NOTICE AND AGENDA

Regular Meeting of the Board of Trustees
SANTA YNEZ RIVER WATER CONSERVATION DISTRICT, IMPROVEMENT DISTRICT NO.1
will be held at **3:00 P.M., Tuesday, July 18, 2023**
In-Person - 1070 Faraday Street, Santa Ynez, CA - Conference Room

PUBLIC PARTICIPATION OPTION VIA TELECONFERENCE
TELECONFERENCE PHONE NUMBER: 1-669-900-9128
MEETING ID: 929 0039 9487#
PARTICIPANT ID NO.: 180175#
MEETING PASSCODE: 180175#

*** Please Note ***

The above teleconference option for public participation is being offered as a convenience only and may limit or otherwise prevent your access to and participation in the meeting due to disruption or unavailability of the teleconference line. If any such disruption of unavailability occurs for any reason the meeting will not be suspended, terminated, or continued. Therefore in-person attendance of the meeting is strongly encouraged.

Additional Notice Regarding Public Participation: For those who may not attend the meeting in-person or via teleconference but wish to provide public comment on an Agenda Item, please submit any and all comments and written materials to the District via electronic mail at general@syrwd.org. All submittals should indicate **"July 18, 2023 Board Meeting"** in the subject line. Materials received by the District during and prior to the meeting will become part of the post-meeting Board packet materials available to the public and posted on the District's website. In the interest of clear reception and efficient administration of the meeting, all persons participating via teleconference are respectfully requested to mute their voices after dialing-in and at all times unless speaking.

1. **CALL TO ORDER AND ROLL CALL**

2. **PLEDGE OF ALLEGIANCE**

3. **REPORT BY THE SECRETARY TO THE BOARD REGARDING COMPLIANCE WITH THE REQUIREMENTS FOR POSTING OF THE NOTICE AND AGENDA**

4. **ADDITIONS OR CORRECTIONS, IF ANY, TO THE AGENDA**

5. **PUBLIC COMMENT -** Any member of the public may address the Board relating to any non-Agenda matter within the District's jurisdiction. The total time for all public participation shall not exceed fifteen (15) minutes and the time allotted for each individual shall not exceed three (3) minutes. The District is not responsible for the content or accuracy of statements made by members of the public. No action will be taken by the Board on any public comment item.

6. **CONSIDERATION OF THE MINUTES OF THE REGULAR MEETING OF JUNE 20, 2023**

7. **CONSENT AGENDA -** All items listed on the Consent Agenda are considered to be routine and will be approved or rejected in a single motion without separate discussion. Any item placed on the Consent Agenda can be removed and placed on the Regular Agenda for discussion and possible action upon the request of any Trustee.
   CA-1. Water Supply and Production Report
   CA-2. Central Coast Water Authority Update

8. **MANAGER REPORTS - STATUS, DISCUSSION, AND POSSIBLE BOARD ACTION ON THE FOLLOWING SUBJECTS:**
   A. DISTRICT ADMINISTRATION
      1. Financial Report on Administrative Matters
         a) Presentation of Monthly Financial Statements – Revenues and Expenses
         b) Approval of Accounts Payable

2. Employee Benefits
   a) Resolution No. 837: A Resolution of the Board of Trustees of the Santa Ynez River Water Conservation District, Improvement District No.1 Authorizing Basic Life Insurance and Accidental Death and Dismemberment Policy for District Employees

3. Personnel Policy Manual
   a) Resolution No. 838: A Resolution of the Board of Trustees of the Santa Ynez River Water Conservation District, Improvement District No.1 Amending the District's Personnel Policy Manual

4. 2022 Consumer Confidence Report – Annual Water Quality Report Required by Federal and State Regulations to Protect Drinking Water

9. REPORT, DISCUSSION, AND POSSIBLE BOARD ACTION ON THE FOLLOWING SUBJECTS:

A. WATER SUPPLY PROJECT CONDITIONS
1. Cachuma Project Update
2. State Water Project Update

B. SUSTAINABLE GROUNDWATER MANAGEMENT ACT
1. Eastern Management Area (EMA) Update

C. PROPOSED DRINKING WATER REGULATION – HEXAVALENT CHROMIUM
1. Proposed Maximum Contaminant Level (MCL) Issued by the State Water Resources Control Board for Hexavalent Chromium

10. REPORTS BY THE BOARD MEMBERS OR STAFF, QUESTIONS OF STAFF, STATUS REPORTS, ANNOUNCEMENTS, COMMITTEE REPORTS, AND OTHER MATTERS AND/OR COMMUNICATIONS NOT REQUIRING BOARD ACTION

11. CORRESPONDENCE: GENERAL MANAGER RECOMMENDS FILING OF VARIOUS ITEMS

12. REQUESTS FOR ITEMS TO BE INCLUDED ON THE NEXT REGULAR MEETING AGENDA: Any member of the Board of Trustees may request to place an item on the Agenda for the next regular meeting. Any member of the public may submit a written request to the General Manager of the District to place an item on a future meeting Agenda, provided that the General Manager and the Board of Trustees retain sole discretion to determine which items to include on meeting Agendas.

13. NEXT MEETING OF THE BOARD OF TRUSTEES: The next Regular Meeting of the Board of Trustees is scheduled for **August 15, 2023 at 3:00 p.m.**

14. CLOSED SESSION:
To accommodate the teleconferencing component of this meeting, the public access line will be closed for up to two and one-half (2.5) hours while the Board of Trustees conducts closed session. Upon conclusion of the closed session, the public teleconference line will be reopened for the remaining Agenda Items.

The Board will hold a closed session to discuss the following items:

A. CONFERENCE WITH LEGAL COUNSEL - EXISTING LITIGATION
[Subdivision (d)(1) of Section 54956.9 of the Government Code – 2 Cases]
1. Name of Case: Adjudicatory proceedings pending before the State Water Resources Control Board regarding Permit 15878 issued on Application 22423 to the City of Solvang, Petitions for Change, and Related Protests

2. Name of Case: Central Coast Water Authority, et al. v. Santa Barbara County Flood Control and Water Conservation District, et al., Santa Barbara County Superior Court Case No. 21CV02432

B. CONFERENCE WITH LEGAL COUNSEL - POTENTIAL LITIGATION
[Subdivision (d)(2) of Section 54956.9 of the Government Code – Significant Exposure to Litigation Against the Agency – One Matter]

C. CONFERENCE WITH LEGAL COUNSEL - POTENTIAL LITIGATION
[Subdivision (d)(4) of Section 54956.9 of the Government Code – Potential Initiation of Litigation By the Agency – One Matter]

D. PUBLIC EMPLOYEE PERFORMANCE EVALUATION: Title - General Manager
[Section 54957 of the Government Code]

E. CONFERENCE WITH LABOR NEGOTIATOR: Jeff Dinkin – Stradling, Yocca, Carlson & Rauth; Unrepresented Employee - General Manager [Section 54957.6 of the Government Code]

15. RECONVENE INTO OPEN SESSION
[Sections 54957.1 and 54957.7 of the Government Code]

A. Report (if any) on Closed Session Agenda Items 14.A – 14.C
B. Consideration and Approval of General Manager Cost of Living Adjustment Increase and Compensation Adjustment

16. ADJOURNMENT

This Agenda was posted at 3622 Sagunto Street, Santa Ynez, California, and notice was delivered in accordance with Government Code Section 54950 et seq., specifically Section 54956. This Agenda contains a brief general description of each item to be considered. The Board reserves the right to change the order in which items are heard. Copies of any staff reports or other written documentation relating to each item of business on the Agenda are on file with the District and available for public inspection during normal business hours at 3622 Sagunto Street, Santa Ynez. Such written materials will also be made available on the District's website, subject to staff's ability to post the documents before the regularly scheduled meeting. Questions concerning any of the Agenda items may be directed to the District's General Manager at (805) 688-6015. If a court challenge is brought against any of the Board's decisions related to the Agenda items above, the challenge may be limited to those issues raised by the challenger or someone else during the public meeting or in written correspondence to the District prior to or during the public meeting. In compliance with the Americans with Disabilities Act, any individual needing special assistance to review Agenda materials or participate in this meeting may contact the District Secretary at (805) 688-6015. Notification 72 hours prior to the meeting will best enable the District to make reasonable arrangements to ensure accessibility to this meeting.

SANTA YNEZ RIVER WATER CONSERVATION DISTRICT, IMPROVEMENT DISTRICT NO.1
JUNE 20, 2023 REGULAR MEETING MINUTES

A Regular Meeting of the Board of Trustees of the Santa Ynez River Water Conservation District, Improvement District No.1, was held at 3:00 p.m. on Tuesday, June 20, 2023, in-person at 1070 Faraday Street and via teleconference.

Trustees Present:	Jeff Clay	Brad Joos
	Nick Urton	
Trustees Absent:	Michael Burchardi	Jeff Holzer
Others Present:	Paeter Garcia	Mary Robel
	Karen King	Eric Tambini
	Gary Kvistad	Bill Buelow
	Debbie Roark	

1. **CALL TO ORDER AND ROLL CALL:**
President Clay called the meeting to order at 3:04 p.m., he stated that this was a Regular Meeting of the Board of Trustees. Ms. Robel conducted roll call and reported that three Trustees were present, and Trustees Burchardi and Holzer were absent.

2. **PLEDGE OF ALLEGIANCE:**
President Clay led the Pledge of Allegiance.

3. **REPORT BY THE SECRETARY TO THE BOARD REGARDING COMPLIANCE WITH THE REQUIREMENTS FOR POSTING OF THE NOTICE AND AGENDA**
Ms. Robel presented the affidavit of posting the Agenda, along with a true copy of the Agenda for this meeting. She reported that the Agenda was posted in accordance with the California Government Code commencing at Section 54953, as well as District Resolution No. 340.

4. **ADDITIONS OR CORRECTIONS, IF ANY, TO THE AGENDA**
There were no additions or corrections to the Agenda.

5. **PUBLIC COMMENT:**
President Clay welcomed members of the public present at the meeting and participating remotely and offered time for members of the public to speak and address the Board on matters not on the Agenda. There was no public comment. Mr. Garcia reported that no written comments were submitted to the District for the meeting.

6. **CONSIDERATION OF THE MINUTES OF THE REGULAR MEETING OF MAY 16, 2023:**
The Regular Meeting Minutes from May 16, 2023 were presented for consideration.

President Clay asked if there were any changes or additions to the Regular Meeting Minutes of May 16, 2023. There were no changes or additions requested.

It was **MOVED** by Trustee Joos, seconded by Trustee Urton, and carried by a 3-0-0 voice vote, with Trustees Burchardi and Holzer absent, to approve the May 16, 2023 Regular Meeting Minutes as presented.

7. CONSENT AGENDA:

The Consent Agenda Report was provided in the Board packet.

Mr. Garcia reviewed the Consent Agenda materials for the month of May.

It was MOVED by Trustee Joos, seconded by Trustee Urton, and carried by 3-0-0 voice vote, with Trustees Burchardi and Holzer absent, to approve the Consent Agenda as presented.

8. MANAGER REPORTS - STATUS, DISCUSSION, AND POSSIBLE BOARD ACTION ON THE FOLLOWING SUBJECTS:

A. DISTRICT ADMINISTRATION

1. Financial Report on Administrative Matters

a) Presentation of Monthly Financial Statements - Revenues and Expenses

Ms. Robel announced that the Financial Statements were provided to the Board in the handout materials and posted on the District's website in the Board packet materials for any members of the public wishing to follow along or receive a copy.

Ms. Robel reviewed the Statement of Revenues and Expenses for the month of May. She highlighted various line-items related to revenue and expense transactions that occurred during the month and also referenced the Fiscal-Year-to-Date Statement of Revenues and Expenses that provides a budget to actual snapshot from July through May. Ms. Robel reported that the District revenues exceeded the expenses by $224,970.72 for the month of May and the year-to-date net income was $2,935,431.31.

b) Approval of Accounts Payable

Ms. Robel announced that the Warrant List was provided to the Board in the handout materials and posted on the District's website in the Board packet materials for any member of the public wishing to follow along or receive a copy.

The Board reviewed the Warrant List which covered warrants 25201 through 25258 in the amount of $530,094.45.

It was MOVED by Trustee Joos, seconded by Trustee Urton, and carried by a 3-0-0 voice vote, with Trustees Burchardi and Holzer absent, to approve the Warrant List for May 17, 2023 through June 20, 2023.

2. Appropriation Limit for the 2023/2024 Fiscal Year - Article XIIIB (Proposition 13)

a) Resolution No. 833: A Resolution of the Board of Trustees of the Santa Ynez River Water Conservation District, Improvement District No.1 Establishing the Appropriation Limit for Fiscal Year 2023/2024 Pursuant to Article XIIIB of the California Constitution

The Board packet included draft Resolution No. 833 and a copy of the Public Notice regarding the FY 2023/2024 Appropriation Limitation Calculation that was published in the Santa Ynez Valley News on June 1, 2023 and June 8, 2022 and posted on the District's website and at the District Office on May 16, 2023.

Mr. Garcia reported that the appropriation limit and related calculations for FY 2023/2024 were presented to the Board at the May 16, 2023 Board Meeting and were published and publicly noticed in accordance with applicable requirements. He stated that no public comment was received. Mr. Garcia explained that the FY 2023/2024 appropriation limit is $2,388,353 based on factors and calculations published by the California Department of Finance. He stated that adoption of a Resolution is required pursuant to Government Code Section 7910 to establish an appropriation limit each

fiscal year and recommended approval of Resolution No. 833 Establishing the Appropriation Limit for Fiscal Year 2023/2024.

Ms. Rourk provided comments to the Board.

Mr. Garcia explained that although the District can set the assessment up to the maximum amount of $2,388,353, the FY 2023/2024 Budget proposes no increase this year, with the assessment to remain at $875,000, which the Board has elected to do previously for fiscal years 2017/2018 through 2023/2024.

It was **MOVED** by Trustee Joos, seconded by Trustee Urton, to adopt Resolution No. 833, Establishing the Appropriation Limit at $2,388,353 for the Fiscal Year 2023/2024 pursuant to Article XIII of the California Constitution.

The Motion carried and Resolution No. 833 was adopted by the following 3-0-0 roll call vote:

AYES, Trustees:	Jeff Clay Brad Joos Nick Urton
NOES, Trustees:	None
ABSTAIN, Trustees:	None
ABSENT, Trustees:	Mike Burchardi Jeff Holzer

3. Consider Adoption of the Final Budget for Fiscal Year 2023/2024
   a) Final Budget Summary
   The Board packet included the Final Budget for Fiscal Year 2023/2024.

   Ms. Robel summarized the Final Budget for FY 2023/2024 that was included in the Board packet. She explained that the Board reviewed the Preliminary Budget at the May 16, 2023 Regular Board meeting, which included a detailed budget narrative, summary of revenues and expenses, debt service, and capital improvement project expenses. She indicated that the Board was asked to provide any comments and/or questions prior to preparation and presentation of the Final Budget in June. Ms. Robel reported that since the May Board meeting no additional comments were received from the Board or the public; however, staff is presenting three amendments that are included in the proposed Final Budget. She and Mr. Garcia reviewed the changes which were related to increased expenses for Legal and Engineering Services and the Meter Replacement Program.

   Ms. Robel recommended approval of Resolution No. 834 approving and adopting the FY 2023/2024 Final Budget and requesting the collection of an assessment levy in the amount of $875,000 for the Fiscal Year 2023/2024.

   There was no public comment.

   b) Resolution No. 834: A Resolution of the Board of Trustees of the Santa Ynez River Water Conservation District, Improvement District No.1 Adopting the Final Budget for Fiscal Year 2023/2024 and Requesting an Assessment Levy Required to Collect $875,000

The Board packet included draft Resolution No. 834.

It was MOVED by Trustee Urton, seconded by Trustee Joos, to adopt Resolution No. 834, Adopting the Final Budget for Fiscal Year 2023/2024 and Requesting an Assessment Levy Required to Collect $875,000.

The Motion carried and Resolution No. 834 was adopted by the following 3-0-0 roll call vote:

AYES, Trustees:	Jeff Clay
	Brad Joos
	Nick Urton
NOES, Trustees:	None
ABSTAIN, Trustees:	None
ABSENT, Trustees:	Mike Burchardi
	Jeff Holzer

4. Resolution No. 835 - A Resolution of the Board of Trustees of the Santa Ynez River Water Conservation District, Improvement District No.1 Authorizing Signatures for Accounts at Mechanics Bank
The Board packet included draft Resolution No. 835.

Mr. Garcia reviewed the current authorized signatories on the District's banking accounts at Mechanics Bank. He explained the changes that are needed to the current approved signatories on file at Mechanics Bank, and that adoption of Resolution No. 835 will allow Mechanics Bank to make the necessary changes as identified in the Resolution.

Mr. Garcia recommended approval of Resolution No. 835 authorizing signatures for Accounts at Mechanics Bank.

It was MOVED by Trustee Urton, seconded by Trustee Joos, to adopt Resolution No. 835, Authorizing Signatures for Accounts at Mechanics Bank.

The Motion carried and Resolution No. 835 was adopted by the following 3-0-0 roll call vote:

AYES, Trustees:	Jeff Clay
	Brad Joos
	Nick Urton
NOES, Trustees:	None
ABSTAIN, Trustees:	None
ABSENT, Trustees:	Mike Burchardi
	Jeff Holzer

9. REPORT, DISCUSSION, AND POSSIBLE BOARD ACTION ON THE FOLLOWING SUBJECTS:

A. STATEWIDE STORM EVENTS AND RELATED PROJECT CONDITIONS

1. Cachuma Project Update
The Board packet included the U.S. Bureau of Reclamation Lake Cachuma Daily Operations Report for the month May and June, and the Santa Barbara County Flood Control District Rainfall and Reservoir Summary.

Mr. Garcia reviewed the Lake Cachuma Daily Operations Report and the current reservoir conditions. He reported that the reservoir remains at full capacity (101.2%) and that spill operations will continue to manage the remaining inflows into the reservoir.

2. State Water Project Update
The Board packet included the Department of Water Resources Current and Historical Reservoir Conditions and current news articles relating to Lake Oroville water supply conditions.

Mr. Garcia reviewed the Department of Water Resources current and historical reservoir conditions. He discussed the news articles included in the Board packet related to Lake Oroville water supply, record snowpack in the Sierra Nevada mountains, spill conditions, and potential for flooding.

B. SUSTAINABLE GROUNDWATER MANAGEMENT ACT

1. Eastern Management Area (EMA) Update
The Board packet included Notice of the EMA GSA Committee Meeting for June 22, 2023 and a GSI Water Solutions Proposal Relating to an Expanded Scope and Cost for Review of New and Replacement Well Applications.

Mr. Garcia reported that the EMA GSA Committee is scheduled to meet on June 22, 2023, and he reviewed the topics that will be discussed at the meeting. He stated that the Committee will be considering a GSI Water Solutions expanded scope of work and fee for review of new and replacement well applications related to the GSA's role of administering requests for written verifications per requirements of Executive Orders issued by the State Governor. Mr. Garcia reported on the current negotiations related to the draft EMA Joint Powers Authority (JPA) Agreement. He reported that staff and legal counsel for the agencies of the EMA GSA (Solvang, ID No.1, the Santa Barbara County Water Agency, and the Santa Ynez River Water Conservation District) have made progress in negotiating terms of the draft JPA Agreement.

C. CENTRAL COAST WATER AUTHORITY

1. Proposed Amendment to CCWA Joint Exercise of Powers Agreement
The Board packet included a May 18, 2023 Central Coast Water Authority Memorandum and Draft Second Amendment to the Joint Exercise of Powers Agreement Creating the Central Coast Water Authority

Mr. Garcia provided a brief overview of the Joint Exercise of Powers Agreement (JPA) which formed the Central Coast Water Authority (CCWA). He explained that CCWA has presented a proposal to amend the JPA Agreement to add express authority allowing CCWA to engage in expanded water banking and storage activities. He explained that CCWA is likely to be more regularly engaged in facilitating water management strategies to assist CCWA member agencies in increasing the availability and reliability of their respective State Water Project (SWP) supplies by participating in groundwater banking, storage, and related projects that are not owned or controlled by CCWA. Mr. Garcia stated that any amendment to the JPA Agreement requires approval from each of the eight CCWA member agencies. He reviewed the proposed Second Amendment to the JPA Agreement as set forth in the Board packet materials. Mr. Garcia explained the benefits of the amendment and banking opportunities that CCWA has already engaged in on behalf of some of its member agencies.

2. Resolution No. 836 – A Resolution of the Board of Trustees of the Santa Ynez River Water Conservation District, Improvement District No.1 Approving the Second Amendment of the Joint Exercise of Powers Agreement Creating the Central Coast Water Authority and Finding Such Action Exempt from the California Environmental Quality Act.
The Board packet included draft Resolution No. 836 and Exhibits "A & B"

Mr. Garcia reviewed Resolution No. 836 approving the Second Amendment to the Joint Exercise of Powers Agreement creating the Central Coast Water Authority (Exhibit A) and proposed Notice of Exemption from the California Environmental Quality Act (CEQA) (Exhibit B). He stated that approval of Resolution No. 836 would provide the District's approval of the Second Amendment to the CCWA JPA Agreement and authorize the General Manager to file the Notice of Exemption with the California Office of Planning and Research and the Santa Barbara County Clerk of the Board of Supervisors.

Mr. Garcia recommended approval of Resolution No. 836 Approving the Second Amendment of the Joint Exercise of Powers Agreement Creating the Central Coast Water Authority and finding such action exempt from the California Environmental Quality Act.

It was MOVED by Trustee Urton, seconded by Trustee Joos, to adopt Resolution No. 836,

The Motion carried and Resolution No. 836 was adopted by the following 3-0-0 roll call vote:

AYES, Trustees:	Jeff Clay
	Brad Joos
	Nick Urton
NOES, Trustees:	None
ABSTAIN, Trustees:	None
ABSENT, Trustees:	Mike Burchardi
	Jeff Holzer

D. SANTA YNEZ RIVER WATER CONSERVATION DISTRICT

1. Proposed Groundwater Charges for Fiscal Year 2023-2024
The Board packet included a Notice and Agenda of the June 7, 2023 Regular Meeting of the Santa Ynez River Water Conservation District, June 7, 2023 SYRWCD Board Memorandum, Draft Final May 30, 2023 Rate Study Report prepared by Raftelis, and Draft Resolution No. 722 for the SYRWCD.

2. Comments Submitted by ID No.1
The Board packet included a June 6, 2023 ID No.1 Comment Letter to the SYRWCD regarding the Proposed FY 2023/2024 Groundwater Charges and Rate Study Report dated May 30, 2023.

Agenda Items 9.D.1 and 9.D.2 were discussed together.

Mr. Garcia reviewed the Board packet materials related to SYRWCD's proposed groundwater charges for Fiscal Year 2023/2024 and SYRWCD's Rate Study Report dated May 30, 2023. He also provided an overview of the comment letter submitted by ID No.1 to the SYRWCD, which set forth various concerns and objections to the SYRWCD's Rate Study and proposed groundwater charges. Mr. Garcia explained that ID No.1 concerns and objections are similar to those that have been communicated to SYRWCD on multiple occasions, that ID No.1 has serious ongoing concerns that groundwater charges being imposed by SYRWCD for the Santa Ynez Uplands area are not tied to direct services or benefits, and that ID No.1 customers are bearing a disproportionate burden with regard

to sustainable groundwater management in the Eastern Management Area of the Basin. Board discussion ensued.

Mr. Garcia stated that as part of the June 7, 2023 meeting, the SYRWCD Board tabled any action on their proposed groundwater charges for Fiscal Year 2023/2024. He reported that the SYRWCD is expected to act on their groundwater charges before the end of June, although they have not yet scheduled a special meeting. Mr. Garcia indicated that he would provide further information as it becomes available.

10. REPORTS BY THE BOARD MEMBERS OR STAFF, QUESTIONS OF STAFF, STATUS REPORTS, ANNOUNCEMENTS, COMMITTEE REPORTS, AND OTHER MATTERS AND/OR COMMUNICATIONS NOT REQUIRING BOARD ACTION

The Board packet included a photo of a four-valve cluster installed at Baseline and Lewis Street. Mr. Garcia reported that the District field crew, with the assistance of Hanly Engineering, replaced a four-valve cluster at the intersection of Baseline and Lewis Streets. He stated that two main service lines were taken out of service to accommodate the installation, with water service being restored to all affected District customers within a few hours. Mr. Garcia expressed his appreciation and compliments to the District field staff for their teamwork related to this installation.

The Board packet included a City of Solvang Notice of Preparation of a Draft Environmental Impact Report for the City of Solvang Comprehensive General Plan Update and Rezoning for information.

The Board packet included the June 2023 Family Farm Alliance Monthly Briefing.

Mr. Garcia reported that he and Trustee Joos hosted an ID No.1 informational booth at the May 20, 2023 "Santa Ynez Airport Day" festivities, noting also that Trustee Burchardi assisted in establishing the ID No.1 booth and that Trustees Clay and Urton attended the event and provided support for the District. He reported that there may be an opportunity to host another ID No.1 informational booth as part of the upcoming "Santa Ynez Days" event on June 24th. Mr. Garcia stated that ID No.1 participation in such community events provides positive and productive opportunities for the District to inform and build relationships with the public.

Mr. Garcia reported that Trustee Clay attended the May Central Coast Water Authority Board of Directors Meeting, that Trustee Joos attended the June EMA GSA Committee Meeting, and that Trustee Burchardi attended June 14, 2023 Los Olivos Community Services District Board Meeting.

11. CORRESPONDENCE: GENERAL MANAGER RECOMMENDS FILING OF VARIOUS ITEMS

The Correspondence List was received by the Board.

12. REQUESTS FOR ITEMS TO BE INCLUDED ON THE NEXT REGULAR MEETING AGENDA:

There were no requests from the Board.

13. NEXT MEETING OF THE BOARD OF TRUSTEES:

President Clay stated that next Regular Meeting of the Board of Trustees is scheduled for July 18, 2023 at 3:00 p.m.

14. CLOSED SESSION:

The Board adjourned to closed session at 5:00 p.m.

A. CONFERENCE WITH LEGAL COUNSEL - EXISTING LITIGATION

[Subdivision (d)(1) of Section 54956.9 of the Government Code – 2 Cases]

1. Name of Case: Adjudicatory proceedings pending before the State Water Resources Control Board regarding Permit 15878 issued on Application 22423 to the City of Solvang, Petitions for Change, and Related Protests

2. Name of Case: Central Coast Water Authority, et al. v. Santa Barbara County Flood Control and Water Conservation District, et al., Santa Barbara County Superior Court Case No. 21CV02432

B. CONFERENCE WITH LEGAL COUNSEL - POTENTIAL LITIGATION

[Subdivision (d)(2) of Section 54956.9 of the Government Code – Significant Exposure to Litigation Against the Agency – One Matter]

C. CONFERENCE WITH LEGAL COUNSEL - POTENTIAL LITIGATION

[Subdivision (d)(4) of Section 54956.9 of the Government Code – Potential Initiation of Litigation By the Agency – One Matter]

15. RECONVENE INTO OPEN SESSION:

[Sections 54957.1 and 54957.7 of the Government Code]

The public participation phone line was re-opened, and the Board reconvened to open session at approximately 5:55 p.m.

Mr. Garcia announced that the Board met in closed session concerning Agenda Items 14.A.1, 14.A.2, 14.B, and 14.C and that there was no reportable action from the closed session.

16. ADJOURNMENT:

Being no further business, it was MOVED by Trustee Urton, seconded by Trustee Joos, and carried by a 3-0-0 voice vote, with Trustees Burchardi and Holzer absent, to adjourn the meeting at approximately 5:57 p.m.

RESPECTFULLY SUBMITTED,

_____

Mary Robel, Secretary to the Board

ATTEST: _____

Jeff Clay, President

MINUTES PREPARED BY:

_____

Karen King, Board Administrative Assistant

BOARD OF TRUSTEES
SANTA YNEZ RIVER WATER CONSERVATION DISTRICT, IMPROVEMENT DISTRICT NO.1
July 18, 2023

Consent Agenda Report

CA-1. Water Supply and Production Report. Total water production in **June 2023 (345 AF)** was approximately 14 AF higher than total production in May 2023 (331 AF), 111 AF below the most recent 3-year running average (2020-2022) for the month of **June** (456 AF), and 168 AF less than the most recent 10-year running average (2013-2022) for the month of **June** (513 AF). Notably, total production in June 2023 was **by far** the lowest June production over the last 10 years, which have ranged from 439 to 767 AF for the month. As with January through May conditions, low June production is attributable to the extraordinary rain events that occurred this year and low temperatures. Generally speaking, the District's overall demands and total production have been trending well below historic levels for domestic, rural residential, and agricultural water deliveries due to water conservation, changing water use patterns, and private well installations.

For the month of **June 2023**, approximately **21 AF** were produced from the Santa Ynez Upland wells, and **0 AF** were produced from the 4.0 and 6.0 cfs well fields in the Santa Ynez River alluvium. As reflected in the Monthly Water Deliveries Report from the Central Coast Water Authority (CCWA), the District took approximately **324 AF** of SWP supplies for the month. Direct diversions to the County Park and USBR were **2.71 AF**.

The USBR Daily Operations Report for Lake Cachuma in **June** (ending June 30, 2023) recorded the end of month reservoir elevation at **753.26'** with the end of month storage of **194,116 AF**. USBR recorded total precipitation at the lake of **0.17 inches** for the month. Due to spill conditions occurring from Bradbury Dam, no SWP deliveries were made to the reservoir for South Coast entities. Reported reservoir evaporation in **June** was **1,335.6 AF**.

Based on the updated maximum storage capacity of 192,978 AF (previously 193,305 AF), as of **July 10, 2023** Cachuma reservoir was reported at **99.7%** of capacity, with then-current storage of **192,388 AF** (Santa Barbara County Flood Control District, Rainfall and Reservoir Summary). At a point when reservoir storage exceeds 100,000 AF, the Cachuma Member Units typically have received a full allocation. Conversely, a 20% pro-rata reduction from the full allocation is scheduled to occur in Water Years beginning at less than 100,000 AF, where incremental reductions may occur (and previously have occurred) at other lower storage levels. For the federal WY 2021-2022 (October 1, 2021 through September 30, 2022), USBR issued a 70% allocation, equal to 18,000 AF. ID No.1's 10.31% share of that allocation was 1,855 AF. In the Fall of 2022 when reservoir conditions were low, the Cachuma Member Units initially requested an approximate 15% Cachuma Project allocation for federal WY 2022-2023. By letter dated September 30, 2022, USBR issued an initial 0% allocation for WY 2022-2023. **Based on extraordinary rain conditions that filled and spilled the reservoir, on February 28, 2023 USBR issued a revised 100% Project allocation for WY 2022-2023. ID No.1's share of that allocation is 2,651 AF. By recent letter dated June 30, 2023 the Cachuma Member Units submitted a joint request for another 100% Cachuma allocation for WY 2023-2024. On July 10, 2023 USBR approved that request, which translates to another 2,651 AF for ID No.1**.

Water releases for the protection of fish and aquatic habitat are made from Cachuma reservoir to the lower Santa Ynez River pursuant to the 2000 Biological Opinion issued by the National Marine Fisheries Service (NMFS) and the 2019 Water Rights Order (WR 2019-0148) issued by the State Water Resources Control Board (SWRCB). These releases are made to Hilton Creek and to the stilling basin portion of the outlet works at the base of Bradbury Dam. The water releases required under the NMFS 2000 Biological Opinion to avoid jeopardy to steelhead and adverse impacts to its critical habitat are summarized as follows:

NMFS 2000 Biological Opinion

- *When Reservoir Spills and the Spill Amount Exceeds 20,000 AF:*
  - *10 cfs at Hwy 154 Bridge during spill year(s) exceeding 20,000 AF*
  - *1.5 cfs at Alisal Bridge when spill amount exceeds 20,000 AF and if steelhead are present at Alisal Reach*
  - *1.5 cfs at Alisal Bridge in the year immediately following a spill that exceeded 20,000 AF and if steelhead are present at Alisal Reach*

- *When Reservoir Does Not Spill or When Reservoir Spills Less Than 20,000 AF:*
  - *5 cfs at Hwy 154 when Reservoir does not spill and Reservoir storage is above 120,000 AF, or when Reservoir spill is less than 20,000 AF*
  - *2.5 cfs at Hwy 154 in all years when Reservoir storage is below 120,000 AF but greater than 30,000 AF*
  - *1.5 cfs at Alisal Bridge if the Reservoir spilled in the preceding year and the spill amount exceeded 20,000 AF and if steelhead are present at Alisal Reach*
  - *30 AF per month to "refresh the stilling basin and long pool" when Reservoir storage is less than 30,000 AF*

The water releases required under the SWRCB Water Rights Order 2019-0148 for the protection of fish and other public trust resources in the lower Santa Ynez River and to prevent the waste and unreasonable use of water are summarized as follows:

SWRCB Order WR 2019-0148

- *During Below Normal, Dry, and Critical Dry water years (October 1 – September 30), releases shall be made in accordance with the requirements of the NMFS 2000 Biological Opinion as set forth above.*

- *During Above Normal and Wet water years, the following minimum flow requirements must be maintained at Hwy 154 and Alisal Bridges:*
  - *48 cfs from February 15 to April 14 for spawning*
  - *20 cfs from February 15 to June 1 for incubation and rearing*
  - *25 cfs from June 2 to June 9 for emigration, with ramping to 10 cfs by June 30*
  - *10 cfs from June 30 to October 1 for rearing and maintenance of resident fish*
  - *5 cfs from October 1 to February 15 for resident fish*

- *For purposes of SWRCB Order WR 2019-0148, water year classifications are as follows:*
  - *Wet is when Cachuma Reservoir inflow is greater than 117,842 AF;*
  - *Above Normal is when Reservoir inflow is less than or equal to 117,842 AF or greater than 33,707 AF;*
  - *Below Normal is when Reservoir inflow is less than or equal to 33,707 AF or greater than 15,366 AF;*
  - *Dry is when Reservoir inflow is less than or equal to 15,366 AF or greater than 4,550 AF*
  - *Critical Dry is when Reservoir inflow is less than or equal to 4,550 AF*

As of the end of **December 2022**, a total of approximately **49,653.3 AF** of Cachuma Project water had been released under regulatory requirements for the protection of fish and fish habitat below Bradbury Dam since the year after the 2011 spill. **For the months of January through June 2023, water releases for fishery requirements, spill conditions, and other operational purposes have been made from the Cachuma Project. Reclamation has indicated that it will provide an accounting of those releases.**

CA-2. State Water Project (SWP) and Central Coast Water Authority (CCWA) Updates.

In 2022, the SWP Table A allocation for SWP Contractors was only 5 percent, which translated to 35 AF for ID No.1's share of Table A supplies through CCWA. As previously reported, by Notice to the SWP Contractors dated December 1, 2022, the California Department of Water Resources (DWR) issued an initial 2023 SWP Table A Allocation of 5 percent, along with a provisional allocation of additional SWP supplies to certain Contractors to ensure the needs for human health and safety. **In response to this year's extraordinary rain events and resulting increases in Lake Oroville storage, DWR incrementally increased the 2023 SWP Table A allocation to 30 percent (January 26, 2023), then 35 percent (February 22, 2023), then 75 percent (March 24, 2023), and then 100 percent (April 20, 2023) for the first time since 2006.** For ID No.1, the increase to 100 percent translates to a current 2023 Table A allocation of 2,200 AF. Of that amount, 700 AF is available to ID No.1 and the remaining 1,500 AF is contracted to the City of Solvang.

As reflected in the July 13, 2023 meeting agenda for the CCWA Operating Committee, and in previous meeting agendas for the CCWA Board of Directors, CCWA remains engaged in a variety of matters relating to the SWP, including but not limited to: SWP supplies and increased Table A allocations; related SWP operations; a potential desalination project in the region; potential water banking opportunities; and a proposed amendment to CCWA's Joint Exercise of Powers Agreement to add express authority to engage in water storage and banking activities. CCWA and its member agencies also remain engaged in their pending litigation against the Santa Barbara County Flood Control and Water Conservation District to maintain CCWA sovereignty over important decisions pertaining to SWP supplies. The June 22, 2023 meeting of the CCWA Board of Directors was cancelled, and their next meeting is currently scheduled for July 27, 2023.

— BUREAU OF —
RECLAMATION

Historical Archive and Report Database

Lake Cachuma Daily Operations

Run Date: 7/10/2023

June 2023

DAY	ELEV	STORAGE ACRE-FEET IN LAKE	CHANGE	COMPUTED* INFLOW AF.	CCWA INFLOW AF.	PRECIP ON RES. SURF. AF.	RELEASE - AF. TUNNEL	HILTON CREEK	OUTLET	SPILLWAY	EVAPORATION AF.	EVAPORATION INCH	PRECIP INCHES
	753.80	195,806											
1	753.80	195,806	0	258.0	0.0	0.0	64.3	14.0	130.0	0.0	49.3	0.230	0.00
2	753.80	195,806	0	258.0	0.0	0.0	64.6	14.0	130.0	0.0	49.3	0.230	0.00
3	753.79	195,775	-31	225.0	0.0	0.0	67.1	14.0	128.0	0.0	47.2	0.220	0.00
4	753.81	195,838	63	331.0	0.0	0.0	66.1	14.0	130.0	0.0	57.9	0.270	0.00
5	753.80	195,806	-32	217.0	0.0	0.0	64.9	14.0	129.0	0.0	40.8	0.190	0.00
6	753.77	195,712	-94	145.0	0.0	5.2	66.1	14.0	130.0	0.0	34.3	0.160	0.02
7	753.77	195,712	0	192.0	0.0	39.2	65.0	14.0	129.0	0.0	23.6	0.110	0.15
8	753.76	195,680	-32	194.0	0.0	0.0	65.5	13.9	129.0	0.0	17.2	0.080	0.00
9	753.76	195,680	0	249.0	0.0	0.0	50.1	14.0	129.0	0.0	55.7	0.260	0.00
10	753.76	195,680	0	210.0	0.0	0.0	45.7	14.0	129.0	0.0	21.4	0.100	0.00
11	753.76	195,680	0	210.0	0.0	0.0	46.6	14.0	130.0	0.0	19.3	0.090	0.00
12	753.75	195,649	-31	185.0	0.0	0.0	47.1	14.0	129.0	0.0	25.7	0.120	0.00
13	753.75	195,649	0	224.0	0.0	0.0	47.7	14.0	130.0	0.0	32.2	0.150	0.00
[illegible]	753.74	195,617	-32	208.0	0.0	0.0	45.9	14.0	129.0	0.0	51.4	0.240	0.00
	753.53	194,958	-659	-426.0	0.0	0.0	47.7	13.9	129.0	0.0	42.8	0.200	0.00
16	753.71	195,523	565	809.0	0.0	0.0	51.8	13.9	129.0	0.0	49.3	0.230	0.00
17	753.69	195,460	-63	186.0	0.0	0.0	58.4	14.0	129.0	0.0	47.1	0.220	0.00
18	753.66	195,365	-95	148.0	0.0	0.0	57.9	14.0	130.0	0.0	40.7	0.190	0.00
19	753.63	195,271	-94	146.0	0.0	0.0	56.7	13.9	129.0	0.0	40.7	0.190	0.00
20	753.59	195,146	-125	142.0	0.0	0.0	70.7	14.0	129.0	0.0	53.5	0.250	0.00
21	753.55	195,021	-125	133.0	0.0	0.0	70.8	14.0	111.0	0.0	62.0	0.290	0.00
22	753.52	194,927	-94	173.0	0.0	0.0	71.6	14.0	109.0	0.0	72.7	0.340	0.00
23	753.49	194,834	-93	144.0	0.0	0.0	69.4	13.9	109.0	0.0	44.9	0.210	0.00
24	753.46	194,740	-94	136.0	0.0	0.0	71.6	13.9	91.0	0.0	53.4	0.250	0.00
25	753.43	194,646	-94	132.0	0.0	0.0	70.3	14.0	90.0	0.0	51.3	0.240	0.00
26	753.40	194,553	-93	104.0	0.0	0.0	70.2	13.9	89.0	0.0	23.5	0.110	0.00
27	753.37	194,459	-94	150.0	0.0	0.0	69.1	13.9	90.0	0.0	70.5	0.330	0.00
28	753.33	194,334	-125	99.0	0.0	0.0	71.9	14.0	89.0	0.0	49.1	0.230	0.00
29	753.33	194,334	0	215.0	0.0	0.0	74.5	13.9	90.0	0.0	36.3	0.170	0.00
30	753.26	194,116	-218	35.0	0.0	0.0	77.3	13.9	89.0	0.0	72.5	0.340	0.00
TOTALS			**-1,690**	**5,432.0**	**0.0**	**44.4**	**1,866.6**	**419.0**	**3,543.0**	**0.0**	**1,335.6**	**6.240**	**0.17**
AVERAGE		**195,259**											

Comments: *Computed inflow is the sum of change in storage, releases and evaporation minus precip on the reservoir surface and ccwa inflow.
Indicated outlet release includes leakage from outlet valves and spillway gates.
Data based on a 24 hour period ending 0800.

— BUREAU OF —
RECLAMATION

Historical Archive and Report Database

Lake Cachuma Daily Operations

Run Date: 7/12/2023

July 2023

DAY	ELEV	STORAGE ACRE-FEET IN LAKE	CHANGE	COMPUTED* INFLOW AF.	CCWA INFLOW AF.	PRECIP ON RES. SURF. AF.	RELEASE - AF. TUNNEL	HILTON CREEK	OUTLET	SPILLWAY	EVAPORATION AF.	EVAPORATION INCH	PRECIP INCHES
	753.26	194,116											
1	753.23	194,022	-94	153.0	0.0	0.0	77.1	13.9	89.0	0.0	67.4	0.320	0.00
2	753.18	193,866	-156	92.0	0.0	0.0	76.3	13.9	90.0	0.0	67.3	0.320	0.00
3	753.15	193,773	-93	148.0	0.0	0.0	76.8	13.9	89.0	0.0	61.0	0.290	0.00
4	753.10	193,617	-156	79.0	0.0	0.0	62.4	13.9	89.0	0.0	69.4	0.330	0.00
5	753.05	193,461	-156	75.0	0.0	0.0	63.3	13.9	89.0	0.0	65.1	0.310	0.00
6	753.00	193,305	-156	67.0	0.0	0.0	65.2	13.9	89.0	0.0	54.6	0.260	0.00
7	752.95	193,149	-156	63.0	0.0	0.0	63.8	13.9	89.0	0.0	52.5	0.250	0.00
8	752.90	192,993	-156	52.0	0.0	0.0	52.5	13.9	89.0	0.0	52.4	0.250	0.00
9	752.86	192,868	-125	65.0	0.0	0.0	50.6	14.0	90.0	0.0	35.6	0.170	0.00
10	752.80	192,681	-187	37.0	0.0	0.0	51.6	13.9	89.0	0.0	69.1	0.330	0.00
11	752.76	192,556	-125	100.0	0.0	0.0	61.1	13.9	89.0	0.0	60.7	0.290	0.00
TOTALS			**-1,560**	**931.0**	**0.0**	**0.0**	**700.7**	**153.0**	**981.0**	**0.0**	**655.1**	**3.120**	**0.00**
AVERAGE		**193,299**											

Comments: *Computed inflow is the sum of change in storage, releases and evaporation minus precip on the reservoir surface and ccwa inflow.
Indicated outlet release includes leakage from outlet valves and spillway gates.
Data based on a 24 hour period ending 0800.

Santa Barbara County - Flood Control District

130 East Victoria Street, Santa Barbara CA 93101 - 805.568.3440 - www.countyofsb.org/pwd

Rainfall and Reservoir Summary

Updated 8am: 7/10/2023 **Water Year: 2023** **Storm Number: NA**

Notes: Daily rainfall amounts are recorded as of 8am for the previous 24 hours. Rainfall units are expressed in inches. All data on this page are from automated sensors, are preliminary, and subject to verification.
*Each Water Year (WY) runs from Sept 1 through Aug 31 and is designated by the calendar year in which it ends
County Real-Time Rainfall and Reservoir Website link: ➢ http://www.countyofsb.org/hydrology

Rainfall	ID	24 hrs	Storm 0day(s)	Month	Year*	% to Date	% of Year*	AI
Buellton (Fire Stn)	*233*	0.00	0.00	0.00	29.39	179%	179%	
Cachuma Dam (USBR)	*332*	0.00	0.00	0.00	38.49	197%	197%	
Carpinteria (Fire Stn)	*208*	0.00	0.00	0.00	28.73	169%	169%	
Cuyama (Fire Stn)	*436*	0.00	0.00	0.00	13.99	187%	185%	
Figueroa Mtn. (USFS Stn)	*421*	0.00	0.00	0.00	42.64	203%	202%	10.5
Gibraltar Dam (City Facility)	*230*	0.00	0.00	0.00	61.38	236%	236%	10.8
Goleta (Fire Stn-Los Carneros)	*440*	0.00	0.00	0.00	30.41	167%	167%	
Lompoc (City Hall)	*439*	0.00	0.00	0.00	34.20	237%	237%	10.3
Los Alamos (Fire Stn)	*204*	0.00	0.00	0.00	32.32	213%	213%	
San Marcos Pass (USFS Stn)	*212*	0.00	0.00	0.00	80.22	240%	239%	
Santa Barbara (County Bldg)	*234*	0.00	0.00	0.00	36.41	200%	200%	
Santa Maria (City Pub.Works)	*380*	0.00	0.00	0.00	25.58	194%	193%	
Santa Ynez (Fire Stn /Airport)	*218*	0.00	0.00	0.00	33.06	213%	212%	
Sisquoc (Fire Stn)	*256*	0.00	0.00	0.00	25.65	173%	172%	

County-wide percentage of "Normal-to-Date" rainfall : 201%

County-wide percentage of "Normal Water-Year" rainfall : 200%

County-wide percentage of "Normal Water-Year" rainfall calculated assuming no more rain through Aug. 31, 2023 (End of WY2023).

AI (Antecedent Index / Soil Wetness)
6.0 and below = Wet (min. = 2.5)
6.1 - 9.0 = Moderate
9.1 and above = Dry (max. = 12.5)

Reservoirs

Reservoir Elevations referenced to NGVD-29.
**Cachuma is full and subject to spilling at elevation 750 ft.
However, the lake is surcharged to 753 ft. for fish release water.
(Cachuma water storage based on Dec 2021 capacity revision)

Click on Site for Real-Time Readings	Spillway Elev. (ft)	Current Elev. (ft)	Max. Storage (ac-ft)	Current Storage (ac-ft)	Current Capacity (%)	Storage Change Mo.(ac-ft)	Storage Change Year*(ac-ft)
Gibraltar Reservoir	1,400.00	1,400.01	4,693	4,695	100.0%	11	3,395
Cachuma Reservoir	753.**	752.81	192,978	192,388	99.7%	-1,634	121,718
Jameson Reservoir	2,224.00	2,223.82	4,848	4,826	99.5%	-2	2,000
Twitchell Reservoir	651.50	616.49	194,971	92,645	47.5%	-3,771	92,645

Previous Rainfall and Reservoir Summaries

California Irrigation Management Information System (CIMIS)

CIMIS Daily Report

Rendered in ENGLISH Units.
Thursday, June 1, 2023 - Tuesday, July 4, 2023
Printed on Wednesday, July 5, 2023

Santa Ynez - Central Coast Valleys - Station 64

Date	ETo (in)	Precip (in)	Sol Rad (Ly/day)	Avg Vap Pres (mBars)	Max Air Temp (°F)	Min Air Temp (°F)	Avg Air Temp (°F)	Max Rel Hum (%)	Min Rel Hum (%)	Avg Rel Hum (%)	Dew Point (°F)	Avg Wind Speed (mph)	Wind Run (miles)	Avg Soil Temp (°F)
6/1/2023	0.18	0.00	615	15.2	72.4	52.4	59.3	100	67	89	55.9	2.7	65.1	70.1
6/2/2023	0.20	0.00	676	15.2	76.1	52.7	61.0	100	59	83	55.8	2.7	65.3	70.6
6/3/2023	0.21	0.00	674	16.4	82.5	51.6	61.8	100	59	87	57.9	2.6 Y	62.9 Y	71.2
6/4/2023	0.18	0.00	623	19.0 R	79.4	52.6	62.3	100	82	– R	– I	2.5 Y	59.5 Y	71.7
6/5/2023	0.06	0.00	250	16.9 Y	68.0	58.6	61.2	100	79	92 Y	58.8 Y	3.2	77.4	72.1
6/6/2023	0.06	0.12	262	15.9	67.0	56.2	59.5	100	77	92	57.1	2.9	70.1	71.5
6/7/2023	0.06	0.00	267	18.0 Y	66.6	53.2	60.2	100	100	100 Y	60.2 Y	2.2 Y	52.5 Y	70.6
6/8/2023	0.19 R	0.00	653	19.8 R	76.2	56.0	64.3	100	77	– R	– I	2.8	68.3	69.9
6/9/2023	0.05	0.00	237	18.0 Y	68.5	57.2	60.5	100	96	100 Y	60.5 Y	2.3 Y	54.5 Y	70.6
6/10/2023	0.04	0.00	209	17.5 Y	67.9	56.0	59.6	100	99	100 Y	59.6 Y	1.9 R	45.1 R	70.3
6/11/2023	0.11	0.00	413	19.0 Y	73.0	55.0	61.6	100	100	100 Y	61.6 Y	2.5 Y	59.9 Y	69.8
6/12/2023	0.14 R	0.00	504	19.9 R	73.1	57.7	62.9	100	99	– R	– I	2.6 Y	61.8 Y	70.1
6/13/2023	0.21	0.00	683	19.1 Y	76.2	56.8	64.4	100	74	93 Y	62.2 Y	2.6 Y	62.1 Y	70.8
6/14/2023	0.17	0.00	581	20.3 R	77.0	57.6	63.9	100	91	– R	– I	2.7 Y	64.6 Y	71.8
6/15/2023	0.19	0.00	652	21.1 R	75.2	58.6	65.3	100	91	– R	– I	2.9 Y	70.1 Y	72.4
6/16/2023	0.16	0.00	550	21.1 R	78.2	59.4 Y	65.9	100	80	– R	– I	2.2 Y	53.7 Y	73.1
6/17/2023	0.22 R	0.00	692	22.4 R	87.0	54.8	67.9	100	76	– R	– I	2.5 Y	60.6 Y	73.5
6/18/2023	0.18	0.00	622	19.5 Y	79.4	55.6	63.5	100	78	97 Y	62.8 Y	2.9 Y	69.7 Y	74.2
6/19/2023	0.21	0.00	712	18.0 Y	76.0	45.8	62.3	100	64	94 Y	60.5 Y	3.0 Y	72.1 Y	74.3
6/20/2023	0.22 R	0.00	733	17.7 Y	80.1	41.2 Y	59.5	100	74	100 Y	59.5 Y	2.8 Y	66.3 Y	74.3
6/21/2023	0.21 R	0.00	730	18.6 Y	78.4	45.4	59.8	100	95	100 Y	59.8 Y	2.9 Y	69.9 Y	74.1
6/22/2023	0.18	0.00	649	17.8 Y	74.0	47.8	59.3	100	98	100 Y	59.3 Y	2.7 Y	65.7 Y	74.0
6/23/2023	0.21	0.00	744	19.6 Y	77.0	46.0	61.6	100	97	100 Y	61.6 Y	2.6 Y	62.8 Y	73.9
6/24/2023	0.16 R	0.00	589	18.8 Y	76.2	50.8	61.2	100	97	100 Y	61.2 Y	2.3 R	55.9 R	74.1
6/25/2023	0.15 R	0.00	555	18.2 Y	73.3	55.5	61.4	100	59	98 Y	60.7 Y	2.5 Y	60.9 Y	74.1
6/26/2023	0.18	0.00	634	18.9 Y	74.2	55.4	61.6	100	89	100 Y	61.6 Y	2.7 Y	64.1 Y	74.0
6/27/2023	0.19	0.00	661	18.8 Y	76.1	54.8	61.7	100	86	100 Y	61.7 Y	2.3 R	56.2 R	74.2
6/28/2023	0.19 R	0.00	635	– S	– S	– S	– S	100 H	84 H	– Q	– Q	2.3 R	56.0 R	– S
6/29/2023	0.23	0.00	703	13.9	84.4	52.2	64.8	92	41	66	53.3	2.4 Y	57.9 Y	74.6
6/30/2023	0.25 R	0.00	727	14.4	94.6	47.4	68.3	98	29	61	54.3	1.8 R	43.6 R	75.2
Tots/Avgs	4.99	0.12	575	18.2	76.1	53.3	62.3	100	79	93	59.4	2.6	61.8	72.5

Santa Ynez - Central Coast Valleys - Station 64

Date	ETo (in)	Precip (in)	Sol Rad (Ly/day)	Avg Vap Pres (mBars)	Max Air Temp (°F)	Min Air Temp (°F)	Avg Air Temp (°F)	Max Rel Hum (%)	Min Rel Hum (%)	Avg Rel Hum (%)	Dew Point (°F)	Avg Wind Speed (mph)	Wind Run (miles)	Avg Soil Temp (°F)
7/1/2023	0.25 R	0.00	724	15.3	97.6	52.3	70.6	96	32	60	56.0	1.8 R	42.1 R	75.9
7/2/2023	0.24 R	0.00	708	15.6	92.1	52.8	69.1	96	37	64	56.6	2.0 R	47.0 R	76.7
7/3/2023	0.25	0.00	734	15.0	92.2	54.3	68.1	96	26	64	55.3	2.4 R	56.5 R	77.3
7/4/2023	0.24	0.00	730	14.0	85.7	49.0	63.9	96	42	69	53.5	2.3 R	55.8 R	77.7
Tots/Avgs	0.98	0.00	724	15.0	91.9	52.1	67.9	96	34	64	55.4	2.1	50.3	76.9

Flag Legend		
A - Historical Average	I - Ignore	R - Far out of normal range
C or N - Not Collected	M - Missing Data	S - Not in service
H - Hourly Missing or Flagged Data	Q - Related Sensor Missing	Y - Moderately out of range

CENTRAL COAST WATER AUTHORITY

MEMORANDUM

TO: Ray Stokes, Executive Director
Dessi Mladenova, Controller

July 6, 2023

FROM: Christine Forsyth, Administrative Assistant

SUBJECT: Monthly Water Deliveries

According to the CCWA revenue meters at each turnout, the following deliveries were made during the month of June 2023:

Project Participant	Delivery Amount (acre-feet)
Chorro	165.14
López	5.30
Shandon	0.00
Guadalupe	61.38
Santa Maria	552.37
Golden State Water Co.	0.40
Vandenberg	213.01
Buellton	21.75
Solvang	77.19
Santa Ynez ID#1	317.10
Bradbury	0.00
TOTAL	**1,413.64**

In order to reconcile these deliveries with the DWR revenue meter, which read 1,444 acre-feet, the following delivery amounts should be used for billing purposes:

Project Participant	Delivery Amount (acre-feet)
Chorro	**169**
López	**5**
Shandon	**0**
Guadalupe	**63**
Santa Maria	**498***
Golden State Water Co	**66***
Vandenberg	**218**
Buellton	**22**
Solvang	**79**
Santa Ynez ID#1	**324**
Bradbury	**0**
TOTAL	1,444

***Golden State Water Company delivered 66 acre-feet into its system through the Santa Maria turnout. This delivery is recorded by providing a credit of 66 acre-feet to the City of Santa Maria and a charge in the same amount to the Golden State Water Company.**

Notes: Santa Ynez ID#1 water usage is divided into 0 acre-feet of Table A water and 0 acre-feet of exchange water.

The exchange water is allocated as follows

Project Participant	Exchange Amount (acre-feet)
Goleta	0
Santa Barbara	0
Montecito	0
Carpinteria	0
TOTAL	**0**

Bradbury Deliveries into Lake Cachuma are allocated as follows:

Project Participant	Delivery Amount (acre-feet)
Carpinteria	0
Goleta	0
La Cumbre	0
Montecito	0
Morehart	0
Santa Barbara	0
Raytheon	0
TOTAL	**0**

cc: Tom Bunosky, GWD
Mike Babb, Golden State WC
Rebecca Bjork, City of Santa Barbara
Janet Gingras, COMB
Craig Kesler, San Luis Obispo County
Paeter Garcia, Santa Ynez RWCD ID#1
Shad Springer, City of Santa Maria
Shannon Sweeney, City of Guadalupe
Robert MacDonald, Carpinteria Valley WD
Mike Alvarado, La Cumbre Mutual WC
Pernell Rush, Vandenberg AFB
Nick Turner, Montecito WD
Jose Acosta, City of Solvang
Rose Hess, City of Buellton

REVIEW AND APPROVAL OF DELIVERY RECORDS AND ASSOCIATED CALCULATIONS

John Brady
Deputy Director, Operations and Engineering
Central Coast Water Authority

A REGULAR MEETING OF THE OPERATING COMMITTEE
of the
CENTRAL COAST WATER AUTHORITY

will be held at 9:00 a.m., on Thursday, July 13, 2023
at 255 Industrial Way, Buellton

Members of the public may participate by video call or telephone via
URL: https://meetings.ringcentral.com/j/1488684422
or via telephone by dialing (623)404-9000 and entering code #148 8684 422

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
CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION
Initiation of litigation pursuant to Government Code section 54956.9(d) (4): 1 case

III. RETURN TO OPEN SESSION

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

V. ✳ **Consent Calendar**
A. Approve Minutes of the March 9, 2023 Operating Committee Meeting

VI. Executive Director's Report
A. Operations Update
B. Winter Shutdown Timing and Possible Postponement
C. Water Supply Situation Report
D. Update on Sea Well Ocean Desalination Project
E. Update on Aquaterra and Antelope Valley East Kern Water Agency Water Banks
✳ F. DWR Calendar Year 2024 Statement of Charges

VII. Reports from Committee Members for Information Only

VIII. Date of Next Regular Meeting: October 12, 2023

IX. ADJOURNMENT

255 Industrial Way
Buellton, CA 93427
(805) 688-2292
Fax (805) 686-4700
www.ccwa.com

✳ Indicates attachment of document to agenda packet

50907_1

THIS ITEM APPEARS ON

BOARD MEETINGS (/BOARD-MEETINGS)

JUN
22
2023

Board meeting has been canceled

- Notice of Cancelation of the June 22, 2023 Board of Directors Meeting (/files/45c498e1b/NoticeofCancelation062223Board.pdf)

THIS ITEM APPEARS ON

BOARD MEETINGS (/BOARD-MEETINGS)

JUL
27
2023

Board Meeting

will be held at 9:00 a.m., on Thursday, July 27, 2023

at 255 Industrial Way, Buellton, California 93427

RESOLUTION NO. 837

A RESOLUTION OF THE BOARD OF TRUSTEES OF THE SANTA YNEZ RIVER WATER CONSERVATION DISTRICT, IMPROVEMENT DISTRICT NO.1 AUTHORIZING BASIC LIFE AND ACCIDENTAL DEATH AND DISMEMBERMENT INSURANCE FOR DISTRICT EMPLOYEES

WHEREAS, the Board of Trustees of the Santa Ynez River Water Conservation District, Improvement District No.1 (District) desires to provide basic life and accidental death and dismemberment insurance for employees of the District; and

WHEREAS, the District recognizes the importance of providing comprehensive benefits to its employees to attract and retain highly skilled professionals; and

WHEREAS, a basic life and accidental death and dismemberment insurance policy is a vital component of a well-rounded employee benefits package, offering financial protection and security for employees and their families in the event of an unforeseen tragedy; and

WHEREAS, the District is committed to promoting the welfare and well-being of its employees by offering competitive employment benefits that enhance their quality of life;

NOW, THEREFORE, IT IS HEREBY RESOLVED AND DETERMINED, by the Board of Trustees of the District, as follows:

1. The District hereby approves a Basic Life and Accidental Death and Dismemberment Insurance policy that will apply to each full-time and part-time employee regularly scheduled to work thirty (30) or more hours per week, effective August 1, 2023. The policy will be administered in accordance with the terms and conditions outlined in the ACWA Joint Powers Insurance Authority Life & Disability Insurance Agreement for coverage through the Standard Insurance Company on file at the District office.

2. The basic life and accidental death and dismemberment insurance program coverage shall provide a benefit to the employee and designated dependent(s) of the insured employee in the event of the employee's death or dismemberment during the term of employment with the District. The benefit amount shall be based on a predetermined formula of 1.5 times the employee's annual earnings from the District, up to a maximum benefit of $150,000.

3. Eligibility for participation in the life and accidental death and dismemberment insurance program shall begin on the 1st of the month following 30 days from hire.

4. The District shall bear the cost of the life and accidental death and dismemberment insurance premium for all eligible employees. The premiums shall be paid in a manner consistent with the payroll schedule.

5. The General Manager, or his/her designee, shall be responsible for administering the insurance policy and program, including enrollment, beneficiary designations, and coordination with ACWA/JPIA.

BE IT FURTHER RESOLVED, that this Resolution shall take effect immediately.

WE, THE UNDERSIGNED, being the duly qualified President and Secretary, of the Board of Trustees of the Santa Ynez River Water Conservation District, Improvement District No.1, do hereby certify that the above and foregoing Resolution was duly and regularly adopted and passed by the Board of Trustees at a Regular meeting held on the 18th day of July 2023, by the following roll call vote:

AYES, and in favor thereof, Trustees:

NOES, Trustees:
ABSENT, Trustees:

_____
Jeff Clay, President

_____
Mary Robel, Secretary to the Board of Trustees

RESOLUTION NO. 838

A RESOLUTION OF THE BOARD OF TRUSTEES OF THE SANTA YNEZ RIVER WATER CONSERVATION DISTRICT, IMPROVEMENT DISTRICT NO. 1 AMENDING THE DISTRICT'S PERSONNEL POLICY MANUAL

WHEREAS, the Board of Trustees previously adopted, and subsequently updated and revised, by Resolutions, the Santa Ynez River Water Conservation District, Improvement District No.1 ("District") Personnel Policy Manual, which sets forth certain terms and conditions of employment for employees of the District; and

WHEREAS, the Board of Trustees desires to update and revise the Personnel Policy Manual, including but not limited to, revisions to ensure compliance with new and revised employment standards under federal and state law, as applicable; and

WHEREAS, the Board of Trustees has the authority to adopt updates, revisions, and amendments to the Personnel Policy Manual; and

WHEREAS, the Board of Trustees has reviewed the proposed revisions to the Personnel Policy Manual, including Section 3.4 – Sick Leave, Section 3.5.b – CFRA Leave, Section 3.10 – Family Bereavement Leave, and Section 3.22 – Life Insurance, a copy of which revisions are attached hereto and incorporated herein by this reference.

NOW, THEREFORE, BE IT RESOLVED by the Board of Trustees of the Santa Ynez River Water Conservation District, Improvement District No.1, as follows:

1. Revisions to Section 3.4 – Sick Leave, Section 3.5.b – CFRA Leave, Section 3.10 – Family Bereavement Leave, and Section 3.22 – Life Insurance, of the District's Personnel Policy Manual are approved, adopted, and incorporated into the personnel policies and procedures of the District.

2. Except where otherwise required by contract or law, the provisions of the District's Personnel Policy Manual shall apply to and govern the terms and conditions of employment of all current and future employees of the District, and a copy of the Personnel Policy Manual and any revisions thereto shall be provided to all current employees of the District and shall be provided to all new employees immediately upon hire.

3. The General Manager, working in conjunction with his or her designee(s), is hereby authorized to implement the policies, provisions, and procedures of the District's Personnel Policy Manual.

BE IT FURTHER RESOLVED that this Resolution shall take effect immediately.

WE, THE UNDERSIGNED, being the duly qualified President and Secretary, respectively, of the Board of Trustees of the Santa Ynez River Water Conservation District, Improvement District No.1, do hereby certify that the above and foregoing Resolution was duly and regularly adopted and passed by the Board of Trustees of said District at a Regular meeting held on July 18, 2023 by the following roll call vote:

AYES, and in favor thereof, Trustees:

NOES, Trustees:
ABSENT, Trustees:

_____
Jeff Clay, President

ATTEST:

_____
Mary Martone, Secretary to the Board of Trustees

STRADLING YOCCA CARLSON & RAUTH, P.C.
MEMORANDUM

TO: Mary Robel **FILE NUMBER:** 102870-0001

FROM: Jeffrey A. Dinkin

DATE: July 13, 2023

SUBJECT: Suggested Revisions to Personnel Policy Manual

I have reviewed the District's Personnel Policy Manual and have the following suggested revisions based on an assessment of existing policies and changes in the law since the last review of the Manual.

Sick Leave. As of January 1, 2023, employees can now use their paid sick leave for a "designated person." For the purposes of paid sick leave, a "designated person" is defined as a "person identified by the employee at the time the employee requests paid sick days." Consequently, the following additional should be made to the below paragraph of the Manual:

Section 3, Subsection - 4 Sick Leave

For any employee eligible for paid sick leave, accrued paid sick leave may be used to diagnose, care, or treat an existing health condition, or for preventative care for the employee or for the employee's child, spouse, domestic partner, parent, parent of employee's spouse or domestic partner, grandparent, grandchild, ~~or~~ sibling, or designated person (only one person may be designated per 12-month period). Any employee eligible for paid sick leave who is a victim of domestic violence, sexual assault, or stalking may also use paid sick leave to seek medical attention, obtain services from a shelter or crisis center, obtain counseling, or go to court.

California Family Rights Act. As of January 1, 2023, employees can also use some or all of their 12 weeks of California Family Rights Act ("CFRA") leave to care for a "designated person" with a serious health condition. Under the CFRA, a designated person can be any person related by blood to the employee – such as the employee's aunt, uncle, or cousin. A designated person can also be any person who is like family to the employee, such as the employee's unmarried partner or best friend (when in a relationship equivalent to family). The employee may identify the designated person at the time they request leave from work. Employers have the right to limit using CFRA leave to care for one designated person per 12-month period. Consequently, the following change should be made to the listed paragraph of the Manual:

Section 3, Subsection 5 - Statutory Family and Medical Leave

b) CFRA Leave

"Family care and medical leave" may be requested under the CFRA for (1) the birth or adoption of an employee's child, (2) the placement of a foster child with the employee; (3) the serious health condition of an employee's child, spouse, domestic partner as defined in California Family Code Section 297, parent, parent-in-law, grandparent, grandchild, ~~or~~ sibling, or designated person (only one person

may be designated per 12-month period); (4) an employee's own serious health condition if that condition makes the employee unable to perform their position, not including leave for pregnancy, childbirth or related health conditions; or (5) if the employee or the employee spouse, domestic partner, child, or parent is in active duty or called to active duty with the United States Armed Forces, as specified in section 3302.2 of the Unemployment Insurance Code.

Bereavement Leave. As of January 1, 2023, employers must provide a minimum of five days of bereavement leave. Since the Manual currently provides for up to three days of paid bereavement leave, revision needs to be made increase the number of days to 5 and related changes need to be made. Finally, we have changed the existing term "immediate family" to "family member" to mirror the language under the current law as amended effective January 1, 2023 (Cal. Govt. Code § 12945.7). The revised section of the Manual would then read as follows:

Section 3, Subsection 10 – Family Bereavement Leave

Regular and probationary employees will be granted paid bereavement leave due to the deaths ~~in their immediate~~of a family member for a period of up to five (~~3~~5) days~~, which may be extended with the General Manager's approval up to a limit of five (5) days where out-of-state travel to the services is involved.~~ . The term "~~immediate~~ family member" includes: spouse, child, parent, sibling, ~~brother, sister,~~ grandparent, ~~or~~ grandchild, domestic partner, or parent-in-law ~~of the employee or spouse~~. If circumstances demand that additional time off be taken, unpaid leave and/or the use of up to five (5) days of accumulated sick leave may be granted at the discretion of the General Manager.

Employees wishing to attend local services for other relatives and friends may be excused by their supervisor when feasible for a period up to ~~two (2)~~ four (4) hours without loss of pay.

Life Insurance. This new section reflects a new life insurance benefit for employees.

Section 3, Subsection 22 – Life Insurance

A Basic Life Insurance and Accidental Death and Dismemberment policy in an amount equal to 1½ times the employee's annual salary, up to a maximum policy amount of $150,000, will be provided for each full-time employee and part-time employee regularly scheduled to work thirty or more hours per week. Coverage will be effective the first of the month following the submission of properly completed enrollment forms to the Assistant General Manager. For employees hired after August 1, 2023, such enrollment forms must be submitted within 30 days of the employee's hire date, with coverage started the first of the month following 30 days from hire. Coverage will remain in effect for the duration of the employee's employment, with the District paying the insurance premiums. The terms and benefits of the life insurance provided under this section are determined by the terms and conditions of the insurance policy, a copy of which is available from the Assistant General Manager.

2022 ANNUAL WATER QUALITY REPORT

(Consumer Confidence Report)

Santa Ynez River Water Conservation District,
Improvement District No.1

BOARD OF TRUSTEES:

Division 1	Jeff Holzer
Division 2	Jeff Clay
Division 3	Nick Urton
Division 4	Michael Burchardi
At Large	Brad Joos

Office Location:
3622 Sagunto Street
Santa Ynez, CA 93460

Mailing Address:
P.O. Box 157
Santa Ynez, CA 93460

Phone No.: (805) 688-6015
Fax No.: (805) 688-3078

Website: www.syrwd.org

2022 ANNUAL WATER QUALITY REPORT

(Consumer Confidence Report)

Santa Ynez River Water Conservation District, Improvement District No.1 (District)

To All District Customers:

This Annual Water Quality Report (AWQR) provides a summary of the water quality results from sampling of the District's water supply wells, distribution system, and State Water Project supplies for the 2022 calendar year. As a public water purveyor to the communities of Santa Ynez, Los Olivos, Ballard, the Santa Ynez Band of Chumash Indians, and the City of Solvang (wholesale), the District operates under a permit issued by the State Water Resources Control Board, Division of Drinking Water (DDW) (formerly California Department of Public Health). Pursuant to its Water Supply Permit and California Safe Drinking Water regulations, the District routinely tests all of its water supplies obtained from wells according to a comprehensive list of potential contaminants and other constituents. State Water Project supplies received by the District are similarly tested by the Central Coast Water Authority (CCWA). The results of sampling and monitoring efforts for the 2022 calendar year are included in this report, along with additional information regarding your water supplies. Analytical data presented in this report represent the quality of the water delivered to you through your water service connection.

District Water Sources Used in 2022:

1) Groundwater – 17 supply wells

In 2022, the District operated seven (7) of its wells to produce groundwater from the Santa Ynez Upland groundwater basin. The Upland basin encompasses approximately 130 square miles within the Santa Ynez Valley east of Buellton. The District wells in the Upland basin range in depth from less than 500 feet to over 1,300 feet.

The District also operated ten (10) of its wells to produce water from the subsurface alluvial portion of the lower Santa Ynez River. The River alluvium is separated from the Upland basin by a barrier of impermeable rocks and soils. The District's River wells are constructed to a depth of approximately 70 feet or less.

2) Surface Water – State Water Project

Surface water served by the District comes from the State Water Project. The District's entitlement from the Cachuma Project is exchanged for an equal amount of State Water under an exchange agreement with water agencies on the south coast of Santa Barbara County. In addition to the exchanged Cachuma water, the District also receives State Water directly by entitlement through CCWA. Surface water from the California Aqueduct is treated at the Polonio Pass Water Treatment Plant in San Luis Obispo County prior to entering the 143 mile-long pipeline in route to the District's Mesa Verde Pumping Plant in Santa Ynez.

Drinking Water Source Assessments

The 1996 Amendments to the Federal Safe Drinking Water Act established the Drinking Water Source Assessment and Protection (DWSAP) Program to assess all sources of drinking water for vulnerability to contamination and to establish source protection programs. The District has evaluated each of its well locations in accordance with the program guidelines. According to the program, possible contaminating activities (PCAs) in the Upland basin and the River alluvium include septic systems, agricultural drainage, the application of agricultural chemicals, other wells (active and abandoned), upstream contaminant sources, and surface runoff from roads. For the 2022 reporting period, the only contaminant associated with these PCAs detected in any of the wells was nitrate (reported as NO_3-N). Nitrate was detected in seven (7) Upland wells, with concentrations ranging from 0.99 to 6.0 parts per million (ppm). Annual monitoring of all active supply wells is required to ensure that nitrate concentrations remain below the 10 ppm Maximum Contaminant Level (MCL).

TERMS USED IN THIS REPORT:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs or MCLGs (see below) as is economically and technologically feasible. Secondary MCLs are set to make drinking water aesthetically pleasing (i.e., protect the taste, odor, and appearance of the water).

Primary Drinking Water Standards (PDWS): MCLs for contaminants that potentially affect health along with their monitoring, reporting, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of drinking water. Contaminants with SDWSs do not affect health at the established MCL.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency (USEPA).

Maximum Residual Disinfectant Level (MRDL): The level of a disinfectant added for water treatment that may not be exceeded in drinking water delivered to the customer.

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the Office of Environmental Health and Hazard Assessment (OEHHA).

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Detection Limit for the Purposes of Reporting (DLRs): The minimum concentration a certified laboratory must detect for a given analytical parameter to comply with State regulations.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Potential Contaminants in Source Water

Federal regulation requires the following information to be included in this report. Because it is general information, it does not necessarily apply to the drinking water provided by the District. Information specific to your drinking water is found in the summary table on pages 3 and 4 below.

Generally, sources of tap water and bottled water include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater supplies. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that could be present in source water include the following:

- *Microbial contaminants*, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- *Radioactive contaminants*, which can be naturally occurring, or be the result of oil and gas production or mining activities.

In order to ensure that tap water is safe to drink, the USEPA and DDW prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DDW regulations also establish limits for contaminants in bottled water that require the same level of protection for public health.

Analytical Results

The following summary table of analytical results lists the range and average concentrations of regulated contaminants (and other water quality constituents) that were detected during the most recently required sampling applicable to the 2022 reporting period for each source and constituent listed. The table also shows results of the District's required distribution system sampling. Chemicals not detected are not included in the report. DDW sampling requirements allow for source monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year. Therefore, some of the data listed in the table, though representative of the source water quality, are more than a year old.

SAMPLING RESULTS: PRIMARY AND SECONDARY STANDARDS

Parameter	Units	State MCL	PHG (MCLG)	State DLR	Range / Average	Drinking Water Source: State Water	Drinking Water Source: Ground Water	Major Sources in Drinking Water
PRIMARY STANDARDS--Mandatory Health-Related Standards								
CLARITY								
Combined Filter Effluent Turbidity[a]	NTU	TT=<1 NTU every 4 hours TT=95% of samples <0.3 NTU			Range %	0.05 - 0.15 100%	NA NA	Soil runoff
INORGANIC CHEMICALS								
Aluminum	ppb	1000	600	50	Range Average	ND - 110 54	ND ND	Residue from water treatment process; erosion of natural deposits
Arsenic	ppb	10	0.004	2	Range Average	ND ND	ND - 2.6 0.4	Erosion of natural deposits; orchard runoff; from glass/electronics production wastes
Barium	ppm	1	2	0.1	Range Average	ND ND	ND ND	Discharges of oil drilling wastes and metal refineries; erosion of natural deposits
Chromium (Total)	ppb	50	(100)	10	Range Average	ND ND	ND - 20 3.2	Erosion of natural deposits; steel, pulp mills, and chrome plating wastes
Fluoride	ppm	2	1	0.1	Range Average	ND ND	ND - 0.33 0.2	Erosion of natural deposits; water additive for tooth health
Nickel	ppb	100	12	10	Range Average	ND ND	ND - 13 1.2	Erosion of natural deposits; discharge from metal factories
Nitrate (as Nitrogen)	ppm	10	10	0.4	Range Average	ND ND	ND - 6.0 0.9	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium	ppb	50	30	5	Range Average	ND ND	ND - 7.1 1.8	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
RADIONUCLIDES								
Gross Alpha[b]	pCi/L	15	NA	3	Range Average	4.9 4.9	ND - 7.2 2.3	Erosion of natural deposits
Uranium[c]	pCi/L	20	0.5	1	Range Average	ND ND	2.1 - 5.6 3.8	Erosion of natural deposits
SECONDARY STANDARDS--Aesthetic Standards								
Aluminum	ppb	200	NA	50	Range Average	ND - 110 54	ND ND	Residue from water treatment process; Erosion of natural deposits
Chloride	ppm	500	NA	--	Range Average	74 - 145 104	26 - 61 36	Runoff/leaching from natural deposits; seawater influence
Color	ACU	15	NA	--	Range Average	ND ND	ND - 3 0.5	Naturally-occurring organic materials
Corrosivity (Aggresive Index)[d]	none	non-corrosive	NA	--	Range Average	12.2 12.2	11.8 - 12.7 12.2	Balance of hydrogen, carbon, & oxygen in water, affected by temperature & other factors
Iron	ppb	300	NA	100	Range Average	ND ND	ND - 190 14.0	Leaching from natural deposits; industrial wastes
Odor Threshold	TON	3	NA	1	Range Average	ND ND	1 - 2 1	Naturally-occurring organic materials
Specific Conductance	µmho/cm	1600	NA	--	Range Average	585 - 937 701	790 - 1100 926	Substances that form ions when in water; seawater influence
Sulfate	ppm	500	NA	0.5	Range Average	96 96	69 - 270 169	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	ppm	1000	NA	--	Range Average	380 380	450 - 730 581	Runoff/leaching from natural deposits
Lab Turbidity (ID No.1) Turbidity (State Water)	NTU	5	NA	--	Range Average	ND - 0.25 0.06	0.20 - 1.60 0.38	Soil erosion/runoff
Zinc	ppb	5000	NA	50	Range Average	ND ND	ND - 100 9	Leaching from natural deposits; industrial wastes
ADDITIONAL PARAMETERS (Unregulated)								
Alkalinity (Total) as $CaCO_3$ equivalents	ppm	NA	NA	--	Range Average	68 - 102 80	260 - 360 295	Runoff/leaching from natural deposits; seawater influence
Boron	ppb	NA	NL=1,000	100	Range Average	NC NC	ND - 360 192	Runoff/leaching from natural deposits; wastewater, and fertilizers/pesticides
Calcium	ppm	NA	NA	--	Range Average	29 29	32 - 110 73	Runoff/leaching from natural deposits; seawater influence
Chromium, Hexavalent[e]	ppb	NA	0.02	NA	Range Average	0.07 0.07	ND - 25 6.6	Discharges from industrial manufacturers; erosion of natural deposits

Parameter	Units	State MCL	PHG (MCLG)	State DLR	Range / Average	Drinking Water Source: State Water	Drinking Water Source: Ground Water	Major Sources in Drinking Water
ADDITIONAL PARAMETERS (Unregulated)								
Geosmin	ng/L	NA	NA	(1)	Range	ND - 2	NC	An organic compound mainly produced by blue-green algae (cyanobacteria)
					Average	0.3	NC	
Hardness (Total) as $CaCO_3$	ppm	NA	NA	--	Range	104 - 158	290 - 480	Leaching from natural deposits
					Average	127	408	
Heterotrophic Plate Count[f]	CFU/mL	TT	NA	--	Range	0 - 98	NA	Naturally present in the environment
					Average	2	NA	
Magnesium	ppm	NA	NA	--	Range	17	42 - 90	Runoff/leaching from natural deposits; seawater influence
					Average	17	54	
2-Methylisoborneol (MIB)	ng/L	NA	NA	NA	Range	ND - 32	NC	An organic compound mainly produced by blue-green algae (cyanobacteria)
					Average	7.7	NC	
pH	pH Units	NA	NA	--	Range	7.2 - 8.9	7.0 - 8.1	Runoff/leaching from natural deposits; seawater influence
					Average	8.4	7.5	
Potassium	ppm	NA	NA	--	Range	3.6	1.9 - 2.7	Runoff/leaching from natural deposits; seawater influence
					Average	3.6	2.3	
Sodium	ppm	NA	NA	--	Range	76	38 - 60	Runoff/leaching from natural deposits; seawater influence
					Average	76	47	
Total Organic Carbon (TOC)[g]	ppm	TT	NA	0.30	Range	1.9 - 4.5	NA	Various natural and manmade sources
					Average	2.9	NA	
Vanadium	ppb	NA	NL=50	3	Range	NC	ND - 23	Leaching from natural deposits; industrial wastes
					Average	NC	10	
Distribution System Water Quality								
ORGANIC CHEMICALS								
Total Trihalomethanes[h]	ppb	80	NA	NA	Range	43 - 58	5.7 - 53.5	By-product of drinking water chlorination
					Highest LRAA	53	36.2	
Haloacetic Acids	ppb	60	NA	1,2[i]	Range	6.3 - 11	2.7 - 15.4	By-product of drinking water chlorination
					Highest LRAA	13.0	11.3	
DISINFECTION								
Total chlorine residual CCWA Distribution	ppm	MRDL = 4.0	MRDLG = 4.0	--	Range	1.37 - 3.58	--	Measurement of the disinfectant used in the production of drinking water
					Average	2.79	--	
Free/total chlorine residual ID No.1 Distribution	ppm	MRDL = 4.0	MRDLG = 4.0	--	Range	--	0.48 - 3.72	Measurement of the disinfectant used in the production of drinking water
					Average	--	1.82	

Abbrevations and Notes

Footnotes:

(a) Turbidity (NTU) is a good indicator of the effectiveness of a filtration system. Monthly turbidity values for State Water are listed in the Secondary Standards section.

(b) Gross alpha particle activity monitoring required every nine years for State Water; more frequent monitoring is required for some groundwater based on detected levels. Reported average and range are from most recent sampling of all supply wells.

(c) Uranium monitoring is dependent on measured gross alpha particle activity.

(d) The District's Water Supply Permit, issued by DDW (formerly DPH), requires monitoring of the asbestos levels in the distribution system in the areas that contain asbestos cement pipes whenever the aggressive index (AI) of the water served to the public is below 11.5.

(e) There is currently no MCL for Hexavalent Chromium. The previous MCL of 10.0 ppb was withdrawn on September 11, 2017.

(f) Pour plate technique -- monthly averages.

(g) TOCs are taken at the State Water treatment plant's combined filter effluent.

(h) Compliance based on the LRAA of distribution system samples. Values reported are the range of all 2022 sample results and highest locational running annual average.

(i) Monochloroacetic Acid has a DLR of 2.0 ug/L while the other four Haloacetic Acids have DLR's of 1.0 ug/L.

Abbreviations

ACU = Apparent Color Units
CCWA = Central Coast Water Authority
CFU/ml = Colony Forming Units per milliliter
DLR = Detection Limit for the Purpose of Reporting
ID No.1 = Santa Ynez River Water Conservation District, Improvement District No.1
LRAA - Locational Running Annual Average
NA = Not Applicable
NC = Not Collected
ND = Non-detect
ng/L = nanograms per liter
NL = Notification Level
NTU = Nephelometric Turbidity Units
pCi/L = PicoCuries per liter
ppb = parts per billion, or micrograms per liter (µg/L)
ppm = parts per million, or milligrams per liter (mg/L)
SI = saturation index
TON = Threshold Odor Number
µmho/cm = micromhos per centimeter

Revised Total Coliform Rule (RTCR)

This Water Quality Report reflects recent changes in regulatory drinking water requirements. As of July 1, 2021 all water systems are required to comply with the State Revised Total Coliform Rule (RTCR), which adds the requirements of the federal RTCR (effective since April 1, 2016) to the State Total Coliform Rule (TCR). Like the TCR, the new RTCR maintains the purpose of protecting public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and E. coli bacteria). Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these defects must be corrected by the water system. The USEPA anticipates greater public health protection as the RTCR requires water systems that are vulnerable to microbial contamination to identify and fix problems. District bacteriological monitoring in 2022 confirmed compliance with both the state and federal RTCR requirements. There were no MCL exceedances for total coliform or E. coli bacteria, as noted in the following table.

SAMPLING RESULTS: DISTRIBUTION SYSTEM MONITORING

Microbiological Contaminants	No. of Samples Required[1]	No. of Samples Collected	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	156	208	(In a month) 0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or E. coli	156	208	(In a month) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or E. coli	0	Human and animal fecal waste

2021 Lead & Copper[2]	No. of samples collected	90th percentile level detected	No. Sites exceeding AL	AL	MCLG	Typical Source of Contaminant
Lead (ppb)[3]	20	ND	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	20	0.120	0	1.3	0.3	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives

Notes:

1. *Three bacteriological samples per week are required based on the number of District service connections, as specified in the California Code of Regulations (CCR), Chapter 15, Title 22 (Domestic Water Quality and Monitoring). The District optionally monitors bacteria at a fourth location weekly to ensure representative sampling of the entire distribution system.*
2. *Sampling requirements are specified in the Lead and Copper Rule, CCR, Title 22 and are based on the population served. Samples are obtained from a representative sampling of customer's internal plumbing. Following initial sampling specified in CCR, Title 22, Chapter 17.5, representative sampling for lead and copper is required once every three years. The data summary displayed in the table above is from data obtained in August of 2021. The next scheduled sampling for lead and copper is in the summer of 2024.*
3. *In 2018, the District sampled for lead in both public and private school water systems within the District's service area. See "Additional Information Regarding your Drinking Water" in this report for more information.*

EPA Safe Drinking Water Hotline

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. Environmental Protection Agency (USEPA) Safe Drinking Water Hotline (1-800-426-4791).

Surface Water Supply – The State Water Project

As indicated above, all surface water from the State Water Project that was used by the District in 2022 was obtained from the Central Coast Water Authority (CCWA), an agency formed in 1991 to finance, construct, and operate State Water treatment and delivery facilities on behalf of all Santa Barbara County participants in the State Water Project. Runoff from the northern Sierra Nevada watershed travels more than 500 miles through the rivers, pipelines, and aqueducts that make up the State Water Project before reaching the District's Mesa Verde Pumping Station. State Water is treated by CCWA at the Polonio Pass Water Treatment Plant (PPWTP), located in San Luis Obispo County. This 43-million-gallon per day facility was designed and constructed to treat all State Water served to San Luis Obispo and Santa Barbara Counties. CCWA conducts weekly testing of the treated State Water at numerous locations along its 143-mile pipeline. For more information about the treatment and delivery of State Water, please visit the CCWA website at www.ccwa.com.

As a reminder, State Water delivered to the District is disinfected with chloramines by CCWA as the final step in the raw water treatment process. **While chloramines do not pose a health hazard to the general population, they can be dangerous to people undergoing kidney dialysis unless the chloramines are reduced to acceptable levels.** Dialysis patients should already be aware of this concern and should take the proper precautions when receiving dialysis treatment. **Additionally, chloraminated water is toxic to fish.** Local pet stores and fish suppliers can be contacted regarding the necessary treatment of chloraminated water to ensure it is safe for fish.

Cross-Connection Control Program

As many of our residential, commercial, and agricultural customers know, the District requires the installation and maintenance of backflow prevention devices where an actual or potential cross-connection exists to protect and ensure safe water quality within our distribution system. District Resolution No. 482 establishes the District's Cross-Connection Control Program to ensure compliance with DDW regulatory requirements (17 CCR, Section 7584) and to prevent the contamination of water within our distribution system. For additional information regarding this program, please contact the District to receive a copy of our cross-connection control brochure or the District's Cross-Connection Control Policy.

Additional Information Regarding Your Drinking Water

COVID-19

Your Tap Water Remains Safe – The District's water supplies remain safe and reliable for drinking, hand washing, and all other purposes. According to the World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC), COVID-19 has not been detected in drinking water supplies and, based on current evidence, the risk to water supplies is very low. Furthermore, all sources of the District's water supply are treated and disinfected to levels proven effective in eliminating viruses (such as COVID-19), bacteria, and other pathogens.

Hexavalent Chromium (Cr6)

Chromium is a naturally occurring metal present in ore deposits and rock types found in the nearby San Rafael Mountains, which make up a large portion of the Upland basin area that recharges the District's Upland groundwater wells. As a result, chromium (including Cr6) is present in some of the District's Upland basin wells. On July 1, 2014, the State of California enacted a new MCL for Cr6 in drinking water of 10 ppb, previously regulated under the Total Chromium MCL of 50 ppb. The MCL was later withdrawn on September 11, 2017, pending further evaluation by the State Water Resources Control Board (SWRCB). In June of 2023, the SWRCB released an administrative draft Cr6 MCL of 10 ppb. As part of the proposed regulatory revisions, small water systems such as the District would have a 3-year compliance schedule once the official rulemaking process is complete.

Risks of Lead in Drinking Water

Elevated levels of lead can cause serious health problems, especially for pregnant women and young children. A primary cause for lead in drinking water is from materials and components associated with old service lines and home plumbing that contain lead. In 2018, the District conducted a survey of all water service lines within its distribution system and concluded that no lead service lines were ever installed or used by the District. The District is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components in your home that are not owned or installed by the District. According to DDW, when your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before

using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the USEPA Safe Drinking Water Hotline (1-800-426-4791) or at *http://www.epa.gov/lead*.

Lead in Schools

Amendments to the California Health and Safety Code in October 2017 required community water systems to perform lead testing within their service area boundaries at all public school sites (kindergarten – 12th grade) constructed prior to January 1, 2010. All testing results were required to be reported to the State by July 1, 2019. In the spring of 2018, the District contacted all public and private schools within the District's service area to offer lead testing of the potable water sources (e.g., faucets, drinking fountains, cooking facilities) on each of the school sites. All of the public schools and nearly all of the private schools within the District's service area participated in the Lead Testing Program. All sampling of participating school sites was completed and reported to the State in the fall of 2018. Analytical results for all lead testing conducted in both public and private school water systems were below the Action Level (AL) of 15 ppb. All results were reported directly to the schools and the California State Water Resources Control Board.

Recommendation for Customers with Special Water Needs

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised individuals such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, and some elderly and infants can be particularly at risk from infections. These people should seek advice from their health care providers regarding the potential risks of drinking water supplies. USEPA/Centers for Disease Control (CDC) guidelines on ways to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the USEPA Safe Drinking Water Hotline, as referenced above.

Annual Water Quality Report (AWQR) – Electronic Delivery

Similar to last year, this 2022 AWQR is available electronically on the District's website, which minimizes printing and mailing costs, and reduces paper consumption. Hard copies of the AWQR are available at the District office and will be mailed or emailed upon request.

Attention Landlords and Other Property Managers

We recommend that landlords and other property managers provide this report to tenants and display the report in a public location such as a lobby, laundry room, or community room. If you would like to receive additional copies of this report, please contact the District office at (805) 688-6015.

Public Participation

If you are interested in learning more about your water supply, District customers and other members of the public are invited to attend the regularly scheduled meetings of the Board of Trustees on the **third Tuesday of each month, at 3:00 p.m.** Meetings are typically held at the Santa Ynez Community Services District Conference Room, 1070 Faraday Street, Santa Ynez. For more information, please contact the District office at (805) 688-6015 or visit the District's web site at www.syrwd.org.

The District appreciates this opportunity to communicate our efforts in delivering reliable, high quality drinking water to District customers. We are interested in any questions or suggestions you may have pertaining to this report or any other water quality issues. For additional information, please contact Eric Tambini, Water Resources Manager, at (805) 688-6015.

Our Mission Statement: *To provide the residential and agricultural customers in the Santa Ynez River Water Conservation District, Improvement District No.1 service area with a reasonably priced, reliable, high quality water supply, and efficient and economical public services.*

Information in Spanish

Este informe contiene información muy importante sobre su agua para beber. Favor de communicarse con Santa Ynez River Water Conservation District, ID No. 1 al numero de telefono (805) 688-6015 para assistirlo en español.

Paeter Garcia

From:	Emerson, Rain L <remerson@usbr.gov>
Sent:	Thursday, July 6, 2023 12:41 PM
To:	Young, Matthew
Cc:	Janet Gingras; Robert McDonald; John McInnis; Nicholas Turner; Joshua Haggmark; Paeter Garcia; JACKSON, MICHAEL P.
Subject:	Notice - End of Surplus Water Availability
Attachments:	Cachuma_Surplus-End-Notification_Signed_7-5-2023.pdf

Mr. Young,

Please see attached notice regarding end of Surplus Water.

Rain L. Emerson, M.S.
Contracts Administration Branch Chief
Bureau of Reclamation
Interior Region 10 - California-Great Basin
South-Central California Area Office
Work Ph: 559-262-0350
Cell Ph: 559-353-4032

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-440
2.2.4.23

VIA ELECTRONIC MAIL AND U.S. MAIL

Mr. Matthew Young
Deputy Public Works Director
Santa Barbara County Water Agency
130 East Victoria Street, Suite 200
Santa Barbara, CA 93101
mcyoung@countyofsb.org

Subject: Surplus Water No Longer Available – Master Contract No. I75r-1802RA (Contract) – Cachuma Project, California

Dear Mr. Young:

This letter is in follow up on my enclosed June 27, 2023 email notification regarding the end of surplus water availability. We will be at "normal" operations on Friday, June 30, 2023 and as such, effective July 1, 2023 "Surplus Water" is no longer available in accordance with the terms of the above referenced Contract.

If you have questions, please contact Rain Emerson, Contracts Branch Chief at (559) 262-0350, via email at remerson@usbr.gov or for the hearing impaired at TTY (800) 877-8339.

Sincerely,

Michael P. Jackson

MICHAEL JACKSON

Digitally signed by MICHAEL JACKSON
Date: 2023.07.05 16:31:55 -07'00'

Michael P. Jackson, P.E.
Area Manager

Enclosure
Surplus Water No Longer Available
cc's continued next page.

cc's continued from previous page.

cc: Ms. Janet Gingras
Cachuma Operation and Maintenance Board
3301 Laurel Canyon Road
Santa Barbara, CA 93105-2017
jgingras@cachuma-board.org

Mr. Robert McDonald
Carpinteria Valley Water District
1301 Santa Ynez Avenue
Carpinteria, CA 93013
bob@cvwd.net

Mr. John McInnes
Goleta Water District
4699 Hollister Avenue
Goleta, CA 93110
jmcinnes@goletawater.com
(all w/enclosure)

Mr. Nicholas Turner
Montecito Water District
583 Ysidro Road
Montecito, CA 93150
nturner@montecitowater.com

Mr. Joshua Haggmark
City of Santa Barbara
630 Garden Street
Santa Barbara, CA 93102
jhaggmark@SantaBarbaraCA.gov

Mr. Paeter Garcia
Santa Ynez River Water Conversation
District Improvement District No. 1
P.O. Box 157
Santa Ynez, CA 93460
pgarcia@syrwd.org

Cachuma Project - Surplus Water No Longer Available

JACKSON, MICHAEL P. <MJackson@usbr.gov>
Tue 6/27/2023 4:12 PM

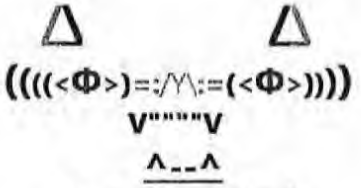
To:Janet Gingras <jgingras@cachuma-board.org>;Joshua Haggmark <jhaggmark@santabarbaraca.gov>;Nicholas Turner <nturner@montecitowater.com>;Bob McDonald <bob@cvwd.net>;Paeter Garcia <pgarcia@syrwd.org>;Ryan Drake <rdrake@goletawater.com>;Young, Matthew <mcyoung@countyofsb.org>;Peter Cantle <pcantle@ccrb-board.org>

Cc:Cavanaugh, Daniel J <dcavanaugh@usbr.gov>;Emerson, Rain L <remerson@usbr.gov>;Hyatt, David E <dhyatt@usbr.gov>;GONZALEZ, RUFINO <RGonzalez@usbr.gov>

Good Afternoon Cachuma Folks,

We will be at "normal" operations on Friday, June 30th, 2023 and as such, effective July 1st, 2023 "Surplus Water" is no longer available in accordance with the Terms of the Amendatory Contract.

Please Contact Rain Emerson Should You Have Any Questions - It was a Nice Long Run of Surplus - *Be Well* ☺



Bengal Tiger Owl
Michael Paul Jackson, P.E.
South-Central California Area Office
559-262-0300 (Office)
559-260-8714 (Mobile)
mjackson@usbr.gov
1243 "N" Street
Fresno, California 93721

From: JACKSON, MICHAEL P. <MJackson@usbr.gov>
Sent: Sunday, February 26, 2023 12:54 PM
To: Janet Gingras <jgingras@cachuma-board.org>; Joshua Haggmark <jhaggmark@santabarbaraca.gov>; Nicholas Turner <nturner@montecitowater.com>; Bob McDonald <bob@cvwd.net>; Paeter Garcia <pgarcia@syrwd.org>; Ryan Drake <rdrake@goletawater.com>; Young, Matthew <mcyoung@countyofsb.org>; Peter Cantle <pcantle@ccrb-board.org>
Cc: Cavanaugh, Daniel J <dcavanaugh@usbr.gov>; Emerson, Rain L <remerson@usbr.gov>; Hyatt, David E <dhyatt@usbr.gov>; GONZALEZ, RUFINO <RGonzalez@usbr.gov>
Subject: Cachuma Project - Surplus Water

Good Morning Cachuma Folks,

I understand that all carryover has been depleted, and while we are transitioning from Spillway releases to more "normal" operations which is expected within the next week "Surplus Water" is available in accordance with the Terms of the Amendatory Contract.

We will keep Y'all updated on when Surplus Water is no longer available.

The mid-year 2023 allocation is 100% as requested, and I apologize for the delay in getting Y'all an official letter.

Be Well,

Bengal Tiger Owl
Michael Paul Jackson, P.E.
South-Central California Area Office
559-262-0300 (Office)
559-260-8714 (Mobile)
mjackson@usbr.gov
1243 "N" Street
Fresno, California 93721

Paeter Garcia

From: Young, Matthew <mcyoung@countyofsb.org>
Sent: Friday, June 30, 2023 4:53 PM
To: MJackson@usbr.gov
Cc: David Matson; Joshua Haggmark; Nicholas Turner; Robert MCDonald; Paeter Garcia; Ryan Drake; Janet Gingras; Hyatt, David E; Emerson, Rain L
Subject: RE: Cachuma Member Unit Joint Allocation Request for WY 23-24

Mr. Jackson,

Attached please find the WY 2023-24 Cachuma Project allocation request on behalf of the Cachuma Member Units. Please feel free to contact me with any questions.

Thank you,
Matt

Matt Young
Santa Barbara County Water Agency Manager
130 E. Victoria St., Suite 200
Santa Barbara, CA 93101
(805) 568-3546
Water Agency Website: WaterWiseSB.org

Santa Barbara County Public Works Department
Flood Control • Water Agency • Project Clean Water
130 E. Victoria Street, Suite 200, Santa Barbara, CA 93101
PH (805) 568-3440 FAX (805) 568-3434
http://cosb.countyofsb.org/pwd/water

SCOTT D. MCGOLPIN
Director

WALTER RUBALCAVA
Deputy Director

June 30, 2023

Mr. Michael Jackson, P.E., Area Manager
South-Central California Area Office
United States Bureau of Reclamation
1243 "N" Street
Fresno, CA 93721-1813

RE: Cachuma Project Water Year 2023-24 Allocation Request

Dear Mr. Jackson,

Pursuant to Article 3 of the Cachuma Water Service Contract I75r-1802R, as amended by Amendatory Contract No. I75r-1802RA, the Santa Barbara County Water Agency (Water Agency) is to submit a yearly allocation request on behalf of the Cachuma Member Units. Enclosed please find a letter from the Member Units dated June 30, 2023 requesting an allocation of 25,714 acre-feet for Water Year 2023-24.

If you have any questions regarding this request, please contact me at 805-568-3546.

Sincerely,

Matthew C. Young
Water Agency Manager

Enclosure: Notice on Behalf of All Cachuma Member Units Specifying Total Quantity of Available Supply Requested for Water Year 2023-24.

CC: Mr. Paeter Garcia, SYRWCD ID#1
Mr. Dave Matson, Goleta Water District
Mr. Joshua Haggmark, City of Santa Barbara
Mr. Nicholas Turner, Montecito Water District
Mr. Robert McDonald, Carpinteria Valley Water District
Ms. Janet Gingras, Cachuma Operation and Maintenance Board

Paeter Garcia

From: Ryan Drake <rdrake@goletawater.com>
Sent: Friday, June 30, 2023 4:27 PM
To: Young, Matthew
Cc: MJackson@usbr.gov; David Matson; Joshua Haggmark; Nicholas Turner; Robert MCDonald; Paeter Garcia
Subject: Cachuma Member Unit Joint Allocation Request for WY 23-24
Attachments: CMU Notice 6-30-23.pdf

Mr. Young,

On behalf of the Cachuma Member Units acting jointly, and in accordance with Article 3 of the Cachuma Water Service Contract 175r-1802R (Master Contract), please find the attached *Notice on Behalf of All Cachuma Member Units Specifying Total Quantity of Available Supply Requested for Water Year* 2023-24. Also enclosed with the letter are the required monthly breakdowns of Irrigation and Municipal & Industrial water deliveries for the first and second periods of the year, and the total water delivery schedule per Article 3 of the Master Contract.

Thank you,

Ryan

Ryan C. Drake
Water Supply and Conservation Manager

Goleta Water District
4699 Hollister Avenue
Goleta, CA 93110
p: 805-879-4627

The Cachuma Project Member Units
Goleta Water District
City of Santa Barbara
Montecito Water District
Carpinteria Valley Water District
Santa Ynez River Water Conservation District, Improvement District No. 1

June 30, 2023

Matthew Young
Santa Barbara County Water Agency, Manager
130 E. Victoria St., Suite 200
Santa Barbara, CA 93101

RE: Notice on Behalf of All Cachuma Member Units Specifying Total Quantity of Available Supply Requested for Water Year 2023-24

Dear Mr. Young:

Pursuant to Section 3(a) of the April 14, 1996 Contract Between the United States and Santa Barbara County Water Agency (SBCWA) Providing for Water Service from the Project, Contract No. 175r-1802R (as amended by Amendatory Contract No. I75r-1802RA (September 28, 2020) ("Master Contract"), the Cachuma Project Member Units acting jointly hereby provide Notice to the Santa Barbara County Water Agency requesting allocation of all Available Supply from the United States Bureau of Reclamation (USBR) during Water Year 2023-24, commencing October 1, 2023.

Pursuant to section 1(a):

> *'Available Supply' shall mean the maximum quantity of Project Water the Contracting Officer is authorized by Federal law, State law, and the Project Water Rights to make available to the Cachuma Member Units during each Water Year pursuant to this contract. The Available Supply in each Water Year does not include the quantity of water the Contracting Officer is required by Federal law, State law, Project Water Rights, and any agreements to which the Contracting Officer and all of the Cachuma Member Units are parties to release from Cachuma Reservoir other than to make Project Water available to the Cachuma Member Units pursuant to this contract.*

After a very active rainy season in 2022-2023 (approximately 200% of average rainfall), Cachuma reservoir remains at capacity and has been spilling since February of 2023 up through the end of June

2023. As of June 26, 2023, there is 194,204 acre-feet (AF) of water in Lake Cachuma, comprised of the 12,000 AF "minimum pool," water reserved to meet fish release requirements, ANA/BNA stored water for downstream releases, and the Cachuma Member Units' mid-year allocation of 25,714 AF issued on February 28, 2023. Given the current maximum amount of water in storage at the Cachuma Project, the Cachuma Member Units respectfully request that USBR make a full 100% allocation 25,714 AF of unallocated water available in Water Year 2023-24, consistent with the terms of the Master Contract.

This request includes the attached delivery schedules for each respective agency over Water Year 2023-24 and estimate of projected water deliveries (Attachment 1) required by section 3(a) the Master Contract. All such water can and will be put to reasonable and beneficial irrigation, municipal, domestic, and industrial uses within the Member Units' respective service areas.

Sincerely,

[Signatures to follow on next pages]

David Matson
General Manager
Goleta Water District

By:_____

Joshua Haggmark
Water Resources Manager
City of Santa Barbara

By: DocuSigned by: Joshua Haggmark EDFC4813A7F643F...

Nicholas Turner
General Manager
Montecito Water District

By: DocuSigned by: Nicholas Turner 7160EC677618477...

Robert McDonald
General Manager
Carpinteria Valley Water District

By:_____

Paeter Garcia
General Manager
Santa Ynez River Water Conservation District, Improvement District No. 1

By:_____

Cc: Michael Jackson, PE, Area Manager, South-Central California Area Office, United States Bureau of Reclamation

Enclosures:

Attachment 1— Cachuma Member Unit M&I and Agricultural Water Delivery

David Matson
General Manager
Goleta Water District

By:_____

Joshua Haggmark
Water Resources Manager
City of Santa Barbara

By:_____

Nicholas Turner
General Manager
Montecito Water District

By:_____

Robert McDonald
General Manager
Carpinteria Valley Water District

By:_____

Paeter Garcia
General Manager
Santa Ynez River Water Conservation District, Improvement District No. 1

By:_____
for Paeter Garcia

Cc: Michael Jackson, PE, Area Manager, South-Central California Area Office, United States Bureau of Reclamation

Enclosures:

Attachment 1— Cachuma Member Unit M&I and Agricultural Water Delivery

Attachment 1— Cachuma Member Unit M&I and Agricultural Water Delivery

ENTITLEMENT REQUEST BREAKDOWN - AG / M & I
2023-24 WATER YEAR: 1ST PERIOD REQUEST (10/01/23-3/31/24)
CACHUMA PROJECT, CONTRACT I75r-1802R

MEMBER UNIT	Classification	TOTAL AF Ordered
Goleta Water District	M & I	2,594
	Irrigation	608
	Total	3,202
City of Santa Barbara	M & I	3,273
	Total	3,273
Montecito Water District	M & I	602
	Irrigation	108
	Total	710
Carpinteria Valley Water District	M & I	704
	Irrigation	704
	Total	1,407
SYRWCD-ID#1	M & I	273
	Irrigation	243
	Total	516
U.S.B.R. TOTALS		**9,108**

Breakdown is based on the percentages defined in the Renewal Master Contract, dated April 14, 1996.
Pursuant to Bureau of Reclamation letter to Santa Barbara County Water Agency dated August 10, 1981, it is required to use whole acre-feet, commencing Water Year 1982-83.

ENTITLEMENT REQUEST BREAKDOWN - AG / M & I
2023-24 WATER YEAR: 2nd PERIOD REQUEST (4/01/24-9/30/24)
CACHUMA PROJECT, CONTRACT I75r-1802R

MEMBER UNIT	Classification	TOTAL AF Ordered
Goleta Water District	M & I	4,050
	Irrigation	2,070
	Total	6,120
City of Santa Barbara	M & I	5,004
	Total	5,004
Montecito Water District	M & I	1,642
	Irrigation	299
	Total	1,941
Carpinteria Valley Water District	M & I	703
	Irrigation	703
	Total	1,406
SYRWCD-ID#1	M & I	662
	Irrigation	1,473
	Total	2,135
U.S.B.R. TOTALS		**16,606**

Breakdown is based on the percentages defined in the Renewal Master Contract, dated April 14, 1996.
Pursuant to Bureau of Reclamation letter to Santa Barbara County Water Agency dated August 10, 1981, it is required to use whole acre-feet, commencing Water Year 1982-83.

2023-24 WATER YEAR CACHUMA ENTITLEMENT OBLIGATION - WATER DELIVERY SCHEDULE

(All figures are in Acre Feet)

Month	Carpinteria VWD	Goleta WD	Montecito WD	City of Santa Barbara	SYRWCD ID#1	TOTALS
October, 2023	235	895	312	619	300	2361
November	234	678	164	754	60	1890
December	234	408	56	506	56	1260
January, 2024	235	354	0	398	0	987
February	234	422	83	420	0	1159
March	235	445	95	576	100	1451
SUB-TOTAL	1407	3202	710	3273	516	9108
April	234	425	197	650	165	1671
May	235	675	297	768	200	2175
June	234	950	311	755	375	2625
July	235	1290	403	932	450	3310
August	234	1392	383	988	495	3492
September	234	1388	350	911	450	3333
SUB-TOTAL	1406	6120	1941	5004	2135	16606
TOTAL Entitlement	2813	9322	2651	8277	2651	25714
Entitlement Request	2813	9322	2651	8277	2651	25714
Entitlement %						100.00
TOTAL	2813	9322	2651	8277	2651	25714

Paeter Garcia

From: Emerson, Rain L <remerson@usbr.gov>
Sent: Monday, July 10, 2023 10:30 AM
To: Young, Matthew
Cc: JACKSON, MICHAEL P.; Janet Gingras; Robert McDonald; John McInnis; Nicholas Turner; Joshua Haggmark; Paeter Garcia
Subject: Response to Cachuma Project Allocation Request for Water Year 2023-24 – Contract No. I75r-1802RA
Attachments: Cachuma_Allocation_WaterYear_2023-24_SIGNED_7-7-2023.pdf

Mr. Young,

Please see attached response to your letter dated June 30, 2023, regarding the Santa Barbara County Water Agency's "Cachuma Project Water Year 2023-24 Allocation Request," which also enclosed the Cachuma Project Member Units letter dated June 30, 2023. Please contact me if you have any questions.

Rain L. Emerson, M.S.
Contracts Administration Branch Chief
Bureau of Reclamation
Interior Region 10 - California-Great Basin
South-Central California Area Office
Work Ph: 559-262-0350
Cell Ph: 559-353-4032

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-440
2.2.4.21

VIA ELECTRONIC MAIL AND U.S. MAIL

Mr. Matthew Young
Deputy Public Works Director
Santa Barbara County Water Agency
130 East Victoria Street, Suite 200
Santa Barbara, CA 93101
mcyoung@countyofsb.org

Subject: Cachuma Project Allocation Request for Water Year 2023-24 (October 1, 2023 through September 30, 2024) – Contract No. I75r-1802RA (Contract) – Your Letter Dated June 30, 2023 – Cachuma Project, California

Dear Mr. Young:

This is in response to your letter dated June 30, 2023, regarding the Santa Barbara County Water Agency's (Water Agency) "Cachuma Project Water Year 2023-24 Allocation Request," which also enclosed the Cachuma Project Member Units (Member Units) letter dated June 30, 2023.

The Member Units letter notes in pertinent part that *"Given the current maximum amount of water in storage at the Cachuma Project, the Cachuma Member Units respectfully request that USBR make a full 100% allocation 25,714 AF of unallocated water available in Water Year 2023-24, consistent with the terms of the Master Contract"*.

Pursuant to Article 3(b) of the above referenced Contract, this letter serves as notice that Reclamation concurs with the Member Units request and accordingly for Water Year 2023-24 allocates an Available Supply of **100%** of the Contract total, which equals 25,714 acre-feet.

If you have questions, please contact Rain Emerson, Contracts Branch Chief at (559) 262-0350, via email at remerson@usbr.gov or for the hearing impaired at TTY (800) 877-8339.

Sincerely,

Michael P. Jackson

MICHAEL JACKSON

Digitally signed by MICHAEL JACKSON
Date: 2023.07.07 15:58:01 -07'00'

Michael P. Jackson, P.E.
Area Manager

Enclosure
Santa Barbara County Water Agency Correspondence – Cachuma Project
Water Year 2023-2024 Allocation Request Dated June 30, 2023
cc's continued next page.

cc's continued from previous page.

cc: Ms. Janet Gingras
Cachuma Operation and Maintenance Board
3301 Laurel Canyon Road
Santa Barbara, CA 93105
jgingras@cachuma-board.org

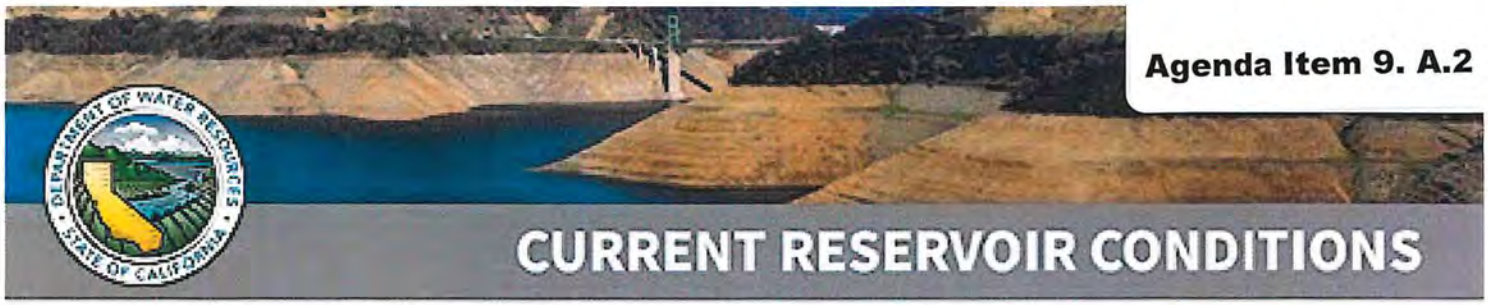
Mr. Robert McDonald
Carpinteria Valley Water District
1301 Santa Ynez Avenue
Carpinteria, CA 93013
bob@cvwd.net

Mr. John McInnes
Goleta Water District
4699 Hollister Avenue
Goleta, CA 93110
jmcinnes@goletawater.com
(all w/enclosure)

Mr. Nicholas Turner
Montecito Water District
583 Ysidro Road
Montecito, CA 93150
nturner@montecitowater.com

Mr. Joshua Haggmark
City of Santa Barbara
630 Garden Street
Santa Barbara, CA 93102
jhaggmark@SantaBarbaraCA.gov

Mr. Paeter Garcia
Santa Ynez River Water Conservation
District Improvement District No. 1
P.O. Box 157
Santa Ynez, CA 93460
pgarcia@syrwd.org



CURRENT RESERVOIR CONDITIONS

CALIFORNIA MAJOR WATER SUPPLY RESERVOIRS

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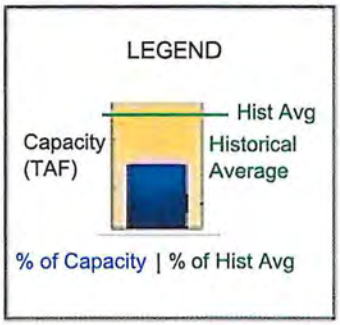
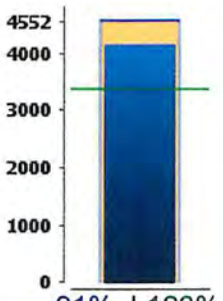
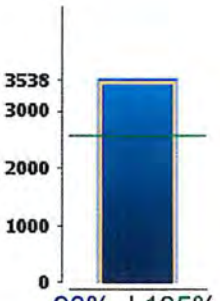
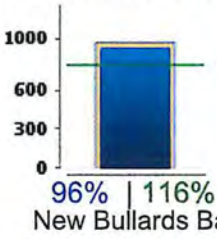
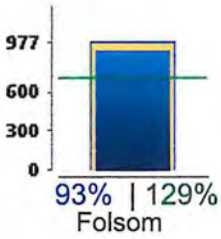
Midnight - July 11, 2023

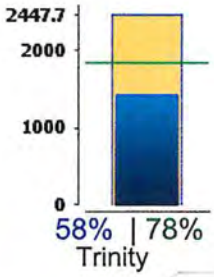


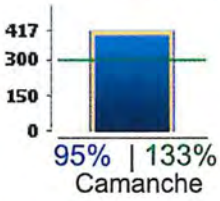


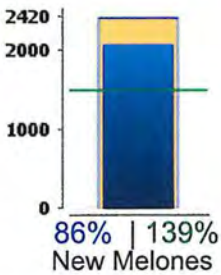


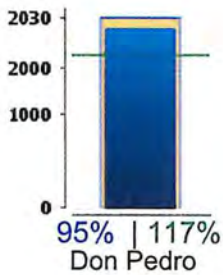


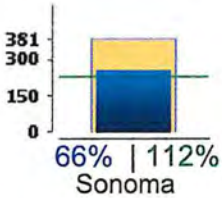


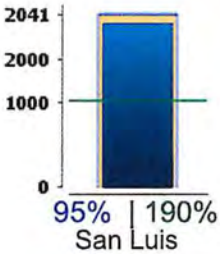


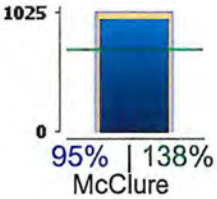


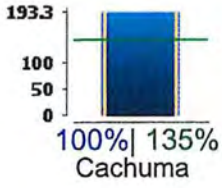


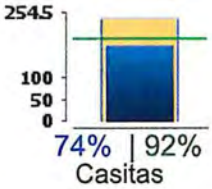


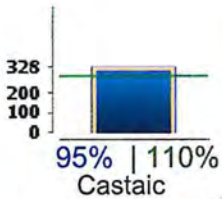


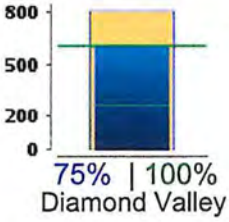


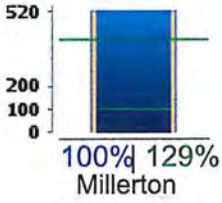


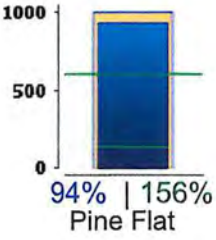












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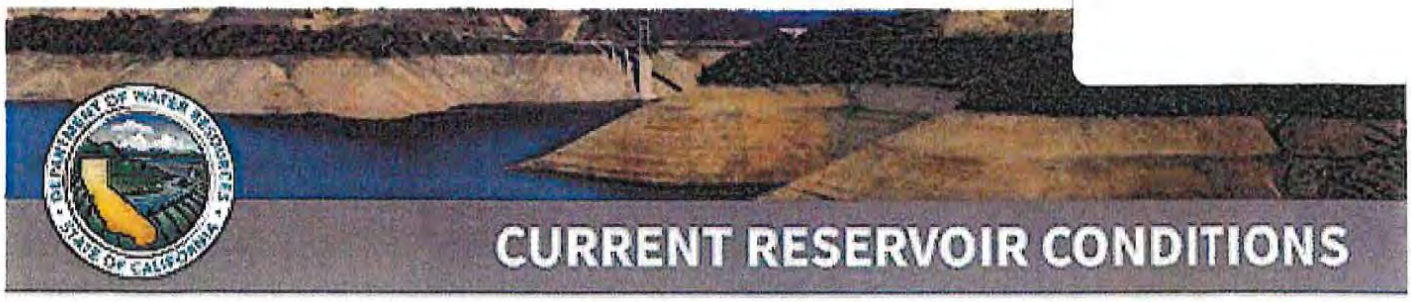

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CALIFORNIA MAJOR WATER SUPPLY RESERVOIRS

CURRENT CONDITIONS

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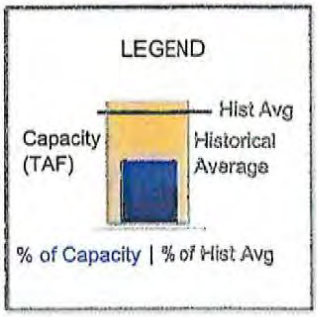

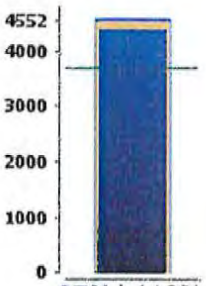

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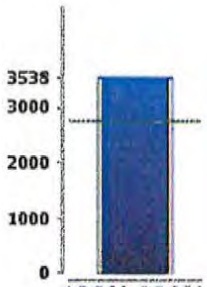

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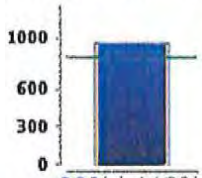

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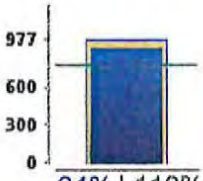

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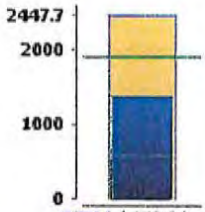
Folsom



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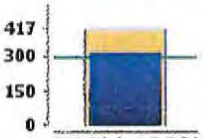

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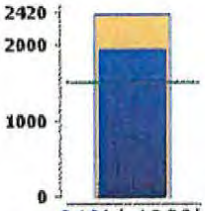

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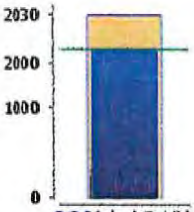

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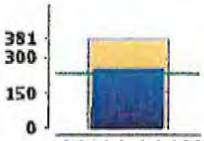

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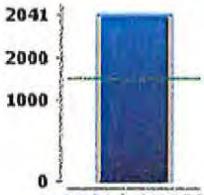

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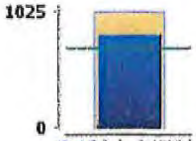

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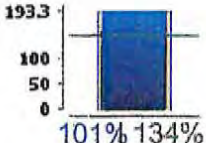

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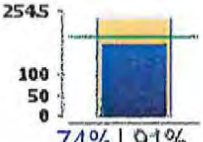

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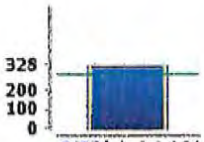

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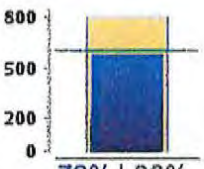

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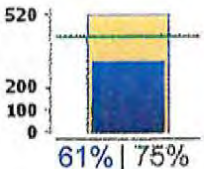

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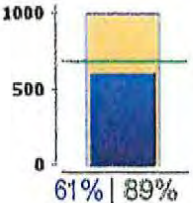

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Pine Flat

Updated 06/15/2023 10:48 AM

NOTICE AND AGENDA OF REGULAR MEETING

GROUNDWATER SUSTAINABILITY AGENCY
FOR THE EASTERN MANAGEMENT AREA
IN THE SANTA YNEZ RIVER GROUNDWATER BASIN

HELD AT

SANTA YNEZ COMMUNITY SERVICES DISTRICT
1070 FARADAY STREET, SANTA YNEZ, CALIFORNIA
6:30 P.M., THURSDAY, JUNE 22, 2023

Optional remote participation is available via Telephone or ZOOM

To access the meeting via telephone, please dial: 669-444-9171
or via the Web at: **http://join.zoom.us**

"Join a Meeting" - **Meeting ID: 825 0905 8614 Meeting Passcode: 699829**

- You do NOT need to create a ZOOM account or login with email for meeting participation.
- If your device does not have a microphone or speakers, you can call in for audio with the phone number and Meeting ID listed above to listen and participate.
- In the interest of clear reception and efficient administration of the meeting, all persons participating remotely are respectfully requested to mute their line after logging or dialing-in and remain muted at all times unless speaking.

AGENDA OF REGULAR MEETING

1. Call to Order and Roll Call
2. Additions or Deletions to the Agenda
3. Public Comment (Any member of the public may address the Committee relating to any non-agenda matter within the Committee's jurisdiction. The total time for all public comment shall not exceed fifteen minutes and the time allotted for each individual shall not exceed five minutes. No action will be taken by the Committee at this meeting on any public comment item.)
4. Review and Consider Approval of Meeting Minutes of April 27, 2023
5. Review and consider approval of Financial Statements and Warrant List
6. Consider Approval of Revised Documents for administering requests for written verifications in the EMA for new well permits under Executive Order N-7-22, revised under Executive Order N-5-23
    a. Revised Deposit/Reimbursement Agreement
    b. Draft Well Registration and Reporting Form
7. Consider Resolution EMA-2023-002 Setting Fee Under Water Code Section 10730 for Written Verifications Pursuant to Executive Order N-7-22 revised under Executive Order N-5-23

8. Review and Consider Requests for EMA GSA Written Verifications under Executive Order N-7-22 revised under Executive Order N-5-23 in the EMA for the following parcels:
    a. APN 135-280-037 - Greenberg South
    b. APN 135-280-051 - Greenberg North
    c. APN 135-300-020 - Cohen
    d. APN 137-070-024 - Lewbel
9. Informational Correspondence
    a. Santa Barbara County Cattlemen's Association, May 3, 2023
10. Next EMA GSA Regular Meeting, Thursday, July 27, 2023, at the Santa Ynez Community Services District Community Room, 1070 Faraday Street, Santa Ynez, CA
11. EMA GSA Committee Reports and Requests for Future Agenda Items
12. Adjournment

[This agenda was posted 72 hours prior to the scheduled regular meeting at 3669 Sagunto Street, Suite 101, Santa Ynez, California, and SantaYnezWater.org in accordance with Government Code Section 54954. In compliance with the Americans with Disabilities Act, if you need special assistance to review agenda materials or participate in this meeting, please contact the Santa Ynez River Water Conservation District at (805) 693-1156. Advanced notification as far as practicable prior to the meeting will enable the GSA to make reasonable arrangements to ensure accessibility to this meeting.]

GSI Water Solutions, Inc.

PROPOSAL

Expanded Scope and Cost for Review of New and Replacement Well Applications in the Santa Ynez River Valley Groundwater Basin Eastern Management Area

To: Bill Buelow/SYRWCD

From: Tim Nicely and Jeff Barry, GSI Water Solutions, Inc.

Date: May 23, 2023

At your request, we have prepared a revised scope and estimated budget to perform an expanded review of permit applications submitted to the County of Santa Barbara Department of Environmental Health Services (EHS) for new or replacement wells within the Eastern Management Area of the Santa Ynez River Groundwater Basin. The Groundwater Sustainability Agencies (GSAs) are required by Governor Newsom's Executive Order N-7-22, as amended by Executive Order N-5-23, and the County Board of Supervisors Urgency Ordinance dated May 24, 2022 to review well construction and modification permit applications to determine whether or not a written verification can be provided that groundwater extraction by the proposed new or replacement well[1]

1. would be "inconsistent with any sustainable groundwater management program" established by the Groundwater Sustainability Plan (Plan) adopted by that GSA, and
2. would decrease the likelihood of achieving a sustainability goal for the basin covered by such Plan.

In the EMA, several well permit applications were reviewed and approved during 2022 and 2023 following these general guidelines. As the drought in 2022 became more severe and water levels in EMA monitoring wells showed continued declines (some water levels falling below minimum thresholds established in the Plan), the EMA GSA began to be concerned that using this generalized approach may not adequately reflect overall conditions in the EMA consistent with the Plan. The Plan acknowledges that short term annual water supply and use may vary according to numerous factors including land use and near-term climate, yet sustainable yield estimates and groundwater management described in the Plan reflect conditions/considerations of water supply and use over a long-term period of time. For this reason, a more comprehensive review of groundwater conditions and use within the EMA, over both the short term and longer term, can be used to better assess whether new permit applications are inconsistent with the sustainable groundwater management program established by the EMA and would decrease the likelihood of achieving the sustainability goal of the EMA's Plan.

Details of our proposed scope of work for the expanded review of permit applications for new and replacement wells are presented as follows.

Scope of Work

The scope of work for reviewing new or replacement well applications includes (1) the level of review that has been conducted thus far in the EMA pursuant to the "Process and Criteria for Administering Written Verifications Per Executive Order N-7-22" that was approved by the EMA GSA on July 21, 2022 (herein referred to as the initial assessment) and (2) the expanded assessment.

The expanded assessment presented in this proposal focuses on the core sustainability factors, which will be used to evaluate whether production from a proposed well is consistent with Sustainable Groundwater Management as set forth in the GSP contained in the EMA's Plan. These core sustainability factors are:

A. **Undesirable Results** - Presence/imminence/absence

B. **Water Budget Parameters** - Short and long-term land and water use assumptions

C. **Projects and Management Actions** - Programs/water savings/priorities

This evaluation will consider the most recent annual report for the EMA, which presents the groundwater conditions for the previous water year (October of one year to September of the following year) in compliance with DWR regulations, along with an active data set regarding well permits, land and water use practices, and related trends in the EMA and/or a forthcoming spring groundwater conditions report for the EMA, which will be prepared for this purpose. Together, this information will provide the EMA GSA with a comprehensive and updated status of the sustainability factors as described in the EMA Plan.

Review for Written Verifications

Initial Assessment

- Examine the proposed well construction information and assess whether the well is located within one of the management areas.
- Determine whether the geologic setting and aquifer that the well would be completed in would be within in a Principal Aquifer that is managed by the EMA (such as within the Paso Robles Formation or Careaga Sand).
- Assess groundwater conditions (e.g., water level elevations and trends, water quality) and rainfall conditions in the preceding water years.
- Evaluate whether the well would increase production within the management area.
- For replacement wells, assess whether the pumping capacity of the replacement well will be a "like for like" replacement with regards to production volume relative to the original well. Information that may be reviewed includes:
    - Planned pumping rate of the replacement well and estimated or measured flow rate of the original well;
    - Pump curves for both the original well pump and new pump, as available;
    - If a pump curve is not available, pump type, number of bowls, pump diameter, pump horsepower, RPM, assumed lift;
    - System pressure in the discharge line and total pressure head;
    - Well construction details for the proposed replacement well and original well including total depth, perforated or screened intervals, well diameter;

- Estimated groundwater levels at the time of the application and at the time the original well was completed.

- Review that the proposed use of the well is consistent with the proposed location and design capacity.
- Review whether the property is within the boundaries of a public water system`.

Expanded Assessment

The expanded review tasks were developed to answer specific questions about whether the production from a proposed well would be consistent with the Plan.

1. **Undesirable Results.** The planned production and use of groundwater from the proposed well must be evaluated against the presence, imminence, or absence of undesirable results as described in the EMA GSP. The supplemental criteria for evaluating undesirable results will include the following:
    a. Most recently reported groundwater levels compared to Minimum Thresholds (MTs) and definition of undesirable result established by the GSP. Determine whether more than 50% of the representative wells exceed MTs after two consecutive years of average or above average precipitation.
    b. If MTs exceeded, consider the magnitude of exceedances.
    c. Consider reported impacts to other wells in the area.
    d. Consider other undesirable result criteria (e.g., water quality).

2. **Water Budget Parameters.** The planned production and use of groundwater from the proposed well must be consistent with the current and long-term water budget parameters in the GSP (Section 3). Water budget parameters to consider may include:
    a. Projected land-uses
    b. Total irrigated acreage
    c. Cropping distribution
    d. Water duty factors for different crop types.

3. **Projects and Management Actions.** The planned production and use of groundwater from the proposed well must be compliant with any implemented projects or management actions of the EMA GSA, and as a condition for issuance of a written verification the applicant must agree to register the well with and report production semi-annually to the EMA GSA.

Deliverable

After consulting as needed with EMA staff regarding information contained in a well permit application, and after obtaining additional information that may be required to complete the assessment described herein, GSI will prepare a technical memorandum to the EMA that documents the information that was reviewed, present findings from the evaluation, provide an opinion regarding the verification of consistency with the sustainability goal of the Plan, and provide a list of proposed conditions that may be applicable.

Budget Estimate

The estimated cost to complete the entire scope of work described in this memorandum is $2,200 per well permit application. The work will be completed on a time and materials basis at a blended rate of $200 per hour. Should additional time be required to complete the review, the EMA will be notified, and if approved by the EMA, the work will be conducted on a time and materials basis at the hourly rate shown above.

Indemnification and Limitations of Liability

GSI does not warrant or guarantee that the new or replacement well will produce the expected amount of water nor that the GSA will not require that the extraction from the well be reduced in the future in accordance with its authority to ensure sustainable groundwater management pursuant to SGMA.

GSI is not responsible for or otherwise liable for any costs, investments, lost revenue, or payments related to any groundwater well permitted or not permitted by the County pursuant to any well permit application, including well drilling costs, pumping fees, extraction limits, costs related to well failure, well deepening, increased maintenance, replacement, or operational costs.

The GSA's issuance of a written verification and the County's issuance of a well permit to Applicant does not guarantee the extraction of any specific amount of water now or in the future or any defined water level or water quality.

The GSA and the Santa Ynez River Water Conservation District agrees to hold GSI harmless and indemnify GSI for any liability stemming from the findings presented in the GSI report or related to the County issuing or not issuing a well permit in response the Application or to the GSA issuance of a written verification related to the well permit.

DRAFT

Groundwater Sustainability Agency for the Eastern Management Area in the Santa Ynez River Valley Groundwater Basin

RESOLUTION EMA-2023-002

RESOLUTION REVISING FEE AND DEPOSIT FOR EMA GSA WELL VERIFICATION AS REQUIRED BY EXECUTIVE ORDER N-7-22 AS AMMENDED BY EXECUTIVE ORDER N-5-23

WHEREAS, effective April 27, 2017 the City of Solvang ("Solvang"); the Santa Barbara County Water Agency ("Santa Barbara"); the Santa Ynez River Water Conservation District ("SYRWCD"); and the Santa Ynez River Water Conservation District, Improvement District No.1 ("ID No.1") (collective the Members) entered into a "Memorandum of Agreement for Formation of a Groundwater Sustainability Agency for the Eastern Management Area in the Santa Ynez Valley Groundwater Basin under the Sustainable Groundwater Management Act" ("2017 MOA"); and

WHEREAS, the 2017 MOA established the Members as the participating agencies of the Groundwater Sustainability Agency ("GSA") for the Eastern Management Area ("EMA") in the Santa Ynez Valley Groundwater Basin ("Basin"); and

WHEREAS, the EMA GSA formed under the 2017 MOA has already developed, adopted, and submitted a Groundwater Sustainability Plan ("GSP") for the EMA to the California Department of Water Resources as required by the Sustainable Groundwater Management Act ("SGMA"); and

WHEREAS, Section 9(a) of Governor Newsom's Executive Order N-7-22, dated March 28, 2022, as amended by Executive Order N-5-23, requires a written verification from the applicable GSA to address whether groundwater extraction by a proposed well would be inconsistent with any sustainable groundwater management program established in any applicable GSP adopted by the GSA, or would decrease the likelihood of achieving a sustainability goal for the basin covered by the GSP; and

WHEREAS, on July 21, 2022 the EMA GSA has approved Process and Criteria for Administering Written Verifications Per Executive Order N-7-22, as amended by Executive Order N-5-23, and on April 27, 2023 the EMA GSA approved Resolution No. 2023-001 adopting a Policy for Administering Requests for Written Verifications in the EMA, and the EMA seeks to establish fee(s) and deposit(s) to cover the costs of this process; and

WHEREAS, the EMA GSA has the authority to impose fees pursuant to Water Code section 10730 and other applicable law; and

WHEREAS, on July 21, 2022 the EMA GSA established an initial fee deposit of $1,200 with resolution EMA-2022-003; and

WHEREAS, the EMA GSA held a noticed public hearing on **June 22, 2023**, regarding a revision to the fee(s) and deposit(s) necessary to cover the costs of processing requests for written verifications under the Process and Criteria for Administering Written Verifications Per Executive Order N-7-22 and EMA Resolution No. 2023-001, at which oral and written presentations were allowed; and

WHEREAS, the EMA GSA finds that the fees set forth in this Resolution are exempt from CEQA review pursuant to 14 CCR §§ 15273 and 15378(b)(5) and Public Resources Code Section 21080(b)(8)(A) and (B), in that the fees will be used for reimbursement for consultants time and costs.

NOW, THEREFORE, the EMA GSA resolves as follows:

1. The foregoing recitals are true and correct.

2. A fee of $200 per hour is hereby established for all requested written verifications from the EMA GSA. The Committee finds that the amount of the fee is no more than necessary to cover the reasonable costs of the process, and that the manner in which those costs are allocated to a payor bear a fair or reasonable relationship to the payor's burdens on, or benefits received from, the governmental activity.

3. A revised initial deposit in the amount of $2,200 shall be submitted for all requested written verifications and the deposit will be spent and supplemented in accordance with the Deposit/Reimbursement Agreement for Review of Well Permit Applications.

PASSED AND ADOPTED by the governing Committee of the EMA GSA on June 22, 2023 by the following roll call vote:

AYES:

NOES:

ABSENT:

ABSTAINED:

ATTEST:

Brett Marymee, Chairman

William J. Buelow, Secretary

DEPOSIT/REIMBURSEMENT AGREEMENT
FOR REVIEW OF REQUEST FOR WRITTEN VERIFICATION

THIS DEPOSIT/REIMBURSEMENT AGREEMENT ("Agreement") is made and effective this ____ day of _____, _____, by and between the Santa Ynez River Valley Groundwater Basin Eastern Management Area Groundwater Sustainability Agency ("GSA"), and as the owner of the property where the well is proposed_____ ("Applicant"). GSA and Applicant are each referred to as a "Party" and collectively referred to as the "Parties" in this Agreement.

RECITALS:

A. Applicant is submitting an Application ("Application") to the Santa Barbara County Environmental Health Services ("EHS") for a water well permit within the GSA's jurisdiction.

B. Executive Order N-7-22, and as amended in Executive Order N-5-23, requires that, before EHS grant said Application, the GSA provide written verification to EHS that "groundwater extraction by the proposed well would not be inconsistent with any sustainable groundwater management program established in any applicable Groundwater Sustainability Plan ... and would not decrease the likelihood of achieving a sustainability goal for the basin covered by such a plan." The Applicant's request for written verification from the GSA will be referred to herein as a "Request."

C. Pursuant to Resolution EMA-2022-003 and Resolution EMA-2023-002 of the GSA, review by the GSA of the Request is to be funded by fees paid by the Applicant, and before review begins Applicant must make a deposit as determined by the GSA.

D. This Agreement is intended to specify the terms of Applicant's deposit and reimbursement for the GSA's review of the Request.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants set forth herein, and for other consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. Construction.

This Agreement shall be liberally constructed to accomplish its intent.

2. The Deposit; Additional Advances.

a) Establishing and Supplementing Deposit. Within three (3) business days following execution of this Agreement, Applicant shall provide to the GSA an initial deposit of $2,200.00 ("Initial Deposit") to reimburse the GSA for Eligible Expenses, as defined in Section 2(b). The GSA shall monitor its expenses and the balance in the deposit account and whenever it believes, in good faith, that there will be insufficient funds to pay the GSA's expenses for the Request for the next ninety (90) days, the GSA may make one or more written requests for additional funds (each an "Additional Advance"), which shall state the existing balance and the additional amount requested. The GSA may request the funds it reasonably believes necessary to cover a period not exceeding

ninety (90) days. The Initial Deposit and Additional Advance funds are hereinafter collectively referred to as the "Deposit." Applicant shall make the Additional Advance within five (5) business days of the GSA's written request therefor. If Applicant fails to timely make the Additional Advance, Applicant agrees that the GSA may cease any or all additional work on the Request until the GSA receives the Additional Advance from Applicant.

b) Eligible Expenses. The Deposit shall be used to reimburse the GSA for costs incurred by the GSA in connection with the following (all of which shall be deemed "Eligible Expenses"): (i) the fees and expenses of the consultant(s) employed by the GSA in connection with administering the Request; and (ii) all other actions, if any, reasonably taken by the GSA in connection with administering the Request.

c) Administration of Deposit. The Deposit may be placed in the GSA account with other funds for purposes of investment and safekeeping. The Deposit shall not accrue interest. The GSA shall administer the Deposit and use the Deposit to reimburse the GSA for Eligible Expenses. The GSA shall maintain satisfactory accounting records as to the expenditure of the Deposit at all times.

d) Unexpended Funds. Upon the granting or denial of a Request by the GSA, the GSA shall return any then-unexpended portion of the Deposit to Applicant, without interest, less an amount equal to any unpaid Eligible Expenses previously incurred by the GSA.

e) Statements of Account. The GSA shall provide Applicant a summary of expenditures made from the Deposit, and the unexpended balance thereof, whenever requesting any Additional Advance and within ten (10) business days of receipt by the GSA of a request therefore submitted by Applicant.

3. Independent Judgment of the GSA; GSA Not Liable

The GSA shall use its independent judgment in determining whether the written verification required by the Executive Order should be issued. As further set forth by separate Indemnification Agreement, neither the GSA nor any of its member agencies shall be liable in any manner whatsoever in relation to EHS's action on an Application or the GSA's issuance of a written verification.

Applicant expressly understands and agrees that any consultant retained on behalf of the GSA is under contract solely on behalf of the GSA, and the GSA is free to exercise its independent judgment in making payments to the consultants or revising or accepting the consultant's work product, without any liability whatsoever by the GSA to Applicant therefor.

4. Notices.

Any notices, requests, demands, documents, approvals, or disapprovals given or sent under this Agreement from one Party to another (collectively, the "Notices") shall be given to the Party entitled thereto at its address set forth below, or at such other address as such Party may provide to the other Party in writing from time to time, namely:

If to Applicant:

_____

_____

_____

If to The GSA:

Santa Ynez River Valley Groundwater Basin
Eastern Management Area GSA
P.O. Box 719
Santa Ynez, CA 93460

Each such Notice shall be deemed delivered to the Party to whom it is addressed: (i) if personally served or delivered, upon delivery; (ii) if given by facsimile, upon the sender's receipt of an appropriate answerback or other written acknowledgement; (iii) if given by registered or certified mail, return receipt requested, deposited with the United States mail postage prepaid, seventy-two (72) hours after such notice is deposited with the United States mail; (iv) if given by overnight courier, with courier charges prepaid, twenty-four (24) hours after delivery to said overnight courier; or (v) if given by any other means, upon delivery at the address specified in this Section.

5. Choice of Law; Venue.

This Agreement, and any dispute arising from the relationship between the Parties, shall be governed by, construed in accordance with, and interpreted under the laws of the State of California. Any dispute that arises under or relates to this Agreement (whether contract, tort, or both) shall be resolved in a California State Court in the County of Santa Barbara, or if jurisdiction over the action cannot be obtained in a State Court, in a Federal Court in the Central District of California.

6. Entire Agreement.

This Agreement represents the full, final, and complete Agreement between the Parties hereto regarding the subject matter of this Agreement. No change or amendment to this Agreement shall be valid unless in writing and signed by both Parties.

7. Severability.

If a court of competent jurisdiction holds any provision of this Agreement to be illegal, unenforceable, or invalid for any reason, the validity and enforceability of the remaining provisions of this Agreement shall not be affected.

8. Attorneys' Fees.

In any litigation or other proceeding by which one Party seeks to enforce its rights under this Agreement (whether in contract, tort, or both) or seeks a declaration of any rights or obligations under this

Agreement, the prevailing Party shall be entitled to an award of reasonable attorneys' fees, together with any costs and expenses, to resolve the dispute and to enforce the final judgment.

9. Ambiguities.

Each Party and its counsel have participated fully in the review and revision of this Agreement. Any rule of construction to the effect that ambiguities are to be resolved against the drafting Party shall not be applied in interpreting this Agreement.

10. Counterparts.

This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together will constitute one instrument.

11. Authority.

The persons executing this Agreement on behalf of the Parties warrant that: (i) such Party is duly organized and existing; (ii) they are duly authorized to execute and deliver this Agreement on behalf of said Party; (iii) by so executing this Agreement, such Party is formally bound to the provisions of this Agreement; and (iv) the entering into of this Agreement does not violate any provision of any other agreement to which said Party is bound.

IN WITNESS THEREOF, the Parties have caused this Agreement to be executed on the date first written above.

EASTERN MANAGEMENT AREA GROUNDWATER SUSTAINABILITY AGENCY	**PROPERTY OWNER**
_____	_____
Signature	Signature
_____	_____
Print Name	Print Name
_____	_____
Title	Title

SANTA YNEZ RIVER VALLEY GROUNDWATER BASIN
EASTERN MANAGEMENT AREA GROUNDWATER SUSTAINABILITY AGENCY
WELL REGISTRATION AND REPORTING FORM

Please complete a separate Well Registration and Reporting Form for **each** well that you own and operate within the Eastern Management Area of the Basin. Please return completed Form(s) to the EMA Groundwater Sustainability Agency (EMA GSA) by mail to P.O. Box 719, Santa Ynez, California 93460 or via email to ema@santaynezwater.org.

1. **WELL OWNER** (Attach list of all owners; also include tenants, if any.)

Name: _____

Telephone Number/Email Address: _____/_____

Mailing Address: _____

_____

2. **WELL LOCATED ON PROPERTY**

☐ I certify that a groundwater well (or wells) exists on the property located above in Item 1.

☐ I certify that the well (or wells) is also registered with the Santa Ynez River Water Conservation District.

3. **WELL INFORMATION**

Owner's Designation of Well:
Number: _____ and/or Name: _____

Check one of the following:

☐ This well is active.
☐ This well is inactive.
☐ This well is abandoned. Date abandoned: _____

4. **WELL LOCATION**

Assessor's Parcel Number (APN): _____ Well Used to Serve APN(s): _____

_____

Street Address *(If different than mailing address above)*: _____

_____

Well Location (Lat/Long): _____

Well Owner:_____ **Well Number/Name:** _____

5. ANNUAL WATER USE INFORMATION *(Please see Information & Instructions attached.)*

☐ Agricultural Use *(list number of acres and crop category(ies)* _____

_____

☐ Livestock Watering *(number and type of animals)* _____

☐ Domestic *(number of persons served)* _____

☐ Combined Use *(check applicable boxes)* _____

☐ Municipal or Industrial _____

☐ Other (specify use): _____

Structures served by this well, if any: _____

_____

6. PUMP AND METER INFORMATION

Type of pump *(turbine, centrifugal, etc.)*: _____

Manufacturer:_____ Horsepower:_____

Pump output *(in GPM)*:_____

☐ Check this box if the well has a water meter and complete the information below.

Manufacturer/Model: _____

Meter Number:_____ Electric Utility Number: _____

Type:

☐ Propeller ☐ Ultrasonic ☐ Electromagnetic

☐ Other: _____

Does the meter have a totalizer? ☐ Yes ☐ No

Meter Recording Units: *(check one)*

☐ Gallons ☐ 100s of Gallons ☐ 1000s of Gallons

☐ Acre-Feet ☐ HCF (hundred cubic feet) ☐ Cubic Feet

☐ Other – Specify: _____

Meter serves well only: ☐ Yes ☐ No If no, describe other facilities served by the meter:

_____

7. OTHER INFORMATION *(From well driller's information, escrow reports, or Santa Barbara County records)*

Well Permit No.: _____ Date SB County EHS Final Inspection: _____

Date well completed:_____ Date water production began: _____

Well depth in feet:_____ Well diameter in inches:_____ Casing perforation interval: _____

Depth (in feet) to water: Static:_____ Pumping:_____ As of what date? _____

☐ Drillers Log Available* ☐ Electric Log Available* **Do not send*

Well Owner:_____ **Well Number/Name:** _____

8. AGREEMENT TO REPORT WELL PRODUCTION

In accordance with EMA GSA Resolution No. 2023-001 and Section 3 of the Eastern Management Area Groundwater Sustainability Agency Policy for Administering Requests for Well Verifications, I hereby agree to register the groundwater well identified in this Form with the EMA GSA, and to report groundwater production from the well semi-annually to the EMA GSA using groundwater production reporting documentation provided by the EMA GSA.

9. DECLARATION

I declare under penalty of perjury under the laws of the State of California that this Well Registration and Reporting Form has been examined by me and the information provided herein is true, correct, and complete to the best of my knowledge and belief.

Signature:_____ Date:_____

Name *(please print)*: _____

THIS ITEM APPEARS ON

EMA GSA COMMITTEE MEETINGS (/EMA-GSA-COMMITTEE-MEETINGS)

JUL
27
2023

EMA GSA Committee Regular Meeting, 6:30 pm

Hexavalent Chromium MCL (SWRCB-DDW-21-003)

Information and Documentation Pertaining to This Regulatory Proposal

Status of Proposal

This rulemaking is in progress.

- A hearing is scheduled on August 2, 2023
  - Additional information for remote participation
- Written comments are due August 4, 2023

Proposed MCL: **10 ppb** (0.010 mg/L)

Proposed DLR: **0.1 ppb** (0.0001 mg/L)

This MCL includes a compliance schedule based on water system size and requirements to submit compliance plans and operations plans under certain conditions. See the rulemaking documentation below for details.

Inquiries regarding the contents of these regulations may be directed to Bethany Robinson (Bethany.Robinson@waterboards.ca.gov) and Melissa Hall (Melissa.Hall@waterboards.ca.gov).

Rulemaking Documentation

45-Day Comment Period Documentation

- Notice of Proposed Rulemaking
  - English | Spanish
- **Text of Proposed Regulations**
  - U.S. EPA Method 218.6

Final Documentation

- TBD

Complete Rulemaking Documentation Files

CEQA Documentation

- Draft Environmental Impact Report
  - Appendix A
  - Appendix B
  - Appendix C
  - Appendix D
  - Appendix E
- Notice of Availability of Draft Environmental Impact Report
- Notice of Completion of Draft Environmental Impact Report

Peer Review Documents

- Peer Review Request
- Peer Review
  - Reviewer 1
  - Reviewer 2
  - Reviewer 3
- Peer Review Response

History of Rulemaking Proceedings

- Standardized Regulatory Impact Assessment (SRIA) Submitted to Department of Finance: 13 December 2022
  - SRIA
  - DF-131
- Notice of Proposed Rulemaking Published: **16 June 2023**

Notice! As the state transitions from the COVID-19 emergency, please contact your local Water Board to arrange necessary file reviews.

California Code of Regulations: Title 22 Sections: 64415, 64431, 64432, 64447.2, 64465, and 64481.

(Page last updated 06/29/2023)

Drinking Water Resources

California Laboratory Intake Portal (CLIP)
Contaminants in Drinking Water
Consolidation and Extension of Service
COVID-19 Drinking Water
Cyanobacteria/Cyanotoxins in Drinking Water
Consumer Confidence Reports (CCRs)
DRINC Portal
Drinking Water Branch Districts

Drinking Water Supply Service Area Lookup Tool
Drinking Water Watch Database
Electronic Annual Reports (EAR)
Environmental Laboratory Accreditation Program (ELAP)

Funding for Public Water Systems
Information for Public Water Systems
Operator Certification - Drinking Water
Permits
PFAS: Per- and Polyfluoroalkyl Substances

Public Water System Monitoring Schedules
Public Safety Power Shutoff and Wildfire Info
Regulations and Statutes
Residential Water Treatment Devices
Safe Drinking Water Plan for California
SAFER Drinking Water
Water Quality Data
Water Recycling

NOTICE OF PROPOSED RULEMAKING

TITLE 22. Social Security
DIVISION 4. Environmental Health
CHAPTER 15 – Domestic Water Quality and Monitoring Regulations

SUBJECT: HEXAVALENT CHROMIUM MAXIMUM CONTAMINANT LEVEL (SWRCB-DDW-21-003)

NOTICE IS HEREBY GIVEN that the State Water Resources Control Board (State Water Board) will conduct a public hearing during which time any interested person or such person's duly authorized representative may present statements, arguments, or contentions (all of which are hereinafter referred to as comments) relevant to the action described in this notice.

NOTICE OF PUBLIC HEARING FOR A PROPOSED HEXAVALENT CHROMIUM MAXIMUM CONTAMINANT LEVEL (MCL) REGULATIONS
[Gov. Code, §11346.5(a)(1)]

State Water Board staff will conduct an Administrative Procedure Act (APA) public hearing regarding the subject proposed regulations at the time and place noted below. At the hearing, any person may present comments orally or in writing relevant to the proposed action described in this notice. The public hearing will begin with a staff presentation summarizing the proposed regulations, followed by an opportunity for public comment. During the comment period, the public will be allowed three minutes to provide oral comments, unless additional time is approved.

DATE:	2 August 2023
TIME:	1:00 P.M.
PLACE:	**Coastal Hearing Room** **CalEPA Building** **1001 I Street, Sacramento** **And via Video and Teleconference (for public commenters)**

The hearing will be recorded and will be streamed live at video.calepa.ca.gov. Use this link to watch the webcast UNLESS you intend to comment. For those who wish to make oral comments, additional information about participating remotely is available at bit.ly/dw_regs.

While a quorum of the State Water Board may be present, this hearing is for the public to provide comments in accordance with the APA. The Board will not take formal action. Final regulations are expected to be adopted by the Board later this year, after consideration of all written and oral comments. Additional information regarding State Water Board meetings, hearings, and workshops is available on the Board's internet web page at waterboards.ca.gov/board_info/calendar/.

Language Services and Accessibility
Presentation slides will be translated into Spanish, and live Spanish interpretation will be provided. To request oral interpretation in another language or sign language services, please contact us at (916) 322-4265 or languageservices@waterboards.ca.gov by **1 July 2023**. We highly encourage contacting us as far in advance as possible about language needs.

Telecommunications device for deaf (TDD) users may contact the California Relay Service at 711, (800) 735-2929 or voice line at (800) 735-2922.

To request other accommodations, call (916) 341-5261 on or before **19 July 2023**.

AUTHORITY AND REFERENCE
[Gov. Code, §11346.5(a)(2); CCR Title 1, Div 1, Ch. 1, §14]

The State Water Board proposes to adopt this regulation under the authority granted by Health and Safety Code (HSC) sections 116270, 116271, 116275, 116350, 116365, 116365.5, 116375, and 116385. The proposed regulation would implement, interpret, or make specific HSC sections 116275, 116365, 116365.5, 116370, 116375, 116385, 116390, 116450, and 116470.

INFORMATIVE DIGEST
[Gov. Code, §11346.5(a)(3)]

Existing Laws and Regulations and Effect of Proposed Action
[Gov. Code, §11346.5(a)(3)(A)]

Existing Laws and Regulations
Existing laws related to the proposed action include the following:

- HSC section 116270(f) declares California's intent to improve upon the minimum requirements of the federal Safe Drinking Water Act Amendments of 1996 and to establish a program that is more protective of public health than the minimum federal requirements.

- HSC section 116365 requires that the State Water Board establish primary maximum contaminant levels (MCL) as close to the contaminant's public health goal (PHG) as is technologically and economically feasible at the time of adoption, while placing primary emphasis on protection of public health.

    - PHGs are established by the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA). In July 2011,

OEHHA established a hexavalent chromium PHG of 0.02 micrograms per liter (µg/L).

- HSC section 116365.5 specifically requires establishment of a hexavalent chromium MCL that complies with the HSC section 116365 criteria by 1 January 2004.
- HSC section 116370 requires the State Water Board to adopt a finding of best available technologies (BAT) for each contaminant at the time the standard is adopted, taking into consideration the costs and benefits of BAT proven effective under full-scale field application.
- HSC section 116375, subdivision (a), requires the State Water Board to adopt regulations for the monitoring of contaminants, including the type of contaminant, frequency and method of sampling and testing, and the reporting of results.
- HSC section 116375, subdivision (f), requires the State Water Board to adopt regulations including requirements for notifying the public of the quality of water delivered to consumers.
- HSC section 116385 requires any person operating a public water system to obtain and provide at that person's expense an analysis of the water to the State Water Board, in the form, covering those matters, and at intervals prescribed by the State Water Board. HSC section 116385 further requires that the analysis be performed by a laboratory duly certified by the State Water Board.
- HSC section 116390 requires that laboratories performing tests required pursuant to the California Safe Drinking Water Act be accredited for that testing by the California Environmental Laboratory Accreditation Program (ELAP).
- HSC section 116470 requires each PWS to prepare and deliver annual Consumer Confidence Reports to their customers containing information on each detected regulated contaminant, including the level of contaminant found in the drinking water, the corresponding public health goal and primary drinking water standard, any violations of the primary drinking water standard, and a statement of health concerns that resulted in regulation of that contaminant.
- HSC section 116555 requires that any person who owns a PWS shall ensure that the system complies with primary drinking water standards.

Existing regulations related to the proposed regulation include the following:

- 22 California Code of Regulation (CCR), section 64415, with limited exceptions, requires that analyses be performed by laboratories accredited to perform such analyses by ELAP, and unless directed otherwise by the State Water Board, that

analyses be made in accordance with methods prescribed at 40 Code of Federal Regulations sections 141.23 through 141.41, 141.66, 141.89, and 141.852.

- 22 CCR section 64432 requires certain surface water sources for transient-noncommunity water systems (TNCWS) and all active sources for community water systems (CWS) and nontransient-noncommunity water systems (NTNCWS) to be sampled and to have the samples analyzed for inorganic chemicals to determine compliance with drinking water standards, including MCLs.
- 22 CCR section 64432.8 requires each water supplier utilizing treatment to comply with one or more inorganic chemical MCL(s) to collect monthly samples of the treated water at a site prior to the distribution system and analyze for the chemical(s) for which treatment is being provided and, if an MCL is exceeded, to report the result within 48 hours of result receipt, resample to confirm the initial result within 48 hours of results receipt, and report the result of the confirmation sample result to the State Water Board within 24 hours of confirmation result receipt.
- 22 CCR section 64469 requires PWS to report the results of required analyses by the tenth day of the following month.
- 22 CCR section 64431 requires PWS to comply with a primary total chromium MCL of 50 µg/L.
- 40 CFR 141.62(b) requires CWS and NTNCWS to comply with a primary total chromium MCL of 100 µg/L.
- 22 CCR section 64432 establishes detection limits for purposes of reporting (DLRs) for each regulated chemical and requires PWS to monitor for those chemicals.
- 22 CCR section 64465 requires PWS to notify the State Water Board and the public when drinking water supplied to the public is noncompliant with a primary MCL and take appropriate action.
- 22 CCR section 64481 requires PWS to prepare annual Consumer Confidence Reports, which include language to inform the public for each chemical that has been detected in the water.

Effect of Proposed Rulemaking

The net effects of the proposed regulations would be as follows:

- PWS would be required to comply with a hexavalent chromium MCL of 10 µg/L according to a size-based compliance schedule;
- PWS exceeding the MCL before the applicable compliance date would be required to submit a compliance plan;

- CWS, NTNCWS, and wholesalers would be required to monitor for hexavalent chromium, and report sampling results consistent with existing requirements for monitoring and reporting of inorganic chemicals;
- TNCWS that use surface water and serve an average daily population greater than 1,000 or are determined subject to potential hexavalent chromium contamination based on a sanitary survey would be required to monitor for hexavalent chromium and report sampling results;
- PWS would be required to comply with a hexavalent chromium DLR of 0.1 µg/L;
- PWS would be required to use one of two specified hexavalent chromium analytical methods for required monitoring;
- PWS that violate the hexavalent chromium MCL would be required to use specific public notification health effects language;
- CWS and NTNCWS that detect hexavalent chromium would be required to use specific language in their Consumer Confidence Reports that identifies the major origins of hexavalent chromium in drinking water; and
- BAT would be identified for hexavalent chromium removal.

Comparable Federal Statute and Regulations
[Gov. Code, §11346.5(a)(3)(B), §11346.9(c)]

There are no federal regulations or statutes that address the specific subject addressed by the proposed regulations. Under the federal Safe Drinking Water Act and its implementing regulations, there is no drinking water standard specifically for hexavalent chromium. Hexavalent chromium is, however, currently indirectly regulated under California's 50 µg/L and U.S. EPA's 100 µg/L MCL for total chromium, of which hexavalent chromium is a component (40 CFR 141.62). Adoption of this regulation is not mandated by federal law or regulations.

Policy Statement Overview
[Gov. Code, §11346.5(a)(3)(C)]

Problem Statement
The State Water Board establishes drinking water standards to ensure that drinking water provided by PWS is at all times safe, pure, wholesome, and potable. All suppliers of domestic water to the public are subject to regulations adopted by the U.S. EPA under the Safe Drinking Water Act of 1974, as amended (42 U.S. C. §300f et seq.). California PWS are also subject to regulations adopted by the State Water Board under the California Safe Drinking Water Act (Health & Saf. Code, div. 104, pt. 12, ch. 4, §116270 et seq.). HSC section 116270(f) declares California's intent to improve upon the minimum requirements of the federal Safe Drinking Water Act Amendments of 1996 and to establish a program that is more protective of public health than the minimum federal requirements.

HSC 116365 requires the State Water Board to adopt primary drinking water standards for contaminants, specifying that each standard must be set at a level as close as technologically and economically feasible to the corresponding PHG, placing primary emphasis on the protection of public health. HSC 116365.5 specifically requires the establishment of a hexavalent chromium MCL. In 2011, OEHHA published the hexavalent chromium PHG at 0.02 micrograms per liter (µg/L) (OEHHA, 2011). In May 2017, the Superior Court of Sacramento County issued a judgment invalidating a previously-established hexavalent chromium MCL and ordered the State Water Board to adopt a new MCL consistent with HSC 116365 (*California Manufacturers and Technology Association, et al. v. State Water Resources Control Board,* Super. Ct., Sacramento County, Case No. 34-2015-80001850.).

The State Water Board proposes to establish a primary drinking water standard for hexavalent chromium in the form of a MCL of 10 µg/L or 0.010 milligrams per liter (mg/L), an associated initial DLR of 0.1 µg/L. The State Water Board has determined that the proposed regulations are necessary to carry out the purposes of California's Safe Drinking Water Act. The proposed rulemaking is intended to satisfy the statutory mandates set forth in HSC sections 116365 and 116365.5, as well as the court order.

Broad Objectives

The broad objectives of this proposed regulatory action are to:

- Adopt a hexavalent chromium MCL to protect public health consistent with statutory requirements; and
- Adopt a DLR, BAT, public notification language, compliance schedule, analytical methods, and Consumer Confidence Report language to support the hexavalent chromium MCL.

Specific Benefits

The anticipated benefits to public health and safety of California residents from the proposed regulatory action are:

- Reduction of risk of adverse health effects associated with hexavalent chromium in drinking water by establishing a hexavalent chromium MCL, which translates to a reduction in associated cancer and noncancer cases;
- Provide PWS and State Water Board staff with hexavalent chromium treatment guidance through the identification of BATs;
- Provide consistency in analytical performance by establishing minimum levels of hexavalent chromium that must be reported; and
- Establish consistent quality of information between PWS and customers through specification of health effects language for public notification and major origins and compliance status language for Consumer Confidence Reports.

Additional anticipated benefits include:

- Enhanced public awareness of water quality served by requiring hexavalent chromium monitoring and public notification when a hexavalent chromium MCL violation occurs;
- Enhanced public awareness of water quality by requiring hexavalent chromium monitoring and reporting of detected hexavalent chromium levels in drinking water in annual Consumer Confidence Reports;
- Ability to evaluate performance of hexavalent chromium removal treatment technologies to concentrations at least as low as 0.1 µg/L to support feasibility analyses for future hexavalent chromium MCL review(s) and potential revision;
- Ability to determine hexavalent chromium occurrence in drinking water sources to concentrations at least as low as 0.1 µg/L to support evaluation of source occurrence, health effects, and cost impact analyses for future hexavalent chromium MCL review(s) and potential revision; and
- Ability for small PWS to benefit from improvements in treatment realized by larger PWS through the compliance schedule.

Evaluation of Inconsistency or Incompatibility with Existing State Regulations
[Gov. Code, §11346.5(a)(3)(D)]

The State Water Board reviewed its existing general regulations and regulations specific to hexavalent chromium for drinking water to evaluate whether the proposed regulations are inconsistent or incompatible with existing state regulations. The State Water Board determined that no other state regulation addressed the same subject matter and that this proposal, if adopted, would not be inconsistent or incompatible with existing state regulations.

OTHER STATUTORY REQUIREMENTS

[Gov. Code, §11346.5(a)(4)]

California Environmental Quality Act
[Public Resources Code, Div. 13]

The California Environmental Quality Act (CEQA) requires public agencies to consider and mitigate potentially significant environmental impacts from discretionary project approvals. Section 21159 of the Public Resources Code requires certain agencies, including the State Water Board, to perform at the time of adoption of a rule or regulation requiring a performance standard or treatment requirement, an environmental analysis of the reasonably foreseeable methods of compliance with the rule or regulation. To comply with CEQA, the State Water Board prepared a draft programmatic environmental impact report (EIR) analyzing the environmental impacts of the proposed regulation of hexavalent chromium in drinking water. More information about the draft EIR, including the Notice of Availability specifying the public review and comment period, is available on the Sate Water Board's website.

External Scientific Peer Review
[Health and Safety Code, §57004(b)]

HSC section 57004(b) requires that the scientific portions of any regulation proposed by the California Environmental Protection Agency (Cal/EPA), or any board, department, or office within Cal/EPA, be submitted to an external scientific peer review entity for evaluation. "Scientific basis" or "scientific portion" is defined as "*those foundations of a rule that are premised upon, or derived from empirical data or other scientific findings, conclusions, or assumptions establishing a regulatory level, standard, or other requirement for the protection of public health or the environment.*"

The State Water Board identified its preliminary determinations of BAT and limits of technological feasibility of treatment of hexavalent chromium in drinking water as having underlying scientific bases and requested external scientific peer review of those determinations. The peer reviewer comments and the State Water Board's response to those comments can be found on the State Water Board's website at: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/SWRCBDDW-21-003_hexavalent_chromium.html.

Cal/EPA Major Regulations
[Health and Safety Code, §57005]

HSC section 57005 requires each Cal/EPA board, department, and office, before adopting any major regulation, to evaluate alternatives to the proposed regulation that would lessen adverse economic impact on California businesses and to consider whether there is a less costly alternative or combination of alternatives which would be equally as effective in achieving increments of environmental protection in a manner that ensures full compliance with statutory mandates within the same amount of time as the proposed regulations. For the purposes of HSC 57005, a "major regulation" means any regulation that would have an economic impact on California business enterprises in an amount exceeding ten million dollars. To satisfy this requirement, 20 alternative MCLs were evaluated; none was found to be equally as effective in achieving increments of environmental protection in a manner that ensures full compliance with the statutory mandates. The alternatives analysis can be found in the Initial Statement of Reasons, Attachment 2.

Health and Safety Code Requirements for Primary Drinking Water Standards
[Health and Safety Code, §116365, §116365.5, §116370]

HSC section 116365 requires that primary drinking water standards be set at a level that is as close as feasible to the corresponding public health goal, placing primary emphasis on the protection of public health. The standard must also be technologically and economically feasible. HSC section 116365.5 mandates that a primary drinking water standard be established for hexavalent chromium. HSC section 116370 requires that, when a primary drinking water standard is being adopted, a finding of BAT be adopted at the same time.

Safe, Clean, Affordable Water
[California Water Code, §106.3]

California Water Code section 106.3 states that it is the policy of the state that every human has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes, and requires the State Water Board to consider this policy when revising, adopting, or establishing regulations. In preparing the proposed regulations, the State Water Board determined the proposed regulations are consistent with this statewide policy.

Pre-Notice Meeting with Affected Parties
[Gov. Code, §11346.45]

Government Code section 11346.45(a) requires that prior to publication of the notice of proposed action, the agency proposing the regulation must involve parties who would be subject to the proposed regulations in public discussions, when the proposed regulations involve complex proposals or a large number of proposals that cannot be easily reviewed during the comment period. The regulations proposed here are neither complex nor involve large numbers of proposals that could not be easily reviewed during the comment period. Nonetheless, the State Water Board did provide PWS and water consumers opportunities to be involved in public discussions about the proposed regulations. Specifically, there have been five pre-regulation workshops held for the hexavalent chromium MCL, including a 27 April 2020 economic feasibility workshop, 8 and 9 December 2020 preliminary cost estimates workshops, and 5 and 7 April 2022 administrative draft workshops, as well as a 29 November 2021 CEQA scoping meeting. Comments, suggestions, and alternatives were solicited at each workshop and meeting, and during associated written comment periods. In addition, staff of the State Water Board's Division of Drinking Water frequently provide regulatory updates to PWS and industry groups, including the status of the proposed hexavalent chromium MCL regulation development.

MANDATE ON LOCAL AGENCIES OR SCHOOL DISTRICTS
[Gov. Code, §11346.5(a)(5)]

None.

The proposed regulations would not impose a mandate on local agencies or school districts that requires state reimbursement. The proposed regulations will not be a requirement unique to local government and will apply equally to public and private water systems.

FISCAL IMPACT (COSTS AND SAVINGS)
(see Initial Statement of Reasons, Attachment 2, for methodology and calculations)
[Gov. Code, §11346.5(a)(6)]

Estimated Cost and Savings to State Agencies
The initial impact of the proposed regulation on the State Water Board would be an impact on staffing resources of $739,577, which could potentially be accommodated through redistribution of existing staff at the district office level. However, additional personnel may be needed for effective implementation and enforcement of the adopted MCL, including for tasks such as evaluating submitted compliance plans.

Compliance costs for the one state-owned PWS expected to exceed the proposed MCL have been estimated at $95,419 per year (capital costs have been annualized). In addition, this system will also incur a one-time cost of $7,619 to prepare compliance and operations plans.

The proposed regulation is expected to have an impact on the state's sales tax revenue, which are estimated to be $24.1 million in 2025, $13.2 million in 2026, $4.5 million in 2027, and $1.4 million in each subsequent year.

The State Water Board estimates that there will be no change to Safe Drinking Water Account fees and caps. The fees, caps, and annual adjustments are specified in statute under HSC sections 116565, 116577, 116585, and 116590.

Reimbursable Costs to Local Agencies or School Districts
(in accordance with Gov. Code sections 17500 through 17630)
[Gov. Code, 11346.5(a)(5)]

None.

Any costs incurred by local agencies or school districts as a result of this regulation are not reimbursable by the State pursuant to Article XIIIB, section 6 of the California Constitution. Local agencies and school districts currently incur costs in their operation of PWS. The costs imposed by the proposed regulations are not the result of a "new program or higher level of service" within the meaning of Article XIIIB, section 6 of the California Constitution because the proposed regulations apply generally to all individuals and entities that operate PWS in California and do not impose unique requirements on local governments (*County of Los Angeles v. State of California et al*, 43 Cal App 3d 46 (1987)). In addition, PWS can pass on the cost of regulation implementation through increasing service charges, fees, and assessments. Therefore, no state reimbursement of these costs is required. Local regulatory agencies also may currently incur additional costs for their responsibility to enforce state regulations related to small PWS (fewer than 200 service connections) that they regulate. However, local agencies are authorized to assess fees to pay reasonable expenses incurred in enforcing statutes and regulations related to small PWS (HSC §101325). Therefore, no reimbursement of any incidental costs to local agencies in enforcing this regulation would be required (Gov. Code, §17556(d)).

Other Non-discretionary Cost or Savings Imposed on Local Agencies
None.

Estimated Cost or Savings in Federal Funding of State Programs
None.

SIGNIFICANT STATEWIDE ADVERSE ECONOMIC IMPACT DIRECTLY AFFECTING BUSINESS, INCLUDING ABILITY TO COMPETE
[Gov. Code, §11346.5(a)(7)]

The State Water Board has determined that there may be a significant, statewide adverse economic impact directly affecting businesses.

Types of Businesses Affected
[Gov. Code, §11346.5(a)(7)(A)]

These businesses may be privately owned PWS or other businesses served by affected PWS, but no data is available about the number or types of businesses served by PWS or how they are charged for water.

However, water service is provided locally and consumers generally don't have a choice of their water service supplier. PWS are generally not in competition with other systems; they are utilities that can pass costs onto their consumers. Most NTNCWS and TNCWS are wineries, packing plants, farms, restaurants, etc., with a primary business other than supplying potable water. These businesses and others facing higher water charges from their PWS may be able to pass any increased costs on to their customers, depending on their market environment.

Non-California water providers are unlikely to increase sales in California because water originating from outside of California is also subject to the requirements in the proposed regulation. For example, water imported from the Colorado River may need to be treated to comply with all MCLs before it can be served as drinking water. However, bottled water is not regulated as drinking water and only needs to comply with federal MCLs, including the 100 µg/L MCL for total chromium.

Projected Reporting, Recordkeeping, and Other Compliance Requirements
[Gov. Code, §11346.5(a)(7)(B)]

The projected reporting, recordkeeping, and other compliance requirements resulting from the proposed regulation consist of the following:

Monitoring and Reporting

- Consistent with existing regulations, PWS would be required to use specific health effects language when providing public notification of MCL violation(s);
- Monitoring by CWS, NTNC, and wholesalers of their drinking water sources for hexavalent chromium;

- Consistent with existing regulations, CWS and NTNCWS would be required to use specific language in the Consumer Confidence Report to describe the major origins of hexavalent chromium when hexavalent chromium is detected in drinking water; and
- Submitting a compliance plan if a system exceeds the MCL before the applicable compliance date.

Recordkeeping

- Consistent with existing regulations, PWS would be required to retain records of hexavalent chromium chemical analyses for at least the most recent ten years.
- Consistent with existing regulations, PWS would be required to retain copies of any public notices required in response to hexavalent chromium MCL exceedance for at least the most recent five years.

Other Compliance Requirements

- PWS would need to comply with the hexavalent chromium MCL of 10 µg/L for drinking water. Actions to comply with the MCL may include blending, the installation of treatment, drilling a new well, consolidation with another PWS, or not using a specific well at all.
- PWS would need to operate or contract with an ELAP accredited laboratory for analysis of hexavalent chromium capable of reliably quantifying to the proposed DLR using one of the methods specified.

Invitation to Submit Alternative Proposals
[Gov. Code, §11346.5(a)(7)(C)]

The State Water Board has made an initial determination that the adoption of this regulation may have a significant, statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states. The State Water Board has considered proposed alternatives that would lessen any adverse economic impact on business and invites you to submit proposals. Submissions may include the following considerations:

(i) The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to businesses.

(ii) Consolidation or simplification of compliance and reporting requirements for businesses.

(iii) The use of performance standards rather than prescriptive standards.

(iv) Exemption or partial exemption from the regulatory requirements for businesses.

DETERMINATION OF EFFECT ON SMALL BUSINESSES
[1 CCR 4]

The proposed regulation directly impacts PWS. CWS and wholesalers are water companies (utilities) providing drinking water to the public and, pursuant to Government

Code section 11342.610, are exempt from the definition of a small business in the APA. However, some NTNCWS and TNCWS (such as wineries, restaurants, and agricultural/industrial businesses) may also be considered small businesses if they are independently owned and operated, not dominant in their field of operation, and are not in an exempted category (Gov. Code section 11342.610). While some NTNCWS and TNCWS may be small businesses, the State Water Board does not currently have the data to evaluate which systems meet the criteria. Therefore, the impacts for a typical small business were estimated as the average impacts on privately owned NTNCWS and TNCWS systems.

The State Water Board also recognizes that some small businesses will be served by PWS affected by this regulation and may experience increased water costs as a result. These increased costs are indirect impacts, and are expected to be similar to those experienced by households. Depending on their market environment, these businesses may be able to pass on the increased costs to their customers.

RESULTS OF ECONOMIC IMPACT ASSESSMENT: MAJOR REGULATION -- STATEMENT OF RESULTS OF THE STANDARDIZED REGULATORY IMPACT ANALYSIS (SRIA)
[Gov. Code, §11346.5(a)(10); §11346.3(b)(1); §11346.3(c)]

The standardized regulatory impact analysis (SRIA) is also referred to as a standardized regulatory impact assessment in Department of Finance regulations at 1 CCR sections 2000 through 2004.

SRIA Results
[Gov. Code, §11346.3(c)(1)]

The State Water Board determined that the economic impact of the proposed regulations would likely exceed $50 million in a 12-month period and is therefore a major regulation as defined by California Code of Regulations, Title 1, Division 3, Chapter 1, §2000(g). The State Water Board prepared a SRIA as required by Government Code 11346.3(c).

The proposed hexavalent chromium MCL of 10 µg/L would have the following impacts on California based on the macroeconomic analysis in the SRIA: an increase in gross output of $81 million, an increase in aggregate earnings of $2 million, and $53 million in value added, but a decrease of approximately 401 jobs (all compared to the baseline of not implementing a hexavalent chromium MCL). Potential MCLs at 1, 8, and 12 µg/L were evaluated as alternatives to the current proposal. While some alternatives were slightly more cost-effective than the proposed MCL of 10 µg/L, they did not provide as many health benefits. Because HSC 116365 requires that the MCL be set as close to the PHG as is technologically and economically feasible, placing primary emphasis on the protection of public health, alternatives with similar cost-effectiveness but fewer health benefits must be rejected. An additional cost-effectiveness analysis that compared the proposed MCL to 20 alternatives also showed that 10 µg/L is the lowest the MCL can be set while avoiding large decreases in cost-effectiveness.

While many benefits of this regulation are difficult to quantify, improved public health is the primary benefit, which may be experienced as a reduction in the number of cancer cases (up to 12.8 per year) and noncancer cases (not quantifiable). Although the number of noncancer cases (liver toxicity, which can occur at hexavalent chromium concentrations above 2 µg/L) cannot be quantified, the 5.5 million people who will see hexavalent chromium concentrations reduced by an average of 32.4% are likely to see related health benefits. Additional benefits are the increased public confidence in the safety of the state's drinking water (which may also have monetary benefits for families that choose to no longer purchase bottled water or home treatment systems) and public assurance that exposure to hexavalent chromium in drinking water is at the lowest level technologically and economically feasible.

The conclusions of the SRIA were:

(A) *Creation or Elimination of Jobs* [Gov. Code §11346.3(c)(1)(A)]
Decrease of 401 jobs per year.

(B) *Creation or Elimination of Business* [Gov. Code §11346.3(c)(1)(B)]
Insignificant, estimated as 0.

(C) *Competitive Advantages or Disadvantages* [Gov. Code §11346.3(c)(1)(C)]
None.

(D) *Increase or Decrease of Investment* [Gov. Code §11346.3(c)(1)(D)]
Increased investment of $94 million per year.

(E) *Incentives for Innovation* [Gov. Code §11346.3(c)(1)(E)]
The proposed MCL will lead to systems installing treatment technologies capable of removing hexavalent chromium from their water. Systems' search for effective technologies will drive innovation.

(F) *Benefits of the Proposed Regulations* [Gov. Code §11346.3(c)(1)(F)]
Primary benefits are improved public health.

Department of Finance SRIA Comments and State Water Board Responses
[Gov. Code, 11346.3(f)]

The SRIA was submitted to the Department of Finance (DOF) on 13 December 2022. DOF provided comments to the State Water Board on 12 January 2023. DOF generally concurred with the State Water Board's methodology in the SRIA, except for four comments. The four comments, and the State Water Board's response to those comments, are as follows:

Comment 1: First, the SRIA must disclose estimates of all fiscal impacts to state and local governments, including any potential revenue impacts such as any increased sales tax from the purchase and installation of testing and treatment equipment and materials they purchase in California – for example, the capital costs of $95 million in 2028 could increase sales tax revenue by around $7.8 million (assuming an average tax rate of 8.2 percent).

Response: *Calculations for local and state sales tax revenue have been added to the updated SRIA (ISOR Attachment 2) in sections D.1.b and D.2.c, respectively. These items have also been added to the Form STD-399 Fiscal Impact Statement section.*

Comment 2: Second, the SRIA must discuss the disparate impacts of the regulations on identifiable groups of individuals and businesses. While the SRIA separates into quartiles the numbers of individuals whose monthly water bills would increase by different amounts, the SRIA does not provide information on the population in each quartile, nor does it discuss the potential of the projected increases to be particularly burdensome for individuals for whom water expenses are a higher proportion of total household expenses.

Response: *To the extent that data allowed, section C.5 of the SRIA was updated to include information on identifiable groups of individuals in each of the quartiles, including the estimated populations of each quartile affected. However, the State Water Board does not collect or have information about the businesses served by water systems or how those businesses are charged for water, so only general statements could be made regarding businesses. The updated SRIA now explicitly acknowledges that any increase in household costs will necessarily be more burdensome for individuals for whom such expenses are already a higher proportion of total household expenses. Section 11 of the ISOR also contains information about the costs to individuals served by water systems of different sizes and funding options that are available to alleviate burdensome costs.*

Comment 3: Third, the SRIA must provide the rationale underlying any assumptions that are material to the analysis. The SRIA is missing rationale for some assumptions including but not limited to the following:

Comment 3a: Future costs are discounted at a 7 percent rate rather than a lower rate such as 3 percent. Since higher discount rates lead to lower cost estimates, the SRIA must disclose why 7 percent is the most appropriate discount rate for this regulation or provide a sensitivity analysis showing how different discount rates affect the impact estimates.

Response: *Section I.3.c.2 of the SRIA was updated to include rationale and sources for the rate of 7%. However, this was an interest rate, not a discount rate (the text has also clarified this point). Lower interest rates lead to lower cost estimates, making 7% more conservative than 3%.*

Comment 3b: The SRIA implicitly assumes that water systems that did not previously test for hexavalent chromium will not incur any compliance costs. The SRIA notes that the number of affected systems could increase as testing is adopted yet bases future cost estimates on only the number of systems currently known to be out of compliance. The SRIA must either explain why it assumes that the untested systems will not incur costs to comply with the regulation or provide a sensitivity analysis showing how

different assumptions about hexavalent chromium concentrations among untested water systems will affect the regulation's impact estimates.

Response: *Section A.2 of the SRIA has been updated to explain that the majority of sources that have not tested are TNCWS sources and will not be required to test, and therefore, will not incur costs to comply with this regulation. Of all sources that would be required to test for hexavalent chromium by this regulation, only 4.6% of groundwater sources and 6.3% of surface water sources have not already tested. The extensive variability between sources, including but not limited to such factors as local geology, historic regional use of products or processes that contribute to the formation or deposition of hexavalent chromium, and the necessity of a source to a PWS, creates significant challenges to accurately extrapolate the extent of further contamination, any additional need for treatment, and the costs of such treatment. In addition, the cost estimates developed for this regulation rely on the contamination level of each source, which is not available for any untested sources. For these reasons, the State water Board did not attempt to predict how many additional sources may require treatment for hexavalent chromium and is instead relying on the known hexavalent chromium concentrations in drinking water sources to calculate costs.*

COST IMPACTS ON A REPRESENTATIVE PRIVATE PERSON OR BUSINESS
[Gov. Code, §11346.5(a)(9)]

The proposed regulation does not impose any direct costs on individuals served by the affected PWS or on any other individual in California (this regulation only applies to PWS, not private wells). However, the affected PWS are likely to pass on some or all of their increased costs to the households or businesses that they serve, likely in the form of higher monthly water bills. Thus, based on current monitoring data, it is expected that 5.3 million individuals – approximately 14% of California's population – would experience water cost increases. For the majority of people (84%), the increases will likely be less than $20 per month. Increases will likely be higher for those served by small PWS. As is the case with most increases in household costs, increases will be more burdensome for individuals for whom such expenses are already a higher proportion of total household expenses.

Detailed breakdowns of cost impacts to individuals are provided in section 11 of the ISOR and in section C.5 of the SRIA (ISOR Attachment 2).

BUSINESS REPORTS
[Gov. Code, §11346.5(a)(11); §11346.3(d)]

Government Code subsection 11346.36(d) requires that any administrative regulation adopted on or after January 1, 1993, that requires a report shall not apply to businesses, unless the state agency adopting the regulation makes a finding that it is necessary for health, safety, or welfare of the people of the state that the regulation apply to businesses. To the extent that this regulation requires reporting of businesses, that reporting is necessary for the health, safety, or welfare of the people of the state.

The only businesses that would be subject to the proposed regulations are those which are also PWS as defined in HSC section 116275.

HOUSING COSTS
[Gov. Code, §11346.5(a)(12)]

The State Water Board has determined that the regulations will have no impact on housing costs.

CONSIDERATION OF ALTERNATIVES
[Gov Code, §11346.5(a)(13)]

Based upon the analysis of the proposed regulations in the SRIA as well as the benefits identified, the State Water Resources Control Board must determine that no reasonable alternative it considered or that has otherwise been identified and brought to its attention would be:

- more effective in carrying out the purpose for which the action is proposed,
- would be as effective and less burdensome to affected private persons than the proposed action, or
- would be more cost-effective to affected private persons and equally effective in implementing the statutory policies or other provisions of law.

As described in detail in the SRIA, the State Water Board estimated costs and benefits associated with 20 alternative potential MCLs: from 1 to 15, 20, 25, 30, 35, 40, and 45 μg/L. The State Water Board invites interested persons to present statements or arguments with respect to alternatives to the proposed regulation at the scheduled hearing or during the written comment period.

FORMS OR DOCUMENTS INCORPORATED BY REFERENCE
[CCR Title 1, Div. 1, Ch. 1, §20(c)(3)]

The following documents are incorporated by reference in the proposed regulations as it would be too cumbersome, unduly expensive, or impractical to publish these documents into regulation because of their length. Specifically,

1) U.S. EPA. (1994). Method 218.6: Determination of Dissolved Hexavalent Chromium in Drinking Water, Groundwater, and Industrial Wastewater Effluents by Ion Chromatography, Rev. 3.3 is approximately 16 pages in length; and

2) U.S. EPA (2011). Method 218.7: Determination of Hexavalent Chromium in Drinking Water by Ion chromatography with Post-Column Derivatization and UV-Visible Spectroscopic Detection is approximately 31 pages in length.

STATE WATER BOARD CONTACT PERSONS
[Gov. Code, §11346.5(a)(14)]

Requests for copies of the proposed regulatory text, the Initial Statement of Reasons, subsequent modifications of the proposed regulatory text, if any, or other inquiries concerning the proposed action may be directed to:

Melissa Hall, P.E.
Senior Water Resource Control Engineer
State Water Resources Control Board, Division of Drinking Water
(916) 323-0373
Email address: melissa.hall@waterboards.ca.gov

In the event Miss Hall is not available to respond, please contact:

Bethany Robinson, PhD
Water Resource Control Engineer
State Water Resources Control Board, Division of Drinking Water
(510) 620-6285
Email address: bethany.robinson@waterboards.ca.gov

Please identify the action by using the State Water Board regulation package identifier, "SWRCB-DDW-21-003: Hexavalent Chromium MCL" in any inquiries.

WRITTEN COMMENT PERIOD AND SUBMITTAL OF COMMENTS
[Gov. Code, § 11346.5(a)(15)]

Any interested person, or their representative, may submit written comments relevant to the proposed regulatory action to the Clerk to the State Water Board. Any written comments pertaining to these proposed regulations, regardless of the method of transmittal, must be received by the Clerk by 12:00 p.m. (noon) on **4 August 2023**, which is hereby designated as the close of the written comment period. Comments received after this time will not be considered timely. Written comments may be submitted via any of following methods:

1. By electronic mail to: commentletters@waterboards.ca.gov;
2. By facsimile ("fax") transmission to: (916) 341-5620;
3. By mail to:
   Courtney Tyler, Clerk to the Board
   State Water Resources Control Board
   P.O. Box 100
   Sacramento, CA 95812-2000; or
4. By hand-delivery to:
   Courtney Tyler, Clerk to the Board
   State Water Resources Control Board
   1001 I Street, 24th Floor
   Sacramento, CA 95814.

To facilitate timely identification and review, please identify the action by using the State Water Board regulation package identifier, "**SWRCB-DDW-21-003: Hexavalent Chromium MCL**" in any written comments.

The State Water Board requests but does not require that written comments sent by mail or hand-delivered be submitted in triplicate.

The State Water Board requests but does not require that, if reports or articles in excess of 25 pages are submitted in conjunction with the comments, the commenter provide a summary of the report or article and describe the reason for which the report or article is being submitted or its relevance to the proposed regulation.

All comments, including e-mail or fax transmissions, should include the author's name and U.S. Postal Service mailing address in order for the State Water Board to provide copies of any notices for proposed changes to the regulation text or rulemaking file on which additional comments may be solicited. Please note that under the California Public Records Act (Gov. Code, §7920.000 *et seq.*), written and oral comments, attachments, and associated contact information (*e.g.*, your address, phone, email, *etc.*) become part of the public record and can be released to the public upon request.

Due to the limitations of the e-mail system, emails larger than 15 megabytes (MB) may be rejected and will not be delivered and received by the State Water Board. Therefore, emails larger than 15 MB should be submitted under separate emails or via another form of delivery.

AVAILABILITY OF INITIAL STATEMENT OF REASONS, TEXT OF PROPOSED REGULATIONS, AND THE RULEMAKING FILE
[Gov. Code, §11346.5(a)(16)]

The State Water Board has prepared and has available for public review an initial statement of reasons for the proposed regulations, all the information upon which the proposed regulations are based, the text of the proposed regulations, EIR, and all other required forms, statements, and reports. The Regulatory Development Unit, Division of Drinking Water, State Water Resources Control Board, 1001 I Street, 17th Floor, Sacramento, CA 95814, will be the location for inspection and copying of public records, including reports, documentation, and other material related to the proposed regulations (rulemaking file) throughout the rulemaking process.

Upon specific request, these documents will be made available in Braille, large print, or CD (compact disk). In order to request that a copy of this public notice, the regulation text, and the initial statement of reasons be mailed or emailed to you in an alternative format, please call (916) 341-5611 (or the California Relay Service at 711) or send an email to board.clerk@waterboards.ca.gov.

AVAILABILITY OF CHANGED OR MODIFIED TEXT
[Gov. Code, §11346.5(a)(18)]

After holding the hearing and considering relevant comments received in a timely manner, the State Water Board may adopt the proposed regulations as described in this notice. If the State Water Board makes modifications that are substantially related to the originally proposed text, the State Board will make the modified text – with changes clearly indicated – available to the public for at least 15 days before the State Water Board adopts the modified regulations. Any such modifications will also be posted on the State Water Board Web site. Please send requests for copies of any modified regulations to the attention of the contact persons provided above ("Contact Persons"). The State Water Board will accept written comments on the modified regulation for 15 days after the date on which they were made available.

AVAILABILITY OF FINAL STATEMENT OF REASONS
[Gov. Code, §11346.5(a)(19)]

The State Water Board will prepare a final statement of reasons pursuant to Government Code section 11346.9 after final adoption of the regulations. Please direct requests for copies of the final statement of reasons to the attention of the contact persons listed above ("Contact Persons").

AVAILABILITY OF DOCUMENTS ON THE INTERNET
[Gov. Code, §11346.4(a)(6); §11346.5(a)(20)]

Copies of this Notice of Proposed Rulemaking, the Initial Statement of Reasons, and the text of the regulations may be found on the State Water Board's Web site at the Division of Drinking Water's Hexavalent Chromium MCL Internet Web Page at: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/SWRCBDDW-21-003_hexavalent_chromium.html.

June 16, 2023
Date

Courtney Tyler
Courtney Tyler
Clerk to the Board

Title 22. Social Security

Division 4. Environmental Health

Chapter 15. Domestic Water Quality and Monitoring Regulations

Article 2. General Requirements

(1) Amend Section 64415 to read as follows:

§ 64415. Laboratory and Personnel.

(a) Except as provided in subsection (b), required analyses shall be performed by laboratories certified by the State Board to perform such analyses pursuant to Article 3, commencing with section 100825, of Chapter 4 of Part 1 of Division 101, Health and Safety Code. Unless directed otherwise by the State Board, analyses shall be made in accordance with the following~~U.S. EPA approved methods as prescribed at~~:

(1) U.S. EPA approved methods as prescribed at 40 Code of Federal Regulations sections 141.23 through 141.41, 141.66, and 141.89 (7-1-2019 edition), which are incorporated by reference; ~~and~~

(2) U.S. EPA approved methods as prescribed at 40 Code of Federal Regulations section 141.852 (78 Fed. Reg. 10270 (February 13, 2013), as amended at 79 Fed. Reg. 10665 (February 26, 2014)), which is incorporated by reference~~.~~; and

(3) Methods used for analysis of hexavalent chromium shall be performed using one of the following:

(A) U.S. EPA Method 218.6: Determination of Dissolved Hexavalent Chromium in Drinking Water, Groundwater, and Industrial Wastewater Effluents by Ion Chromatography, Rev. 3.3, (May 1994), which is incorporated by reference in its entirety; and

(B) U.S. EPA Method 218.7: Determination of Hexavalent Chromium in Drinking Water by Ion Chromatography with Post-Column Derivatization and UV-Visible Spectroscopic Detection, Version 1.0, (November 2011), which is incorporated by reference in its entirety.

(b) [No change to text]

Note: Authority cited: Sections 116271, 116350, ~~and~~ 116375, ~~,~~ and 116385, Health and Safety Code. Reference: Sections 116375, 116385 and 116390, Health and Safety Code; and 40 Code of Federal Regulations 141.

Article 4. Primary Standards—Inorganic Chemicals

(2) Amend Section 64431 to read as follows:

§ 64431. Maximum Contaminant Levels—Inorganic Chemicals.

Public water systems shall comply with the primary MCLs in ~~t~~Table 64431-A as specified in this article.

Table 64431-A

Maximum Contaminant Levels

Inorganic Chemicals

Chemical	*Maximum Contaminant Level, mg/L*
Aluminum	1.
Antimony	0.006
Arsenic	0.010
Asbestos	7 MFL*
Barium	1.
Beryllium	0.004
Cadmium	0.005
Chromium (hexavalent)	0.010
Chromium (total)	0.05
Cyanide	0.15
Fluoride	2.0
Mercury	0.002
Nickel	0.1
Nitrate (as nitrogen)	10.
Nitrate+Nitrite (sum as nitrogen)	10.

Nitrite (as nitrogen)	1.
Perchlorate	0.006
Selenium	0.05
Thallium	0.002

* MFL=million fibers per liter; MCL for fibers exceeding 10 µm in length.

Note: Authority cited: Sections 116270, 116271, 116293(b), 116350, 116365, 116365.5 and 116375, Health and Safety Code. Reference: Sections 116365, 116365.5 and 116470, Health and Safety Code.

(3) Amend Section 64432 to read as follows:

§ 64432. Monitoring and Compliance—Inorganic Chemicals.

(a) All public water systems shall monitor to determine compliance with the nitrate and nitrite MCLs in tTable 64431-A, pursuant to subsections (d) through (f) and section 64432.1. All community and nontransient-noncommunity water systems shall monitor to determine compliance with the perchlorate MCL, pursuant to subsections (d), (e), and (l), and section 64432.3. All community and nontransient-noncommunity water systems shall also monitor to determine compliance with the other MCLs in tTable 64431-A, pursuant to subsections (b) through (n), and, for asbestos, section 64432.2. Monitoring shall be conducted in the year designated by the State Board of each compliance period beginning with the compliance period starting January 1, 1993.

(b) Unless directed otherwise by the State Board, each community and nontransient-noncommunity water system shall initiate monitoring for an inorganic chemical within six months following the effective date of the regulation establishing the MCL for the chemical and the addition of the chemical to tTable 64431-A.

If otherwise performed in accordance with this section, groundwater monitoring for an inorganic chemical performed no more than two years prior to the effective date of the regulation establishing the MCL may be used to satisfy the requirement for initiating monitoring within six months following such effective date.

(c) Unless more frequent monitoring is required pursuant to this Chapter, the frequency of monitoring for the inorganic chemicals listed in tTable 64431-A, except for asbestos, nitrate/nitrite, and perchlorate, shall be as follows:

(1) [No change to text]

(2) [No change to text]

(d) For the purposes of sections 64432, 64432.1, 64432.2, and 64432.3, detection shall be defined by the detection limits for purposes of reporting (DLRs) in tTable 64432-A.

Table 64432-A

Detection Limits for Purposes of Reporting (DLRs) for Regulated Inorganic Chemicals

Chemical	*Detection Limit for Purposes of Reporting (DLR) (mg/L)*
Aluminum	0.05
Antimony	0.006
Arsenic	0.002
Asbestos	0.2 MFL>10µm*
Barium	0.1
Beryllium	0.001
Cadmium	0.001
Chromium (hexavalent)	0.0001
Chromium (total)	0.01
Cyanide	0.1
Fluoride	0.1
Mercury	0.001
Nickel	0.01
Nitrate (as nitrogen)	0.4
Nitrite (as nitrogen)	0.4
Perchlorate	0.002 0.001 (Effective January 1, 2024)

Selenium	0.005
Thallium	0.001

* MFL=million fibers per liter; DLR for fibers exceeding 10 µm in length.

(e) [No change to text]

(f) [No change to text]

(g) [No change to text]

(h) [No change to text]

(i) Compliance with the MCLs shall be determined by a running annual average; if any one sample would cause the annual average to exceed the MCL, the system is immediately in violation. If a system takes more than one sample in a quarter, the average of all the results for that quarter shall be used when calculating the running annual average. If a system fails to complete four consecutive quarters of monitoring, the running annual average shall be based on an average of the available data.

(j) [No change to text]

(k) [No change to text]

(l) [No change to text]

(m) [No change to text]

(n) [No change to text]

(o) Transient-noncommunity water systems shall monitor for the inorganic chemicals in tTable 64431-A as follows:

(1) [No change to text]

(2) [No change to text]

(p) A water system shall comply with the chromium (hexavalent) MCL by the applicable compliance date in Table 64432-B.

Table 64432-B

Chromium (Hexavalent) MCL Compliance Date

System Size (Service Connections Served on [INSERT EFFECTIVE DATE])	*Chromium (Hexavalent) MCL Compliance Date*
10,000 or greater	[INSERT DATE TWO YEARS AFTER REGULATION TAKES EFFECT]
1,000 to 9,999	[INSERT DATE THREE YEARS AFTER REGULATION TAKES EFFECT]
Fewer than 1,000	[INSERT DATE FOUR YEARS AFTER REGULATION TAKES EFFECT]

(q) If before the applicable compliance date in Table 64432-B, a water system's monitoring for chromium (hexavalent) conducted pursuant to subsection (b) demonstrates an MCL exceedance as calculated in accordance with subsection (i), then no later than 90 days after the MCL exceedance a water system shall submit to the State Board a Hexavalent Chromium MCL Compliance Plan that is sufficient to demonstrate how the system will comply with the chromium (hexavalent) MCL.

(1) The Hexavalent Chromium MCL Compliance Plan shall state how the water system will comply with the chromium (hexavalent) MCL no later than the applicable compliance date in Table 64432-B and include, at a minimum, the following:

(A) The proposed method for complying with the chromium (hexavalent) MCL; if a new or modified treatment process is proposed, the Hexavalent Chromium MCL Compliance Plan shall include a pilot study adequate to demonstrate that the new or modified treatment process will result in compliance with the chromium (hexavalent) MCL;

(B) If the proposed compliance method requires construction, the date by which the water system will submit to the State Board final plans and specifications for the proposed method of compliance;

(C) If the proposed compliance method requires construction, the anticipated dates for commencing construction and completing 100 percent of construction;

(D) If a new or modified treatment process is proposed, the anticipated date by which a Hexavalent Chromium Operations Plan as specified in subsection (r) will be submitted.

(2) A public water system may make amendments to its Hexavalent Chromium MCL Compliance Plan. Any amendment made shall be submitted to the State Board for review and approval that it meets the requirements of section (1).

(3) A water system shall implement its State Board approved Hexavalent Chromium MCL Compliance Plan by the dates set forth therein.

(r) A water system utilizing a new or modified treatment process to comply with the chromium (hexavalent) MCL shall, prior to serving water treated by the new or modified treatment process to the public, submit to the State Board for review and approval a Hexavalent Chromium Operations Plan sufficient to ensure that water treated by the new or modified treatment process reliably and continuously meets the chromium (hexavalent) MCL. The Hexavalent Chromium Operations Plan shall include, at a minimum, the following:

1. Performance monitoring program that sets out how and when treatment will be monitored to ensure compliance with the chromium (hexavalent) MCL;

2. A program for maintenance of treatment process equipment that describes how and when equipment will be maintained and when equipment replacement is needed to ensure treatment is operating as designed;

3. A description of each treatment unit process and how it is operated;

4. A description of procedures used to determine chemical dose rates sufficient to ensure the treatment process is operating as designed;

5. A description of reliability features incorporated into the treatment process to ensure operation as designed; and

6. Treatment media inspection program sufficient to ensure the media is inspected at intervals and for conditions necessary to ensure compliance with the chromium (hexavalent) MCL.

...

Note: Authority cited: Sections 116271, 116275, 116293(b), 116350 and 116375, Health and Safety Code. Reference: Section 116275 and 116385, Health and Safety Code.

Article 12. Best Available Technologies (BAT)

(4) Amend Section 64447.2 to read as follows:

§ 64447.2. Best Available Technologies (BAT)—Inorganic Chemicals.

The technologies listed in ~~t~~Table 64447.2-A are the best available technology, treatment techniques, or other means available for achieving compliance with the MCLs in ~~t~~Table 64431-A for inorganic chemicals.

Table 64447.2-A
Best Available Technologies (BATs)
Inorganic Chemicals

Chemical	*Best Available Technologies (BATs)*
Aluminum	10
Antimony	2, 7
Arsenic	1, 2, 5, 6, 7, 9, 13
Asbestos	2, 3, 8
Barium	5, 6, 7, 9
Beryllium	1, 2, 5, 6, 7
Cadmium	2, 5, 6, 7
Chromium (hexavalent)	5, 7, 14
Chromium (total)	2, 5, 6[a], 7
Cyanide	5, 7, 11
Fluoride	1
Mercury	2[b], 4, 6[b], 7[b]
Nickel	5, 6, 7

Nitrate	5, 7, 9
Nitrite	5, 7
Perchlorate	5, 12
Selenium	1, 2[c], 6, 7, 9
Thallium	1, 5

[a]BAT for chromium III (trivalent chromium) only.

[b]BAT only if influent mercury concentrations < 10 µg/L.

[c]BAT for selenium IV only.

Key to BATs in ~~t~~Table 64447.2-A:

1= Activated Alumina

2= Coagulation/Filtration (not BAT for systems <500 service connections)

3= Direct and Diatomite Filtration

4= Granular Activated Carbon

5= Ion Exchange

6= Lime Softening (not BAT for systems <500 service connections)

7= Reverse Osmosis

8= Corrosion Control

9= Electrodialysis

10= Optimizing treatment and reducing aluminum added

11= Chlorine oxidation

12= Biological fluidized bed reactor

13= Oxidation/Filtration

14= Reduction/Coagulation/Filtration

Note: Authority cited: Sections 116271, 116293(b), 116350 and 116375, ~~131052 and 131200,~~ Health and Safety Code. Reference: Section 116370, Health and Safety Code.

Article 18. Notification of Water Consumers and the State Board

(5) Amend Section 64465 to read as follows:

§ 64465. Public Notice Content and Format.

...

(d) [No change to text]

Appendix 64465-A. Health Effects Language
Microbiological Contaminants

Appendix 64465-B. Health Effects Language
Surface Water Treatment

Appendix 64465-C. Health Effects Language
Radioactive Contaminants

Appendix 64465-D. Health Effects Language
Inorganic Contaminants

Contaminant	*Health Effects Language*
Aluminum	[No change to text]
Antimony	[No change to text]
Arsenic	[No change to text]
Asbestos	[No change to text]
Barium	[No change to text]
Beryllium	[No change to text]
Cadmium	[No change to text]
Chromium (hexavalent)	Some people who drink water containing hexavalent chromium in excess of the MCL over many years may have an increased risk of getting cancer.
Chromium (total)	[No change to text]
Copper	[No change to text]
Cyanide	[No change to text]

Fluoride	[No change to text]
Lead	[No change to text]
Mercury	[No change to text]
Nickel	[No change to text]
Nitrate	[No change to text]
Nitrite	[No change to text]
Perchlorate	[No change to text]
Selenium	[No change to text]
Thallium	[No change to text]

Appendix 64465-E. Health Effects Language

Volatile Organic Contaminants

Appendix 64465-F. Health Effects Language

Synthetic Organic Contaminants

Appendix 64465-G. Health Effects Language

Disinfection Byproducts, Byproduct Precursors, and Disinfection Residuals

Appendix 64465-H. Health Effects Language

Other Treatment Techniques

No change to Appendices 64465-A through C or 64465-E through H.

Note: Authority cited: Sections 116271, 116350 and 116375, Health and Safety Code. Reference: Sections 116450 and 116470, Health and Safety Code.

Article 20. Consumer Confidence Report

(6) Amend Section 64481 to read as follows:

§ 64481. Content of the Consumer Confidence Report.

...

(c) If any of the following are detected, information for each pursuant to subsection (d) shall be included in the Consumer Confidence Report:

(1) Contaminants subject to an MCL, regulatory action level, MRDL, or treatment technique (regulated contaminants), as specified in sections 64426.1, 64426.6, 64431, 64442, 64443, 64444, 64448, 64449, 64533, 64533.5, 64536, 64536.2, 64653, and 64678;

(2) Contaminants specified in 40 Code of Federal Regulations part 141.40 (7-1-2007 edition) for which monitoring is required (unregulated contaminants);

(3) Microbial contaminants detected as provided under subsection (3); and

(4) Sodium and hardness.

(d) For contaminants identified in subsection (c), the water system shall include in the Consumer Confidence Report one table or several adjacent tables that have been developed pursuant to this subsection. Any additional monitoring results that a water system chooses to include in its Consumer Confidence Report shall be displayed separately.

...

(o) The ~~c~~Consumer ~~c~~Confidence ~~r~~Report prepared and delivered by July 1, 2022 shall, for bacteriological monitoring conducted from January 1, 2021 to June 30, 2021, inclusive, include the following additional information in the report:

(1) The total coliform MCL expressed as shown in ~~t~~Table 64481-C.

Table 64481-C

Total Coliform MCL for Consumer Confidence Report

Contaminant	*MCL*
[No change to text]	[No change to text]
[No change to text]	[No change to text]

(2) [No change to text]

(3) [No change to text]

(4) The likely source(s) of any total coliform, fecal coliform, or *E. coli* detected. If the water system lacks specific information on the likely source, the table shall include the typical source for that contaminant listed in tTable 64481-D.

Table 64481-D

Typical Origins of Microbiological Contaminants with Primary MCL

Contaminant	*Major Origins in Drinking Water*
[No change to text]	[No change to text]
[No change to text]	[No change to text]

(5) Information on any data indicating violation of the total coliform MCL, including the length of the violation, potential adverse health effects, and actions taken by the water system to address the violation. To describe the potential health effects, the water system shall use the relevant language in tTable 64481-E.

Table 64481-E

Health Effects Language for Microbiological Contaminants

Contaminant	*Health Effects Language*
[No change to text]	[No change to text]
[No change to text]	[No change to text]
[No change to text]	[No change to text]

(6) [No change to text]

(p) A Consumer Confidence Report issued after [INSERT EFFECTIVE DATE OF THE PROPOSED REGULATION] and prior to the applicable compliance date in Table 64432-B shall include the following information for chromium (hexavalent):

(1) If chromium (hexavalent) is detected, the Consumer Confidence Report shall include information pursuant to subsections (c) and (d).

(2) If chromium (hexavalent) exceeds the MCL, the Consumer Confidence Report shall include additional information indicated in Table 64481-F.

Table 64481-F CCR Language
Hexavalent Chromium MCL Exceedance

CCR Language
Chromium (hexavalent) was detected at levels that exceed the chromium (hexavalent) MCL. While a water system of our size is not considered in violation of the chromium (hexavalent) MCL until after [INSERT APPLICABLE TABLE 64432-B COMPLIANCE DATE], we are working to address this exceedance and comply with the MCL. Specifically, we are [INSERT ACTIONS TAKEN AND PLANNED TO COMPLY WITH THE APPLICABLE COMPLIANCE DATE IN TABLE 64432-B].

Appendix 64481-A.
Typical Origins of Contaminants with Primary MCLs, MRDLs, Regulatory Action Levels, and Treatment Techniques

Contaminant	*Major origins in drinking water*
Microbiological	
[No change to text]	[No change to text]
Surface water treatment	
[No change to text]	[No change to text]

Radioactive

[No change to text]	[No change to text]

Inorganic

Aluminum	[No change to text]
Antimony	[No change to text]
Arsenic	[No change to text]
Asbestos	[No change to text]
Barium	[No change to text]
Beryllium	[No change to text]
Cadmium	[No change to text]
Chromium (hexavalent)	Erosion of natural deposits; transformation of naturally occurring trivalent chromium to hexavalent chromium by natural processes and human activities such as discharges from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities.
Chromium (total)	[No change to text]
Copper	[No change to text]
Cyanide	[No change to text]
Fluoride	[No change to text]
Lead	[No change to text]
Mercury	[No change to text]
Nickel	[No change to text]
Nitrate	[No change to text]
Nitrite	[No change to text]
Perchlorate	[No change to text]

Selenium	[No change to text]
Thallium	[No change to text]

Synthetic organic

[No change to text]	[No change to text]

Volatile organic

[No change to text]	[No change to text]

Disinfection Byproducts, Disinfection Byproduct Precursors, and Disinfectant Residuals

[No change to text]	[No change to text]

...

Note: Authority cited: Sections 116271, 116350 and 116375, Health and Safety Code. Reference: Sections 116275 and 116470, Health and Safety Code.

INITIAL STATEMENT OF REASONS

for the

Hexavalent Chromium Maximum Contaminant Level (MCL) Regulation

Title 22, California Code of Regulations

May 4, 2023

Division of Drinking Water
State Water Resources Control Board

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Abbreviations for

BAT – Best Available Technology

BEA – Bureau of Economic Analysis

BAU – Business as Usual

CCR – California Code of Regulations

CDPH – California Department of Public Health

CEM – Cost Estimating Methodology

CEQA – California Environmental Quality Act

CER – Cost-Effectiveness Ratio

CPI – Consumer Price Index

CWS – Community Water System

DAC – Disadvantaged Community

DDW – Division of Drinking Water

DLR – Detection Limit for Purposes of Reporting

DWSRF – Drinking Water State Revolving Fund

ELAP – California Environmental Laboratory Accreditation Program

ELTAC – Environmental Laboratory Technical Advisory Committee

GPM – Gallons per Minute

HFPO-DA – Hexafluoropropylene Oxide Dimer Acid

HR2W – Human Right to Water

HSC – California Health and Safety Code

MCL – Maximum Contaminant Level

MCER – Marginal Cost-Effectiveness Ratio

MG – Million Gallons

mg/L – Milligrams per Liter

MRL – Minimum Reporting Level

MUL – Maximum Use Level

NAICS – North American Industry Classification System

NDMA – N-nitroso-dimethylamine

NTNCWS – Non-transient Non-community Water System

O&M – Operations and maintenance

OEHHA – Office of Environmental Health Hazard Assessment

PFBS – Perfluorobutane Sulfonic Acid

PFHxS – Perfluorohexane Sulfonic Acid

PFNA – Perfluoro-nonanoic Acid

PFOA – Perfluoro-octanoic Acid

PFOS – Perfluoro-octane Sulfonic Acid

PHG – Public Health Goal

POE – Point-of-Entry

POU – Point-of-Use

PWS – Public Water System

RCF – Reduction/Coagulation/Filtration

RIMS – Regional Input-Output Modeling System

RO – Reverse Osmosis

SADW – Safe and Affordable Drinking Water

SBA – Strong Base Anion Exchange

SC – Service Connection

SDAC – Severely Disadvantaged Community

SDWIS – Safe Drinking Water Information System

SRIA – Standardized Regulatory Impact Analysis/Assessment

SWRCB – State Water Resources Control Board

TNCWS – Transient Non-community Water System

U.S. EPA – United States Environmental Protection Agency

µg/L – Micrograms per Liter

WBA – Weak Base Anion Exchange

WQIR – Water Quality Information Replacement

1. PROBLEM STATEMENT

[Gov. Code, §11346.2(b)(1)]

The California State Water Resources Control Board (State Water Board or SWRCB) establishes drinking water standards to ensure that drinking water provided by public water systems (PWS) is at all times safe, pure, wholesome, and potable.[1] All suppliers of domestic water to the public are subject to regulations adopted by the United States Environmental Protection Agency (U.S. EPA) under the Safe Drinking Water Act of 1974, as amended (42 U.S.C. §300f et seq.). California PWS are also subject to regulations adopted by the State Water Board under the California Safe Drinking Water Act (Health & Saf. Code, div. 104, pt. 12, ch. 4, §116270 et seq.). Health and Safety Code (HSC) 116270(f) declares California's intent to improve upon the minimum requirements of the federal Safe Drinking Water Act Amendments of 1996 and to establish a program that is more protective of public health than the minimum federal requirements. HSC 116350(b) establishes the State Water Board's responsibility to adopt regulations to implement the California Safe Drinking Water Act.

HSC 116365(a) and 116365(b) require the State Water Board to adopt primary drinking water standards for contaminants, specifying that each standard must be set at a level as close as feasible to the corresponding public health goal (PHG), placing primary emphasis on the protection of public health, and meeting, to the extent technologically and economically feasible, the conditions of HSC 116365. Primary drinking water standards are expressed as either a maximum contaminant level (MCL) or treatment technique, along with associated monitoring and reporting requirements, as described in HSC 116275.

Pursuant to HSC 116365(c), the Office of Environmental Health Hazard Assessment (OEHHA) prepares and publishes an assessment of public health risks posed by each contaminant for which the State Water Board proposes a primary drinking water standard. This risk assessment includes an estimate, the PHG, of the drinking water contaminant level that is not anticipated to cause or contribute to adverse health effects, or that does not pose any significant health risk. In 2011, OEHHA published a hexavalent chromium PHG of 0.02 micrograms per liter (µg/L) based on cancer effects and identified a health-protective concentration of 2 µg/L based on liver toxicity (OEHHA, 2011). HSC 116365.5 specifically requires establishment of a hexavalent chromium MCL that complies with the HSC 116365 criteria by January 1, 2004. California does not currently have a hexavalent chromium MCL.

HSC 116370 requires the State Water Board to adopt a finding of the best available technology (BAT) for each contaminant for which a drinking water standard has been adopted at the time of adoption. HSC 116375 requires the State Water Board to adopt

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[1] In 2018, the State Water Board "succeeded to and is vested with all of the authority, duties, powers, purposes, functions, responsibilities, and jurisdiction of the State Department of Public Health, its predecessors, and its director for purposes of" implementing the Safe Drinking Water Act, among other things (Health & Saf. Code 116271).

regulations necessary to carry out the purposes of California's Safe Drinking Water Act, including monitoring of contaminants and reporting of results and requirements for notifying the public of delivered water quality.

HSC 116450 requires PWS to provide notice to water users when primary drinking water standards and monitoring requirements are not met, requires the notices to include information on possible human health effects of the subject contaminant, and requires the State Water Board to approve the content of such notices.

HSC 116470 requires each PWS to prepare and deliver annual consumer confidence reports to their customers containing information on each detected regulated contaminant, a statement of health concerns that resulted in regulation of that contaminant.

The State Water Board proposes to establish a primary drinking water standard for hexavalent chromium in the form of an MCL of 10 µg/L or 0.010 milligrams per liter (mg/L); an associated detection limit for purposes of reporting (DLR), as defined in 22 California Code of Regulations (CCR), section 64400.34, of 0.1 µg/L or 0.0001 mg/L, consistent with HSC 116275. The State Water Board further proposes to adopt BAT and human health effects language for public notification and consumer confidence reports. The State Water Board has determined that the proposed regulations are necessary to carry out the purposes of California's Safe Drinking Water Act. The State Water Board has the responsibility and authority to adopt the subject regulations.

2. SUMMARY OF PROPOSAL

The primary purpose of the proposed regulations is to adopt a primary drinking water standard for hexavalent chromium, consistent with and meeting the requirements of HSC 116365, and associated requirements.

The proposed regulation would implement, interpret, or make specific HSC sections 116275, 116365, 116365.5, 116370, 116375, 116385, 116390, 116450, and 116470. Pursuant to HSC sections 116270, 116271, 116275, 116350, 116365, 116365.5, 116375, and 116385, the State Water Board proposes the below noted changes to title 22, chapter 15:

Article 2. General Requirements

- Amend section 64415 (Laboratory and Personnel) as follows:
  - The addition of paragraph (3) to incorporate by reference approved analytical methods (U.S. EPA methods 218.6 and 218.7) for the analysis of hexavalent chromium; and
  - to reorganize text to accommodate the new paragraph (3).

Article 4. Primary Standards—Inorganic Chemicals

- Amend section 64431 (Maximum Contaminant Levels – Inorganic Chemicals) as follows:
  - Table 64431-A to adopt a hexavalent chromium MCL of 10 µg/L; and

  - Table 64431-A to specify chromium as chromium (total).
- Amend section 64432 (Monitoring and Compliance – Inorganic Chemicals) as follows:
  - Table 64432-A to adopt a hexavalent chromium DLR of 0.1 µg/L;
  - Table 64432-A to specify chromium as chromium (total);
  - (p) to adopt a compliance schedule based on water system size;
  - (q) to adopt a requirement for submission and implementation of a Hexavalent Chromium Compliance Plan and to specify minimum required elements; and
  - (r) to adopt a requirement for a Hexavalent Chromium Operations Plan and to specify minimum required elements.

Article 12. Best Available Technologies (BAT)

- Amend section 64447.2 (Best Available Technologies (BAT) – Inorganic Chemicals) as follows:
  - Table 64447.2-A to adopt BAT for hexavalent chromium;
  - Table 64447.2-A to specify chromium as chromium (total); and
  - Key to BATs in Table 64447.2-A to add Reduction/Coagulation/Filtration as the 14th BAT.

Article 18. Notification of Water Consumers and the State Board

- Amend section 64465 (Public Notice Content and Format), Appendix 64465-D to adopt public notification health effects language for hexavalent chromium and to specify chromium as chromium (total).

Article 20. Consumer Confidence Report

- Amend section 64481 (Content of Consumer Confidence Report) as follows:
  - (p) to adopt a requirement specifying language for water systems to include in Consumer Confidence Reports for hexavalent chromium detections for dates prior to the applicable hexavalent chromium MCL compliance date;
  - Table 64481-F to adopt specific Consumer Confidence Report language for hexavalent chromium MCL exceedance prior to the applicable hexavalent chromium MCL compliance date;
  - Appendix 64481-A to adopt Consumer Confidence Report major origins in drinking water language for hexavalent chromium; and
  - Appendix 64481-A to specify chromium as chromium (total).

The State Water Board also proposes a number of nonsubstantive changes, which are not discussed in detail due to their minor nature. The nonsubstantive changes would correct upper/lower case usage, punctuation, and grammar, re-locate text to accommodate additions and improve readability, specify chromium as total chromium for clarity, and aid style.

3. BACKGROUND

3.1 About Hexavalent Chromium

Chromium is a naturally occurring heavy metal deposited throughout the environment. The trivalent form, commonly known as "trivalent chromium" or "chromium 3 (III)," is a required nutrient and has low toxicity. The hexavalent form, commonly known as "hexavalent chromium" or "chromium 6 (VI)," is more toxic and is known to cause cancer when inhaled. In scientific studies in laboratory animals, hexavalent chromium has also been linked to cancer when ingested; hexavalent chromium has also been found to have noncancer effects in the form of liver toxicity (OEHHA, 2011).

The presence of hexavalent chromium found in California drinking water sources is attributed to both its natural occurrence and industrial activities (Hausladen et al., 2018). Hexavalent chromium has been measured in California groundwater at levels up to, and in some cases exceeding, 100 µg/L. Between January 1, 2010, and June 21, 2021, hexavalent chromium was found, to some extent, in 53 of 58 counties in California and is principally found—listed by highest occurrence—in the counties of Los Angeles, San Bernardino, Fresno, Riverside, Stanislaus, Sacramento, Santa Clara, Monterey, Kern, San Joaquin, and Tulare; these counties each have 100 or more PWS sources with detectable levels of hexavalent chromium (SWRCB, 2021b; SWRCB, 2021c).

There are areas of contamination in California from industrial activities that used hexavalent chromium, such as the manufacturing of textile dyes, wood preservation, leather tanning, and anti-corrosion processes, where hexavalent chromium contaminated waste has migrated into groundwater (Hausladen et al., 2018; McNeill et al., 2012). Leakage, inadequate contaminant storage, or improper industrial waste disposal practices have also contributed to chromium release into the environment (U.S. EPA, 2021a). Additionally, naturally occurring trivalent chromium present in groundwater can oxidize into hexavalent chromium by natural process or by human activity, such as the injection of oxidants in groundwater to treat volatile organic compounds (Hausladen et al., 2018). Hexavalent chromium sampling shows that the presence and concentration of hexavalent chromium in surface water sources is less than that found in groundwater sources (SWRCB, 2021b).

3.2 Regulatory History

Hexavalent chromium is indirectly regulated under the total chromium MCL of 50 µg/L (0.05 mg/L) at section 64431 in title 22 of the CCR. California's MCL for total chromium was established in 1977, when the "National Interim Drinking Water Standard" for total chromium was adopted (U.S. EPA, 1977). The total chromium MCL was established to address exposures to hexavalent chromium. U.S. EPA adopted the same standard for total chromium, but in 1991 raised the federal MCL to 100 µg/L (0.1 mg/L) (U.S. EPA, 1991). California retained its 50 µg/L MCL for total chromium. Subsequently in 2002, HSC 116365.5 required the California Department of Health Services (the predecessor to the California Department of Public Health (CDPH)) to establish a primary drinking water standard for hexavalent chromium by January 1, 2004.

In July 2011, OEHHA established a hexavalent chromium PHG of 0.02 µg/L (0.00002 mg/L). In August 2013, CDPH proposed an MCL for hexavalent chromium of 10 µg/L (0.010 mg/L) and a DLR of 1 µg/L (0.001 mg/L).

On May 28, 2014, the Office of Administrative Law approved the regulations submitted by CDPH, and the MCL became effective on July 1, 2014.

On July 1, 2014, the administration of California's drinking water program was formally transferred from CDPH to the State Water Board (Health & Saf. Code, § 116271).

On May 31, 2017, the Superior Court of Sacramento County issued a judgment invalidating the hexavalent chromium MCL for drinking water. The court ordered the State Water Board to take the necessary actions to delete the hexavalent chromium MCL from the CCR. The deletion took effect on September 11, 2017. The court's primary reason for finding the MCL invalid was that CDPH "*failed to properly consider the economic feasibility of complying with the MCL*." In its conclusion, the court ordered the State Water Board to "*...comply with the Legislature's directive to consider the economic feasibility of compliance, paying particular attention to small water systems and their users, and to set the MCL as close as economically feasible to the public health goal of 0.02 ppb [parts per billion]*" (*California Manufacturers and Technology Association et al.*, 2017).

4. MCL DEVELOPMENT FRAMEWORK

Drinking water MCL development follows a specific framework to ensure that all statutory requirements are met. The following sections detail the statutory and policy requirements and the process of setting an MCL.

4.1 Statutory and Other Policy Requirements

In addition to Administrative Procedure Act (APA) requirements set forth chapter 3.5 of part 1 of division 3 of title 2 of the Government Code (§11340 et seq.), and chapter 1 of divisions 1 of title 1 of the CCR, the State Water Board is subject to additional specific statutory and regulatory requirements related to major regulations (Gov. Code, §§11342.548, 11346.2, 11346.3; Health & Saf. Code §57005), establishment of primary drinking water standards (Health & Saf. Code, §116365) and associated requirements (Health & Saf. Code, §§116370, 116375, 116450, 116470), the California Environmental Quality Act (Pub. Resources Code, §§ 21000 et seq.), and external scientific peer review (Health & Saf. Code §57004).

The State Water Board considered practical factors, such as capacity of the current market to supply goods and services in response to the proposed regulation and the potential need for a compliance schedule to accommodate those factors.

The State Water Board also considered policy-related factors, including the State Water Board's Racial Equity Plan (SWRCB, 2023b), Tribal Consultation Policy (Public Resources Code, 21080.3.1; SWRCB, 2019a), and relevant Executive Orders (Exec. Order No. B-10-11, 2011; Exec. Order No. N-15-19, 2019).

Primary drinking water standards are defined at HSC 116275(c) as (1) MCLs that, in the judgment of the State Water Board, may have an adverse effect on the health of persons, (2) specific treatment techniques adopted by the State Water Board in lieu of MCLs pursuant to HSC 116365(j), and (3) the monitoring and reporting requirements as specified in regulations adopted by the State Water Board that pertain to MCLs. These are legally enforceable standards that apply to PWS and protect drinking water quality by limiting the level of specific contaminants that may adversely affect public health and are known or anticipated to occur in water.

HSC 116365(a) and (b) require the State Water Board to adopt primary drinking water standards for contaminants at levels as close to the corresponding PHG as is technologically and economically feasible, placing primary emphasis on the protection of public health, and no less stringent than national primary drinking water standards adopted by U.S. EPA (Health & Saf. Code §116365, subd. (a)). HSC 116365 requires the State Water Board to consider:

1. What concentration is it possible (technologically feasible) to measure to?
2. What concentration is it possible (technologically feasible) to treat to?
3. What level of treatment is economically feasible, considering the costs of compliance to public water systems, customers, and other affected parties with the proposed primary drinking water standard, including the cost per customer and aggregate cost of compliance, using best available technology?

HSC 116365(b)(1) requires the State Water Board to consider the PHG published by OEHHA. The hexavalent chromium PHG, released by OEHHA in 2011, determined that hexavalent chromium is carcinogenic by ingestion as well as by inhalation. The PHG of 0.02 µg/L is protective against all identified toxic effects from both the oral and inhalation exposure routes, corresponding to a cancer risk of one in one million. OEHHA also determined that 2 µg/L is protective against non-carcinogenic effects, which are based on liver toxicity.

HSC 116365(b)(2) requires the State Water Board to consider the national primary drinking water standard, if any, adopted by U.S. EPA. While the U.S. EPA has not adopted a standard specific to hexavalent chromium, it has adopted a standard of 100 µg/L for total chromium (the sum of trivalent and hexavalent chromium). However, the California total chromium MCL is 50 µg/L, so as a practical matter, the hexavalent chromium MCL cannot be higher than 50 µg/L.

HSC 116365(b)(3) requires the State Water Board to consider the technological and economic feasibility of compliance with the proposed standard, including the costs of compliance to public water systems, customers, and other affected parties, including the cost per customer and aggregate cost of compliance, using BAT. Analyses of the technological and economic feasibility of the proposed MCL and associated requirements are found, respectively, in sections 10 and 11 of this document.

HSC 116370 requires the State Water Board to adopt a finding of the BAT for each contaminant for which a primary drinking water has been adopted at the time the standard is adopted. In adopting BAT, HSC 116370 requires that the State Water Board take into consideration the costs and benefits of BAT that have been proven effective under full-scale field applications. HSC 57004 requires boards within the California Environmental Protection Agency to have an external scientific peer review conducted of the scientific basis for any rule proposed for adoption. A scientific peer review was conducted through the External Scientific Peer Review Program, and looked at whether the proposed BAT could treat hexavalent chromium. More information about the technologies considered for BAT can be found in section 4.3.

HSC 116365(g) requires review of each primary drinking water standard at least once every five years. If changes in technology or treatment techniques permit materially greater protection of public health or attainment of the PHG, then the State Water Board must amend the standard.

HSC 116375 mandates that the State Water Board adopt regulations for the monitoring of contaminants, including the type of contaminant, frequency and method of sampling and testing, and the reporting of results.

HSC 116385 requires any person operating a public water system to obtain and provide at that person's expense an analysis of the water to the State Water Board, in the form, covering those matters, and at intervals prescribed by the State Water Board. HSC 116385 further requires that the analysis be performed by a laboratory duly certified by the State Water Board. HSC 116390 requires that laboratories performing tests required pursuant to the California Safe Drinking Water Act be accredited for that testing by the California Environmental Laboratory Accreditation Program (ELAP).

4.1.1 Racial Equity

The State Water Board released a Racial Equity Action Plan on January 18, 2023 (SWRCB, 2023b). One action item within that Plan is to "[i]*ncorporate racial equity analysis when developing maximum contaminant levels using available data and as data and methods allow.*" Data and methods do not allow for such analysis to be incorporated into MCL development at this time. Staff continue to investigate and develop methods for racial equity analysis that can be incorporated into the development of future MCLs.

4.1.2 Tribal Consultation

The State Water Board is actively seeking consultation with California Native American tribes consistent with its Tribal Consultation Policy (Assembly Bill 52, Public Resources Code 21080.3.1), Executive Order B-10-11, and Executive Order N-15-19 (SWRCB, 2021f).

4.1.3 CEQA

At the time of adoption of a rule or regulation requiring the installation of pollution control equipment, establishing a performance standard, or establishing a treatment requirement, the State Water Board must perform an environmental analysis of the reasonably foreseeable methods by which compliance with that rule or regulation will be

achieved (14 CCR 15187, subd. (a)). The State Water Board prepared a programmatic environmental impact report, considering the potential environmental impacts of the proposed regulations, including the reasonably foreseeable environmental impacts of the methods of compliance, an analysis of reasonably foreseeable mitigation measures, and an analysis of reasonably foreseeable alternative means of compliance with the regulation. Prior to adoption of the proposed regulations, the State Water Board will certify the EIR, consider the potential impacts of the project, and make any necessary findings, including any findings of overriding consideration.

4.2 Technological Feasibility: Limits of Hexavalent Chromium Measurement

The technological feasibility analysis for the proposed DLR (section 10.1) concludes that hexavalent chromium can be measured with a high level of accuracy to 0.1 µg/L.

4.3 Technological Feasibility: Limits of Hexavalent Chromium Treatment

The technological feasibility analysis for the proposed MCL (section 10.2) concludes that hexavalent chromium can be treated down to at least 1 µg/L by ion exchange, reduction/coagulation/filtration (RCF), and reverse osmosis (RO). These treatment technologies and stannous chloride were reviewed in the external scientific peer review required by HSC 57004 that considered the costs and benefits of treatment technologies that had been proven effective under full-scale[2] field applications (SWRCB, 2021e). The following sections contain a summary of that information as well as additional cost information that has been obtained since the peer review.

4.3.1 Ion Exchange

Studies conducted with strong base anion exchange (SBA) and weak base anion exchange (WBA) resins have demonstrated the efficacy of using ion exchange technology to remove hexavalent chromium from drinking water to levels less than 1 µg/L (Hazen and Sawyer, 2013; Seidel et al., 2014, Blute et al., 2015a; Parks et al., 2017). Najm et al. (2014) and U.S. EPA (2021b) provide treatment plant details and cost estimates for hexavalent chromium removal using ion exchange.

The peer reviewers agreed that ion exchange should be a BAT for hexavalent chromium.

4.3.2 Reduction/Coagulation/Filtration (RCF)

Studies show that a reducing agent such as ferrous sulfate or stannous chloride can be combined with filtration to remove hexavalent chromium from drinking water to levels less than 1 µg/L (Gumerman et al., 1979; Hazen and Sawyer, 2013; Blute et al., 2015b). Najm

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[2] One peer reviewer questioned whether 100 gpm should be considered full-scale for purposes of complying with HSC 116370. Of the CWS sources with hexavalent chromium detections, 41% are estimated to have flows below 100 gpm. Of the CWS sources that are expected to need treatment for the proposed MCL of 10 µg/L, 46% are estimated to have flows below 100 gpm (SWRCB, 2021b). Therefore, the State Water Board considers a flow of 100 gpm to be full-scale and took into consideration the costs and benefits of treatment that has been proven effective at flows below and above 100 gpm when setting BAT for hexavalent chromium.

et al. (2014) and Aqua Metrology Systems (2022) provide treatment plant details and cost estimates for hexavalent chromium removal using RCF.

The peer reviewers agreed that RCF should be a BAT for hexavalent chromium.

4.3.3 Reverse Osmosis (RO)

RO is a mature and viable technology for hexavalent chromium removal. RO performance can be optimized to achieve the desired level of hexavalent chromium removal in finished drinking water to less than 1 µg/L (Brandhuber et al., 2004; Rad et al., 2009; Seidel et al., 2013; Parks et al., 2017; SWRCB, 2021b). However, RO has challenges unrelated to its performance, such as high costs (high capital costs and high operations and maintenance (O&M) costs due to high energy use) and large amounts of reject water.[3] For these reasons, even though RO removes hexavalent chromium from drinking water, it is not expected to be widely implemented as centralized treatment.

The peer reviewers agreed that RO should be a BAT for hexavalent chromium.

4.3.4 Stannous Chloride

For stannous chloride to be considered a BAT, additional information on the capability of the technology to meet the proposed MCL will be necessary, including information on reoxidation in the distribution system and the ability to meet a potential MCL without exceeding the stannous chloride maximum use level (MUL). The fate of hexavalent chromium when stannous chloride is used is not well understood; the State Water Board intends to request additional evaluation of the distribution system water quality should this technology be proposed for use by a PWS.

Two of the reviewers agreed that stannous chloride should not be made BAT for hexavalent chromium until the MUL and distribution system water quality concerns could be addressed. The third reviewer agreed that the concerns were valid, but believed there may still be conditions under which stannous chloride could be a viable technology for decreasing hexavalent chromium concentrations. He also pointed out that any technology could fail under the right conditions. The State Water Board agrees that there may still be conditions under which stannous chloride could be a viable technology for decreasing hexavalent chromium, and PWS can use stannous chloride under the correct conditions. The lack of a BAT designation does not prevent the use of stannous chloride to treat hexavalent chromium. BAT designation is for the purpose of identifying effective technologies that can be broadly and reliably applied. Without more research to understand the MUL exceedance and the reoxidation and fate of hexavalent chromium in

[3] Reject water can constitute 40% or more of the water volume treated by reverse osmosis. Also called concentrate or wastewater, reject water is a byproduct of the treatment process and may contain chemicals, such as antiscalant and washing solutions, as well as heavy metals and organic and inorganic compounds. Up to one third of the total reverse osmosis treatment costs could be to dispose of the reject water (Mohamed et al., 2005).

the distribution system, the State Water Board cannot be sure of reliability if broadly applied.

Therefore, the State Water Board is not adopting stannous chloride as a BAT for hexavalent chromium at this time.

4.4 Cost of Compliance at the Proposed MCL

The requirement to consider cost led the State Water Board to review:

- The availability and cost of single sample analysis for determining the presence of hexavalent chromium;
- The estimated cost to the regulated water systems for contaminant monitoring caused by the proposed MCL;
- The availability and cost of appropriate treatment technologies for removing the contaminant to levels below the proposed MCL; and
- The estimated cost of treatment to all PWS with sources that may violate the proposed MCL and be treated to comply with the proposed MCL.

The State Water Board reviewed analytical method availability, evaluated treatment technologies, and conducted a comprehensive cost estimate using monitoring data in the State Water Board's Water Quality Information Replacement (WQIR) database (SWRCB, 2021c)[4]. The State Water Board estimated costs associated with 21 possible MCLs (1 to 15, 20, 25, 30, 35, 40, and 45 µg/L) using analytical methods identified in section 64415 and either SBA, WBA, or RCF as the treatment technology, depending on which was more cost effective for each individual source (see the Cost Estimating Methodology (CEM) in section I of the Standardized Regulatory Impact Analysis/Assessment (SRIA, Attachment 2) for more details). While RO is a BAT, associated costs were not developed because it is expected to be more limited in use due to its higher cost and production of large quantities of reject water, which must then be disposed. In the absence of treatability data below the previous DLR, 1 µg/L was set as the lower boundary of the analysis. The upper boundary of the analysis was set at 45 µg/L.

A PWS is not limited to using the treatment identified by the State Water Board. The most appropriate treatment or means of compliance best suited for a PWS will be determined on a case-by-case basis.

4.4.1 Determination of Monitoring Costs

Total costs of monitoring statewide will be a function of the costs of the testing, the frequency of the testing, and the number of sources that must be treated. Actual costs for

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[4] The State Water Board recognizes that additional monitoring data may have been more recently submitted. However, it is necessary, as a practical matter, to conduct analyses against a static rather than dynamic data set. Due at least in part to the nature of state rulemaking procedures, the development of estimated costs cannot be a dynamic process, where the most recent data can be used to continually update the cost estimates during the regulatory process. Thus, a certain point in time has to be chosen that will define the data set for the purposes of estimating costs.

any particular water system will vary depending on many site-specific parameters, such as the level of hexavalent chromium in the source at the time of treatment, physical qualities of the water to be treated, any other regulated chemicals present, the type and method of disposal, availability of land, future cost of construction, and cost of water treatment plant operating staff.

4.4.1.1 Analytical Costs

Surveys of laboratories accredited by ELAP to perform analyses of hexavalent chromium in drinking water were conducted to determine testing costs. Twenty laboratories provided sample analysis cost information for individual samples. The average cost per sample was $78.63, with the sample costs ranging from $30 to $140 per sample. The average value of $78.63 per sample was used to estimate monitoring costs. In addition, a more sensitive method (EPA Method 218.7) with a longer holding time has become available for accreditation in California since the previous hexavalent chromium MCL rulemaking.

4.4.1.2 Testing Frequency

There are four types of monitoring costs under the existing inorganic chemical regulations. The number of PWS needing to conduct each type will differ.

- Routine: A PWS with drinking water sources showing hexavalent chromium equal to or below the proposed MCL would be required to monitor those sources once every three years (groundwater) and once every year (surface water) [22 CCR 64432(c)].
- Increased: A PWS with one or more drinking water sources showing hexavalent chromium above the proposed MCL would be required to monitor those sources quarterly [22 CCR 64432(g)(1)]. A decrease in monitoring frequency may be requested from the State Water Board after systems have completed two (for groundwater) or four (for surface water) consecutive quarters of monitoring showing results below the proposed MCL [22 CCR 64432(j)].
- Treated: A PWS treating a drinking water source for hexavalent chromium to comply with the proposed MCL would be required to monitor the treated water monthly [22 CCR 64432.8(a)].
- Reduced: A PWS that has conducted at least three rounds of monitoring (three periods (nine years) for groundwater sources or three years for surface water sources) may apply for a monitoring waiver if all previous analytical results have been below the MCL. This reduced monitoring would only require one sample per source every 9 years [22 CCR 64432(m)]. While some sources are likely to apply for and be granted reduced monitoring frequencies in the future, the State Water Board did not use this monitoring frequency to calculate costs because it does not have the data to predict how many sources will be granted this monitoring frequency. Because some PWS may be granted reduced monitoring in the future, routine monitoring costs are likely to decrease from what has been estimated.

Initial monitoring would be required for community water systems (CWS), non-transient non-community water systems (NTNCWS), and wholesalers with drinking water sources not monitored in the previous two years with an analysis capable of reaching the proposed

DLR of 0.1 µg/L. Most of the previous hexavalent chromium testing did not meet the 0.1 µg/L DLR, so the assumption was made that all sources will test in the first 6 months after the effective date of the regulation. [5]

Transient non-community water systems (TNCWS) are PWS that do not regularly serve at least 25 of the same persons more than six months of the year, such as a campground or highway rest stop. Because TNCWS are required to monitor for inorganic chemicals (including hexavalent chromium), only if they are using surface water sources with an average daily population greater than 1,000 people or if they are subject to potential contamination based on a sanitary survey, few have monitoring results. Out of the 3,520 TNCWS sources currently in the state, 326 (9.3%) have reported hexavalent chromium sampling results (SWRCB, 2021c). Therefore, more TNCWS sources may be contaminated than current data shows, which could increase the cost of compliance. Nevertheless, a cost analysis is included for systems that sampled sources for hexavalent chromium. A conservative assumption was made that any TNCWS surface water source sampled for hexavalent chromium in the past will be required to continue sampling, and any contaminated source vulnerable to hexavalent chromium must also be sampled. Any TNCWS source required to sample must follow the same sampling frequency as CWS sources.

A water system treating a drinking water source for hexavalent chromium to comply with the proposed MCL would be required to monitor the treated water monthly.

4.4.1.3 Number of Sources Tested for Hexavalent Chromium

A review of monitoring data (Table 1) shows the number and percent of CWS and NTNCWS sources that have monitored for hexavalent chromium since January 1, 2010, broken down by service connections. The same monitoring data shows that 54% of wholesaler sources and 9.3% of TNCWS sources have monitored for hexavalent chromium. Monitoring requirements specific to the previous hexavalent chromium MCL were effective July 1, 2014, and deleted May 31, 2017, and sources subject to monitoring requirements for inorganic chemicals ought to have completed initial monitoring pursuant to 22 CCR 64432.

[5] The number of sources that have monitored in the two years before the regulation is expected to take effect (1/1/2022 to 1/1/2024) cannot be estimated because this time period falls outside of the data set used in this rulemaking. Because of the time required to prepare the rulemaking and complete the public process, a reasonable projection of the sources expected to meet this requirement cannot be made. A conservative assumption was made that all sources will begin initial monitoring after the regulation takes effect.

Table 1. Sources monitored for hexavalent chromium between January 1, 2010, and June 21, 2021, by CWS service connections and NTNCWS population

Service Connections	Percent CWS Sources Sampled (Sample / Total)	Population	Percent NTNCWS Sources Sampled (Sampled / Total)
Less than 100	93.0% (2,144/2,306)	Less than 50	81.9% (412/503)
100 to 200	95.5% (633/663)	50 to 100	72.7% (325/447)
200 to 1,000	92.8% (1,016/1,095)	100 to 200	76.9% (367/477)
1,000 to 5,000	91.9% (1,284/1,397)	200 to 400	83.1% (305/367)
5,000 to 10,000	100% (559/559)	400 to 1,000	91.3% (210/230)
10,000 or more	98.7% (3,120/3,162)	1,000 or more	84.5% (125/148)
Total	95.4% (8,757/9,182)	Total	80.3% (1,744/2,172)

4.4.1.4 Number of Sources Requiring Hexavalent Chromium Testing

To estimate the number of sources required to test for hexavalent chromium, the State Water Board used the number of active sources with hexavalent chromium detections from the WQIR database for the period of January 1, 2010, through June 21, 2021, excluding standby and emergency sources (emergency or standby sources are assumed to be taken offline and not treated). The WQIR dataset was generated from the State Water Board's database of statewide drinking water source quality data, and therefore contains a comprehensive identification of all affected public water sources in California at the time of data acquisition (June 21, 2021).

Sources previously not monitored (e.g., sources that came online after the deletion of the previous MCL or sources that did not sample when the previous MCL was active) and sources with hexavalent chromium below the proposed MCL will need to initiate routine monitoring (22 CCR 64432(c)), sources in violation of the proposed MCL will need to perform increased monitoring and treated sources must be monitored monthly (22 CCR 64432(g); 22 CCR 64432.8). Data cleanup and corrections are made as analytical or data entry errors are identified, so there may be changes made to the data after the time the data was pulled. Table 2 summarizes the number of sources requiring sampling for the proposed MCL of 10 µg/L.

Table 2. Number of sources estimated to require type of monitoring

PWS Type	Routine (GW)	Routine (SW)	Increased and Treated (GW)	Increased and Treated (SW)
CWS	7,952	818	409	3
NTNCWS	1,994	106	71	1
TNCWS	263	19	7	0
Wholesalers	453	106	9	1

4.4.1.5 Monitoring Cost Estimates

The source monitoring results in the WQIR data were evaluated to obtain annual running averages of hexavalent chromium concentrations for each active source. The highest annual running average concentration for each source was then compared to each potential MCL to estimate the monitoring that would have been required for each source under each potential MCL.

The estimated source monitoring costs, broken down by water system size and source water type, are shown in Tables 4.1A and 4.1B (routine monitoring), Tables 4.2A and 4.2B (increased monitoring), and Tables 4.3A and 4.3B (treated monitoring) in Attachment 1 for CWS and NTNCWS, respectively. Estimated monitoring costs for TNCWS and wholesalers are shown in Attachment 1 Tables 17C and 17D, respectively.

Costs differ with each MCL evaluated since the number of affected sources vary. For the proposed MCL of 10 µg/L, the estimated total statewide annualized costs for routine monitoring are approximately $272,741, $60,598, $22,174, and $20,208 for CWS, NTNCWS, TNCWS, and wholesaler sources, respectively. The total estimated statewide annual costs for increased monitoring are approximately $129,582, $22,645, $2,202, and $3,145 for CWS, NTNCWS, TNCWS, and wholesaler sources, respectively. The estimated total statewide annual costs for treated monitoring are approximately $388,747, $67,936, $6,605, and $9,436 for CWS, NTNCWS, TNCWS, and wholesaler sources, respectively.

These costs correspond to annual monitoring costs of $1,258 and $31 per source for sources impacted and not impacted at the proposed MCL, respectively.

Routine and increased monitoring costs are expected to start during the first year and continue in subsequent years. The treated monitoring costs are expected to start during the year in which each system is required to comply with the MCL, according to the compliance schedule, and are expected to continue in subsequent years. Increased monitoring costs may increase or decrease depending on the routine monitoring results. Treated water monitoring costs may increase or decrease depending on the results of the increased monitoring.

At a proposed hexavalent chromium MCL of 10 µg/L, estimated monitoring costs would total $1,006,018 per year. This cost is the sum of all additional testing by all PWS in California, not the additional cost for each individual system or source.

4.4.2 Determination of Treatment Costs

A water system with a drinking water source in violation of the hexavalent chromium MCL would be required to either remove the source from service or treat the source to come into compliance. Other compliance options, such as blending contaminated water with an uncontaminated water source, may be available to water systems. However, the data needed to evaluate the feasibility and likelihood of these options is not available, so it is assumed that all sources will need treatment for the purpose of estimating costs. For each treated source, a water system would incur both capital and O&M costs. The term *treatment costs* refers to the combination of capital and O&M costs. A full list of assumptions can be found in the CEM (Attachment 2, section I).

For each source, the costs of SBA, WBA, and RCF treatment were estimated as described in the CEM. Each source was assumed to use the least expensive treatment of the three options. The individual cost estimates for all sources affected at the proposed MCL are included in Attachment 5 as intermediate calculations. Treatment costs incurred by a given water system will vary depending on many site-specific parameters (e.g., the concentration of hexavalent chromium in the source; physical qualities of the water; any other regulated chemicals present; the type and method of treatment and waste disposal; availability of land; and cost of construction labor and water treatment plant operating staff) and variability of time to plan, design, permit, and build the treatment system. The State Water Board did not include adjustments for local economies, site-specific conditions, or other unique costs or savings that may impact some PWS. However, the State Water Board did adjust the labor costs to account for California-specific salaries using the 2020 Occupational Employment and Wage Statistics from the Bureau of Labor Statistics. The assumptions, sources, and methodology used to estimate treatment costs are available in the CEM. All costs were converted to June 2022 dollars.

At the proposed MCL of 10 µg/L, there are 501 sources that would require treatment, and RCF was calculated to be the least expensive for all but 11 sources. WBA treatment was calculated to be the least expensive for the remaining 11 sources, and SBA treatment was never the least expensive option for any source at the proposed MCL. Because the costs of each treatment type were calculated for each source, it is possible to compare costs across treatment types and sources to identify cost trends. For example, the higher a source's hexavalent chromium concentration, the higher the calculated WBA resin and disposal costs were, which was likely due to the assumption that WBA resins were not regenerated, so their use would be directly proportional to the amount of hexavalent chromium removed from the source water. Comparatively, SBA resins may or may not be regenerated, and the volume of resin used annually for treatment also depended on the amount of sulfate and nitrate in the source water, so the same resin and disposal cost trends were not observed. Following the WBA trend, the 11 sources for which WBA treatment was calculated to be the least expensive are some of the least contaminated sources (the highest influent concentration among them was 11.3 µg/L). When comparing the selected WBA annualized costs, the alternative RCF costs were estimated between $917 and $33,815 higher and the alternative SBA costs were estimated between $88,577 and $271,816 higher. Across all sources, SBA was generally the most expensive treatment option, accounting for 70% of the highest calculated costs. Disposal costs were

often a driver for SBA costs, and resin and disposal costs were often a driver for WBA costs. In comparison, RCF costs were driven by capital costs and chemical costs.

The estimated total capital costs, annualized capital costs, and annual O&M costs broken down by water system size are shown in Tables 5.1A and 5.1B, 5.2A and 5.2B, and 5.3A and 5.3B in Attachment 1 for CWS and NTNCWS, respectively. The same costs are shown for TNCWS and wholesalers in Attachment 1 Tables 17C and 17D, respectively. For the proposed MCL of 10 µg/L, the State Water Board estimates from review of the Safe Drinking Water Information System (SDWIS) and WQIR databases that 412 CWS, 72 NTNCWS, 7 TNCWS, and 10 wholesaler sources would need treatment to come into compliance with the proposed MCL. Some of these water systems may be able to meet the MCL by other means, such as blending, at lower costs than treatment. However, if all the sources anticipated to be out of compliance with the MCL were treated, the estimated statewide annualized treatment (capital and O&M) costs, including any existing treated sources, are approximately $171,874,959, $5,043,233, $452,465, and $1,191,508 for CWS, NTNCWS, TNCWS, and wholesalers, respectively.

4.4.3 Determination of Costs to Prepare and Review Compliance Plans and Operations Plans

As detailed in the CEM (SRIA section I.3.a.3), it is estimated that 100 hours of an engineer's time will be needed to prepare a Hexavalent Chromium Compliance Plan, and an associated Hexavalent Chromium Operations Plan with the specified elements, at $76 per hour (including overhead), with the majority of that time spent on the operations plan. The estimated cost to prepare a set of Hexavalent Chromium Compliance and Hexavalent Chromium Operations Plans is $7,619 per system. Similarly, the cost to review a set of compliance and operations plans is estimated based on the high end of the salary range for California's Water Resource Control Engineer classification at the State Water Board, which is $91 per hour (including overhead). Since the review of a set of compliance and operations plans is expected to take an average of 35 hours, the average cost to the State Water Board to review a set of plans is $3,174. Table 3 shows the total costs associated with compliance and operations plans broken down by PWS type.

Table 3. Hexavalent Chromium Compliance and Operations Plans Preparation and Review Costs

PWS Type	Compliance and Operations Plans Preparation Cost	Compliance and Operations Plans Review Cost
CWS	$1,219,077	$507,864
NTNCWS	$ 472,392	$196,797
TNCWS	$ 53,335	$ 22,219
Wholesaler	$ 30,477	$ 12,697
Total	$1,775,281	$739,577

4.4.4 Breakdown of Costs and Economic Impacts

The State Water Board reviewed the estimated statewide annual cost of monitoring, treatment, and compliance and operations plans costs, and looked at those costs per

system, per source, per service connection, per person, and per unit of water. Those costs were further broken down by water system size for CWS and NTNCWS.

4.4.4.1 Estimated Statewide Total Annualized Costs of Compliance

The estimated total annualized monitoring and treatment costs are shown in Attachment 1 Tables 6A and 6B for CWS and NTNCWS, respectively, broken down by water system size. For the proposed MCL of 10 µg/L, the total statewide annualized costs are approximately $172,666,029 and $5,194,412 for CWS and NTNCWS, respectively. The total and annualized monitoring and treatment costs for TNCWS and wholesalers are shown in Attachment 1 Tables 17C and 17D, respectively. For the proposed MCL of 10 µg/L, the total statewide annualized costs are approximately $483,446 and $1,224,297 for TNCWS and wholesalers, respectively.

4.4.4.2 Estimated Annual Cost per System

The estimated number of systems requiring treatment can be found in Attachment 1 Tables 7.1A, 7.1B, 17C, and 17D for CWS, NTNCWS, TNCWS, and wholesalers, respectively. The average estimated annual cost per system, by water system size, is shown in Attachment 1 Tables 7.2A and 7.2B for CWS and NTNCWS, respectively. Table 7.2A from Attachment 1 is copied below as Table 4. For the proposed MCL of 10 µg/L, the average annual cost per system for CWS ranges from $69,732 (systems with less than 100 service connections) to $3,437,549 (systems with more than 10,000 service connections) depending on the system size. The average annual costs per system for NTNCWS are generally smaller due to their sizes, ranging from $48,810 to $217,789. Larger water system costs are generally greater due to the need to treat greater flows to serve more people. For the proposed MCL of 10 µg/L, the average annual cost per system is $69,064 for TNCWS and $306,074 for wholesalers.

Table 4. Estimated average annual cost per CWS by size (SC = service connections) and MCL (Attachment 1, Table 7.2A)

MCL (µg/L)	SC fewer than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Average
1	$ 81,600	$192,533	$406,821	$1,656,871	$3,192,589	$9,575,131	$1,902,467
2	$ 75,086	$145,739	$351,900	$1,556,059	$2,542,105	$7,665,810	$1,693,510
3	$ 68,051	$138,210	$324,375	$1,464,079	$2,596,695	$6,653,747	$1,563,808
4	$ 67,773	$139,008	$313,673	$1,374,653	$2,287,666	$5,581,490	$1,419,951
5	$ 67,471	$132,063	$300,637	$1,310,449	$2,200,500	$4,736,179	$1,309,841
6	$ 66,836	$128,131	$298,024	$1,314,533	$2,130,244	$3,853,303	$1,209,691
7	$ 69,112	$126,267	$289,481	$1,268,297	$1,981,612	$3,523,134	$1,156,677
8	$ 70,305	$120,948	$299,574	$1,217,619	$2,007,553	$3,633,045	$1,188,795

MCL (µg/L)	SC fewer than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Average
9	$ 69,666	$115,994	$310,793	$1,274,351	$2,009,105	$3,606,486	$1,138,113
10	$ 69,732	$117,180	$276,817	$1,293,979	$1,861,868	$3,437,549	$1,079,163
11	$ 66,464	$116,391	$253,492	$1,367,878	$1,891,391	$3,617,907	$1,055,169
12	$ 65,321	$130,138	$283,063	$1,336,959	$2,144,753	$3,354,418	$1,049,616
13	$ 65,872	$128,167	$257,269	$1,342,183	$1,963,506	$3,047,842	$1,055,883
14	$ 67,403	$142,239	$285,034	$1,329,544	$1,809,005	$2,683,177	$1,026,087
15	$ 70,117	$ 93,327	$282,105	$1,296,467	$1,901,611	$2,345,712	$1,002,433
20	$ 60,813	$ 93,043	$854,770	$1,044,357	$1,490,941	$1,724,223	$ 853,957
25	$ 62,441	$ 92,423	$837,891	$ 719,690	$ 570,891	$1,721,058	$ 719,841
30	$ 74,196	$ 88,482	$442,656	$ 359,470	$ 621,480	$1,597,256	$ 753,715
35	$ 72,635	$ 85,601	$436,576	$ 435,213	$ 601,902	$1,593,382	$ 840,730
40	$120,028	$ 83,837	$430,496	$ 457,994	-	$1,446,102	$ 897,261
45	-	$ 82,073	$424,416	-	-	$1,098,669	$ 776,901

4.4.4.3 Estimated Annual Cost per Source

The estimated average annual cost per source, by water system size, is shown in Attachment 1 Tables 8A and 8B for CWS and NTNCWS, respectively. For the proposed MCL of 10 µg/L, the average cost per source for CWS ranges from $57,645 (systems with less than 100 service connections) to $620,623 (systems with at least 5,000 but no more than 10,000 service connections). The average annual costs per source for NTNCWS range from $47,889 to $180,364. On average, systems with fewer than 100 service connections treat much less water per source than systems with more than 10,000 service connections, which accounts for the large range of costs. Larger water system costs are generally greater due to the need to treat greater flows.

For the proposed MCL of 10 µg/L, the average annual cost per source is $69,064 for TNCWS and $122,430 for wholesalers (Attachment 1, Tables 17C and 17D).

4.4.4.4 Estimated Annual Cost per Service Connection

The estimated number of service connections in each water system size category can be found in Attachment 1 Tables 9.1A, 9.1B, and 17C for CWS, NTNCWS, and TNCWS, respectively. The estimated average annual cost per service connection, by system size, is shown in Attachment 1 Tables 9.2A and 9.2B for CWS and NTNCWS, respectively. For the proposed MCL of 10 µg/L, the average annual cost per service connection for CWS ranges from $91 (systems with more than 10,000 service connections) to $1,622 (for

systems with less than 100 service connections). These costs are higher for smaller water systems due to a lack of economies of scale – meaning that there are fewer households (service connections) among which the cost of the treatment can be shared.

For the proposed MCL of 10 µg/L, the average cost per service connection for NTNCWS ranges from $2,973 (systems 1,000 or more people) to $72,596 (systems with at least 400 but less than 1,000 people). While these costs are large, they are not reflective of costs a family would be asked to pay because NTNCWS do not serve yearlong residents. Instead, these systems consist of agricultural and industrial facilities, schools, churches, prisons, recreational areas, restaurants, and any other public water system that regularly serves 25 or more of the same persons more than 6 months per year. NTNCWS also have few service connections on average; one third of all NTNCWS in the state have only one service connection.

The total number of service connections served by TNCWS is shown in Attachment 1 Table 17C. For the proposed MCL of 10 µg/L, the average annual cost per service connection is $1,667 for TNCWS. As with NTNCWS, TNCWS costs per service connection are not reflective of costs a family would be asked to pay because TNCWS do not serve yearlong residents. According to existing data, TNCWS that would have to treat consist of a raceway, a campground, three churches, a spa, and a packing company.

Wholesaler costs cannot be broken down to the service connection level because wholesalers do not directly serve residents and do not consistently report service connections in the SDWIS database (some report the number of connections through which water is delivered to other systems, some report an estimate of the number of service connections that will eventually be served by their water, and some report the total number of service connections of all the systems to which they sell).

4.4.4.5 Estimated Annual Cost per Person

The estimated number of people served by the systems in each water system size category can be found in Attachment 1 Tables 10.1A, 10.1B, 17C, and 17D for CWS, NTNCWS, TNCWS, and wholesalers, respectively. The estimated average annual cost per person, by system size, is shown in Attachment 1 Tables 10.2A and 10.2B for CWS and NTNCWS, respectively. Table 10.2A from Attachment 1 is copied below as Table 5, showing that for the proposed MCL of 10 µg/L, the average annual cost per person for CWS ranges from $23 (systems with more than 10,000 service connections) to $443 (systems with less than 100 service connections relying on centralized treatment; note point-of-use (POU) device costs in Table 2, above). For NTNCWS, the annual average cost per person the proposed MCL of 10 µg/L ranges from $101 (systems with 1,000 or more people) to $1,596 (systems with less than 50 people). However, NTNCWS are not community systems and do not directly charge households or individuals for the cost of water. Instead, according to State Water Board existing data, these 62 NTNCWS consist of 37 industrial/agricultural businesses (packing companies, farms, etc.), 10 schools, three restaurants, four "other transient areas" (a Christian center, wedding event property, county hauling, and defense distribution center), one army heliport, one medical facility, one church, one winery, one regional park, one Cal Fire conservation camp, one plant nursery, and one migrant center.

For the proposed MCL of 10 µg/L, the average annual cost per person is $442 for TNCWS and $6 for wholesalers. According to State Water Board existing data, the seven TNCWS that would have to treat are a raceway, a campground, three churches, a spa, and a packing company, none of which charge households or individuals for the cost of water.

Table 5. Estimated average annual cost per person for CWS by size (SC = service connections) and MCL (Attachment 1, Table 10.2A)

MCL (µg/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Average
1	$ 383	$215	$175	$174	$112	$63	$75
2	$ 407	$324	$159	$159	$ 89	$47	$57
3	$ 483	$294	$144	$151	$ 90	$38	$49
4	$ 474	$286	$123	$139	$ 74	$31	$40
5	$ 456	$267	$107	$128	$ 74	$24	$32
6	$ 450	$310	$100	$129	$ 71	$19	$26
7	$ 447	$310	$ 86	$129	$ 66	$23	$32
8	$ 466	$297	$ 71	$124	$ 72	$25	$34
9	$ 467	$281	$ 68	$136	$ 72	$23	$32
10	$ 443	$279	$ 60	$136	$ 67	$23	$32
11	$ 448	$273	$ 52	$141	$ 69	$25	$35
12	$ 429	$304	$ 42	$132	$ 79	$22	$32
13	$ 409	$288	$225	$131	$ 73	$19	$29
14	$ 445	$320	$228	$133	$ 67	$17	$26
15	$ 457	$244	$226	$130	$ 65	$15	$23
20	$ 452	$262	$252	$102	$ 54	$ 8	$14
25	$ 424	$246	$247	$ 63	$ 27	$11	$15
30	$ 411	$236	$131	$ 28	$ 26	$10	$12
35	$ 406	$228	$129	$ 29	$ 25	$ 9	$10
40	$3,429	$224	$127	$ 47	-	$ 7	$ 8
45	-	$219	$125	-	-	$ 9	$11

4.4.4.6 Estimated Annual Cost per Unit of Water

The estimated volume of water treated in million gallons (MG) for each water system size category can be found in Attachment 1 Tables 11.1A and 11.1B for CWS and NTNCWS, respectively. The estimated annual cost per MG of treated water is shown in Attachment 1 Tables 11.2A and 11.2B for CWS and NTNCWS, respectively. For the proposed MCL of 10 µg/L, the average cost per MG of treated water for CWS ranges from $2,505 (systems with more than 10,000 service connections) to $9,868 (systems with less than 100 service connections). Costs per MG are generally lower for larger water systems due to the economies of scale of water treatment.

In addition, the estimated annual cost per thousand gallons (kgals) of treated water is shown for each water system size in Attachment 1 Tables 11.3A and 11.3B for CWS and NTNCWS, respectively.

For NTNCWS, the cost per MG of treated water for the proposed MCL of 10 µg/L ranges from $4,826 (systems that serve 1,000 or more people) to $27,795 (systems that serve less than 50 people). For the proposed MCL of 10 µg/L, the average annual cost per MG of water is $8,079 for TNCWS and $5,867 for wholesalers. The smallest NTNCs are likely the most expensive on a unit of water basis because these systems (and therefore their source demand) are small, especially compared to the smallest possible treatment plant size (detailed in the CEM). Of the 166 sources with detections of hexavalent chromium belonging to NTNCs that serve less than 50 people, only one source exceeded the minimum flow for which costs were calculated. This means that the estimated costs for nearly all these sources are much larger than what they would likely pay for compliance for smaller flows. Cost data was not available for small treatment plants (especially those with flows less than 5 gpm), so costs for small sources (and the systems they belong to) are overestimated.

Economies of scale affect PWS in multiple ways. Although total costs are lower for treatment plants with smaller flows, costs are higher on a per unit of water basis because large capital investments are usually needed to install treatment, regardless of flow size. Costs are also higher for smaller systems on a per person or per service connection basis because there are fewer households among which the cost of treatment can be shared. These factors result in higher compliance costs for smaller systems on most bases.

5. SPECIFIC DISCUSSION OF PROPOSED REGULATIONS

[Gov. Code, §11346.2(b)(1)]

The proposed regulations are contained in title 22, division 4, chapter 15, articles 2, 4, 12, 18, and 20 of the CCR. The following provides a detailed discussion of the proposed changes. Development of associated estimated costs is described in detail in the CEM in section I of the SRIA (Attachment 2). Estimated costs are meant to estimate statewide costs and not the actual cost to a particular water system.

5.1 Article 2, Section 64415, Laboratory and Personnel

The purpose of this section is to establish who may perform required analyses, sample collection, and field tests for compliance with the regulations; the analytical methods to

use for analyses; and the qualifications of personnel performing sample collection and/or field tests.

Subsection (a)(1) would be revised to add that analyses performed by laboratories use the following U.S. EPA approved methods that are incorporated by reference in 40 Code of Federal Regulations 141.23 through 141.41, 141.66, and 141.89 as prescribed, and to delete text to accommodate the addition of subsection (a)(3). This reorganization of text is necessary to clearly indicate State Water Board direction to perform analyses in accordance with U.S. EPA approved methods. Subsection (a)(2) would also be revised to add that analyses performed by laboratories use the following U.S. EPA approved methods that are incorporated by reference in 40 Code of Federal Regulations of section 141.852 as prescribed, and to revise punctuation to accommodate the addition of subsection (a)(3). This is necessary to clearly indicate State Water Board direction to perform analysis in accordance with U.S. EPA approved methods. The non-substantive changes made to subsections (a)(1) and (a)(2) were for the purposes of aiding style and grammar.

Subsection (a)(3) would be added to specify that analysis for the determination of hexavalent chromium must be performed using the U.S. EPA methods specified in (a)(3)(A) and (a)(3)(B). Subsections (a)(3)(A) and (a)(3)(B) incorporate by reference two analytical methods—EPA 218.6 and EPA 218.7 (U.S. EPA, 1994; U.S. EPA, 2011). Specifying hexavalent chromium analytical methods is necessary because U.S. EPA has not yet added hexavalent chromium analytical methods to the drinking water portions of the Code of Federal Regulations for reference in paragraph (1) because U.S. EPA does not regulate hexavalent chromium, so there are currently no available methods for hexavalent chromium analysis. It is necessary to clearly and efficiently indicate State Water Board direction to use one of these methods to ensure consistent and reliable quantification of hexavalent chromium in drinking water. U.S. EPA methods 218.6 and 218.7 are both currently offered for accreditation by ELAP and, based on a survey of accredited laboratories performing analyses of drinking water for hexavalent chromium (see Attachment 4), both can measure hexavalent chromium to levels at least as low as the proposed DLR. U.S. EPA methods 218.6 and 218.7 are the only two methods mentioned by the U.S. EPA for measuring hexavalent chromium in drinking water (U.S. EPA, 2013). These two methods would be incorporated by reference into subsections (a)(3)(A) and (a)(3)(B) of the regulation text.

5.2 Article 4, Section 64431, Maximum Contaminant Levels – Inorganic Chemicals

The purpose of this section is to list the inorganic chemicals for which drinking water MCLs have been established to protect the health of consumers served by PWS and decrease the risk of adverse health effects. Maximum contaminant levels are established in units of mg/L. At lower concentrations, contaminant concentrations are sometimes referenced using units of µg/L, also known as ppb.

The first paragraph of section 64431 would be revised to correct lower/upper case usage.

Table 64431-A would be revised to adopt a chromium (hexavalent) MCL of 0.010 mg/L (10 µg/L). The primary purpose of establishing this MCL is improving public health, the

details of which are discussed below in section 5.2.1. Rationale for selecting the proposed MCL is provided in the technological and economic feasibility analyses in sections 10 and 11, respectively.

An MCL for hexavalent chromium is proposed to protect public health from both cancer and noncancer effects of exposure to hexavalent chromium in drinking water. While it is not currently feasible to set the MCL at the PHG, establishing a maximum contaminant level for hexavalent chromium would decrease public exposure to this contaminant and decrease the risk of associated adverse health effects. The estimated 5.5 million people affected by this MCL will see the exposure to hexavalent chromium in their drinking water decrease by an average of approximately 30%[6].

An MCL is necessary because HSC 116365 requires the State Water Board to adopt primary drinking water standards for contaminants, specifying that each standard must be set at a level as close as feasible to the corresponding PHG, placing primary emphasis on the protection of public health, and meeting the PHG, to the extent technologically and economically feasible. The hexavalent chromium PHG is 0.02 µg/L, based on cancer effects (OEHHA, 2011). HSC 116365.5 also specifically requires establishment of a hexavalent chromium MCL. Additionally, the Superior Court of Sacramento County judgment invalidating the 2014 hexavalent chromium MCL for drinking water included an order to the State Water Board to adopt a new hexavalent chromium MCL (*California Manufacturers and Technology Association et al.*, 2017).

The State Water Board's decision to regulate hexavalent chromium through an MCL rather than through a treatment technique is discussed in section 7.

As described further in detail in sections 10 and 11, the State Water Board finds the proposed MCL to be technologically and economically feasible.

Table 64431-A would also be revised to specify chromium as chromium (total) for clarity.

5.2.1 Health Benefits

The PHG of 0.02 µg/L represents a risk that is considered negligible (e.g., one excess cancer case in one million people) (OEHHA, 2011). The health risk at the proposed MCL of 10 µg/L is 500 times greater than that at the PHG, and the health risk at an MCL of 45 µg/L is 2,250 times greater than at the PHG. The risk continues to increase as the concentration increases, such that the risk at 45 µg/L is estimated at about one excess cancer case in 444 people (or 2,250 excess cases in one million people). Decreased exposure to hexavalent chromium results in decreased risk of cancer and decreasing that exposure as much as feasible is required by HSC 116365 and is of benefit to public health.

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[6] This value was calculated by determining the reduction of hexavalent chromium after treatment (from the highest annual average to the MCL) as a percent for each impacted CWS, and then weighting by population to determine the overall average of approximately 30%.

This regulation is expected to protect an estimated 5.5 million people[7] who currently receive water that exceeds the proposed MCL from potential illness due to hexavalent chromium. The average percent reduction of hexavalent chromium contamination can be estimated using the following equation:

$$Percent\ Concentration\ Reduction = \frac{(average\ of\ source\ monitoring\ results - evaluated\ MCL)}{evaluated\ MCL} \times 100\%$$

The percent concentration reduction was calculated across all CWS, NTNCWS, and wholesalers expected to have at least one source exceed the MCL and found to be an average of approximately 30%. Percent reduction could not be estimated for TNCWS because these systems do not regularly serve at least 25 of the same persons more than 6 months of the year, and consistent consumption of the evaluated water is a foundational assumption of the risk calculation.

The reduction in theoretical excess cancer cases can be estimated with the following equation:

$$Reduction\ over\ 70\ years = (average\ of\ source\ monitoring\ results - evaluated\ MCL) \times (estimated\ population\ exposed) \times (risk)$$

Risk is defined as the PHG potency factor of one excess cancer case in one million people over 70 years of exposure,[8] divided by the PHG. Theoretical carcinogenic risk for hexavalent chromium was assumed to be linear.

Per source decreases in the number of theoretical excess cancer cases were estimated and totaled for each evaluated MCL. The estimated number of theoretical excess cancer cases reduced for each water system size category is shown in Attachment 1 Tables 12A, 12B, and 17D for CWS, NTNCWS, and wholesalers, respectively. For the proposed MCL of 10 µg/L, the theoretical number of cancer cases reduced over 70 years is 892 for CWS, 5 for NTNCWS, and 1 for wholesalers. Overall, the proposed MCL of 10 µg/L would theoretically lead to an estimated reduction of about 13 cancer cases per year statewide. For the individual consumer, the increase in health protection provided by reducing the level of a contaminant is the same regardless of system size.

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[7] See Attachment 1, Table 24 for a breakdown of population affected by potential MCLs.

[8] The primary risk associated with hexavalent chromium in drinking water is from the ingestion of hexavalent chromium in drinking water. As discussed and noted in OEHHA (2011), ingestion of water via washing fruits and vegetables is taken into consideration in the assumptions used in the exposure assessment. Additionally, OEHHA uses an assumption of 0.8 for the relative source contribution (RSC). This value of the RSC means that 80 percent of the exposure to hexavalent chromium is assumed to come from drinking water. Exposures via other routes are considered to be minor compared to the ingestion route. As OEHHA (2011) states on page 101, "*Little or no Cr VI exposure is expected from air, food, incidental inhalation, dermal and oral exposure to soil and dust.*"

Due to the infrequent and uncertain exposure to drinking water from TNCWS, the theoretical excess cancer cases reduced cannot be quantified. One of the assumptions of the above cancer case calculations is the water is consumed consistently (two liters per day for 70 years). However, TNCWS are defined as systems that do not regularly serve at least 25 of the same people more than 6 months of the year. The TNCWS that are anticipated to have to treat to comply with an MCL at 10 µg/L include two churches, a raceway, a campground, a packing company, and a spa.

The treatment for hexavalent chromium may in some cases provide a secondary benefit by incidental removal of other inorganic contaminants in drinking water. For example, treatment through the BAT of ion exchange may remove trace levels of uranium and arsenic. The health concerns associated with such contaminants would be reduced. The magnitude of this secondary benefit of co-contaminant removal would vary with local water chemistry and selected compliance method, and so cannot be quantified based on currently available data.

Adopting an MCL may also improve public perception of the drinking water supply, resulting in decreased consumption of bottled water. The purchase of bottled water is an additional financial burden for economically disadvantaged communities. In addition, increased confidence in the tap water quality may help efforts to reduce childhood consumption of unhealthy substitutes (i.e., sweetened beverages) to drinking water, therefore providing a positive health benefit.

5.3 Article 4, Section 64432, Monitoring and Compliance – Inorganic Chemicals

The purpose of section 64432 is to establish the DLR, monitoring requirements, and compliance determination procedures for inorganic chemicals with an MCL.

Subsections (a), (b), (c), and (d) would be revised to correct upper/lower case usage.

Table 64432-A of subsection (d) would be revised to adopt a DLR for chromium (hexavalent) of 0.0001 mg/L (0.1 µg/L).

DLRs are the designated minimum levels at or above which any analytical finding of a contaminant in drinking water resulting from monitoring must be reported to the State Water Board. DLRs for inorganic contaminants are found in title 22 of the CCR Table 64432-A. The DLR is considered part of the technological feasibility analysis when establishing an MCL and is the lowest concentration at which an MCL can, for all practical purposes, be established. DLRs set above the PHG hinder the State Water Board's ability to evaluate whether technology achieves a materially greater protection of public health and to determine the economic feasibility of lowering the MCL in conducting the review required by HSC 116365(g). To adequately conduct this review and evaluation, and to adequately evaluate health risk, technological feasibility, and economic feasibility in consideration of a revised MCL in the future, it is necessary to acquire water quality data characterizing drinking water source concentrations, ideally, at least as low as the current PHG when technologically and economically feasible. Where confident quantification to a concentration at or below the PHG is infeasible, the DLR should be set to the lowest level technologically and economically feasible.

Based on the laboratory surveys and documented follow-up communication, the State Water Board determined that laboratories could reliably quantify hexavalent chromium in drinking water to 0.1 µg/L (Ghabour, 2020; Ghabour, 2021; Pierri, 2021). In addition, those surveys showed that there is sufficient laboratory capacity (e.g., number of analyses per month, ability to meet proposed DLR) for initial sampling at a hexavalent chromium DLR of 0.1 µg/L. Nineteen (19) laboratories dropped accreditation after the previous hexavalent chromium MCL was deleted, so it is also expected that more laboratories will become accredited for hexavalent chromium analyses as the MCL is re-established. Because commercial laboratories have the availability to perform analyses for the PWS without in-house accredited labs, capacity was determined using commercial lab availability and ability to meet the proposed DLR. Further details about the laboratory surveys, related correspondence, and laboratory capacity can be found in section 10.1.

Table 64432-A would also be revised to specify chromium as chromium (total) for clarity.

Subsection (o) would be revised to correct upper/lower case usage.

Subsection (p) would be adopted to establish a compliance schedule for the hexavalent chromium MCL, detailed in Table 64432-B.

Existing regulations include an implementation period through 22 CCR 64432(b), which allows PWS six months following the effective date of the regulation establishing the MCL to initiate monitoring. In addition, as a chronic (e.g., cancer-based) inorganic contaminant, compliance with the proposed hexavalent chromium MCL would be based on a running annual average as set forth in 22 CCR 64432(i). Consequently, the annual average of a source may not exceed the MCL for up to a year after the initial six-month period, unless hexavalent chromium concentrations are so high as to cause any one sample to exceed the annual average.

In addition to the existing implementation period, the State Water Board is proposing a compliance schedule as follows:

- A compliance date two years after the effective date of the MCL (estimated January 1, 2026) for PWS serving 10,000 service connections or greater, accounting for 87 percent of population served by a contaminated source at the proposed hexavalent chromium MCL;
- A compliance date three years after the effective date of the MCL (estimated January 1, 2027) for PWS serving 1,000 to 9,999 service connections, or 11 percent of the population served by an impacted source at the proposed MCL; and
- A compliance date four years after the effective date of the MCL (estimated January 1, 2028) for PWS serving fewer than 1,000 service connections, or 2 percent of the population served by an impacted source.

As shown in Attachment 2 (section A.2, starting on page 6), hexavalent chromium is a pervasive contaminant in California water sources, with the proposed MCL potentially requiring compliance action in the form of additional treatment for 233 PWS. The expected dominant treatment technologies for hexavalent chromium (i.e., RCF and ion

exchange) typically require more tailoring to source water chemistry and integration with existing treatment unit processes than other treatment technologies (e.g., granular activated carbon, packed tower aeration), potentially leading to lengthier timelines for design and pilot studies. In addition, current supply chain delays are estimated at six months for steel pressure vessels needed for treatment of various drinking water contaminants, including hexavalent chromium. Promulgation of a hexavalent chromium MCL will increase demand for these vessels—as well as for other materials and services related to design and construction of treatment facilities—and may outstrip readily available supply. An extended compliance schedule is necessary to stagger demand for material and services related to design and construction of treatment facilities, especially in consideration of the continued supply chain disruptions.

The sequence of the proposed compliance schedule is based on PWS service connections, with PWS serving more connections required to comply ahead of PWS serving fewer connections. Larger PWS usually have more resources (money, staff, etc.) with which to comply with the MCL, and may be able to mobilize and implement treatment more quickly than smaller PWS. An additional benefit of larger systems implementing treatment first is that technologies can be refined and savings discovered before smaller systems are required to implement treatment, which could reduce costs to the PWS with the smallest ratepayer bases over which to distribute costs and least able to realize any economies of scale.

Subsection (q) would be added to require submittal of a Hexavalent Chromium MCL Compliance Plan to the State Water Board no later than 90 days after a hexavalent chromium MCL exceedance prior to the applicable hexavalent chromium MCL compliance date in Table 64432-B. The State Water Board believes 90 days after an MCL exceedance is enough time for systems to prepare and submit a Hexavalent Chromium Compliance Plan consisting of the specified components. The compliance plans help ensure that the additional time will be spent efficiently pursuing compliance with the MCL.

Subsection (q)(1) would be adopted to require that a Hexavalent Chromium MCL Compliance Plan include the proposed method for compliance with the MCL (subparagraph (A)), the date by which the system plans to submit the final plans and specifications for any construction (subparagraph (B)), the dates by which the system plans to start and complete any construction (subparagraph (C)), and the date by which the system plans to complete a treatment operations plan (subparagraph (D)). As lengthy grace periods or compliance schedule allowances have the potential to result in delays in compliance efforts, the State Water Board is proposing to require PWS to prepare and submit a Hexavalent Chromium Compliance Plan to mitigate this potential and ensure efficient use of the time allotted and expeditious attainment of the MCL. Preparation and submission of a Compliance Plan as soon as possible after determination of the need for compliance measures would assist PWS personnel to think through some of the major milestones in working toward compliance and the resources and steps involved in reaching those milestones. A Compliance Plan containing the date by which a PWS plans to submit final plans and specifications, the dates by which construction is anticipated to begin and end, and the date by which an operations plan is anticipated to be submitted would aid State Water Board staff in evaluating PWS progress toward MCL compliance

and enable more prompt identification of PWS missing key milestones. This would allow State Water Board staff to focus resources on PWS in need of course correction to timely comply with the MCL.

Subsection (q)(2) would be adopted to allow PWS to make amendments to their Hexavalent Chromium MCL Compliance Plans, as plans may change as new information becomes available, conditions change, or treatment technology advances. Approval of these amendments is dependent on continuing to meet the requirements of subsection (q)(1).

Subsection (q)(3) would be adopted to require that PWS implement their State Water Board approved Hexavalent Chromium MCL Compliance Plan. It is necessary to require PWS to implement approved Compliance Plans (including making the dates therein enforceable) to help ensure timely compliance with the proposed MCL, which benefits public health. Without this provision, enforcement would not be possible until the applicable deadline in subsection (p) was missed, after which point it may take years for a PWS to comply with the MCL, jeopardizing public health.

Subsection (r) would be adopted to require PWS utilizing a new or modified treatment process to comply with the hexavalent chromium MCL to submit a Hexavalent Chromium Operations Plan to the State Water Board for review and approval before serving treated water to the public. An Operations Plan is necessary to safely operate a treatment plant, and requiring PWS to develop such a plan will help ensure that hexavalent chromium treatment is operated as intended, preventing violations of the MCL that may be a risk to public health. Existing regulations at 22 CCR 64556 require PWS to submit to the State Water Board an application for an amended domestic water supply permit prior to any addition or change in treatment process or design capacity. 22 CCR 64001 requires PWS to submit an application for an amended permit pursuant to HSC 116550. HSC 116550 requires that no person operating a PWS modify, add to, or change the method of treatment of a water source as authorized by a valid existing permit issued by the State Water Board unless an application is first submitted to the State Water Board and the State Water Board issues an amended permit.

Development and submittal of a Hexavalent Chromium MCL Operations Plan sufficient to ensure that treated water reliably and continuously meets drinking water standards is necessary because it is critical for the reliable operation of hexavalent chromium treatment and will help ensure that treatment plants are operated safely statewide. Submission of the Operations Plan to the State Water Board in advance of or in conjunction with an application for permit revision would facilitate more rapid review of applications and issuance of revised permits, thereby reducing the time before treated water is served to the public.

Subsection (r)(1) would be adopted to require that the Operations Plan include a performance monitoring program that sets out how and when treatment will be monitored to ensure compliance with the hexavalent chromium MCL. A performance monitoring program is needed to monitor how well the treatment is removing hexavalent chromium,

which is directly related to compliance with the MCL (performance must be monitored to determine compliance) and public health.

Subsection (r)(2) would be adopted to require that the Operations Plan include a program for maintenance of treatment process equipment that describes how and when equipment will be maintained and when equipment replacement is needed to ensure treatment is operating as designed. A maintenance program for the treatment process equipment is necessary to ensure operator and maintenance worker safety, that treatment units operate continuously as intended and at peak design efficiency, maximization of the useful operating life of treatment unit components, that infrequently used components are in good operating condition when needed, and prevention of disabled or improperly working components or processes that might result in untreated water or treated water of a noncompliant quality and associated impacts to public health.

Subsection (r)(3) would be adopted to require that the Operations Plan include how and when each treatment unit process is operated. Including how and when each unit process is operated in the plan is necessary to ensure operator safety, that each unit process will be operated correctly, which directly affects compliance with the MCL and public health.

Subsection (r)(4) would be adopted to require that the Operations Plan include procedures used to determine chemical dose rates sufficient to ensure the treatment process is operating as designed. Including procedures for determining chemical dose rates is necessary to help ensure that the treatment plant operates safely and as intended, which directly affects compliance with the MCL and public health.

Subsection (r)(5) would be adopted to require that the Operations Plan include information on reliability features incorporated into the treatment process to ensure operation as designed. Reliability features are necessary to include because they can help ensure that the treatment plant is operating as intended with a lower likelihood of treatment failure, which directly affects compliance with the MCL and public health.

Subsection (r)(6) would be adopted to require that the Operations Plan include a treatment media inspection program sufficient to ensure the media is inspected at intervals and for conditions necessary to ensure compliance with the hexavalent chromium MCL. A treatment media inspection program is necessary (when media is being used) because media can become exhausted over time, causing treatment to become less effective over time, and identifying when media needs to be changed can help ensure the treatment plant continues to operate as intended. A treatment media inspection program directly affects compliance with the MCL and public health.

The technological and economic feasibility analyses for the proposed DLR are in sections 10 and 11, respectively.

5.4 Article 12, Section 64447.2, Best Available Technologies (BAT) – Inorganic Chemicals

The purpose of this section is to identify the BATs for reducing the level of inorganic chemicals in drinking water to comply with the MCL, pursuant to HSC 116370. Table 64447.2-A lists the BATs for inorganic chemicals.

The first paragraph of section 64447.2 would be revised to correct lower/upper case usage.

Table 64447.2-A would be revised to adopt reduction/coagulation/filtration, ion exchange, and reverse osmosis as BAT for chromium (hexavalent).

HSC 116370 requires the State Water Board to adopt a finding of the BAT for each contaminant for which a drinking water standard has been adopted at the time of ad option, taking into consideration costs and benefits of technologies proven effective under full-scale field applications. The primary purpose of the BAT designation is to identify the treatment technologies available at the time of MCL promulgation that can consistently and reliably remove the contaminant to a concentration at or below the proposed MCL. The State Water Board recognizes that there may be other potential treatment technologies being investigated as alternative options for the treatment of drinking water contaminated with hexavalent chromium. The designation of a BAT does not preclude a given PWS from receiving a domestic water supply permit that allows the use of alternative treatment technologies that may, for that PWS, be capable of sufficiently treating drinking water contaminated with hexavalent chromium. Reduction/coagulation/filtration, ion exchange, and reverse osmosis have demonstrated efficient removal of hexavalent chromium from drinking water to concentrations below the proposed MCL. More information about the BATs can be found in section 4.3.

Table 64447.2-A would also be revised to specify chromium as chromium (total) for clarity.

The key to Table 64447.2-A would be revised to specify a 14th BAT, Reduction/Coagulation/Filtration.

5.5 Article 18, Section 64465, Public Notice Content and Format

The purpose of this section is to establish the primary content (information and language) and format requirements of a public notice when an MCL, maximum residual disinfectant level, regulatory action level, or treatment technique has been violated or when there is a contaminant assessment, corrective action, or treatment technique violation. The language is intended to inform the public about the possible health effects associated with the contaminant.

Appendix 64465-D would be revised to adopt public notification health effects language for the hexavalent chromium MCL. HSC 116450(a) and (f) mandate that when any primary drinking water standard specified in the State Water Board's regulations is violated, the person operating the PWS must give notice to the consumers. The U.S. EPA has specific language requirements in regulations for primary MCLs. As mandated, the

State Water Board has adopted language for all federal MCLs and, for consistency, has adopted similar language for non-federal MCLs as well. Required public notification language prescribed by the State Water Board helps ensure brief, plain-language, and consistent statewide quality of information between PWS and their customers and will allow the customers to make informed health decisions. The proposed hexavalent chromium public notification language is consistent with the language for other, similar chemicals with primary MCLs, and would be included in the notice sent to the public if water systems violated the hexavalent chromium MCL. Specifying public health notification language is also a form of pre-approval to ensure expeditious review and approval of public notices and prompt notification of consumers. Specifying accurate, acceptable descriptions of health effects in advance aids in achieving the goal of delivering accurate health information as quickly as possible.

Any costs associated with using the hexavalent chromium MCL public notification content and format in public notices are expected to be negligible.

Appendix 64465-D would also be revised to specify chromium as chromium (total) for clarity.

5.6 Article 20, Section 64481, Content of the Consumer Confidence Report

The purpose of this section is to establish the primary content and format requirements of the Consumer Confidence Report, including the language to be communicated to the public when a contaminant has been detected. The language is intended to inform the public of the major origins, or sources, of the contaminant.

Subsection (o) would be revised to correct upper/lower case usage.

Subsection (p) would be added to clearly and efficiently indicate State Water Board direction to include additional information regarding hexavalent chromium in Consumer Confidence Reports delivered to consumers before the applicable compliance date in proposed Table 64432-B. Without this information, it could be unclear whether information regarding hexavalent chromium should be included in Consumer Confidence Reports before the applicable compliance date in proposed Table 64432-B.

Subsection (p)(1) would be added to affirm the existing requirement for information pursuant to subsections (c) and (d) if hexavalent chromium is detected before the applicable compliance date in Table 64432-B. This requirement is consistent with current Consumer Confidence Report requirements in CCR 64481(d) for other chemicals if they are detected. This information benefits the consumer by allowing them to make informed health decisions in the interim before their system must comply with the hexavalent chromium MCL. Without this provision, it could be unclear whether information regarding hexavalent chromium should be included in Consumer Confidence Reports before the applicable compliance date in proposed Table 64432-B.

Subsection (p)(2) would be added to require that language from proposed Table 64481-F be included in Consumer Confidence Reports if the MCL is exceeded before the applicable compliance date in Table 64432-B. Table 64481-F would be added to specify

the required language. Requiring and specifying inclusion of the proposed language in Consumer Confidence Reports is necessary because some water systems will exceed the MCL before they are required to comply with it, and appropriate language regarding hexavalent chromium must be communicated to consumers that may be drinking water exceeding the MCL. The language in Table 64481-F will ensure that water systems are providing clear, consistent information to customers regarding the system's current or planned actions to address the MCL exceedance and to ensure compliance by the applicable date. This will also help consumers make informed health decisions in the interim. Without this information, consumers would not be notified of their water system's compliance date or their steps to come into compliance with the MCL.

Appendix 64481-A would be revised to specify language for the Consumer Confidence Report describing major origins of hexavalent chromium in drinking water. Existing regulations at 22 CCR 64481 require that annual Consumer Confidence Reports contain information on the likely source(s) of any detected contaminants that have an MCL. The proposed hexavalent chromium major origins language includes both naturally occurring and anthropogenic sources (Hausladen et al., 2018; McNeill et al., 2012). The U.S. EPA initiated this specific major origins language requirement in regulations for primary MCLs in 1998 (U.S. EPA, 1998); as mandated, the State Water Board has adopted language for all federal MCLs and, for consistency, has adopted language for state-mandated MCLs as well. If the water system lacks specific information on the likely source, the Consumer Confidence Report must include one or more of the typical sources for the contaminant listed in appendix 64481-A. Contaminant major origins language prescribed by the State Water Board helps ensure consistent statewide quality of information between PWS and their customers.

Appendix 64481-A would also be revised to specify chromium as chromium (total) for clarity.

Any costs associated with the language to be included in the Consumer Confidence Report for hexavalent chromium are expected to be negligible.

6. REASONABLE ALTERNATIVES CONSIDERED AND REJECTED

[Gov. Code, §11346.2(b)(4)(A) and (B)]

Government Code section 11346.2(b)(4) requires that the State Water Board consider reasonable alternatives to the regulation and the agency's reasons for rejecting those alternatives. Reasonable alternatives include alternatives that are proposed as less burdensome and equally effective in achieving the purposes of the regulation in a manner that ensures full compliance with the authorizing statutes, which are HSC sections 116365 and 116365.5.

The State Water Board evaluated 20 alternatives to the proposed MCL for hexavalent chromium of 10 µg/L. These alternatives included hexavalent chromium MCLs of 1 to 15, 20, 25, 30, 35, 40, and 45 µg/L. The results of a higher (less stringent) hexavalent chromium MCL would be fewer systems out of compliance with the MCL. Conversely, a higher hexavalent chromium MCL would result in an increased risk to public health.

Specifically, higher levels of hexavalent chromium in drinking water would increase the number of cancer and noncancer (liver toxicity) cases in California. A lower (more stringent) hexavalent chromium MCL would result in more water systems being out of compliance and thus requiring treatment or other actions to come into compliance with the MCL. Costs would increase, but more people would drink water with lower levels of hexavalent chromium, resulting in a decrease of cancer and noncancer cases related to hexavalent chromium exposure.

The State Water Board's reason for rejecting the alternative MCLs is also incidentally supported by a cost-effectiveness analysis in the SRIA (Attachment 2, section F.4). In summary, alternative MCLs greater than 10 µg/L have similar or lower cost effectiveness (with gradually decreasing marginal cost effectiveness down to 10 µg/L), and MCLs at 9 µg/L and lower have much lower marginal and overall cost effectiveness.

Section 11346.2(b)(4) also requires a description of reasonable alternatives to the regulation that would lessen any adverse impact on small businesses and the agency's reasons for rejecting those alternatives. To the extent that this regulation will have any impact on small businesses,[9] the reasons for rejecting alternatives that may reduce an impact on small businesses is the same as above: a higher MCL is inconsistent with HSC 116365, would be less protective of public health, and would not result in significant cost savings on a unit cost or household cost basis without also significantly reducing health benefits (see sections 11.2.2 and 11.2.3).

Alternatives to the proposed BATs were considered. Ion exchange, RCF, and RO were adopted as BAT; however, stannous chloride was rejected as an alternative because additional information on the capability of the technology to meet the proposed MCL is necessary, including information on reoxidation in the distribution system and the ability to meet the proposed MCL without exceeding the stannous chloride MUL. The fate of hexavalent chromium in the distribution system when stannous chloride is used is not well understood; the State Water Board intends to request additional evaluation of the distribution system water quality should this technology be proposed for use by a PWS. However, PWS are not precluded from using alternative treatment technologies that prove to be effective even if they are not identified as BAT.

The State Water Board considered an alternative DLR of 0.05 µg/L, initially proposed during the April 2022 Public Workshop. The cost of testing would not increase until reporting is required to quantify concentrations below 0.05 µg/L, meaning that reporting limits of 0.05 µg/L and higher are equally economically feasible. While the laboratory surveys indicated that enough statewide capacity for hexavalent chromium testing currently exists at 0.05 µg/L, some labs may experience data quality issues at this level. To avoid testing results with low data quality, the DLR was placed at 0.1 µg/L, which is

[9] Government Code Section 11342.610(b)(8) explicitly exempts from the definition of "small business" "*a utility, a water company, or a power transmission company...*" Note that some public water systems that are businesses, such as packing companies, may be able to decrease cost of compliance by only treating the water needed for human consumption.

the lowest level that the Environmental Laboratory Technical Advisory Committee (ELTAC) members believe most or all labs could confidently quantify hexavalent chromium using EPA methods 218.6 and 218.7. Alternatives of higher concentrations than the proposed DLR were considered and rejected because it is necessary to set the DLR at the lowest level technologically and economically feasible (if not set at the PHG) to understand public health impacts. The selection of the DLR is discussed in further detail in section 10.

HSC 57005 requires that before adopting any major regulation (regulation with impacts to the state's business enterprises in excess of $10 million), the State Water Board must evaluate alternatives to determine whether there are less costly alternatives to the proposed regulation that would be equally effective achieving environmental protection and full compliance with statutory mandates. Submissions have been made suggesting alternative MCLs at 1 and 25 µg/L. Both levels are already included in the 20 alternatives evaluated. The Notice of Proposed Rulemaking requests additional alternatives, pursuant to Government Code section 11346.5, subdivision (a)(7)(C).

7. PRESCRIPTIVE OR PERFORMANCE STANDARD

[Gov. Code, §§11340.1(a); 11346.2(b)(1);11346.2(b)(4)(A)]

HSC 116365(j) provides for the establishment of primary drinking water standards, as defined at HSC 116275, either as MCLs (performance standards) or as treatment techniques (prescriptive standards), plus monitoring and reporting requirements pertinent to MCLs. HSC 116365 allows the use of a treatment technique in lieu of establishing an MCL for a contaminant only if ascertaining the level of the contaminant is not technologically or economically feasible. As described in detail in sections 10 and 11, The State Water Board finds ascertaining the concentration of hexavalent chromium to be technologically and economically feasible and proposes to regulate hexavalent chromium via an MCL.

The proposed regulation would impose performance standards in the form of an MCL and a DLR. The regulations do not mandate the use of specific technologies or equipment for compliance with the MCL. However, the proposed regulations would prescribe the use of specific analytical methods for the analysis of hexavalent chromium in drinking water to EPA method 218.6 and EPA method 218.7. Both methods are currently offered for accreditation through California's Environmental Laboratory Accreditation Program. Both methods have been validated to meet the DLR in drinking water, and laboratories have proposed no other analytical methods for consideration. For the State Water Board to have confidence in the data produced by laboratories to meet these requirements, it is necessary that laboratories use relevant analytical methods that have been validated as being able to reach the DLR.

The State Water Board invites interested persons to present statements or arguments with respect to alternatives to the proposed methods at the scheduled hearing or during the written comment period.

8. STANDARDIZED REGULATORY IMPACT ANALYSIS/ASSESSMENT (SRIA)

[Gov. Code, §§11346.2(b)(2)(B); 11346.3(a)(3);11346.3(b); 11346.3(c)]

The SRIA is included as Attachment 2 of this document. The standardized regulatory impact analysis is also referred to as a standardized regulatory impact assessment in Department of Finance regulations at 1 CCR sections 2000 through 2004 and may be so referenced elsewhere in rulemaking documentation.

9. UNNECESSARY DUPLICATION WITH EXISTING FEDERAL REGULATIONS

[Gov. Code, §11346.2(b)(6)]

The State Water Board evaluated whether the proposed regulations are duplicative of existing federal regulations and concluded that they are not. There is no existing federal regulation addressing hexavalent chromium specifically. In addition, should U.S. EPA promulgate any drinking water standard for hexavalent chromium, HSC 116270 states California's legislative intent to establish a program that is more protective of public health than the minimum federal requirements. HSC 116365 further requires the State Water Board to adopt primary drinking water standards for contaminants at levels as close as feasible to the corresponding PHG, placing primary emphasis on the protection of public health, and meeting, to the extent technologically and economically feasible, specified conditions. Therefore, differing regulations are not only authorized by state law, but are in certain instances, required.

10. TECHNOLOGICAL FEASIBILITY

HSC section 116365, subdivision (b) requires the State Water Board to consider "*the technological... feasibility of compliance*" with the proposed MCL. This section considers the technological feasibility of monitoring to the DLR with the analytical methods identified in the proposed regulation, including capacity of existing laboratories to conduct all required testing, and the ability of the BAT to treat to the proposed MCL.

10.1 Technological Feasibility of Monitoring

Existing statute (Health & Saf. Code, §116390) and regulations at 22 CCR 64415 require that analysis be performed by laboratories accredited by the State Water Board's Environmental Laboratory Accreditation Program, and "*unless directed otherwise by the State Water Board, analyses shall be made in accordance with U.S. EPA approved methods as prescribed at 40 Code of Federal Regulations parts 141.21 through 141.42, 141.66, and 141.89.*"

To obtain analytical cost data and to evaluate laboratory capacity and technological feasibility at potential DLRs, the State Water Board surveyed 40 laboratories that had submitted water quality data for hexavalent chromium between December 2014 and December 2020 to assess both capacity and capability for sample analysis. The 40 laboratories identified had submitted hexavalent chromium data under ELAP accreditation for either or both of EPA methods 218.6 and 218.7 for the determination of hexavalent chromium in drinking water. Of the 40 laboratories surveyed, 21 (12 commercial and 9 municipal) laboratories responded. Laboratories were asked to identify

their minimum reporting levels (MRL) and lowest calibration points for EPA methods 218.6 and 218.7. The MRL for each laboratory was used to determine a laboratory MRL range of 0.01 µg/L to 1 µg/L. The results of the surveys are provided in Attachment 4.

In the survey, laboratories were asked to base their responses with confidence that a spike recovery was within the recovery range of 70 to 130 percent. The spike recovery range is not a requirement or criteria for the proposed regulation, but rather was used as one metric for understanding current laboratory technological capabilities. Through an additional survey and follow-up communication with responding laboratories, the State Water Board determined that 0.1 µg/L was the lowest concentration to which the majority of California laboratories could reliably quantify hexavalent chromium in drinking water. This communication discussed the ease or difficulty of quantifying hexavalent chromium in drinking water at low concentrations using EPA methods 218.6 and 218.7. The ELTAC members agreed that while quantification below 0.05 ug/L is possible for some labs, the recovery and accuracy of results decreases from 99 percent confidence with approximately +/- 30 percent recovery to +/- 50 percent recovery, and the ability to detect concentrations below 0.05 µg/L is dependent on the instrument age and maintenance (Ghabour, 2020; Ghabour, 2021; Pierri, 2021). Even with new instrumentation, the signal-to-noise ratios for detections below 0.05 µg/L were low (Ghabour, 2020; Ghabour, 2021; Pierri, 2021). The signal-to-noise ratio is a sensitivity metric that compares the analyte signal to the background noise (Agilent Technologies, Inc, 2023). When signal-to-noise ratios are low, it often means that it is difficult to distinguish the signal of the desired analyte (hexavalent chromium, in this case) from the noise of the background with the given instrument, and that manual interpretation of the instrument data is needed by the laboratory analyst to pick the peaks and baseline points to integrate, which can lead to subjective and nonreproducible results (Ghabour, 2020; Ghabour, 2021; Pierri, 2021). Also, as instruments age, these signal-to-noise ratios decrease, making it harder to achieve lower detections with high confidence (Ghabour, 2020; Ghabour, 2021; Pierri, 2021). One laboratory reported being able to confidently detect hexavalent chromium at 0.05 µg/L using EPA method 218.6 over 10 years ago, but they qualified that a laboratory's general ability to do this would depend on their instrument age and maintenance (Ghabour, 2020; Ghabour, 2021; Pierri, 2021).

Where confidence and precision decreases for quantifying hexavalent chromium below 0.05 µg/L, comparatively, for detecting 0.1 µg/L, laboratories indicated the same confidence levels with more precise results. One laboratory reported 99 percent confidence with a +/- 15 percent recovery (with both EPA methods), and another lab reported 99 percent confidence with +/- 0 percent recovery (Ghabour, 2020; Ghabour, 2021; Pierri, 2021). While these smaller recovery ranges for precision are not a requirement for the proposed hexavalent chromium DLR, the laboratory responses indicate that the proposed DLR of 0.1 µg/L is technologically feasible with high confidence and low uncertainty.

Currently, hexavalent chromium sampling is not required. However, approximately 2,724 sources and 150 treatment facilities continue to monitor for its presence using EPA methods 218.6 and 218.7, further demonstrating that these sampling methods are feasible.

10.1.1 Laboratory Capacity

The State Water Board estimated that there was sufficient laboratory capacity for monitoring required by the MCL based on the commercial and municipal laboratories' reported MRLs and maximum possible hexavalent chromium samples analyzed per month. Five commercial laboratories located in Northern, Central, and Southern California reported the ability to analyze a range of 300 to 500 hexavalent chromium samples per month at a DLR of 0.1 µg/L for a monthly total nearly 1.5 times the likely required monthly number of samples for monitoring under the proposed hexavalent chromium MCL.

The method holding times for EPA method 218.6 and EPA method 218.7 are 24 hours and 14 days, respectively. As of July 1, 2022, there were 40 laboratories accredited under EPA methods 218.6 (32 laboratories) and 218.7 (26 laboratories), 26 of which were commercial laboratories that accept monitoring samples from PWS (16 of these laboratories were accredited for both EPA methods). Figure 1 shows the locations of commercial and municipal laboratories accredited for hexavalent chromium analyses, specifying which are capable of meeting a DLR of 0.1 µg/L.

Because many laboratories did not respond to the survey (gray map markers), their analytical capabilities in respect to the DLR are unknown. In addition to the mapped laboratories, an additional 19 laboratories were previously accredited for hexavalent chromium analyses (during the period that the previous hexavalent chromium MCL was active), indicating that additional laboratories are capable of these analyses. Some of these 19 laboratories may choose to pursue accreditation once the MCL is active again.

Because the commercial laboratories known to be capable of meeting the DLR are not uniformly geographically distributed throughout the state, some PWS may not be able to use EPA method 218.6 because of its short hold time (24 hours). The 14-day hold time for EPA method 218.7 means it is more likely to be used by PWS not near an accredited laboratory. It is possible that some PWS may ship their monitoring samples to a laboratory, thereby incurring additional expenses, but the data is not available to determine which PWS might choose to do so. The costs to ship samples overnight (including package cost and package pickup) could exceed the average cost of sample analysis ($78.63), if only one sample was shipped at a time from the most remote locations in California (FedEx, 2023). Shipping costs were not included in monitoring cost estimates because data was not available to help determine which PWS would require sample shipping or which laboratories would be able to accept such samples (low survey response rate). In addition, overnight shipping is not necessary because EPA method 218.7 is available and has a much longer hold time (14 days).

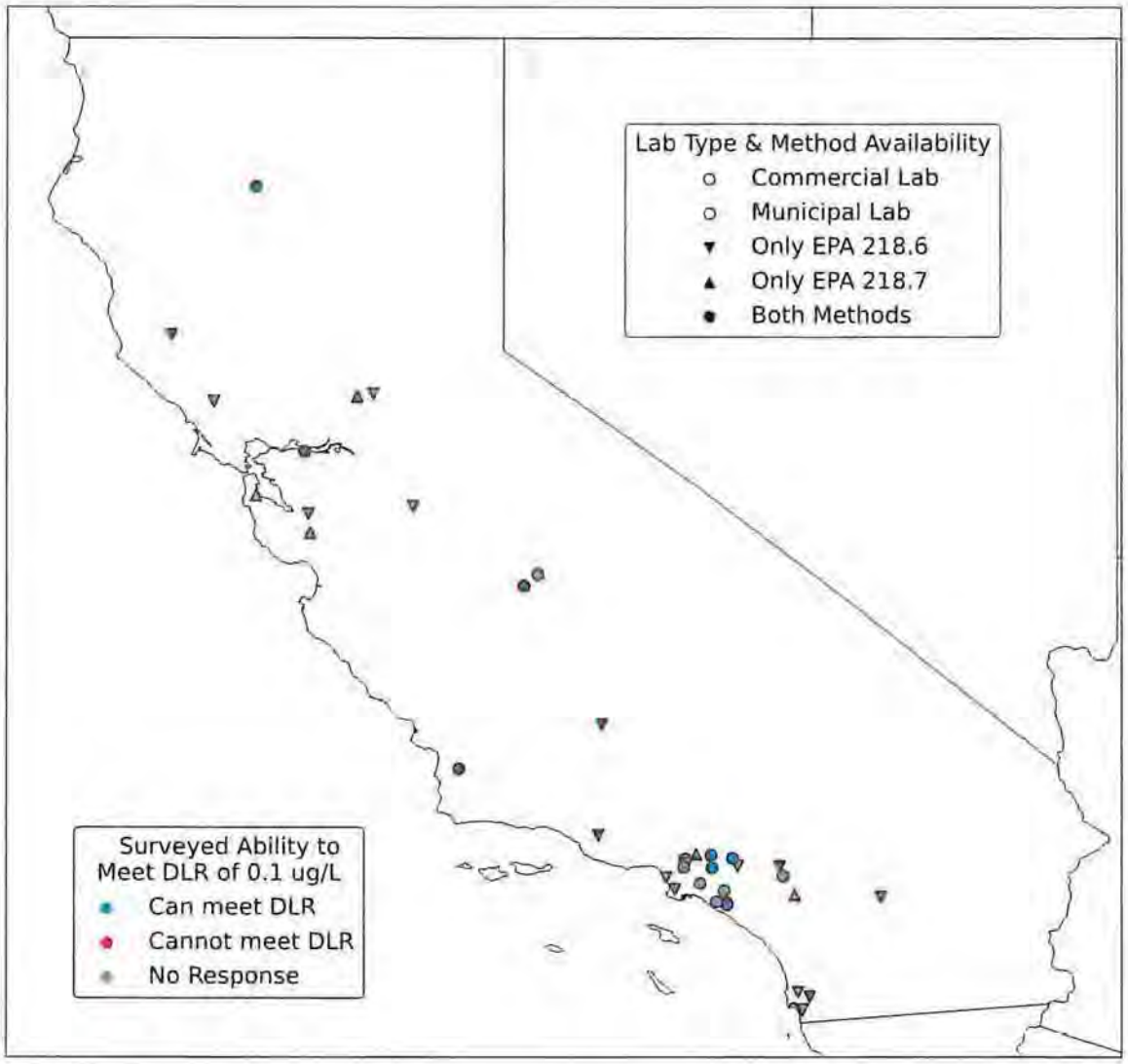

Figure 1. Map of laboratories with ELAP accreditation for EPA methods 218.6 and/or 218.7, showing surveyed ability to meet a DLR of 0.1 µg/L

While the evaluation of technological feasibility relative to analytical limitations was based on survey responses for both municipal and commercial laboratories, evaluation of laboratory capacity considered only commercial laboratories as analytical services at PWS-run laboratories are not typically widely offered outside the PWS itself. The eight commercial laboratories providing information on per-month analytical capacity reported a capacity range of 200 to 500 samples per month, for an average of 390 hexavalent chromium analyses per month or 4,680 analyses per year (Attachment 4). As described in 4.4.1.2, hexavalent chromium analysis demand resulting from the proposed regulation is expected to be as follows:

- 22 CCR 64432(b) requires CWS and NTNCWS to initiate monitoring for inorganic chemicals such as hexavalent chromium within six months following the effective date of the regulation establishing the MCL, for a total of 13,066 hexavalent chromium analyses distributed over the first six months of the regulation.
- 22 CCR 64432(c) requires CWS and NTNCWS to conduct routine monitoring at the following frequencies, for a post-initial monitoring monthly average of 376 analyses:
    - Every three years (groundwater sources): 10,829
    - Every year (surface water sources): 902
- 22 CCR 64432(g) requires PWS exceeding the MCL to monitor quarterly, for a post-initial monitoring monthly average of 445 analyses.
- 22 CCR 64432.8 requires PWS utilizing treatment to comply with an MCL to sample treated water monthly. With 233 PWS estimated to provide treatment, approximately 1,335 analyses of treated drinking water would be required each month.

An MCL of 10 µg/L will require approximately 25,872 samples per year after full implementation, and 14,401 samples in the first six months after the effective date of the regulation while initial monitoring and some quarterly monitoring is occurring. These values were calculated by multiplying the number of surface water and groundwater sources (Attachment 1, Tables 3.1A, 3.2A, 3.1B, and 3.2B) by the number of samples they are expected to need in the first six months and annually after full implementation based on each monitoring frequency (detailed previously in section 4.4.1.2).

There are currently at least 28 commercial laboratories accredited for hexavalent chromium analysis, at least 6 (60% of respondents) of which can achieve 0.1 µg/L (the capabilities of 18 commercial laboratories are unknown). Additionally, some of the 19 laboratories that dropped accreditation after the repeal of the former hexavalent chromium MCL may seek re-accreditation once the new hexavalent chromium MCL is established, thereby increasing overall lab capacity in time for the proposed MCL effective dates. If the laboratories choose to not update their accreditation status, the current commercial laboratory capacity is still capable of meeting sampling requirements of the proposed regulation.

The proposed DLR is achievable within suitable limits of precision and accuracy by a sufficient number of commercial laboratories and is as close to the PHG as is technologically feasible (commercial labs are a focus because most PWS are expected to contract to one rather than run their own municipal lab). The proposed DLR of 0.1 µg/L is adequate for determining, with confidence, the presence of hexavalent chromium and compliance with the proposed hexavalent chromium MCL of 10 µg/L. The statewide regulatory cost of adopting the hexavalent chromium DLR was included in the monitoring cost estimates for the adoption of the hexavalent chromium MCL.

10.2 Technological Feasibility of Treatment

Pursuant to HSC 116370, the State Water Board proposes to identify three treatment technologies as BAT: ion exchange, RCF, and RO. Ion exchange, RCF, and RO are capable of treating hexavalent chromium in water down to at least 1 µg/L. Two types of ion exchange technology can be used to treat hexavalent chromium: SBA and WBA. Ion exchange uses resin to which the hexavalent chromium ion can adsorb, decreasing hexavalent chromium concentrations in finished water. RCF uses a reducing agent, such as ferrous sulfate or stannous chloride, to transform hexavalent chromium into trivalent chromium. Trivalent chromium in water has a low solubility and can be removed with filtration. RO filters hexavalent chromium out of finished water using membranes. Treatment technology capabilities may differ in non-ideal circumstances. Source water quality impacts the treatment efficacy of ion exchange and RCF. High sulfates can reduce the efficiency of strong base ion exchange treatment, and pH has a significant impact on RCF's reduction efficiencies (Parks et al., 2017; Hazen and Sawyer, 2013). The State Water Board considers the proposed MCL of 10 µg/L to be technologically feasible because multiple mature, full-scale treatment technologies have been demonstrated capable of treating to concentrations below this level. Further discussion of the capabilities of each of these BAT is in section 4.3.

Both ion exchange (SBA and WBA) and RCF were used as the basis for estimating costs associated with treating sources in violation of the MCL. Ion exchange was chosen as one of the technologies used to calculate treatment costs because it was the most common treatment installed in the California PWS to treat hexavalent chromium contamination at the time of this rulemaking (seven systems installed SBA, one system installed WBA, and one system installed a RO point-of-entry (POE) device[10]). However, some systems may have water quality constraints (such as high sulfate concentrations) that would make using ion exchange difficult or especially expensive. Therefore, cost estimates for RCF treatment were also developed as an alternative.

11. ECONOMIC FEASIBILITY

In assessing the economic feasibility of the proposed primary drinking water standard, the State Water Board has analyzed the estimated compliance costs in detail, as described in the CEM in section I of the SRIA (Attachment 2), and summarized in section 4, above. The CEM details the costs of compliance, including costs of monitoring, treatment, and creation of compliance and operations plans, and examines these costs according to various types of PWS. The costs are further analyzed per drinking water source, service connection (or customer), person, and quantity of water treated.

As described further below, the State Water Board concludes that for the various types and sizes of PWS, the MCL is as close to the PHG as is economically feasible. Not only will it not have a significant economic impact on most Californians, the State Water Board

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[10] While no residential POE water treatment devices have been registered in California, this system is an NTNC and uses these devices for non-residential treatment.

also concludes that although the economic burden of the regulations may be more substantial on small systems or those that are already having issues with compliance and affordability of rates, the MCL is economically feasible because there are sufficient resources available to potentially mitigate the challenge of compliance for the systems that are already struggling. In addition, the analysis demonstrates that there would not be significant cost savings for small systems at alternative MCL values, without substantial reductions in protections to public health. In addition, the costs are based on conservative assumptions, and for those smallest systems that might find the regulation most economically burdensome, there are ways to mitigate those costs, including the use of POU/POE and consolidations with nearby systems. In addition to the cost of the current proposed regulations, the State Water Board also considered the impact of the future regulations that it will be promulgating in the near-term and the cost-effectiveness of the proposed regulations.

11.1 Assessing Economic Feasibility

Health and Safety Code section 116365, subdivision (b) requires that the State Water Board consider the economic feasibility of compliance with the proposed primary drinking water standards, which include the MCL and associated DLR. Subdivision (b)(3) states that "for the purposes of determining economic feasibility...the state board shall consider the costs of compliance to public water systems, customers, and other affected parties...including the cost per customer and aggregate cost of compliance, using best available technology." As described by the California Third District Court of Appeal, "[t]his language seems to clearly contemplate a feasibility analysis, rather than a cost-benefit analysis." (*California Manufacturers and Technology Association v. State Water Resources Control Bd.* (2021) 64 Cal.App.5th 266, 285). In the environmental context, a feasibility analysis "requires an agency to protect public health to the maximum extent possible, constrained solely by what is economically or technically feasible" (*Id.* at p. 284). Economic feasibility turns on whether compliance with the MCL is "capable of being done given 'the management of domestic or private income and expenditure.'" (*Id.* at p. 282). Importantly, a regulation may be capable of being done even if not every affected entity is capable of compliance. The Court of Appeal in *California Manufacturers and Technology Association* (2021) quoted federal cases interpreting the meaning of economic feasibility in the context of regulations promulgated by the Occupational Health & Safety Administration, where the courts have explained that a regulation is not infeasible simply "because it threatens the survival of some companies within an industry" (*Ibid.*, quoting *United Steelworkers of America, AFL-CIO-CLC v. Marshall* (D.C. Cir. 1980) 647 F.2d 1189, 1265), and that "[a] standard is economically feasible if the costs it imposes do not 'threaten massive dislocation to or imperil the existence of, the industry'" (*Ibid.*, quoting *American Iron & Steel Institute v. Occupational Safety and Health Admin.* (D.C. Cir. 1991) 939 F.2d 975, 980). Because of the multitude and variety of public water systems in California, it is inevitable that the costs of complying with an MCL will vary, and that some systems will struggle due to a lack of financial capacity. This alone – while of concern to the State Water Board and requiring long-term solutions for the realization of the human right to water for all Californians – does not mean that a particular MCL is economically infeasible under the California Safe Drinking Water Act.

11.2 The MCL is Economically Feasible

Tables 6 and 7 show that the majority of the costs of complying with the proposed MCL are going to be borne by water systems that serve 10,000 or more service connections. Because those costs would be recovered from a large number of customers, the median increase in monthly drinking water costs for 94% of the people affected (5 million of the 5.3 million affected drinking water consumers) would be less than $20, which drops to a median cost of $8 for 87% of customers (see Table 10.1A "Estimated Total Number of People Served by Water System Size; and Table 17.1A "Median Monthly Household Cost Increases," Attachment 1). Total annual costs for all PWS are estimated to be $179,568,183, with the majority of that amount ($172,666,029) attributed to costs to CWS. On a statewide per capita cost, this regulation equates to $4.75 per person per year[11] and is economically feasible.

PWS recover costs of providing drinking water through the imposition of fees, rates, and charges on customers, which is the expected means of cost recovery for PWS impacted by the proposed MCL for hexavalent chromium. The economic feasibility of complying with the proposed MCL does not mean that there are no costs to doing so – including costs to PWS customers – nor that those costs will necessarily be de minimis. "[R]egulations are not 'infeasible' because they impose financial burdens on businesses or consumers." (*California Manufacturers and Technology Association, supra*, 64 Cal.App. 5th at p. 282). Although the MCL is economically feasible, any increase in costs of compliance is a challenge for some small systems. The State Water Board is sensitive to the cost recovery challenges that smaller PWS may face with higher per connection cost increases to treat for hexavalent chromium. For example, as shown in section 4.4.4.4, while the average monthly cost per connection of an affected PWS treating to comply with the proposed MCL is $11, and only $8 for persons served by systems with more than 10,000 service connections, the cost rises to $135 for people served by PWS with fewer than 100 service connections. Because these systems are so small, they must recover their costs from very few customers, resulting in potentially high per connection cost increases to install centralized treatment for hexavalent chromium.

In addition, some PWS may already be charging drinking water service fees that are unaffordable. The State Water Board's "2022 Drinking Water Needs Assessment" (SWRCB, 2022a) includes an affordability assessment, which identifies CWS with drinking water fees that may be unaffordable for their consumers. Out of 2,868 community water systems analyzed, 1,566 charge fees that exceed at least one risk indicator threshold for unaffordability.[12] Three hundred twenty-three (323) systems exceed two risk

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[11] This value was calculated by dividing the total cost of this regulation by the number of residents in California (39,029,342), not just the people served by water systems expected to be impacted by this MCL (U.S. Census Bureau, 2022).

[12] Risk indicators included whether average fees exceeded a certain percentage of median household income; whether fees exceeded a percentage of average statewide drinking water fees; whether a high percentage of customers are past-due on their bills; and the amount of residential arrearages accrued during a certain time period, if distributed across the residential rate base.

indicator thresholds and are considered to have a "medium affordability burden", and 89 systems exceed three or more risk indicators and are considered to have a "high affordability burden." Of the 412 public water systems deemed to have a medium or high affordability burden, 19 are presently exceeding the proposed MCL for hexavalent chromium. Because the State Water Board believes that these 19 public water systems' customers are currently facing a medium or high affordability burden, it is possible that these systems will experience difficulty recovering the costs of complying with the proposed MCL for hexavalent chromium through the imposition of rates and charges.

In addition to PWS with medium or high affordability burdens, PWS that are on the State Water Board's HR2W List may experience difficulty recovering costs of complying with the proposed MCL from the imposition of rates and charges. PWS on the HR2W List are community water systems and non-community water systems that serve schools and daycares, and which systems are out of compliance with, or consistently fail to meet, primary drinking water standards (SWRCB, 2021g). To the extent that these systems' non-compliance is due to difficulty paying for needed infrastructure improvements, there is a possibility that these systems will struggle to afford the costs of installing treatment for hexavalent chromium through the imposition of rates and charges.

To further demonstrate that the MCL is economically feasible even for these systems that might have difficulty with compliance, the State Water Board considered how much financial assistance would be required to cover the costs of complying with the proposed MCL by: public water systems with medium or high affordability burden (as determined by the State Water Board's Drinking Water Needs Assessment);[13] public water systems on the State Water Board's Human Right to Water (HR2W) list;[14] and any public water system that would need to recover more than $30 per month per service connection to comply with the proposed primary drinking water standard.[15] PWS needing to recover more than $30 per month from its customers for hexavalent chromium treatment were considered because it is more likely that the customers of these systems will struggle to afford water cost increases, which (without other assistance) may limit the ability of these systems to recover the costs of complying with the hexavalent chromium MCL. The State Water Board did not rely only on Disadvantaged Community (DAC) status to determine how much financial assistance would be required to cover the costs of complying with the proposed MCL because DAC status does not correlate with a medium or high affordability burden (SWRCB, 2022a). Of the 1,366 PWS designated as DAC or Severely Disadvantaged Community (SDAC), 1,128 PWS were categorized as having low to no affordability burden (SWRCB, 2022a).

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[13] (SWRCB, 2022a)
[14] As part of the Human Right to Water in California, the State Water Board identifies PWS that consistently fail to meet primary drinking water standards. More information about the Human Right to Water can be found here: https://www.waterboards.ca.gov/water_issues/programs/hr2w/.
[15] A $30 monthly cost increase is used to approximate financial assistance needs and is not intended to convey that $30 is necessarily an unaffordable value. Higher cutoffs will result in lower funding estimates, and lower cutoffs will result in higher funding estimates. This analysis could be repeated with other cutoff values to determine sensitivity.

The State Water Board then compared the amount of financial assistance necessary to cover those costs of compliance with the amount of financial assistance funding available from the State Water Board's Division of Financial Assistance. The result shows that less than 1% of available funding would be required to cover these costs of compliance with the proposed MCL. The analysis below shows, in detail, the calculation of these costs and the comparison against available funding. While the State Water Board cannot, through this rulemaking process, guarantee financial assistance to any particular recipient, this analysis supports the economic feasibility of the MCL because there are sufficient resources available to mitigate the challenge of compliance for the systems that are already struggling with financial capacity. The discussion also considers how costs for systems within the various size categories would shift at alternative MCL values and demonstrates that costs savings are not significant without substantial reductions in protections to public health.

11.2.1 Monthly Household Compliance Costs Analysis (CWS only)

While it can be informative to evaluate average household (per connection) compliance costs (discussed in section 4.4.4.4), compliance costs for some systems are much higher or lower than the average, and the median costs can sometimes be much different than the average costs. Table 6 shows the median monthly household compliance costs estimated for each potential MCL, and Table 7 shows the maximum monthly household compliance costs estimated for each potential MCL. The values in these tables may be better understood in conjunction with Attachment 1 Tables 7.1A, 9.1A, and 10.1A, which detail the number of systems, connections, and people in each of the water system size categories for each potential MCL.

Table 6. Median Monthly Household (per service connection (SC)) Cost Increases by Water System Size and MCL

MCL (µg/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	For All Systems
1	$172	$95	$ 73	$60	$38	$26	$92
2	$160	$80	$ 61	$53	$30	$19	$78
3	$158	$70	$ 54	$48	$30	$15	$74
4	$154	$63	$ 59	$42	$24	$13	$70
5	$149	$66	$ 55	$40	$22	$10	$66
6	$152	$72	$ 53	$40	$25	$ 7	$63
7	$170	$70	$ 50	$39	$22	$ 6	$61
8	$166	$66	$ 61	$34	$20	$ 6	$59
9	$168	$64	$ 64	$36	$19	$ 6	$59

MCL (µg/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	For All Systems
10	$172	$65	$ 45	$31	$18	$ 8	$58
11	$172	$63	$ 43	$36	$22	$10	$65
12	$171	$68	$ 65	$38	$24	$10	$66
13	$171	$67	$ 64	$33	$21	$ 9	$62
14	$168	$71	$ 64	$35	$21	$ 7	$57
15	$149	$66	$ 63	$35	$26	$ 4	$56
20	$168	$62	$111	$29	$16	$ 3	$41
25	$116	$50	$109	$15	$ 7	$ 3	$29
30	$ 97	$48	$ 55	$ 9	$ 8	$ 3	$10
35	$ 71	$46	$ 55	$11	$ 7	$ 3	$11
40	$308	$46	$ 54	$ 7	-	$ 4	$ 7
45	-	$45	$ 53	-	-	$ 4	$ 5

Table 7. Maximum Monthly Household (per connection) Cost Increases by Water PWS Size and MCL

MCL (µg/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000
1	$1,962	$199	$263	$136	$96	$67
2	$1,794	$159	$251	$108	$64	$60
3	$ 926	$158	$233	$105	$60	$56
4	$ 926	$157	$160	$103	$56	$55
5	$ 537	$156	$126	$100	$55	$55
6	$ 463	$155	$123	$ 96	$54	$54
7	$ 463	$154	$119	$ 93	$53	$54
8	$ 463	$153	$118	$ 90	$52	$54
9	$ 463	$153	$117	$ 77	$51	$54

MCL (µg/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000
10	$ 463	$152	$116	$ 77	$51	$53
11	$ 463	$151	$115	$ 76	$50	$53
12	$ 463	$150	$115	$ 70	$49	$53
13	$ 429	$149	$114	$ 70	$48	$52
14	$ 429	$146	$113	$ 66	$48	$52
15	$ 429	$ 74	$113	$ 66	$47	$52
20	$ 421	$ 69	$111	$ 53	$31	$50
25	$ 308	$ 59	$109	$ 32	$ 8	$38
30	$ 308	$ 55	$ 55	$ 14	$ 8	$34
35	$ 308	$ 52	$ 55	$ 14	$ 7	$26
40	$ 308	$ 51	$ 54	$ 7	-	$15
45	-	$ 49	$ 53	-	-	$ 6

Median cost increases for systems with less than 100 connections range from a minimum of $71 (at 35 µg/L) to a maximum of $308 (at 40 µg/L) across all potential MCLs. For the smallest systems (less than 100 connections), median cost increases are 152% to 676% higher than the next largest systems (100 to 200 connections). Because of the lack of economies of scale, cost increases for systems of this size rarely look affordable. However, a financial burden imposed by regulations on businesses or consumers does not mean it is not economically feasible, and affordability is not the same as economic feasibility. As seen in Table 6, the median cost increases for the smallest systems change very little (less than 14%) for the majority of alternative MCLs (only MCLs at 25 µg/L or higher changed more), meaning that the affordability for the smallest systems does not appreciably change from MCL alternatives from 1 µg/L to 20 µg/L. The following sections are devoted to evaluating monthly household cost increases by system size, combining the information from Table 6 and Table 7, as well as Table 9.2A (average cost increases per connection) from Attachment 1.

11.3 Systems Challenged to Meet a New MCL of 10 ug/L

In the following sections, the State Water Board considered how much financial assistance would be needed for systems with monthly household compliance costs higher than $30, any systems with a medium or high affordability burden, or any systems on the Human Right to Water (HR2W) list. A $30 monthly cost increase is used to approximate financial assistance needs; however, this is not intended to convey that $30 is a significant

value. Higher cutoffs will result in lower funding estimates, and lower cutoffs will result in higher funding estimates.

11.3.1 Monthly Household Compliance Costs: 10,000 or More Service Connections

The average compliance costs for this system size range (which consists of 1.2 million households) is $8 per month per household, and the median compliance costs for this system size range is also $8 per month per household. These compliance costs range from less than $1 to $53 per month per household. Of the 31 systems expected to be impacted in this size range, 9 are DACs and one is a SDAC[16] (See Table 7.1A in Attachment 1, setting out "Estimated Number of Systems Requiring Treatment."). While none of these systems are on the HR2W list, one is "At-Risk" of being on the HR2W list, and two are "Potentially At-Risk." According to the 2022 Affordability Assessment (SWRCB, 2022a), none of these systems already have a high affordability burden, and only two of the 31 systems have a medium burden. If these two systems with medium affordability burden passed hexavalent chromium treatment costs to their customers, each household would potentially be looking at additional monthly costs of $12 and $53.

The total financial assistance needed for systems in this size category with a $30 or more increase in monthly household costs (all DAC systems) and all systems with a medium or high affordability burden would be $1,583,749 per year to cover the 51,021 affected households.

Compared to alternative MCLs, the average and median monthly household compliance costs in this size category do not vary much (less than 10% except for at 1 µg/L), and costs would only decrease by up to 5% at any less stringent MCL. Maximum costs increase with lower alternative MCLs and decrease with higher alternative MCLs. While maximum costs decrease with increasing alternative MCLs, they do not decrease quickly. Only alternative MCLs of at least 25 µg/L would experience cost reductions of more than 6%, which would result in an 85% reduction in health benefits. For these reasons, increasing the MCL is not anticipated to significantly reduce household compliance costs for this size category without also significantly reducing health benefits.

11.3.2 Monthly Household Compliance Costs: 5,000 to 10,000 Service Connections

The average and median household compliance costs for this size range (which consists of 87,467 households) are $21 and $18 per month, respectively. These compliance costs range from $5 to $51 per month per household. Of the 12 systems expected to be impacted in this size range, two are DACs and three are SDACs. While none of these systems are on the HR2W list, two are "At-Risk," and three are "Potentially At-Risk." According to the 2022 Affordability Assessment (SWRCB, 2022a), none of these systems has a high affordability burden, and only one has a medium burden. If the PWS with the

[16] DACs are defined as a CWS in which the median household income (MHI) is less than 80% of the statewide MHI. SDACs are CWS whose MHI is less than 60% of the statewide MHI.

medium affordability burden passed all additional costs to its customers, the potential additional costs of compliance for that system would be $22 per month per household.

Total financial assistance needed for systems in this category whose monthly household compliance costs exceed $30 and all systems with a medium or high affordability burden would be $1,178,990 per year to cover all costs for the 29,038 affected households.

Compared to alternative MCLs, the average monthly household compliance costs in this size category do not decrease more than 4% until 25 µg/L, and the median costs do not decrease by more than 11% until 25 µg/L. Similarly, the maximum monthly household costs do not decrease by more than 8% until 20 µg/L. Alternative MCLs of 20 µg/L and 25 µg/L would result in 73% and 85% fewer health benefits, respectively. For these reasons, increasing the MCL is not anticipated to significantly reduce household compliance costs for this size category without also significantly reducing health benefits.

11.3.3 Monthly Household Compliance Costs:1,000 to 5,000 Service Connections

The average and median household compliance costs for this size range (which consists of 72,225 households) are $39 and $31 per month, respectively. These compliance costs range from $8 to $112 per month per household. Of the 26 systems expected to be impacted in this size range, 6 are DACs and 9 are SDACs. Two of these systems (one DAC and one SDAC) are on the HR2W list, 6 of these systems are "At-Risk," and 2 of these systems are "Potentially At-Risk." According to the 2022 Affordability Assessment (SWRCB, 2022a), two of these systems have a high affordability burden (corresponding to an increase in monthly household compliance costs of $22 and $38), and three of these systems have a medium affordability burden (corresponding to increased monthly household costs of $21, $28, and $37).

The total financial assistance needed for all systems within this size category with monthly household compliance costs higher than $30, for all systems with a medium or high affordability burden, and for systems on the HR2W list would be $2,513,146 per year to cover all costs for the 49,648 affected households.

Compared to alternative MCLs, the average monthly household compliance costs in this size category do not decrease by more than 9% until 25 µg/L, and the median costs do not decrease by more than 6% until 25 µg/L. The maximum monthly household costs also decrease slowly for higher MCLs (an alternative MCL at 14 µg/L only experiences a 14% decrease in maximum costs). Alternative MCLs of 14 and 25 µg/L would result in 38% and 85% fewer health benefits, respectively. For these reasons, increasing the MCL is not anticipated to significantly reduce household compliance costs for this size category without also significantly reducing health benefits.

11.3.4 Monthly Household Compliance Costs: 200 to 1,000 Service Connections

The average and median household compliance costs for this size range (which consists of 6,417 households) are $54 and $45 per month, respectively. These compliance costs range from $16 to $88 per month per household. Of the 15 systems expected to be impacted in this size range, none are DACs and 6 are SDACs. Two of these systems are on the HR2W list, 3 are "At-Risk," and 3 are "Potentially At-Risk." According to the 2022

Affordability Assessment (SWRCB, 2022a), none of these systems already has a high affordability burden, and only one of them has a medium burden (corresponding to one of the systems on the HR2W list with an increased potential monthly household cost of $14).

The total financial assistance needed for systems in this size category with monthly household compliance costs higher than $30, for all systems with a medium or high affordability burden, and for systems on the HR2W list would be $322,579 per year to cover all costs for the 4,884 affected households.

Compared to alternative MCLs, the average monthly household compliance costs in this size category do not ever decrease by more than 5%, and the median costs do not ever decrease by more than 4%. The maximum household compliance costs do not decrease by more than 6% until 30 µg/L, which would result in an 89% reduction in health benefits. For these reasons, increasing the MCL is not expected to significantly reduce household compliance costs for this size category without also significantly reducing health benefits.

11.3.5 Monthly Household Compliance Costs: 100 to 200 Service Connections

The average and median compliance costs for households in this size range (which consists of 2,030 households) are $67 and $65 per month, respectively. These compliance costs range from $34 to $152 per month per household. Of the 14 systems expected to be impacted in this size range, two are DACs and 9 are SDACs. None of these systems are on the HR2W list, but 8 are "At-Risk," and 3 are "Potentially At-Risk." According to the 2022 Affordability Assessment (SWRCB, 2022a), none of these systems already has a high affordability burden, but one of them has a medium burden (corresponding to an "At-Risk" system with an estimated increased monthly household cost of $58).

The total financial assistance needed for systems in this size category with monthly household compliance costs higher than $30, for all systems with a medium or high affordability burden, and for systems on the HR2W list would be $143,883 per year to cover all compliance costs for the 2,030 affected households. Additionally, as described in section 11.9.1, below, systems of this size could also be eligible for use of POU/POE to come into compliance with the hexavalent chromium MCL, the costs for which would be substantially less than centralized treatment.

Compared to alternative MCLs, the average monthly household compliance costs in this size category do not decrease by more than 10% until 25 µg/L, and the median costs do not decrease by more than 5% until 25 µg/L. Similarly, the maximum household compliance costs do not decrease by more than 4% until 15 µg/L. Alternative MCLs of 15 and 25 µg/L would result in 46% and 85% fewer health benefits, respectively. For these reasons, increasing the MCL is not expected to significantly reduce household compliance costs for this size category without also significantly reducing health benefits.

11.3.6 Monthly Household Compliance Costs: Fewer than 100 Service Connections

The average and median compliance costs for households in this size range (which consists of 2,666 households) are $135 and $172 per month, respectively, ranging from $54 to $463. Of the 62 systems expected to be impacted in this size range, 9 are DACs and 17 are SDACs. Nine of these systems are on the HR2W list, 30 are "At-Risk," and 11 are "Potentially At-Risk." According to the 2022 Affordability Assessment (SWRCB, 2022a), none of these systems already has a high affordability burden, and 8 have a medium burden (corresponding to 7 "At-Risk" systems and one HR2W system with estimated increased monthly household costs of $68, $74, $102, $115, $131, $222, $309, and $360). As stated above, 26 of these water systems (42%) are disadvantaged communities and 50 of the systems (80%) are currently on HR2W risk list. In other words, up to 80 of the systems in this size category already face difficulty in operating and maintaining a sustainable public water system even without consideration of complying with a new hexavalent chromium MCL of 10 ug/L.

The total financial assistance needed for all systems in this size category is $393,174 per year, which would cover all compliance costs for the 2,664 affected households. Additionally, as described in section 11.9.1, below, systems of this size could also be eligible for use of POU/POE to come into compliance with the hexavalent chromium MCL, the costs for which would be substantially less than centralized treatment.

Compared to alternative MCLs, the average monthly household compliance costs in this size category do not decrease by more than 9% until 20 µg/L, and the median costs do not decrease by more than 13% until 25 µg/L. Similarly, the maximum household compliance costs do not decrease by more than 9% until 25 µg/L. Alternative MCLs of 20 and 25 µg/L would result in health benefit reductions of 73% and 85%, respectively. For these reasons, increasing the MCL is not expected to significantly reduce household compliance costs for this size category without also significantly reducing health benefits.

11.3.7 Summary of Monthly Household Cost Analysis

The previous sections have detailed the monthly household compliance costs by system size category. The estimated monthly household compliance costs (minimum, maximum, average, and median), HR2W status, and 2022 Affordability Assessment were all considered in this economic feasibility analysis.

As described in previous sections, if financial assistance was needed for all systems with increased monthly household costs higher than $30, any systems with a medium or high affordability burden, and any systems on the HR2W list, a total of $6,135,521 per year would cover all compliance costs for the 139,285 affected households (averaging $45 per household per year). This value is less than 1% of the available state grant, DWSRF principal forgiveness, and SADW funding for the 2022-23 State Fiscal Year ($823 million), indicating that this is not an unreasonable amount when considering financial assistance to treat hexavalent chromium (SWRCB, 2022b; SWRCB 2022e). While these annualized

costs are smaller than the total upfront costs needed for treatment,[17] they illustrate the amount of assistance that would be needed annually (assuming annualized capital costs) for hexavalent chromium treatment.

As noted previously, the median monthly cost increases for 94% of the 5.3 million people affected by a hexavalent chromium MCL of 10 µg/L were calculated to be less than $20. This increase in costs is considered economically feasible to the State Water Board, while acknowledging the household compliance costs for some systems may be challenging. In other words, regardless of whether any particular PWS is eligible for funding, because there is the capacity to cover the costs for all of the identified troubled systems for whom compliance may be a challenge with less than 1% of the available state grant and DWSRF principal forgiveness funding, the implementation of the MCL at 10 µg/L is "capable of being done."

11.4 Unit Costs Variability

In addition, increasing the MCL up from the proposed 10 µg/L is not expected to significantly reduce household compliance costs for any system size category without also significantly reducing health benefits (an MCL at 25 µg/L has 85% fewer health benefits than the proposed MCL at 10 µg/L). Because increasing the MCL does not significantly decrease household costs without significantly reducing health benefits for any system size category, and because HSC 116365 mandates that health protection be maximized if technologically and economically feasible, the MCL must not be set higher than 10 µg/L. This point is further demonstrated below where the unit costs analysis for each category of water system size were considered at various alternatives, and costs were not found to reduce significantly with less stringent alternatives.

11.4.1 Unit Cost Analysis

Health and Safety Code section 116365, subdivision (b)(3) requires that the State Water Board consider cost of compliance to public water systems, customers, and other affected parties with the drinking water standard, including cost per customer and aggregate cost of compliance, using BAT. The State Water Board evaluated these costs in section 4.4.4 using the assumptions in the CEM (Attachment 2, section I). While this section also evaluates the average costs in each size category, this analysis focuses on cost decreases that might be realized by raising the MCL. Costs for some systems were much higher or lower than the average costs, which is a concept that was addressed in detail in section 11.2.1. Because costs differ greatly with system size, this analysis considered system size categories separately.

11.4.1.1 Cost per System

In general, the estimated average annual cost per system (for all systems) increases with decreasing MCLs. However, on average these costs are only 33% lower at any MCL

[17] Funding applications are likely to be for larger amounts, such as total capital costs (which total $297 million for all except the largest 3 systems discussed in the above section; the three largest systems add $110 million to that value), and these applications are likely to be spread out over several years.

higher than 10 µg/L. When evaluating per system costs across potential MCLs by water system size, the average costs of smaller systems vary much less from 1 to 45 µg/L than the costs of larger systems. This is due to larger systems having a larger range of costs (potentially many sources impacted) compared to smaller systems that may only ever have one or two sources to treat.

For MCLs higher than 10 µg/L, the maximum decreases in annual costs per system were calculated to be $9,000 for systems with less than 100 connections (at 20 µg/L), $35,000 for systems with 100 to 200 connections (at 45 µg/L), and $23,000 for systems with 200 to 1,000 connections (at 11 µg/L). Since increased costs for larger systems are largely due to treating greater amounts of water and more sources, and larger systems have the advantage of economies of scale, this analysis of unit costs will focus on smaller systems. For systems with less than 1,000 connections, increasing the MCL above 10 µg/L would only decrease their annual costs by an average of 13% (at 13 ug/L) for any alternative MCL, and many higher MCLs would be associated with per system cost increases. While 13% may be a significant decrease in costs, it would only be realized at the per system level, which does not directly correspond to customer costs or other metrics that may help determine whether a system could recover the costs of compliance. Changes in costs per system are usually due to differences in system size, including the number of people served and the amount of water treated. Therefore, costs per system were not found to be an important metric for determining economic feasibility or selecting the MCL.

11.4.1.2 Costs per Source

Estimated annual costs evaluated across potential MCLs on a per source basis do not show strong trends. Overall, costs increase for alternative MCLs less than 10 µg/L, and costs mostly decrease for levels greater than 10 µg/L and less than 20 µg/L. At alternative MCLs of 20 µg/L and higher, there are various cost increases even though the MCL also increases. This was due to costs in those categories consisting of only one or two sources that had high levels of hexavalent chromium and large volumes of water that were calculated to need treatment. Across most systems sizes, the highest alternative MCLs do not provide cost savings on a per source basis. The largest per source cost decrease in any size category at a level less stringent than the proposed MCL is 11% for systems with 1,000 to 5,000 connections at 30 µg/L. However, when only evaluating systems with less than 1,000 connections, increasing the MCL above 10 µg/L would only decrease costs per source by an average of 13% (at 15 µg/L) for any one alternative MCL. While 13% may be a significant decrease in costs, it would only be realized at the per source level, which does not directly correspond to customer costs or other metrics that may help determine whether a system could recover the costs of compliance. Changes in costs per source are usually due to differences in the physical size of the source or other physical characteristics (e.g., surface water or groundwater). Therefore, costs per source were not found to be an important metric for determining economic feasibility or selecting the MCL.

11.4.1.3 Costs to Consumers

Estimated costs evaluated on a per connection basis show stronger trends: Decreasing the MCL would cause these costs to increase (by 151% at 1 µg/L) and increasing the MCL would cause these costs to decrease (by 73% at 40 µg/L). Figure 2 shows the

average percent increase in per connection costs for each system size category, demonstrating that per connection costs do not decrease rapidly for alternative MCLs above 10 µg/L. Some costs for systems with less than 1,000 connections even increase at some higher MCLs, creating a dip in costs at 10 µg/L. Increasing the MCL above 10 µg/L would only decrease annual per connection costs for systems with less than 1,000 connections by an average of 16% (at 35 µg/L) for any one alternative MCL (except for 45 µg/L, which had a 20% reduction in costs, but did not include any systems in the smallest size category). While 16% may be a significant decrease in costs, it would occur at an MCL that has 93% fewer health benefits. Therefore, increasing the MCL is not anticipated to significantly reduce household compliance costs for this size category without significantly reducing health benefits.

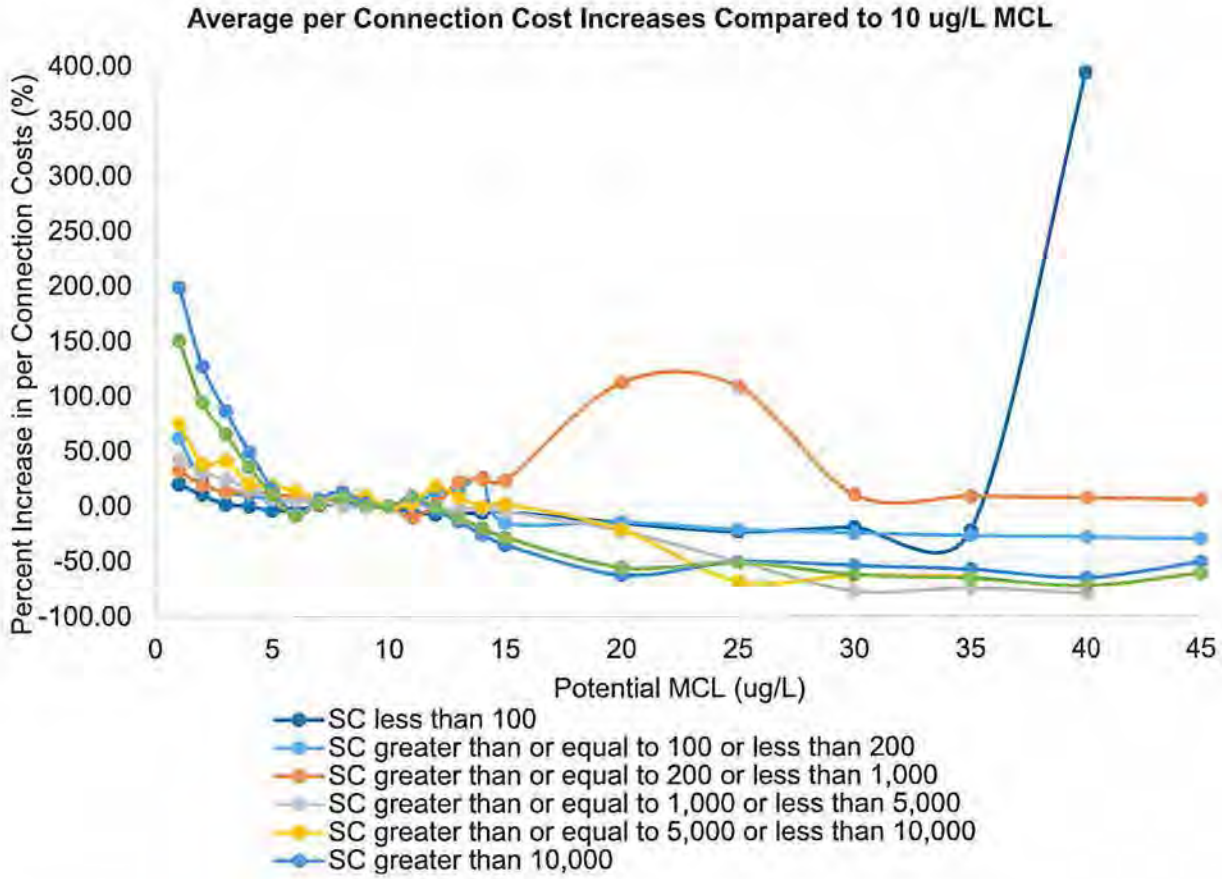

Figure 2. Average per connection percent cost increases compared to 10 µg/L by PWS size and potential MCL

Estimated costs evaluated on a per connection basis are similar to the costs on a per person basis. Decreasing the MCL would cause costs on a per person basis to increase (by 132% at 1 µg/L) and increasing the MCL would cause these costs to decrease (by

75% at 40 µg/L). Some costs for systems with less than 1,000 connections increase at some higher MCLs, creating a dip in costs at 10 µg/L. Increasing the MCL above 10 µg/L would only decrease annual per person costs for systems with less than 1,000 connections by an average of 16% (at 12 µg/L) for any one alternative MCL, which corresponds to a monthly cost of less than $2, which is not found to be significant. Therefore, per capita unit costs do not decrease significantly for smaller systems (less than 1,000 connections) at higher alternative MCLs compared to the proposed MCL.

11.4.2 Conclusions of Unit Cost Analysis

This unit cost analysis focused on the average unit costs of smaller systems (those with less than 1,000 connections). Overall, the analysis showed that smaller system unit costs generally increased for alternative MCLs less than 10 µg/L and did not significantly decrease for alternative MCLs higher than 10 µg/L, except for the case of per connection costs, which at 35 µg/L can be reduced by 16% if health benefits are reduced by 93%. The MCL cannot be set higher than 10 µg/L because increasing the MCL does not significantly decrease unit costs to consumers without significantly reducing health benefits, and HSC 116365 mandates that health protection be maximized if technologically and economically feasible.

11.5 Cost-Effectiveness Alternative for CWS

In addition to being economically feasible, setting the MCL at 10 µg/L is also cost-effective. Cost-effectiveness is a measure of how well costs produce benefits, and the cost-effectiveness ratio is calculated by dividing the costs by the changes in health outcomes. A higher cost-effectiveness ratio means lower cost-effectiveness. For potential MCLs below 14 µg/L, as the MCL decreases, the marginal cost-effectiveness ratio generally increases, indicating lower marginal cost-effectiveness at lower MCLs. However, the marginal cost-effectiveness ratio increases different amounts at each successively lower MCL (see the last column Table 8), with a very large jump from 10 to 9 µg/L. This jump means that the additional costs moving from 10 to 9 µg/L would produce more additional costs and fewer additional benefits relative to other MCLs (except jumps to 1 and 4 µg/L).

Section F.4 of the SRIA (Attachment 2) analyzes the cost-effectiveness of all 21 considered MCL levels, and the table from that section is reproduced below as Table 8 (the higher the cost-effectiveness, the lower the cost-effectiveness ratios).

Table 8. Cost-Effectiveness Analysis (Attachment 2, Table 36)

MCL (µg/L)	Cost-Effectiveness Ratio	Marginal Cost-Effectiveness Ratio	Change in Marginal Cost-Effectiveness Ratio
45	31,237,840	31,237,840	-
40	19,335,524	11,777,990	-19,459,850
35	15,188,801	9,609,622	-2,168,368
30	11,885,880	5,496,124	-4,113,499

MCL (µg/L)	Cost-Effectiveness Ratio	Marginal Cost-Effectiveness Ratio	Change in Marginal Cost-Effectiveness Ratio
25	11,602,979	10,917,620	5,421,497
20	12,531,263	13,747,857	2,830,237
15	12,928,386	13,314,970	-432,887
14	12,832,853	12,145,707	-1,169,263
13	12,935,765	13,686,639	1,540,932
12	13,194,643	15,184,415	1,497,776
11	13,542,933	16,368,382	1,183,967
10	14,002,455	17,793,849	1,425,467
9	15,625,111	29,091,521	11,297,672
8	17,176,369	29,169,510	77,989
7	18,174,742	25,460,683	-3,708,827
6	19,543,647	28,963,919	3,503,236
5	21,420,579	33,651,631	4,687,711
4	24,918,467	45,977,391	12,325,761
3	28,460,725	47,815,821	1,838,430
2	32,321,838	51,203,577	3,387,756
1	39,997,660	71,041,474	19,837,897

The cost-effectiveness analysis in Table 8 shows that overall-cost effectiveness is similar for a large range of potential MCLs, and that marginal cost-effectiveness first has a large drop at 9 µg/L. Therefore, it would not be cost-effective to place the MCL at 9 µg/L or lower, compared to an MCL at 10 µg/L. In addition, the analysis shows that the cost-effectiveness at 10 µg/L is better than or similar to (within 17% of) the cost-effectiveness of higher MCLs. Thus, a higher MCL would not substantially increase cost-effectiveness.

11.6 Economic Feasibility for NTNCWS

Because NTNCWS are usually businesses, institutions, schools, or similar entities, they do not charge users for drinking water. Therefore, the economic impacts of these costs are best understood on an annual per system basis as additional business expenses. The estimated costs for these 62 systems range from $47,709 to $339,767 per system per year, depending on system size, with larger systems usually paying higher costs but also serving more people and treating more water than smaller systems. The highest annual estimated cost was for a high school serving water to 1,127 people. Costs for two other schools are estimated at more than $100,000 per year ($293,938 and $123,649). The other NTNCWS with annual costs estimated to be more than $100,000 per year are industrial/agricultural companies, a defense distribution depot, and a casino.

The estimated annualized statewide monitoring and treatment cost for all NTNCWS is estimated at $5,194,412 for the 62 systems and is considered economically feasible to

the state. As the Third District Court of Appeal noted in *California Manufacturers and Technology Association v. California State Water Resources Control Board*, regulations are not "infeasible" because they impose financial burdens on businesses or customers. The court cited a number of cases involving regulations promulgated by the Occupational Health and Safety Administration and found that "[a] standard is not infeasible simply because it is financially burdensome, or even because it threatens the survival of some companies within an industry." (*United Steelworkers of America, AFL-CIO-CLC v. Marshall* (D.C. Cir. 1980) 647 F.2d 1189, 1265). If the costs of a regulation "threaten massive dislocation to, or imperil the existence of, [an] industry" it would be considered economically infeasible (*American Iron & Steel Institute v. Occupational Safety and Health Admin.* (D.C. Cir. 1991) 939 F.2d 975, 980). Here, the range of industries affected is diverse, and the impact of the regulation would not cause "massive dislocation to, or imperil the existence of," any particular industry. Therefore, the State Water Board finds the proposed primary drinking water standard for hexavalent chromium to be economically feasible for NTNCWS.

NTNCWS are only eligible for financial assistance from the Drinking Water State Revolving Fund if they are a non-profit organization, and entities are only eligible for financial assistance from the Safe and Affordable Drinking Water Fund if they are a public agency, nonprofit organization, public utility, mutual water company, California Native American Tribe, administrator, or groundwater sustainability agency. Some of the NTNCWS that would be affected by the proposed MCL for hexavalent chromium are not eligible recipients for either funding source.

NTNCWS that are not eligible for financial assistance from the State Water Board may utilize alternatives to centralized treatment to comply with the proposed MCL, including blending, consolidation with another PWS, purchasing water from another PWS, or using POU/POE treatment (approximately $78 per connection per month for a system with two connections (U.S. EPA, 2007)). In addition, NTNCWS that use large amounts of water for nonpotable purposes (such as washing or industrial processes) may find options that only treat water for human consumption, to be a cost-effective compliance option.[18]

11.7 Economic Feasibility for TNCWS

The TNCWS expected to take action to comply with the MCL consist of three churches, a campground, a spa, a raceway, and a packing company.[19] Because these entities do

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[18] Human consumption is defined in HSC 116275(e) as "the use of water for drinking, bathing or showering, hand washing, oral hygiene, or cooking, including, but not limited to, preparing food and washing dishes."

[19] Note that subsection (o) of 64431 of the CCR requires only those TNCWS that rely on surface water sources for parks and other facilities with an average daily population use of more than 1,000 people or that are determined to be subject to potential contamination based on a sanitary survey must monitor. Currently, only 9.3% of the TNCWS have tested for hexavalent chromium. Estimates of the number of TNCWS that are expected to have to treat are based upon those that have tested. In *California Manufacturers & Technology Association v. State Water Resources Control Board*, the California Third District Court of Appeal rejected arguments that the State Water Board "should have anticipated that

not charge users for drinking water, the impacts of these costs are best understood on an annual per system basis as additional business expenses. The estimated costs for these 7 systems range from $47,709 to $141,690 per system per year, depending on system size, with larger systems usually paying higher costs but also serving more people and treating more water than smaller systems. The highest annual estimated cost was for a church serving water to 500 people. However, the amount of water needing treatment (and therefore the costs) may be overestimated for some of these systems that only serve water to people periodically (rather than daily), such as churches or raceways. The estimated annualized statewide monitoring and treatment costs for all TNCWS with known contamination is estimated at $483,446. The impact of the proposed regulation on these businesses is not considered infeasible because even though there may be an economic burden on some businesses, the regulations do not threaten "massive dislocation to, or imperil the existence of," any particular industry. Therefore, the State Water Board finds the proposed primary drinking water standard for hexavalent chromium to be economically feasible for TNCWS.

TNCWS are only eligible for financial assistance from the Drinking Water State Revolving Fund if they are a non-profit organization, and entities are only eligible for financial assistance from the Safe and Affordable Drinking Water Fund if they are a public agency, nonprofit organization, public utility, mutual water company, California Native American Tribe, administrator, or groundwater sustainability agency. Some of the TNCWS that would be affected by the proposed MCL for hexavalent chromium are not eligible recipients for either funding source.

TNCWS that are not eligible for financial assistance from the State Water Board may utilize alternatives to centralized treatment to comply with the proposed MCL, including blending, consolidation with another PWS, purchasing water from another PWS, or using POU/POE treatment (approximately $78 per connection per month for a system with two connections (U.S. EPA, 2007)). In addition, TNCWS that use large amounts of water for nonpotable purposes (such as washing or industrial processes) may find options that only treat water for human consumption to be a cost-effective compliance option.

11.8 Economic Feasibility for Wholesalers

Four wholesalers must take action to come into compliance with the new MCL. Because wholesalers have a primary purpose of selling wholesale water to other entities, these costs will likely be passed on to consumers, and so are best understood as costs per person (eventually) served.

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other nontransient noncommunity water systems would be affected," and concluded that the State Water Board complied with the APA when it based its initial determination of the economic impact of the proposed MCL on data available at the time. (California Manufacturers and Technology Association, 2017).

The estimated annualized statewide monitoring and treatment costs for wholesalers is estimated at $1,224,297, which breaks down to $6.21 per person served per year. This economic impact is considered economically feasible by the State Water Board.

11.9 Alternatives to Centralized Treatment

Health and Safety Code section 116365, subdivision (b)(3) requires the State Water Board to consider costs of compliance using BAT when determining economic feasibility. However, as described previously, establishment of BAT does not preclude water systems from pursuing other methods of compliance with the regulations. For example, the proposed regulation does not preclude a public water system from applying for a variance or variances from the hexavalent chromium MCL pursuant to HSC 116430. Public water systems may also pursue other technical options to comply with the MCL, such as blending water that exceeds the MCL with water that is below the MCL if they have additional sources available. Some systems may pursue drilling new wells, buying water from another PWS, or relying more heavily on surface water sources, which may have less hexavalent chromium. Two methods of compliance that may have considerable cost savings, particularly for small public water systems, are POU/POE use and consolidation with another PWS.

11.9.1 POU/POE

Pursuant to Health and Safety Code sections 116380 and 116552 and existing regulations in article 2.5 of chapter 15 of division 4 of title 22 of the CCR, systems with less than 200 service connections may be permitted to use POU and POE treatment rather than centralized treatment if centralized treatment is not immediately economically feasible and the community agrees to the treatment.[20]

POU capital and O&M costs for systems serving fewer than 200 service connections were estimated using U.S. EPA's POU cost estimating tool (U.S. EPA, 2007). The tool's capital cost calculation includes various parameters, such as the cost for treatment device purchase, scheduling and installation, public education materials, and initial water quality monitoring. The O&M costs include equipment maintenance, ongoing public outreach, and water quality monitoring. The tool assumes PWS treating for hexavalent chromium use RO for POU treatment. While non-RO POU devices may exist for hexavalent chromium treatment, there are a greater number and wider selection of POU RO devices currently registered for sale in California (24 different RO devices made by 13 manufacturers and 15 other non-RO devices made by one manufacturer are available). Therefore, RO devices are the focus of the following discussion. POE device costs were not estimated because there are currently no certified and registered residential POE devices for hexavalent chromium treatment. Costs for POU RO devices registered for sale in California were collected from manufacturer websites or online retail websites and averaged to determine the RO system, replacement filter, and membrane cartridge costs

[20] Although Health and Safety Code section 116552 reference a three-year permit term, this does not mean that a public water system is only able to use POU or POE for three years. Instead, after three years, it is necessary to renew the permit, after considering whether funding for centralized treatment is available.

based on the device's ability to treat hexavalent chromium under laboratory simulated conditions. POU cost development was detailed in CEM Subappendix B (Attachment 2, section I.7). Currently, no POU device using RO and registered for sale in California as of June 2021 can treat below 4 µg/L (SWRCB, 2021d). Based on U.S. EPA case studies and vendor information (U.S. EPA 2007), the POU devices are expected to remain installed and operating for 10 years given regular maintenance (e.g., filter cartridge replacement) before the device needs to be replaced. The estimated POU monthly costs per connection based on MCL level and water system size are shown in Table 9.

Table 9. Monthly POU treatment cost per connection based on MCL and system size compared to monthly centralized treatment costs (Attachment 1, Table 14)

MCL (µg/L)	POU treatment cost for less than 100 service connections	Centralized treatment cost for less than 100 service connections	POU treatment cost for between 100 and 200 service connections	Centralized treatment cost between 100 and 200 service connections
4	$52	$135	$51	$74
5	$52	$130	$51	$71
6	$47	$131	$47	$71
7	$47	$136	$47	$71
8	$46	$138	$44	$68
9	$41	$138	$40	$66
10 to 25	$38	$103 to $135	$37	$67 to $112

While the costs for POU treatment are presented here, they were not used to estimate compliance costs. Compliance costs are estimated based on centralized treatment. These costs are provided for informational purposes to show that PWS with less than 200 connections have additional options that may be more affordable than centralized treatment, further bolstering the economic feasibility of establishing the MCL at 10 ug/L.

11.9.2 Consolidations

Of California's more than 7,500 public water system, 92% serve less than 1,000 connections. Many of these systems struggle to pay for upgrades to their systems necessary to provide safe and affordable drinking water because of their small populations. By contrast, the largest systems (with 3,000 or more customers), which serve more than 90 percent of the state's 39.5 million residents, regularly meet regulatory requirements. Because of this, the Safe and Affordable Funding for Equity and Resilience (SAFER) Program was created to provide a set of tools, funding sources, and regulatory authorities designed to address how to provide safe and affordable drinking water. One of the key solutions to this challenge are consolidations.

Health and Safety Code section 116682 provides the State Water Board with the ability to order public water systems serving a disadvantaged community that fail to meet drinking water standards to consolidate with nearby systems. To support those efforts, including providing necessary technical and planning assistance and money for construction, the Safe and Affordable Drinking Water Fund was created, and is allocated $130 million each year. For small, disadvantaged communities that are located near larger public water systems, consolidations may be a more feasible alternative to installing treatment, especially if they are eligible for funding from the State Water Board.

11.10 Other Economic Feasibility Considerations

In addition to considering the economic feasibility of PWS being able to meet 10 µg/L, the State Water Board considered the potential costs of future regulations. The future development of standards for other drinking water contaminants will, like the proposed MCL for hexavalent chromium, necessitate that public water systems incur costs to come into compliance. The State Water Board is sensitive to the impact of successive drinking water standard improvements on the ability of public water systems to recover their costs from ratepayers and customers. Some future drinking water standards may be costly, such as revisions to the arsenic and trihalomethane MCLs, and new standards for microplastics and PFAS. Attachment 3 provides a list of all chemicals that do not currently have MCLs set at their respective PHGs. These chemicals are also considered in discussions of public health and economic feasibility because they may have health impacts that could be addressed through setting more stringent drinking water standards. Attachment 3 includes the number of sources that exceed the PHG, DLR, and MCL for each chemical, and which can often be used as a proxy for cost (increased occurrence usually means an MCL revision would affect more PWS and, therefore, have a higher cost). It is currently technologically feasible to revise many of these MCLs to provide more protection of public health, but doing so has associated costs. It is necessary to consider these future costs when setting regulatory requirements.

HSC 116365 mandates that health protection be maximized if technologically and economically feasible. However, economic feasibility should not be considered in isolation of both current conditions and other drinking water regulations that are expected in the near term. In March 2023, the State Water Board adopted Resolution No. 2023-0007 for the 2023 Prioritization of Drinking Water Regulations, which include new or revised MCLs for arsenic, perfluoro-octanoic acid (PFOA), perfluoro-octane sulfonic acid (PFOS), N-nitroso-dimethylamine (NDMA), disinfection by products, styrene, cadmium, and mercury; revisions to conform to federal Lead and Copper Rule and its revisions; revised DLRs for metals and organic compounds; and new regulations for financial assurance requirements. In January 2019, the State Water Board requested that OEHHA proceed with development of a 1,4-dioxane PHG (SWRCB, 2019b), and in March 2020, OEHHA provided notice of initiation of PHG development and data call-in. In March 2023, U.S. EPA announced a proposed rule to establish primary drinking water standards for PFOA, PFOS, perfluoro-nonanoic acid (PFNA), hexafluoropropylene oxide dimer acid (HFPO-DA), perfluorohexane sulfonic acid (PFHxS) and perfluorobutane sulfonic acid (PFBS). If the U.S. EPA promulgates primary drinking water standards for these constituents, the

State Water Board will need to adopt standards for these constituents that are at least as stringent.

In consideration of these future drinking water standards and their associated costs on public water systems, and in light of the discussion of cost-effectiveness above, setting the MCL for hexavalent chromium at a level less than 10 µg/L would not be economically feasible.

11.11 Economic Feasibility Conclusions

Of the 5.3 million Californians affected by the proposed hexavalent chromium MCL of 10 ug/L, the median monthly cost increases for 5 million people would be less than $20, and 4.7 million people would only see a monthly cost increase of $8. The State Water Board considers these monthly increases in water bills to be economically feasible. The State Water Board acknowledges that some people served by affected PWS may face a significant financial burden. Many of these small communities already find it financially difficult to maintain a sustainable water supply, regardless of any additional cost imposed by the new regulation. This alone, however, does not make the proposed MCL economically infeasible. In fact, the analysis in section 11.4.1.3 indicated that the cost per connection for centralized treatment does not significantly decrease at higher MCLs without significantly reducing health benefits. Therefore, a PWS serving an economically disadvantaged community would not find a higher MCL to be more affordable to its customers, unless the MCL was set so high that the PWS need not take any action to comply with the MCL.

As the Third District Appellate Court has concluded, "[R]egulations are not 'infeasible' because they impose financial burdens on businesses or consumers." (*California Manufacturers and Technology Association, supra,* 64 Cal.App. 5th at p. 282). Though a small percentage of systems may have difficulty with compliance, nonetheless, to demonstrate the economic feasibility of the regulation for the PWS the State Water Board identified as likely being most challenged in meeting the requirements, the State Water Board considered the amount of financial assistance needed for all CWS with increased monthly household costs higher than $30, for any CWS with a medium or high affordability burden, and for any CWS on the HR2W list. The Board concluded that a total of $6,059,097 per year would cover all compliance costs for the 135,760 affected households (averaging $45 per household per year). This value is less than 1% of the available state grant, DWSRF principal forgiveness, and SADW funding, indicating that regardless of whether any particular PWS is eligible for funding, because there is the capacity to cover the costs for all of the identified troubled systems for whom compliance may be a challenge the implementation of the MCL at 10 µg/L is "capable of being done" and financing compliance costs for systems at or near this scale is "capable of being done," and considered economically feasible.

Only 62 NTNCWS and 7 TNCWS have been identified as potentially being out of compliance with the proposed regulation. The estimated total compliance costs for NTNCWS and TNCWS are $5,194,412 and $483,446, respectively. Although public schools are eligible for funding from the State Water Board, most other NTNCWS and

TNCWS that would be affected by the proposed MCL for hexavalent chromium would likely not be eligible recipients for either the Drinking Water State Revolving Fund or the Safe and Affordable Drinking Water Fund. However, these PWS may utilize alternatives to centralized treatment to comply with the proposed MCL, including blending, consolidation, purchasing water from another PWS, or using POU/POE treatment. The impact of the proposed regulation on these businesses is not considered economically infeasible because even though there may be an economic burden on some businesses, the regulations are affecting very few businesses and do not threaten "massive dislocation to, or imperil the existence of," any particular industry. Therefore, the State Water Board finds the proposed primary drinking water standard for hexavalent chromium to be economically feasible for NTNCWS and TNCWS.

Wholesalers' compliance costs average $6.21 per person eventually served per year, which can be passed on to customers. Therefore, the State Water Board finds the proposed primary drinking water standard for hexavalent chromium to be economically feasible for wholesalers.

The State Water Board estimated the cost of using POU devices for compliance with the hexavalent chromium MCL. These costs (found in Table 9 in section 11.9.1) estimate the monthly cost per service connection at $38 and $37 for systems with less than 100 service connections and systems with 100 to 200 connections, respectively. These costs are 3.6 and 1.8 times lower than the average monthly centralized treatment cost per service connection of $135 and $67, respectively (Attachment 1, Table 9.2A). This provides the smallest systems with a much lower cost compliance option.

In addition, the State Water Board manages programs that provide grants and low-interest loans to eligible PWS for financing new infrastructure, programs that provide access to technical assistance providers, and opportunities for small systems to consolidate with larger systems, thereby achieving some economies of scale. Other options that may be available to systems to reduce the cost of compliance include drilling new wells, buying uncontaminated water from other system(s), blending water supplies, and/or seeking a variance from the hexavalent chromium MCL pursuant to HSC 116430.

In addition to an MCL of 10 µg/L being economically feasible, it is also cost-effective. Overall, the household cost analysis, the unit cost analysis, and the cost-effectiveness analysis have shown that alternative MCLs below 10 µg/L are not cost-effective, and that alternative MCLs above 10 µg/L have similar cost effectiveness and do not significantly reduce unit or household compliance costs (average, median, and maximum) without also significantly reducing health benefits.

For the reasons set forth above, the State Water Board finds the proposed primary drinking water standard for hexavalent chromium, which includes an MCL of 10 ug/L, to be economically feasible.

12. ATTACHMENTS INDEX

Attachment 1 – Cost and Data Tables

Attachment 2 – Standardized Regulatory Impact Assessment (SRIA)

Attachment 3 – Other Chemicals Above PHGs Table

Attachment 4 – Summary of Laboratory Surveys

Attachment 5 – Cost Estimates for Individual Sources

13. DOCUMENTS RELIED UPON

[Gov. Code, §11346.2(b)(3)]

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Initial Statement of Reasons Tables: Community Water Systems (CWS)

All costs are in June 2022 dollars.

Legend: SC = Service Connections

Table 2A Number of Sources by Water System Size

Source Type	SC less than 100	SC greater than or equal to 100 and less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
Groundwater	2,081	592	938	1256	513	2,981	8,361
Surface Water	225	71	157	141	46	181	821
Total	2,306	663	1,095	1,397	559	3,162	9,182

Table 3.1A Number of Sources Affected by Monitoring Type -- Routine Monitoring

Groundwater: 1 sample every 3 years

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	1,585	450	725	753	269	1,376	5,158
2	1,723	497	793	878	343	1,800	6,034
3	1,812	521	829	941	384	2,101	6,588
4	1,857	541	866	996	417	2,320	6,997
5	1,903	553	883	1,044	434	2,485	7,302
6	1,930	562	890	1,078	446	2,594	7,500
7	1,953	563	899	1,111	457	2,664	7,647
8	1,980	564	910	1,134	468	2,707	7,763
9	1,995	566	913	1,159	471	2,759	7,863
10	2,006	573	916	1,173	477	2,807	7,952
11	2,010	576	919	1,185	479	2,831	8,000
12	2,016	579	925	1,194	481	2,853	8,048
13	2,028	581	930	1,205	484	2,869	8,097
14	2,033	583	932	1,208	486	2,886	8,128
15	2,039	586	932	1,209	491	2,897	8,154
20	2,062	589	936	1,231	503	2,944	8,265
25	2,070	590	936	1,244	511	2,961	8,312
30	2,075	590	937	1,252	512	2,962	8,328
35	2,078	590	937	1,254	512	2,966	8,337
40	2,080	590	937	1,255	513	2,970	8,345

45	2,081	590	937	1,256	513	2,974	8,351

Surface Water: 1 sample every year

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	218	68	151	137	44	173	791
2	221	70	151	140	45	177	804
3	224	70	155	140	45	178	812
4	224	70	155	140	46	178	813
5	224	70	155	141	46	179	815
6	224	70	155	141	46	179	815
7	224	70	155	141	46	180	816
8	224	70	155	141	46	180	816
9	224	70	155	141	46	180	816
10	225	71	155	141	46	180	818
11	225	71	155	141	46	180	818
12	225	71	155	141	46	180	818
13	225	71	155	141	46	180	818
14	225	71	155	141	46	180	818
15	225	71	155	141	46	180	818
20	225	71	157	141	46	180	820
25	225	71	157	141	46	180	820
30	225	71	157	141	46	180	820
35	225	71	157	141	46	180	820
40	225	71	157	141	46	180	820
45	225	71	157	141	46	180	820

Table 3.2A Number of Sources Affected by Monitoring Type -- Increased and Treated Monitoring

Groundwater: 4 samples per year (increased) and 1 sample per month (treated)

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	496	142	213	503	244	1,605	3,203
2	358	95	145	378	170	1,181	2,327
3	269	71	109	315	129	880	1,773
4	224	51	72	260	96	661	1,364
5	178	39	55	212	79	496	1,059
6	151	30	48	178	67	387	861
7	128	29	39	145	56	317	714
8	101	28	28	122	45	274	598
9	86	26	25	97	42	222	498
10	75	19	22	83	36	174	409
11	71	16	19	71	34	150	361
12	65	13	13	62	32	128	313
13	53	11	8	51	29	112	264
14	48	9	6	48	27	95	233
15	42	6	6	47	22	84	207
20	19	3	2	25	10	37	96
25	11	2	2	12	2	20	49
30	6	2	1	4	1	19	33
35	3	2	1	2	1	15	24
40	1	2	1	1	0	11	16
45	0	2	1	0	0	7	10

Surface Water: 4 samples per year (increased) and 1 sample per month (treated)

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	7	3	6	4	2	8	30
2	4	1	6	1	1	4	17
3	1	1	2	1	1	3	9
4	1	1	2	1	0	3	8
5	1	1	2	0	0	2	6
6	1	1	2	0	0	2	6
7	1	1	2	0	0	1	5
8	1	1	2	0	0	1	5
9	1	1	2	0	0	1	5
10	0	0	2	0	0	1	3
11	0	0	2	0	0	1	3
12	0	0	2	0	0	1	3
13	0	0	2	0	0	1	3
14	0	0	2	0	0	1	3
15	0	0	2	0	0	1	3
20	0	0	0	0	0	1	1
25	0	0	0	0	0	1	1
30	0	0	0	0	0	1	1
35	0	0	0	0	0	1	1
40	0	0	0	0	0	1	1
45	0	0	0	0	0	1	1

Table 4.1A Estimated Source Monitoring Costs by Water System Size -- Routine Monitoring

Groundwater: 1 sample every 3 years

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	$41,543	$11,795	$19,002	$19,736	$7,050	$36,065	$135,191
2	$45,160	$13,026	$20,785	$23,012	$8,990	$47,178	$158,151
3	$47,493	$13,655	$21,728	$24,664	$10,065	$55,067	$172,671
4	$48,672	$14,180	$22,698	$26,105	$10,930	$60,807	$183,391
5	$49,878	$14,494	$23,143	$27,363	$11,375	$65,132	$191,385
6	$50,585	$14,730	$23,327	$28,254	$11,690	$67,989	$196,575
7	$51,188	$14,756	$23,563	$29,119	$11,978	$69,823	$200,428
8	$51,896	$14,782	$23,851	$29,722	$12,266	$70,950	$203,468
9	$52,289	$14,835	$23,930	$30,377	$12,345	$72,313	$206,089
10	$52,577	$15,018	$24,008	$30,744	$12,502	$73,571	$208,422
11	$52,682	$15,097	$24,087	$31,059	$12,555	$74,201	$209,680
12	$52,839	$15,176	$24,244	$31,295	$12,607	$74,777	$210,938
13	$53,154	$15,228	$24,375	$31,583	$12,686	$75,196	$212,222
14	$53,285	$15,280	$24,428	$31,662	$12,738	$75,642	$213,035
15	$53,442	$15,359	$24,428	$31,688	$12,869	$75,930	$213,716
20	$54,045	$15,438	$24,533	$32,265	$13,184	$77,162	$216,626
25	$54,255	$15,464	$24,533	$32,605	$13,393	$77,608	$217,858
30	$54,386	$15,464	$24,559	$32,815	$13,420	$77,634	$218,277
35	$54,464	$15,464	$24,559	$32,867	$13,420	$77,739	$218,513
40	$54,517	$15,464	$24,559	$32,894	$13,446	$77,844	$218,722
45	$54,543	$15,464	$24,559	$32,920	$13,446	$77,949	$218,880

Surface Water: 1 sample per year

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	$17,141	$5,347	$11,873	$10,772	$3,460	$13,603	$62,196
2	$17,377	$5,504	$11,873	$11,008	$3,538	$13,918	$63,219
3	$17,613	$5,504	$12,188	$11,008	$3,538	$13,996	$63,848
4	$17,613	$5,504	$12,188	$11,008	$3,617	$13,996	$63,926
5	$17,613	$5,504	$12,188	$11,087	$3,617	$14,075	$64,083
6	$17,613	$5,504	$12,188	$11,087	$3,617	$14,075	$64,083
7	$17,613	$5,504	$12,188	$11,087	$3,617	$14,153	$64,162
8	$17,613	$5,504	$12,188	$11,087	$3,617	$14,153	$64,162
9	$17,613	$5,504	$12,188	$11,087	$3,617	$14,153	$64,162
10	$17,692	$5,583	$12,188	$11,087	$3,617	$14,153	$64,319
11	$17,692	$5,583	$12,188	$11,087	$3,617	$14,153	$64,319
12	$17,692	$5,583	$12,188	$11,087	$3,617	$14,153	$64,319
13	$17,692	$5,583	$12,188	$11,087	$3,617	$14,153	$64,319
14	$17,692	$5,583	$12,188	$11,087	$3,617	$14,153	$64,319
15	$17,692	$5,583	$12,188	$11,087	$3,617	$14,153	$64,319
20	$17,692	$5,583	$12,345	$11,087	$3,617	$14,153	$64,477
25	$17,692	$5,583	$12,345	$11,087	$3,617	$14,153	$64,477
30	$17,692	$5,583	$12,345	$11,087	$3,617	$14,153	$64,477
35	$17,692	$5,583	$12,345	$11,087	$3,617	$14,153	$64,477
40	$17,692	$5,583	$12,345	$11,087	$3,617	$14,153	$64,477
45	$17,692	$5,583	$12,345	$11,087	$3,617	$14,153	$64,477

Table 4.2A Estimated Source Monitoring Costs by Water System Size -- Increased Monitoring

Groundwater: 4 samples per year (increased)

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	$156,002	$44,662	$66,993	$158,204	$76,743	$504,805	$1,007,408
2	$112,598	$29,879	$45,605	$118,889	$53,468	$371,448	$731,888
3	$84,606	$22,331	$34,283	$99,074	$40,573	$276,778	$557,644
4	$70,452	$16,041	$22,645	$81,775	$30,194	$207,898	$429,005
5	$55,985	$12,266	$17,299	$66,678	$24,847	$156,002	$333,077
6	$47,493	$9,436	$15,097	$55,985	$21,073	$121,719	$270,802
7	$40,259	$9,121	$12,266	$45,605	$17,613	$99,703	$224,567
8	$31,767	$8,807	$8,807	$38,371	$14,153	$86,178	$188,083
9	$27,049	$8,178	$7,863	$30,508	$13,210	$69,823	$156,631
10	$23,589	$5,976	$6,919	$26,105	$11,323	$54,726	$128,639
11	$22,331	$5,032	$5,976	$22,331	$10,694	$47,178	$113,542
12	$20,444	$4,089	$4,089	$19,500	$10,065	$40,259	$98,445
13	$16,670	$3,460	$2,516	$16,041	$9,121	$35,226	$83,033
14	$15,097	$2,831	$1,887	$15,097	$8,492	$29,879	$73,283
15	$13,210	$1,887	$1,887	$14,782	$6,919	$26,420	$65,106
20	$5,976	$944	$629	$7,863	$3,145	$11,637	$30,194
25	$3,460	$629	$629	$3,774	$629	$6,290	$15,411
30	$1,887	$629	$315	$1,258	$315	$5,976	$10,379
35	$944	$629	$315	$629	$315	$4,718	$7,548
40	$315	$629	$315	$315	$0	$3,460	$5,032
45	$0	$629	$315	$0	$0	$2,202	$3,145

Surface Water: 4 samples per year (increased)

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	$2,202	$944	$1,887	$1,258	$629	$2,516	$9,436
2	$1,258	$315	$1,887	$315	$315	$1,258	$5,347
3	$315	$315	$629	$315	$315	$944	$2,831
4	$315	$315	$629	$315	$0	$944	$2,516
5	$315	$315	$629	$0	$0	$629	$1,887
6	$315	$315	$629	$0	$0	$629	$1,887
7	$315	$315	$629	$0	$0	$315	$1,573
8	$315	$315	$629	$0	$0	$315	$1,573
9	$315	$315	$629	$0	$0	$315	$1,573
10	$0	$0	$629	$0	$0	$315	$944
11	$0	$0	$629	$0	$0	$315	$944
12	$0	$0	$629	$0	$0	$315	$944
13	$0	$0	$629	$0	$0	$315	$944
14	$0	$0	$629	$0	$0	$315	$944
15	$0	$0	$629	$0	$0	$315	$944
20	$0	$0	$0	$0	$0	$315	$315
25	$0	$0	$0	$0	$0	$315	$315
30	$0	$0	$0	$0	$0	$315	$315
35	$0	$0	$0	$0	$0	$315	$315
40	$0	$0	$0	$0	$0	$315	$315
45	$0	$0	$0	$0	$0	$315	$315

Table 4.3A Estimated Source Monitoring Costs by Water System Size -- Treated Monitoring

Groundwater: 1 sample per month (treated)

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	$468,006	$133,986	$200,978	$474,611	$230,229	$1,514,414	$3,022,223
2	$337,794	$89,638	$136,816	$356,666	$160,405	$1,114,344	$2,195,664
3	$253,818	$66,993	$102,848	$297,221	$121,719	$830,333	$1,672,932
4	$211,357	$48,122	$67,936	$245,326	$90,582	$623,693	$1,287,016
5	$167,954	$36,799	$51,896	$200,035	$74,541	$468,006	$999,230
6	$142,478	$28,307	$45,291	$167,954	$63,219	$365,158	$812,405
7	$120,776	$27,363	$36,799	$136,816	$52,839	$299,109	$673,702
8	$95,300	$26,420	$26,420	$115,114	$42,460	$258,535	$564,249
9	$81,146	$24,533	$23,589	$91,525	$39,630	$209,470	$469,893
10	$70,767	$17,928	$20,758	$78,315	$33,968	$164,179	$385,916
11	$66,993	$15,097	$17,928	$66,993	$32,081	$141,534	$340,625
12	$61,331	$12,266	$12,266	$58,501	$30,194	$120,776	$295,334
13	$50,009	$10,379	$7,548	$48,122	$27,363	$105,679	$249,100
14	$45,291	$8,492	$5,661	$45,291	$25,476	$89,638	$219,849
15	$39,630	$5,661	$5,661	$44,347	$20,758	$79,259	$195,317
20	$17,928	$2,831	$1,887	$23,589	$9,436	$34,912	$90,582
25	$10,379	$1,887	$1,887	$11,323	$1,887	$18,871	$46,234
30	$5,661	$1,887	$944	$3,774	$944	$17,928	$31,137
35	$2,831	$1,887	$944	$1,887	$944	$14,153	$22,645
40	$944	$1,887	$944	$944	$0	$10,379	$15,097
45	$0	$1,887	$944	$0	$0	$6,605	$9,436

Surface Water: 1 sample per month (treated)

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	$6,605	$2,831	$5,661	$3,774	$1,887	$7,548	$28,307
2	$3,774	$944	$5,661	$944	$944	$3,774	$16,041
3	$944	$944	$1,887	$944	$944	$2,831	$8,492
4	$944	$944	$1,887	$944	$0	$2,831	$7,548
5	$944	$944	$1,887	$0	$0	$1,887	$5,661
6	$944	$944	$1,887	$0	$0	$1,887	$5,661
7	$944	$944	$1,887	$0	$0	$944	$4,718
8	$944	$944	$1,887	$0	$0	$944	$4,718
9	$944	$944	$1,887	$0	$0	$944	$4,718
10	$0	$0	$1,887	$0	$0	$944	$2,831
11	$0	$0	$1,887	$0	$0	$944	$2,831
12	$0	$0	$1,887	$0	$0	$944	$2,831
13	$0	$0	$1,887	$0	$0	$944	$2,831
14	$0	$0	$1,887	$0	$0	$944	$2,831
15	$0	$0	$1,887	$0	$0	$944	$2,831
20	$0	$0	$0	$0	$0	$944	$944
25	$0	$0	$0	$0	$0	$944	$944
30	$0	$0	$0	$0	$0	$944	$944
35	$0	$0	$0	$0	$0	$944	$944
40	$0	$0	$0	$0	$0	$944	$944
45	$0	$0	$0	$0	$0	$944	$944

Table 5.1A Estimated Total Capital Costs by Water System Size

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	$153,139,607	$81,499,598	$203,909,545	$1,164,483,202	$872,700,176	$6,224,338,467	$8,700,070,594
2	$105,164,874	$46,203,186	$138,253,448	$828,716,763	$589,817,017	$4,293,922,466	$6,002,077,755
3	$73,636,981	$37,009,373	$101,531,222	$676,990,867	$453,396,309	$3,146,811,568	$4,489,376,319
4	$61,065,562	$27,689,731	$70,414,221	$558,070,647	$328,965,763	$2,372,249,785	$3,418,455,709
5	$48,769,621	$20,700,980	$53,423,516	$455,120,922	$274,540,472	$1,749,169,835	$2,601,725,347
6	$41,473,868	$14,359,851	$48,875,016	$385,568,271	$235,007,054	$1,373,785,468	$2,099,069,528
7	$35,547,785	$13,673,663	$40,082,641	$314,247,453	$197,535,064	$1,139,840,973	$1,740,927,579
8	$27,965,963	$13,423,680	$31,557,853	$262,543,194	$153,866,962	$982,718,161	$1,472,075,813
9	$23,918,140	$12,288,942	$27,363,996	$211,043,383	$147,591,450	$768,068,609	$1,190,274,520
10	$20,689,180	$9,055,777	$22,225,052	$186,182,451	$126,374,841	$608,816,960	$973,344,261
11	$18,825,191	$7,627,628	$19,794,165	$159,519,828	$118,893,560	$510,964,058	$835,624,429
12	$17,290,918	$6,295,055	$14,288,472	$141,314,244	$111,746,645	$443,381,858	$734,317,193
13	$14,213,147	$5,478,525	$9,540,159	$121,343,279	$103,317,683	$382,601,703	$636,494,496
14	$12,944,064	$4,062,802	$7,928,608	$113,237,631	$96,939,001	$319,864,825	$554,976,931
15	$11,418,663	$2,449,489	$7,928,608	$110,208,794	$78,811,837	$280,988,259	$491,805,650
20	$4,783,563	$1,477,898	$4,452,240	$60,711,639	$36,514,489	$127,717,284	$235,657,114
25	$2,746,006	$879,471	$4,452,240	$29,581,822	$6,829,576	$77,242,140	$121,731,255
30	$1,483,949	$879,471	$2,226,120	$8,224,940	$3,746,798	$73,706,021	$90,267,300
35	$702,763	$879,471	$2,226,120	$4,776,084	$3,746,798	$66,183,784	$78,515,021
40	$226,163	$879,471	$2,226,120	$2,433,049	$0	$52,617,714	$58,382,516
45	$0	$879,471	$2,226,120	$0	$0	$33,858,788	$36,964,379

Table 5.2A Estimated Annualized Capital Costs by Water System Size

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	$14,456,379	$7,693,562	$19,249,061	$109,927,214	$82,382,897	$587,577,551	$821,286,664
2	$9,927,564	$4,361,581	$13,051,126	$78,230,862	$55,678,726	$405,346,281	$566,596,140
3	$6,951,331	$3,493,685	$9,584,547	$63,907,938	$42,800,612	$297,059,012	$423,797,124
4	$5,764,589	$2,613,911	$6,647,102	$52,681,869	$31,054,368	$223,940,380	$322,702,219
5	$4,603,852	$1,954,173	$5,043,180	$42,963,415	$25,916,621	$165,121,632	$245,602,873
6	$3,915,133	$1,355,570	$4,613,802	$36,397,645	$22,184,666	$129,685,348	$198,152,163
7	$3,355,711	$1,290,794	$3,783,801	$29,664,960	$18,647,310	$107,600,988	$164,343,563
8	$2,639,987	$1,267,195	$2,979,061	$24,784,077	$14,525,041	$92,768,594	$138,963,957
9	$2,257,872	$1,160,076	$2,583,161	$19,922,495	$13,932,633	$72,505,677	$112,361,915
10	$1,953,059	$854,865	$2,098,045	$17,575,623	$11,929,785	$57,472,321	$91,883,698
11	$1,777,098	$720,048	$1,868,569	$15,058,672	$11,223,552	$48,235,007	$78,882,946
12	$1,632,263	$594,253	$1,348,832	$13,340,065	$10,548,883	$41,855,247	$69,319,543
13	$1,341,721	$517,173	$900,591	$11,454,806	$9,753,189	$36,117,601	$60,085,080
14	$1,221,920	$383,529	$748,461	$10,689,632	$9,151,042	$30,195,239	$52,389,822
15	$1,077,922	$231,232	$748,461	$10,403,710	$7,439,837	$26,525,292	$46,426,453
20	$451,568	$139,514	$420,291	$5,731,179	$3,446,968	$12,056,512	$22,246,032
25	$259,223	$83,022	$420,291	$2,792,524	$644,712	$7,291,658	$11,491,431
30	$140,085	$83,022	$210,146	$776,434	$353,698	$6,957,848	$8,521,233
35	$66,341	$83,022	$210,146	$450,862	$353,698	$6,247,749	$7,411,818
40	$21,350	$83,022	$210,146	$229,680	$0	$4,967,112	$5,511,310
45	$0	$83,022	$210,146	$0	$0	$3,196,270	$3,489,437

Table 5.3A Estimated Annual Operations & Maintenance Costs by Water System Size

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	$17,655,261	$10,204,965	$24,788,068	$121,366,368	$89,696,910	$683,835,914	$947,547,486
2	$11,479,688	$4,680,697	$14,174,441	$84,644,500	$58,488,330	$428,675,132	$602,142,788
3	$7,819,174	$3,445,266	$10,353,135	$68,889,990	$42,713,172	$300,598,303	$433,819,040
4	$6,424,114	$2,583,288	$7,340,219	$55,550,213	$30,577,298	$216,087,165	$318,562,296
5	$5,089,238	$1,937,403	$5,071,440	$44,531,523	$24,580,490	$156,232,838	$237,442,933
6	$4,313,649	$1,275,947	$4,526,524	$36,952,921	$20,320,610	$120,207,921	$187,597,571
7	$3,670,004	$1,176,553	$3,655,376	$29,722,363	$16,935,651	$96,256,713	$151,416,660
8	$2,927,211	$1,094,997	$2,639,072	$24,944,010	$13,508,199	$81,186,486	$126,299,974
9	$2,509,040	$989,505	$2,630,237	$19,418,885	$12,116,926	$64,173,775	$101,838,368
10	$2,205,674	$741,153	$1,987,827	$15,921,575	$10,351,226	$48,783,806	$79,991,261
11	$1,918,099	$635,839	$1,617,618	$13,535,307	$9,522,806	$41,934,333	$69,164,001
12	$1,742,763	$539,871	$1,143,429	$11,941,768	$8,697,409	$35,045,144	$59,110,384
13	$1,419,115	$473,511	$851,151	$9,913,298	$7,865,579	$30,703,408	$51,226,063
14	$1,275,423	$437,722	$630,028	$9,150,388	$7,079,680	$25,940,912	$44,514,153
15	$1,111,953	$206,912	$615,385	$8,941,393	$5,827,274	$22,537,647	$39,240,563
20	$486,605	$114,822	$395,085	$4,637,584	$2,487,414	$10,219,267	$18,340,777
25	$279,405	$78,260	$378,206	$2,186,515	$477,543	$6,358,625	$9,758,553
30	$151,268	$70,380	$194,349	$612,512	$249,488	$5,703,253	$6,981,250
35	$75,634	$64,617	$188,269	$373,093	$229,910	$4,793,904	$5,725,427
40	$25,211	$61,089	$182,189	$183,075	$0	$3,602,408	$4,053,973
45	$0	$57,560	$176,109	$0	$0	$2,194,907	$2,428,576

Table 6A Estimated Total Annualized Monitoring and Treatment Costs by Water System Size

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	$32,803,139	$18,098,090	$44,343,524	$231,961,937	$172,399,804	$1,273,492,416	$1,773,098,910
2	$21,925,214	$9,181,583	$27,448,194	$163,386,195	$114,394,716	$835,573,333	$1,171,909,237
3	$15,175,293	$7,048,692	$20,111,245	$133,231,153	$85,690,937	$598,837,263	$860,094,582
4	$12,538,056	$5,282,302	$14,115,304	$108,597,554	$61,766,988	$440,937,713	$643,237,918
5	$9,985,777	$3,961,897	$10,221,661	$87,800,101	$50,611,491	$322,060,201	$484,641,130
6	$8,488,208	$2,690,752	$9,238,744	$73,613,845	$42,604,874	$250,464,726	$387,101,149
7	$7,256,809	$2,525,349	$7,526,509	$59,609,950	$35,669,008	$204,341,748	$316,929,373
8	$5,765,031	$2,418,963	$5,691,915	$49,922,382	$28,105,737	$174,386,156	$266,290,183
9	$4,946,267	$2,203,888	$5,283,484	$39,504,878	$26,118,360	$137,046,471	$215,103,348
10	$4,323,358	$1,640,523	$4,152,262	$33,643,450	$22,342,421	$106,564,016	$172,666,029
11	$3,854,894	$1,396,696	$3,548,881	$28,725,448	$20,805,304	$90,447,665	$148,778,888
12	$3,527,332	$1,171,238	$2,547,563	$25,402,215	$19,302,775	$77,151,614	$129,102,738
13	$2,898,360	$1,025,334	$1,800,886	$21,474,936	$17,671,556	$67,052,522	$111,923,593
14	$2,628,707	$853,437	$1,425,169	$19,943,156	$16,281,045	$56,346,722	$97,478,236
15	$2,313,848	$466,634	$1,410,525	$19,447,007	$13,311,275	$49,259,959	$86,209,248
20	$1,033,814	$279,130	$854,770	$10,443,566	$5,963,763	$22,414,901	$40,989,944
25	$624,413	$184,845	$837,891	$5,037,828	$1,141,781	$13,768,464	$21,595,222
30	$370,979	$176,965	$442,656	$1,437,881	$621,480	$12,778,051	$15,828,012
35	$217,905	$171,202	$436,576	$870,425	$601,902	$11,153,674	$13,451,686
40	$120,028	$167,674	$430,496	$457,994	$17,063	$8,676,615	$9,869,869
45	$72,235	$164,145	$424,416	$44,007	$17,063	$5,493,343	$6,215,208

Table 7.1A Estimated Number of Systems Requiring Treatment

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	402	94	109	140	54	133	932
2	292	63	78	105	45	109	692
3	223	51	62	91	33	90	550
4	185	38	45	79	27	79	453
5	148	30	34	67	23	68	370
6	127	21	31	56	20	65	320
7	105	20	26	47	18	58	274
8	82	20	19	41	14	48	224
9	71	19	17	31	13	38	189
10	62	14	15	26	12	31	160
11	58	12	14	21	11	25	141
12	54	9	9	19	9	23	123
13	44	8	7	16	9	22	106
14	39	6	5	15	9	21	95
15	33	5	5	15	7	21	86
20	17	3	1	10	4	13	48
25	10	2	1	7	2	8	30
30	5	2	1	4	1	8	21
35	3	2	1	2	1	7	16
40	1	2	1	1	0	6	11
45	0	2	1	0	0	5	8

Table 7.2A Estimated Annual Cost per System by Water System Size

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Average
1	$81,600	$192,533	$406,821	$1,656,871	$3,192,589	$9,575,131	$1,902,467
2	$75,086	$145,739	$351,900	$1,556,059	$2,542,105	$7,665,810	$1,693,510
3	$68,051	$138,210	$324,375	$1,464,079	$2,596,695	$6,653,747	$1,563,808
4	$67,773	$139,008	$313,673	$1,374,653	$2,287,666	$5,581,490	$1,419,951
5	$67,471	$132,063	$300,637	$1,310,449	$2,200,500	$4,736,179	$1,309,841
6	$66,836	$128,131	$298,024	$1,314,533	$2,130,244	$3,853,303	$1,209,691
7	$69,112	$126,267	$289,481	$1,268,297	$1,981,612	$3,523,134	$1,156,677
8	$70,305	$120,948	$299,574	$1,217,619	$2,007,553	$3,633,045	$1,188,795
9	$69,666	$115,994	$310,793	$1,274,351	$2,009,105	$3,606,486	$1,138,113
10	$69,732	$117,180	$276,817	$1,293,979	$1,861,868	$3,437,549	$1,079,163
11	$66,464	$116,391	$253,492	$1,367,878	$1,891,391	$3,617,907	$1,055,169
12	$65,321	$130,138	$283,063	$1,336,959	$2,144,753	$3,354,418	$1,049,616
13	$65,872	$128,167	$257,269	$1,342,183	$1,963,506	$3,047,842	$1,055,883
14	$67,403	$142,239	$285,034	$1,329,544	$1,809,005	$2,683,177	$1,026,087
15	$70,117	$93,327	$282,105	$1,296,467	$1,901,611	$2,345,712	$1,002,433
20	$60,813	$93,043	$854,770	$1,044,357	$1,490,941	$1,724,223	$853,957
25	$62,441	$92,423	$837,891	$719,690	$570,891	$1,721,058	$719,841
30	$74,196	$88,482	$442,656	$359,470	$621,480	$1,597,256	$753,715
35	$72,635	$85,601	$436,576	$435,213	$601,902	$1,593,382	$840,730
40	$120,028	$83,837	$430,496	$457,994	-	$1,446,102	$897,261
45	-	$82,073	$424,416	-	-	$1,098,669	$776,901

Table 8A Estimated Annual Cost per Source by Water System Size

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Average
1	$65,215	$124,814	$202,482	$457,519	$700,812	$789,518	$548,438
2	$60,567	$95,641	$181,776	$431,098	$668,975	$705,125	$499,961
3	$56,205	$97,898	$181,182	$421,618	$659,161	$678,185	$482,657
4	$55,725	$101,583	$190,747	$416,083	$643,406	$664,063	$468,832
5	$55,786	$99,047	$179,327	$414,151	$640,652	$646,707	$455,062
6	$55,843	$86,798	$184,775	$413,561	$635,894	$643,868	$446,483
7	$56,254	$84,178	$183,573	$411,103	$636,947	$642,584	$440,792
8	$56,520	$83,413	$189,730	$409,200	$624,572	$634,131	$441,609
9	$56,854	$81,625	$195,685	$407,267	$621,866	$614,558	$427,641
10	$57,645	$86,343	$173,011	$405,343	$620,623	$608,937	$419,092
11	$54,294	$87,294	$168,994	$404,584	$611,921	$598,991	$408,733
12	$54,267	$90,095	$169,838	$409,713	$603,212	$598,075	$408,553
13	$54,686	$93,212	$180,089	$421,077	$609,364	$593,385	$419,189
14	$54,765	$94,826	$178,146	$415,482	$603,002	$586,945	$413,043
15	$55,092	$77,772	$176,316	$413,766	$605,058	$579,529	$410,520
20	$54,411	$93,043	$427,385	$417,743	$596,376	$589,866	$422,577
25	$56,765	$92,423	$418,945	$419,819	$570,891	$655,641	$431,904
30	$61,830	$88,482	$442,656	$359,470	$621,480	$638,903	$465,530
35	$72,635	$85,601	$436,576	$435,213	$601,902	$697,105	$538,067
40	$120,028	$83,837	$430,496	$457,994	-	$723,051	$580,581
45	-	$82,073	$424,416	-	-	$686,668	$565,019

Table 9.1A Estimated Number of Service Connections in Systems Exceeding the MCL by Water System Size

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	16,800	13,801	51,710	350,659	384,396	4,705,832	5,523,198
2	12,249	9,235	35,512	267,533	321,761	4,061,155	4,707,445
3	9,161	7,745	27,390	229,509	236,766	3,542,512	4,053,083
4	7,716	5,915	19,123	200,918	200,153	3,259,767	3,693,592
5	6,391	4,631	14,210	174,126	166,225	3,058,240	3,423,823
6	5,398	3,142	13,188	150,088	145,892	2,991,088	3,308,796
7	4,418	2,952	11,369	121,744	130,759	2,117,978	2,389,220
8	3,492	2,952	8,348	107,399	100,442	1,696,307	1,918,940
9	2,978	2,766	7,714	86,060	92,957	1,469,234	1,661,709
10	2,666	2,030	6,417	72,225	87,467	1,177,342	1,348,147
11	2,499	1,716	6,087	59,875	78,673	918,903	1,067,753
12	2,336	1,283	3,844	56,013	63,660	883,479	1,010,615
13	1,906	1,095	2,273	47,263	63,660	856,695	972,892
14	1,719	842	1,762	43,669	63,660	835,569	947,221
15	1,499	676	1,762	43,669	50,896	835,569	934,071
20	752	403	621	28,902	29,479	659,534	719,691
25	501	290	621	21,848	14,025	307,775	345,060
30	284	290	621	13,581	6,588	307,775	329,139
35	173	290	621	7,322	6,588	291,008	306,002
40	15	290	621	4,852	0	276,544	282,322
45	0	290	621	0	0	123,479	124,390

Table 9.2A Estimated Annual Cost per Service Connection by Water System Size

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Average
1	$1,953	$1,311	$858	$662	$448	$271	$321
2	$1,790	$994	$773	$611	$356	$206	$249
3	$1,657	$910	$734	$581	$362	$169	$212
4	$1,625	$893	$738	$541	$309	$135	$174
5	$1,562	$856	$719	$504	$304	$105	$142
6	$1,572	$856	$701	$490	$292	$84	$117
7	$1,643	$855	$662	$490	$273	$96	$133
8	$1,651	$819	$682	$465	$280	$103	$139
9	$1,661	$797	$685	$459	$281	$93	$129
10	$1,622	$808	$647	$466	$255	$91	$128
11	$1,543	$814	$583	$480	$264	$98	$139
12	$1,510	$913	$663	$454	$303	$87	$128
13	$1,521	$936	$792	$454	$278	$78	$115
14	$1,529	$1,014	$809	$457	$256	$67	$103
15	$1,544	$690	$801	$445	$262	$59	$92
20	$1,375	$693	$1,376	$361	$202	$34	$57
25	$1,246	$637	$1,349	$231	$81	$45	$63
30	$1,306	$610	$713	$106	$94	$42	$48
35	$1,260	$590	$703	$119	$91	$38	$44
40	$8,002	$578	$693	$94	-	$31	$35
45	-	$566	$683	-	-	$44	$50

Table 10.1A Estimated Total Number of People Served by Water System Size

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	85,646	84,291	253,976	1,330,817	1,541,396	20,317,404	23,613,530
2	53,849	28,310	172,329	1,027,136	1,288,224	17,820,892	20,390,740
3	31,440	24,008	139,922	879,611	951,533	15,575,399	17,601,913
4	26,426	18,501	114,950	780,184	829,522	14,384,911	16,154,494
5	21,881	14,863	95,560	688,226	681,702	13,673,184	15,175,416
6	18,847	8,679	92,265	569,653	603,135	13,409,291	14,701,870
7	16,242	8,154	87,377	461,221	542,530	8,710,480	9,826,004
8	12,359	8,154	79,764	402,222	388,184	6,892,619	7,783,302
9	10,594	7,854	77,688	291,246	361,154	5,955,183	6,703,719
10	9,751	5,880	69,748	247,498	335,870	4,660,191	5,328,938
11	8,604	5,110	68,648	204,380	303,664	3,677,428	4,267,834
12	8,223	3,855	60,814	192,434	242,964	3,566,148	4,074,438
13	7,084	3,555	8,000	163,754	242,964	3,450,623	3,875,980
14	5,904	2,668	6,238	149,924	242,964	3,372,457	3,780,155
15	5,061	1,916	6,238	149,924	203,331	3,372,457	3,738,927
20	2,287	1,066	3,387	102,220	111,257	2,711,445	2,931,662
25	1,474	750	3,387	79,639	42,559	1,284,441	1,412,250
30	903	750	3,387	50,868	23,764	1,284,441	1,364,113
35	537	750	3,387	29,782	23,764	1,223,463	1,281,683
40	35	750	3,387	9,665	0	1,182,819	1,196,656
45	0	750	3,387	0	0	584,056	588,193

Table 10.2A Estimated Annual Cost per Person by Water System Size

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Average
1	$383	$215	$175	$174	$112	$63	$75
2	$407	$324	$159	$159	$89	$47	$57
3	$483	$294	$144	$151	$90	$38	$49
4	$474	$286	$123	$139	$74	$31	$40
5	$456	$267	$107	$128	$74	$24	$32
6	$450	$310	$100	$129	$71	$19	$26
7	$447	$310	$86	$129	$66	$23	$32
8	$466	$297	$71	$124	$72	$25	$34
9	$467	$281	$68	$136	$72	$23	$32
10	$443	$279	$60	$136	$67	$23	$32
11	$448	$273	$52	$141	$69	$25	$35
12	$429	$304	$42	$132	$79	$22	$32
13	$409	$288	$225	$131	$73	$19	$29
14	$445	$320	$228	$133	$67	$17	$26
15	$457	$244	$226	$130	$65	$15	$23
20	$452	$262	$252	$102	$54	$8	$14
25	$424	$246	$247	$63	$27	$11	$15
30	$411	$236	$131	$28	$26	$10	$12
35	$406	$228	$129	$29	$25	$9	$10
40	$3,429	$224	$127	$47	-	$7	$8
45	-	$219	$125	-	-	$9	$11

Table 11.1A Estimated Total Volume of Water Treated (MG) by Water System Size

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	3,604	3,592	8,333	54,346	55,175	478,314	603,365
2	2,427	1,367	4,870	38,655	40,253	334,108	421,679
3	1,478	1,118	3,718	32,522	30,963	247,514	317,313
4	1,227	858	2,658	26,874	22,023	186,541	240,181
5	993	660	1,939	21,753	18,449	133,233	177,028
6	837	424	1,817	18,482	15,686	105,592	142,837
7	715	396	1,580	14,851	13,278	86,814	117,633
8	558	389	1,214	12,643	10,160	75,184	100,147
9	485	356	1,153	9,898	9,654	56,681	78,227
10	438	262	837	8,453	8,304	42,540	60,834
11	382	221	712	7,141	7,872	35,497	51,826
12	357	181	521	6,426	7,354	30,823	45,660
13	295	158	358	5,459	6,939	26,972	40,180
14	271	121	301	4,956	6,413	22,386	34,448
15	243	70	301	4,891	5,435	19,710	30,651
20	90	44	185	2,690	2,440	8,917	14,366
25	53	27	185	1,322	364	6,093	8,045
30	27	27	93	356	217	5,917	6,636
35	10	27	93	206	217	5,563	6,116
40	2	27	93	106	0	4,895	5,122
45	0	27	93	0	0	3,194	3,314

Table 11.2A Estimated Annual Cost per Unit of Water Treated (MG) by Water System Size

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Average
1	$9,102	$5,039	$5,321	$4,268	$3,125	$2,662	$2,939
2	$9,036	$6,717	$5,636	$4,227	$2,842	$2,501	$2,779
3	$10,267	$6,303	$5,409	$4,097	$2,768	$2,419	$2,711
4	$10,221	$6,157	$5,310	$4,041	$2,805	$2,364	$2,678
5	$10,052	$6,003	$5,271	$4,036	$2,743	$2,417	$2,738
6	$10,137	$6,341	$5,085	$3,983	$2,716	$2,372	$2,710
7	$10,153	$6,384	$4,765	$4,014	$2,686	$2,354	$2,694
8	$10,334	$6,225	$4,689	$3,949	$2,766	$2,319	$2,659
9	$10,205	$6,194	$4,582	$3,991	$2,705	$2,418	$2,750
10	$9,868	$6,254	$4,963	$3,980	$2,691	$2,505	$2,838
11	$10,083	$6,313	$4,981	$4,023	$2,643	$2,548	$2,871
12	$9,893	$6,480	$4,891	$3,953	$2,625	$2,503	$2,827
13	$9,836	$6,492	$5,032	$3,934	$2,547	$2,486	$2,786
14	$9,707	$7,041	$4,735	$4,024	$2,539	$2,517	$2,830
15	$9,522	$6,623	$4,686	$3,976	$2,449	$2,499	$2,813
20	$11,443	$6,345	$4,609	$3,883	$2,445	$2,514	$2,853
25	$11,671	$6,925	$4,518	$3,810	$3,138	$2,260	$2,684
30	$13,656	$6,630	$4,774	$4,036	$2,866	$2,160	$2,385
35	$21,417	$6,414	$4,709	$4,226	$2,776	$2,005	$2,200
40	$62,637	$6,282	$4,643	$4,328	-	$1,773	$1,927
45	-	$6,150	$4,577	-	-	$1,720	$1,876

Table 11.3A Estimated Annual Cost per Unit of Water Treated (kgal) by Water System Size

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Average
1	$9.10	$5.04	$5.32	$4.27	$3.12	$2.66	$2.94
2	$9.04	$6.72	$5.64	$4.23	$2.84	$2.50	$2.78
3	$10.27	$6.30	$5.41	$4.10	$2.77	$2.42	$2.71
4	$10.22	$6.16	$5.31	$4.04	$2.80	$2.36	$2.68
5	$10.05	$6.00	$5.27	$4.04	$2.74	$2.42	$2.74
6	$10.14	$6.34	$5.09	$3.98	$2.72	$2.37	$2.71
7	$10.15	$6.38	$4.77	$4.01	$2.69	$2.35	$2.69
8	$10.33	$6.22	$4.69	$3.95	$2.77	$2.32	$2.66
9	$10.20	$6.19	$4.58	$3.99	$2.71	$2.42	$2.75
10	$9.87	$6.25	$4.96	$3.98	$2.69	$2.51	$2.84
11	$10.08	$6.31	$4.98	$4.02	$2.64	$2.55	$2.87
12	$9.89	$6.48	$4.89	$3.95	$2.62	$2.50	$2.83
13	$9.84	$6.49	$5.03	$3.93	$2.55	$2.49	$2.79
14	$9.71	$7.04	$4.73	$4.02	$2.54	$2.52	$2.83
15	$9.52	$6.62	$4.69	$3.98	$2.45	$2.50	$2.81
20	$11.44	$6.35	$4.61	$3.88	$2.44	$2.51	$2.85
25	$11.67	$6.93	$4.52	$3.81	$3.14	$2.26	$2.68
30	$13.66	$6.63	$4.77	$4.04	$2.87	$2.16	$2.39
35	$21.42	$6.41	$4.71	$4.23	$2.78	$2.00	$2.20
40	$62.64	$6.28	$4.64	$4.33	-	$1.77	$1.93
45	-	$6.15	$4.58	-	-	$1.72	$1.88

Table 12A Estimated Number of Theoretical Excess Cancer Cases Reduced (over 70 years) by Water System Size

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	12.88	9.00	43.44	252.95	237.34	2823.26	3378.87
2	10.01	6.35	34.94	210.50	192.86	2262.05	2716.70
3	8.17	5.25	28.97	177.55	160.09	1886.30	2266.33
4	6.96	4.35	24.02	149.63	134.21	1608.11	1927.28
5	5.94	3.64	20.33	127.09	115.06	1390.97	1663.02
6	5.09	3.16	17.29	108.50	98.91	1218.38	1451.32
7	4.39	2.79	14.54	93.47	85.95	1074.54	1275.68
8	3.80	2.44	12.31	80.91	74.94	951.62	1126.01
9	3.32	2.09	10.42	70.52	65.94	846.51	998.79
10	2.90	1.80	8.56	62.11	57.55	758.94	891.86
11	2.50	1.56	6.98	54.59	49.97	679.99	795.60
12	2.16	1.37	5.94	48.23	42.90	607.87	708.46
13	1.85	1.21	5.05	42.48	36.25	540.10	626.95
14	1.58	1.08	4.75	37.64	30.06	476.28	551.40
15	1.34	0.99	4.48	33.11	24.33	419.88	484.13
20	0.58	0.75	3.26	15.94	8.26	210.02	238.82
25	0.28	0.61	2.41	6.53	2.69	123.03	135.55
30	0	0	2	2	1	90	96
35	0	0	1	1	0	60	63
40	0	0	1	0	0	35	36
45	0	0	0	0	0	14	14

Table 13.1A Estimated Annual Resin Costs (component of Operations & Maintenance Costs) by Water System Size

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	$0	$0	$0	$0	$0	$507,093	$507,093
2	$8,794	$0	$5,375	$138,418	$127,579	$973,079	$1,253,244
3	$0	$0	$24,183	$238,503	$142,515	$1,142,503	$1,547,704
4	$0	$2,413	$26,750	$211,346	$115,823	$904,302	$1,260,635
5	$0	$5,173	$7,119	$188,047	$87,218	$812,837	$1,100,394
6	$0	$0	$8,446	$166,406	$63,431	$490,548	$728,831
7	$0	$0	$16,727	$145,820	$64,566	$298,874	$525,986
8	$0	$0	$0	$155,647	$58,931	$321,664	$536,242
9	$0	$0	$27,102	$96,909	$18,454	$328,073	$470,539
10	$4,163	$0	$10,370	$18,791	$19,039	$91,322	$143,685
11	$0	$0	$0	$15,642	$14,423	$178,889	$208,955
12	$0	$0	$0	$24,238	$7,304	$65,359	$96,900
13	$0	$0	$4,161	$0	$10,786	$116,825	$131,772
14	$0	$4,098	$0	$0	$0	$124,525	$128,623
15	$0	$0	$0	$18,570	$8,828	$97,751	$125,149
20	$0	$0	$0	$0	$0	$0	$0
25	$0	$0	$0	$0	$0	$0	$0
30	$0	$0	$0	$0	$0	$0	$0
35	$0	$0	$0	$0	$0	$0	$0
40	$0	$0	$0	$0	$0	$0	$0
45	$0	$0	$0	$0	$0	$0	$0

Table 13.2A Estimated Annual Disposal Costs (component of Operations & Maintenance Costs) by Water System Size

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	$213,864	$366,635	$1,122,882	$10,922,287	$11,318,665	$98,157,294	$122,101,626
2	$66,719	$31,552	$481,181	$6,325,958	$6,383,157	$51,488,658	$64,777,225
3	$7,599	$25,924	$369,161	$4,989,203	$4,535,118	$34,390,099	$44,317,104
4	$6,895	$25,537	$288,017	$3,879,461	$3,215,558	$24,096,888	$31,512,355
5	$6,190	$25,436	$188,065	$3,078,448	$2,547,358	$17,267,764	$23,113,261
6	$5,486	$5,986	$168,296	$2,513,829	$2,034,066	$13,033,342	$17,761,004
7	$4,781	$5,489	$166,731	$2,038,285	$1,711,120	$10,112,005	$14,038,411
8	$4,076	$4,992	$93,939	$1,775,849	$1,390,147	$8,390,462	$11,659,465
9	$3,372	$4,496	$162,757	$1,341,765	$1,135,269	$6,619,609	$9,267,267
10	$15,251	$3,999	$88,745	$944,820	$976,054	$4,683,914	$6,712,784
11	$0	$3,502	$46,406	$793,124	$855,603	$4,184,655	$5,883,290
12	$0	$3,005	$37,656	$723,917	$733,026	$3,276,864	$4,774,469
13	$0	$2,509	$43,028	$550,922	$654,744	$2,985,022	$4,236,225
14	$0	$15,014	$26,925	$484,770	$533,021	$2,582,458	$3,642,188
15	$0	$0	$26,066	$502,043	$460,159	$2,201,181	$3,189,450
20	$0	$0	$21,774	$210,635	$159,785	$972,842	$1,365,035
25	$0	$0	$17,481	$89,411	$29,498	$686,748	$823,139
30	$0	$0	$10,074	$24,956	$15,626	$566,746	$617,402
35	$0	$0	$8,528	$14,376	$10,646	$441,651	$475,201
40	$0	$0	$6,982	$6,055	$0	$322,047	$335,084
45	$0	$0	$5,436	$0	$0	$176,198	$181,634

Table 13.3A Estimated Annual Chemical Costs (component of Operations & Maintenance Costs) by Water System Size

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Total
1	$612,314	$1,049,838	$3,212,452	$31,257,800	$32,415,877	$272,331,011	$340,879,293
2	$312,979	$90,114	$1,463,600	$19,903,140	$20,095,934	$152,781,241	$194,647,007
3	$21,702	$73,994	$1,205,518	$15,544,938	$13,726,023	$99,768,108	$130,340,282
4	$19,683	$77,779	$891,226	$11,568,760	$9,432,983	$67,322,334	$89,312,766
5	$17,665	$72,785	$533,134	$8,783,931	$7,248,352	$46,522,709	$63,178,576
6	$15,647	$17,080	$471,229	$6,904,856	$5,730,292	$35,970,175	$49,109,279
7	$13,628	$15,657	$426,820	$5,393,168	$4,704,170	$28,069,437	$38,622,880
8	$11,610	$14,234	$268,475	$4,493,456	$3,754,770	$22,772,714	$31,315,258
9	$9,592	$12,811	$339,463	$3,416,330	$3,174,007	$17,508,350	$24,460,553
10	$22,380	$11,388	$200,108	$2,610,799	$2,692,297	$12,933,558	$18,470,530
11	$0	$9,965	$132,523	$2,184,538	$2,372,137	$10,978,489	$15,677,652
12	$0	$8,542	$107,592	$1,928,893	$2,056,573	$8,991,107	$13,092,707
13	$0	$7,119	$97,818	$1,574,872	$1,807,393	$7,814,076	$11,301,278
14	$0	$16,932	$76,988	$1,385,610	$1,525,131	$6,570,683	$9,575,344
15	$0	$0	$74,530	$1,308,135	$1,258,390	$5,638,028	$8,279,083
20	$0	$0	$62,236	$601,820	$456,974	$2,784,905	$3,905,934
25	$0	$0	$49,941	$255,387	$84,354	$1,966,428	$2,356,110
30	$0	$0	$28,792	$71,288	$44,688	$1,622,732	$1,767,500
35	$0	$0	$24,363	$41,047	$30,429	$1,264,429	$1,360,268
40	$0	$0	$19,934	$17,277	$0	$922,033	$959,244
45	$0	$0	$15,506	$0	$0	$504,311	$519,817

Table 14A. Estimated Monthly Cost Per Connection of POU Treatment Based on MCL for Small Water Systems

MCL (ug/L)	POU treatment costs for SC less than 100	Centralized treatment cost for SC less than 100	POU treatment costs for SC greater than or equal to 100 or less than 200	Centralized treatment cost for SC greater than or equal to 100 or less than 200
4	$52	$135	$51	$74
5	$52	$130	$51	$71
6	$47	$131	$47	$71
7	$47	$136	$47	$71
8	$46	$138	$44	$68
9	$41	$138	$40	$66
10 to 25	$38	$135 to $103	$37	$67 to $112

Table 15.1A Estimated Total Costs to State Water Resources Control Board to Review Compliance and Operations Plans

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Average
1	$1,276,008	$298,370	$345,982	$444,381	$171,404	$422,162	$2,958,308
2	$926,852	$199,971	$247,584	$333,286	$142,837	$345,982	$2,196,512
3	$707,835	$161,882	$196,797	$288,848	$104,747	$285,674	$1,745,783
4	$587,218	$120,618	$142,837	$250,758	$85,702	$250,758	$1,437,890
5	$469,774	$95,225	$107,921	$212,668	$73,005	$215,842	$1,174,436
6	$403,117	$66,657	$98,399	$177,752	$63,483	$206,320	$1,015,728
7	$333,286	$63,483	$82,528	$149,185	$57,135	$184,101	$869,717
8	$260,280	$63,483	$60,309	$130,140	$44,438	$152,359	$711,010
9	$225,365	$60,309	$53,961	$98,399	$41,264	$120,618	$599,914
10	$196,797	$44,438	$47,612	$82,528	$38,090	$98,399	$507,864
11	$184,101	$38,090	$44,438	$66,657	$34,916	$79,354	$447,555
12	$171,404	$28,567	$28,567	$60,309	$28,567	$73,005	$390,420
13	$139,663	$25,393	$22,219	$50,786	$28,567	$69,831	$336,460
14	$123,792	$19,045	$15,871	$47,612	$28,567	$66,657	$301,544
15	$104,747	$15,871	$15,871	$47,612	$22,219	$66,657	$272,977
20	$53,961	$9,522	$3,174	$31,742	$12,697	$41,264	$152,359
25	$31,742	$6,348	$3,174	$22,219	$6,348	$25,393	$95,225
30	$15,871	$6,348	$3,174	$12,697	$3,174	$25,393	$66,657
35	$9,522	$6,348	$3,174	$6,348	$3,174	$22,219	$50,786
40	$3,174	$6,348	$3,174	$3,174	$0	$19,045	$34,916
45	$0	$6,348	$3,174	$0	$0	$15,871	$25,393

Table 15.2A Estimated Total Costs to Prepare Compliance and Operations Plans

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Average
1	$3,062,930	$716,208	$830,496	$1,066,692	$411,438	$1,013,358	$7,101,122
2	$2,224,815	$480,011	$594,300	$800,019	$342,865	$830,496	$5,272,507
3	$1,699,088	$388,581	$472,392	$693,350	$251,435	$685,731	$4,190,577
4	$1,409,558	$289,531	$342,865	$601,919	$205,719	$601,919	$3,451,511
5	$1,127,646	$228,577	$259,054	$510,488	$175,242	$518,108	$2,819,115
6	$967,642	$160,004	$236,196	$426,677	$152,385	$495,250	$2,438,154
7	$800,019	$152,385	$198,100	$358,104	$137,146	$441,915	$2,087,669
8	$624,777	$152,385	$144,765	$312,388	$106,669	$365,723	$1,706,708
9	$540,965	$144,765	$129,527	$236,196	$99,050	$289,531	$1,440,034
10	$472,392	$106,669	$114,288	$198,100	$91,431	$236,196	$1,219,077
11	$441,915	$91,431	$106,669	$160,004	$83,812	$190,481	$1,074,311
12	$411,438	$68,573	$68,573	$144,765	$68,573	$175,242	$937,165
13	$335,246	$60,954	$53,335	$121,908	$68,573	$167,623	$807,638
14	$297,150	$45,715	$38,096	$114,288	$68,573	$160,004	$723,827
15	$251,435	$38,096	$38,096	$114,288	$53,335	$160,004	$655,254
20	$129,527	$22,858	$7,619	$76,192	$30,477	$99,050	$365,723
25	$76,192	$15,238	$7,619	$53,335	$15,238	$60,954	$228,577
30	$38,096	$15,238	$7,619	$30,477	$7,619	$60,954	$160,004
35	$22,858	$15,238	$7,619	$15,238	$7,619	$53,335	$121,908
40	$7,619	$15,238	$7,619	$7,619	$0	$45,715	$83,812
45	$0	$15,238	$7,619	$0	$0	$38,096	$60,954

Table 16.1A Total Annual Costs for Table 16.3A (includes compliance plan costs)

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Average
45	$72,235	$185,732	$435,210	$44,007	$17,063	$5,547,310	$6,301,555
40	$130,821	$189,260	$441,290	$468,787	$17,063	$8,741,375	$9,988,596
35	$250,285	$192,789	$447,370	$892,012	$612,696	$11,229,228	$13,624,380
30	$424,946	$198,551	$453,450	$1,481,054	$632,273	$12,864,398	$16,054,673
25	$732,347	$206,432	$848,684	$5,113,382	$1,163,368	$13,854,811	$21,919,023
20	$1,217,301	$311,510	$865,563	$10,551,500	$6,006,937	$22,555,215	$41,508,026
15	$2,670,029	$520,601	$1,464,492	$19,608,908	$13,386,829	$49,486,620	$87,137,479
14	$3,049,648	$918,197	$1,479,136	$20,105,057	$16,378,185	$56,573,383	$98,503,607
13	$3,373,268	$1,111,681	$1,876,440	$21,647,630	$17,768,696	$67,289,976	$113,067,691
12	$4,110,174	$1,268,378	$2,644,704	$25,607,289	$19,399,916	$77,399,862	$130,430,324
11	$4,480,910	$1,526,217	$3,699,988	$28,952,109	$20,924,031	$90,717,499	$150,300,755
10	$4,992,547	$1,791,630	$4,314,162	$33,924,078	$22,471,941	$106,898,611	$174,392,970
9	$5,712,597	$2,408,962	$5,466,971	$39,839,473	$26,258,674	$137,456,619	$217,143,297
8	$6,650,088	$2,634,831	$5,896,989	$50,364,911	$28,256,844	$174,904,238	$268,707,900
7	$8,390,114	$2,741,217	$7,807,137	$60,117,239	$35,863,289	$204,967,764	$319,886,759
6	$9,858,968	$2,917,413	$9,573,339	$74,218,274	$42,820,742	$251,166,295	$390,555,030
5	$11,583,198	$4,285,699	$10,588,636	$88,523,258	$50,859,739	$322,794,151	$488,634,680
4	$14,534,832	$5,692,451	$14,601,007	$109,450,231	$62,058,409	$441,790,390	$648,127,319
3	$17,582,216	$7,599,154	$20,780,434	$134,213,350	$86,047,118	$599,808,668	$866,030,941
2	$25,076,881	$9,861,566	$28,290,078	$164,519,500	$114,880,419	$836,749,812	$1,179,378,256
1	$37,142,078	$19,112,667	$45,520,003	$233,473,011	$172,982,647	$1,274,927,936	$1,783,158,340

Table 16.2A Theoretical Cancer Cases Avoided Annually for Table 16.3A

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	Average
45	0.00	0.00	0.01	0.00	0.00	0.19	0.20
40	0.00	0.00	0.01	0.01	0.00	0.50	0.52
35	0.00	0.01	0.02	0.02	0.00	0.86	0.91
30	0.00	0.01	0.02	0.04	0.02	1.29	1.37
25	0.00	0.01	0.03	0.09	0.04	1.76	1.94
20	0.01	0.01	0.05	0.23	0.12	3.00	3.41
15	0.02	0.01	0.06	0.47	0.35	6.00	6.92
14	0.02	0.02	0.07	0.54	0.43	6.80	7.88
13	0.03	0.02	0.07	0.61	0.52	7.72	8.96
12	0.03	0.02	0.08	0.69	0.61	8.68	10.12
11	0.04	0.02	0.10	0.78	0.71	9.71	11.37
10	0.04	0.03	0.12	0.89	0.82	10.84	12.74
9	0.05	0.03	0.15	1.01	0.94	12.09	14.27
8	0.05	0.03	0.18	1.16	1.07	13.59	16.09
7	0.06	0.04	0.21	1.34	1.23	15.35	18.22
6	0.07	0.05	0.25	1.55	1.41	17.41	20.73
5	0.08	0.05	0.29	1.82	1.64	19.87	23.76
4	0.10	0.06	0.34	2.14	1.92	22.97	27.53
3	0.12	0.07	0.41	2.54	2.29	26.95	32.38
2	0.14	0.09	0.50	3.01	2.76	32.31	38.81
1	0.18	0.13	0.62	3.61	3.39	40.33	48.27

Table 17.1A Median Monthly Household Cost Increases

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	For All Systems
1	$172	$95	$73	$60	$38	$26	$92
2	$160	$80	$61	$53	$30	$19	$78
3	$158	$70	$54	$48	$30	$15	$74
4	$154	$63	$59	$42	$24	$13	$70
5	$149	$66	$55	$40	$22	$10	$66
6	$152	$72	$53	$40	$25	$7	$63
7	$170	$70	$50	$39	$22	$6	$61
8	$166	$66	$61	$34	$20	$6	$59
9	$168	$64	$64	$36	$19	$6	$59
10	$172	$65	$45	$31	$18	$8	$58
11	$172	$63	$43	$36	$22	$10	$65
12	$171	$68	$65	$38	$24	$10	$66
13	$171	$67	$64	$33	$21	$9	$62
14	$168	$71	$64	$35	$21	$7	$57
15	$149	$66	$63	$35	$26	$4	$56
20	$168	$62	$111	$29	$16	$3	$41
25	$116	$50	$109	$15	$7	$3	$29
30	$97	$48	$55	$9	$8	$3	$10
35	$71	$46	$55	$11	$7	$3	$11
40	$308	$46	$54	$7	-	$4	$7
45	-	$45	$53	-	-	$4	$5

Table 17.2A Maximum Monthly Household Cost Increases

MCL (ug/L)	SC less than 100	SC greater than or equal to 100 or less than 200	SC greater than or equal to 200 or less than 1,000	SC greater than or equal to 1,000 or less than 5,000	SC greater than or equal to 5,000 or less than 10,000	SC greater than 10,000	For All Systems
1	$1,962	$199	$263	$136	$96	$67	$1,962
2	$1,794	$159	$251	$108	$64	$60	$1,794
3	$926	$158	$233	$105	$60	$56	$926
4	$926	$157	$160	$103	$56	$55	$926
5	$537	$156	$126	$100	$55	$55	$537
6	$463	$155	$123	$96	$54	$54	$463
7	$463	$154	$119	$93	$53	$54	$463
8	$463	$153	$118	$90	$52	$54	$463
9	$463	$153	$117	$77	$51	$54	$463
10	$463	$152	$116	$77	$51	$53	$463
11	$463	$151	$115	$76	$50	$53	$463
12	$463	$150	$115	$70	$49	$53	$463
13	$429	$149	$114	$70	$48	$52	$429
14	$429	$146	$113	$66	$48	$52	$429
15	$429	$74	$113	$66	$47	$52	$429
20	$421	$69	$111	$53	$31	$50	$421
25	$308	$59	$109	$32	$8	$38	$308
30	$308	$55	$55	$14	$8	$34	$308
35	$308	$52	$55	$14	$7	$26	$308
40	$308	$51	$54	$7	$0	$15	$308
45	$0	$49	$53	$0	$0	$6	$0

ADOPTION OF A REGULATION FOR THE HEXAVALENT CHROMIUM MAXIMUM CONTAMINANT LEVEL

DRAFT ENVIRONMENTAL IMPACT REPORT

SCH # 2021110099

March 2023

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

State Water Resources Control Board

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SUMMARY

INTRODUCTION

In 2001, the California Legislature required the Department of Health Services to develop a primary drinking water standard for hexavalent chromium by 2003. Health and Safety Code section 116365, subdivisions (a) and (b), requires the State Water Resources Control Board (State Water Board or Board) to adopt primary drinking water standards at a level as close as feasible to the corresponding public health goal (PHG), placing primary emphasis on the protection of public health, and avoiding, to the extent technologically and economically feasible, any significant risk to public health. In 2011, the Office of Environmental Health Hazard Assessment (OEHHA) published the hexavalent chromium PHG at 0.02 micrograms per liter (µg/L).

The State Water Board is proposing a primary drinking water standard for hexavalent chromium (Proposed Regulations). The Proposed Regulations include a maximum contaminant level (MCL) of 10 µg/L or 0.010 milligrams per liter (mg/L) and an associated detection limit for purposes of reporting (DLR) of 0.05 ug/L or 0.00005 mg/L for all public water systems.[1]

The Proposed Regulations include a compliance schedule based on public water system size:

- Systems with more than 10,000 service connections would be required to comply with the MCL within two years of rule adoption.
- Systems with 1,000 to 10,000 service connections would be required to comply with the MCL within three years of rule adoption.
- Systems with fewer than 1,000 service connections would be required to comply with the MCL within four years of rule adoption.

Pursuant to Health and Safety Code section 116370, the State Water Board is proposing findings of reduction/coagulation/filtration, ion exchange, and reverse osmosis as best available technologies (BAT) for the removal of hexavalent chromium from drinking water to concentrations at or below the proposed MCL. The State Water Board prepared this draft Environmental Impact Report (EIR) to comply with the requirements of the California Environmental Protection Quality Act (CEQA). (Pub. Resources Code, § 21000 et seq.) and the CEQA Guidelines. (Cal. Code Regs., tit. 14, § 15000 et seq.) and to assess potential environmental impacts that may result from the State Water Board's adoption of, and public water systems' compliance with, the Proposed Regulations. The project under CEQA consists of the Proposed Regulations.

The State Water Board preferred alternative is a primary drinking water standard with a MCL for hexavalent chromium of 10 µg/L or 0.01 milligrams per liter (mg/L).

[1] A public water system is defined as "a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year…" (Health & Saf. Code, § 116275, subd. (h).) Note that the Proposed Regulations allow for an interim DLR of 0.1 µg/L.

PROJECT OBJECTIVE

The project objectives include the following:

- Avoid significant risks to public health from drinking water supplied by public water systems in California.
- Reduce cancer and non-cancer public health risks from human consumption of drinking water contaminated with hexavalent chromium.
- Comply with the statutory mandate to adopt a primary drinking water standard for hexavalent chromium, as required by Health and Safety Code section 116365.5.

The project will meet these objectives by adopting regulations that:

- Set a MCL for hexavalent chromium as close to the PHG set by the OEHHA as possible, after taking into consideration both technological and economic feasibility.
- Set a DLR that laboratories must achieve when analyzing for hexavalent chromium in drinking water.
- Identify BAT for treatment.
- Identify language to be used by public water systems for public notices and consumer confidence reports when there have been exceedances of the MCL.

SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

This first-tier, programmatic EIR identifies the potential direct and indirect impacts of the Proposed Regulations, which are related to public water systems' compliance with a primary drinking water standard for hexavalent chromium. Public Resources Code section 21159 requires the State Water Board, when adopting a regulation requiring the installation of pollution control equipment, or a performance standard or treatment requirement, to consider the reasonably foreseeable methods of compliance and analyze the reasonably foreseeable impacts of the methods of compliance. In addition, the State Water Board must consider reasonably foreseeable feasible mitigation measures, and reasonably foreseeable alternative means of compliance.

Reasonably foreseeable methods of compliance include installation and operation of treatment. The Proposed Regulations identify as BAT three methods that can treat drinking water to concentrations of hexavalent chromium at or below the proposed MCL: Reverse Osmosis (RO); Ion Exchange (IX) (Both Strong and Weak base); and Reduction Coagulation Filtration (RCF). The impacts related to the implementation of treatment are similar for each BAT and relate primarily to the installation and operation of the treatment works. Potential impacts will, in part, depend on where and how individual treatment projects are implemented.

Project-level impacts will vary depending on the size, location, and type of treatment installed, and the environmental resources in and around the project site. It is possible that at a specific site with particularly sensitive environmental resources, the installation of treatment could cause potentially significant impacts as compared to baseline conditions. Although it is anticipated that treatment will be installed within areas that are already disturbed, such as within the footprint of existing well sites, distribution pipes, and treatment works, and that any potentially significant impacts could be mitigated, many of the potential impacts are identified

as being potentially significant and unavoidable due to the fact that the State Water Board cannot control the location of the projects, the type of mitigation, or whether mitigation will be required.

This EIR identifies the following as reasonably foreseeable alternative means of compliance: drilling a new well, switching to surface water, blending sources, treatment with stannous chloride, and purchasing water from, or consolidating with, a nearby water system. The impacts from alternative means of compliance are likely to vary depending on the individual project. Because it would be speculative to assume the type, size, and location of potential compliance projects, as well as the type of resources impacted, this EIR cannot quantify the impacts associated with the implementation of any specific project, but does recognize the potential for such impacts, and identifies potential mitigation that could be implemented at site-specific projects to avoid such impacts.

Potential environmental impacts are related to the reasonably foreseeable means of compliance and alternative means of compliance with the project and are summarized in Table ES1-1. Refer to Chapters 4 through 23 in this EIR for a complete discussion of each impact.

ALTERNATIVES

The purpose of the alternatives analysis in an EIR is to describe a range of reasonable alternatives to the project that could feasibly attain the objectives of the project but would avoid or substantially lessen significant effects of the project and evaluate the comparative merits of the alternatives. (Cal. Code Regs., tit. 14, § 15126.6, subd. (a).) The range of alternatives considered must include those that offer substantial environmental advantages over the proposed project and may be feasibly accomplished in a successful manner considering economic, environmental, social, technological, and legal factors. Although CEQA requires consideration of a "no project" alternative, such an alternative is not an option to the Proposed Regulations because the California Legislature has required the State Water Board to adopt a drinking water standard for hexavalent chromium. (Health & Saf. Code, § 116365.5.) Instead, the analysis of the "no project" alternative will essentially be an analysis of the baseline because here the baseline would be identical to the existing environment. (Cal. Code Regs., tit. 14, § 15126.6, subd. (e)(1).)

As discussed in Chapter 26, the EIR evaluated 20 alternatives to the proposed MCL for hexavalent chromium of 10 µg/L. These alternatives include hexavalent chromium MCLs from 1 to 15, 20, 25, 30, 35, 40, and 45 µg/L. Where the MCL is set would not likely affect potential project-level impacts related to compliance; for example, the impacts related to a new well or treatment would not substantially differ whether the MCL was set at 8, 10, or 15. Instead, what would change is the number of systems that would have to take some sort of action to come into compliance with the MCL, and potentially some of the operational impacts. For example, setting the MCL at a lower (more stringent) level would require more systems to come into compliance, and for those that installed treatment, it would require more frequent changing of the treatment filter, while a higher (less stringent) MCL would mean that fewer public water systems would be out of compliance and would have to treat, and those that have to treat would be able to change treatment filters less often.

In addition to the 20 alternatives to the MCL, the EIR looks at the addition of stannous chloride reduction treatment to the list of BATs identified in the Proposed Regulations.

AREAS OF CONTROVERSY

The area of controversy associated with the Proposed Regulations relates to the cost of compliance. Public water systems that must come into compliance will likely incur significant costs. The assessments of the economic impacts to public water systems and their rate payers conducted pursuant to Health and Safety Code section 116365 and the Administrative Procedure Act concluded that annual costs per service connection for community water systems would range from $91 (systems with more than 10,000 service connections) to $1,622 (for systems with fewer than 100 service connections). (SWRCB 2023a, sec. 5.2.4.3). The average annual cost per person for community water systems ranges from $23 (systems with more than 10,000 service connections) to $443 (systems with less than 100 service connections) (SWRCB 2023a, sec. 5.2.4.5). These costs are higher for smaller water systems because there are fewer service connections among which the cost of the treatment can be shared. Although larger systems will incur higher costs because they must treat more water, the costs to individual rate payers will be significantly higher for smaller systems, because there are fewer rate payers among whom expenses can be shared. It was this issue of economic feasibility for small systems that was the focus of litigation when a hexavalent chromium primary drinking water standard was first set by the

Department of Public Health in 2014, prior to the transfer of the Division of Drinking Water to the State Water Board. In fact, at that time, the Department of Public Health relied on the categorical exemptions for "actions by regulatory agencies for protection of natural resources" and "actions by regulating agencies for protection of the environment," and no environmental analysis of the reasonably foreseeable means of compliance was conducted. No parties raised CEQA compliance as an issue at that time.

CHAPTER 1 - INTRODUCTION AND BACKGROUND

The State Water Board Resources Control Board (State Water Board or Board) is proposing to adopt a primary drinking water standard for hexavalent chromium ("Proposed Regulations"). The Proposed Regulations will apply to public water systems statewide. The project under the California Environmental Quality Act (CEQA) consists of the Proposed Regulations, which are included in their entirety in Appendix A. This Environmental Impact Report (EIR) was prepared by staff of the State Water Board.

The State Water Board is the principal agency with primary responsibility for overseeing drinking water in California. California requires public water systems to sample their drinking water sources and analyze the samples for various constituents, including inorganic chemicals, to determine compliance with drinking water standards, including maximum contaminant levels (MCLs). A public water system must notify the State Water Board and the public when drinking water supplied to the public is noncompliant with a drinking water standard and take appropriate action to come into compliance with that standard.

Health and Safety Code section 116365[2] imposes requirements on the State Water Board for adoption of primary drinking water standards for the protection of public health.[3] One of those requirements is that the State Water Board set a primary drinking water standard as close to the contaminant's public health goal (PHG) as is technologically and economically feasible at the time of adoption, while placing primary emphasis on protection of public health. PHGs are established by the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA). In July 2011, the OEHHA established the PHG for hexavalent chromium at 0.00002 milligrams per liter (mg/L), equivalent to 0.02 micrograms per liter (µg/L) (OEHHA 2011).

The State Water Board is proposing 0.010 mg/L as the MCL for hexavalent chromium (10 µg/L). In addition, the Proposed Regulations will set the detection limit for purposes of reporting (DLR) at 0.00005 mg/L; identify ion exchange (IX), reduction coagulation filtration (RCF), and reverse osmosis (RO) as the best available technologies (BAT) for treating hexavalent chromium; identify analytical methods to be used for testing hexavalent chromium in drinking water; and identify language to be used by public water systems for public notices and consumer confidence reports when there have been exceedances of the MCL. Environmental impacts related to the MCL would result primarily from the activities taken by the public water systems to come into compliance with the MCL, including installing, operating, and maintaining treatment; drilling new wells; switching from contaminated groundwater to surface water; blending sources; and purchasing water from, or consolidating with neighboring water systems.

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[2] All references are to the California Health and Safety Code, unless otherwise designated.

[3] "Primary drinking water standards" are maximum levels of contaminants that, in the judgement of the State Water Board, may have an adverse effect on the health of persons. (Health & Saf. Code, §116275, subd. (c)(1).) In lieu of maximum contaminant levels, the State Water Board may require the use of a specified treatment technique if the State Water Board finds that it is not economically or technically feasible to ascertain the level of the contaminant. (Health & Saf. Code, §116275, subd. (c)(2); Health & Saf. Code, §116365, subd. (j).)

1.1 BACKGROUND ON HEXAVALENT CHROMIUM

Chromium is an inorganic chemical; a heavy metal that occurs throughout the environment. The trivalent form, also commonly known as "trivalent chromium" or "chromium 3 (III)," is a required nutrient and has very low toxicity. The hexavalent form, also commonly known as "chromium 6 (VI)," is more toxic and has been known to cause cancer when inhaled. In recent scientific studies on laboratory animals, hexavalent chromium has also been linked to cancer when ingested (OEHHA 2011). In addition, hexavalent chromium can cause other problems besides cancer, such as liver toxicity.

The presence of hexavalent chromium in drinking water sources is attributed to both its natural occurrence and industrial use. Hexavalent chromium may be present in groundwater in California at levels up to, and in some cases exceeding, 100 µg/L. Between January 1, 2010, and June 21, 2021, hexavalent chromium was found, to some extent, in 53 of 58 counties in California, and is principally found in the counties of Los Angeles, San Bernardino, Fresno, Riverside, Stanislaus, Sacramento, Santa Clara, Monterey, Kern, San Joaquin, and Tulare. These counties each have 100 or more sources with detectable levels of hexavalent chromium. Statewide there are more than 3,000 sources with detection of hexavalent chromium over 1µg/L (SWRCB 2023a, sec. 3.1).

There are areas of contamination in California confirmed from industrial activities that used hexavalent chromium, such as the manufacturing of textile dyes, wood preservation, leather tanning, and anti-corrosion processes, where hexavalent chromium contaminated waste has migrated into the underlying groundwater. The presence and concentration of hexavalent chromium in surface water sources is less than that found in groundwater sources.

No federal or California drinking water standard currently exists specifically for hexavalent chromium. Hexavalent chromium is currently indirectly regulated under the total chromium MCL of 50 µg/L (0.05 mg/L). California's MCL for total chromium was established in 1977, when what was then a "National Interim Drinking Water Standard" for total chromium was adopted. The total chromium MCL was established to address exposures to hexavalent chromium, which is the more toxic form of chromium. The U.S. Environmental Protection Agency (U.S. EPA) adopted the same standard for total chromium, but in 1991 raised the federal MCL to 100 µg/L (0.1 mg/L). California retained its 50 µg/L MCL for total chromium.

In 1999, as part of the MCL review process, the California Department of Public Health's (CDPH's) predecessor, the California Department of Health Services, sought to determine whether it would be appropriate to set an MCL specifically for hexavalent chromium. Subsequently, concerns about hexavalent chromium's potential carcinogenicity when ingested resulted in the adoption of Health and Safety Code section 116365.5, which required the California Department of Health Services to establish a primary drinking water standard for hexavalent chromium by January 1, 2004.

Pursuant to section 116365, subdivision (c), OEHHA prepares and publishes an assessment of public health risks posed by each contaminant for which the State Water Board proposes a primary drinking water standard. The risk assessment includes an estimate of the drinking water contaminant level that is not anticipated to cause or contribute to adverse health effects, or that does not pose any significant health risk; this is known as PHG. In July of 2011 OEHHA established a hexavalent chromium PHG of 0.02 µg/L (0.00002 mg/L) (OEHHA 2011). The availability of the hexavalent chromium PHG enabled the CDPH to proceed with setting a primary drinking water standard. As part of that rulemaking process,

the CDPH proposed an MCL for hexavalent chromium of 10 µg/L (0.010 mg/L) in August of 2013.

On May 28, 2014, the Office of Administrative Law approved the regulations submitted by the CDPH, and the MCL became effective on July 1, 2014.[4] On September 4, 2015, Senate Bill 385 was signed by the Governor to provide public water systems with time to come into compliance without being deemed in violation of the MCL. (Stats. 2015, ch. 272, §1.) This statute automatically sunset on January 1, 2020. (Health & Saf. Code, § 116431, subd. (i).)

On May 31, 2017, the Superior Court of Sacramento County invalidated the hexavalent chromium MCL for drinking water. (*California Manufacturers and Technology Association, et al. v. State Water Resources Control Board,* Super. Ct., Sacramento County, Case No. 34-2015-80001850.). The court ordered the State Water Board to take the necessary actions to delete the hexavalent chromium MCL from the California Code of Regulations, which occurred on September 11, 2017.

1.2 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT (EIR)

CEQA requires state and local government agencies to consider environmental impacts of projects over which they have discretionary authority before acting on those projects. (Pub. Resources Code, § 21000 et seq.) This EIR is an informational document that will inform public agency decision makers and the public generally of the potential significant environmental impacts of the Proposed Regulations, discuss possible ways to mitigate significant impacts, and describe reasonable alternatives to the project.

The project analyzed in this EIR is the State Water Board's adoption of the Proposed Regulations. The State Water Board will respond to comments received on this draft EIR in the Final EIR. The State Water Board will review this programmatic EIR before certifying it as meeting the requirements of CEQA and make a statement of overriding considerations if any impacts cannot be reduced to less than significant levels. Once the EIR is certified, it will be one of the factors considered by the State Water Board when deciding whether to adopt the Proposed Regulations.

This EIR is designed to meet the requirements of Public Resources Code section 21159 and CEQA Guidelines section 15187, which require certain agencies, including the State Water Board, to perform an environmental analysis of the reasonably foreseeable methods of compliance at the time it adopts a rule or regulation requiring the installation of pollution control equipment, or establishing a performance standard or treatment requirement. This analysis must include: 1) an analysis of the reasonably foreseeable environmental impacts of the methods of compliance; 2) an analysis of reasonably foreseeable feasible mitigation measures; and 3) an analysis of reasonably foreseeable alternative means of compliance with the rule or regulation. The analysis does not have to include a site-specific analysis but does require an agency to consider a reasonable range of environmental, economic, and technical factors, populations and geographic areas, and specific sites. (Pub. Resources Code, § 21159, subds. (c) & (d).) An EIR prepared at the time of adopting the rule or regulation pursuant to CEQA satisfies these requirements. (*Id.*, subd. (b).)

[4] The Division of Drinking Water moved from the California Department of Public Health (CDPH) to the State Water Board on July 1, 2014. (Stats. 2014, ch. 35, § 63.)

As described in greater detail below, another purpose of this EIR is to provide sufficient analysis for public water systems to rely on and use in preparation of their own CEQA analysis of environmental impacts of their specific projects needed to comply with the Proposed Regulations.

1.3 ENVIRONMENTAL REVIEW AND APPROVAL PROCESS

The preparation of an EIR involves multiple steps. During this process, the public is provided the opportunity to review and comment on the scope of the analysis, the content of the EIR, the analysis and conclusions presented, and the overall adequacy of the document to meet the substantive requirements of CEQA. The following describes the steps in the environmental review process for this project.

1.3.1 Notice of Preparation, Public Scoping Meeting

On November 5, 2021, the State Water Board sent a notice of preparation (NOP) to the Office of Planning and Research, State Clearinghouse, for distribution to trustee agencies, including the California Department of Fish and Wildlife, the California Department of Parks and Recreation, and the State Lands Commission. The NOP and Workshop Notice is available online at **https://ceqanet.opr.ca.gov/2021110099.** On November 8, 2021, the State Water Board mailed the NOP and scoping meeting invitation to the county clerks of all 58 California counties. The Board posted the NOP on the **State Water Board's website** and emailed the notice to public water systems via a distribution list of 5,799 recipients identified as administrative contacts by public water systems in the state. The State Water Board also emailed the notice to 4539 recipients who have requested drinking water-related announcements (some of whom may also receive notification via the former distribution list).

The State Water Board held a scoping meeting on November 29, 2021, to solicit input from interested persons. While the State Water Board determined that this project did not meet the definitions of a project of statewide, regional or areawide significance pursuant to CEQA Guidelines section 15206, the Board sought public input and consultation on its preparation of an EIR. One-hundred-thirty-seven people attended the scoping meeting. Afterward, the Board received written comment letters to the NOP, which were considered during the preparation of this EIR. See Appendix B for the comment letters received.

1.3.2 Notification to California Native American Tribes

On November 1, 2021, the State Water Board sent notification letters pursuant to Public Resources Code section 21080.3.1 to the 35 tribes who have requested formal project notification from the State Water Board. Emails were sent with delivery receipts. One tribe requested consultation, then did not follow up after repeated attempts to set up a meeting.

1.3.3 Draft EIR and Public Involvement

This Draft EIR is being circulated for public review and comments on the adequacy of the analysis in this Draft EIR. Notice of this Draft EIR also has been sent directly to persons and agencies that commented on the NOP. Comments received will be considered in the development of the final EIR.

The Draft EIR will be available at the California Environmental Protection Agency, State Water Resources Control Board's Office of Chief Counsel at 1001 I Street, Sacrament, CA; at the Sacramento County Law Library, and at each of the State Water Board's Division of

Drinking Water field branch offices[5], as well as on the State Water Board's website at: **Chromium-6 Drinking Water MCL.**

In addition to the CEQA process, the State Water Board will be conducting public meetings (workshop and adoption hearing) to meet requirements of the Administrative Procedure Act for the adoption of the Proposed Regulations. (Gov. Code, § 13400 et seq.) All comments received, including names and addresses, will become part of the official administrative record and may be available to the public.

1.3.4 Final EIR and Approval Process

Written and oral comments received on the Draft EIR during the public review period will be addressed in a response to comments document that, together with the Draft EIR and any changes to the Draft EIR made in response to comments received, will constitute the Final EIR. The Draft EIR and Final EIR together will comprise the EIR for the Proposed Regulations. According to CEQA Guidelines section 15090, subdivision (a), before the State Water Board approves the Proposed Regulations, it must certify that the EIR has been completed in compliance with CEQA, that it has reviewed and considered the information in the EIR, and that the EIR reflects its independent judgment and analysis of the State Water Board.

After the final EIR is certified, the State Water Board will decide whether to adopt the Proposed Regulations and make any necessary findings in accordance with CEQA Guidelines section 15092. Under CEQA Guidelines section 15092, a lead agency may approve or carry out a project subject to an EIR only if it determines that either: (1) the project will not have a significant effect on the environment, or (2) the agency has eliminated or substantially lessened all significant effects on the environment where feasible, and any remaining significant effects on the environment found to be unavoidable are acceptable due to overriding considerations, in which case it will adopt a statement of overriding considerations pursuant to CEQA Guidelines section 15093. Following project approval, the State Water Board will file a Notice of Determination pursuant to CEQA Guidelines section 15094.

Report Organization

The EIR is organized into the following chapters so that the reader can easily find information about the project and its specific environmental issues:

- Summary presents a summary of the Proposed Regulations, a description of impacts and mitigation measures presented in a table format, and a discussion of alternatives.
- Chapter 1, "Introduction and Background," provides a brief overview of the EIR's purpose.
- Chapter 2, "Regulatory Setting and Proposed Regulations," provides information on the project including location, objectives, technical, economic, and environmental characteristics, and intended uses of the EIR.

[5] For addresses of the field branches see **Division of Drinking Water District Office contacts (ca.gov).**

- Chapter 3, "Impact Analysis Approach" discusses assumptions, parameters, and methodology used for analyzing potential environmental impacts, including the approach to considering cumulative impacts.
- Chapters 4 through 24 provide discussion on environmental factors provided in the CEQA Guidelines' Environmental Checklist (Appendix G Environmental Checklist Form and Appendix F). Each of these chapters describes the environmental and regulatory setting, a range of potential impacts that would result from the Proposed Regulations, potential mitigation measures, and impact significance conclusions, including consideration of cumulative impacts.
- Chapter 25, "Other CEQA Considerations" summarizes growth inducing impacts, Significant Irreversible Environmental Changes, and Significant Unavoidable Impacts.
- Chapter 26, "Alternatives Analysis," presents project alternatives (including the No-Project Alternative) and provides an evaluation of each alternative in comparison with the project.
- Chapter 27, "References," identifies documents used (printed references) and individuals consulted (personal communications) in preparation of the EIR.

OLD SANTA YNEZ DAYS

EST. 1882

WHERE THE WEST WENT WILD

(https://oldsantaynezdays.com)

Kick-Ass Kick-Off Party!

Friday, June 23rd 6-9 p.m.

The Santa Ynez Historical Museum will be kicking off Old Santa Ynez Days with the biggest party of the weekend! It's Friday Night, so mosey over to the Historical Museum for a traditional Pig Roast with all the fixin's courtesy of The Pork Palace https://santabarbarameatco.com/ (https://santabarbarameatco.com/). Then, it's time to kick up your heels to the lively sounds of The Cash Cooper Band, so put on your fanciest go-to-town duds and your best dancin' boots, because Santa Ynez is "where the west was wild!"

Tickets are just $75 inclusive of BBQ, Libations and Dancing!
Get your tickets here: https://osydkickoffparty.eventbrite.com (https://osydkickoffparty.eventbrite.com/)

While you're here, visit the museum https://www.santaynezmuseum.org/ (https://www.santaynezmuseum.org/) (open Saturday and Sunday during the Old Santa Ynez Days weekend) to walk through Santa Ynez's storied past, with fascinating exhibits from the Chumash period through early 20th Century ranching days, including the most impressive collection of carriages west of the Mississippi. Check out the carriage exhibit and the evolution of the California Stock Saddle.

(https://www.santabarbaracountycattlewomen.com)

Old Santa Ynez Day Parade

Saturday, June 24th -Parade beings at 10 a.m.

Each June, in the heart of downtown Santa Ynez, Western culture and tradition is celebrated with a street faire and parade in the spirit of the Old West. Dust off your spurs and join us for a Grand Parade honoring the Santa Barbara County Cattlewomen, https://www.santabarbaracountycattlewomen.com (https://www.santabarbaracountycattlewomen.com), will we be leading the parade. Of course, there will be equestrian units, but also expect dancing troupes, floats, costumes and our favorite, local cow. The parade will travel the length of Sagunto Street, from Meadowvale to Edison, so grab your spot early!

Interested in participating in the parade? Click for more information about the Old Santa Ynez Days Parade (https://oldsantaynezdays.com/wp-content/uploads/2023/05/OSYDparade2023.pdf)

Street Faire

Saturday, June 24th 9am - 2pm

Enjoy a nice cold locally crafted beer with a delicious selection of food before shopping with local and artisan street merchants or kicking up your heels to the music of the Cadillac Angels. The young-uns will have a ball in the Kid's Koral and participating in the traditional Santa Ynez Tortilla toss. Be sure to get your commemorative Old Santa Ynez Day leather badge ($1!)so you don't end up riding in the jail in the parade. We can't wait to welcome you with our warm Western hospitality and have some fun!

Interested in showcasing your wares? Click here to download the Vendor Booth Form (https://oldsantaynezdays.com/wp-content/uploads/2023/05/OSYDvendorAPP.pdf)

4th Annual Old Santa Ynez Days Rodeo

(https://www.syvwhf.org/)

4th Annual Old Santa Ynez Days Rodeo

Saturday, June 24th from 1:00 pm
Sunday, June 25th from Noon

This two-day Pro Rodeo is a PRCA qualifying event and the main fundraiser for the Santa Ynez Valley Western Heritage Foundation https://www.syvwhf.org/ (https://www.syvwhf.org/), which contributes to local youth in agriculture and other related programs. Come out and enjoy some delicious local food, music and vendors while you take in the amazing horsemanship and roping skills of the professional cowboys and cowgirls. You can expect all of the exciting events - Bull Riding, Saddle Bronc, Tie-Down Roping, Break-Away, Bareback Bronc, Team Roping, Barrel Racing and Steer Wrestling! Not to be outdone by the adults, Junior events include Barrel Racing, Breakaway Roping, the always popular Mutton Bustin' and...(wait for it!) Stick Horse Races!

Family Farm ALLIANCE®
Protecting Water for Western Irrigated Agriculture

July 2023
Issue No. 253 12 Pages

Monthly Briefing

A Summary of the Alliance's Recent and Upcoming Activities and Important Water News

Standing up for Colorado River Agriculture

....*Plus, other Colo. River Basin policy developments*

Family Farm Alliance President Patrick O'Toole, whose family owns and operates a sheep and cattle ranch on the Wyoming-Colorado border, vigorously argued for the importance of Colorado River agriculture in a panel discussion last month at a prestigious University of Colorado water conference.

"All Colorado River water users need certainty for effective future planning," said Mr. O'Toole. "Agricultural water users need – and want – to help shape their future, instead of relying upon others to design their future for them."

The Colorado River serves 40 million individuals and irrigates 5.5 million acres of farmland across seven states. More than two decades of drought have significantly diminished flows in the 1,450-mile-long river, and drained water supplies in lakes Powell and Mead, which also provide hydropower to millions of people.

Alliance President Patrick O'Toole addresses the 43rd Annual Conference on Natural Resources at the University of Colorado on June 9, 2023. **Photo courtesy of Felicia Marcus**

Mr. O'Toole and his fellow panelists – including another member of the Alliance – focused on the role farmers and ranchers can play to drive solutions to the Colorado River crisis at the 43rd Annual Conference on Natural Resources at the Getches-Wilkinson Center for Natural Resources, Energy and the Environment.

Mr. O'Toole participated in a June 9 panel titled, "How Can Agriculture Thrive with Less Water?". He was joined by fellow panelists Meghan Scott (Noble Law Firm, Yuma, Arizona), Mark Squillace (University of Colorado Law School) and Jim Holway (Babbitt Center for Land and Water Policy).

"The question being posed is 'how can agriculture thrive with less water?', said Ms. Scott. "In Yuma, and in other areas across the Basin, put simply, it cannot. And so, I think the question really becomes whether having a domestic food supply is something we value enough to deem agriculture's use of water in

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Colorado River Policy Developments (*Cont'd from Pg. 1*)

the Colorado River Basin a beneficial use and a use worthy of protecting."

The panel discussion took place following opening remarks by former Interior Secretary Bruce Babbitt, who is urging the Biden administration to consider long-term programs targeting farmland.

"We need to start looking for models that will work, rather than these random 'We're going to go out and buy a year's water from X; we'll toss out a little bit of money here,'" Mr. Babbitt said, as reported in *E&E News*.

He also suggested that the Biden administration utilize a regulatory option that could rule that certain crops are not a "beneficial use," and then reduce those water deliveries.

"It's an important way for Interior to demonstrate that it's really engaged," Mr. Babbitt said.

Prior to the Boulder event, Mr. O'Toole vowed to make the voice of Colorado River agriculture heard, loud and clear.

"We're tired of the relentless demonization of agriculture coming from competing interests, whose main solution appears to be questioning the viability of producing alfalfa and other forage crops in the Colorado River Basin," he said. "We're individual families who are participating in something we think is good — producing food."

Meghan Scott said farmers are willing to make changes, but only if those changes are practical (*CowboyStateDaily*).

"I've never heard of people feeding their animals beet pulp," she said. "I'm not saying there's not people who do that, but I've never heard of it."

Mr. O'Toole and other Alliance leaders for over the past decade have warned about the dangers of taking safe domestic food production for granted. In late 2022, he and his wife Sharon traveled to Ireland to engage in a week-long event attended by livestock interests from 23 nations.

"We were struck by the delegation report from Africa, where in some places, the goal is to simply ensure one glass of milk per child per day," said Mr. O'Toole. "When you take alfalfa out of the Western farm production equation, how can we continue to produce milk to satisfy the demands in our own country? "

DOI Announces Long-Term Colo. River Planning Process

The conference in Boulder took place just weeks after the Colorado River Lower Basin states coalesced around a plan to voluntarily conserve a major portion of their river water in exchange for more than $1 billion in federal funds. The availability of those federal funds, as well as improved recent hydrology, helped grease the Lower Basin deal.

The June 2023 forecast from the Colorado Basin River Forecast Center shows a projected inflow of 13.85 million acre-feet into Lake Powell for 2023, which is 144% of the average inflow. Now, all 7 Basin states can focus on the critically important long-term solution: advancing the process for the development of new operating guidelines replacing the 2007 Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead at the end of 2026.

The Department of the Interior last month initiated a formal process for the development of a long-term but interim operating plan for the Colorado River Basin, commencing a multiyear process that will shape the future of the river. The Bureau of Reclamation will oversee efforts to create a new operating plan for the river and its reservoirs.

"Developing new operating guidelines for Lake Powell and Lake Mead is a monumentally important task and must begin now to allow for a thorough, inclusive and science-based decision-making process to be completed before the current agreements expire in 2026," said Reclamation Commissioner Camille Calimlim Touton. "The Bureau of Reclamation is committed to ensuring we have the tools and strategies in place to help guide the next era of the Colorado River Basin, especially in the face of continued drought conditions."

The agency expects to release a draft proposal for public comment late in 2024. Now, Reclamation is taking comments on what stakeholders would like to see (or not see) in a new operating plan for the system through a 60-day comment period. The *Federal Register* notice also revealed that Reclamation plans to release a web-based tool that will allow users to "explore, create, and compare potential operating strategies" for the Colorado River. The online tool is set to be released in the fall of this year.

Alliance leaders will continue to underscore the importance of protecting Western irrigated agriculture, using policy principles adopted by the board of directors in March 2022.

"The solutions developed on the Colorado River must continue to follow the law, but also match the science and hydrology," said Don Schwindt, an Alliance director who farms near Cortez, Colorado. "Mother Nature gives us no choice. The Colorado River Compact, coupled with the prior appropriation doctrines of the seven Basin states, provide the framework we must continue to follow."

Public Input Sought for Upper Basin Water Projects

Reclamation last month also issued a call for public input on the types and nature of projects, project selection criteria, and program administration considerations that the agency should consider when distributing the second phase of funds for the Upper Colorado River Basin System Conservation and Efficiency Program. Reclamation is seeking input on Phase 2 projects that could fall into the following three general categories:

- System conservation and efficiency projects that achieve verifiable, multi-year reductions in use of or demand for water supplies;
- Demonstration projects to spur advances in water conservation and efficiency using innovative techniques; and
- Ecosystem and habitat restoration projects to address issues directly caused by drought.

Reclamation is also seeking input on the administration of the program. Comments will be taken until Friday July 07, 2023, and can be sent via email to: UCBEfficiency@usbr.gov.

Alliance Witness Testifies at House Legislative Hearing

The Family Farm Alliance last month was represented by one of its California directors at a legislative hearing conducted by the House Subcommittee on Water, Wildlife and Fisheries.

Cannon Michael, a farmer from the San Joaquin Valley who serves on the Alliance board of directors and is also Chairman of the San Luis & Delta-Mendota Water Authority, represented both organizations at the hearing.

The hearing focused on legislation addressing hydropower, water resources and water infrastructure improvements:

- H.R. 1607 introduced by Rep. Schweikert (R-ARIZONA), would withdraw approximately 17,095 acres of federal lands from the National Forest System in Arizona for the development of pumped storage hydropower and the development, generation and transmission of electrical power and energy.
- H.R. 3675, introduced by Rep. Boebert (R-COLORADO), reauthorizes expired authorities that allow Bureau of Reclamation (Reclamation) agriculture and municipal water users to prepay what they owe to the federal government.
- H.R. 3027, introduced by Rep. Porter (D-CALIFORNIA), would extend the authorization of Reclamation's WaterSMART Basin Studies Program for another 10 fiscal years. The law directs BOR to establish a program to assess the effects of global climate change on western water resources and analyze how supply changes in eight river basins might impact customers, fish, wildlife, recreation and more.

"The common thread?" asked Subcommittee Chairman Cliff Bentz (R-OREGON). "Increasing flexibility for our local communities and removing bureaucratic red tape."

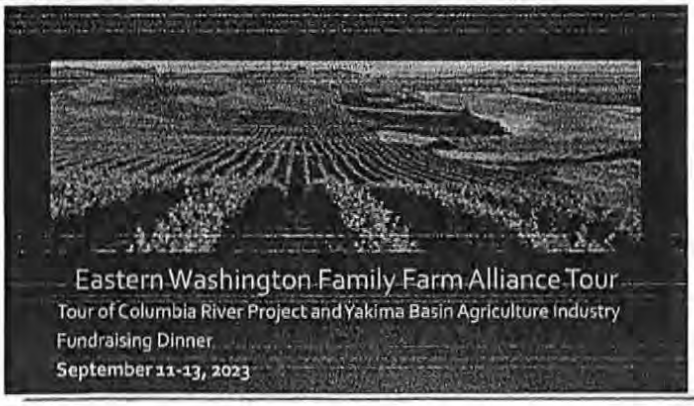
The Alliance is on record for supporting H.R. 3675.

"The Water Authority and the Alliance fully support enactment of this bill, which will extend important, win-win authorities that allow water users to accelerate repayment of capital construction costs for Reclamation facilities," Mr. Michael testified. "We appreciate Congresswoman Boebert for introducing this bill and want to thank all of the cosponsors."

Rep. Lauren Boebert (R-COLORADO) and Cannon Michael, a Family Farm Alliance board member who farms in California's Central Valley, in the hearing room of the House Natural Resources Committee, June 19, 2023.

In the past, Congress has specifically allowed early repayment for certain projects or facilities. However, until a temporary authorization was enacted in the Water Infrastructure Improvements for the Nation Act (WIIN Act; P.L. 114-322) there was no general allowance or prescribed process in Reclamation law to allow accelerate payout. That authority has now expired.

"The concept of contract prepayment was something we started advocating for way back, starting around 2005," said Alliance Executive Director Dan Keppen. "While many districts have already taken advantage of this authority, there are still a few out there who could benefit from having these provisions made permanent. We're thankful that Cannon was able to advance this message and testify with very short notice."



Tri-tip & lamb BBQ dinner prepared by the Washington State Cattle Feeders Association
September 13, 2023
5:30 p.m. - 9:30 p.m.
For more information:
Go to https://www.familyfarmalliance.org/farmtour/.

Save the date

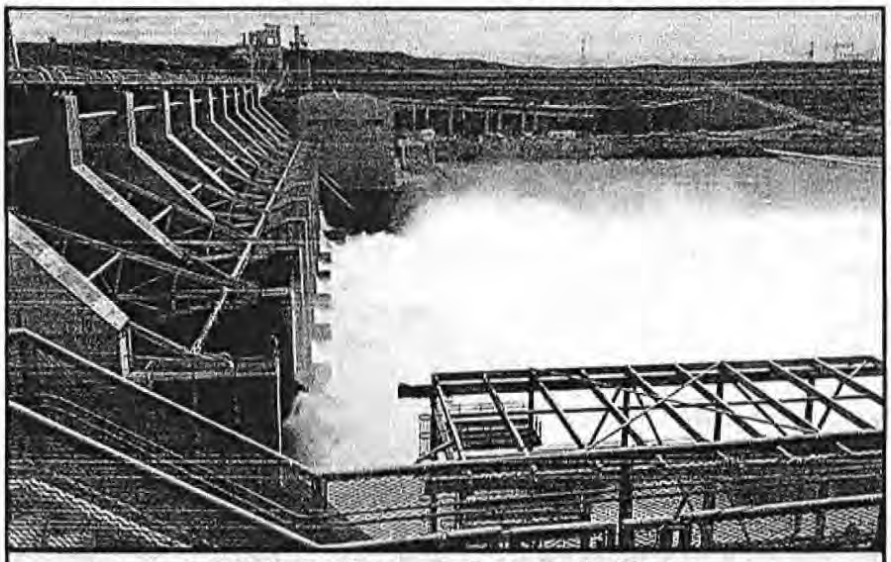
Importance of Snake River Dams Highlighted

Environmentalists concerned about salmon spawning have advocated to undam the Snake River for decades, focusing their efforts on four dams on the lower part of the Snake, just above its confluence with the Columbia River.

Western Republicans in Congress and the *Wall Street Journal* last month pushed back, and publicly highlighted the importance of dams in the Pacific Northwest and their impacts on river commerce, agriculture and energy production.

"The Four Lower Snake River Dams are integral to flood control, navigation, irrigation, agriculture, and recreation in Central Washington and throughout the Pacific Northwest—to put it simply, we cannot afford to lose them," Rep. Dan Newhouse (R-WASHINGTON) said earlier this year.

In a one-week period, Republicans from the House of Representatives hosted a Capitol Hill forum on the importance of hydropower and conducted a field tour and hearing in Eastern Washington focusing on plans to breach the dams.



Ice Harbor Dam on the Lower Snake River.
Photo courtesy of Washington Association of Wheat Growers.

Capitol Hill Forum

The Congressional Western Caucus (Caucus) hosted a June 21 hydropower forum titled, "The Importance of Hydropower for Rural Communities."

Rep. Newhouse – the current Chair of the Caucus - and Energy and Commerce Committee Chairwoman Cathy McMorris Rodgers (R-WASHINGTON) led Members and witnesses from the power industry and agriculture in a discussion about these efforts and the importance of hydropower for rural communities.

"The lower Snake River dams are a critical linchpin to North Idaho and for the Pacific Northwest," said Rep. Fulcher (R-IDAHO), who participated in the forum. "And the removal of those or breaching those would be economic devastation."

Members heard from industry experts and organizations who highlighted the importance of these pieces of infrastructure.

In addition to the irreplaceable power assets generated by the dams, 10% of the wheat that is exported in the United States passes through the four locks and dams along the lower Snake.

"The lower Snake River dams are a critical infrastructure system required to move U.S.-grown wheat to high-value markets around the world," said Chandler Goule, CEO of the National Association of Wheat Growers.

"To be more specific, this corridor is the third largest grain export corridor in the world and is the single largest corridor for U.S. wheat exports."

Eastern Washington Tour and Field Hearing

House Subcommittee on Water, Wildlife and Fisheries Chairman Cliff Bentz (R-OREGON), Rep. McMorris Rodgers and Rep. Newhouse five days later hosted members for a site visit to one of the targeted dams - Ice Harbor - and a field hearing at Richland High School in Richland, Washington.

Members were critical of the "secret" nature of the mediation process driven by the White House Council on Environmental Quality designed to reach a solution in long-running litigation over the four lower Snake River dams.

"There have been too many back room conversations recently at the highest levels of government focused on tearing out the Lower Snake River dams," said Rep. McMorris Rodgers. "What's worse is that those who rely on them the most — the families, businesses, and farmers in Eastern Washington — have been shut out of the discussion."

The Family Farm Alliance in April transmitted a letter to U.S. Secretary of Agriculture Tom Vilsack, requesting Biden Administration Cabinet-level intervention in ongoing mediation talks involving the Lower Snake River dams.

Western Farmer-Stockman in April also ran a guest editorial by Alliance Executive Director Dan Keppen explaining why Pacific Northwest ag interests should be better integrated into the river talks.

"Altering operations along the Columbia and Lower Snake Rivers, whether through shifted flow regimes or dam removal, would send ripple effects throughout the broader agricultural community served by this system," said Mr. Keppen. "The multiple-year drought we have faced in many parts of the West– coupled with other domestic and global developments – has already affected the availability and price of food for many Americans."

Continued on Page 10

BLM on the Hot Seat for Draft Conservation Rule

The Bureau of Land Management (BLM) in March unveiled a draft rule , which among other things would designate conservation as a public lands management priority, on par with energy development, grazing and recreation. In the ensuing months, the proposal has generated a fierce response from ranchers and other critics, particularly Western GOP congressional leaders.

"The Biden Administration's extreme unilateral action will kill multiple use. This is a clear violation of the law," said Senator John Barrasso (R-WYOMING), ranking member of the Senate Committee on Energy and Natural Resources (ENR). "I will do everything in my power to stop this proposal."

BLM Director Tracy Stone Manning (third from right) spend a day touring Battle Creek and other areas of the Little Snake River watershed with Family Farm Alliance President Pat O'Toole, his family, and other local resource managers.
Photo courtesy of Ladder Ranch.

Summary of the Draft Rule

The draft rule lays out a suite of proposals, including requiring that all 245 million acres of BLM-managed lands meet land-health standards currently limited only to federal livestock grazing allotments. It would also place a priority on local field offices identifying lands that need restoration work to meet those standards of rangeland health.

In addition, the draft rule would establish a new conservation leasing system that would allow private companies and NGOs to purchase leases that would allow them to fund restoration work to be done on some of BLM's most degraded landscapes.

Critics of the draft rule are concerned that environmental groups could purchase conservation leases in an effort to remove large swaths of BLM lands from other uses.

Critics Fight Back

"As drafted, the proposed rule would open the door to removal of grazing and a host of other multiple uses on federal lands, and the process around the proposed rule has so far left stakeholders feeling unheard, disenfranchised, and resigned to a poor outcome," said Kaitlyn Glover, Executive Director of the Public Lands Council (PLC).

PLC last month launched a grassroots campaign to encourage individual ranchers to weigh in with the BLM on their proposed rule.

"We need many voices to weigh in to avoid longstanding harm to Western federal land management," said Ms. Glover.

Many Western GOP Members of Congress are also concerned about the lack of local input on the proposed rule.

Senate Republicans, led by Sen. Barrasso, introduced a bill to block the rule, which would require BLM Director Tracy Stone-Manning to withdraw the draft rule, which is currently open for public comment, and forbid BLM from taking "any action to finalize, implement, or enforce the proposed rule."

The House Committee on Natural Resources last month held a hearing on companion legislation, H.R. 3397, introduced by Rep. Curtis (R-UTAH).

The hearing featured testimony from Republican Govs. Kristi Noem (SOUTH DAKOTA) and Mark Gordon (WYOMING).

Both expressed strong opposition to the draft rule.

"[We] heard testimony from two Western governors who shared how the Biden administration's proposed policies would devastate rural communities in their state, and now we're moving legislation through committee that would prevent these adverse actions from moving forward," said House Committee of Natural Resources Chairman Bruce Westerman (R-Ark.) after the hearing.

Committee Democrats defended the draft rule during the more than three-hour hearing.

The Committee later in the month marked up and passed the bill on a partisan vote.

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Water Users Applaud SCOTUS Decision in *Arizona v. Navajo Nation*

Alliance and Western Water User Amicus Cited in Decision

The Supreme Court of the United States (SCOTUS) last month ruled 5-4 against the Navajo Nation, supporting the U.S. argument that the treaty at issue does not require the federal government to take the affirmative steps that the Navajo Nation contends.

"The 1868 treaty reserved necessary water to accomplish the purpose of the Navajo Reservation," Judge Brent Kavanaugh wrote for the majority. "But the treaty did not require the United States to take affirmative steps to secure water for the Tribe. We reverse the judgment of the U. S. Court of Appeals for the Ninth Circuit."

The Family Alliance was part of a Western water user *amicus* brief filed in support of the federal government and Arizona in this case. In its decision, the Court specifically recognized the concerns raised in the Western Water Users *amicus* brief and cited that brief.

"Allocating water in the arid regions of the American West is often a zero-sum situation," the Court found. "And the zero-sum reality of water in the West underscores that courts must stay in, proper constitutional lane and interpret the law (here, the treaty) according to its text and history, leaving to Congress and the President the responsibility to enact appropriations laws and to otherwise update federal law as they see fit in light of the competing contemporary needs for water."

The Court also embraced the Alliance's and water users' argument that water right claims should be made in water right adjudications.

". . .[T]he Navajos may be able to assert the interests they claim in water rights litigation, including by seeking to intervene in cases that affect their claimed interests, and courts will then assess the Navajos' claims and motions as appropriate", the Court found.

The Arizona Department of Water Resources praised the decision.

"Arizona's primary concern in this case has been preserving the Secretary of the Interior's ability to manage the Lower Colorado River system pursuant to the Law of the River, through drought, climate change and historical overuse," the agency said in a statement. "Today's opinion allows the Secretary to do just that."

However, Rep. Raúl Grijalva (D-ARIZONA) told *Greenwire* that the SCOTUS ruling will further complicate an already tense water allocation negotiation process.

"Ruling against the Navajo Nation in this way while we face a third decade of intensifying drying of the West is especially egregious," said Rep. Grijalva, who intends to pursue legislation to address the tribe's water needs.

Attorneys for the Navajo Nation will consider their next steps to obtain "quantified water rights," or the specific amount of water the tribe is allowed to draw from the river.

"The Navajo Nation established a water rights negotiation team earlier this year and we are working very hard to settle our water rights in Arizona," Navajo Nation President Buu Nygren Nygren told *Greenwire*."I am confident that we will be able to achieve a settlement promptly and ensure the health and safety of my people."

Family Farm Alliance leaders were pleased by the Court's judgment, which eliminates another possible layer of uncertainty regarding Western water decision-making.

"From a practical standpoint, this decision should eliminate the possibility of a new method being established for tribes to pursue water outside of the established process of filing and pursuing claims in basin-wide adjudications, involving all affected water users and States," said Alliance General Counsel Norm Semanko (IDAHO). "It also demonstrates the importance that amicus briefs can play in these kinds of cases."

BLM Proposed Rule Draws Fire (*Continued from Page 5*)

Family Farm Alliance Engagement

The Family Farm Alliance last month signed on to a "partners" letter driven by the PLC and National Cattlemen's Beef Association (NCBA) to a final "partners" letter to BLM, calling for a reset of BLM's proposed public lands rule.

"We....request the agency withdraw the proposed rule and reset the conversation to ensure appropriate stakeholders are at the table to find durable answers to some of the West's most pressing challenges," the letter urges.

The Alliance joined PLC, NCBA, American Sheep Industry Association, American Quarter Horse Association, American Mining and Exploration Association, National Association of Counties, Association of National Grasslands, Safari Club International, Western Energy Alliance, American Forest Resource Council, and a half dozen other fairly diverse organizations on the letter.

BLM later committed to extending the original comment period by 15 days, to July 5.

Alliance President Pat O'Toole and others have been raising concerns with BLM's leadership on this matter. Director Stone Manning spent a day last month at O'Toole's Ladder Ranch and the surrounding watershed in Wyoming and Colorado, showing how effective watershed management planning can be developed and implemented using local landowners and resource managers as the drivers.

"That's how we find durable solutions, by working together," said Mr. O'Toole. "Partnership with BLM's permittees is a vital component of working together and is key to effective public lands management."

Western Water Bills Introduced in Advance of July Senate Hearing

In advance of a legislative hearing planned by the Senate Energy and Natural Resources Committee later this month, Western Senators have introduced a slew of bills intended primarily to address persistent drought in the West. The Family Farm Alliance is reviewing all of them with an eye towards preparing written testimony for the hearing.

Water Legislation Introduced by Senator Feinstein

The Alliance worked with the office of Senator Dianne Feinstein (D-CALIFORNIA) on three bills she introduced last month.

California's senior Senator, along with Senators Mark Kelly (D-ARIZONA) and Kyrsten Sinema (I-ARIZONA), introduced the *Support to Rehydrate the Environment, Agriculture and Municipalities Act* or *STREAM Act,* which authorizes water infrastructure funding and provides programmatic authorization for non-Federal Reclamation water projects.

"As the last years have proven, climate change is making severe and prolonged drought a stark reality for the West. We must act now to improve our resilience to severe drought in the future," Senator Feinstein said. "We need an 'all-of-the-above' strategy to meet this challenge, including increasing our water supply, incentivizing projects that provide environmental benefits and drinking water for disadvantaged communities, and investing in environmental restoration efforts."

The Restore Aging Infrastructure Now (RAIN) Act – co-sponsored with Senator Alex Padilla (R-CALIFORNIA) - would authorize grant funding for 15% of the cost of aging infrastructure projects out of the $3.2 billion appropriated for these purposes in the Bipartisan Infrastructure Law (BIL), if the projects are modified to add public benefits including drinking water for disadvantaged communities.

***The New York Canal, near Boise (IDAHO).* Photo source: U.S. Bureau of Reclamation, Columbia-Pacific Northwest Region.**

"Senator Feinstein introduced a very similar version of this legislation last Congress as the extraordinary operation and maintenance provisions in section 107 of the STREAM Act," said Alliance Executive Director Dan Keppen. "The Alliance once again supports it."

The Canal Conveyance Capacity Restoration Act would fund 1/3 of the cost of restoring the original conveyance capacity of three important canals in California's Central Valley: the Friant-Kern Canal, Delta Mendota Canal, and California Aqueduct. It provides additional authorized funding for the Restoration Goal of the San Joaquin River settlement. This is also identical to legislation Senator Feinstein introduced in the last Congress.

"All three bills are fairly similar to legislation Senator Feinstein introduced last Congress, which we supported," said Mr. Keppen. "After soliciting input from our Members, we developed a letter to Senator Feinstein expressing formal Alliance support for all three of these bills."

Water for Conservation and Farming Act

Last month, Senators Ron Wyden and Jeff Merkley (D-OREGON) reintroduced S. 963, the "Water for Conservation and Farming Act." The bill would establish a $300 million fund at the Bureau of Reclamation (Reclamation) for water recycling, efficiency, and dam safety projects. The legislation would also authorize another $40 million to support water and conservation projects in disadvantaged communities.

The legislation would authorize $25 million for fish passage projects through 2029 via the Fisheries Restoration and Irrigation Mitigation Act (FRIMA).

"Our members in California, Idaho, Oregon, Montana, and Washington are strong supporters and benefactors of FRIMA, which supports voluntary fish screen and passage projects," said Family Farm Alliance Executive Director Dan Keppen. "When funded, this has been a successful program to protect native and endangered fish and other aquatic species."

The bill also includes the "Deschutes River Conservancy Reauthorization Act," which would authorize up to $2 million in funding annually for 10-years for water quality and conservation.

Urban Canal Modernization Act

Senator Jim Risch (R-IDAHO) has introduced the *Urban Canal Modernization Act* to allow Reclamation aging infrastructure funding to help address repairs for urban canals with extraordinary maintenance issues.

Many western canals, like the New York Canal in Idaho's Treasure Valley, have gone from being rural in nature to being surrounded by urban infrastructure over time.

"Many urban canals need repairs that, if left unattended, could pose substantial danger to the communities that have

Continued on Page 8

Western Water Bills (*Continued from Page 7*)

been built around them," said Senator Risch. "The *Urban Canal Modernization Act* is a commonsense fix that establishes access to existing aging infrastructure funds to address these canals' extraordinary maintenance issues. Maintaining these canals will protect our way of life in the West and our property."

The Family Farm Alliance and several of its Idaho members support Senator Risch's legislation.

"The increase in development has resulted in many such canals being designated as urban canals of concern," said Paul Arrington, Executive Director & General Council with the Idaho Water Users Association. "Importantly, the challenges, and associated significant increase in costs for maintenance, were not anticipated when the canals were constructed. Thank you to Senator Risch for working with water users to provide opportunities for resources to help offset these significant costs."

Great Salt Lake Water Stewardship Act

Senator Mike Lee (R-UTAH) and Rep. John Curtis (R-UTAH) recently introduced S. 1955/H.R. 4094, the "Great Salt Lake Water Stewardship Act" in their respective chambers. Those bills would expand water conservation programs and allocate unexpended budget authority currently funded under the Central Utah Project Completion Act (CUPCA) to the entire Great Salt Lake drainage basin to bolster water levels in the Great Salt Lake which, until this year's exceptional winter, were receding at an alarming rate.

Open Access Evapotranspiration Data Act

Senator Catherine Cortez Masto (D-NEVADA) and Senator John Hickenlooper (D-COLORADO) earlier this year reintroduced *The Open Access Evapotranspiration (OpenET) Act*, legislation intended to get critical water use data in the hands of farmers, ranchers, and decision-makers for improved water management across the Western U.S. The bill would establish a program to use publicly available data from satellites and weather stations to provide estimates of evapotranspiration (ET), a measure of actual water use.

"We share the concerns expressed by other agricultural producers in the West regarding this OpenET bill, which would inject major federal funding into the OpenET program," said Mr. Keppen. "We have proposed alternative language that would scale down the scope, remove the linkage to federal conservation program compliance programs, and address privacy and data quality concerns raised by farm groups through the use of pilot projects. We stand ready to work with the bill sponsors to ensure these bills do not have unintended consequences for Western agriculture and water management."

Voluntary Agricultural Land Repurposing Act

Senator Alex Padilla (D-CALIFORNIA) has introduced the *Voluntary Agricultural Land Repurposing Act*, legislation that is intended to build drought resiliency and reduce water use by providing federal funding to states and tribes that work to voluntarily "repurpose" certain agricultural lands.

"Agriculture is essential to California's economy and allows us to put food on the table for families across the country, but the climate crisis and historic droughts require us to adapt to long-term water scarcity," said Senator Padilla. "My *Voluntary Agricultural Land Repurposing Act* will provide another tool for communities to support the collaborative planning and voluntary actions already underway to reduce water use in the West."

In California, it is estimated that at least 750,000 to 1 million acres of farmland will need to come out of development due to water scarcity. If this land transition is not proactively managed, it could result in increased dust, pests and weeds, and widespread economic impacts. In response, the California State Legislature established the Multibenefit Land Repurposing Program to help regions "repurpose" agricultural land while providing community health, economic well-being, water supply, habitat, renewable energy, and climate benefits.

Specifically, the bill would modify Reclamation's emergency drought authority and its WaterSMART program to authorize funding for states and tribes to run voluntary and multibenefit land repurposing programs.

Given the current backdrop of recent severe drought conditions in the Western U.S., significantly inflated food costs, global food supply challenges, and a looming global famine, the Alliance believes taking additional Western American agricultural land out of production must be carefully and thoughtfully evaluated. The Alliance worked constructively with Senator Padilla's office to raise this issue as draft legislation was being contemplated in the last Congress.

"We'll continue to advocate for a more narrowly focused, pilot approach, administered by USDA or funded through a state-run program, and intended to be implemented in a voluntary manner, as a last resort," said Mr. Keppen. "We look forward to working further with Senator Padilla's office to address our concerns."

The Alliance in the weeks leading up to the hearing will be working with its members and allies to ensure that these and other concerns of Western irrigators are heard as these bills are debated.

"As always, we intend to be proactive and constructive in conveying our concerns and will work to find a place at the decision-making table" said Mr. Keppen.

Federal Agencies Roll Out Proposed ESA Rule Revisions

More Rulemaking Coming, Including on WOTUS

The U.S. Fish and Wildlife Service ("FWS") and National Marine Fisheries Service ("NMFS") (collectively, "the Services") last month published three proposed rules related to implementation of the Endangered Species Act ("ESA"). The Biden Administration will proceed on other rulemaking efforts important to Western water users in the year ahead.

"The Endangered Species Act is the nation's foremost conservation law that prevents the extinction of species and supports their recovery," said FWS Director Martha Williams. "These proposed revisions reaffirm our commitment to conserving America's wildlife and ensuring the Endangered Species Act works for both species and people."

The proposed revisions are made in response to President Biden's Executive Order 13990, which directed the Services to review and revise certain agency actions taken between January 2017 and January 2021.

The three proposed rules would:

- Revise regulations regarding interagency consultation, including broadening the scope of the Services' conditioning authority;
- Reinstate a blanket protection for threatened species managed by FWS; and
- Clarify any misconceptions created by the Trump administration when it removed language in 2019 referencing economic impacts within the context of the classification process. This rule would also change the Services' critical habitat designation rule regarding not-prudent determinations and unoccupied areas.

The Biden Administration agreed to rewrite the three ESA rules in response to a lawsuit filed by Earthjustice on behalf of the Center for Biological Diversity, Defenders of Wildlife, the Sierra Club, the Natural Resources Defense Council, and other litigious environmental organizations.

Reaction to Proposal

"These are promising steps toward restoring the purpose and power of the Endangered Species Act, and getting these protections back is why we challenged the harmful Trump rules for the past four years," said Earthjustice attorney Kristen Boyles. "By mending the rules interpreting the ESA, the Biden administration can significantly help us address the worsening biodiversity crisis and celebrate the 50th anniversary of the Act."

Republican critics in Congress believe the Biden Administration's proposed action is a step backward.

"The Endangered Species Act has long been weaponized by special interest groups to halt projects and economic development in rural communities, even as it fails to achieve the very goal it was put in place to achieve: recovering species," said Rep. Dan Newhouse (R-WASHINGTON) on the day after the proposed rules were rolled out. "Yesterday's move by the Biden Administration erases any progress we've been able to achieve in modernizing this statute and rolls it back to a former, more archaic version."

Implications for Western Water Users

Implementation of the ESA certainly impacts the management of land and water throughout the West. For example, federal water supplies that were originally developed by the Bureau of Reclamation primarily to support new irrigation projects have, in recent years, been redirected to ESA uses.

"The result is that these once-certain water supplies – one of the few certainties in Western irrigated agriculture – have now been added to the long list of existing uncertainties," said Alliance Executive Director Dan Keppen.

Given the nature of water storage and delivery, Alliance members are often directly impacted by the implementation of the ESA and other federal laws.

"A constant frustration our members experience is the lack of accountability for success or failure for the implementation of these federal laws," said Mr. Keppen. "The ESA has at times been interpreted to empower federal agencies to take action intended to protect listed species without consideration of the societal costs of such action, even when it is not clear that the action taken will actually yield conservation benefits for the particular species."

The Alliance has consistently and strongly supported efforts to reform the ESA and its implementing regulations – like the effort initiated by the Trump Administration - to provide clearer direction to the agencies in applying and enforcing the law. The Alliance in November 2021 developed a detailed comment letter to the Services that reaffirmed the support the organization placed behind the substance and process used to finalize the 2020 ESA rules that were rescinded by the current administration.

"It looks like we'll go back to the drawing board again, and reiterate those concerns to the agencies once more," said Mr. Keppen.

Comments on the proposed rules are due August 21, 2023.

More Federal Rulemaking on the Horizon

The Biden Administration on June 13 -about two months late - released their spring Unified Agenda, which describes upcoming rule making across the federal government, including at the Environmental Protection Agency (EPA), the Interior and Energy Departments. The Unified Agenda shows a number of major rulemakings planned to be finalized in the spring of 2024, an election year.

"The Administration knows that any rules finalized late in the year will be within the timeframe for Congressional Review Act, or CRA resolutions," said Mark Limbaugh with The Ferguson Group, the Alliance's representative in Washington. "That could undo many rules if Republicans win the White House and gain control of Congress in the election."

Several climate-related rulemakings have been moved up on the schedule and the White House Council on Environmental Quality plans to release their Phase 2 National Environmental Policy Act reforms soon, with final climate guidance under NEPA due in February.

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Biden Administration Rulemaking (*Cont'd from Page 9*)

WOTUS Rulemaking to Resume After *Sackett* Decision

The EPA had been planning a follow-up rulemaking to further refine the definition of "waters of the U.S." (WOTUS) under the Clean Water Act (CWA), but that has now been "withdrawn" from the Unified Agenda, since the Supreme Court's recent *Sackett* decision is at odds with the Biden WOTUS rule.

In *Sackett*, the court ruled unanimously against the use of the "significant nexus" test for waters under the jurisdiction under the CWA. The Biden WOTUS rule incorporates the "significant nexus" test which is no longer valid.

"This could mean the Administration will need to rewrite their WOTUS rule to straighten out what the *Sackett* decision means while the country is now reliant on the 1986 CWA regulations and guidance," said Mr. Limbaugh.

Michael Connor, assistant secretary of the Army for civil works, told a Congressional committee last month that efforts are underway to amend the WOTUS rule.

"I was disappointed with the recent decision by the Supreme Court," said Mr. Connor. "We are nonetheless working closely with EPA to develop a new rule to amend the waters of the United States definition."

One week after the hearing, EPA and the Army Corps of Engineers announced plans to issue a final WOTUS rule by September and that work is underway already to that end.

Meanwhile, the Army Corps has already paused processing approved jurisdictional determinations in the wake of the decision.

That pause is likely to remain in place while the agencies work on guidance in implementing the CWA under *Sackett*.

***Michael Connor, Assistant Secretary of the Army for Civil Works.* Photo source: Department of Defense.**

Snake River Dams (*Continued from Page 4*)

Government witnesses also assessed how the four dams impact salmon populations and underscored the importance of Lower Snake dams to the region.

Jennifer Quan, the West Coast Regional Administrator for the National Marine Fisheries Service at the hearing acknowledged that the latest ESA biological opinion issued by her agency assessed and concluded that the operations and maintenance of the Columbia River Systems' 14 dams was not likely to jeopardize the continued existence of listed salmon and steelhead or result in the destruction or adverse modification of their critical habitat.

NOAA officials last spring also acknowledged that the vast majority of salmon are getting up, over, around and through the four lower Snake River dams. For every 100 young chinook and steelhead that head downstream and past the four dams every spring, about 75 survive.

"That's pretty good," Ritchie Graves, Columbia Hydropower Branch chief for NOAA, told *Capital Press* in May. "In a lot of river systems, that would be something they would shoot for."

Last year, Bonneville Power Administration (BPA) commissioned an independent economic study of the cost to the region for replacing the energy and reliability services of the 4 Lower Snake River Dams.

"The study found that replacing these dams while meeting clean energy goals and maintaining system reliability is possible but doing so comes at a substantial cost to the region," said John Hairston, BPA's Administrator and CEO.

***Wall Street Journal* Underscores Importance of Dams**

The Western Republicans' hydropower forums took place just days after the *Wall Street Journal* published an editorial explaining how removal of the four lower Snake River dams would make electricity far costlier and harm local residents, with the salmon seeing little benefit. The *Journal* quoted President Biden, who said the lower dams needed to be breached to protect "the livelihoods of people who depend on them, like the family farms, outdoor recreation businesses and rural communities."

"Those are precisely the people who will suffer the most if the dams are removed," the *Journal* opinion countered. "The loss of reliable hydropower would cause blackouts, and the addition of new trucking and train infrastructure would cause pollution in the communities of southeastern Washington."

The Biden administration says it has not taken a position on whether it will recommend that Congress authorize breaching the four lower Snake River dams.

"We are committed to working together to bring healthy and abundant salmon runs back to the Columbia River System and honoring federal commitments to tribal nations while supporting local and regional economies — including critically important agricultural production and transportation," Alyssa Roberts, communications director at CEQ, told the *Capital Press*.

Following Debt Ceiling Deal, Congress Shifts Attention to Farm Bill

The House and Senate are in a two-week recess for the July 4th holiday. The chambers will return on July 10 and 11, respectively. Negotiations surrounding the debt ceiling legislation in May delayed much of the progress on other priorities. With that now behind Congress, lawmakers will turn their attention to other matters, including the 2023 Farm Bill.

All signs point to a short-term extension for several Farm Bill-related provisions from the 2018 Farm Bill covering numerous food and nutrition policies and programs. Like government funding, the Farm Bill expires on September 30, 2023, creating a critical time crunch for lawmakers, who have yet to release draft text of the legislation.

House Agriculture Committee Chair GT Thompson (R-Penn.) aims for an early September markup of the lower chamber's bill. The move would leave just a few weeks for the Senate to pass and both chambers to conference the bill.

"It would not surprise me" if Congress passed a short-term extension providing extra time to work on the bill, Chairwoman of the Senate Agriculture Committee, Senator Debbie Stabenow (D-Mich.) remarked.

The Senate and House are on a collision course over the topic of SNAP (food stamp assistance), as reported recently by *Politico Morning Ag.*

Senate Agriculture Chair Debbie Stabenow (D-Mich.) told *Politico*, that, from her perspective, Congress is "done" with any discussion around SNAP changes, since the debt limit agreement included some work requirement changes requested by Republicans.

"What's clear to me is once this is done we are not revisiting it in the farm bill. " Senator Stabenow said in an interview.

But Speaker Kevin McCarthy, in his speech last month celebrating the House's passage of the debt bill, appeared to gear up House Republicans for a farm bill battle over SNAP work requirements.

"Let's get the rest of the work requirements," Speaker McCarthy said.

The House Appropriations Committee approved an annual spending bill last month that would slash funding for climate change and rural energy programs at the Department of Agriculture next year, in the face of strong opposition from minority Democrats (*see related story, below*).

The Family Farm Alliance has been working with its allies in the Western Agriculture and Conservation Alliance (WACC) and other partners on the 2023 Farm Bill, with emphasis on finding ways to make existing conservation title programs more efficient and properly funded.

House Committee Approves FY 2024 Energy-Water Appropriations Bill

The House Appropriations Committee last month followed the GOP playbook setting FY 2024 spending levels below the spending caps agreed to in the debt ceiling deal and approved their version of the FY 2024 spending legislation last week, with deep cuts to Biden Administration priority renewable energy and climate-related spending.

The bill funds the Department of Energy, Army Corps of Engineers (Corps) and Bureau of Reclamation and passed by a 34-24 vote.

"Funding for the Bureau of Reclamation totals $1.8 billion and prioritizes projects that increase water supply and support drought response," said Energy and Water Development and Related Agencies Subcommittee Chairman Chuck Fleischmann (R-TN).

The Corps would receive more than $9.5 billion in the proposal, significantly more than the $7.4 billion proposed by the Biden Administration in their budget request, and $900 million more than FY 2023 levels. But Reclamation would see current FY 2023 spending levels slashed by $91 million, even though the bill calls for FY 2024 spending levels for Reclamation to be $392.4 million more than the Biden budget request.

During the markup, Committee Republicans rejected amendments offered by the Democrats that would have funded Inflation Reduction Act (IRA) climate initiatives, diversity initiatives, or advanced critical race theory.

Republicans say the spending bill would reduce appropriations for programs that are unnecessary and wasteful and would reprioritize spending that help with the overall economy and our Nation's security.

While the bill contains targeted cuts to clean energy, climate, and diversity efforts at the Department of Energy, it also offsets proposed spending increases by clawing back $6 billion in spending approved in last year's IRA and the 2021 bipartisan Infrastructure Investment and Jobs Act (IIJA).

The bill also includes some controversial policy and legislative riders, including Rep. Valadao's (R-CA) H.R. 215, the *WATER for California Act* and Rep. McClintock's (R-CA) H.R. 186, the *Water Supply Permitting Coordination Act* in their entirety.

Among other things, the bill would kill the Biden Administration's "waters of the U.S." final rule, which has already been significantly weakened by the recent Supreme Court decision in *Sackett v. EPA (see related story, Page 10).*

"The Senate Appropriations Committee is planning to markup their version of the bill in the coming weeks, which will likely turn out to be much different than the House counterpart," said Mark Limbaugh with The Ferguson Group, the Alliance's representative in Washington.

The Senate Appropriations Committee held two markups last month, including the Agriculture and the Military Construction-Veterans Affairs bill.

"Senators are skipping subcommittee markups to expedite the process, as they hope to send all 12 spending bills to the floor before August recess," said Mr. Limbaugh.

The debt ceiling deal enacted last month included a provision that would reduce FY 2024 spending by 1% across the board if the 12 bills were not enacted by January 1, 2024, incentivizing Congress to move FY 2024 spending bills in 2023.

A Big Thank You to Our New and Supporting Members!

MAY-JUNE 2023

ADVOCATE ($5,000 - $9,999)

Central California Irrigation District
Minidoka Irrigation District (ID)
Roza Irrigation District (WA)
San Luis Water District (CA)

DEFENDER ($1000-$4999)

A & B Irrigation District (ID) Bair Farms, LLC (OR)
Buckeye Water & Conservation District (AZ) Central Arizona Irrigation & Drainage District
Central Oregon Irrigation District Coleman Farming Co. LLC (CA)
Del Puerto Water District (CA) Electrical District #8 (AZ)
Elephant Butte Irrigation District (NM) Farwell Irrigation District (NE)
Fresno Irrigation District (CA) Garrison Diversion Conservancy District (ND)
Glenn-Colusa Irrigation District (CA) Klamath Basin Improvement District (OR)
Nampa & Meridian Irrigation District (ID) Nebraska State Irrigation Association (NE)
North Platte Valley Irrigators Association (NE) Roosevelt Irrigation District (AZ)
Solano Irrigation District (CA) Tehama-Colusa Canal Authority (CA)
West Extension Irrigation District (OR)

PARTNER ($500-$999)

A Tumbling T Ranches (AZ) Bransford Farms (CA) Camelback 240 Ltd. Partnership (AZ)
Columbia Canal Company (CA) Farmers Conservation Alliance (OR) H-Four Farms (AZ)
Linneman Ranches, Inc. (CA) Little Snake River Conservation District (WY)
MBK Engineers (CA) New Magma Irrigation & Drainage District (AZ)
North Side Canal Company (ID) North Unit Irrigation District (OR)
Owyhee Irrigation District (OR) Pine River Irrigation District (CO)
Provident Irrigation District (CA) Sargent Irrigation District (NE)
Somach, Simmons & Dunn (CA) Truckee-Carson Irrigation District (NV)
Tualatin Valley Irrigation District (OR) United Water Conservation District (CA)

SUPPORTER ($250—$499)

BE Giovanetti & Sons (CA) Colorado River Energy Distributors Association (AZ)
Doc's Organics (OR) Don Schwindt (CO) Duyck Ranches (WY)
Farmers Irrigation District (NE) Flying R Farms (AZ)
Kirwin-Webster Irrigation District (KS) Mancos Water Conservancy District (CO)
Mark Booker (WA) Montpelier Farming Corp (CA)
Orton Management Association (NE) Paul R. Orme (AZ)
Princeton-Cordora-Glenn Irrigation District (CA) Thomason Tractor Company (CA)
Tom Schwartz (NE)

CORRESPONDENCE LIST
JULY 2023

1. June 15, 2023 – Letter from Santa Barbara County Fire Department regarding Fire Service Requirements for APN 135-102-010

2. June 16, 2023 – Notice and Agenda received from the Santa Ynez Community Services District for the June 21, 2023 Regular Board Meeting

3. June 16, 2023 – Notice and Agenda received from the Eastern Management Area Groundwater Sustainability Agency June 22, 2023 Regular Meeting

4. June 20, 2023 – Letter from Santa Barbara County Fire Department regarding Fire Service Requirements for APN 137-070-024

5. June 21, 2023 – Santa Barbara County Board of Supervisors Agenda Letter regarding Local Ballot Measure Supports/Opponents Printing

6. June 21, 2023 – Notice and Agenda received from Cachuma Operation & Maintenance Board for the June 26, 2023 Regular Board Meeting

7. June 22, 2023 – Letter from District regarding Water Service Requirements for APN 141-360-055

8. June 23, 2023 – Letter from District regarding Water Service Requirements for APN 137-081-047

9. June 26, 2023 – Letter from District regarding Easement Clearance for APN 141-330-041

10. June 29, 2023 – Letter from Santa Barbara County Fire Department regarding Fire Service Requirements for APN 137-390-010

11. June 29, 2023 – Letter from District to five customers regarding past due balances

12. June 29, 2023 – Letter from District regarding private fire protection service for 890 Refugio Road

13. July 3, 2023 – Notice of July 15, 2023 Open House received from the Santa Ynez Community Services District regarding Proposed Sewer Line Expansion, Voting Divisions and Questions

14. July 5, 2023 – Agenda and Notice received from the Los Olivos Community Services District for the July 7, 2023 Finance Committee Meeting

15. July 5, 2023 – Letter from District to Santa Barbara County Auditor submittal of Resolution No. 834 Adopting the District Budget for 2023-2024 and Requesting Assessment Levy of $875,000

16. July 6, 2023 - Letter from District to four customers regarding past due balances

17. July 10, 2023 - Letter from Santa Barbara County Fire Department regarding Fire Service Requirements for APN 135-250-045

18. July 8, 2023 - Agenda and Notice received from the Los Olivos Community Services District for the July 12, 2023 Regular Committee Meeting

19. July 11, 2023 - the District electronically submitted the State of California Employment Development Department Quarterly Contribution Return and Report of Wages

20. July 11, 2023 - the District electronically submitted Quarterly Worker's Compensation data to ACWA/JPIA

21. July 12, 2023 - the District mailed the Federal Form 941 - Employer's Quarterly Federal Tax Return