA's Use Cachuma Project

As discussed in more detail below, Reclamation submitted a revised request for concurrence to NMFS on June 2, 2022. In the event Reclamation does not receive NMFS concurrence in sufficient time to allow for Reclamation's execution of the Temporary Contract on or before June 22, 2022, or other delay occurs, Staff is exploring alternatives options to avoid a gap in CCWA's ability to introduce, store and/or convey CCWA Water in the Cachuma Project, if possible. For example, it may be possible to extend the 1995 Contract for a short period of time or otherwise provide for CCWA's interim or temporary continued use of the Cachuma Project until such time as the Temporary Contract is considered and executed by both parties, including on an emergency basis.

[2] See Exhibit C to Temporary Contract.

ENVIRONMENTAL REVIEW

1. Reclamation's Informal Consultation with NMFS and Compliance with NEPA

Reclamation issued a draft EA pursuant to NEPA for the Temporary Warren Act Contract on March 25, 2022, and the public comment period closed on April 22, 2022.

Reclamation engaged in informal consultation with NMFS and as part of that process submitted an Biological Evaluation ("BE") dated March 30, 2022 to NMFS. Subsequent to issuance of the BE, NMFS and Reclamation discussed whether further constraints on mixing of CCWA Water with downstream water rights releases from the Cachuma Project were warranted as a condition of NMFS' concurrence. On June 2, 2022, USBR submitted a revised BE ("Revised BE"). The Revised BE incorporates additional conservation measures restricting the timing and rate of release of CCWA's Water into the Santa Ynez River that NMFS indicated would be necessary as a condition of its concurrence.

Reclamation has indicated to Staff that it expects to soon receive concurrence from NMFS with Reclamation's determination that issuance of the Temporary Warren Act Contract would have either no effect on species listed under the ESA, or would be not likely to adversely affect such species or critical habitat. Reclamation has further indicated that after receiving NMFS' concurrence, it then expects to issue a Final EA and FONSI which would conclude that issuance of the Temporary Warren Act Contract would not have a significant impact on the environment. The final EA is expected to incorporate the constraint on mixing of CCWA Water with downstream water rights releases that NMFS ultimately may conclude is warranted as a condition of its concurrence.

2. CCWA's Compliance with CEQA

Pursuant to the authority delegated to the Executive Director under CCWA's Local Guidelines for Implementing CEQA, Staff has determined that CCWA's approval of the Temporary Warren Act Contract is exempt from CEQA. CEQA Guidelines section 15301 (Class 1 exemption) sets forth an exemption from CEQA for the operation and permitting of existing facilities involving negligible or no expansion of existing or former use. The Temporary Warren Act Contract fits within this exemption because it will continue to allow the annual introduction, storage, and conveyance of up to 13,750 acre-feet of CCWA Water into Cachuma Project facilities for delivery to the CCWA South Coast Participants and will therefore not expand the use of Cachuma Project facilities beyond that permitted by the 1995 Warren Act Contract. A water distribution system, like the Cachuma Project facilities, is an existing facility for the purpose of the Class 1 exemption. (*N. Coast Rivers All. v. Westlands Water Dist.* (2014) 227 Cal. App. 4th 832, 867 (citing *Turlock Irrigation Dist. v. Zanker* (2006) 140 Cal. App. 4th 1047, 1065–1066).)

None of the exceptions to use of an exemption set forth in CEQA Guidelines section 15300.2 apply and adoption of the Temporary Warren Act Contract will not have a significant impact on the environment. The Temporary Warren Act Contract will continue to allow the annual introduction, storage, and conveyance of the same quantity of CCWA Water into Cachuma Project facilities as has been authorized for the last 25 years. Under the Temporary Warren Act Contract, CCWA water would continue to be introduced and conveyed through Cachuma Project facilities (i.e., Bradbury Dam outlet works, Stilling Basin, Lake Cachuma, North Intake of the Tecolote Tunnel, and the South Coast Conduit) to the CCWA contractors located along the South Coast Conduit. No modifications to existing infrastructure or construction would occur.

As described in the Revised BE, measures to avoid and minimize effects to listed species, including the Southern California Steelhead (*Oncorhynchus mykiss*) Distinct Population Segment have been and will continue to be implemented during CCWA operations under the Temporary Warren Act Contract. Reclamation has indicated that it anticipates that the NMFS will concur with Reclamation's conclusion that approval of the Temporary Warren Act Contract will either have no effect on listed species or will be not likely to adversely affect listed species and critical habitat.

Over the last 25 years, CCWA has monitored and studied its operations under the 1995 Contract, including water quality and temperature. A description of this monitoring and recent data is included in more detail in Reclamation's EA. Through its monitoring, Staff has not identified any reasonable possibility that the continued conveyance of 13,750 acre-feet of water pursuant to the Temporary Warren Act Contract will have a significant effect on the environment.

CCWA evaluated the comments made by interested parties on the EA and on CCWA's consideration of the Temporary Warren Act Contract. One commenter raised the issue that any constraint on mixing of CCWA Water with downstream water rights releases in excess of those already imposed on existing operations, would cause potentially significant water quality impacts and therefore inconsistencies with the December 17, 2002 Settlement Agreement relating to operation of the Cachuma Project and the California State Water Resources Control Board's Order WRO 2019-0148. CCWA has determined that no comments identified any reasonable possibility that the Temporary Warren Act Contract will have a significant effect on the environment.

CCWA's position, which it has shared with Reclamation, is that any additional constraints ultimately imposed by NMFS and adopted by Reclamation on mixing of CCWA Water with downstream water rights releases, as a condition of approval of the Temporary Contract, is unnecessary and unwarranted. Ultimately, however, CCWA cannot control conditions imposed by the federal government and CCWA lacks discretion to avoid or modify these conditions. Nonetheless, in response to the issues raised by commenters, CCWA retained an environmental consultant to evaluate the potential environmental impacts, including potential impacts on water quality, energy use, and greenhouse gas ("GHG") emissions, of a range of potential restrictions that might ultimately be adopted by the federal government on mixing of CCWA Water with downstream water rights releases, including those described in the BE and Revised BE. To capture a range of potential environmental impacts, the scenarios evaluated included a constraint on mixing of CCWA Water with downstream water rights releases in the month of November (i.e., November 2022 and 2023 during the term of the Temporary Contract) and a total prohibition on such mixing throughout the term of the 27 month term of the Temporary Warren Act Contract.

The evaluation concluded that the potential impacts associated with new or additional NMFS' restrictions are not significant and therefore would not render inappropriate the use of a CEQA exemption. Specifically, the evaluation determined that NMFS' conditions will not:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
- Conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan;
- Result in potentially significant environmental impacts due to wasteful, inefficient or unnecessary consumption of energy resources during project construction or operation;
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency;

- Generate GHG emissions either directly or indirectly that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

Although NMFS' new and additional restrictions on mixing may cause changes in water quality as compared to the baseline condition, under which CCWA Water is mixed with water rights releases when they occur in some, but not all, years, these changes are not significant and fall within the Class 4 categorical exemption, which exempts "minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees." (CEQA Guidelines § 15304.)

Staff also reviewed the Temporary Warren Act Contract and the December 17, 2002 Settlement Agreement relating to operation of the Cachuma Project and the California State Water Resources Control Board's Order WRO 2019-0148, to which CCWA is not a party, and confirmed that these authorities do not impose numerical limitations on water quality that would be violated due to adoption of the Temporary Warren Act Contract as conditioned by NMFS.

Attachments:

A. Resolution No. 2022-05 a Resolution of the Board of Directors of the Central Coast Water Authority Approving Temporary Warren Act Contract No. 22-WC-20-5954 with the United States Bureau of Reclamation

   Exhibit 1: Temporary Warren Act Contract No. 22-WC-20-5954 Between Central Coast Water Authority and United States Bureau of Reclamation

   Exhibit 2: Notice of Exemption re. Temporary Warren Act Contract No. 22-WC-20-5954 Between Central Coast Water Authority and United States Bureau of Reclamation

B. March 25, 2022 Environmental Assessment

C. March 30, 2022 Biological Evaluation

D. June 2, 2022 Biological Evaluation

RESOLUTION NO. 22-05

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE CENTRAL COAST WATER AUTHORITY APPROVING TEMPORARY WARREN ACT CONTRACT NO. 22-WC-20-5954 WITH THE UNITED STATES BUREAU OF RECLAMATION

Recitals

A. The Central Coast Water Authority (**"CCWA"**) is a Joint Powers Agency formed pursuant to Government Code section 6500 et seq. and that certain Joint Exercise of Powers Agreement dated August 1, 1991, as amended, to construct necessary facilities to deliver supplemental water supplies from the State Water Project (**"SWP"**) to communities in San Luis Obispo and Santa Barbara Counties; and

B. In 1994, the United States Bureau of Reclamation (**"Reclamation"**) released an Environmental Assessment (**"EA"**) pursuant to the National Environmental Policy Act (**"NEPA"**) that analyzed the construction of an extension of the SWP Coastal Branch that would allow the annual introduction, through issuance of a long-term Warren Act Contract, of SWP water into the Cachuma Project facilities for delivery to CCWA's South Coast Participants, including Carpinteria Valley Water District, the City of Santa Barbara, Goleta Water District, Montecito Water District, La Cumbre Mutual Water Company, Morehart Land Co., and Raytheon Systems Co. (**"CCWA's South Coast Participants"**); and

C. Reclamation issued a Finding of No Significant Impact (**"FONSI"**) under NEPA on January 3, 1995 and subsequently issued a 25-year Warren Act Contract to CCWA that allowed the annual introduction, storage, and conveyance of up to 13,750 acre-feet of water acquired by or available to CCWA from or through the SWP ("**CCWA Water**") into Cachuma Project facilities for delivery to the CCWA South Coast Participants for municipal and industrial uses; and

D. The SWP Coastal Branch facilities were completed in 1997 and introductions of CCWA water under the 1995 Warren Act Contract began in 1997; and

E. The 1995 Warren Act Contract will expire on or about June 22, 2022; and

F. CCWA Water introduced, stored, and conveyed pursuant to the existing 1995 Warren Act Contract has been and continues to be a much-needed supplemental water supply for the South Coast, especially during drought conditions; and

G. CCWA has requested, subject to compliance with applicable environmental laws, that Reclamation enter into a short-term Warren Act Contract to continue the introductions, conveyance, and storage of CCWA Water into the Cachuma Project facilities for delivery to the CCWA South Coast Participants while Reclamation and CCWA develop and study a new long-term Warren Act Contract for the same purpose and while Reclamation and the National Marine Fisheries Service finalize the re-consultation on the Cachuma Project under the Endangered Species Act (**"ESA"**), which process is not anticipated to be complete by June 2022; and

H. The short-term Warren Act Contract, Contract No. 22-WC-20-5954 (the "**Temporary Warren Act Contract**") is attached hereto as **Exhibit 1**; and

I. **T**he Temporary Warren Act Contract authorizes CCWA's continued introduction, conveyance, and storage of CCWA Water in Cachuma Project facilities for the period commencing with the effective date and terminating on September 30, 2024; and

J. Reclamation issued an EA pursuant to NEPA for the Temporary Warren Act Contract on March 25, 2022, and the public comment period closed on April 22, 2022; and

K. Prior to Reclamation's approval of the Temporary Warren Act Contract, Reclamation will obtain concurrence from NMFS that issuance of the Temporary Warren Act Contract would have either no effect on species listed under the ESA, or would be not likely to adversely affect such species or their critical habitat; and

L. Prior to Reclamation's approval of the Temporary Warren Act Contract, Reclamation will issue a FONSI concluding that issuance of and operations under the Temporary Warren Act Contract would not have a significant impact on the environment; and

M. Prior to execution of the Temporary Warren Act Contract, CCWA must comply with the California Environmental Quality Act (**"CEQA"**); and

N. Categorical exemptions from CEQA are set forth in Article 19 of Title 14 of the California Code of Regulations (**"CEQA Guidelines"**); and

O. CEQA Guidelines section 15301 sets forth an exemption from CEQA for the operation and permitting of existing facilities involving negligible or no expansion of existing or former use and CEQA Guidelines section 15304 further exempts projects that entail minor alterations in the condition of water; and

P. The Temporary Warren Act Contract will continue to allow the annual introduction, storage, and conveyance of up to 13,750 acre-feet of water acquired by or available to CCWA from or through the SWP into Cachuma Project facilities for delivery to the CCWA South Coast Participants and will therefore not expand the use of Cachuma Project facilities beyond that permitted by the 1995 Warren Act Contract; and

Q. The CCWA Board of Directors has considered, agrees with, and incorporates herein all of the findings made by Staff in the Notice of Exemption attached hereto as **Exhibit 2**, including but not limited to, the determinations that approval of the Temporary Warren Act Contract falls within a categorical exclusion under CEQA and that none of the exceptions to use of an exemption set forth in CEQA Guidelines section 15300.2 apply and the Project will not have a significant impact on the environment.

NOW THEREFORE, THE BOARD OF DIRECTORS DOES HEREBY FIND AND RESOLVE AS FOLLOWS:

SECTION 1. The Recitals set forth above are true and correct and are incorporated into this Resolution by this reference.

SECTION 2. Based on the findings set forth herein, the Board of Directors approves the Temporary Warren Act Contract attached hereto as **Exhibit 1**. This resolution constitutes complete and final agreement by CCWA to be bound by the terms of the Temporary Warren Act Contract and this Resolution shall take effect immediately.

SECTION 3. The Board of Directors authorizes the **Chair of the Board** to execute the Temporary Warren Act Contract in a form substantially the same as attached hereto as **Exhibit 1**.

SECTION 4. The Board of Directors authorizes and directs the **Executive Director** to do and cause to be done any and all acts and things necessary or appropriate to carry out the intention of this Resolution, including executing any and all documents related to the implementation of the Temporary Warren Act Contract.

I certify that the foregoing resolution was duly and regularly introduced and adopted by the Board of Directors of the Central Coast Water Authority at a special meeting held on June 9, 2022.

_____
Eric Friedman, Chairman

[Seal]

Attest:

_____
Elizabeth Watkins
Secretary to the Board of Directors

[Insert voting percentage tally table]

Exhibits:

1. Temporary Warren Act Contract No. 22-WC-20-5954 Between Central Coast Water Authority and United States Bureau of Reclamation

2. Notice of Exemption re. Temporary Warren Act Contract No. 22-WC-20-5954 Between Central Coast Water Authority and United States Bureau of Reclamation

Temporary Warren Act Contract – Year 2022
M&I Only
Contract No. 22-WC-20-5954

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
Cachuma Project, California

TEMPORARY CONTRACT BETWEEN THE UNITED STATES AND THE CENTRAL COAST WATER AUTHORITY PROVIDING FOR STORAGE AND CONVEYANCE OF NON-PROJECT WATER

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Temporary Warren Act Contract – Year 2022
M&I Only
Contract No. 22-WC-20-5954

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
Cachuma Project, California

TEMPORARY CONTRACT BETWEEN THE UNITED STATES
AND
THE CENTRAL COAST WATER AUTHORITY
PROVIDING FOR STORAGE AND CONVEYANCE OF NON-PROJECT WATER

THIS CONTRACT, made this _____ day of _____, 2022, pursuant to the Act of June 17, 1902 (32 Stat. 388), and acts amendatory thereof or supplementary thereto, including the Act of February 21, 1911 (36 Stat. 925), and Section 305 of the Reclamation States Emergency Drought Relief Act of 1991, enacted March 5, 1992 (106 Stat. 59), all collectively hereinafter referred to as the Federal Reclamation laws, between the UNITED STATES OF AMERICA, hereinafter referred to as the United States, represented by the officer executing this Contract, hereinafter referred to as the Contracting Officer, and the CENTRAL COAST WATER AUTHORITY, hereinafter referred to as the Contractor;

WITNESSETH, That:

EXPLANATORY RECITALS

[1st] WHEREAS, on September 12, 1949, the United States and the Santa Barbara County Water Agency, hereinafter referred to as the Agency, entered into Contract No. I75r-1802, which was renewed by Contract No. I75r-1802R dated April 14, 1996, and amended by Contract No. I75r-1802RA dated September 28, 2020, pursuant to which water from the Cachuma Project is furnished to Carpinteria Valley Water District, the City of Santa Barbara, Goleta Water District, Montecito Water District, and Santa Ynez River Water Conservation

District Improvement District No. 1, hereinafter collectively referred to as the Member Units; and

[2nd] WHEREAS, on July 6, 1995, the Contractor and the Cachuma Project Authority, currently known as Cachuma Operations Maintenance Board (COMB), a joint exercise of powers authority comprised of the Member Units, entered into a Memorandum of Understanding (MOU) for the creation of a trust fund dedicated to developing and supporting water management programs and projects beneficial to the Cachuma Project with the expectation that the United States would become a party to such MOU in conjunction with entering into a contract permitting the Contractor's use of the Cachuma Project for the Storage and/or Conveyance of Non-Project Water; and

[3rd] WHEREAS, on July 25, 1995, the United States and the Contractor entered into Contract No. 5-07-20-W1282, to Store and/or Convey through facilities of the Cachuma Project a supply of Non-Project Water for municipal and industrial uses; and

[4th] WHEREAS, on June 2, 1997, the United States and the Contractor entered into an amendment to Contract No. 5-07-20-W1282 for the purpose of changing the definition of "Year" in Contract No. 5-07-20-W1282; and

[5th] WHEREAS, Contractor asserts rights in a long-term contract with the California Department of Water Resources, dated February 26, 1963, for the delivery of water from and/or through the State Water Project to the County of Santa Barbara; and

[6th] WHEREAS, Contractor holds contracts with public water providers, including the Member Units and parties collectively referred to as the Contractor Participants for the delivery of water from and/or through State Water Project to each of the Contractor Participants; and

[7th] WHEREAS, pursuant to the above-referenced contracts, Contractor is obligated to deliver water to Lake Cachuma for Carpinteria Valley Water District, the City of Santa Barbara, Goleta Water District, Montecito Water District, and other Contractor Participants, hereinafter collectively referred to as the South Coast Participants; and

[8th] WHEREAS, pursuant to Contract No. 5-07-20-W1282, the Contractor has Stored and/or Conveyed Non-Project Water in and/or through the Project since 1997; and

[9th] WHEREAS, pursuant to amended Contract No. 14-06-200-5222R, and as amended, the United States transferred responsibility for the operation and maintenance (O&M) of a portion of the Project Facilities and the costs of such O&M to the designated Operating Non-Federal Entity; and

[10th] WHEREAS, Contractor has a continuing need for the Storage and/or Conveyance of Non-Project Water from and/or through Project to the extent that Excess Capacity is available in Project Facilities; and

[11th] WHEREAS, Contract No. 5-07-20-W1282 expires in June 2022, but "Year" under that contract and this Contract is defined as the period from and including October 1st of the Calendar Year through September 30th of the following Calendar Year. Therefore, this Contract includes accounting provisions that apply to only the 2021-2022 Contract Year, to adjust for the difference in contract expiration and contract year.

[12th] WHEREAS, the United States is willing to Store and/or Convey said Non-Project Water through Excess Capacity in said Project Facilities in accordance with the terms and conditions hereinafter stated; and

[13th] WHEREAS, it is not the intention of the parties that this Contract will change the quantity of water diverted from the Santa Ynez River, the point of diversion, the

quantities of the Project water made available to water purveyors who receive Project water or the rights and responsibilities of the Member Units concerning operation and maintenance; and

[14th] WHEREAS, the environmental compliance requirements for the execution of this Contract have been met by Environmental Assessment CGB-EA-2022-023, entitled "Central Coast Water Authority Temporary Warren Act Contract," which resulted in a Finding of No Significant Impact, dated mm/dd/yr.

NOW, THEREFORE, in consideration of the covenants herein contained, the parties agree as follows:

DEFINITIONS

1. When used herein unless otherwise distinctly expressed, or manifestly incompatible with the intent of the parties as expressed in this Contract, the term:

(a) "Calendar Year" shall mean the period January 1 through December 31, both dates inclusive;

(b) "Contracting Officer" shall mean the Secretary of the Interior's duly authorized representative acting pursuant to this Contract or applicable Reclamation law or regulation;

(c) "Contractor's Boundaries" shall mean the geographic area within which the Contractor is authorized to serve Non-Project Water as set forth on Exhibit "A", which may be modified in accordance with Article 24, without amendment of this Contract;

(d) "Conveyance or Convey" shall mean the transportation of Non-Project water through any or all of the following: (i) Lake Cachuma, if the water is released from Lake Cachuma within 30 days of its introduction, or (ii) other Project facilities;

(e) "CCWA Participants" shall mean water providers and water users in Santa Barbara County that contract with CCWA for the delivery of imported water;

(f) "CCWA's South Coast Participants" shall mean Carpinteria Valley Water District, City of Santa Barbara, Goleta Water District, Montecito Water District, La Cumbre Mutual Water Company, Morehart Land Co. and Raytheon Systems Co.;

(g) "Excess Capacity" shall mean excess capacity, diversion, Storage, Conveyance, or pumping capacity in Project Facilities that is not needed to meet Reclamation's obligations for authorized Project purposes, as determined solely by the Contracting Officer;

(h) "Member Units" shall mean Carpinteria Valley Water District, City of Santa Barbara, Goleta, Water District, Montecito Water District and Santa Ynez River Water Conservation District Improvement District No. 1;

(i) "Non-Project Water" shall mean water not appropriated by the United States for the Project which is acquired by or available to the Contractor from or through the State Water Project from the sources identified in Exhibit "C" and from other sources as may be approved by the Contracting Officer, all of which shall be treated to California drinking water quality standards at Contractor's Polonio Pass Water Treatment Facility, which is located in northeastern San Luis Obispo County;

(j) "Operating Non-Federal Entity" or "Cachuma Operations Maintenance Board" or "COMB" shall mean the non-Federal entity that has the obligation pursuant to a separate agreement with the United States to operate and maintain a portion of the Project Facilities, and which may have funding obligations with respect thereto;

(k) "Project" shall mean the Cachuma Project including but not limited to Bradbury Dam, Lake Cachuma (Lake), Tecolote Tunnel (Tunnel), Lauro Reservoir, and the

South Coast Conduit (Conduit) facilities constructed by the United States and managed by the Department of the Interior, Bureau of Reclamation;

(l) "Project Facilities" shall mean the associated facilities, constructed as features of the Cachuma Project;

(m) "Project Water" shall mean all water that is developed, diverted, stored, or delivered by the Secretary in accordance with the statutes authorizing the Project and in accordance with the terms and conditions of water rights acquired pursuant to California law;

(n) "Rates" shall mean the amount to be paid to the United States by the Contractor, as set forth in Exhibit "B", for the use of Excess Capacity in the Project Facilities made available pursuant to this Contract;

(o) "Secretary" shall mean the Secretary of the Interior, a duly appointed successor, or an authorized representative acting pursuant to any authority of the Secretary and through any agency of the Department of the Interior;

(p) "South Coast Member Units" shall mean Carpinteria Valley Water District, City of Santa Barbara, Goleta Water District and Montecito Water District;

(q) "Spill" shall mean an event during which (i) the Lake surface is above the Maximum Conservation Storage Pool Elevation and releases are being made through the spillway, or (ii) releases are being made through the outlet works valves to maintain the Lake surface at the Maximum Conservation Storage Pool Elevation. "Maximum Conservation Storage Pool Elevation" is the elevation above which water may not be stored for the purpose of conservation under applicable law, regulation, or operating criteria and procedures. As of the effective date of this Contract, the Maximum Conservation Storage Pool Elevation is 750.0 feet above Mean Sea Level;

(r) "Storage or Store" shall mean the retention of Non-Project Water in the Lake Cachuma for a period in excess of 30 days;

(s) "Year" shall mean the period from and including October 1st of the Calendar Year through September 30th of the following Calendar Year.

TERM OF CONTRACT

2. This Contract shall become effective on the date hereinabove written and shall remain in effect through September 30, 2024: Provided, That upon written notice to the Contractor, this Contract may be terminated by the Contracting Officer at an earlier date, if the Contracting Officer determines that the Contractor has not been complying with one or more terms or conditions of this Contract.

INTRODUCTION, STORAGE, CONVEYANCE, AND DELIVERY OF NON-PROJECT WATER

3. (a) During the term of this Contract, the Contractor may introduce, Store and/or Convey up to 13,750 acre-feet each Year of Non-Project Water, as identified in Exhibit "C", into the Project Facilities at Lake Cachuma. In addition, Contractor may Store and/or Convey Non-Project Water introduced into the Project Facilities pursuant to Contract No. 5-07-20-W1282 for Year 2021-2022 only, and further may introduce, Store and/or Convey Non-Project Water up to 10,000 acre-feet for the period commencing with the effective date of this Contract and continuing through September 30, 2022: Provided, however, that the total quantity of water introduced, Stored and/or Conveyed for the Year commencing on October 1, 2021 and ending on September 30, 2022, shall not exceed 13,750 acre-feet. In addition, the Contractor may have the right to introduce and store additional Non-Project Water to the extent the Contractor determines that it has the need for such services and to the extent the Contracting

Officer determines that the necessary Excess Capacity is available. The United States, acting by or through the designated Operating Non-Federal Entity, shall Store and/or Convey Non-Project Water through Excess Capacity in the Project Facilities from said point(s) of introduction for delivery to the Contractor's South Coast Participants at the Tunnel or other location(s) mutually agreed to in writing by the United States, acting by or through its agent the designated Operating Non-Federal Entity, and the Contractor, acting by or through the Contractor's South Coast Participants, in accordance with an approved schedule submitted by the Contractor pursuant to subdivision (d) of this Article: Provided, That the quantity of Non-Project Water to be Stored and/or Conveyed on behalf of the Contractor's South Coast Participants in/through Project Facilities shall not exceed the quantity of Non-Project Water previously introduced into the Project Facilities by the Contractor at said point(s) of introduction.

(a.1) In the event the quantity of water introduced by Contractor under this Contract exceeds the quantity of Non-Project water authorized pursuant to subdivision (a) of this Article, the Operating Non-Federal Entity shall immediately take all reasonable actions to make available a like amount of water, plus conveyance loss, into the Project Facilities for use by the United States for Project purposes. The provisions of this subdivision are not exclusive and shall not prohibit the United States from exercising any other remedy under existing law, including but not limited to the early termination of this Contract pursuant to Article 2 of this Contract.

(b) Exhibit "C" may be modified or replaced by mutual agreement of the Contractor and the Contracting Officer to reflect changes to the Non-Project water without amendment of this Contract: Provided, however, That no such modification or replacement shall be approved by the Contracting Officer absent the completion of all appropriate environmental documentation, including but not limited to documents prepared pursuant to the National

Environmental Policy Act of 1969 (NEPA) and the Endangered Species Act of 1973 (ESA), as amended.

(c) All Non-Project Water Stored and/or Conveyed and delivered to the Contractor's South Coast Participants pursuant to this Contract shall be used for Municipal and Industrial purposes.

(d) Prior to the introduction of Non-Project Water into the Project Facilities, the Contractor shall submit a schedule to the Contracting Officer and the designated Operating Non-Federal Entity showing the quantities of Non-Project Water to be introduced into the Project Facilities, Provided That the desired time or times for delivery of said Non-Project Water will be scheduled by the Contractor's South Coast Participants with the Operating Non-Federal Entity: Provided further, That the Contractor's South Coast Participants are not required to initially schedule delivery of the maximum quantity of Non-Project Water for which the Contractor desires Storage and/or Conveyance during the term of this Contract. Contractor's schedule for introduction of Non-Project Water, and any revision(s) thereof, shall be in a form acceptable to the Contracting Officer and shall be submitted at such times and in such manner as determined by the Contracting Officer. The Contractor shall not introduce Non-Project Water into the Project Facilities unless and until the schedule and any revision(s) thereof have been approved by the Contracting Officer.

(e) All Non-Project Water remaining in the Project Facilities upon expiration or termination of this Contract shall be deemed to be unused water donated to the United States for Project purposes. Further, all Non-Project Water introduced by Contractor into the Project Facilities and made available for delivery to the Contractor's South Coast Participants from the

Project Facilities and not accepted by the Contractor's South Coast Participants shall be deemed to be unused water donated to the United States for Project purposes.

(f) If Spill occurs from the Lake, the first water Spilled shall be deemed to be the Non-Project Water then in the Lake. No Non-Project Water shall be introduced into the Lake during a Spill: *Provided,* That the Contracting Officer will, to the extent possible, inform the Contractor by written notice, or otherwise, of any impending Spill from the Lake: *and Provided further,* That to the extent Non-Project Water is enroute to and/or Stored in the Lake, when the Contractor has been so informed, such Non-Project Water shall, at the Contractor's South Coast Participants' request, be released into the Tunnel or into the Santa Ynez River, to the extent the United States is able to do so as conclusively determined by the Contracting Officer.

(g) The quantity of Non-Project Water shall be subject to seepage and/or evaporation loss when Stored in the Lake. The quantity of water which seeps or evaporates from the Lake shall be determined by the Contracting Officer in coordination with the Operating Non-Federal Entity and prorated between the Non-Project Water and Project water on a monthly basis.

(h) The Contracting Officer shall permit the Contractor to utilize Excess Capacity to Store and/or Convey Non-Project Water each Year prior to permitting such use by any other individual, agency or entity, excepting use of Excess Capacity by a Member Unit (or successor) pursuant to an agreement between the United States and that Member Unit, which use shall be considered to be of equal priority with a use of Excess Capacity by the Contractor.

(i) Unless otherwise agreed to in writing by the Contracting Officer, the Non-Project Water shall be introduced into the Lake and delivered to the Contractor's South Coast Participants through existing Project Facilities. If temporary inflow or delivery facilities are

required to effectuate the introduction of Non-Project Water into the Project Facilities or the delivery of the Non-Project Water to the Contractor's South Coast Participants from the Project Facilities, the Contractor shall, at its own cost and expense obtain all appropriate environmental documents, necessary rights-of-way for such facilities, including the appropriate right of-use agreement(s) or other authorizations issued by the United States for any such facilities located on right-of-way for existing Project Facilities. The Contractor, at its own cost and expense, shall be responsible for providing, installing, operating, maintaining, repairing, replacing, and removing said inflow and delivery facilities. The Contractor hereby grants to the Contracting Officer and the Operating Non-Federal Entity access, for the purposes of this Contract, to all temporary inflow and delivery facilities installed by the Contractor.

(j) The introduction of Non-Project Water into the Project Facilities by the Contractor shall be conditioned upon compliance by the Contractor with the environmental measures described in the environmental documentation prepared in connection with the execution of this Contract and with the terms of the applicable operations procedures approved by the Contracting Officer.

MEASUREMENT OF NON-PROJECT WATER

4. (a) The quantity of Non-Project Water shall be measured and recorded prior to the point of introduction into the Lake and at the point of diversion from the Lake as provided in this article.

(b) The Non-Project Water introduced into the Lake shall be measured and recorded at the Santa Ynez Pumping Plant by the Contractor with devices approved by the Contracting Officer. The Contractor shall examine, test and service the measuring and recording devices. Upon the written request of either party or at least once a Calendar Year, the Contractor

and the Contracting Officer shall investigate the accuracy of the measuring and recording devices required by this Contract and the Contractor shall promptly correct any errors in measurement or recording disclosed by such investigation. If such device is found to be defective or inaccurate, it shall be adjusted, repaired, or replaced without expense to the United States. In the event the Contractor neglects or fails to make such repairs or replacements within a reasonable time and to the reasonable satisfaction of the Contracting Officer, the Contracting Officer shall determine the appropriate measurements to be used to implement this Contract pending the Contractor's completion of the necessary repairs or replacements.

(c) The Non-Project water delivered from the Lake to the South Coast Participants shall be measured and recorded at the Tunnel. The South Coast Participants currently provide for measurement and recordation of water delivered by or through a portion of the Project Facilities including the Tunnel, and are responsible for the accuracy and servicing of the measuring and recording devices at the Tunnel, which responsibilities are carried out through COMB. Therefore, the Contractor and/or the Contractor's South Coast Participants shall seek to engage the services of COMB or any successor entity thereof designated by the South Coast Member Units to measure and record the quantity of Non-Project Water at the Tunnel. If COMB or any successor entity declines or is unable to perform such service, the Contractor and/or the Contractor's South Coast Participants shall otherwise provide for measurement and recordation of Non-Project Water diverted from the Lake including the accuracy of measuring and recording devices in a manner similar to that described in paragraph 4(b) above.

(d) Upon the request of either party to this Contract, the Contracting Officer shall investigate, or cause to be investigated by the Operating Non-Federal Entity, the accuracy of all measurements of Non-Project Water required by this Contract. If the investigation

discloses errors in the recorded measurements, such errors shall be promptly corrected. If the investigation discloses that measurement devices are defective or inoperative, the Contracting Officer shall take any necessary actions to ensure that the responsible party makes the appropriate adjustments, repairs, or replacements to the measurement devices. In the event the Contractor, as the responsible party, neglects or fails to make such adjustments, repairs, or replacements to the measurement devices within a reasonable time and to the reasonable satisfaction of the Contracting Officer, the Contracting Officer may cause such adjustments, repairs, or replacements to be made and the costs thereof shall be charged to the Contractor and the Contractor shall pay said charges to the United States immediately upon receipt of a detailed billing. For any period of time during which accurate measurements of the Non-Project Water have not been made, the Contracting Officer shall consult with the Contractor and the Operating Non-Federal Entity prior to making a determination of the quantity of Non-Project Water introduced, Stored and/or Conveyed and delivered for that period of time and such determination by the Contracting Officer shall be final and binding on the Contractor.

OPERATION AND MAINTENANCE BY OPERATING NON-FEDERAL ENTITY

5. (a) The operation and maintenance (O&M) of a portion of the Project Facilities to be used to introduce, Store and/or Convey and deliver the Non-Project Water to the Contractor's South Coast Participants, and responsibility for funding a portion of the costs of such O&M, have been transferred from the United States to the COMB, the designated Operating Non-Federal Entity, pursuant to a separate agreement, identified as amended Contract No. 14-06-200-5222R, as amended. That separate agreement shall not interfere with or affect the rights or obligations of the Contractor or the United States hereunder.

(b) The Contractor or the Contractor's South Coast Participants, if applicable, may pay directly to the COMB, or to any successor approved by the Contracting Officer under the terms and conditions of the separate agreement described in subdivision (a) of this Article 5, all rates, charges, or assessments of any kind, including any assessment for reserve funds, that the COMB or such successor determines, sets, or establishes for the operation and maintenance of the portion of the Project Facilities operated and maintained by the COMB or such successor used to Store and/or Convey and deliver the Non-Project Water to the Contractor's South Coast Participants.

(c) For so long as the O&M of any portion of the Project Facilities used to Store and/or Convey and deliver the Non-Project Water to the Contractor's South Coast Participants is performed by the COMB, or any successor thereto, the Contracting Officer shall adjust those components of the Rates for the Non-Project Water Stored and/or Conveyed under this Contract by deleting the costs associated with the activity being performed by the COMB or its successor.

(d) In the event the United States reassumes O&M of any portion of the Project Facilities from the Operating Non-Federal Entity, the Contracting Officer shall so notify the Contractor, in writing, and shall revise the Rates on Exhibit "B" to include the costs associated with the O&M activities reassumed by the United States.

PAYMENTS AND ADJUSTMENTS

6. (a) At the time the Contractor submits a schedule, or any revision(s) thereof pursuant to subdivision (d) of Article 3 of this Contract, the Contractor shall make an advance payment to the United States equal to the total amount payable pursuant to the applicable Rates shown on Exhibit "B", revised each Year, for each acre-foot of Non-Project Water to be

313 introduced into the Project Facilities: Provided, however, a reconciliation for Contract No. 5-07-
314 20-W1282 will be performed for the period October 1, 2021 through the effective date of this
315 Contract. Contractor shall be credited for overpayment and will be billed for any outstanding
316 obligations with regard to Contract No. 5-07-20-W1282. Non-Project Water shall not be
317 introduced into Project Facilities by the Contractor prior to such payment being received by the
318 United States.

319 (b) In the event the quantity of water delivered by the Operating Non-Federal
320 Entity to the Contractor's South Coast Participants exceeds the quantity of Non-Project Water
321 authorized to be introduced into the Project Facilities pursuant to subdivision (a) of Article 3 of
322 this Contract, that additional amount of water shall be deemed Project water delivered to the
323 South Coast Participants in accordance with subdivision (a)(i) of Article 3 of this Contract. The
324 Contracting Officer in coordination with the Contractor may invoke provisions not described
325 herein to resolve the unauthorized delivery of water. The provisions of this subdivision are not
326 exclusive and shall not prohibit the United States from exercising any other remedy, including
327 but not limited to the early termination of this Contract pursuant to Article 2 of this Contract.

328 (c) The amount of any overpayment by the Contractor by reason of the
329 quantity of Non-Project Water introduced into the Project Facilities and Stored and/or Conveyed
330 pursuant to this Contract, as conclusively determined by the Contracting Officer, having been
331 less than the quantity which the Contractor otherwise under the provisions of this Contract would
332 have been required to pay for, shall be applied first to any accrued indebtedness arising out of
333 this Contract then due and owing to the United States by the Contractor. Any amount of such
334 overpayment then remaining shall be refunded to the Contractor: Provided, however, That no
335 refund shall be made by the United States to the Contractor for any quantity of Non-Project

Water deemed to be unused water donated to the United States for Project purposes pursuant to subdivision (e) of Article 3 of this Contract.

(d) All payments made by the Contractor pursuant to subdivision (a) of this Article 6 shall be covered into the Reclamation Fund pursuant to Section 3 of the Act of February 21, 1911 (36 Stat. 925).

(e) The payment of the Rates set forth in this Article 6 for the use of Excess Capacity are exclusive of any applicable O&M costs to be paid directly to the Operating Non-Federal Entity by the Contractor. In accordance with the Act of February 21, 1911 (36 Stat. 925), the Contractor may not impose on its water users any charge for the use of Excess Capacity, as applicable, that exceeds the total amount paid to the United States and to the Operating Non-Federal Entity: Provided, That the Contractor may not impose on Contractor's Participants any charge for the use of Excess Capacity, as applicable, that exceeds the total amount paid to the United States and to the Operating Non-Federal Entity: Provided, That the Contractor may also charge its water users such additional amounts as are necessary to cover the Contractor's reasonable administrative costs in contracting with the United States for the use of Excess Capacity in the Project Facilities.

MEDIUM FOR TRANSMITTING PAYMENTS

7. (a) All payments from the Contractor to the United States under this Contract shall be by the medium requested by the United States on or before the date payment is due. The required method of payment may include checks, wire transfers, or other types of payment specified by the United States.

(b) Upon execution of the Contract, the Contractor shall furnish the Contracting Officer with the Contractor's taxpayer's identification number (TIN). The purpose

for requiring the Contractor's TIN is for collecting and reporting any delinquent amounts arising out of the Contractor's relationship with the United States.

EXCESS CAPACITY

8. (a) The availability of Excess Capacity shall be determined solely by the Contracting Officer. Nothing contained in this Contract shall limit or preclude the United States from utilizing available capacity in the Project Facilities for the storage and conveyance of Project Water pursuant to Federal law, Reclamation law or policy, and existing contract(s); or for using Excess Capacity in the Project Facilities for the storage and conveyance of any other supplies of Non-Project Water.

(b) The Contracting Officer and the Operating Non-Federal Entity shall not be obligated to Store and/or Convey Non-Project Water during periods of maintenance or for other operating requirements.

(c) If at any time the Contracting Officer determines that there will not be Excess Capacity in the Project Facilities sufficient to allow the Non-Project Water to be introduced into, Stored and/or Conveyed, and delivered in accordance with an approved schedule submitted by the Contractor, the Contracting Officer shall so notify the Contractor in writing. Within 24 hours of said notice, the Contractor shall revise its schedule accordingly.

(d) No provision of this Contract shall be construed in any way as a basis for the Contractor to establish a priority to or a permanent right to the use of Excess Capacity in the Project Facilities nor to set a precedent to obligate the United States to enter into contracts with any other entities or individuals for the conveyance or storage of Non-Project Water.

ACREAGE LIMITATION PROVISIONS

9. (a) Omitted

RECEIPT AND DISTRIBUTION OF NON-PROJECT WATER SALE, TRANSFER, OR EXCHANGE OF NON-PROJECT WATER

10. (a) The parties hereto acknowledge that this Contract does not grant any permission or entitlement to the Contractor to extract and/or divert Non-Project Water, as described on Exhibit "C", or to change the nature or place of use of its rights to said Non-Project Water in any way. It is the responsibility of the Contractor to comply with all applicable Federal, State, and local laws, rules and regulations, including, but not limited to, State water law in relation to the Non-Project Water. It is expressly understood by the parties that the United States is only providing Storage and Conveyance capacity for the Non-Project Water and does not claim any interest in the acquisition or use of the Non-Project Water beyond the terms specifically set forth in this Contract.

(b) The Contracting Officer makes no representations as to the accuracy of the description or of the validity of the Contractor's rights to the Non-Project Water described in Exhibit "C".

WATER CONSERVATION

11. (a) Prior to the conveyance of water provided from or conveyed through federally constructed or federally financed facilities pursuant to this Contract, the Contractor's South Coast Participants shall develop a water conservation plan consistent with the plans required by subsection 210(b) of the Reclamation Reform Act of 1982 and 43 C.F.R. 427.1 (Water Conservation Rules and Regulations).

UNITED STATES NOT LIABLE

12. (a) The United States, its officers, agents and employees, including the Operating Non-Federal Entity, shall not be responsible for the control, care, or distribution of the Non-Project Water before it is introduced into or after it is delivered from the Project Facilities. It is specifically understood by the parties hereto that the United States is only providing Storage and/or Conveyance capacity for the Non-Project Water and does not claim any interest in the Non-Project Water beyond the terms specifically set forth in this Contract.

(b) The Contractor shall indemnify and hold harmless the United States, its officers, agents and employees from any loss or damage and from any liability on account of personal injury, death, or property damage, or claims for personal injury, death, or property

damage, of any nature whatsoever arising out of any actions or omissions of the Contractor, its directors, officers, agents, contractors, and employees, under this Contract, including the manner or method in which the Non-Project Water identified on Exhibit "C" is introduced into the Project Facilities. The Contractor further releases the United States, its officers, agents and employees from every claim for injury to persons, death, or property damage, direct or indirect, resulting from the Contracting Officer's determination of the quantity of Excess Capacity available in the Project Facilities for Storage and/or Conveyance of the Contractor's Non-Project Water, the determination pursuant to Article 3 that the Non-Project Water introduced into Project Facilities must be terminated, and the elimination from Exhibit "C" of any source(s) of Non-Project Water. Nothing contained in this Article shall be construed as an assumption of liability by the Contractor with respect to such matters.

RULES, REGULATIONS, OPINIONS AND DETERMINATIONS

13. (a) The parties agree that the delivery of water or the use of Federal facilities pursuant to this Contract is subject to Federal reclamation law, as amended and supplemented, and the rules and regulations promulgated by the Secretary of the Interior under Federal reclamation law.

(b) The Contracting Officer shall have the right to make determinations necessary to administer this Contract that are consistent with the provisions of this Contract, the laws of the United States and the State of California, and the rules and regulations promulgated by the Secretary of the Interior. Such determinations shall be made in consultation with the Contractor.

(c) Where the terms of this Contract provide for actions to be based upon the opinion or determination of either party to this Contract, said terms shall not be construed as permitting such action to be predicated upon arbitrary, capricious, or unreasonable opinions or determinations. Both parties, notwithstanding any other provisions of this Contract, expressly reserve the right to seek relief from and appropriate adjustment for any such arbitrary, capricious, or unreasonable opinion or determination. Each opinion or determination by either party shall be

provided in a timely manner. Nothing in subdivision (c) of this Article 13 is intended to or shall affect or alter the standard of judicial review applicable under Federal law to any opinion or determination implementing a specific provision of Federal law embodied in statute or regulation.

PROTECTION OF WATER AND AIR QUALITY

14. (a) Project Facilities used to make available and deliver Non-Project Water to the Contractor's South Coast Participants shall be operated and maintained in the most practical manner to maintain the quality of the Non-Project Water at the highest level possible as determined by the Contracting Officer: Provided, That the United States does not warrant the quality of the Non-Project Water delivered to the Contractor's South Coast Participants and is under no obligation to furnish or construct water treatment facilities to maintain or improve the quality of the Non-Project Water delivered to Contractor's South Coast Participants.

(b) The Contractor shall comply with all applicable water and air pollution laws and regulations of the United States and the State of California; and will obtain all required permits or licenses from the appropriate Federal, State, or local authorities necessary for the introduction of Non-Project Water by the Contractor; and will be responsible for compliance with all Federal, State, and local water quality standards applicable to surface and subsurface drainage and/or discharges generated through the use of Project Facilities or Contractor facilities or Non-Project Water provided by the Contractor within the Contractor's Boundaries.

(c) This Article 14 shall not affect or alter any legal obligations of the Secretary to provide drainage or other discharge services.

(d) The Non-Project Water introduced into the Project Facilities shall be of such quality, as determined solely by the Contracting Officer, as to not significantly degrade the quality of the Project Water. If it is determined by the Contracting Officer that the quality of the Non-Project Water, as identified in Exhibit "C", will significantly degrade the quality of Project Water in or introduced into the Project Facilities, the Contractor shall, upon receipt of a written notice from the Contracting Officer, arrange for the immediate termination of the introduction of such Non-Project Water into the Project Facilities, and Exhibit "C" shall be modified accordingly.

(e) Exhibit "D" identifies the minimum water quality standards for monitoring the quality of Non-Project Water introduced by the Contractor into Project Facilities. Exhibit "D" identifies the laboratories approved by the Contracting Officer that are to be used for conducting water quality analyses. The Contractor is responsible for sampling and analytical costs associated with evaluating quality of the Non-Project Water. Non-Project Water introduced into Project Facilities for purposes of water quality testing is considered Project water.

(f) At all times during the term of this Contract, the Contractor shall be in compliance with the requirements of the then-current Quality Assurance Project Plan (Plan) approved by the Contracting Officer to monitor Non-Project Water introduced into, stored in and conveyed through the Project Facilities. The Plan describes the sample collection procedures, water testing methods, and data review process, including quality control/quality assurance protocols, to verify analytical results.

(g) The Contracting Officer reserves the right to require additional analyses to ensure the Non-Project Water meets the Bureau of Reclamation's water quality acceptance criteria.

CHARGES FOR DELINQUENT PAYMENTS

15. (a) The Contractor shall be subject to interest, administrative, and penalty charges on delinquent payments. If a payment is not received by the due date, the Contractor shall pay an interest charge on the delinquent payment for each day the payment is delinquent beyond the due date. If a payment becomes 60 days delinquent, the Contractor shall pay, in addition to the interest charge, an administrative charge to cover additional costs of billing and processing the delinquent payment. If a payment is delinquent 90 days or more, the Contractor shall pay in addition to the interest and administrative charges, a penalty charge for each day the payment is delinquent beyond the due date, based on the remaining balance of the payment due at the rate of 6 percent per year. The Contractor shall also pay any fees incurred for debt collection services associated with a delinquent payment.

(b) The interest charge rate shall be the greater of either the rate prescribed quarterly in the Federal Register by the Department of the Treasury for application to overdue payments or the interest rate of 0.5 percent per month. The interest charge rate will be determined as of the due date and remain fixed for the duration of the delinquent period.

(c) When a partial payment on a delinquent account is received, the amount received shall be applied first to the penalty charges, second to the administrative charges, third to the accrued interest, and finally to the overdue payment.

EQUAL EMPLOYMENT OPPORTUNITY

The following language is required by Executive Order No. 11246 of September 24, 1965, in all government contracts unless and until it is superseded or amended.

16. During the performance of this Contract, the Contractor agrees as follows:

(a) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Officer setting forth the provisions of this nondiscrimination clause.

(b) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(c) The Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

(d) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the Contracting Officer, advising the labor union or workers' representative of the Contractor's commitments under Section 202 of Executive Order 11246 of September 24,

1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(e) The Contractor will comply with all provisions of Executive Order No. 11246 of Sept. 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(f) The Contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the Contracting Agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(g) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Contract or with any of such rules, regulations, or orders, this Contract may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(h) The Contractor will include the provisions of paragraphs (a) through (h) in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions, including sanctions for noncompliance: *Provided*, however, That in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

CERTIFICATION OF NONSEGREGATED FACILITIES

17. The Contractor hereby certifies that it does not maintain or provide for its employees any segregated facilities at any of its establishments and that it does not permit its employees to perform their services at any location under its control where segregated facilities are maintained. It certifies further that it will not maintain or provide for its employees any segregated facilities at any of its establishments and that it will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this certification is a violation of the Equal Employment Opportunity clause in this Contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact

segregated on the basis of race, creed, color, or national origin, because of habit, local custom, disability, or otherwise. The Contractor further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding $10,000 which are not exempt from the provisions of the Equal Employment Opportunity clause; that it will retain such certifications in its files; and that it will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES

A Certification of Nonsegregated Facilities must be submitted prior to the award of a subcontract exceeding $10,000 which is not exempt from the provisions of the Equal Employment Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually). Note: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

COMPLIANCE WITH CIVIL RIGHTS LAWS AND REGULATIONS

18. (a) The Contractor shall comply with Title VI of the Civil Rights Act of 1964 (Pub. L. 88-352; 42 U.S.C. § 2000d), the Rehabilitation Act of 1973 (Pub. L. 93-112, Title V, as amended; 29 U.S.C. § 791, et seq.), the Age Discrimination Act of 1975 (Pub. L. 94-135, Title III; 42 U.S.C. § 6101, et seq.), [Title II of the Americans with Disabilities Act of 1990 (Pub. L. 101-336; 42 U.S.C. § 12131, et seq.),] and any other applicable civil rights laws, and with the applicable implementing regulations and any guidelines imposed by the U.S. Department of the Interior and/or Bureau of Reclamation.

(b) These statutes prohibit any person in the United States from being excluded from participation in, being denied the benefits of, or being otherwise subjected to discrimination under any program or activity receiving financial assistance from the Bureau of Reclamation on the grounds of race, color, national origin, disability, or age. By executing this contract, the Contractor agrees to immediately take any measures necessary to implement this obligation, including permitting officials of the United States to inspect premises, programs, and documents.

(c) The Contractor makes this agreement in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property discounts, or other Federal financial assistance extended after the date hereof to the Contractor by the Bureau of Reclamation, including installment payments after such date on account of arrangements for Federal financial assistance which were approved before such date. The Contractor recognizes and agrees that such Federal assistance will be extended in reliance on the representations and agreements made in this Article and that the United States reserves the right to seek judicial enforcement thereof.

(d) Complaints of discrimination against the Contractor shall be investigated by the Contracting Officer's Office of Civil Rights.

GENERAL OBLIGATION – BENEFITS CONDITIONED UPON PAYMENT

19. (a) The obligation of the Contractor to pay the United States as provided in this Contract is a general obligation of the Contractor notwithstanding the manner in which the obligation may be distributed among the Contractor's water users and notwithstanding the default of individual water users in their obligation to the Contractor.

(b) The payment of charges becoming due pursuant to this Contract is a condition precedent to receiving benefits under this Contract. The United States shall not make Non-Project Water available to the Contractor's South Coast Participants through Project Facilities during any period in which the Contractor is in arrears in the advance payment of Rates and charges due the United States. The Contractor shall not deliver Non-Project Water under the terms and conditions of this Contract for lands or parties that are in arrears in the advance payment of rates and charges as levied or established by the Contractor.

BOOKS, RECORDS, AND REPORTS

20. (a) The Contractor shall establish and maintain accounts and other books and records pertaining to administration of the terms and conditions of this Contract, including the Contractor's financial transactions; water supply data; Project operation, maintenance, and replacement logs; Project land and rights-of-way use agreements; the water users' land-use (crop census), land-ownership, land-leasing, and water-use data; and other matters that the Contracting Officer may require. Reports shall be furnished to the Contracting Officer in such form and on such date or dates as the Contracting Officer may require. Subject to applicable Federal laws and regulations, each party to this contract shall have the right during office hours to examine and make copies of the other party's books and records relating to matters covered by this contract.

(b) Nothing in this Article 20 shall be construed to limit or constrain the ability of the Bureau of Reclamation to conduct contract compliance reviews of this Contract in accordance with Reclamation Manual Directives and Standards PEC 05-08, last revised October 11, 2019, as may be further revised, amended, modified, or superseded.

CONTINGENT UPON APPROPRIATION OR ALLOTMENT OF FUNDS

21. The expenditure or advance of any money or the performance of any obligation of the United States under this contract shall be contingent upon appropriation or allotment of funds. Absence of appropriation or allotment of funds shall not relieve the Contractor from any obligations under this contract. No liability shall accrue to the United States in case funds are not appropriated or allotted.

ASSIGNMENT LIMITED – SUCCESSORS AND ASSIGNS OBLIGATED

22. The provisions of this Contract shall apply to and bind the successors and assigns of the parties hereto, but no assignment or transfer of this Contract or any right or interest therein by either party shall be valid until approved in writing by the other party.

OFFICIALS NOT TO BENEFIT

23. No Member of or Delegate to the Congress, Resident Commissioner, or official of the Contractor shall benefit from this Contract other than as a water user or landowner in the same manner as other water users or landowners.

CHANGES IN CONTRACTORS ORGANIZATION

24. While this Contract is in effect, no change may be made in the Contractor's organization, by inclusion or exclusion of lands or by any other changes which may affect the respective rights, obligations, privileges, and duties of either the United States or the Contractor under this Contract including, but not limited to, dissolution, consolidation, or merger, except upon the Contracting Officer's written consent.

NOTICES

25. Any notice, demand, or request authorized or required by this Contract shall be deemed to have been given, on behalf of the Contractor, when mailed, postage prepaid, or delivered to Bureau of Reclamation, Area Manager, South-Central California Area Office, 1243 N Street, Fresno, California 93721, and on behalf of the United States, when mailed, postage prepaid, or delivered to Central Coast Water Authority, 255 Industrial Way, Buellton, CA 93427. The designation of the addressee or the address may be changed by notice given in the same manner as provided in this Article for other notices.

INCORPORATION OF EXHIBITS

26. Exhibits "A" through "D" are attached hereto and incorporated herein by reference.

CONTRACT DRAFTING CONSIDERATIONS

27. This Contract has been negotiated and reviewed by the parties hereto, each of whom is sophisticated in the matters to which this Contract pertains. The double-spaced articles of this Contract have been drafted, negotiated, and reviewed by the parties, and no one party shall be considered to have drafted the stated articles.

IN WITNESS WHEREOF, the parties hereto have executed this Contract as of the day and year first above written.

UNITED STATES OF AMERICA

By: _____
Area Manager
South-Central California Area Office
Interior Region 10: California-Great Basin
Bureau of Reclamation

CENTRAL COAST WATER AUTHORITY

(SEAL)

By: _____
President of the Board of Directors

Attest:

By: _____
Secretary of the Board of Directors


BUREAU OF RECLAMATION
CENTRAL COAST WATER AUTHORITY
Contract No. 22-WC-20-5954
Exhibit A
Monterey County
Kings County
Tulare County
Kern County
San Luis Obispo County
Santa Barbara County
Ventura County
Bluestone Pumping Plant
Polonio Pass Water Treatment Plant
Polonio Pass Pumping Plant
Devils Den Pumping Plant
Shandon Turnout
El Paso de Robles (Paso Robles)
Atascadero
Tank 2
Chorro Valley Turnout
Lopez Turnout
Guadalupe Turnout
Twitchell Dam
Santa Maria Turnout
Tank 5 (VAFB)
Vandenberg Turnout
Tank 7
Santa Ynez River
Buellton Turnout
Solvang Turnout
Santa Ynez Turnout
Santa Ynez Pumping Plant
Santa Ynez RWCD Improvement District No.1
Bradbury Dam
Cachuma Lake
Tecolote Tunnel
Glen Anne Dam
South Coast Conduit
Lauro Dam
Sheffield Tunnel
Ortega Dam
Carpinteria Dam
Goleta Co. WD
City of Santa Barbara WSA
Montecito WD
Carpinteria Valley WD
California Aqueduct
Salinas River
Kern River
Delano
Wasco
Contractor's Boundary
California Aqueduct
Coastal Branch, Phase II
Local Connection
CCWA Extention
Tunnel
Conduit
Dam
Water Treatment Plant
Pumping Plant
Tank
Turnout
N
0 5 10 20 Miles
368-202-10

EXHIBIT B

CENTRAL COAST WATER AUTHORITY
YEAR 2022[1]
(Per Acre-Foot)

O&M Cost Component	**Water**
Water Marketing	$29.75
Storage	$62.59
XO&M	$3.05
Conveyance	$0.00
O&M Sub-Total	**$95.39**
Capital Component	$0.00
Deficit Rate	$0.00
Total Water Rate:	**$95.39**

EXPLANATORY NOTES:

1. Exhibit "B" Period coverage begins on 07/01/2022 to 09/30/2022. Exhibit "B" is adjusted annually beginning on October 1st of each year.

Directives and Standards PEC 05-10 and PEC 05-11 refer to the following link: https://www.usbr.gov/recman/DandS.html

03/18/2022 slf

EXHIBIT C

SOURCE(S) OF CONTRACTOR'S NON-PROJECT WATER

SOURCE: "Non-Project Water" means water not appropriated by the United States for the Project which is acquired by or available to the Contractor from or through the State Water Project from the following sources:

State Water Project water acquired by or available to the Contractor from the State Water Project, including but not limited to State Water Project water previously stored in a surface water reservoir or groundwater bank; and water from sources other than the State Water Project, including but not limited to the Sacramento River watershed and the San Joaquin-Sacramento Delta, acquired by or available to the Contractor and conveyed to the Contractor through the State Water Project, which conveyance requires the approval of DWR pursuant to the Water Supply Contract.

POINTS OF INTRODUCTION AND DELIVERY: Non-Project water introduced into Lake Cachuma shall be measured and recorded at the Santa Ynez Pumping Plant. Non-Project water diverted from Lake Cachuma shall be measured and recorded at the Tecolote Tunnel and conveyed through the South Coast Conduit for delivery to the South Coast Member Units.

EXHIBIT D

WATER QUALITY STANDARDS

CCWA monitors water quality within its facilities. Prior to its introduction into Lake Cachuma, CCWA water is treated in CCWA's Polonio Pass Water Treatment Plant in San Luis Obispo County to applicable drinking water standards. This treatment process includes adding chloramine (a mix of chlorine and ammonia) to the water. From the Polonio Pass Water Treatment Plant, CCWA's water is conveyed to the Santa Ynez Pumping Facility where it is treated with sodium bisulfite to remove the chloramine before the water is conveyed to Bradbury Dam for introduction into Cachuma Project facilities.

Built-in safety systems at the Santa Ynez Pumping Facility automatically shut off the pumps if a chlorine concentration $\geq$ 0.05 mg/L is detected, or if residual sodium bisulfite concentrations drop to 0.1 mg/L or rise above 1 mg/L. Slightly more sodium bisulfite is added to the water than needed to completely neutralize the chlorine, which results in a small amount of unreacted sodium bisulfite left in the water (i.e. >0.1 mg/L and $\leq$ 1mg/L). Based on the chemistry of the chemical reaction between sodium bisulfite and chloramine, as long as there is a detectable sodium bisulfite concentration in the water there is no free chlorine left in the water (i.e., chlorine residual is 0 mg/L)

Notice of Exemption

To: Office of Planning and Research
Post Office Box 3044, Room 113
Sacramento, California 95812-3044

Clerk of the Board
County of Santa Barbara
105 E. Anapamu Street, Room 407
Santa Barbara, CA 93101

From: Central Coast Water Authority
255 Industrial Way
Buellton, CA 93427

Project Title: Temporary Warren Act Contract No. 22-WC-20-5954 between Central Coast Water Authority and United States Bureau of Reclamation

Location – Specific: United States Bureau of Reclamation's ("Reclamation") existing Cachuma Project facilities (i.e., Bradbury Dam and Lake Cachuma, Tecolote Tunnel, and the South Coast Conduit), the Lower Santa Ynez River below Bradbury Dam, and the service areas of Central Coast Water Authority's South Coast Participants (Carpinteria Valley Water District, the City of Santa Barbara, Goleta Water District, Montecito Water District, La Cumbre Mutual Water Company, La Cumbre Mutual Water Company, Morehart Land Co., and Raytheon Systems Co.).

Location – County: Santa Barbara County

Description of Activity: Approval of a short-term Warren Act Contract between Central Coast Water Authority ("CCWA") and Reclamation, Contract No. 22-WC-20-5954 (the "Temporary Warren Act Contract"). The Temporary Warren Act Contract is necessary to continue the annual introduction, storage, and conveyance of up to 13,750 acre-feet of water acquired by or available to CCWA from or through the State Water Project ("SWP") into Cachuma Project facilities for delivery to CCWA's South Coast Participants beyond June 2022, when CCWA's existing 25-year Warren Act Contract (Contract No. 5-07-20-W1282) expires. The term of the Temporary Warren Act Contract will extend through September 30, 2024.

Name of Public Agency Approving or Carrying Out Activity: Central Coast Water Authority

Exempt Status:

- ☐ Ministerial
- ☐ Declared Emergency
- ☐ Emergency Project
- ☑ Categorical Exemption
- ☐ Statutory Exemption (Not a Project Under CEQA)

Reasons why activity is exempt:

CEQA Guidelines section 15301 (14 Cal. Code Regs. § 15301 [Class 1 exemption]) sets forth an exemption from CEQA for the operation and permitting of existing facilities involving negligible or no expansion of existing or former use. CEQA Guidelines section 15304 (14 Cal. Code Regs. § 15304 [Class 4 exemption]) further provides an exemption for "minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry and agricultural purposes." The Temporary Warren Act Contract is exempt because it will continue to allow the annual introduction, storage, and conveyance of up to 13,750 acre-feet of water acquired by or available to CCWA from or through the SWP into Cachuma Project facilities for delivery to the CCWA South Coast Participants and will therefore not expand the use of Cachuma Project facilities beyond that now permitted by CCWA's existing 25-year Warren Act Contract.

None of the exceptions to use of an exemption set forth in CEQA Guidelines section 15300.2 apply and the Temporary Warren Act Contract will not have a significant impact on the environment where it will continue to allow the annual introduction, storage, and conveyance of the same quantity of water available to CCWA from or through the SWP into Cachuma Project facilities as has been authorized for the last 25 years. Under the Temporary Warren Act Contract, CCWA water would continue to be introduced and conveyed through Cachuma Project facilities (i.e., Bradbury Dam outlet works, Stilling Basin, Lake Cachuma, North Intake of the Tecolote Tunnel, and the South Coast Conduit) to the CCWA Participants located along the South Coast Conduit. No modifications to existing infrastructure or construction would occur.

Through the Temporary Warren Act Contract, measures to avoid and minimize effects to listed species, including the Southern California Steelhead (*Oncorhynchus mykiss*) Distinct Population Segment will be implemented. Reclamation issued an Environmental Assessment ("EA") pursuant to the National Environmental Policy Act for the Temporary Warren Act Contract on March 25, 2022, and the public comment period closed on April 22, 2022. Reclamation's approval of the Temporary Warren Act Contract is contingent on its issuance of a Finding of No Significant Impact ("FONSI") concluding that issuance of the Temporary Warren Act Contract would not have a significant impact on the environment. Reclamation has indicated that it will issue its FONSI after obtaining concurrence from the National Marine Fisheries Service that issuance of the Temporary Warren Act Contract would have either no effect on species listed under the Endangered Species Act, or would be not likely to adversely affect such species or their critical habitat.

As more fully described in Reclamation's EA, over the last 25 years, CCWA has monitored and studied its operations under its existing long-term 25-year Warren Act Contract, including water quality and temperature. Through its monitoring, CCWA has not identified any information suggesting that that there is a reasonable possibility that the continued conveyance of 13,750 acre-feet of water pursuant to the Temporary Warren Act Contract will have a significant effect on the environment.

Agency Contact Person: Ray Stokes **Telephone:** (805) 688-2292

Signature: _____ **Date:** _____

Ray Stokes

Title: Executive Director, Central Coast Water Authority

Date received for filing OPR: _____

BUREAU OF RECLAMATION

Central Coast Water Authority Temporary Warren Act Contract

CGB-EA-2022-023
Draft Environmental Assessment

U.S. Department of the Interior

March 2022

Mission Statements

The U.S. Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated Island Communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Contents

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1 Introduction

1.1 Background

Central Coast Water Authority (CCWA) is a California Joint Powers Agency that was formed in 1991 to construct necessary facilities to deliver supplemental water supplies from the State Water Project (SWP) to the communities in San Luis Obispo and Santa Barbara Counties. The SWP Coastal Branch facilities were completed in 1997.

In 1994, the Bureau of Reclamation (Reclamation) released an Environmental Assessment (EA) that analyzed the construction of an extension of the SWP Coastal Branch that would allow the annual introduction through issuance of a long-term Warren Act Contract[1] of SWP water into the Cachuma Project facilities for delivery to CCWA's South Coast Participants[2]. A Finding of No significant Impact was issued on January 3, 1995.

In 1995, Reclamation issued a 25-year Warren Act contract to CCWA that allowed the annual introduction, storage, and conveyance of up to 13,750 acre-feet (AF) of water acquired by or available to CCWA from or through the SWP into Cachuma Project facilities for delivery to the South Coast Participants for municipal and industrial uses. Introductions of SWP water under the 1995 Warren Act contract began in 1997.

Prior to entering Lake Cachuma, the treated water is dechlorinated at the Santa Ynez Pumping Facility located near the town of Santa Ynez. After being delivered to Lake Cachuma, CCWA water supplies are delivered to the South Coast via the Tecolote Tunnel and the South Coast Conduit. CCWA water is delivered to the Santa Ynez River Water Conservation District Improvement District No.1 (ID No.1) directly from a connection to the SWP pipeline before it reaches the Santa Ynez Pumping Facility.

CCWA's water is treated at the Polonio Pass Water Treatment Plant in San Luis Obispo County and then dechlorinated at CCWA's Santa Ynez Pumping Facility near the town of Santa Ynez using sodium bisulfite prior to its introduction into Lake Cachuma. Built-in safety systems automatically shut off the pumps of the Santa Ynez Pumping Facility if sodium bisulfite residual levels fall below 0.1 mg/L or above 1 mg/L protecting water quality in Lake Cachuma and the Lower Santa Ynez River[3].

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[1] A contract that allows non-Reclamation Project water to be introduced into Reclamation facilities.
[2] CCWA's South Coast Participants include: Carpinteria Valley Water District, the City of Santa Barbara, Goleta Water District, Montecito Water District, La Cumbre Mutual Water, Raytheon Systems Co. and Morehart Land Co.
[3] A detectable concentration of Sodium Bisulfite is needed to confirm the water has been fully dechlorinated. CCWA also monitors for chlorine concentrations and its pumping plant will shut down if chlorine concentrations are detected, a further mechanism for protecting water quality in Lake Cachuma.

1.2 Purpose and Need for the Proposed Action

CCWA water has been and continues to be a much-needed supplemental water supply for the water deficient South Coast especially during drought conditions. As the existing Warren Act Contract expires in June2022, CCWA has requested a new short-term Warren Act Contract to continue the introductions, conveyance, and storage of non-Reclamation Project water into Cachuma Project facilities for delivery to the CCWA's South Coast Participants. Reclamation and CCWA are in the process of negotiating a new long-term Warren Act Contract. In addition, Reclamation is currently in re-consultation with the National Marine Fisheries Service (NMFS) under the Endangered Species Act (ESA) regarding operation and maintenance of the Cachuma Project. As negotiations for the long-term Warren Act contract and re-consultation on the Cachuma Project are not anticipated to be complete by June 2022, CCWA and Reclamation need to enter into a short-term contract to allow the continued delivery of a much-needed water supply to the South Coast Participants.

2 Alternatives Including Proposed Action

2.1 No Action Alternative

Under the No Action Alternative Reclamation would not issue short-term Warren Act Contract(s) to CCWA for the annual introduction, conveyance, and storage of up to 13,750 AF of CCWA water within Cachuma Project facilities.

2.2 Proposed Action

Reclamation proposes to issue short-term (up to five-years) Warren Act Contract(s) to CCWA that would allow the annual introduction, conveyance, and storage of up to 13,750 AF of CCWA's water within Cachuma Project facilities.

CCWA water includes SWP water from the Sacramento River watershed, previously banked SWP water, and other non-SWP water supplies acquired from the Sacramento River watershed, the San Joaquin River watershed, and the San Joaquin-Sacramento Delta. CCWA's acquired non-SWP water supplies can include groundwater pumping, groundwater substitution, land fallowing, or other transfers and exchanges that are common in Reclamation's Central Valley Project and the SWP. The conveyance of non-SWP water supplies through the SWP are reviewed and approved independently by the California Department of Water Resources (DWR) prior to this water being conveyed in State facilities to CCWA's facilities. Prior to introduction into Cachuma Project facilities, CCWA's water will continue to be treated as done under baseline conditions.

Under the short-term Warren Act Contract(s), CCWA water would continue to be introduced and conveyed through Cachuma Project facilities (i.e., Bradbury Dam outlet works, Stilling Basin, Lake Cachuma, North Intake of the Tecolote Tunnel, and the South Coast Conduit) to the CCWA

contractors located along the South Coast Conduit. No modifications to existing infrastructure or operations or construction would be needed for the Proposed Action.

2.2.1 Introduction of CCWA Water into Cachuma Project Facilities

There are two existing mechanisms for the introduction of CCWA water into Lake Cachuma: (1) a direct connection of the CCWA pipeline to the Bradbury Dam outlet works penstock; and (2) a high-density polyethylene penstock bypass pipeline (bypass pipeline) that introduces CCWA water directly into Lake Cachuma[4]. These mechanisms would remain unchanged under the proposed action.

When releases from the outlet works occur at the same time as CCWA water is being introduced through the outlet works, CCWA water mixes with water from Lake Cachuma and is released into the Stilling Basin where it flows into the Lower Santa Ynez River. This mixing of CCWA water has certain advantages to downstream entities for enhancing water quality (i.e., reduced total dissolved solids) and the Cachuma Project Member Units[5], Santa Ynez River Water Conservation District (SYRWCD), and the City of Lompoc entered into a Settlement Agreement in September 2002 to maximize introduction of CCWA water during their Water Rights Releases[6] from the outlet works.

When CCWA water is released into the Stilling Basin, CCWA water is exchanged for Cachuma Project water in Lake Cachuma on a one-to-one basis.

2.2.2 CCWA Water Treatment

Prior to its introduction into Lake Cachuma, CCWA water is treated in CCWA's Polonio Pass Water Treatment Plant in San Luis Obispo County to applicable drinking water standards. This treatment process includes adding chloramine (a mix of chlorine and ammonia) to the water. From the Polonio Pass Water Treatment Plant, CCWA's water is conveyed to the Santa Ynez Pumping Facility where it is treated with sodium bisulfite to remove the chloramine before the water is conveyed to Bradbury Dam for introduction into Cachuma Project facilities.

Built-in safety systems at the Santa Ynez Pumping Facility automatically shut off the pumps if a chlorine concentration ≥ 0.05 mg/L is detected, or if residual sodium bisulfite concentrations drop to 0.1 mg/L or rise above 1 mg/L. Slightly more sodium bisulfite is added to the water than needed to completely neutralize the chlorine, which results in a small amount of unreacted sodium bisulfite left in the water (i.e. >0.1 mg/L and ≤ 1mg/L). Based on the chemistry of the chemical reaction between sodium bisulfite and chloramine, as long as there is a detectable sodium bisulfite concentration in the water there is no free chlorine left in the water (i.e., chlorine residual is 0 mg/L).

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[4] The bypass pipeline has been routed previously in three configurations: bypass pipeline through the spillway onto the bedrock shelf (used when lake levels are low and bedrock shelf is exposed), bypass pipeline to the spillway gate threshold (used when the bedrock shelf is submerged and lake level is below the spillway gate threshold) and bypass pipeline over the top of the dam (used when lake level is above the threshold of the spillway gate).

[5] Cachuma Project Member Units include Carpinteria Water District, City of Santa Barbara, Goleta Water District, Montecito Water District, and Santa Ynez River Water Conservation District Improvement District No. 1.

[6] Non-discretionary Water Rights Releases have occurred since the completion of Bradbury Dam. These releases are made in accordance with State Water Resources Control Board permits 11308 and 11310 issued to Reclamation for the Cachuma Project, as conditioned by WR Order 73-37, as amended by WR Order 89-18, and WR Order 2019-0148.

Free ammonia is a byproduct of the sodium bisulfite water treatment process. A study conducted by CCWA that tracked the fate of free ammonia through the eight-mile pipeline that runs from the Santa Ynez Pumping Facility to Lake Cachuma found that only small concentrations of free ammonia reach Lake Cachuma. Samples collected at the Lake Cachuma delivery point over the 12-month study period (2016 to 2017) had free ammonia concentrations ranging from 0 mg/L to 0.14 mg/L with an average concentration of 0.04 mg/L (CCWA 2021). This represents an average removal efficiency of over 90% from the average free ammonia concentrations measured at the outlet vault of the Santa Ynez Pumping Facility.

2.2.3 Conservation Measures

Measures to avoid and minimize effects to the endangered Southern California Steelhead (*Oncorhynchus mykiss*) Distinct Population Segment (DPS) have been and will continue to be implemented during CCWA operations. Measures are primarily related to preventing steelhead from imprinting on CCWA water and preventing CCWA water from being released to Hilton Creek. When CCWA deliveries to Lake Cachuma via the outlet works coincide with releases from Lake Cachuma via the outlet works, Reclamation proposes to implement the following restrictions to minimize potential effects to steelhead:

- General restrictions on all CCWA water deliveries:
    - There is no delivery of CCWA water to Lake Cachuma during spill events;
    - CCWA water is not introduced into the penstock if the Hilton Creek Emergency Backup System (EBS) is on standby, to eliminate any possibility of CCWA water being delivered to Hilton Creek.
- Restrictions on CCWA water deliveries through the Bradbury Dam outlet works:
    - When releases from the outlet works and deliveries of CCWA water through the outlet works are simultaneously scheduled to achieve mixing, Reclamation will notify NMFS that CCWA water will be entering the Santa Ynez River;
    - There is no delivery of CCWA water to Lake Cachuma via the outlet works when the EBS is delivering water;
    - CCWA water will not be mixed into the waters of the Santa Ynez River during the months of December to June, unless flow is discontinuous in the mainstem;
    - Delivery of CCWA water to Lake Cachuma is not made during spill events;
    - Releases of CCWA water to the mainstem only occurs during water right releases from May to October, with the bulk of releases occurring July through September;
    - CCWA water will not exceed 50 percent of the total rate of releases to the Lower Santa Ynez River; and
    - When releases of CCWA water to the Lower Santa Ynez River occur, Reclamation will ensure that water is released from Lake Cachuma in such a proportion that the blended CCWA and Lake Cachuma water entering the Stilling Basin has a temperature of ≤ 18°C, as estimated pursuant to the Penstock Temperature Monitoring Plan (letter to Reclamation from CCWA, dated October 6, 2011).

CCWA water may be introduced to Lake Cachuma or the Lower Santa Ynez River at rates ranging up to 22 cubic feet per second (cfs), as limited by the capacity of the four pumps at CCWA's Santa Ynez Pumping Facility. Operation of the Santa Ynez Pumping Facility can be highly variable, but in general the Pumping Facility operates minimally when Lake Cachuma is full and may operate at maximum capacity for extended periods of time during drought conditions.

When Reclamation is releasing water from the outlet works at Bradbury Dam, and CCWA is delivering CCWA water to Lake Cachuma, commingled water will be released to the Lower Santa Ynez River pursuant to the restrictions noted above. When Reclamation is releasing water from the EBS, no CCWA water can be delivered via the outlet works as the EBS is plumbed into the outlet works. When the only water Reclamation is releasing to the Lower Santa Ynez River is from Hilton Creek via the lake-based Hilton Creek Watering System (HCWS), no CCWA water will be released to the Lower Santa Ynez River.

Temperature monitoring sensors and related equipment in the penstock at the Bradbury Dam outlet works and in the CCWA pipeline collect and transmit data to both CCWA and Reclamation's Supervisory Control and Data Acquisition (SCADA) System. From 2004 through present, the average temperature of CCWA's water from May through November (before entering the penstock) was 22.4℃ with a low of 13.6℃ and a high of 27.7℃ (CCWA 2021).

The system uses a flow weighted average of lake water temperature and CCWA water temperature to calculate an estimate of the blended temperature of water releases to the Stilling Basin. Reclamation monitors the temperature of CCWA water and water in the penstock. When the temperature of blended water is approaching the 18℃-temperature limit for steelhead Reclamation will immediately reduce or suspend delivery of CCWA water or increase delivery of Cachuma Lake water until CCWA deliveries can be reduced or suspended, to avoid exceeding the 18℃-temperature limit.

3 Affected Environment and Environmental Consequences

3.1 Resources Eliminated from Further Analysis

Reclamation analyzed the affected environment and determined that the Proposed Action does not have the potential to cause adverse effects to the following resources:

3.1.1 Air Quality

There will be no impacts to air quality as there would be no change in baseline conditions.

3.1.2 Climate Change

The Proposed Action does not include construction of new facilities or modification to existing facilities that would impact greenhouse gas emissions. Pumping to deliver CCWA water to Lake Cachuma would be similar to what has been done in the past and is part of baseline conditions and would not result in emissions that would impact climate change. Cachuma Project operations and allocations are flexible, any changes in hydrologic conditions due to global climate change would be addressed within Reclamation's operational flexibility.

3.1.3 Cultural Resources

There would be no impacts to cultural resources as a result of implementing the Proposed Action as the Proposed Action would facilitate the flow of water through existing facilities to existing users. No new construction or ground disturbing activities would occur as part of the Proposed Action. Reclamation has determined that these activities have no potential to cause effects to historic properties pursuant to 36 CFR Part 800.3(a)(1).

3.1.4 Environmental Justice

Executive Order 12898 requires each federal agency to identify and address disproportionately high and adverse human health or environmental effects, including social and economic effects of its program, policies, and activities on minority populations and low-income populations. The Proposed Action would not cause dislocation, changes in employment, or increase flood, drought, or disease nor would it disproportionately impact economically disadvantaged or minority populations.

3.1.5 Indian Sacred Sites

Executive Order 13007 (May 24, 1996) a requires that federal agencies accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and avoids adversely affecting the physical integrity of such sacred sites. The Proposed Action would not limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or affect the physical integrity of such sacred sites. There would be no impacts to Indian sacred sites as a result of the Proposed Action.

3.1.6 Indian Trust Assets

Indian Trust Assets are legal interests in assets that are held in trust by the United States for federally recognized Indian tribes or individuals. There are no Indian reservations, rancherias or allotments in the Proposed Action area. The nearest Indian Trust Asset is a public domain allotment which is about 5 miles to the south of the Proposed Action area. The Proposed Action does not have a potential to affect Indian Trust Assets.

3.2 Biological Resources

3.2.1 Affected Environment

The Proposed Action Area includes Lake Cachuma, the Lower Santa Ynez River below Bradbury Dam, conveyance facilities used to deliver CCWA water (i.e., Tecolote Tunnel, South Coast Conduit), and the South Coast Participant service areas where CCWA water would ultimately be delivered.

On March 18, 2022, Reclamation obtained an official species list from the United States Fish and Wildlife Service (Service) via the Service's website, http://ecos.fws.gov/ipac, (Project Code: 2022-0021550). On March 18, 2022, Reclamation also obtained a species list from NMFS using the species list tool from the now unavailable National Oceanic and Atmospheric Administration's West Coast Region website, https://archive.fisheries.noaa.gov/wcr/maps_data/california_species_list_tools.html. The species lists cover the Proposed Action Area described above. The California Department of Fish and Wildlife's California Natural Diversity Database (CNDDB) was also queried for records of protected

species within the vicinity of the Proposed Action area (CNDDB 2022). The species lists and the best available data were combined to determine the likelihood of protected species occurrence within the Proposed Action Area (Table 1).

Table 1. Federally Listed Threatened and Endangered Species

Species	Status[1]	Effects[2]	Potential to occur and summary basis for ESA determination [3]
Amphibians			
Arroyo Toad *Anaxyrus californicus*	E, X	NE	**Absent**. This species and designated critical habitat for this species do not occur within the Proposed Action Area. There would be *No Effect* to this species from the Proposed Action.
California red-legged frog *Rana draytonii*	T, X	NE	**Present.** There are CNDDB records of this species in the Lower Santa Ynez River, and within portions of the CCWA South Coast Participants' service area. Designated critical habitat for this species is not present within the Proposed Action Area. The Proposed Action does not involve any construction, land use changes, or conversion of suitable habitat. The Proposed Project would not alter the amount of water released to the Lower Santa Ynez River, and releases of CCWA's Warren Act water would be subject to temperature and water quality requirements. There would be *No Effect* to this species from the Proposed Action.
California tiger salamander *Ambystoma californiense*	T, X	NE	**Absent**. This species and designated critical habitat for this species do not occur within the Proposed Action Area. There would be *No Effect* to this species from the Proposed Action.
Birds			
California condor *Gymnogyps californianus*	E, X	NE	**Possible**. This species may forage in portions of the Proposed Action Area. Designated critical habitat for this species does not occur within the Proposed Action Area. The Proposed Action would not involve any construction, land use changes, or conversion of suitable habitat. There would be *No Effect* to this species from the Proposed Action.
California least tern *Sterna antillarum browni*	E	NE	**Present.** There are CNDDB records of this species near the Lower Santa Ynez River estuary. The Proposed Action would not alter the amount of water released to the Lower Santa Ynez River, and would therefore have no effect on estuarine habitat. There would be *No Effect* to this species from the Proposed Action.
Least Bell's vireo *Vireo bellii pusillus*	E, X	NE	**Present.** There is a CNDDB record of this species in riparian habitat along the Lower Santa Ynez River. Designated critical habitat for this species does not occur within the Proposed Action Area. The Proposed Action would not alter the amount of water released to the Lower Santa Ynez River, and would therefore have no effect on this species habitat. There would be *No Effect* to this species from the Proposed Action.
Light-footed clapper rail	E	NE	**Present.** There are CNDDB records of this species in portions of the CCWA South Coast Participants' service area. The

Species	Status[1]	Effects[2]	Potential to occur and summary basis for ESA determination [3]
Rallus longirostris			Proposed Action would not involve any construction, land use changes, or conversion of suitable habitat. There would be *No Effect* to this species from the Proposed Action.
Marbled murrelet *Brachyramphus marmoratus*	T, X	NE	**Absent**. This species and designated critical habitat for this species do not occur within the Proposed Action Area. There would be *No Effect* to this species from the Proposed Action.
Short-tailed Albatross *Phoebastria (=Diomedea) albatrus*	E	NE	**Absent.** This species does not occur within the Proposed Action Area. There would be *No Effect* to this species from the Proposed Action.
Southwestern willow flycatcher *Empidonax traillii extimus*	E, X	NE	**Present.** There are CNDDB records of this species along the Lower Santa Ynez River and designated critical habitat for this species is present along the Lower Santa Ynez River. The Proposed Action would not alter the amount of water released to the Lower Santa Ynez River. There would be *No Effect* to this species or its critical habitat from the Proposed Action.
Western snowy plover *Charadrius nivosus nivosus*	T, X	NE	**Present**. There are CNDDB records of this species near the Lower Santa Ynez River estuary and within portions of the CCWA South Coast Participants' service area. Designated critical habitat for this species is present within one CCWA South Coast Participants' service areas. The Proposed Action would not alter the amount of water released to the Lower Santa Ynez River and would not involve any construction, land use changes, or conversion of suitable habitat. There would be *No Effect* to this species from the Proposed Action.
Crustaceans			
Riverside fairy shrimp *Streptocephalus woott*	E, X	NE	**Absent**. This species and designated critical habitat for this species do not occur within the Proposed Action Area. There would be *No Effect* to this species from the Proposed Action.
Vernal pool fairy shrimp *Branchinecta lynchi*	T, X	NE	**Possible.** There are no records of this species within the Proposed Action Area; however, designated critical habitat for this species occurs within one of the CCWA South Coast Participants' service areas. The Proposed Action would not involve any construction, land use changes, or conversion of suitable habitat. The Proposed Action would have *No Effect* to this species or its designated critical habitat.
Fish			
Tidewater goby *Eucyclogobius newberryi*	E, X	NE	**Present.** This species is present in the Lower Santa Ynez River estuary, and in estuaries of streams within the CCWA South Coast Participants' service areas on the South Coast. Designated critical habitat for this species is present in the estuaries of some streams on the South Coast. The Proposed Action would not alter the amount of water released to the

Species	Status[1]	Effects[2]	Potential to occur and summary basis for ESA determination [3]
			Lower Santa Ynez River. Furthermore, any SWP Water released to the Lower Santa Ynez River would be subject to water quality and temperature requirements. The Proposed Action does not involve any release of water to streams on the South Coast. The Proposed Action would have *No Effect* to this species or its designated critical habitat.
Southern California steelhead Distinct Population Segment (DPS) *Oncorhynchus mykiss*	E, X	NLAA	**Present.** This species, and designated critical habitat for this species, are present within the Lower Santa Ynez River and in streams within the CCWA South Coast Participants' service areas on the South Coast. The Proposed Action would not alter the amount of water released to the Lower Santa Ynez River. The requirements described in Section 2.2 for introduction of this water would be implemented to avoid potential negative effects to water quality or the imprinting of juvenile *Oncorhynchus mykiss*. The Proposed Action does not involve any release of water to streams on the South Coast. With the implementation of these requirements, the Proposed Action is *Not Likely to Adversely Affect* the Southern California steelhead DPS or designated critical habitat for this species.
Insects			
Monarch Butterfly *Danaus plexippus*	C	NE	**Possible**. There are records of this species adjacent to the Santa Ynez River near the estuary. The Proposed Action would not involve any construction, land use changes, or conversion of suitable habitat. The Proposed Action would have *No Effect* to this species.
Mammals			
Southern sea otter *Enhydra lutris nereis*	T, MMPA	NE	**Absent**. This species does not occur within the Proposed Action Area. There would be *No Effect* to this species from the Proposed Action.
Plants			
Beach Layia *Layia carnosa*	E	NE	**Absent**. This species does not occur within the Proposed Action Area. There would be *No Effect* to this species from the Proposed Action.
California Orcutt grass *Orcuttia californica*	E	NE	**Absent**. This species does not occur within the Proposed Action Area. There would be *No Effect* to this species from the Proposed Action.
Contra Costa goldfields *Lasthenia conjugens*	E, X	NE	**Absent**. This species and designated critical habitat for this species do not occur within the Proposed Action Area. There would be *No Effect* to this species from the Proposed Action.
Gambel's watercess *Rorippa gambellii*	E	NE	**Absent**. This species does not occur within the Proposed Action Area. There would be *No Effect* to this species from the Proposed Action.

Species	Status[1]	Effects[2]	Potential to occur and summary basis for ESA determination [3]
Gaviota tarplant *Deinandra increscens* ssp. *villosa*	E, X	NE	**Absent**. This species and designated critical habitat for this species do not occur within the Proposed Action Area. There would be *No Effect* to this species from the Proposed Action.
La Graciosa thistle *Cirsium loncholepis*	E, X	NE	**Absent**. This species and designated critical habitat for this species do not occur within the Proposed Action Area. There would be *No Effect* to this species from the Proposed Action.
Lompoc yerba santa *Eriodictyon capitatum*	E, X	NE	**Absent.** This species and designated critical habitat for this species do not occur within the Proposed Action Area. There would be *No Effect* to this species from the Proposed Action.
Marsh sandwort *Arenaria paludicola*	E	NE	**Absent**. This species does not occur within the Proposed Action Area. There would be *No Effect* to this species from the Proposed Action.
Salt marsh bird's-beak *Cordylanthus maritimus* ssp. *maritimus*	E	NE	**Present.** There are records of this species within one of the CCWA South Coast Participants' service areas on the South Coast. The Proposed Action would not involve any construction, land use changes, or conversion of suitable habitat. There would be *No Effect* to this species from the Proposed Action.
Spreading Navarretia *Navarretia fossalis*	T, X	NE	**Absent.** This species and designated critical habitat for this species do not occur within the Proposed Action Area. There would be *No Effect* to this species from the Proposed Action.
Vandenberg monkeyflower *Diplacus vandenbergensis*	E, X	NE	**Absent.** This species may be present adjacent to the Lower Santa Ynez River, but does not occur within the Proposed Action Area. There would be *No Effect* to this species or its designated Critical Habitat from the Proposed Action.
Ventura marsh milk-vetch *Astragalus pycnostachyus* var. *lanosissimus*	E, X	NE	**Possible.** There are no records of this species within the Proposed Action Area; however, designated critical habitat for this species occurs within one of the CCWA South Coast Participants' service areas. The Proposed Action would not involve any construction, land use changes, or conversion of suitable habitat. The Proposed Action would have *No Effect* to this species or its designated critical habitat.

[1] Status = Status of federally protected species protected under the ESA
E: Listed as Endangered
T: Listed as Threatened
C: Candidate for listing
X: Critical Habitat designated for this species
MMPA: Species protected under the Marine Mammal Protection Act

[2] Effects = ESA Effect determination
NE: No Effect anticipated from the Proposed Action to federally listed species or designated critical habitat
NLAA: The Proposed Action is Not Likely to Adversely Affect federally listed species or designated critical habitat

[3] Definition of Occurrence Indicators

Present: Species recorded in area and suitable habitat present
Possible: Species recorded in area and habitat suboptimal
Absent: Species not recorded in study area and suitable habitat absent

3.2.2 Environmental Consequences

3.2.2.1 No Action

Under the No Action Alternative, Reclamation would not allow CCWA to introduce, store and convey up to 13,750 acre-feet of CCWA water in Cachuma Project facilities. The amount of water released to the Lower Santa Ynez River would not change from current baseline conditions (when CCWA's 1995 Warren Act Contract was implemented); however, upon expiration of the existing Warren Act Contract, only Santa Ynez River water from Lake Cachuma would be released from the dam. There would be *No Effect* to proposed or listed species or Critical Habitat, and no take of migratory birds.

3.2.2.2 Proposed Action

Under the Proposed Action, CCWA would continue to introduce, store and convey CCWA water in Cachuma Project facilities. The amount of water released to the Lower Santa Ynez River below Bradbury Dam would not change as releases of this water to the river are subject to the requirements described in Section 2.2. The Proposed Action would not result in any changes in the operation of the Cachuma Project. The Proposed Action would not involve any construction, land use changes, or conversion of habitat that may be suitable for listed species. The Proposed Action does not involve the release of any water to streams on the South Coast.

As noted in Section 1, CCWA's water is treated at the Polonio Pass Water Treatment Plant in San Luis Obispo County and then dechlorinated at CCWA's Santa Ynez Pumping Facility using sodium bisulfite prior to its introduction into Lake Cachuma. Built-in safety systems automatically shut off the pumps of the Santa Ynez Pumping Facility if chlorine is detected (≥0.05 mg/L) or if the sodium bisulfite concentration falls below 0.1 mg/L or rises above 1 mg/L, which prevents treated water from reaching Cachuma Project facilities or the Lower Santa Ynez River. Based on the chemistry of the chemical reaction between sodium bisulfite and chloramine, as long as there is a detectable sodium bisulfite concentration in the water there is no free chlorine left in the water (i.e., chlorine residual is 0 mg/L).

Although sodium bisulfite in higher concentrations (i.e. ≥ 39 mg/L) can deplete dissolved oxygen levels in water resulting in fish mortality, it is non-toxic to aquatic life at lower concentrations (Basu & Dorner, 2010). CCWA water enters Cachuma Project facilities with a residual sodium bisulfite concentration of ≥0.1 mg/L and <1 mg/L, which is considered non-toxic; this residual concentration of sodium bisulfite is further reduced as CCWA water is diluted at least 50 percent with Cachuma Project water.

Ammonia is also a byproduct of the sodium bisulfite treatment process. In higher concentrations, ammonia can be toxic to fish and other aquatic life; however, the small amount of ammonia remaining in CCWA's water (0.00 mg/L to 0.14 mg/L) falls well below the Environmental

Protection Agency's (EPA) current ammonia water quality criteria for the protection of aquatic life[7] (EPA, 2013). Furthermore, CCWA's water is diluted by at least 50% with Cachuma Project water which would further reduce ammonia concentrations before this water reaches the Lower Santa Ynez River.

In accordance with the 2000 biological opinion for the operation and maintenance of the Cachuma Project (NMFS, 2000), CCWA water has been and would continue to be blended with Cachuma Project water in the proportion needed to meet the temperature requirement of 18°C or less prior to introduction into the Stilling Basin/Lower Santa Ynez River. This is confirmed through SCADA monitoring within the SWP facilities that convey CCWA's water as well as by Reclamation and COMB at Bradbury Dam. Therefore, the introduction of CCWA water into the Lower Santa Ynez River is not expected to have any negative effects on water quality in the river that could affect biological resources.

Under the Proposed Action, CCWA water would occasionally be released into the Lower Santa Ynez River where Southern California steelhead and its designated critical habitat are present. Before downstream migration to the ocean, juvenile *O. mykiss* imprint on chemical odors in their natal streams during smoltification, which later guide their upstream homing migration as adults (Dittman et al., 1995; Nevitt & Dittman, 1999). In the Lower Santa Ynez River, smolts may migrate downstream from November through June, with peak outmigration occurring from March through May. To minimize potential negative effects from the introduction of CCWA water on olfactory imprinting of juvenile *O. mykiss*, Reclamation would continue to implement mixing criteria so that no more than 50 percent of the total water being released below the dam is CCWA water. Further, releases of CCWA water to the river would only occur during 89-18 Water Rights Releases from May through October, with a majority of releases occurring July through September, when juvenile *O. mykiss* are unlikely to be undergoing olfactory imprinting.

A majority of releases would be conducted during the summer months when juvenile outmigration and olfactory imprinting are not occurring. Juvenile *O. mykiss* may undergo olfactory imprinting in May and June; however, because CCWA water is only released to the Lower Santa Ynez River during 89-18 Water Rights Releases, which typically are made in dry years when the river is not connected to the ocean, and because there is a requirement that the river must be discontinuous in the mainstem to release CCWA water to the river in May and June, *O. mykiss* are not expected to be outmigrating and/or undergoing olfactory imprinting when CCWA water is released to the Lower Santa Ynez River.

The 2000 biological opinion for the operation and maintenance of the Cachuma Project concluded that potential effects from CCWA's water deliveries and releases on Southern California steelhead were expected to be minimal and that the risk of incorrect imprinting from the release of CCWA water into the Lower Santa Ynez River was remote (NMFS, 2000). The Proposed Action would have no new or additional effects beyond those analyzed in the 2000 biological opinion.

With the Conservation Measures listed in 2.2.3, Reclamation has determined that the Proposed Action is *Not Likely to Adversely Affect* the endangered Southern California steelhead DPS or

[7] The EPA's *Freshwater Ammonia Aquatic Life Ambient Water Quality Criteria* are: Acute 1-hour average of 17 mg/L total ammonia and a chronic 30-day rolling average[7] of 1.9 mg/L total ammonia at a pH of 7.0 and a temperature of 20°C (EPA, 2013).

designated critical habitat for this species. As described in Table 1, Reclamation has determined that the Proposed Action would have *No Effect* to any other proposed or listed species or critical habitat under the Endangered Species Act of 1973, as amended (16 U.S.C. §1531 et seq.), and would not result in take of birds protected under the Migratory Bird Treaty Act (16 U.S.C. §703 et seq.).

3.3 Water Resources

3.3.1 Affected Environment

The affected environment is located in Santa Barbara County, California and includes Cachuma Project facilities (i.e., Bradbury Dam and Lake Cachuma, Tecolote Tunnel, and the South Coast Conduit), the Lower Santa Ynez River below Bradbury Dam, and the service areas on the South Coast where CCWA water would ultimately be delivered.

3.3.1.1 Cachuma Project

The Cachuma Project consists of Bradbury Dam, Lake Cachuma, the Tecolote Tunnel, the South Coast Conduit, four regulating reservoirs (Glen Anne Reservoir, Lauro Reservoir, Ortega Reservoir, and Carpinteria Reservoir) and appurtenant facilities in Santa Barbara County. Reclamation diverts, stores, and delivers Santa Ynez River water pursuant to permits issued by the State Water Resources Control Board.

Reclamation provides up to 25,714 acre-feet/per year of Cachuma Project water to the Cachuma Project Member Units. Cachuma Project water is delivered to the South Coast Cachuma Member Units via the Tecolote Tunnel and South Coast Conduit system and is made available to ID No.1 pursuant to an exchange agreement between ID No. 1 and the South Coast Member Units.

3.3.1.2 Lower Santa Ynez River

The Lower Santa Ynez River runs for approximately 48.7 river miles between Bradbury Dam and the Pacific Ocean. Below Bradbury Dam, the river passes south of the town of Santa Ynez and then flows through the broad section of the Santa Ynez Valley, near Buellton. West of Buellton, near the City of Lompoc, the river flows through a narrow section referred to as "the Narrows" and emerges onto the broad, flat Lompoc Plain. From there the river travels approximately 13 miles, transitioning to the Santa Ynez River estuary on Vandenberg Air Force Base and then directly into the Pacific Ocean at Surf Beach.

3.3.1.3 Lake Cachuma Water Quality

Raw lake water quality is measured monthly at Lake Cachuma for key constituents related to water treatment processes. The annual average concentrations measured for specific conductivity, total dissolved solids, total organic carbon, turbidity, and sulfate concentrations for Lake Cachuma and CCWA water between 2015 and 2020 are provided in Table 2.

Table 2. CCWA Water Quality and Lake Cachuma Water Quality Annual Results

Year	Specific Conductivity (mmhos/cm)		Total Dissolved Solids (mg/L)		Total Organic Carbon (mg/L)		Turbidity (NTU)		Sulfate (mg/L)	
	CCWA	Cachuma	CCWA	Cachuma*	CCWA	Cachuma	CCWA	Cachuma	CCWA	Cachuma
2015	781	963	437	626	2.5	4.7	0.17	12.11	97	263
2016	609	1027	346	668	2.3	4.2	0.11	12.98	100	272
2017	306	825	165	536	2.0	5.7	0.18	3.74	30	110
2018	481	876	220	569	2.1	5.5	0.13	8.33	55	236
2019	403	836	260	543	1.9	4.6	0.10	3.83	46	217
2020	503	918	280	597	2.0	4.9	0.12	2.75	63	90
Average	**514**	**908**	**285**	**590**	**2.1**	**4.9**	**0.14**	**7.29**	**65**	**198**

*Specific Conductance multiplied by 0.65 conversion factor
Sources: CCWA Polonio Pass Treatment Plant Water Quality Tables 2016 to 2020 http://www.ccwa.com/archives.html; City of Santa Barbara Public Works Department Water Resources Laboratory - Lake Cachuma Monthly Monitoring 2015 to 2020

3.3.1.4 SWP Water Quality

CCWA monitors water quality within CCWA's facilities. Average annual water quality data is included in Table 2 for the past five years. Water in the CCWA system prior to delivery to Lake Cachuma had consistently lower concentrations of total dissolved solids, total organic carbon, turbidity, and sulfates than the water in Lake Cachuma.

3.3.1.5 Central Coast Water Authority

As noted previously, CCWA is a public entity that was organized to construct, operate, and maintain South Coast facilities in order to bring supplemental water supply to its member agencies. CCWA has a SWP water contract for 45,486 acre-feet per year. Between 2016 and 2020, CCWA has delivered a total of 43,187 AF to the CCWA South Coast Participants (Table 3). Since 1997, an average of approximately 2,040 AF per year has been exchanged for Cachuma Project water through the Santa Ynez Exchange Agreement, with a low of 0 AF in 2016 and a high of 3,155 AF in 2003 (CCWA 2021). The water delivered to Lake Cahuma by CCWA has been used for supplemental water supplies especially during drought years. In the most recent drought, CCWA water was the primary source of water being introduced into Lake Cachuma.

Table 3. South Coast Cachuma Member Units Total Water Supplies over the Last Five Years in Acre-Feet

Water Supply	2016	2017	2018	2019	2020
Cachuma Project	8,216	3,584	5,070	10,704	17,895
CCWA Water	14,427	12,547	13,751	1,460	1,002

3.3.2 Environmental Consequences

3.3.2.1 No Action

Under the No Action, supplemental water supplies would no longer be available to the CCWA South Coast Participants. This could cause shortages in water supplies for their customers especially

during drought years. As shown in Table 3 above, during the recent critical drought, CCWA water was crucial for the South Coast being as high as 3.5 times the amount of Cachuma Project water supplies, which occurred in 2017. Not having this water supply available would substantially negatively affect the South Coast water supply.

3.3.2.2 Proposed Action

The Proposed Action would continue to allow up to 13,750 acre-feet/year of CCWA water to continue to be introduced, stored, and conveyed through Cachuma Project facilities when excess capacity is available. The introduction, storage and conveyance of CCWA water would not increase or change operations in the Sacramento-San Joaquin River Delta. The additional water would be used by CCWA South Coast Participants to meet existing municipal and industrial demands. In general, CCWA water delivered to Lake Cachuma is used first by the CCWA South Coast Participants in order to carry over (store) their Cachuma Project water allocations for later use to better manage all available water supplies to meet existing demands. There would be no change in district boundaries or growth associated with use of this water. As shown in Table 3, this water is critical for the CCWA South Coast Participants to meet their existing demands, especially during drought years. As noted previously, there would be no modification of facilities in order to covey or deliver this water. The Proposed Action would be beneficial to water supplies within the Action area and would not adversely impact Cachuma Project operations.

As noted in Section 2.2, CCWA water would not be introduced into Lake Cachuma during spill events, i.e. when water is released from the dam to prevent overtopping. If any CCWA water is stored in Cachuma during these periods of time, this amount would be miniscule compared to water in the Lake. Any release of CCWA water from Lake Cachuma to the Lower Santa Ynez River is required to be mixed with Cachuma Project water up to 50 percent and subject to temperature and seasonal requirements as set forth in the 2000 biological opinion for Cachuma Project operations. As this water is mixed and flows over natural substrates in the river, its water chemistry is modified until it becomes indistinguishable from natural river water, and would, therefore, have no adverse impacts to water quality or beneficial uses in the Lower Santa Ynez River.

3.4 Cumulative Impacts

In the Council on Environmental Quality's (CEQ's) July 16, 2020 "Update to Regulations Implementing the Procedural Provisions of the National Environmental Policy Act" (85 FR 43304) the definition of cumulative impacts provided in 40 CFR 1508.7 was repealed. The CEQ conveyed the position that the analysis of cumulative effects, as defined in the 1978 regulations, is not required under NEPA. This regulation update does not preclude the analysis of cumulative effects, but identifies that all analyses of environmental effects, including cumulative effects, should focus on those effects that are reasonably foreseeable and have a reasonably close causal relationship to the proposed action.

Reclamation has made the determination that the effects of the Proposed Action evaluated in this EA, combined with other reasonably foreseeable projects, would not result in cumulative impacts to any of the resources described above. Cachuma Project operations would not be impacted as there would be no change from baseline conditions and the Proposed Action would be subject to all applicable environmental, operational, and regulatory requirements associated with operation of the Cachuma Project.

4 Consultation and Coordination

4.1 Agencies and Persons Consulted

Reclamation is consulting and coordinating with CCWA, Cachuma Operation and Maintenance Board, and NMFS in the preparation of this EA.

4.2 Public Involvement

Reclamation intends to provide the public with an opportunity to comment on the Draft Environmental Assessment during a 30-day public review period.

4.3 Endangered Species Act (16 U.S.C. § 1531 et seq.)

Section 7 of the Endangered Species Act requires Federal agencies, in consultation with the Secretary of the Interior and/or Commerce, to ensure that their actions do not jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of the critical habitat of these species.

Reclamation is consulting with NMFS regarding potential impacts from the Proposed Action on the federally endangered Southern California steelhead Distinct Population Segment (DPS) and its critical habitat.

5 References

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BUREAU OF RECLAMATION

Central Coast Water Authority Temporary Warren Act Contract

22-006
Biological Evaluation

U.S. Department of the Interior

March 2022

Mission Statements

The U.S. Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated Island Communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Contents

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1 Introduction

1.1 Background

Central Coast Water Authority (CCWA) is a California Joint Powers Agency that was formed in 1991 to construct necessary facilities to deliver supplemental water supplies from the State Water Project (SWP) to the communities in San Luis Obispo and Santa Barbara Counties. The SWP Coastal Branch facilities were completed in 1997.

In 1994, the Bureau of Reclamation (Reclamation) released an Environmental Assessment (EA) that analyzed the construction of an extension of the SWP Coastal Branch that would allow the annual introduction through issuance of a long-term Warren Act Contract[1] of SWP water into the Cachuma Project facilities for delivery to CCWA's South Coast Participants[2]. A Finding of No significant Impact was issued on January 3, 1995.

In 1995, Reclamation issued a 25-year Warren Act contract to CCWA that allowed the annual introduction, storage, and conveyance of up to 13,750 acre-feet (AF) of water acquired by or available to CCWA from or through the SWP into Cachuma Project facilities for delivery to the CCWA South Coast Participants for municipal and industrial uses. Introductions of SWP water under the 1995 Warren Act Contract began in 1997.

1.2 Purpose and Need for the Proposed Action

CCWA water has been and continues to be a much-needed supplemental water supply for the water deficient South Coast especially during drought conditions. As the existing Warren Act Contract expires in June 2022, CCWA has requested a new short-term Warren Act Contract to continue the introductions, conveyance, and storage of non-Reclamation Project water into Cachuma Project facilities for delivery to CCWA's South Coast Participants. Reclamation and CCWA are in the process of negotiating a new long-term Warren Act Contract. In addition, Reclamation is currently in re-consultation with the National Marine Fisheries Service (NMFS) under the Endangered Species Act (ESA) regarding operation and maintenance of the Cachuma Project. As negotiations for the long-term Warren Act contract and re-consultation on the Cachuma Project are not anticipated to be complete by June 2022, CCWA and Reclamation need to enter into a short-term contract to allow the continued delivery of a much-needed water supply to CCWA's South Coast Participants.

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[1] A contract that allows non-Reclamation Project water to be introduced into Reclamation facilities.
[2] CCWA's South Coast Participants include: Carpinteria Valley Water District, the City of Santa Barbara, Goleta Water District, and Montecito Water District, La Cumbre Mutual Water Company, Raytheon Systems Co., and Morehart Land Co.

2 Threatened and Endangered Species

On March 18, 2022, Reclamation obtained a species list using the NMFS species list tool obtained from the (now unavailable) National Oceanic and Atmospheric Administration's West Coast Region website, https://archive.fisheries.noaa.gov/wcr/maps_data/california_species_list_tools.html. The California Department of Fish and Wildlife's California Natural Diversity Database (CNDDB) was also queried for records of protected species within the Proposed Action Area (CNDDB, 2022). The information collected above, in addition to information within Reclamation's files was combined to determine the likelihood of protected species occurrence within the Proposed Action Area.

The federally endangered Southern California steelhead (*Oncorhynchus mykiss*) Distinct Population Segment (DPS) occurs within the Proposed Action Area and is addressed in this Biological Evaluation. Reclamation has determined that the Proposed Action would have no effect on any other federally listed species or critical habitat, therefore, these species are not considered further in this document.

3 Critical Habitat

The Proposed Action Area overlaps designated critical habitat for the Southern California steelhead DPS. Designated Critical habitat for Southern California steelhead is present in the Lower Santa Ynez River from Bradbury Dam downstream to the property limit of the Vandenberg Air Force Base near the estuary (70 FR 52487, 2005).

4 Description of the Proposed Action

Reclamation proposes to issue short-term (up to five-years) Warren Act Contract(s) to CCWA that would allow the annual introduction, conveyance, and storage of up to 13,750 AF of CCWA's water within Cachuma Project facilities.

CCWA water includes SWP water from the Sacramento River watershed, previously banked SWP water, and other non-SWP water supplies acquired from the Sacramento River watershed, the San Joaquin River watershed, and the San Joaquin-Sacramento Delta. CCWA's acquired non-SWP water supplies can include groundwater pumping, groundwater substitution, land fallowing, or other transfers and exchanges that are common in Reclamation's Central Valley Project and the SWP. The conveyance of non-SWP water supplies through the SWP are reviewed and approved independently by the California Department of Water Resources (DWR) prior to this water being conveyed in State facilities to CCWA's facilities. Prior to introduction into Cachuma Project facilities, CCWA's water will continue to be treated as done under baseline conditions.

Under the short-term Warren Act Contract(s), CCWA water would continue to be introduced and conveyed through Cachuma Project facilities (i.e., Bradbury Dam outlet works, Stilling Basin, Lake Cachuma, North Intake of the Tecolote Tunnel, and the South Coast Conduit) to CCWA's South

Coast Participants located along the South Coast Conduit. No modifications to existing infrastructure or operations or construction would be needed for the Proposed Action.

4.1.1 Introduction of CCWA Water into Cachuma Project Facilities

There are two existing mechanisms for the introduction of CCWA water into Lake Cachuma: (1) a direct connection of the CCWA pipeline to the Bradbury Dam outlet works penstock; and (2) a high-density polyethylene penstock bypass pipeline (bypass pipeline) that introduces CCWA water directly into Lake Cachuma[3]. These mechanisms would remain unchanged under the Proposed Action.

When releases from the outlet works occur at the same time as CCWA water is being introduced through the outlet works, CCWA water mixes with water from Lake Cachuma and is released into the Stilling Basin where it flows into the Lower Santa Ynez River. This mixing of CCWA water has certain advantages to downstream entities for enhancing water quality (i.e., reduced total dissolved solids) and the Cachuma Project Member Units[4], Santa Ynez River Water Conservation District (SYRWCD), and the City of Lompoc entered into a Settlement Agreement in September 2002 to maximize introduction of CCWA water during their Water Rights Releases[5] from the outlet works.

When CCWA water is released into the Stilling Basin, CCWA water is exchanged for Cachuma Project water in Lake Cachuma on a one-to-one basis.

CCWA water may be introduced to Lake Cachuma or the Lower Santa Ynez River at rates ranging from 3 cubic feet per second (cfs) up to 22 cfs, as limited by the capacity of the four pumps at CCWA's Santa Ynez Pumping Facility. Three of the four pumps operate only at 100 percent, while the remaining pump has a variable frequency drive which allows for any flow rate from 3 to 22 cfs. Operation of the Santa Ynez Pumping Facility can be highly variable, but in general the Pumping Facility operates minimally when Lake Cachuma is full and may operate at maximum capacity for extended periods of time during drought conditions.

When Reclamation is releasing water from the outlet works at Bradbury Dam, and CCWA is delivering CCWA water to Lake Cachuma, commingled water will be released to the Lower Santa Ynez River pursuant to the restrictions noted in Section 6. When Reclamation is releasing water from the Hilton Creek Emergency Backup System (EBS), no CCWA water can be delivered via the outlet works as the EBS is plumbed into the outlet works. When the only water Reclamation is releasing to the Lower Santa Ynez River is from Hilton Creek via the lake-based Hilton Creek Watering System (HCWS), no CCWA water will be released to the Lower Santa Ynez River.

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[3] The bypass pipeline has been routed previously in three configurations: bypass pipeline through the spillway onto the bedrock shelf (used when lake levels are low and bedrock shelf is exposed), bypass pipeline to the spillway gate threshold (used when the bedrock shelf is submerged and lake level is below the spillway gate threshold) and bypass pipeline over the top of the dam (used when lake level is above the threshold of the spillway gate).

[4] Cachuma Project Member Units include Carpinteria Water District, City of Santa Barbara, Goleta Water District, Montecito Water District, and Santa Ynez River Water Conservation District Improvement District No. 1.

[5] Non-discretionary Water Rights Releases have occurred since the completion of Bradbury Dam. These releases are made in accordance with State Water Resources Control Board permits 11308 and 11310 issued to Reclamation for the Cachuma Project, as conditioned by WR Order 73-37, as amended by WR Order 89-18 and WR Order 2019-0148.

Temperature monitoring sensors and related equipment in the penstock at the Bradbury Dam outlet works and in the CCWA pipeline collect and transmit data to both CCWA and Reclamation's Supervisory Control and Data Acquisition (SCADA) System.

The system uses a flow weighted average of lake water temperature and CCWA water temperature to calculate an estimate of the blended temperature of water releases to the Stilling Basin (Appendix A). These calculations are done continuously using a programmable logic controller at a set frequency of once every 1-15 minutes. The Cachuma Operation and Maintenance Board (COMB) and Reclamation monitor the temperature of CCWA water and water in the penstock, and there is a SCADA alarm set to alert CCWA and Reclamation when the temperature of blended water is approaching a certain threshold below 18°C (J. Brady, CCWA, personal communication, 3/21/2022). When the temperature of blended water is approaching the 18°C-temperature limit for steelhead, Reclamation will immediately reduce or suspend delivery of CCWA water or increase delivery of Cachuma Lake water until CCWA deliveries can be reduced or suspended, to avoid exceeding the 18°C-temperature limit.

4.1.2 CCWA Water Treatment

Prior to its introduction into Lake Cachuma, CCWA water is treated in CCWA's Polonio Pass Water Treatment Plant in San Luis Obispo County to applicable drinking water standards. This treatment process includes adding chloramine (a mix of chlorine and ammonia) to the water. From the Polonio Pass Water Treatment Plant, CCWA's water is conveyed to the Santa Ynez Pumping Facility where it is treated with sodium bisulfite to remove the chloramine before the water is conveyed to Bradbury Dam for introduction into Cachuma Project facilities.

Built-in safety systems at the Santa Ynez Pumping Facility automatically shut off the pumps if a chlorine concentration ≥ 0.05 mg/L is detected, or if residual sodium bisulfite concentrations drop to 0.1 mg/L or rise above 1 mg/L. Slightly more sodium bisulfite is added to the water than needed to completely neutralize the chlorine, which results in a small amount of unreacted sodium bisulfite left in the water (i.e. >0.1 mg/L and ≤ 1mg/L). Based on the chemistry of the chemical reaction between sodium bisulfite and chloramine, as long as there is a detectable sodium bisulfite concentration in the water there is no free chlorine left in the water (i.e., chlorine residual is 0 mg/L).

Free ammonia is a byproduct of the sodium bisulfite water treatment process. A study conducted by CCWA that tracked the fate of free ammonia through the eight-mile pipeline that runs from the Santa Ynez Pumping Facility to Lake Cachuma found that only small concentrations of free ammonia reach Lake Cachuma. Samples collected at the Lake Cachuma delivery point over the 12-month study period (2016 to 2017) had free ammonia concentrations ranging from 0 mg/L to 0.14 mg/L with an average concentration of 0.04 mg/L (CCWA, 2021). This represents an average removal efficiency of over 90 percent from the average free ammonia concentrations measured at the outlet vault of the Santa Ynez Pumping Facility.

5 Proposed Action Area

The Proposed Action Area is located in Santa Barbara County, California and includes: Lake Cachuma, the Lower Santa Ynez River below Bradbury Dam, conveyance facilities used to deliver CCWA water (i.e., Tecolote Tunnel, South Coast Conduit), and the service areas on the South Coast where CCWA water would ultimately be delivered.

6 Conservation Measures for Southern California Steelhead

Measures to avoid and minimize effects to the endangered Southern California steelhead DPS have been and will continue to be implemented during CCWA operations. Measures are primarily related to preventing steelhead from imprinting on CCWA water and preventing CCWA water from being released to Hilton Creek. When CCWA deliveries to Lake Cachuma via the outlet works coincide with releases from Lake Cachuma via the outlet works, Reclamation proposes to implement the following restrictions to minimize potential effects to steelhead:

- General restrictions on all CCWA water deliveries:
    - There is no delivery of CCWA water to Lake Cachuma during spill events;
    - CCWA water is not introduced into the penstock if the Hilton Creek EBS is on standby[6], to eliminate any possibility of CCWA water being delivered to Hilton Creek.
- Restrictions on CCWA water deliveries through the Bradbury Dam outlet works:
    - When releases from the outlet works and deliveries of CCWA water through the outlet works are simultaneously scheduled to achieve mixing, Reclamation will notify NMFS that CCWA water will be entering the Santa Ynez River;
    - There is no delivery of CCWA water to Lake Cachuma via the outlet works when the EBS is delivering water;
    - CCWA water will not be mixed into the waters of the Santa Ynez River during the months of May and June, unless flow is discontinuous in the mainstem;
    - Delivery of CCWA water to Lake Cachuma is not made during spill events;
    - Releases of CCWA water to the mainstem only occurs during water right releases from May to October, with the bulk of releases occurring July through September;
    - CCWA water will not exceed 50 percent of the total rate of releases to the Lower Santa Ynez River; and
    - When releases of CCWA water to the Lower Santa Ynez River occur, Reclamation will ensure that water is released from Lake Cachuma in such a proportion that the

[6] EBS standby is defined as the condition of being aligned and configured to automatically initiate flow upon loss of power during pumped flow from the lake-based Hilton Creek Watering System (HCWS). The system may be available for use at other times (e.g. during gravity flow from the lake-based HCWS); however, standby *only* occurs when the lake-based HCWS is delivering pumped flow and the EBS is only triggered to start automatically when there is a loss of power.

blended CCWA and Lake Cachuma water entering the Stilling Basin has a temperature of ≤ 18°C, as estimated pursuant to the Penstock Temperature Monitoring Plan (Appendix A).

7 Status of Southern California Steelhead in the Proposed Action Area

Historically, *O. mykiss* in the Santa Ynez River probably supported the largest steelhead run in Southern California (Busby, et al., 1996). The Santa Ynez River is reported to have had an annual run size from 13,000 to 25,000 adults in the 1940s (Shapovalov, 1945; ENTRIX, 1994; Moyle, et al., 2008). Although this was a cursory estimate, it does attest to the large size of this run, which was already reduced from former times because of forest fires and construction of dams in the upper watershed. The large size of this run is also indicated by a California Department of Fish and Game rescue of 1,036,980 juvenile steelhead from the partially dry bed of the Santa Ynez River in 1944 (Shapovalov, 1945). Gibraltar Dam, completed in 1920, blocked access to much of the spawning habitat of the river system, including the upper mainstem and the Mono Creek system (Shapovalov, 1945); however, Shapovalov (1946) reported that excellent spawning habitat was present in the mainstem from Gibraltar Dam to the vicinity of Solvang, which is approximately 10 miles downstream of Bradbury Dam (CDFG, 1996). The construction of Bradbury Dam in the early 1950s further eliminated access to historic spawning and rearing habitat (i.e. the area between Bradbury Dam and Gibraltar Dam).

Population abundance and effective population size is low in the Lower Santa Ynez River (NMFS, 2012). The small effective population size of the Lower Santa Ynez River *O. mykiss* population puts it at risk of genetic drift, inbreeding, and potential extirpation from catastrophic events, such as the 2012–2016 drought, 2017–2018 Thomas Fire and subsequent debris flow, and sediment loading in streams used by *O. mykiss*.

Fish trapping data on the mainstem Lower Santa Ynez River from 1996 to 2021 provides a multiyear set of quantitative data on steelhead numbers in the river. Since 1996, ten seasons of migrant trapping efforts in the mainstem Lower Santa Ynez River have resulted in the capture of just two individual anadromous adult steelhead (both captured in 2008)[7]. Migrant trapping efforts in Hilton Creek and Salsipuedes Creek (tributaries to the Lower Santa Ynez River) during this same time period resulted in the capture of 32 anadromous adult steelhead. These numbers represent a minimum count of actual returns because traps must be removed at high flows when anadromous fish are likely traveling upstream. During the previous drought (2012–2016), the Santa Ynez River lagoon bar did not breach during years 2013–2016, nor in 2018; no adult steelhead were able to enter the river to spawn in those years. Likewise, smolts were not able to outmigrate to the ocean during those years. In such instances, steelhead may stray to another stream that is open for upstream migration (Shapovalov & Taft, 1954). Recent studies have determined there is substantial

[7] Traps were operated in the Mainstem Santa Ynez River in 1996, 1997, 2006, 2008-2012, 2019 and 2020

migration between the Santa Ynez River and other regional steelhead populations (Girman & Garza, 2006; Garza & Clemento, 2008).

Fish conservation measures implemented as part of the 2000 BiOp and the 2000 Lower Santa Ynez River Fish Management Plan (NMFS, 2000; SYRTAC, 2000) resulted in an initial increased juvenile *O. mykiss* abundance. In 2005 and 2006, a dramatic increase in *O. mykiss* abundance occurred in the Refugio and Alisal reaches of the mainstem Lower Santa Ynez River. 2005 was the third wettest year on record, followed by 2006 which was an Above Normal water year, and the high numbers of fish present in those years may have been a response to favorable, very wet year habitat conditions in conjunction with long-term target flows. However, abundance in the Refugio and Alisal reaches then declined after 2006, despite three out of four years (2007 through 2011) being Wet or Above Normal precipitation years (SYRAMC, 2009; COMB 2011-2012; Reclamation, 2013a; Reclamation, 2011). The observed lack of overall increase in *O. mykiss* abundance in the Refugio and Alisal reaches may be due to additional factors. These factors include potentially unsuitable water quality conditions, observed increases in predatory warm-water invasive species, and increases in beaver activity and dams.

In the Lower Santa Ynez River, steelhead have access to the mainstem and its tributaries. Results of snorkel surveys and migrant trapping indicate that *O. mykiss* successfully reproduce and rear primarily in the tributaries: Hilton Creek, the Salsipuedes/El Jaro drainage, Quiota Creek, and San Miguelito Creek (SYRAMC, 2009; COMB, 2012; Reclamation, 2013a; Reclamation, 2013b; Reclamation, 2011).

Snorkel survey data suggest that the tributary *O. mykiss* overall abundance has increased over time whereas mainstem abundance is relatively flat (Figure 1). Completion of tributary passage projects increased access to rearing and spawning habitat which has in part contributed to this increasing trend. As shown in Figure 1, *O. mykiss* observations during the recent extended drought (2012–2016) indicate a sharp decrease in abundance in both tributaries and the mainstem, although since 2019, spring snorkel surveys have observed an increase in *O. mykiss* individuals, many of which were young of the year.

Given the expected impacts from climate change, as well as impacts from natural climate patterns such as El Niño and water year type, impacts from catastrophic events will likely become more common and influence both the abundance and the distribution of adult and juvenile *O. mykiss*.

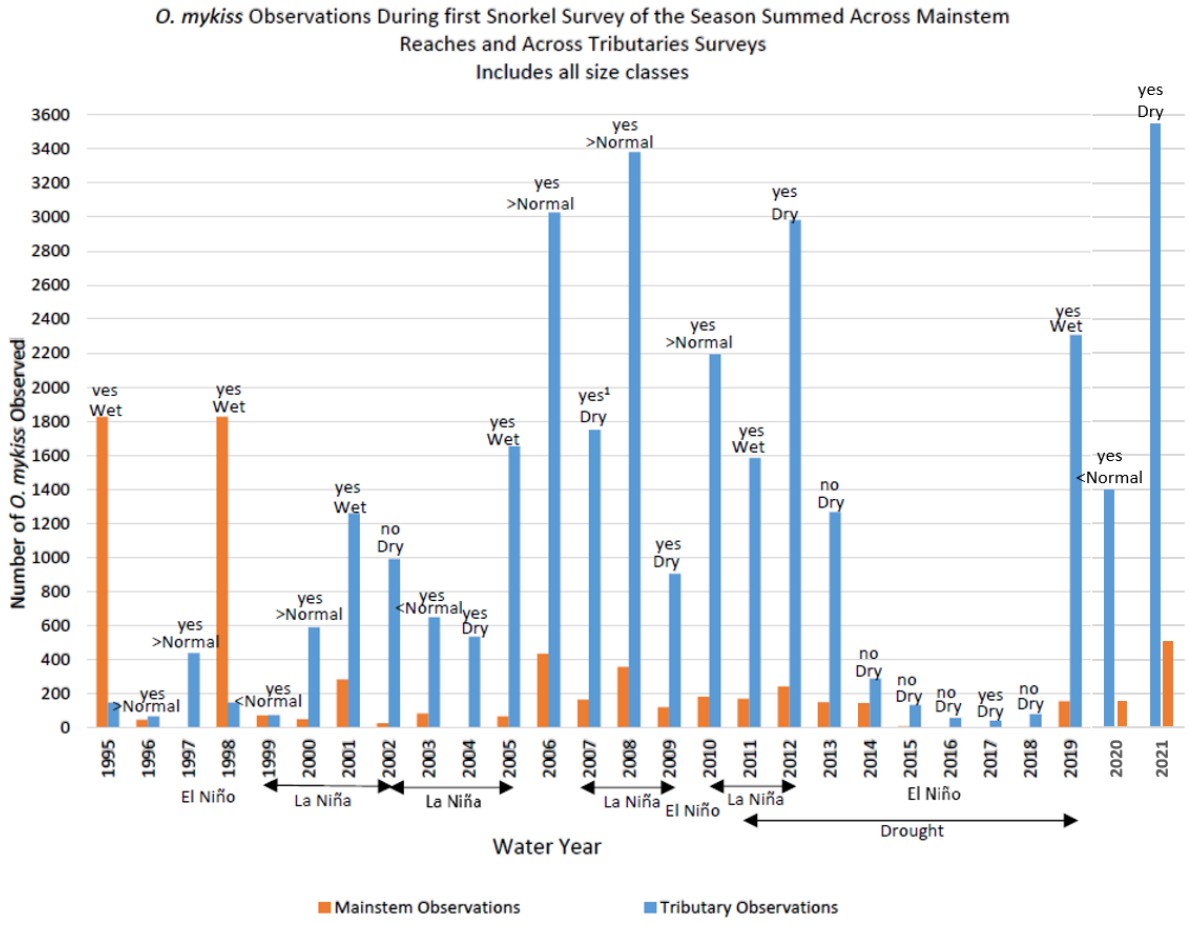

Figure 1: *O. mykiss* Observations During First Snorkel Survey of the Season Summed Across Mainstem Reaches and Across Tributaries Surveys (Includes all Size Classes)[8]

[8] Environmental variables (water year type, lagoon connectivity, larger natural environmental occurrence, and drought) are provided here as occurrence information. Water year type is: Dry, Normal, or Wet; lagoon bar breached for ocean connectivity: yes or no (in 2007 the bar breached but not during adult return migration); El Nino and La Nina events are noted by year range with an arrow where appropriate; and drought conditions are noted by year range with an arrow. All *O. mykiss* observed were counted; however, due to poor visibility during some of the surveys (from turbidity, vegetation, etc.) these observations likely underestimate the number of *O. mykiss* actually present in survey reaches where visibility was poor. These data are observational counts only, not a population estimate.

8 Environmental Baseline and Special-Status Species Effects

For a complete description of the environmental baseline in the Proposed Action Area, please refer to Reclamation's 2021 Biological Assessment for the Operation and Maintenance of the Cachuma Project (Reclamation, 2021).

O. mykiss are known to occur in the Lower Santa Ynez River below Bradbury Dam and designated critical habitat for Southern California steelhead is present in the river below the dam. Under the Proposed Action, out-of-basin water (CCWA water) would occasionally be released into the Lower Santa Ynez River where Southern California steelhead and designated critical habitat for Southern California steelhead are present. The primary concerns for potential effects to Southern California steelhead from the Proposed Action are related to water quality and olfactory imprinting and each are discussed in greater detail below.

8.1 Water Quality

As described above, the maximum amount of chlorine hypothetically remaining in CCWA water after treatment would be < 0.05 mg/L (i.e. detection limit at which the pumps automatically shut off); however, in actuality the residual chlorine concentration in CCWA's water is expected to be 0.0 mg/L due to the residual amount of unreacted sodium bisulfite left in the water.

Although sodium bisulfite in higher concentrations (i.e. ≥ 39 mg/L) can deplete dissolved oxygen levels in water resulting in fish mortality, it is non-toxic to aquatic life at lower concentrations (Basu & Dorner, 2010). CCWA water enters Cachuma Project facilities with a residual sodium bisulfite concentration of ≥0.1 mg/L and < 1 mg/L, which is considered non-toxic; this residual concentration of sodium bisulfite is further reduced as CCWA water is diluted with Cachuma Project water.

As described above, chloramine (a mix of chlorine and ammonia) is added to CCWA's water to disinfect it, and the chloramine is subsequently removed using sodium bisulfite. A byproduct of the sodium bisulfite treatment process is ammonia[9]. Ammonia exists in two forms within the environment: the ionized form (NH_4^+) and the un-ionized form (NH_3). The ratio of the ionized and un-ionized forms that exist in the environment at a given moment are dependent on temperature and pH, with the ionized form typically dominant in most biological systems. As pH and/or temperature increase, the portion of un-ionized ammonia increases and the portion of ionized ammonia decreases (EPA, 2013).

Of the two forms of ammonia, the un-ionized form (NH_3) is of greatest concern for toxicity to fish. At certain concentrations, un-ionized ammonia can be toxic to fish by: accumulating in gill tissue

[9] Please note, that the ammonia added to treat CCWA's water (in the form of chloramine) and the ammonia byproduct that results from treatment with sodium bisulfite are not additive (i.e. it is the same ammonia originally added in the form of chloramine that forms the ammonia byproduct at the end of the reaction).

and causing accelerated ventilation rate and gill damage, reducing blood-oxygen carrying capacity, inhibiting the production of adenosine triphosphate (ATP) in the brain, and/or disrupting metabolic function of the liver and kidneys (EPA, 2013). Ammonia can also harm aquatic invertebrates (specifically bivalves) that may provide food sources for fish, through physiological changes that can result in reduced feeding, reproductive success, and survival (EPA, 2013).

In 2017, the Central Coast Regional Water Quality Control Board (CCRWQCB) established a water quality objective for un-ionized ammonia (0.025 mg/L) for the protection of aquatic life which applies to the Lower Santa Ynez River (CCWQP, 2019). All of the samples collected from the Lower Santa Ynez River for water quality monitoring conducted by the Central Coast Water Quality Preservation, Inc. (CCWQP) in 2019 were in compliance with this water quality objective for un-ionized ammonia (i.e. < 0.025 mg/L). The concentration of un-ionized ammonia in samples collected from the Lower Santa Ynez River in 2019 ranged from 0.0001 mg/L to 0.0038 mg/L. At all three sampling locations on the Lower Santa Ynez River[10], un-ionized ammonia concentrations showed a decreasing trend (though this trend was only statistically significant at the Floradale Avenue location) (CCWQP, 2019).

The amount of total ammonia measured in CCWA water ranges from 0.00 to 0.14 mg/L, with an average of 0.04 mg/L. As described above, the ratio of the un-ionized form to the ionized form of ammonia in water is determined by temperature and pH. A summary of un-ionized ammonia concentrations in CCWA water, based on measurements of total ammonia in CCWA water and different pH and temperatures, is provided in Table 1 below.

Table 1: Total Ammonia and Un-ionized Ammonia Concentrations in CCWA Water

Temperature (°C)	**pH***	**Total Ammonia (NH_3 and NH_4^+) in CCWA water (mg/L)**	**Concentration of un-ionized ammonia (NH_3) in CCWA water**
18°C	7.0	0.04 mg/L	0.000 mg/L
18°C	7.0	0.14 mg/L	0.000 mg/L
18°C	8.0	0.04 mg/L	0.001 mg/L
18°C	8.0	0.14 mg/L	0.005 mg/L
18°C	8.3	0.04 mg/L	0.003 mg/L
18°C	8.3	0.14 mg/L	0.009 mg/L
18°C	8.5**	0.04 mg/L	0.004 mg/L
18°C	8.5**	0.14 mg/L	0.014 mg/L
20°C	8.5**	0.14 mg/L	0.016 mg/L

*pH water quality standard for the Lower Santa Ynez River is 7.0-8.3.
** A pH of 8.5 was chosen, as the highest recorded pH from the Lower Santa Ynez River in 2019 was 8.49 (CCWQP, 2019).

As shown in Table 1, the expected range of un-ionized ammonia concentrations in CCWA water is 0.000 to 0.009 mg/L, when the 18°C-temperature requirement and CCRWQCB pH standards are

[10] Water samples were collected from the Lower Santa Ynez River at the following locations: 1) just upstream of Lompoc at River Park at a site influenced by agricultural use, 2) just downstream of Lompoc at Floradale Avenue below the Lompoc Wastewater Treatment Plan discharge point, and 3) downstream and west of Lompoc at 13th Street below an area dominated by intensive agriculture (CCWQP, 2019).

met. Even if pH exceeds standards and temperature increases above the 18°C-temperature requirement (which is neither proposed nor expected to occur), at the highest measured total ammonia concentration in CCWA water, un-ionized ammonia concentrations would still remain well below the 0.025 mg/L standard. Furthermore, the un-ionized ammonia concentrations shown in Table 1 would be reduced by at least half as CCWA water is diluted at least 50 percent with Cachuma Project water. Based on the recorded concentrations of ammonia remaining in CCWA's water, the dilution of this water by mixing, and the most recent available baseline un-ionized ammonia concentration measurements from the Lower Santa Ynez River, the small amount of residual ammonia in CCWA's water is expected to have no adverse effect on fish or other freshwater aquatic species.

The Environmental Protection Agency (EPA) updated the *Freshwater Ammonia Aquatic Life Ambient Water Quality Criteria* in 2013 taking into account new data and sensitive freshwater unionid mussels that were not considered in the previous criteria to more fully protect the aquatic community (EPA, 2013). The EPA's updated criteria for total ammonia are: an acute 1- hour average of 17 mg/L total ammonia and a chronic 30-day rolling average[11] of 1.9 mg/L total ammonia at a pH of 7.0 and a temperature of 20°C. The current available data for ammonia indicate that these standards are protective of *O. mykiss* and other aquatic freshwater species that *O. mykiss* may depend on as food sources (EPA, 2013).

When the criteria for total ammonia are adjusted based on the temperature (18°C) and pH (target range of 7.0-8.3) expected to occur in the Proposed Action Area, the acute criteria range from 20 mg/L to 2.6 mg/L for total ammonia and the chronic criteria range from 2.2 mg/L to 0.55 mg/L for total ammonia (both criteria decrease as pH increases due to the higher ratio of un-ionized ammonia at higher pH levels). The total residual concentration of ammonia in CCWA's water ranges from 0.0 to 0.14 mg/L and would be further diluted with Lake Cachuma water. CCWA's water may be diluted by more than 50 percent in order to meet the 18°C- temperature requirement.

Based on the concentrations of total ammonia in CCWA water, and the dilution of this water by at least 50 percent, the introduction of CCWA's water into the Lower Santa Ynez River is not expected to result in the exceedance of the acute or chronic 2013 EPA criteria for ammonia and is therefore not expected to have any adverse effect on *O. mykiss* or other aquatic freshwater species that *O. mykiss* may depend on as food sources.

CCWA water has been and would continue to be blended with Cachuma Project water in the proportion needed to meet the temperature requirement of 18°C or less prior to introduction into the Stilling Basin/Lower Santa Ynez River. This is confirmed through SCADA monitoring within the facilities that convey CCWA water as well as by Reclamation and COMB at Bradbury Dam. Alarms on the SCADA system are set to alert Reclamation and CCWA when the temperature of blended water approaches a threshold below 18°C, so the 18°C is not exceeded.

With implementation of the conservation measures listed in section 6, the introduction of CCWA water into the Lower Santa Ynez River is not expected to have any negative effects on water quality in the river.

[11] The highest 4-day average out of this period may not exceed 2.5 x the Chronic 30-day rolling average.

8.2 Olfactory Imprinting

Before downstream migration to the ocean, juvenile *O. mykiss* imprint on chemical odors in their natal streams during smoltification, which later guides their upstream homing migration as adults (Dittman, et al., 1995; Nevitt & Dittman, 1999). In the Lower Santa Ynez River smolts may migrate downstream from November through June, with peak outmigration occurring March through May. To minimize potential negative effects from the introduction of out-of-basin CCWA water on olfactory imprinting of juvenile *O. mykiss*, Reclamation would continue to implement mixing criteria so that no more than 50 percent of the total water being released below the dam is out-of-basin water. Further, releases of CCWA water to the river would only occur during 89-18 Water Rights Releases from May through October, with a majority of releases occurring July through September, when juvenile *O. mykiss* are unlikely to be undergoing olfactory imprinting.

A majority of releases would be conducted during the summer months when juvenile outmigration and olfactory imprinting are not occurring. Juvenile *O. mykiss* may undergo olfactory imprinting in May and June; however, because CCWA water is only released to the Lower Santa Ynez River during 89-18 Water Rights Releases, which are made in dry years when the river is not connected to the ocean, and because there is a requirement that the river must be discontinuous in the mainstem to release CCWA water to the river in May and June, it is unlikely that *O. mykiss* would be outmigrating and/or undergoing olfactory imprinting when CCWA water is released to the Lower Santa Ynez River.

9 Conclusion

With the implementation of the conservation measures restricting the timing and rate of release of CCWA's water to the river, the Proposed Action is highly unlikely to disrupt the olfactory imprinting of juvenile *O. mykiss*. Furthermore, with the use of automatic safety shut-off systems at the Santa Ynez Pumping Facility and the continued implementation of water temperature requirements, the Proposed Action is not expected to have any negative effects on water quality.

The 2000 BiOp concluded that potential effects from CCWA's water deliveries and releases were expected to be minimal and that the risk of incorrect imprinting from the release of CCWA water into the Lower Santa Ynez River was remote. The Proposed Action would have no new or additional effects beyond those analyzed in the 2000 BiOp. In addition, NMFS concluded in their 2016 draft biological opinion (NMFS, 2016) for the Operation and Maintenance of the Cachuma Project that, "*the effects of …Central Coast Water Authority state water project deliveries and releases are expected to be avoided by measures that are currently in place and are expected to continue*."

With the implementation of the provided conservation measures, any potential effects from the Proposed Action on the Southern California steelhead DPS or designated critical habitat for this species would be reduced to an insignificant and discountable level. Reclamation has determined that the Proposed Action is *Not Likely to Adversely Affect* the Southern California steelhead DPS or designated critical habitat for this species.

10 References

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Appendix A: Penstock Temperature Monitoring Plan

October 6, 2011

Mr. Robert Campbell
U.S. Bureau of Reclamation
Mid-Pacific Region
South-Central California Area Office
1243 N Street
Fresno, California 93721-1813

Subject: Temperature Monitoring Proposal
Bradbury Dam Outlet Works

Dear Mr. Campbell:

Over the past year, the Central Coast Water Authority (CCWA) staff has been in discussions with Mr. Darin Williams of your office and Mr. Tim Robinson of the Cachuma Operations and Maintenance Board (COMB) regarding the temperature monitoring program for the Bradbury Dam outlet works. As a result of these discussions, CCWA staff has developed a proposal for a temperature monitoring program to assist with documenting compliance with the current temperature limit on water releases.

The proposed Temperature Monitoring Program is attached for your consideration. CCWA staff will purchase and install the required equipment, as described in the proposal. The cost for the required equipment is in the $2,500 to $3,000 range.

On a related matter, CCWA would like to request that a signal from the Bureau's nozzle meter, located in the center of the Bradbury Dam penstock, be provided to CCWA. This signal will be used by CCWA's SCADA System to track and record the flow data. We hope to connect the nozzle meter signal to our SCADA system as part of the same project to install the temperature monitoring equipment.

I hope this proposal is acceptable. If you have any questions, please call me at 805-688-2292 ext 228.

Sincerely,

John Brady
Operations Manager/Engineer

cc: Tim Robinson
Cachuma Operations and Maintenance Board

255 Industrial Way
Buellton, CA 93427-9565
(805) 688-2292
FAX: (805) 686-4700

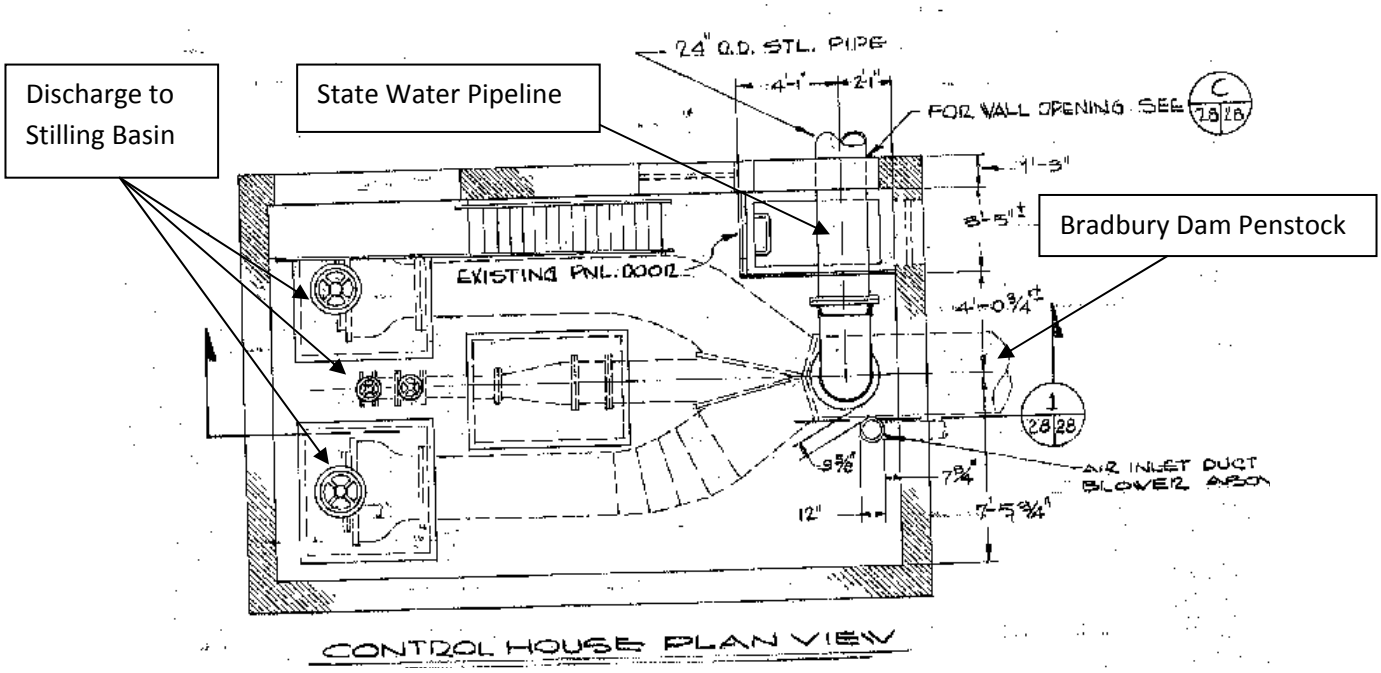
TEMPERATURE MONITORING PROGRAM FOR BRADBURY DAM OUTLET WORKS

Background

The National Marine Fisheries Service, Southwest Region, issued a Biological Opinion regarding the operation and maintenance of the Cachuma Project on the Santa Ynez River in September 2000. In this Biological Opinion (BO), an agreement between U.S. Bureau of Reclamation and the Central Coast Water Authority (CCWA) was cited regarding the water temperature limit for discharging water into the Stilling Basin below Bradbury Dam. It was agreed that when State Water is being delivered to the lake at the same time the Dam is releasing for water rights or fish resources, water will not enter the Stilling Basin if it is over 18 degree Celsius.

Outlet Works Discharge Piping

Selecting an appropriate temperature monitoring location for water being discharged into the Stilling Basin is problematic due to the piping configuration of the outlet works. State Water is delivered to Lake Cachuma through a dedicated pipeline that is plumbed to the Bradbury Dam Penstock, just upstream of the three existing discharge ports, as shown below:



Due to the three different potential paths to discharge and the short length between the State Water pipe connection and the discharge ports, a sample location that would represent a completely mixed water stream is not possible. Consequently, an indirect monitoring method for blended water temperature is needed.

Temperature Monitoring Strategy

Considering the difficulty in measuring temperature of completely mixed water prior to it entering the Stilling Basin, an indirect monitoring method is proposed. Since representative water temperature monitoring locations can easily be identified on the State Water Pipeline and the Bradbury Dam Penstock, CCWA staff proposes to directly monitor water temperatures at those locations. The data obtained from these locations can then be utilized in calculating a blended water temperature.

The blended water temperature calculation will be based on basic heat transfer equations, coupled with reasonable simplifying assumptions. The heat transfer required to change the temperature of water can be quantified by the following equation:

$$Q = mc\Delta T$$

Where:

Q	=	Heat
m	=	mass
c	=	specific heat
ΔT	=	change in temperature

When two streams of water with different temperatures are mixed, one stream will increase in temperature while the other will decrease in temperature via heat transfer between the two streams. In other words, heat lost from one stream is gained by the other. Assuming that there is no heat loss to the environment, a calculation of the final temperature for the blended streams can derived as follows:.

Heat loss and gain can be expressed as follows:

$$Q_{loss} = mc\left(T - T_f\right)$$

and

$$Q_{gain} = mc\left(T_f - T\right)$$

Where:

T	=	Temperature of the given water stream
T_f	=	Temperature of blended water

Since heat loss from one stream is assumed to be the heat gain by the other stream until both streams reach the same temperature,

$$Q_{loss} = Q_{gain}$$

From this, we obtain:

$$m_1 c\left(T_1 - T_f\right) = m_2 c\left(T_f - T_2\right)$$

$$m_1 T_1 - m_1 T_f = m_2 T_f - m_2 T_2$$

$$T_f = \frac{m_1 T_1 + m_2 T_2}{m_1 + m_2}$$

For the purposes of this calculation, volumetric flow can be utilized as an estimate for mass flow since the density of water does not change by more than 0.3% from 5 C to 30C, which is the anticipated range of temperature under consideration. Therefore, the following equation is proposed for use:

$$\boxed{T_f = \frac{V_1 T_1 + V_2 T_2}{V_1 + V_2}}$$

In terms of the simplifying assumptions, we offer the following justification:

- Assumption: Discharged water consisting of completely mixed State Water and Lake Cachuma Water. This assumption is considered reasonable since the combined water streams passes through a common nozzle, is discharged to atmosphere and allowed to free fall into the Stilling Basin.
- Assumption: No heat loss from the water to the environment. This is a conservative assumption since heat loss is likely as the combined water streams passes through a common nozzle, is discharged to atmosphere and allowed to free fall into the Stilling Basin.

Water Temperature Monitoring Instrumentation

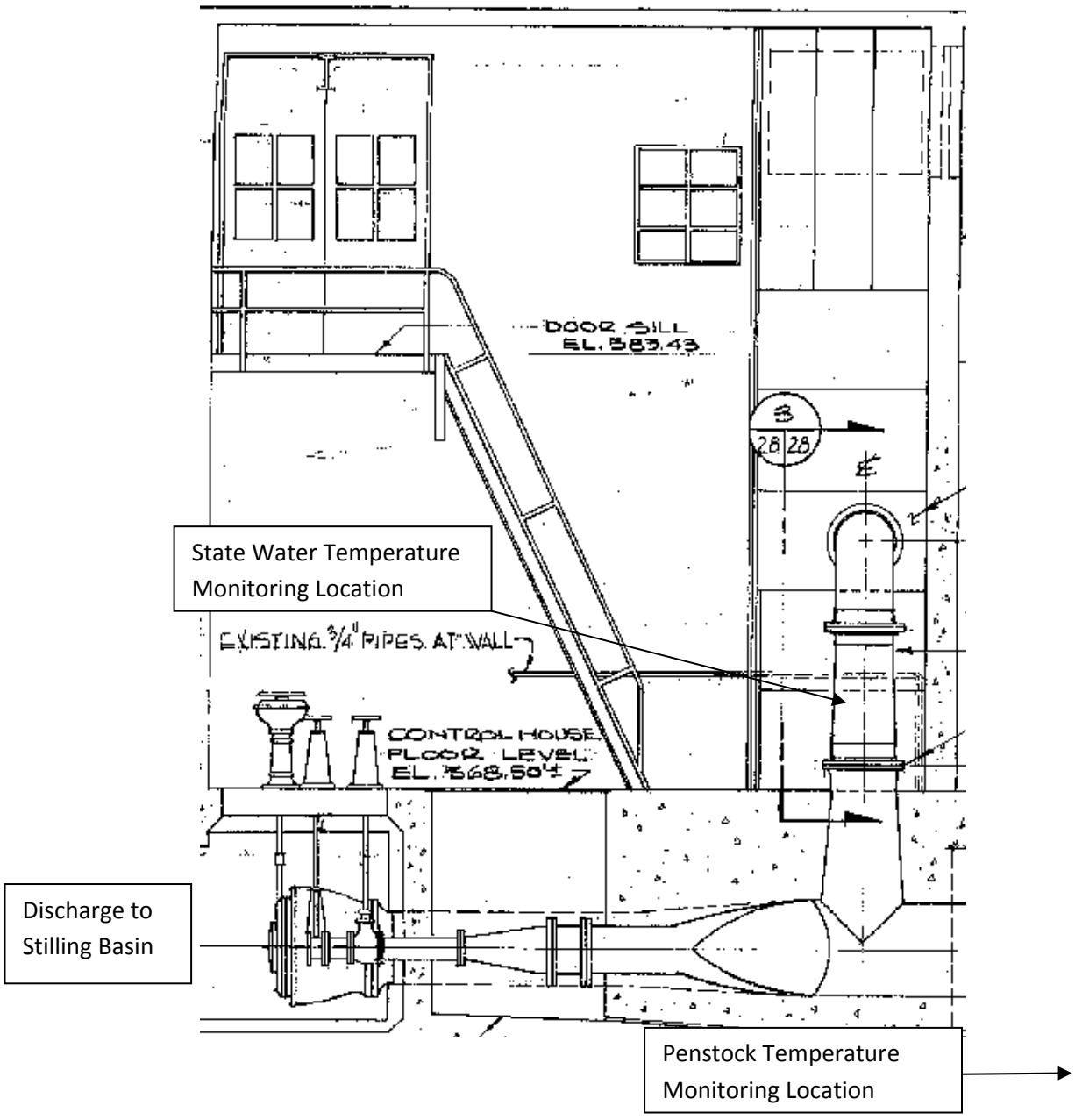
The proposed instrumentation for monitoring water temperatures in the State Water Pipeline and the Bradbury Dam Penstock will include the following:

1. Two thermocouples with thermowells
2. Three panel mounted indicators for local display
3. Three signal isolators
4. Three pair signal cable to deliver the re-transmitted signals

One thermocouple/thermowell will be installed in the State Water Pipeline. A weld-a-let installed on the vertical portion of the pipe, between the 90 degree elbow above the second floor and the penstock tee located above first floor of the outlet works control building (see diagram below). The thermowell and thermocouple will be installed within the new weld-a-let fitting. This location will provide temperature signals for State Water. The second thermocouple/thermowell will be installed in one of the four existing pitot tube ports in the Bradbury Dam Penstock just upstream of the Accusonic flow meter located on the first floor. This location will provide a temperature signal for Lake Cachuma water within the penstock.

The signals from the temperature transmitters will be connected to CCWA's local Programmable Logic Controller (PLC). The PLC will use the temperature signals from the Bradbury Dam Penstock and State Water Pipeline to compute the weighted average temperature, as described previously. The flow measurement signals from the Accusonic flow meter on the Bradbury Penstock and the electromagnetic flow meter on the State Water Pipeline at the Santa Ynez Pumping Plant will also be used in the weighted average temperature calculation.

Three conditioned signals will be re-transmitted through signal isolators to provide (1) a local panel display on the CCWA PLC panel, (2) input of the signals to the CCWA SCADA interface panel and (3) input of the signals to the Bureau of Reclamation's SCADA interface panel. A three conductor cable will be installed between CCWA's PLC panel and the Bureau of Reclamation SCADA interface panel to allow for connection of the re-transmitted signals to the Bureau's interface equipment. The Bureau will be responsible for connection of the cable to their interface equipment.



Compliance Responsibility

There are several organizations involved with the discharge operation at Bradbury Dam. CCWA is required to obtain specific permission from Reclamation prior to initiating Lake Deliveries. The Cachuma Project Operating Guidelines requires CCWA to submit a pumping request two business days prior to pumping, with each request covering up to 31 days. In addition, the Guidelines also state that the Cachuma Operations and Maintenance Board will be responsible for monitoring temperature of water discharged to the Stilling Basin. Consequently, the responsibility for temperature limit compliance will rest with both COMB and Reclamation.

United States Department of the Interior

BUREAU OF RECLAMATION
South-Central California Area Office
1243 N Street
Fresno, CA 93721-1813

IN REPLY REFER TO:

SCC-410
2.2.1.06
Cachuma Project

VIA ELECTRONIC AND U.S. MAIL

Ms. Alecia Van Atta
Assistant Regional Administrator
National Marine Fisheries Service
501 West Ocean Boulevard, Suite 4200
Long Beach, CA 90802-4213
alecia.vanatta@noaa.gov

Subject: Revised Project Description for Concurrence Request Pursuant to Section 7 of the Endangered Species Act (16 U.S.C. §1531 et. seq.) for the Proposed Issuance of a Temporary Warren Act Contract to the Central Coast Water Authority – California

Dear Ms. Van Atta:

The Bureau of Reclamation (Reclamation) is providing the attached revised project description and supporting biological evaluation based on information and revisions we previously provided and discussed addressing the National Marine Fisheries Service's (NMFS) imprinting concerns for the endangered Southern California steelhead Distinct Population Segment (*Oncorhynchus mykiss*) associated with the release of Central Coast Water Authority (CCWA) Non-Project Water to the Lower Santa Ynez River.

Reclamation requests concurrence from NMFS under the Endangered Species Act (ESA; 16 U.S.C. §1531 *et. seq.*) for Reclamation's determination that the Proposed Action is not likely to adversely affect the endangered Southern California steelhead Distinct Population Segment nor designated critical habitat for this species. The attached biological evaluation was previously reviewed by your staff under our initial request for informal consultation pursuant to the ESA.

Please note that this is an urgent matter as CCWA's current Warren Act Contract will expire on June 23, 2022, and CCWA's water is a much-needed supplemental water supply for the water deficient communities on the South Coast.

If you have any questions regarding this matter, please feel free to contact me or have your staff contact David E. Hyatt at (559) 262-0334.

Sincerely,

Michael P. Jackson, P.E.
Area Manager

Enclosure
Biological Evaluation – Central Coast Water Authority Temporary Warren Act Contract

cc: Mr. Anthony Spina
National Marine Fisheries Service
501 West Ocean Boulevard, Suite 4200
Long Beach, CA 90802-4213
anthony.spina@noaa.gov

Mr. Ray Stokes
Central Coast Water Authority
255 Industrial Way
Buellton, CA 93427
ras@ccwa.com
(each w/enclosure)

BUREAU OF RECLAMATION

Central Coast Water Authority Temporary Warren Act Contract

22-006
Biological Evaluation

U.S. Department of the Interior June 2022

Mission Statements

The U.S. Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated Island Communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Contents

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1 Introduction

1.1 Background

Central Coast Water Authority (CCWA) is a California Joint Powers Agency that was formed in 1991 to construct necessary facilities to deliver supplemental water supplies from the State Water Project (SWP) to the communities in San Luis Obispo and Santa Barbara Counties. The SWP Coastal Branch facilities were completed in 1997.

In 1994, the Bureau of Reclamation (Reclamation) released an Environmental Assessment (EA) that analyzed the construction of an extension of the SWP Coastal Branch that would allow the annual introduction through issuance of a long-term Warren Act Contract[1] of SWP water into the Cachuma Project facilities for delivery to CCWA's South Coast Participants[2]. A Finding of No significant Impact was issued on January 3, 1995.

In 1995, Reclamation issued a 25-year Warren Act contract to CCWA that allowed the annual introduction, storage, and conveyance of up to 13,750 acre-feet (AF) of water acquired by or available to CCWA from or through the SWP into Cachuma Project facilities for delivery to the CCWA South Coast Participants for municipal and industrial uses. Introductions of SWP water under the 1995 Warren Act Contract began in 1997.

1.2 Purpose and Need for the Proposed Action

CCWA water has been and continues to be a much-needed supplemental water supply for the water deficient South Coast especially during drought conditions. As the existing Warren Act Contract expires in June 2022, CCWA has requested a new short-term Warren Act Contract to continue the introductions, conveyance, and storage of non-Reclamation Project water into Cachuma Project facilities for delivery to CCWA's South Coast Participants. Reclamation and CCWA are in the process of negotiating a new long-term Warren Act Contract. In addition, Reclamation is currently in re-consultation with the National Marine Fisheries Service (NMFS) under the Endangered Species Act (ESA) regarding operation and maintenance of the Cachuma Project. As negotiations for the long-term Warren Act contract and re-consultation on the Cachuma Project are not anticipated to be complete by June 2022, CCWA and Reclamation need to enter into a short-term contract to allow the continued delivery of a much-needed water supply to CCWA's South Coast Participants.

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[1] A contract that allows non-Reclamation Project water to be introduced into Reclamation facilities.
[2] CCWA's South Coast Participants include: Carpinteria Valley Water District, the City of Santa Barbara, Goleta Water District, and Montecito Water District, La Cumbre Mutual Water Company, Raytheon Systems Co., and Morehart Land Co.

2 Threatened and Endangered Species

On March 18, 2022, Reclamation obtained a species list using the NMFS species list tool obtained from the (now unavailable) National Oceanic and Atmospheric Administration's West Coast Region website, https://archive.fisheries.noaa.gov/wcr/maps_data/california_species_list_tools.html. The California Department of Fish and Wildlife's California Natural Diversity Database (CNDDB) was also queried for records of protected species within the Proposed Action Area (CNDDB, 2022). The information collected above, in addition to information within Reclamation's files was combined to determine the likelihood of protected species occurrence within the Proposed Action Area.

The federally endangered Southern California steelhead (*Oncorhynchus mykiss*) Distinct Population Segment (DPS) occurs within the Proposed Action Area and is addressed in this Biological Evaluation. Reclamation has determined that the Proposed Action would have no effect on any other federally listed species or critical habitat, therefore, these species are not considered further in this document.

3 Critical Habitat

The Proposed Action Area overlaps designated critical habitat for the Southern California steelhead DPS. Designated Critical habitat for Southern California steelhead is present in the Lower Santa Ynez River from Bradbury Dam downstream to the property limit of the Vandenberg Air Force Base near the estuary (70 FR 52487, 2005).

4 Description of the Proposed Action

Reclamation proposes to issue short-term (up to five-years) Warren Act Contract(s) to CCWA that would allow the annual introduction, conveyance, and storage of up to 13,750 AF of CCWA's water within Cachuma Project facilities.

Measures to avoid and minimize effects to the endangered Southern California steelhead DPS have been, and will continue to be, implemented during CCWA operations. Measures are primarily related to preventing steelhead from imprinting on CCWA water and preventing CCWA water from being released to Hilton Creek. Reclamation proposes to implement the following:

- Releases of CCWA water to the Santa Ynez River mainstem may not occur during December through May.
- Releases of CCWA water to the Santa Ynez River mainstem may only occur during WR 89-18 water right releases when flow is discontinuous in the mainstem, primarily between July to October.
- During June and November CCWA water may be introduced into the Lower Santa Ynez River only when: (1) *O. mykiss* are not present based on snorkel and trapping surveys

conducted under WR 89-18 water rights release monitoring pursuant to technical sessions with NMFS regarding Reasonable and Prudent Measure 6 of the 2000 *Biological Opinion for the Operation and Maintenance of the Cachuma Project* (2000 BiOp) and (2) no rain is predicted for at least 14 days. Two traps would be operated in the Lower Santa Ynez River, with one located near the confluence of Hilton Creek and the river and the other located further downstream (e.g., Meadowlark crossing). Releases of blended CCWA water to the Lower Santa Ynez River in June and November would cease immediately if any *O. mykiss* are caught in the traps, or observed during the snorkel surveys.

- CCWA water may be mixed up to 50 percent of the total rate of releases to the Lower Santa Ynez River.
- CCWA and Lake Cachuma water entering the Stilling Basin would be blended to a temperature of ≤ 18°C, as estimated pursuant to the Penstock Temperature Monitoring Plan (Appendix A).
- There is no delivery of CCWA water into Lake Cachuma via the outlet works when the Hilton Creek Emergency Backup System (EBS) is delivering water.
- There will be no delivery of CCWA water via the outlet works when the lake-based Hilton Creek Watering System Pumping Platform is in operation or the EBS is set to stand-by mode to deliver water to Hilton Creek.[3]

CCWA water includes SWP water from the Sacramento River watershed, previously banked SWP water, and other non-SWP water supplies acquired from the Sacramento River watershed, the San Joaquin River watershed, and the San Joaquin-Sacramento Delta. CCWA's acquired non-SWP water supplies can include groundwater pumping, groundwater substitution, land fallowing, or other transfers and exchanges that are common in Reclamation's Central Valley Project and the SWP. The conveyance of non-SWP water supplies through the SWP are reviewed and approved independently by the California Department of Water Resources (DWR) prior to this water being conveyed in State facilities to CCWA's facilities. Prior to introduction into Cachuma Project facilities, CCWA's water will continue to be treated as done under baseline conditions.

Under the short-term Warren Act Contract(s), CCWA water would continue to be introduced and conveyed through Cachuma Project facilities (i.e., Bradbury Dam outlet works, Stilling Basin, Lake Cachuma, North Intake of the Tecolote Tunnel, and the South Coast Conduit) to CCWA's South Coast Participants located along the South Coast Conduit. No modifications to existing infrastructure or construction would be needed for the Proposed Action.

[3] EBS standby is defined as the condition of being aligned and configured to automatically initiate flow upon loss of power during pumped flow from the lake-based Hilton Creek Watering System (HCWS). The system may be available for use at other times (e.g. during gravity flow from the lake-based HCWS); however, standby *only* occurs when the lake-based HCWS is delivering pumped flow and the EBS is only triggered to start automatically when there is a loss of power.

4.1 Mechanisms of CCWA Water Introduction to the Cachuma Project

There are two existing mechanisms for the introduction of CCWA water into Lake Cachuma: (1) a direct connection of the CCWA pipeline to the Bradbury Dam outlet works penstock; and (2) a high-density polyethylene penstock bypass pipeline (bypass pipeline) that introduces CCWA water directly into Lake Cachuma[4]. These mechanisms would remain unchanged under the Proposed Action.

When releases from the outlet works occurs at the same time as CCWA water is being introduced through the outlet works, CCWA water mixes with water from Lake Cachuma and is released into the Stilling Basin where it flows into the Lower Santa Ynez River. This mixing of CCWA water has certain advantages to downstream entities for enhancing water quality (i.e., reduced total dissolved solids) and the Cachuma Project Member Units[5], Santa Ynez River Water Conservation District (SYRWCD), and the City of Lompoc entered into a Settlement Agreement in September 2002 to maximize introduction of CCWA water during their Water Rights Releases[6] from the outlet works. The 2002 Settlement Agreement has been incorporated into Cachuma Project Water Rights Order 2019-0148 (Order WR 2019-0148).

CCWA water may be introduced to Lake Cachuma or the Lower Santa Ynez River at rates ranging from 3 cubic feet per second (cfs) up to 22 cfs, as limited by the capacity of the four pumps at CCWA's Santa Ynez Pumping Facility. Three of the four pumps operate only at 100 percent, while the remaining pump has a variable frequency drive which allows for any flow rate from 3 to 22 cfs. Operation of the Santa Ynez Pumping Facility is variable, but in general the Pumping Facility operates minimally when Lake Cachuma is full and may operate at maximum capacity for extended periods of time during drought conditions.

When Reclamation is releasing water from the outlet works at Bradbury Dam, and CCWA is delivering CCWA water to Lake Cachuma, commingled water will be released to the Lower Santa Ynez River pursuant to the measures noted in Section 4 above. When Reclamation is releasing water from the EBS, CCWA water will not be introduced into the outlet works as the EBS is plumbed into the outlet works.

Temperature monitoring sensors and related equipment in the penstock at the Bradbury Dam outlet works and in the CCWA pipeline collect and transmit data to both CCWA and Reclamation's Supervisory Control and Data Acquisition (SCADA) System.

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[4] The bypass pipeline has been routed previously in three configurations: bypass pipeline through the spillway onto the bedrock shelf (used when lake levels are low and bedrock shelf is exposed), bypass pipeline to the spillway gate threshold (used when the bedrock shelf is submerged and lake level is below the spillway gate threshold) and bypass pipeline over the top of the dam (used when lake level is above the threshold of the spillway gate).
[5] Cachuma Project Member Units include Carpinteria Water District, City of Santa Barbara, Goleta Water District, Montecito Water District, and Santa Ynez River Water Conservation District Improvement District No. 1.
[6] Non-discretionary Water Rights Releases have occurred since the completion of Bradbury Dam. These releases are made in accordance with State Water Resources Control Board permits 11308 and 11310 issued to Reclamation for the Cachuma Project, as conditioned by WR Order 73-37, as amended by WR Order 89-18 and WR Order 2019-0148.

The system uses a flow weighted average of lake water temperature and CCWA water temperature to calculate an estimate of the blended temperature of water releases to the Stilling Basin (Appendix A). These calculations are done continuously using a programmable logic controller at a set frequency of once every 1-15 minutes. The Cachuma Operation and Maintenance Board (COMB) and Reclamation monitor the temperature of CCWA water and water in the penstock, and there is a SCADA alarm set to alert CCWA and Reclamation when the temperature of blended water is approaching a certain threshold below 18°C (J. Brady, CCWA, personal communication, 3/21/2022). When the temperature of blended water is approaching the 18°C-temperature limit for steelhead, Reclamation will immediately reduce or suspend delivery of CCWA water or increase delivery of Cachuma Lake water to avoid exceeding the 18°C-temperature limit.

4.2 CCWA Water Treatment

Prior to its introduction into Lake Cachuma, CCWA water is treated in CCWA's Polonio Pass Water Treatment Plant in San Luis Obispo County to applicable drinking water standards. This treatment process includes adding chloramine (a mix of chlorine and ammonia) to the water. From the Polonio Pass Water Treatment Plant, CCWA's water is conveyed to the Santa Ynez Pumping Facility where it is treated with sodium bisulfite to remove the chloramine before the water is conveyed to Bradbury Dam for introduction into Cachuma Project facilities.

Built-in safety systems at the Santa Ynez Pumping Facility automatically shut off the pumps if a chlorine concentration ≥ 0.03 mg/L is detected, or if residual sodium bisulfite concentrations drop to 0.1 mg/L or rise above 1 mg/L. Slightly more sodium bisulfite is added to the water than needed to completely neutralize the chlorine, which results in a small amount of unreacted sodium bisulfite left in the water (i.e. >0.1 mg/L and ≤ 1mg/L). Based on the chemistry of the chemical reaction between sodium bisulfite and chloramine, as long as there is a detectable sodium bisulfite concentration in the water there is no free chlorine left in the water (i.e., chlorine residual is 0 mg/L).

Free ammonia is a byproduct of the sodium bisulfite water treatment process. A study conducted by CCWA that tracked the fate of free ammonia through the eight-mile pipeline that runs from the Santa Ynez Pumping Facility to Lake Cachuma found that only small concentrations of free ammonia reach Lake Cachuma. Samples collected at the Lake Cachuma delivery point over the 12-month study period (2016 to 2017) had free ammonia concentrations ranging from 0 mg/L to 0.14 mg/L with an average concentration of 0.04 mg/L (CCWA, 2021). This represents an average removal efficiency of over 90 percent from the average free ammonia concentrations measured at the outlet vault of the Santa Ynez Pumping Facility.

5 Proposed Action Area

The Proposed Action Area is located in Santa Barbara County, California and includes: Lake Cachuma, the Lower Santa Ynez River below Bradbury Dam, conveyance facilities used to deliver CCWA water (i.e., Tecolote Tunnel, South Coast Conduit), and the service areas on the South Coast where CCWA water would ultimately be delivered.

6 Status of Southern California Steelhead in the Proposed Action Area

Historically, *O. mykiss* in the Santa Ynez River probably supported the largest steelhead run in Southern California (Busby, et al., 1996). The Santa Ynez River is reported to have had an annual run size from 13,000 to 25,000 adults in the 1940s (Shapovalov, 1945; ENTRIX, 1994; Moyle, et al., 2008). Although this was a cursory estimate, it does attest to the large size of this run, which was already reduced from former times because of forest fires and construction of dams in the upper watershed. The large size of this run is also indicated by a California Department of Fish and Game rescue of 1,036,980 juvenile steelhead from the partially dry bed of the Santa Ynez River in 1944 (Shapovalov, 1945). Gibraltar Dam, completed in 1920, blocked access to much of the spawning habitat of the river system, including the upper mainstem and the Mono Creek system (Shapovalov, 1945); however, Shapovalov (1946) reported that excellent spawning habitat was present in the mainstem from Gibraltar Dam to the vicinity of Solvang, which is approximately 10 miles downstream of Bradbury Dam (CDFG, 1996). The construction of Bradbury Dam in the early 1950s further eliminated access to historic spawning and rearing habitat (i.e. the area between Bradbury Dam and Gibraltar Dam).

Population abundance and effective population size is low in the Lower Santa Ynez River (NMFS, 2012). The small effective population size of the Lower Santa Ynez River *O. mykiss* population puts it at risk of genetic drift, inbreeding, and potential extirpation from catastrophic events, such as the 2012–2016 drought, 2017–2018 Thomas Fire and subsequent debris flow, and sediment loading in streams used by *O. mykiss*.

Fish trapping data on the mainstem Lower Santa Ynez River from 1996 to 2021 provides a multiyear set of quantitative data on steelhead numbers in the river. Since 1996, ten seasons of migrant trapping efforts in the mainstem Lower Santa Ynez River have resulted in the capture of just two individual anadromous adult steelhead (both captured in 2008)[7]. Migrant trapping efforts in Hilton Creek and Salsipuedes Creek (tributaries to the Lower Santa Ynez River) during this same time period resulted in the capture of 32 anadromous adult steelhead. These numbers represent a minimum count of actual returns because traps must be removed at high flows when anadromous fish are likely traveling upstream. During the previous drought (2012–2016), the Santa Ynez River lagoon bar did not breach during years 2013–2016, nor in 2018; no adult steelhead were able to enter the river to spawn in those years. Likewise, smolts were not able to outmigrate to the ocean during those years. In such instances, steelhead may stray to another stream that is open for upstream migration (Shapovalov & Taft, 1954). Recent studies have determined there is substantial migration between the Santa Ynez River and other regional steelhead populations (Girman & Garza, 2006; Garza & Clemento, 2008).

Fish conservation measures implemented as part of the 2000 BiOp and the 2000 Lower Santa Ynez River Fish Management Plan (NMFS, 2000; SYRTAC, 2000) resulted in an initial increased juvenile *O. mykiss* abundance. In 2005 and 2006, a dramatic increase in *O. mykiss* abundance occurred in the Refugio and Alisal reaches of the mainstem Lower Santa Ynez River. 2005 was the third wettest year

[7] Traps were operated in the Mainstem Santa Ynez River in 1996, 1997, 2006, 2008-2012, 2019 and 2020

on record, followed by 2006 which was an Above Normal water year, and the high numbers of fish present in those years may have been a response to favorable, very wet year habitat conditions in conjunction with long-term target flows. However, abundance in the Refugio and Alisal reaches then declined after 2006, despite three out of four years (2007 through 2011) being Wet or Above Normal precipitation years (SYRAMC, 2009; COMB 2011-2012; Reclamation, 2013a; Reclamation, 2011). The observed lack of overall increase in *O. mykiss* abundance in the Refugio and Alisal reaches may be due to additional factors. These factors include potentially unsuitable water quality conditions, observed increases in predatory warm-water invasive species, and increases in beaver activity and dams.

In the Lower Santa Ynez River, steelhead have access to the mainstem and its tributaries. Results of snorkel surveys and migrant trapping indicate that *O. mykiss* successfully reproduce and rear primarily in the tributaries: Hilton Creek, the Salsipuedes/El Jaro drainage, Quiota Creek, and San Miguelito Creek (SYRAMC, 2009; COMB, 2012; Reclamation, 2013a; Reclamation, 2013b; Reclamation, 2011).

Snorkel survey data suggest that the tributary *O. mykiss* overall abundance has increased over time whereas mainstem abundance is relatively flat (Figure 1). Completion of tributary passage projects increased access to rearing and spawning habitat which has in part contributed to this increasing trend. As shown in Figure 1, *O. mykiss* observations during the recent extended drought (2012–2016) indicate a sharp decrease in abundance in both tributaries and the mainstem, although since 2019, spring snorkel surveys have observed an increase in *O. mykiss* individuals, many of which were young of the year.

Given the expected impacts from climate change, as well as impacts from natural climate patterns such as El Niño and water year type, impacts from catastrophic events will likely become more common and influence both the abundance and the distribution of adult and juvenile *O. mykiss*.

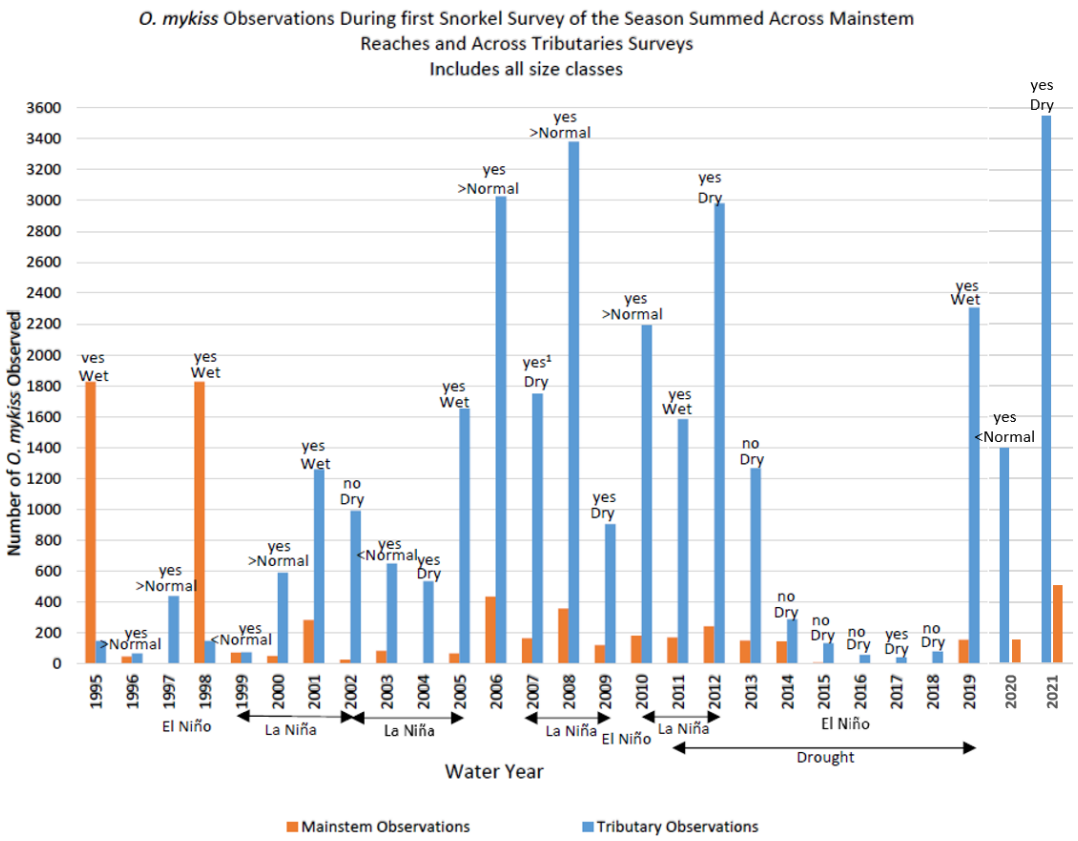

Figure 1: *O. mykiss* Observations During First Snorkel Survey of the Season Summed Across Mainstem Reaches and Across Tributaries Surveys (Includes all Size Classes)[8]

7 Environmental Baseline and Special-Status Species Effects

For a complete description of the environmental baseline in the Proposed Action Area, please refer to Reclamation's 2021 Biological Assessment for the Operation and Maintenance of the Cachuma Project (Reclamation, 2021).

[8] Environmental variables (water year type, lagoon connectivity, larger natural environmental occurrence, and drought) are provided here as occurrence information. Water year type is: Dry, Normal, or Wet; lagoon bar breached for ocean connectivity: yes or no (in 2007 the bar breached but not during adult return migration); El Nino and La Nina events are noted by year range with an arrow where appropriate; and drought conditions are noted by year range with an arrow. All *O. mykiss* observed were counted; however, due to poor visibility during some of the surveys (from turbidity, vegetation, etc.) these observations likely underestimate the number of *O. mykiss* actually present in survey reaches where visibility was poor. These data are observational counts only, not a population estimate.

O. mykiss are known to occur in the Lower Santa Ynez River below Bradbury Dam and designated critical habitat for Southern California steelhead is present in the river below the dam. Under the Proposed Action, out-of-basin water (CCWA water) would occasionally be released into the Lower Santa Ynez River where Southern California steelhead and designated critical habitat for Southern California steelhead are present. The primary concerns for potential effects to Southern California steelhead from the Proposed Action are related to water quality and olfactory imprinting and each are discussed in greater detail below.

7.1 Water Quality

As described above, the maximum amount of chlorine hypothetically remaining in CCWA water after treatment would be < 0.03 mg/L (i.e. detection limit at which the pumps automatically shut off); however, in actuality the residual chlorine concentration in CCWA's water is expected to be 0.0 mg/L due to the residual amount of unreacted sodium bisulfite left in the water.

Although sodium bisulfite in higher concentrations (i.e. ≥ 39 mg/L) can deplete dissolved oxygen levels in water resulting in fish mortality, it is non-toxic to aquatic life at lower concentrations (Basu & Dorner, 2010). CCWA water enters Cachuma Project facilities with a residual sodium bisulfite concentration of ≥0.1 mg/L and < 1 mg/L, which is considered non-toxic; this residual concentration of sodium bisulfite is further reduced as CCWA water is diluted with Cachuma Project water.

As described above, chloramine (a mix of chlorine and ammonia) is added to CCWA's water to disinfect it, and the chloramine is subsequently removed using sodium bisulfite. A byproduct of the sodium bisulfite treatment process is ammonia[9]. Ammonia exists in two forms within the environment: the ionized form (NH_4^+) and the un-ionized form (NH_3). The ratio of the ionized and un-ionized forms that exist in the environment at a given moment are dependent on temperature and pH, with the ionized form typically dominant in most biological systems. As pH and/or temperature increase, the portion of un-ionized ammonia increases and the portion of ionized ammonia decreases (EPA, 2013).

Of the two forms of ammonia, the un-ionized form (NH_3) is of greatest concern for toxicity to fish. At certain concentrations, un-ionized ammonia can be toxic to fish by: accumulating in gill tissue and causing accelerated ventilation rate and gill damage, reducing blood-oxygen carrying capacity, inhibiting the production of adenosine triphosphate (ATP) in the brain, and/or disrupting metabolic function of the liver and kidneys (EPA, 2013). Ammonia can also harm aquatic invertebrates (specifically bivalves) that may provide food sources for fish, through physiological changes that can result in reduced feeding, reproductive success, and survival (EPA, 2013).

In 2017, the Central Coast Regional Water Quality Control Board (CCRWQCB) established a water quality objective for un-ionized ammonia (0.025 mg/L) for the protection of aquatic life which applies to the Lower Santa Ynez River (CCWQP, 2019). All of the samples collected from the

[9] Please note, that the ammonia added to treat CCWA's water (in the form of chloramine) and the ammonia byproduct that results from treatment with sodium bisulfite are not additive (i.e. it is the same ammonia originally added in the form of chloramine that forms the ammonia byproduct at the end of the reaction).

Lower Santa Ynez River for water quality monitoring conducted by the Central Coast Water Quality Preservation, Inc. (CCWQP) in 2019 were in compliance with this water quality objective for un-ionized ammonia (i.e. < 0.025 mg/L). The concentration of un-ionized ammonia in samples collected from the Lower Santa Ynez River in 2019 ranged from 0.0001 mg/L to 0.0038 mg/L. At all three sampling locations on the Lower Santa Ynez River[10], un-ionized ammonia concentrations showed a decreasing trend (though this trend was only statistically significant at the Floradale Avenue location) (CCWQP, 2019).

The amount of total ammonia measured in CCWA water ranges from 0.00 to 0.14 mg/L, with an average of 0.04 mg/L. As described above, the ratio of the un-ionized form to the ionized form of ammonia in water is determined by temperature and pH. A summary of un-ionized ammonia concentrations in CCWA water, based on measurements of total ammonia in CCWA water and different pH and temperatures, is provided in Table 1 below.

Table 1: Total Ammonia and Un-ionized Ammonia Concentrations in CCWA Water

Temperature (°C)	**pH***	**Total Ammonia (NH_3 and NH_4^+) in CCWA water (mg/L)**	**Concentration of un-ionized ammonia (NH_3) in CCWA water**
18°C	7.0	0.04 mg/L	0.000 mg/L
18°C	7.0	0.14 mg/L	0.000 mg/L
18°C	8.0	0.04 mg/L	0.001 mg/L
18°C	8.0	0.14 mg/L	0.005 mg/L
18°C	8.3	0.04 mg/L	0.003 mg/L
18°C	8.3	0.14 mg/L	0.009 mg/L
18°C	8.5**	0.04 mg/L	0.004 mg/L
18°C	8.5**	0.14 mg/L	0.014 mg/L
20°C	8.5**	0.14 mg/L	0.016 mg/L

*pH water quality standard for the Lower Santa Ynez River is 7.0-8.3.
** A pH of 8.5 was chosen, as the highest recorded pH from the Lower Santa Ynez River in 2019 was 8.49 (CCWQP, 2019).

As shown in Table 1, the expected range of un-ionized ammonia concentrations in CCWA water is 0.000 to 0.009 mg/L, when the 18°C-temperature requirement and CCRWQCB pH standards are met. Even if pH exceeds standards and temperature increases above the 18°C-temperature requirement (which is neither proposed nor expected to occur), at the highest measured total ammonia concentration in CCWA water, un-ionized ammonia concentrations would still remain well below the 0.025 mg/L standard. Furthermore, the un-ionized ammonia concentrations shown in Table 1 would be reduced by at least half as CCWA water is diluted at least 50 percent with Cachuma Project water. Based on the recorded concentrations of ammonia remaining in CCWA's water, the dilution of this water by mixing, and the most recent available baseline un-ionized ammonia concentration measurements from the Lower Santa Ynez River, the small amount of

[10] Water samples were collected from the Lower Santa Ynez River at the following locations: 1) just upstream of Lompoc at River Park at a site influenced by agricultural use, 2) just downstream of Lompoc at Floradale Avenue below the Lompoc Wastewater Treatment Plan discharge point, and 3) downstream and west of Lompoc at 13th Street below an area dominated by intensive agriculture (CCWQP, 2019).

residual ammonia in CCWA's water is expected to have no adverse effect on fish or other freshwater aquatic species.

The Environmental Protection Agency (EPA) updated the *Freshwater Ammonia Aquatic Life Ambient Water Quality Criteria* in 2013 taking into account new data and sensitive freshwater unionid mussels that were not considered in the previous criteria to more fully protect the aquatic community (EPA, 2013). The EPA's updated criteria for total ammonia are: an acute 1- hour average of 17 mg/L total ammonia and a chronic 30-day rolling average[11] of 1.9 mg/L total ammonia at a pH of 7.0 and a temperature of 20°C. The current available data for ammonia indicate that these standards are protective of *O. mykiss* and other aquatic freshwater species that *O. mykiss* may depend on as food sources (EPA, 2013).

When the criteria for total ammonia are adjusted based on the temperature (18°C) and pH (target range of 7.0-8.3) expected to occur in the Proposed Action Area, the acute criteria range from 20 mg/L to 2.6 mg/L for total ammonia and the chronic criteria range from 2.2 mg/L to 0.55 mg/L for total ammonia (both criteria decrease as pH increases due to the higher ratio of un-ionized ammonia at higher pH levels). The total residual concentration of ammonia in CCWA's water ranges from 0.0 to 0.14 mg/L and would be further diluted with Lake Cachuma water. CCWA's water may be diluted by more than 50 percent in order to meet the 18°C- temperature requirement.

Based on the concentrations of total ammonia in CCWA water, and the dilution of this water by at least 50 percent, the introduction of CCWA's water into the Lower Santa Ynez River is not expected to result in the exceedance of the acute or chronic 2013 EPA criteria for ammonia and is therefore not expected to have any adverse effect on *O. mykiss* or other aquatic freshwater species that *O. mykiss* may depend on as food sources.

CCWA water has been and would continue to be blended with Cachuma Project water in the proportion needed to meet the temperature requirement of 18°C or less prior to introduction into the Stilling Basin/Lower Santa Ynez River. This is confirmed through SCADA monitoring within the facilities that convey CCWA water as well as by Reclamation and COMB at Bradbury Dam. Alarms on the SCADA system are set to alert Reclamation and CCWA when the temperature of blended water approaches a threshold below 18°C, so the 18°C requirement is not exceeded.

With implementation of the measures listed in section 4, the introduction of CCWA water into the Lower Santa Ynez River is not expected to have any negative effects on water quality in the river.

7.2 Olfactory Imprinting

Numerous studies have confirmed that the parr-to-smolt transition phase is a critical period for olfactory imprinting in certain anadromous species (Nevitt and Dittman, 1995; Bett and Hinch, 2015; Dickerhoff et al., 1978 *cited in* Bett and Hinch, 2015; Hasler and Scholtz, 1983; Dickhoff and Sullivan 1987 *cited in* Salmenkova, 2017; Carruth et al., 2002; Scholz 1980 *cited in* Dittman et al., 1995); however, adult salmonids return to the location where they hatched, not necessarily where they smolted, suggesting that imprinting may occur prior to smoltification. Many of the studies on

[11] The highest 4-day average out of this period may not exceed 2.5 x the Chronic 30-day rolling average.

olfactory imprinting in salmonids have been conducted in hatchery environments, and it is hypothesized that the lack of observed imprinting prior to smoltification in these fish may be due to a lack of environmental stimulation. During the parr-to-smolt transition, there is a large surge of thyroid hormones that may be involved in the formation of imprinted olfactory memories. In natural (non-hatchery) environments, salmonids may also experience these surges in thyroid hormones immediately upon hatching (Carruth et al. 2002; Dittman et al., 1995), and during downstream migration in response to environmental factors like temperature, photoperiod and flow rates (Salmenkova, 2017; Carruth et. al., 2002; Dittman et. al, 1995); therefore, it is hypothesized that salmonids may also undergo olfactory imprinting both immediately after hatching (alevin) and during downstream migration.

Releases of blended CCWA water supplies to the Lower Santa Ynez River during WR 89-18 water rights releases do not occur when there is surface water connectivity with the ocean, and therefore smolt migration to the ocean and adult migration into the river would **not** occur during times when mixed CCWA water is released to the river. WR 89-18 water rights releases are made such that flows do not go past the H-Street Bridge in Lompoc, resulting in no streamflow connectivity to the lagoon and ocean. Releases of mixed CCWA water to the lower river typically occur during the summer and early fall (generally July through October), while the sensitive period for olfactory imprinting of juvenile *O. mykiss* may begin as early as November or extend as late as June in some years. Monitoring conducted for the Cachuma Project has found that the parr-smolt transition stage for *O. mykiss* in the Lower Santa Ynez River typically occurs between February and May, immediately prior to downstream migration of juveniles. Results of *O. mykiss* smolt juvenile outmigration monitoring within the Lower Santa Ynez River between 2001 and 2021 demonstrate a pattern of decreasing smolt captures into May and very minimal captures in June, suggesting that juvenile outmigration is usually complete by June.

Snorkel surveys and trapping for *O. mykiss* would be conducted (pursuant to technical sessions with NMFS regarding RPM 6 of the 2000 BiOp) prior to any release of blended CCWA water to the Lower Santa Ynez River in June and November, and no release of blended CCWA water to the river would occur if *O. mykiss* are observed, or if rain is forecast to occur in the next 14 days.

Avoiding the release of blended CCWA water supplies during the alevin, parr-smolt transition and juvenile migration period, by managing mixed CCWA releases to summer and early fall periods (June-November) and implementing additional precautionary measures in June and November, is expected to avoid any potential adverse effects to juvenile *O. mykiss* imprinting and subsequent increased straying of adult steelhead returning to the Lower Santa Ynez River to spawn.

8 Conclusion

With the implementation of the conservation measures restricting the timing and rate of release of CCWA's water to the river, the Proposed Action is highly unlikely to disrupt the olfactory imprinting of juvenile *O. mykiss*. Furthermore, with the use of automatic safety shut-off systems at the Santa Ynez Pumping Facility and the continued implementation of water temperature requirements, the Proposed Action is not expected to have any negative effects on water quality.

The 2000 BiOp concluded that potential effects from CCWA's water deliveries and releases were expected to be minimal and that the risk of incorrect imprinting from the release of CCWA water into the Lower Santa Ynez River was remote. The Proposed Action would have no new or additional effects beyond those considered in the 2000 BiOp.

With the implementation of the provided conservation measures, any potential effects from the Proposed Action on the Southern California steelhead DPS or designated critical habitat for this species would be reduced to an insignificant and discountable level. Reclamation has determined that the Proposed Action is *Not Likely to Adversely Affect* the Southern California steelhead DPS or designated critical habitat for this species.

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