Appendix 1 – Public Notices

September 9, 2021

Mr. Tennis Wick
Director
Sonoma County Permit and Resource Management Department
550 Ventura Avenue
Santa Rosa, CA 95403

Re: Notice of Review and Preparation of 20205 Urban Water Management Plan

Dear Mr. Wick,

Each urban water supplier serving more than 3,000 connections is required by the State of California to prepare an Urban Water Management Plan (UWMP) every five years. Due to the COVID-19 pandemic and staffing shortages, the City of Rohnert Park has been delayed in preparing its 2020 UWMP and is now providing notice that it is in the process of preparing its 2020 UWMP.

The 2020 UWMP will provide information relating to water demand, water supply, and water supply reliability for the next 25 years and will incorporate growth projections consistent with our current General Plan Update effort.

If Sonoma County would like to provide input on the preparation of the City's 20202 UWMP, please feel free to contact me at (707) 588-2234 or via email at marygracepawson@rpcity.org.

Sincerely,

Mary Grace Pawson
Director of Development Services/City Engineer

Distribution List:
Sonoma County Water Agency, Attn: Grant Davis
Santa Rosa Water, Attn: Jennifer Burke
California Department of Water Resources, Attn: Zaida Darley
City of Rohnert Park, Attn: Vanessa Garrett, Nick Bennett

October 26, 2021

Mr. Tennis Wick, Director
Sonoma County Permit and Resource Management Department
550 Ventura Avenue
Santa Rosa, CA 95403

Re: Notice of Availability and Public Hearing - 2020 Urban Water Management Plan

Dear Mr. Wick,

Each urban water supplier serving more than 3,000 connections is required by the State of California to prepare an Urban Water Management Plan (UWMP) every five years. Due to the COVID-19 pandemic and staffing shortages, the City of Rohnert Park has been delayed in preparing its 2020 UWMP. However, we are pleased to provide you with this Notice of Availability. Our Public Hearing is scheduled for November 9, 2021 and the official notice is attached.

The 2020 UWMP provides information relating to water demand, water supply, and water supply reliability for the next 25 years and incorporates growth projections consistent with our current General Plan Update effort.

If Sonoma County would like to provide input on the preparation of the City's 2020 UWMP, please feel free to contact me at (707) 588-2234 or via email at mpawson@rpcity.org.

Sincerely,

Mary Grace Pawson
Director of Development Services/City Engineer

Attachment: Public Hearing Notice

Distribution List:
Sonoma County Water Agency, Attn: Grant Davis
Santa Rosa Water, Attn: Jennifer Burke
California Department of Water Resources, Attn: Zaida Darley
City of Rohnert Park, Attn: Vanessa Garrett, Nick Bennett

ROHNERT PARK CITY COUNCIL
WATER/WASTEWATER COMMITTEE

MEETING AGENDA

Monday, October 25, 2021
4:00 PM

MEETING LOCATION: City Hall Conference Room 2A
130 Avram Avenue, Rohnert Park, CA

PUBLIC COMMENTS**:** For public comment on items listed or not listed on the agenda, or on agenda items if unable to speak at the scheduled time.

If you wish to speak regarding a scheduled agenda item, you may do so upon recognition from the Chairperson. After receiving recognition from the Chairperson, please walk to the rostrum located in the front and center of the room and state your name and address for the record before making your presentation.

ANNOUNCEMENT: Please turn off all pagers, cellular telephones and all other communication devices upon entering the meeting room. Thank you for your cooperation.

1. **Call to Order**

   Committee Members: Jackie Elward, Vice Mayor
   Susan Adams, Councilmember

   Staff: Darrin Jenkins, City Manager
   Mary Grace Pawson, Director of Development Services
   Vanessa Garrett, Director of Public Works
   Nishil Bali, Finance Director

2. **Public Comments**
   Persons wishing to address the Committee on any item or on City business not listed on the Agenda may do so at this time upon recognition from the Chairperson.
3. **Proposed Water Rate Changes**
4. **Draft Urban Water Management Plan**
5. **Other Water/Wastewater Updates**
6. **Adjournment**

DISABLED ACCOMMODATIONS: If you have a disability which requires an interpreter or other person to assist you while attending this meeting, please contact the City Offices at (707) 588-2223 at least 72 hours prior to the meeting to insure arrangements for accommodation by the City. Please make sure City Administration staff is notified as soon as possible if you have a visual impairment that requires the meeting materials be produced in another format (Braille, audio-tape, etc.).

CERTIFICATION OF POSTING OF AGENDA
I, Marie Andrews, Administrative Assistant, declare that the foregoing agenda for the October 25, 2021 meeting of the Water/Waste Water Committee was posted and available for review on October 21, 2021 at Rohnert Park City Hall, Community Center, Public Safety Main Building, and the Public Library. The agenda is also available on the City web site at **www.rpcity.org**.

Executed this 21st day of October, 2021, at Rohnert Park, California.

_____
Marie Andrews, Administrative Assistant

Mission Statement:
We Care for Our Residents by Working Together to Build a Better Community for Today and Tomorrow.

City of Rohnert Park
www.rpcity.org

CITY OF ROHNERT PARK
PLANNING COMMISSION MEETING

Tuesday, November 2, 2021, 6:00 p.m.

*** COVID-19 NOTICE ***

Public Participation:

By Order of the Health Officer of the County of Sonoma C19-25 all individuals are required to wear face coverings, with limited exemptions. To maximize public safety while still maintaining transparency and public access, members of the public can observe the meeting on Cable Channel 26 or by visiting meeting central on our website https://www.rpcity.org/city_hall/city_council/meeting_central

Public Comment:

Please fill out a speaker card prior to speaking. Members of the public may also provide advanced comments by email at planning@rpcity.org Comments are requested by 3:00 p.m. on the day of the meeting to be considered by the Commission. Emailed comments must identify the Agenda Item Number, unless the item is not on the agenda, in the subject line of the email.

Right to Appeal: Appeals of decisions of the Planning Commission shall be initiated within ten calendar days from the date of the decision, as provided for in Section 17.25.120 et seq. of the Rohnert Park Municipal Code. Unless appealed, final decisions are effective on the eleventh calendar day.

1. CALL TO ORDER

Agenda

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL (Austin-Dillon_____ Blanquie____ Lam____ Orloff____ Striplen____)

4. PUBLIC COMMENT – Persons who wish to speak to the Commission regarding an item that is not on the agenda may do so at this time. Please see above for details on how to submit public comments.

5. CONSENT CALENDAR - ADOPTION OF MINUTES

5.1 Approval of the Draft Minutes of the Planning Commission Meeting of October 14, 2021

Minutes

6. AGENDA ITEMS

6.1 GENERAL PLAN CONSISTENCY FINDING – PLCI21-0001 – The City of Rohnert Park - Consideration of Resolution 2021-20 Finding the FY 2020-21 Two-Year Capital Improvements Program is consistent with the Rohnert Park General Plan 2020

Item 6.1

6.2 INFORMATIONAL PRESENTATION - 2020 Urban Water Management Plan

cquestion by striplen

Item 6.2

6.3 STUDY SESSION – The City of Rohnert Park - General Plan Update – Racial, Social and Environmental Justice Element

Item 6.3

7. ITEMS FROM THE PLANNING COMMISSION

8. ITEMS FROM THE DEVELOPMENT SERVICES STAFF

9. ADJOURNMENT

NOTE: Time shown for any particular matter on the agenda is an estimate only. Matters may be considered earlier or later than the time indicated depending on the pace at which the meeting proceeds. Any item raised by a member of the public which is not on the agenda and may require Commission action shall be automatically referred to staff for investigation and disposition which may include placing on a future agenda. If the item is deemed to be an emergency or the need to take action arose after posting of the agenda

within the meaning of Government Code Section 54954.2(b), the Planning Commission is entitled to discuss the matter to determine if it is an emergency item under said Government Code and may take action thereon.

PUBLIC HEARING: Planning Commissioners may discuss and/or take action on any or all of the items listed on this agenda. If you challenge decisions of the Planning Commission of the City of Rohnert Park in court, you may be limited to raising only those issues you or someone else raised at public hearing(s) described in this agenda, or in written correspondence delivered to the City of Rohnert Park at, or prior to the public hearing(s).

AMERICAN WITH DISABILITIES ACT: Any member of the public who needs accommodations should email the ADA Coordinator at vperrault@rpcity.org or by calling 707-588-2221. The ADA Coordinator will use their best efforts to provide reasonable accommodations to provide as much accessibility as possible while also maintaining public safety in accordance with the City procedure for resolving reasonable accommodation requests. Information about reasonable accommodations is available on the City website at https://www.rpcity.org/city_hall/departments/human_resources/a_d_a_and_accessibility_resources.

AGENDA REPORTS & DOCUMENTS: Electronic copies of all staff reports and documents subject to disclosure that relate to each item of business referred to on the agenda are available for public inspection on https://www.rpcity.org/city_hall/city_council/meeting_central. Any writings or documents subject to disclosure that are provided to all, or a majority of all, of the members of the Planning Commission regarding any item on this agenda after the agenda has been distributed will also be made available for inspection on our website following the meeting.

NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that the City Council of the City of Rohnert Park will be holding a PUBLIC HEARING.

WHERE: Rohnert Park City Hall – Council Chamber
130 Avram Avenue
Rohnert Park, California

WHEN: Tuesday, November 9, 2021 at the hour of 5:00 p.m. or as soon thereafter as the matter is reached on the agenda.

PURPOSE: To solicit input regarding the City's 2020 Urban Water Management Plan

The Rohnert Park City Council will hold a public hearing on November 9, 2021 at 5:00 pm to receive comments on the City's 2020 Urban Water Management Plan, including an update to the City's Water Shortage Contingency Plan. The purpose of these plans is to consolidate information regarding the City's water demands and water supplies and improve local, regional and statewide water planning. The Plans are available for public review during normal business hours at:

City of Rohnert Park Development Services Department
130 Avram Avenue, 2nd Floor, Rohnert Park, CA

Rohnert Park –Cotati Regional Library
6250 Lynne Conde Way, Rohnert Park, CA

City of Rohnert Park City Web Page
http:/www.rpcity.org

All persons interested in this matter should appear at the November 9, 2021 City Council meeting. Written statements may be submitted to the City Clerk in advance for presentation to the Council as part of the public hearing. Questions regarding this matter should be directed to Mary Grace Pawson, Director of Development Services/City Engineer (707) 588-2234.

NOTE: If you challenge this matter in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City of Rohnert Park at, or prior to, the public hearing.

Dated: October 20, 2021 Elizabeth Machado, Acting City Clerk

Published: October 22 and 29 and November 5

CERTIFICATION OF PUBLICATION IN
"The Community VOICE"
(Published every Friday)
in the
SUPERIOR COURT
of the
STATE OF CALIFORNIA
In and For the County of Sonoma
COUNTY OF SONOMA

City of Rohnert Park
Notice of Public Hearing

STATE OF CALIFORNIA, The undersigned does hereby certify and declare: That at all times hereinafter sworn, deposes and says: That at all times hereinafter mentioned she was a citizen of the United States, over the age of eighteen years and a resident of said county and was at all said times the principal clerk of the printer and publisher of The Community VOICE, a newspaper of general circulation, published in the City of Rohnert Park, in said County of Sonoma, State of California; that The Community VOICE is and was at all times herein mentioned, a newspaper of general circulation as that term is defined by Section 6000 of the Government Code; its status as such newspaper of general circulation having been established by Court Decree No. 35815 of the Superior Court of the State of California, in and for the County of Sonoma, Department No. 1 thereof; and as provided by said Section 6000, is published for the dissemination of local and telegraphic news and intelligence of a general character, having a bona fide subscription list of paying subscribers, and is not devoted to the interest, or published for the entertainment or instruction of a particular class, profession, trade, calling, race or denomination, or for the entertainment and instruction of such classes, professions, trades, callings, races or denominations; that at all said times said newspaper has been established and published in the said City of Rohnert Park, in said County and State at regular intervals for more than one year preceding the first publication of this notice herein mentioned; that said notice was set in type not smaller than non-pareil and was preceded with words printed in black face type no smaller than non-pareil, describing and expressing in general terms, the purport and character of the notice intended to be given; that the "City of Rohnert Park, Notice of Public Hearing" of which the annexed is a printed copy, was published in said newspaper at least 3 consecutive time(s), commencing on the 22 day of October, 2021 and ending on the 5 day of November, 2021.

I HEREBY CERTIFY AND DECLARE UNDER THE PENALTY OF perjury that the foregoing is true and correct.
EXECUTED this 5 Day of November, 2021 at Rohnert Park, California

Signed

Claudia Smith Chief Clerk

NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that the City Council of the City of Rohnert Park will be holding a PUBLIC HEARING.

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NOTE: If you challenge this matter in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City of Rohnert Park at, or prior to, the public hearing.

Dated: October 20, 2021

Elizabeth Machado
Acting City Clerk
City of Rohnert Park

Publish Date: October 22, 29 & November 5, 2021
The Community Voice

November 10, 2021

Mr. Tennis Wick, Director
Sonoma County Permit and Resource Management Department
550 Ventura Avenue
Santa Rosa, CA 95403

Re: Notice of Adoption - 2020 Urban Water Management Plan

Dear Mr. Wick,

We are pleased to let you know that on November 9, 2021 the City Council adopted its 2020 Urban Water Management Plan. The 2020 UWMP provides information relating to water demand, water supply, and water supply reliability for the next 25 years and incorporates growth projections consistent with our current General Plan Update effort.

The Plan is available electronically at https://www.rpcity.org/city_hall/departments/development_services/engineering/water_supply_documentation

Please feel free to contact me at (707) 588-2234 or via email at mpawson@rpcity.org. if your organization has any questions about the 2020 UWMP.

Sincerely,

Mary Grace Pawson
Director of Development Services/City Engineer

Distribution List:
Sonoma County Water Agency, Attn: Grant Davis
Santa Rosa Water, Attn: Jennifer Burke
California Department of Water Resources, Attn: Zaida Darley
City of Rohnert Park, Attn: Vanessa Garrett, Nick Bennett

November 10, 2021

California State Library
Government Publications Section
Attn: Coordinator Urban Water Management Plans
900 N Street
Sacramento CA 95814

Re: City of Rohnert Park - 2020 Urban Water Management Plan

As required by the Urban Water Management Planning Act, the City of Rohnert Park is transmitting a copy of its adopted 2020 Urban Water Management Plan. The City Council adopted the plan on November 9, 2021.

Please feel free to contact me at (707) 588-2234 or via email at mpawson@rpcity.org. if your organization has any questions about the 2020 UWMP.

Sincerely,

Mary Grace Pawson
Director of Development Services/City Engineer

Attachment: City of Rohnert Park 202 Urban Water Management Plan

Appendix 2 – Adoption Resolution

RESOLUTION NO. 2021-131

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ROHNERT PARK ADOPTING THE CITY OF ROHNERT PARK 2020 URBAN WATER MANAGEMENT PLAN AND WATER SHORTAGE CONTINGENCY PLAN AND AUTHORIZING FILING

WHEREAS, the Urban Water Management Planning Act (California Water Code Section 10610 et. seq., hereinafter "Act") requires that every urban water supplier that supplies water for municipal purposes to more than 3,000 customers prepare an Urban Water Management Plan (Plan) every five years, to plan for the efficient management and use of the water supply;

WHEREAS, the Water Conservation Act of 2009 (the "2009 Act") required that the State of California reduce daily per capita water use by twenty percent by the year 2020, and that urban water suppliers establish water use targets in their 2010 Urban Water Management Plans; and

WHEREAS, the Act also requires all urban water suppliers to prepare a Water Shortage Contingency Plan (Shortage Plan) as part of its Urban Water Management Plan; and

WHEREAS, amendments to the Act require that a 2020 Urban Water Management Plan is required to report on compliance with the final 2020 target; and

WHEREAS, the City of Rohnert Park (City) is an urban water supplier within the meaning of the Act and has prepared and adopted Urban Water Management Plans in 2005, 2010 and 2015; and

WHEREAS, the City of Rohnert Park 2020 Urban Water Management Plan was prepared in consultation with Sonoma County Water Agency and other local water agencies, to meet the requirements of the Act, and prepared in accordance with the guidelines published by the California Department of Water Resources; and

WHEREAS, as required by the 2009 Act, the City established a 2015 interim water use target and a 2020 final water use target in its 2010 Urban Water Management Plan, which were both updated in the City's 2015 Urban Water Management Plan; and

WHEREAS, as required by the Act, the City's Shortage Plan has been included as Appendix 10 of the 2020 Urban Management Plan; and

WHEREAS, notice of the public hearing and availability of the Urban Water Management Plan and Shortage Plan for public review has been provided in the manner required by law; and

WHEREAS, the City Council conducted a public hearing on November 9, 2021 in compliance with the Act to receive oral and written comments upon the City of Rohnert Park 2020 Urban Water Management Plan, including compliance with the community water use targets, and the Water Shortage Contingency Plan; and

WHEREAS, the City Council has reviewed the City of Rohnert Park 2020 Urban Water Management Plan and the Water Shortage Contingency Plan, City staff reports and presentations and the oral and written comments received; and

WHEREAS, in accordance with Section 10652 of the Water Code, the preparation and adoption of Urban Water Management and Water Shortage Contingency Plans are statutorily exempt from the California Environmental Quality Act.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Rohnert Park that it does hereby find, determine and declare as follows:

1. All of the above recitals are true and correct and material to the adoption of this Resolution.
2. The City's documented 2020 per capita water use of 96 gallons per capita per day exceeds the City's adopted target of 123 gallons per capita per day.
3. The City of Rohnert Park 2020 Urban Water Management Plan, which is attached hereto and incorporated by this reference, is adopted.
4. The City of Rohnert Park Water Shortage Contingency Plan, which is attached as Appendix 10 to the 2020 Urban Water Management and incorporated by this reference, is adopted.

BE IT FURTHER RESOLVED that the City Manager or designee is hereby authorized and directed to make the appropriate filings with the California Department of Water Resources and other agencies as required by Water Code section 10644 and to take all actions reasonably necessary to effectuate the purposes of this Resolution.

DULY AND REGULARLY ADOPTED this 9th day of November, 2021.

CITY OF ROHNERT PARK

Gerard Guidice, Mayor

ATTEST:

Elizabeth Machado, Acting City Clerk

ADAMS: Absent **LINARES:** Aye **STAFFORD:** Aye **ELWARD:** Aye **GIUDICE:** Aye
AYES: (4) **NOES:** (∅) **ABSENT:** (1) **ABSTAIN:** (∅)

Attachment: City of Rohnert Park 2020 Urban Water Management Plan and Water Shortage Contingency Plan (Appendix 10 to the Urban Water Management Plan)

Appendix 3 – 2020 Water Demand Analysis and Water Conservation Update

2020 Water Demand Analysis and Water Conservation Measure Update

City of Rohnert Park

December 2020
(EKI C00004.00)

Prepared by:
EKI Environment & Water, Inc.
2001 Junipero Serra Boulevard, Suite 300
Daly City, California 94014
(650) 292-9100

2020 Water Demand Analysis and
Water Conservation Measure Update
City of Rohnert Park

Table of Contents

2020 Water Demand Analysis and
Water Conservation Measure Update
City of Rohnert Park

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TABLES

FIGURES

APPENDICES

ABBREVIATIONS AND ACRONYMS

AB	Assembly Bill
ABAG	Association of Bay Area Governments
AFY	acre-feet per year
AMI	advanced metering infrastructure
AWE	Alliance for Water Efficiency
CA	California
CEQA	California Environmental Quality Act
CII	commercial, industrial, and institutional
CWC	California Water Code
DMM	demand management measure
DOF	Department of Finance
DRA	drought risk assessment
DWR	Department of Water Resources
FY	fiscal year
GPCD	gallons per capita per day
GPD	gallons per day
gpf	gallons per flush
HECW	high efficiency clothes washer
HET	high efficiency toilet
MFR	multi-family residential
QWEL	Qualified Water Efficient Landscaper
R-GPCD	residential gallons per capita per day
SB	Senate Bill
SFR	single family residential
SMSWP	Sonoma-Marin Saving Water Partnership
Sonoma Water	Sonoma County Water Agency
sq ft	square feet
SWRCB	State Water Resources Control Board
UHET	ultra high-efficiency toilet
UWMP	Urban Water Management Plan
WSA	Water Supply Assessment
WSCP	Water Shortage Contingency Plan

1. INTRODUCTION

In preparation for development of their 2020 Urban Water Management Plan (UWMP) updates, nine members of the Sonoma-Marin Saving Water Partnership (SMSWP or Water Contractors) coordinated to conduct a joint update of their water demand projections and water conservation planning efforts (i.e., the *2020 Water Demand and Conservation Project*). The participating SMSWP members include: City of Cotati, City of Petaluma, City of Rohnert Park, City of Santa Rosa, City of Sonoma, Marin Municipal Water District, North Marin Water District, Town of Windsor, and Valley of the Moon Water District. These nine agencies are shown on **Figure 1-1**.

The goals of the *2020 Water Demand and Conservation Project* were to apply a common methodology to conduct the following analysis for each Water Contractor:

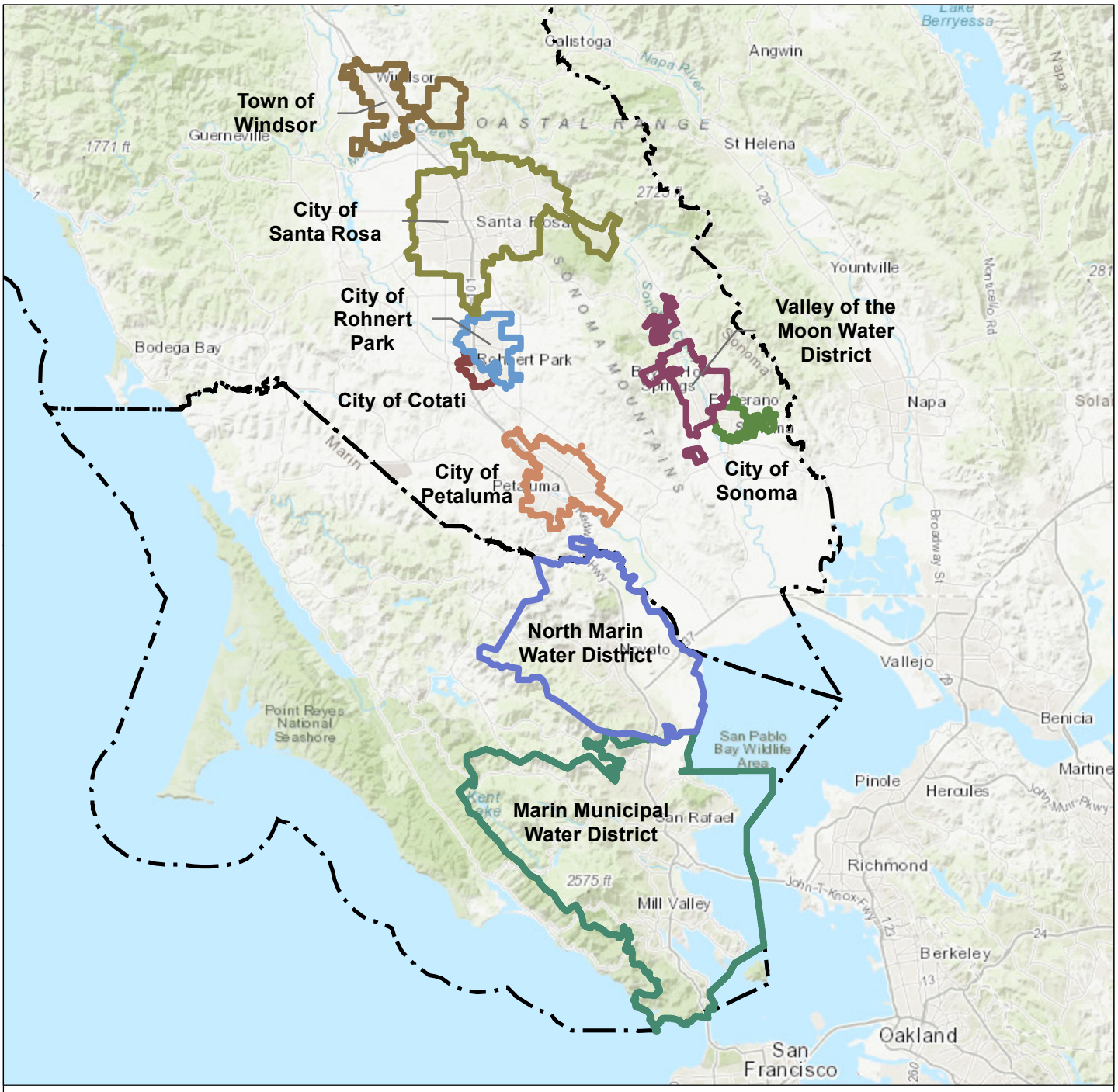
- Evaluate and document recent historical water use characteristics and trends, including population and account growth;
- Estimate projected water demands for the years 2025 through 2045 to support both the 2020 UWMP update and coordination and planning efforts with Sonoma County Water Agency (Sonoma Water);
- Update the suite of common regional conservation measures that are being considered for implementation in the future;
- Review and document past participation in water conservation programs; and
- Estimate the potential water savings associated with future water conservation program implementation.

This 2020 Water Demand and Conservation report presents the results for the City of Rohnert Park (City), which is located in Sonoma County and served a population of approximately 43,134 people in 2019 (**Figure 1-2**). The City's water supplies include surface water purchased from Sonoma Water, local groundwater supply pumped from the Santa Rosa Plain Subbasin, and recycled water produced by the Santa Rosa Subregional System (Rohnert Park, 2016). Recycled water in the City is used primarily for irrigation purposes. Over the years, the City has worked to increase water efficiency (conservation) among itself and its customers in response to both the SB X7-7 UWMP requirements and as part of the regional SMSWP. This conservation has been achieved through the implementation of water conservation programs, including some administered by the City and some administered through the regional SMSWP, as well as expansion of the City's recycled water system and hiring of a full time Environmental Coordinator.

This 2020 Water Demand and Conservation report is organized as follows:

- **Section 1** identifies the goals and objectives of this report;
- **Section 2** provides the regulatory context for the demand projections described in this report as well as new requirements related to UWMPs and long-term demand planning that agencies will need to consider in development of their 2020 UWMPs;
- **Section 3** describes historical water use patterns and characteristics within the City;

- **Section 4** describes the projected water demands through 2045, including the assumptions and methodology used;
- **Section 5** documents past participation in conservation programs and estimated savings associated with program implementation;
- **Section 6** documents the water conservation measure screening process, identifies individual programs and program scenarios for potential future implementation by the City, and presents the results of a benefit-cost analysis and an estimate of the potential water savings associated with these conservation programs;
- **Section 7** provides conclusions regarding the main findings of the report; and
- **Section 8** provides key references and sources.



Legend

- County Boundary
- City of Cotati
- City of Petaluma
- City of Rohnert Park
- City of Santa Rosa
- City of Sonoma
- Marin Municipal Water District
- North Marin Water District
- Town of Windsor
- Valley of the Moon Water District

Notes

1. All locations are approximate.

Sources

1. Service area boundary provided by respective agencies.
2. Basemap provided by ESRI.

N

0 8 16

Miles

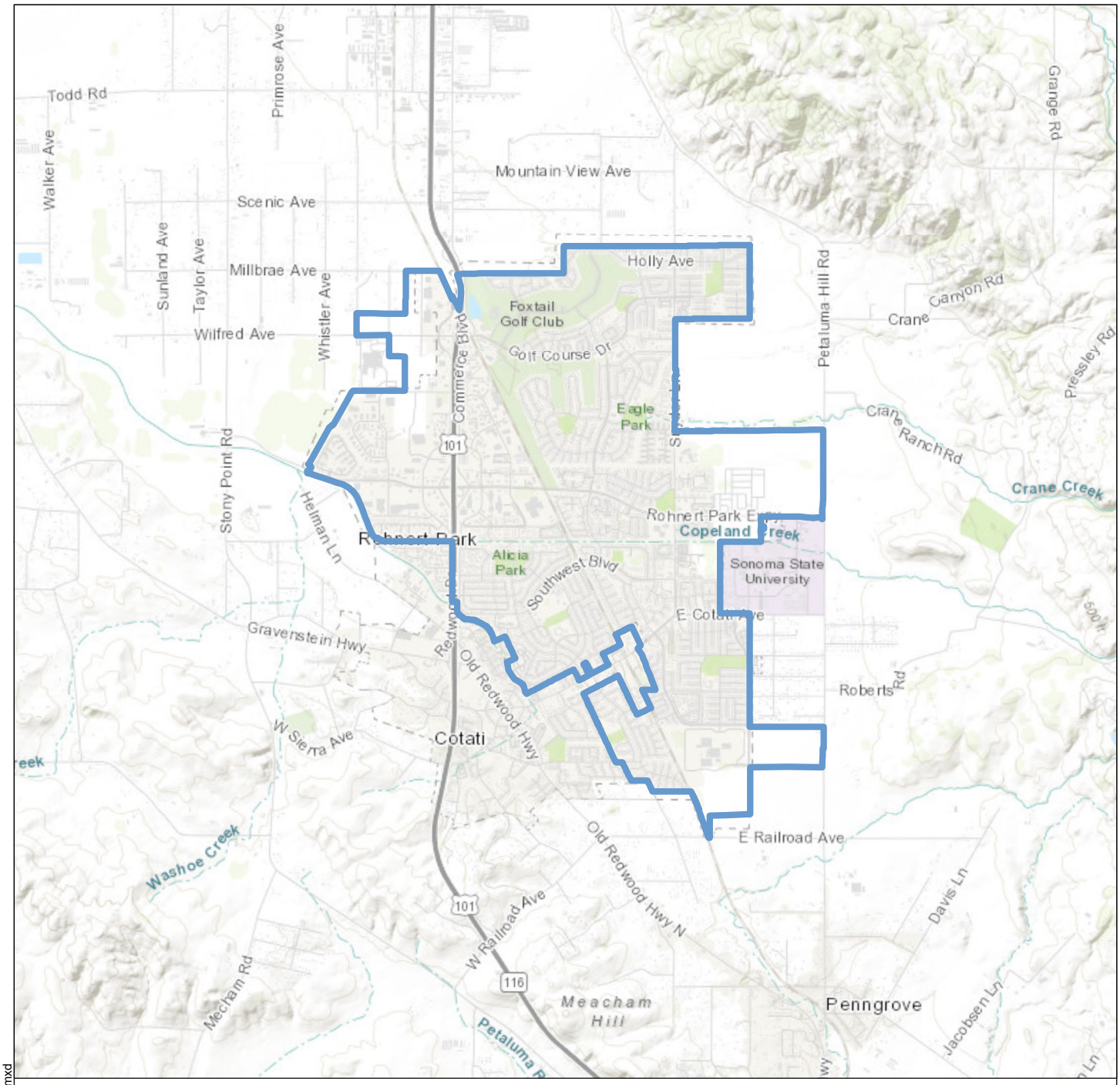
Participating Sonoma-Marin Saving Water Partnership Members

Sonoma-Marin Saving Water Partnership
December 2020
C00004.00

Figure 1-1

eki environment & water

Path: X:\C00004_SonomaMarin\Map\2020\09\SMSWP Map_20200904.mxd



Legend

- County Boundary
- City of Rohnert Park

N

0 1 2

Miles

City of Rohnert Park Service Area

Notes

1. All locations are approximate.

Sources

1. Service area boundary provided by City of Rohnert Park.
2. Basemap provided by ESRI.

Sonoma-Marin Saving Water Partnership
December 2020
C00004.00

Figure 1-2

eki environment & water

Path: X:\C00004_SonomaMarin\Map\2020\08\AgencyBoundaryMaps_20200904.mxd

2. REGULATORY CONTEXT

This section is provided both as regulatory background for the requirements to project future demand in the 2020 UWMP, and for elements of the City's 2020 UWMP that are beyond the scope of the *2020 Water Demand and Conservation Project,* such as consideration of supply reliability, water shortage contingency planning, and the annual urban water use objectives agencies will be required to report on in 2023 and meet by 2027. The City is currently working to update its General Plan to cover a land use planning horizon from 2020 through 2040. The City may use this report to support a Water Supply Analysis for the update of the General Plan.

2.1. 2020 UWMP Demand Projections Requirements

California Water Code (CWC) § 10631, excerpted below, describes the requirements to develop water demand projections that consider water use by customer sector, incorporate distribution system water loss, and account for anticipated water savings. As described further in Section 4, water demand projections were developed for the City using a land-use based approach that is consistent with these requirements, and can be incorporated into the City's 2020 UWMP.

CWC § 10631

A plan shall be adopted in accordance with this chapter that shall do all of the following:

…

(d) (1) For an urban retail water supplier, quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, based upon information developed pursuant to subdivision (a), identifying the uses among water use sectors, including, but not necessarily limited to, all of the following:

(A) Single-family residential.

(B) Multifamily.

(C) Commercial.

(D) Industrial.

(E) Institutional and governmental.

(F) Landscape.

(G) Sales to other agencies.

(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.

(I) Agricultural.

(J) Distribution system water loss.

(2) The water use projections shall be in the same five-year increments described in subdivision (a).

…

(d)(4) (A) Water use projections, where available, shall display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.

(B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following:

(i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections.
(ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.

2.2. New Requirements for 2020 UWMPs and Future Demand Planning

Through the recent *Making Water Conservation a California Way of Life* (Assembly Bill [AB]-1668/Senate Bill [SB]-606) and other legislation, the State has made numerous changes to the requirements for UWMPs and related water conservation planning efforts. In many cases, the updated regulations reference details and methodologies to be developed by the California Department of Water Resources (DWR), and/or are somewhat vague and will benefit from the development of guidelines/further clarification by DWR. DWR is currently developing an updated guidebook to support the development of the 2020 UWMPs, which is expected to be complete by late 2020. This new guidebook is anticipated to provide direction to agencies with respect to many elements of the new legislation.

A summary of key changes to various elements of 2020 UWMP and related planning efforts is provided below. Copies of the revisions to relevant sections of the California Water Code per AB-1668, SB-606, and SB-664 are provided in **Appendix A.**

2.2.1. Annual Urban Water Use Objectives

Beginning in 2023,[1] agencies will be required to report on "annual water use objectives" by November 1 of each year, per CWC § 10609. The specific standards that will be used to determine an agency's annual urban water use objectives are currently under development and are the source of a great deal of uncertainty with respect to the long-term water conservation and demand planning as part of the 2020 UWMP. Although the 2020 UWMP will not identify or calculate these new annual urban water use objectives, the new standards will become effective within the UWMP planning horizon. Per CWC § 10609.25, agencies will be required to "provide a narrative that describes the water demand management measures that the supplier plans to implement to achieve its urban water use objective by January 1, 2027." Details regarding the annual urban water use objectives and other requirements are expected to evolve significantly over the next two years.

- **Residential outdoor water use:** Per CWC § 10609.6, DWR and California State Water Resources Control Board (SWRCB) "shall conduct necessary studies and investigations and recommend, no later than October 1, 2021, standards for outdoor residential use" which "incorporate the principles of the model water efficient landscape" and "apply to irrigable lands." DWR is currently working with a contractor to measure all of the single- and multi-family landscape (irrigable) area within urban water suppliers' service areas across the state based on aerial imagery. The result of these measurements will become the basis for an agency's residential landscape water use component of the annual water use objectives. In order to accurately calculate and compare

[1] DWR acknowledged publicly on 5 December 2019 that this and other related deadlines are likely to slip. DWR indicated that compliance with these objectives will most likely begin in 2024.

against this metric, agencies will be responsible for identifying what dedicated irrigation accounts are associated with residential water use (including multi-family residential), and what dedicated irrigation accounts are associated with commercial, industrial, and institutional (CII) use. The landscape area measurement process is being lead through a stakeholder workgroup process with periodic public meetings.

- **Residential indoor water use:** Per CWC § 10609.4.(a), "(1) Until January 1, 2025, the standard for indoor residential water use shall be 55 gallons per capita daily. (2) Beginning January 1, 2025, and until January 1, 2030, the standard for indoor residential water use shall be the greater of 52.5 gallons per capita daily or a standard recommended pursuant to subdivision (b). (3) Beginning January 1, 2030, the standard for indoor residential water use shall be the greater of 50 gallons per capita daily or a standard recommended pursuant to subdivision (b)." While the legislation appears to be clear on the method to calculate the indoor residential water use component, the SWRCB has begun the California Environmental Quality Act (CEQA) process for the new water use objective requirements and has expressed concern that using the 55 gallons per capita per day (GPCD) number in the legislation will constitute "backsliding" and thus will need to be ratcheted down.
- **Water loss:** Per CWC § 10608.34.(i), "No earlier than January 1, 2019, and no later than July 1, 2020, the board shall adopt rules requiring urban retail water suppliers to meet performance standards for the volume of water losses. In adopting these rules, the board shall employ full life-cycle cost accounting to evaluate the costs of meeting the performance standards. The board may consider establishing a minimum allowable water loss threshold that, if reached and maintained by an urban water supplier, would exempt the urban water supplier from further water loss reduction requirements." The SWRCB is developing a complicated cost-benefit analysis methodology that would need to be conducted by agencies in order to determine what water loss controls are deemed cost-effective and thus required to be implemented. Water agencies and the California Municipal Utilities Association are advocating for an alternative methodology. The implementation of these requirements has been delayed beyond the 1 July 2020 deadline.
- **CII:** Rather than developing a water volume-based standard for the CII sector, DWR was tasked with developing a set of performance standards through a workgroup process to increase water efficiency, per CWC § 10609.10, with adoption of these performance measures by 30 June 2022. Based on this process, DWR has determined that it is impossible to set such standards today, but agencies will be required to report on progress towards key actions related to potential future standards, such as conversion of mixed CII meters to dedicated irrigation meters, performance of water audits for CII accounts, development of water management plans for CII accounts, detailed classification of CII accounts by industry, etc. The specific actions that agencies will be required to report are not yet known.
- **Recycled Water Use:** In previous UWMPs, calculations of SB X7-7 baselines, targets, and gross water use for compliance were based only on potable water use, and thus the use of recycled water to offset potable water use was an effective method to help agencies conserve potable water and meet their SB X7-7 targets. However, under CWC § 10609.(b)(2)(F), the benefit of recycled water for compliance with annual water use objectives is much more limited: "Provides a bonus incentive for the amount of potable recycled water used the previous year when comparing the previous year's water use with the urban water use objective, of up to 10 percent of the urban water use objective." Thus, adoption and expansion of recycled water use only provides a compliance benefit if it constitutes direct potable reuse, indirect potable reuse, or reservoir

augmentation (CWC § 10608.12.(o)). In the City's view, this is a significant disincentive for the development of non-potable recycled water supplies, and may reduce the resiliency of local water supplies over time.

2.2.2. Supply Reliability

- Agencies will be required to develop procedures to conduct annual water supply and demand assessments to determine its water supply reliability for the current year and one dry year and to conduct these assessments annually beginning in 2022 (CWC § 10632(a)(2)). These procedures are required to include the following (emphasis added):

  (A) The **written decision making process** that an urban water supplier will use each year to determine its water supply reliability.
  (B) The key data inputs and assessment methodology used to evaluate the urban water supplier's water supply reliability for the current year and one dry year, including all of the following:

  (i) Current year unconstrained demand, **considering weather, growth, and other influencing factors,** such as policies to manage current supplies to meet demand objectives in future years, as applicable.

  (ii) Current year available supply, considering **hydrological and regulatory conditions in the current year and one dry year.** The annual supply and demand assessment may consider more than one dry year solely at the discretion of the urban water supplier.

  (iii) Existing infrastructure capabilities and plausible constraints.

  (iv) **A defined set of locally applicable evaluation criteria** that are consistently relied upon for each annual water supply and demand assessment.

  (v) A description and **quantification of each source** of water supply.

- In addition, the requirement to analyze supply reliability for a period of multiple consecutive drought years has been extended from a 3-year period to a 5-year period, per CWC §10631(f) and §10635(a). Specifically, agencies are now required to "compare the total water supply sources available to the water supplier with the long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years."

2.2.3. Water Shortage Contingency Plans

The new regulations also add new requirements related to drought planning and Water Shortage Contingency Plans (WSCPs):

- Agencies will now be required to conduct a drought risk assessment (DRA) as part of their UWMPs to assess water supply reliability (or vulnerability) for a period of drought lasting **five consecutive water years,**[2] starting from the year following that of the UWMP, and to compare water supplies

[2] While the corresponding Water Supply Assessment (WSA) regulations have not been updated to require analysis of a five-year period, agencies should consider including a five-year drought period in their supply reliability assessment in any new WSAs.

(assessing each source of supply separately) with total projected water use (CWC § 10635(b)) during that period. The DRA five-year period for this 2020 UWMP is 2021-2025. During the 10 March 2020 workshop, DWR indicated that agencies will be expected to identify supply and demand on a monthly basis for this purpose, although it is noted that this does not appear to be an explicit requirement of the regulations.

- Per CWC § 10632.5 agencies' WSCPs "shall include a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities" and an agency may submit "a copy of the most recent adopted local hazard mitigation plan or multihazard mitigation plan under the federal Disaster Mitigation Act of 2000 (Public Law 106-390) if the local hazard mitigation plan or multihazard mitigation plan addresses seismic risk."
- WSCPs will be required to use "Six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, and 50 percent shortages and greater than 50 percent shortage," or to provide a "cross-reference relating its existing categories to the six standard water shortage levels."

3. WATER USE CHARACTERISTICS

This section describes historical water use by customers within the City, including changes in use observed during and after the historic 2014 - 2016 drought, changes in average per account water use over time, and estimates of indoor and outdoor water use, based on data provided by the City. This information is used to provide context and background to support the projections of future demands (Section 4) and estimates of potential conservation program benefits (Section 6).

3.1. Historical Total and Per Capita Water Use

Table 3-1 summarizes the City's historical water use, service area population, and per capita water use for the years 2011 through 2019 (Rohnert Park, 2020a). Water use is described both in terms of total water produced and average per capita water use. It should be noted that the per capita water use for purposes of comparing water use to SB X7-7 water conservation targets may be different, due to the prescriptive method by DWR for determining an agencies compliance population and total water use. SB X7-7 compliance will need to be separately addressed by the City's 2020 UWMP.

Potable water use ranged from 3,942 AFY to 5,375 AFY over this time period. Recycled water use from 2016-2019 ranged from 1,047 AFY to 1,409 AFY and varied between 800 and 1,100 AFY prior to 2015 (Rohnert Park, 2016). Per capita potable water use from 2011 through 2019 ranged from 93 GPCD to 141 GPCD, residential per capita water use ranged from 62 residential gallons per capita per day (R-GPCD) to 84 R-GPCD, while total per capita water use (inclusive of recycled water) ranged from 117 GPCD to 130 GPCD.

Per capita potable use and residential per capita use declined from 2013 through 2015, likely influenced by the historic drought conditions, mandatory state-wide restrictions in urban water use imposed by the SWRCB, and local drought response. Total and per capita water use have remained lower than pre-drought conditions, with a slight increase in 2017 and 2018, which may indicate a degree of rebound following the drought, or may also be the result of construction associated with increasing the City's housing supply, as required to meet the City's Regional Housing Needs Allocation, imposed upon the City through the State's Housing and Community Development agency.

Historical water use by customer sector is provided in **Table 3-2**. The single family residential (SFR) sector comprises the largest proportion of the City's total water use (i.e., 30% in 2019). By comparison, in 2019, dedicated irrigation accounts, including recycled water, collectively comprised 25% of total water use; the multi-family residential (MFR) sector comprised 25% of total water use; and the CII sector comprised 13% of total water use. In 2019, non-revenue water, which is further explained in Section 4.3.2, was estimated to be 8.8% of total potable water demand.

3.2. Historical Average Water Use Per Account

The total number of accounts varies over time due to growth and development within the City and shifts in land use (e.g., redevelopment of industrial areas).

The total number of accounts by customer sector for the 2011 to 2019 period is shown in **Table 3-3**, including a pie chart illustrating the relative proportion of accounts (Rohnert Park, 2020a, 2020b). The SFR

sector comprised the highest proportion of accounts in 2019 (85%), followed by CII (7.2%), dedicated irrigation (3.8%), and MFR (3.5%). From 2011 to 2019, the number of residential accounts was relatively consistent, while the number of CII accounts grew by 1.2%. Dedicated irrigation accounts grew by 14%, and recycled water accounts grew by 2.3% over this time period.

Average water use per account is presented in **Table 3-4**. For most sectors, per account water usage has followed the same general trends over time as total water use in the City (per **Table 3-1**). However, CII per account water use appears to have had a more substantial decrease during the drought.

3.3. Estimated Indoor and Outdoor Water Use

When designing and estimating the benefits of potential water conservation programs, it is important to understand the relative proportion of water use that is used indoors versus outdoors.

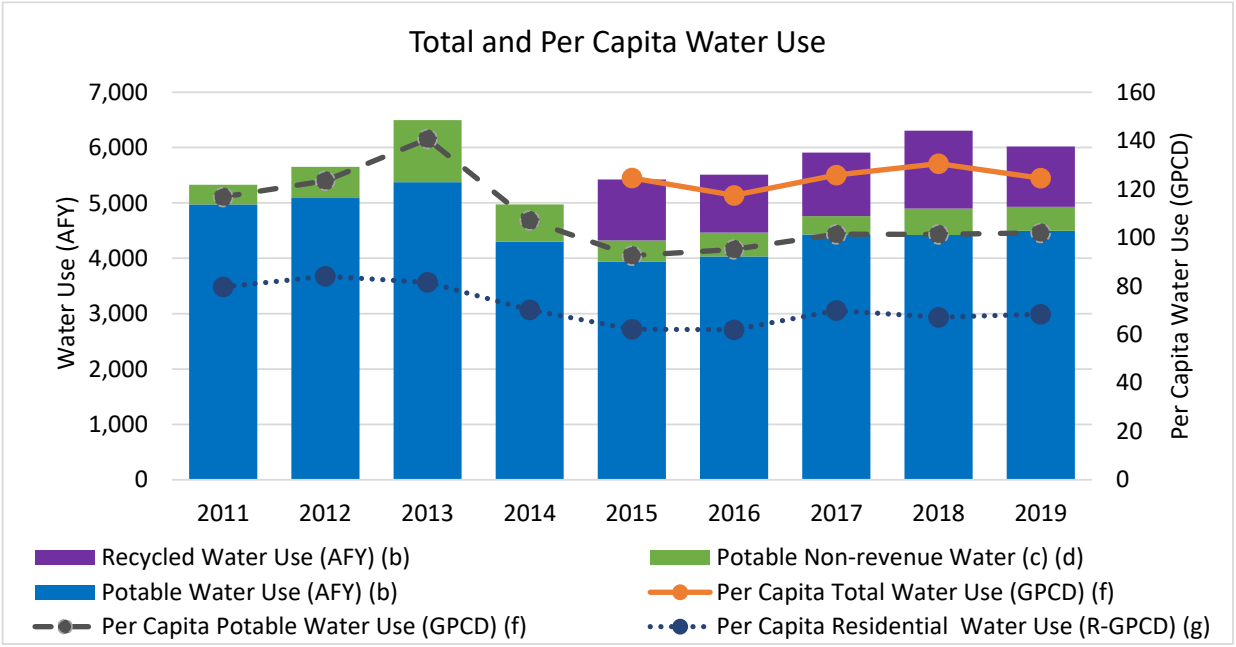
As shown in the first chart in **Table 3-5**, potable water use within the City varies seasonally, and water use in the summer is typically two times greater than water use during the winter. This seasonality is driven by increased irrigation needs in the summer, as compared to the more limited irrigation water use during the wetter and cooler winter months. The second chart in **Table 3-5** shows the seasonality of recycled water use, which is generally limited to irrigation uses. Based on the recycled water use patterns, irrigation rates appear to be nearly zero during winter months, confirming that it is reasonable and conservative to assume that minimal irrigation with potable water occurs during winter months.

Given the water use patterns presented in **Table 3-5**, the minimum average daily water use during winter months (December-March) was used to estimate the indoor water use for all non-irrigation customer sectors. The results of this estimate are shown in **Table 3-6**. Approximately 61% of all potable water use within the City is estimated to be indoor use, and 39% to be outdoor water use. When recycled water use is factored in, approximately 48% of water use within the City is estimated to be indoor use, and 52% to be outdoor water use, illustrating the value of the non-potable recycled water supply in reducing demand on the potable water supply for the City. It is noted that this is a high-level estimate of indoor and outdoor water use, which errs on the side of estimating higher indoor water use.

Aside from the dedicated irrigation and recycled water sectors (100% outdoor water use), using the method described above, CII water use is estimated to have the highest proportion of outdoor water use at 43%, followed by SFR at 33% and MFR at 29%. It should be noted that landscape areas for CII and larger multi-family developments tend to have dedicated irrigation accounts. Further, some industries within the CII sector, such as restaurants and manufacturing, may also experience some degree of seasonality in indoor use, with increased business and production during summer months. Thus, these should be considered high-level estimates of indoor and outdoor use proportions.

Table 3-1
Water Use and Population
City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Year (a)	Potable Water Use (AFY) (b)	Potable Non-revenue Water (c) (d)	Recycled Water Use (AFY) (b)	Total Water Use (AFY)	Service Area Population (e)	Per Capita Potable Water Use (GPCD) (f)	Per Capita Total Water Use (GPCD) (f)	Per Capita Residential Water Use (R-GPCD) (g)
2011	4,971	356	--	--	40,713	117	--	80
2012	5,088	562	--	--	40,837	123	--	84
2013	5,375	1,123	--	--	41,200	141	--	82
2014	4,298	674	--	--	41,425	107	--	70
2015	3,942	380	1,100	5,819	41,681	93	125	62
2016	4,032	430	1,047	5,510	41,868	95	117	62
2017	4,428	333	1,149	5,909	41,909	101	126	70
2018	4,420	478	1,409	6,307	43,121	101	130	67
2019	4,494	434	1,091	6,019	43,134	102	124	68



Abbreviations:
-- = not available
AFY = acre-feet per year
GPCD = gallons per capita per day
R-GPCD = residential gallons per capita per day

Notes:
(a) Data are presented on a calendar year basis.
(b) Water use per Reference 2. Recycled water use is not available prior to 2015, but has varied between 800 and 1,100 AFY for the 10 years prior to 2015, per Reference 1.
(c) Estimated non-revenue water per Table 3-2.
(d) Estimates of non-revenue water are based on the potable water system and include both real and apparent losses. The recycled water system would be expected to have a degree of water loss, but this loss has not been quantified.
(e) Population data per Reference 3.

Table 3-1
Water Use and Population
City of Rohnert Park, Sonoma-Marin Saving Water Partnership

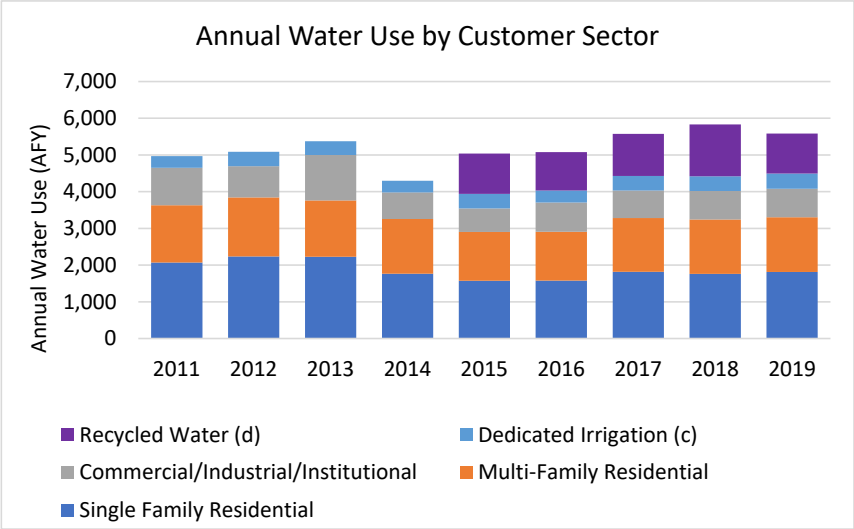
(f) Per capita water use is calculated by dividing the annual water use by service area population and the number of days in a year.
(g) Per capital residential water use is calculated by dividing the annual water use for single family and multi-family residential sectors by service area population and the number of days in a year.

References:

1. Rohnert Park, 2016. City of Rohnert Park Final Urban Water Management Plan 2015, dated June 2016.
2. Rohnert Park, 2020a. WaterCon.xlsx, provided by the City of Rohnert Park on 6 May 2020.
3. Rohnert Park, 2020b. RP POP.xlsx, provided by the City of Rohnert Park, dated 8 May 2020.

Table 3-2
Water Use by Customer Sector
City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Water Use Sector	Water Use (AFY) (a) (b)								
	2011	2012	2013	2014	2015	2016	2017	2018	2019
Single Family Residential	2,071	2,238	2,229	1,768	1,572	1,577	1,817	1,761	1,816
Multi-Family Residential	1,561	1,608	1,535	1,489	1,332	1,329	1,466	1,481	1,488
Commercial/Industrial/Institutional	1,020	851	1,239	726	641	801	748	776	778
Dedicated Irrigation (c)	319	391	372	316	397	325	397	402	413
Recycled Water (d)	--	--	--	--	1,100	1,047	1,149	1,409	1,091
Total Water Consumption	**4,971**	**5,088**	**5,375**	**4,298**	**5,042**	**5,080**	**5,577**	**5,829**	**5,585**
Non-revenue Water (e) (f)	6.7%	10%	17%	14%	8.8%	10%	7.0%	9.8%	8.8%
	356	562	1,123	674	380	430	333	478	434
Total Water Use	**5,327 (d)**	**5,651 (d)**	**6,498 (d)**	**4,972 (d)**	**5,422**	**5,510**	**5,909**	**6,307**	**6,019**



Abbreviations:
-- = not available
AFY = acre-feet per year
DWR = Department of Water Resources

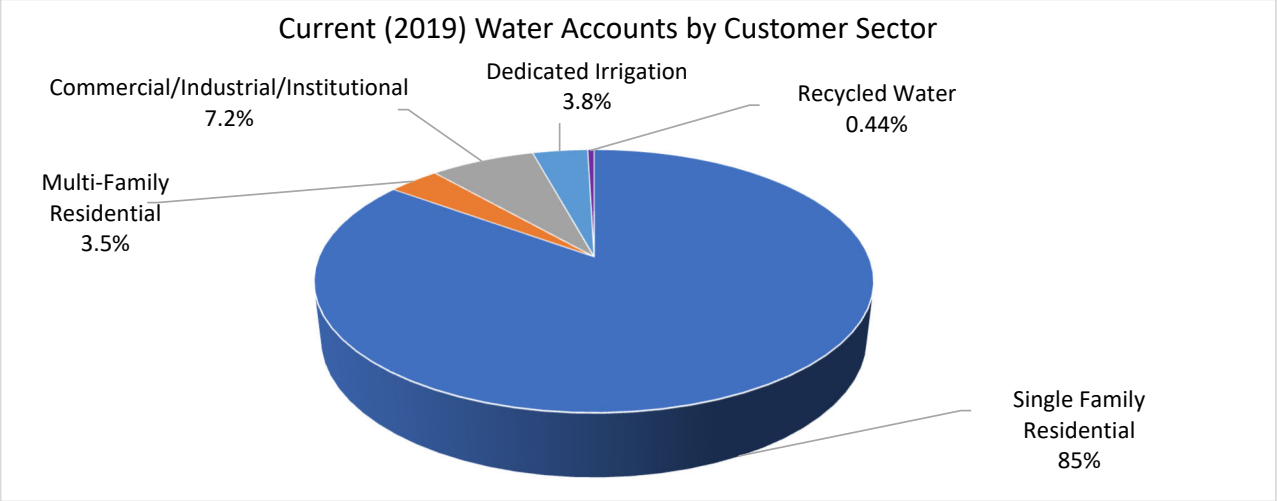
Notes:
(a) Data are presented on a calendar year basis.
(b) Water use per Reference 4.
(c) Dedicated irrigation water use from 2011 through 2015 per Reference 2, and from 2016 through 2020 from Reference 5.
(d) Recycled water use is not available prior to 2015, but has varied between 800 and 1,100 AFY for the 10 years prior to 2015, per Reference 3.
(e) Non-revenue water for 2011-2014 per Reference 2 and 2016-2018 per Reference 1. For years where non-revenue water data was unavailable, the average percent water loss for 2016-2018 was used. The 2017 water loss audit report was in fiscal year and thus included water loss in 2017 and 2018.
(f) Estimates of non-revenue water are based on the potable water system and include both real and apparent losses. The recycled water system would be expected to have a degree of water loss, but this loss has not been quantified.

References:

1. DWR, 2020. WUEdata - Water Audit Report Data website, accessed 13 June 2020, (https://wuedata.water.ca.gov/awwa_plans).
2. Rohnert Park, 2015. DSS Water Demand & Conservation Model, prepared by Maddaus Water Management, dated 27 May 2015.
3. Rohnert Park, 2016. City of Rohnert Park Final Urban Water Management Plan 2015, dated June 2016.
4. Rohnert Park, 2020a. WaterCon.xlsx, provided by the City of Rohnert Park on 6 May 2020.
5. Rohnert Park, 2020b. Irrigation Consumption 2015-2019.xlsx, provided by the City on 14 July 2020.

Table 3-3
Number of Accounts by Customer Sector
City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Water Use Sector	Number of Accounts (a) (b)								
	2011	2012	2013	2014	2015	2016	2017	2018	2019
Single Family Residential	8,498	8,487	8,487	8,487	8,475	8,471	8,465	8,456	8,444
Multi-Family Residential	351	351	351	473	354	352	352	351	351
Commercial/Industrial/Institutional	709	709	709	527	751	747	741	728	717
Dedicated Irrigation	331	331	331	528	414	413	397	385	378
Recycled Water	43	43	43	43	46	48	47	45	44
Total Accounts	**9,932**	**9,921**	**9,921**	**10,058**	**10,039**	**10,031**	**10,002**	**9,965**	**9,935**

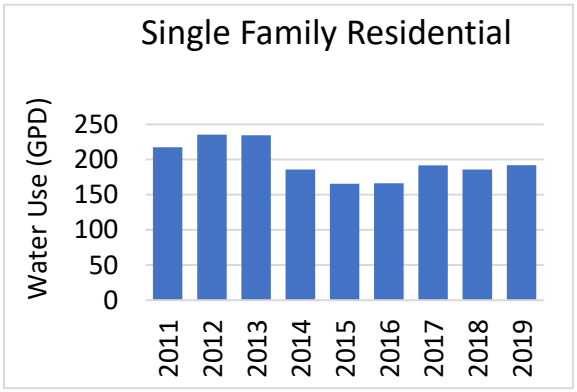


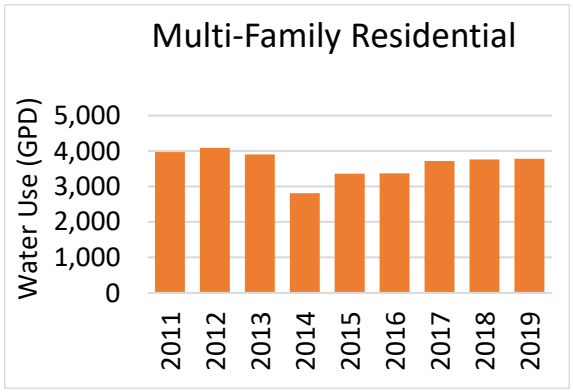
Notes:
(a) Data are presented on a calendar year basis.
(b) Number of accounts for 2011-2014 per Reference 2 and 2015-2019 per Reference 1.

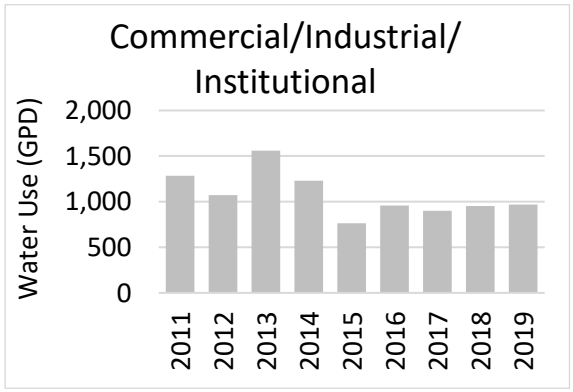
References:
1. Rohnert Park, 2020a. WaterCon.xlsx, provided by the City of Rohnert Park on 6 May 2020.
2. Rohnert Park, 2020b. Account number data provided by the City of Rohnert Park via email, received 9 July 2020.

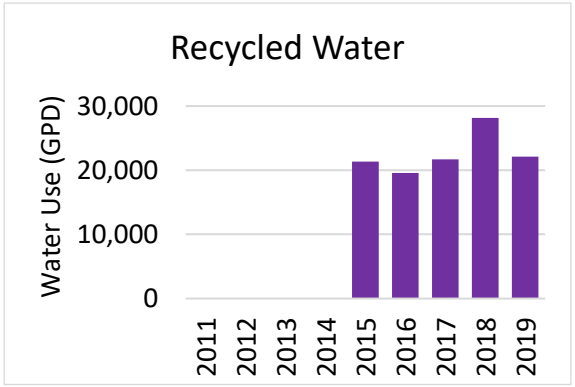
Table 3-4
Per Account Water Use by Customer Sector
City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Water Use Sector	Water Use per Account (GPD) (a) (b)								
	2011	2012	2013	2014	2015	2016	2017	2018	2019
Single Family Residential	217	235	234	186	165	166	192	186	192
Multi-Family Residential	3,969	4,087	3,902	2,808	3,358	3,368	3,715	3,764	3,781
Commercial/Industrial/Institutional	1,284	1,071	1,559	1,229	762	957	900	951	968
Dedicated Irrigation	860	1,054	1,003	534	855	702	892	931	975
Recycled Water (c)	--	--	--	--	21,334	19,570	21,687	28,147	22,119









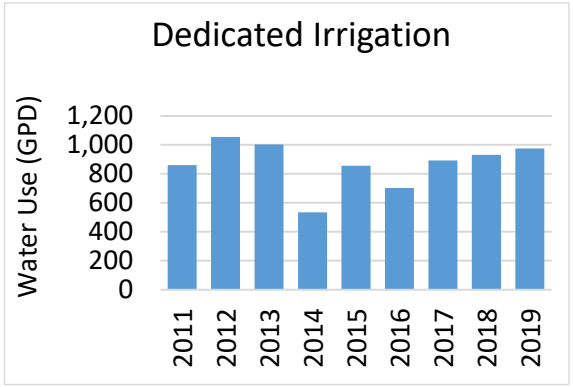


Table 3-4

Per Account Water Use by Customer Sector

City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Abbreviations:

-- = not available

GPD = gallons per day

Notes:

(a) Data are presented on a calendar year basis.

(b) Water use and number of accounts by sector per Tables 3-2 and 3-3.

(c)

Recycled water use is not available prior to 2015, but has varied between 800 and 1,100 AFY for the 10 years prior to 2015, per Reference 1.

References:

1. Rohnert Park, 2016. City of Rohnert Park Final Urban Water Management Plan 2015, dated June 2016.

Table 3-5
Monthly Water Use
City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Month	Monthly Water Use (AF) (a) (b)				
	2015	2016	2017	2018	2019
Potable Water Use					
January	300	223	235	254	261
February	227	210	268	289	270
March	248	259	299	251	239
April	349	231	218	247	247
May	293	275	303	326	310
June	349	447	438	466	458
July	326	388	461	467	416
August	402	444	556	499	469
September	398	484	513	501	578
October	335	380	437	410	444
November	314	306	442	374	497
December	268	385	259	335	307
Recycled Water Use					
January	--	3.8	1.3	5.1	1.9
February	--	3.4	2.3	13	1.9
March	--	5.0	1.6	28	1.6
April	--	61	3.4	3.4	34
May	--	140	118	460	79
June	--	201	180	180	143
July	--	192	195	175	282
August	--	207	325	235	176
September	--	171	160	151	189
October	--	57	120	63	100
November	--	3.4	37	95	75
December	--	2.0	4.7	2.2	7.7

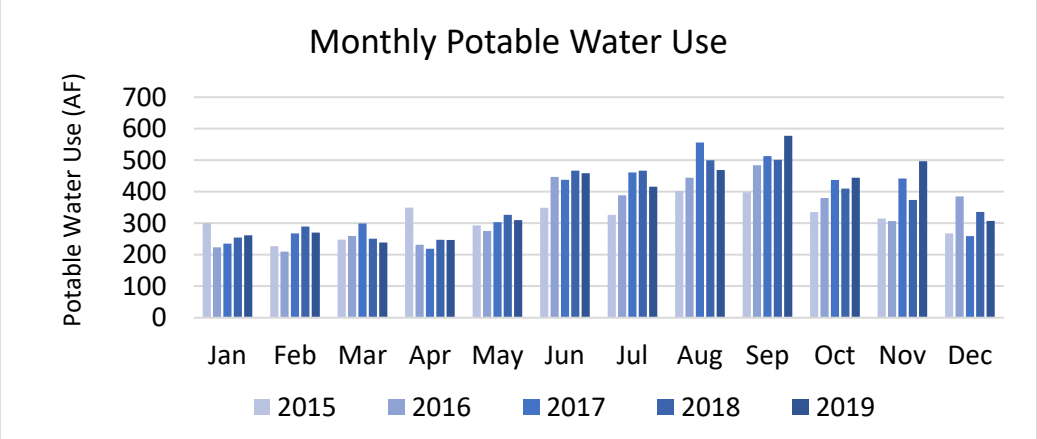
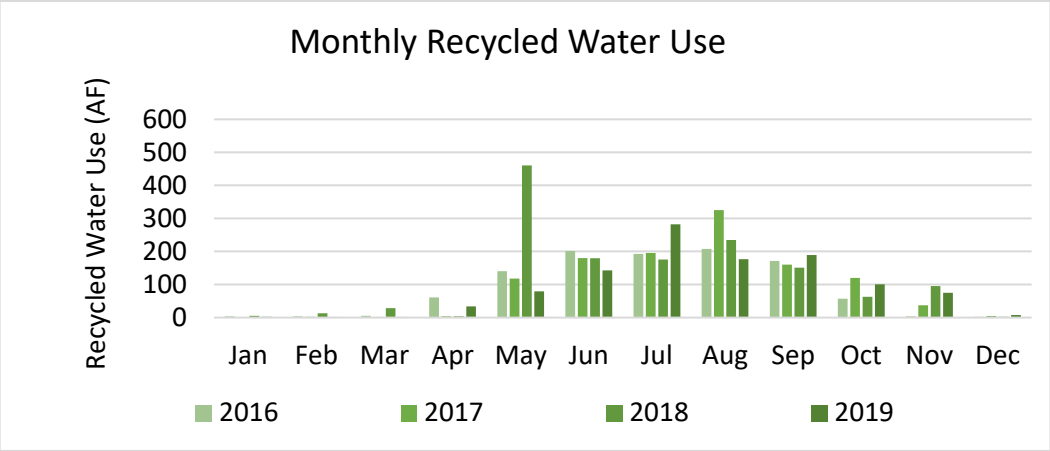


Table 3-5
Monthly Water Use
City of Rohnert Park, Sonoma-Marin Saving Water Partnership



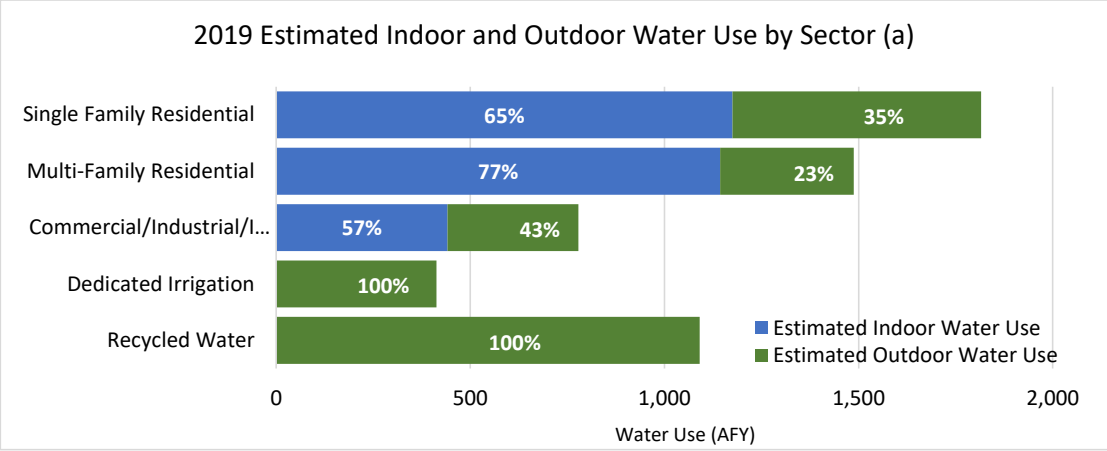
Abbreviations:
-- = not available
AF = acre-feet

Notes:
(a) Monthly potable and recycled water use per Reference 1.
(b) Dedicated monthly irrigation water use per Reference 2.

References:
1. Rohnert Park, 2020a. WaterCon.xlsx, provided by the City of Rohnert Park on 6 May 2020.
2. Rohnert Park, 2020b. Irrigation Consumption 2015-2019.xlsx, provided by the City on 14 July 2020.

Table 3-6
Estimated Indoor and Outdoor Water Use
City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Water Use Sector	2017				2018				2019				Average Pct.	
	Indoor Water Use (AFY)	Outdoor Water Use (AFY)	Pct. Indoor	Pct. Outdoor	Indoor Water Use (AFY)	Outdoor Water Use (AFY)	Pct. Indoor	Pct. Outdoor	Indoor Water Use (AFY)	Outdoor Water Use (AFY)	Pct. Indoor	Pct. Outdoor	Indoor Use	Outdoor Use
Single Family Residential	1,236	582	68%	32%	1,210	551	69%	31%	1,175	640	65%	35%	67%	33%
Multi-Family Residential	899	567	61%	39%	1,100	381	74%	26%	1,143	344	77%	23%	71%	29%
Commercial/Industrial/Institutional	376	372	50%	50%	492	284	63%	37%	441	337	57%	43%	57%	43%
Dedicated Irrigation	0	397	0%	100%	0	402	0%	100%	0	413	0%	100%	0%	100%
Total (Potable)	**2,511**	**1,917**	**57%**	**43%**	**2,803**	**1,617**	**63%**	**37%**	**2,760**	**1,734**	**61%**	**39%**	**61%**	**39%**
Recycled Water	0	1,149	0%	100%	0	1,409	0%	100%	0	1,091	0%	100%	0%	100%
Total (Potable & Recycled)	**2,511**	**3,066**	**45%**	**55%**	**2,803**	**3,026**	**48%**	**52%**	**2,760**	**2,825**	**49%**	**51%**	**48%**	**52%**



Abbreviations:
AFY = acre-feet per year
Pct. = Percentage

Notes:
(a) The minimum average daily water use from December through March was used to estimate indoor water use for all non-irrigation customer sectors. This method is used to assess the relative proportion of indoor and outdoor use, and conservatively errs on the side of estimating more indoor water use, so that the potential for outdoor water savings is not over-estimated.

References:
1. Rohnert Park, 2020a. WaterCon.xlsx, provided by the City of Rohnert Park on 6 May 2020.
2. Rohnert Park, 2020b. Irrigation Consumption 2015-2019.xlsx, provided by the City on 14 July 2020.

4. WATER DEMAND PROJECTIONS

The purpose of this section is to document the basis, methodology, and resulting projected demands for the City through 2045. As described in more detail below, the future water demands for the City were estimated by:

1. Applying an estimated growth rate to accounts within each water use sector based on projected population and employment growth rates,
2. Identifying known planned developments within the City to verify that account growth projections consider all anticipated growth,
3. Evaluating and selecting water demand factors for each water use sector based on review of recent average per account water use representing three scenarios,
4. Estimating future passive savings using the Alliance for Water Efficiency (AWE) Water Conservation Tracking Tool (AWE model), and
5. Calculating estimated future water demand that incorporates the anticipated account growth, water demand factors, and estimated future passive water savings.

This methodology is consistent with California Water Code (CWC) § 10631(d)(4)(A), which requires that "Water use projections, where available, shall display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area." The assumptions used as the bases for demand projections were developed in close coordination with the City and reflect a land-use based approach consistent with the City's community planning.

4.1. Basis for Account Growth Projections

Water demand increases as new accounts are added to the system, among other factors. In order to estimate how accounts will grow within the City, recent historical account growth within the City was considered, as well as projected future growth in population and employment. As described below, it was assumed, that depending on the customer sector, the number of accounts will grow at the same *rate* as the projected population or employment growth.

Table 4-1 presents historical population and 2018 Association of Bay Area Governments (ABAG) Plan Bay Area Projections 2040 population and employment growth projections for the City, in context with recent historical population estimates. The City is in the process of updating its General Plan and has reviewed the 2018 ABAG data against the land-used based build out data coming from the General Plan model and confirmed that both data sets result in consistent buildout populations for the City.[3]

[3] Several growth projections were evaluated as potential bases for growth assumptions, including previous 2013 ABAG Plan Bay Area Projections (ABAG, 2013), ABAG Plan Bay Area Projections 2040 (ABAG, 2018), and 2020 Department of Finance (DOF) Total Estimated and Projected Population for California and Counties (DOF, 2020). The DOF (2020) projections are only available at the County-wide level and show a decline in population over the planning horizon and given the recent historical growth observed in the City, are not considered appropriately conservative for planning purposes. Although anticipated to be released in 2020, updated ABAG projections are not

Table 4-2, below, identifies which growth projection was applied to each potable water use sector (population or employment) at the City's direction, identifies the average annual growth rate in accounts observed within the City (based on data presented in **Table 3-3**), and the associated average annual growth rate projected by ABAG (2018). In general, recent historical growth rates have been lower than the projected growth rates based on ABAG (2018) employment and population projections; however, the buildout population projections in the City's General Plan 2040 update are almost identical to the ABAG (2018) population projections. Because the ABAG (2018) projections provide more discrete population data over the planning period, these projected growth rates were used and are considered to be reasonably conservative for planning purposes.

The planning horizon for the 2020 UWMP is 2045; however, the ABAG (2018) projections extend only through 2040. For purposes of demand projections, it is therefore assumed that the projected growth rates from 2035 through 2040 extend through 2045.

Table 4-2
Historical and Projected Account Growth Rate by Customer Sector

Water Use Sector	Basis for Account Growth	Average Annual Growth (a)	
		Historic (2011-2019)	ABAG 2018 (2020-2040)
Single Family Residential	population	-0.08%	0.86%
Multi-Family Residential	population	0%	0.86%
Commercial/Industrial/Institutional	employment	0.15%	0.33%
Dedicated Irrigation	employment	1.77%	0.33%
Recycled Water	employment	0.29%	0.33%

Abbreviations:

ABAG = Association of Bay Area Governments

Notes:

(a) Growth is presented on an average annual basis over the indicated period. Growth is presented on an average annual basis over the indicated period. When applied to account growth, the specific growth rate between each 5-year period, per ABAG (2018) was applied.

4.2. Change in Number of Accounts based on Projected Growth

Table **4-3** presents the projected increase in accounts for each water use sector over the planning horizon based on the growth projections described in Section 4.1, as well as the incremental increase in accounts from 2019 per sector.

yet available. In addition, the population projections modeled in the City's General Plan 2040 update are almost identical to the 2018 ABAG populations. Therefore, ABAG (2018) projections were selected as the basis for growth assumptions for the City.

4.3. Water Demand Factors

Water use is influenced by a variety of factors, including weather, economic recession, and state and local regulations, among other drivers. Given this, selecting a "representative" baseline year is important to developing the land-use based water demand factors to estimate baseline water use by existing customers, which can then be extrapolated and applied to future growth within the City.

Water demand factors based on historical use within the City were used as the basis of future demand projections for potable water accounts, considering in particular the range of water use associated with pre-drought conditions, post-drought conditions, and a midpoint scenario that assumes water use partially rebounds to pre-drought conditions. **Table 3-2** provides historical water use by sector within the City. To more fully capture total water use within the City, non-revenue water is estimated as a percentage of potable water production as discussed in 4.3.2.

4.3.1. Potable and Recycled Water

As shown in **Table 4-4**, the City evaluated a range of water demand factors for each water use sector using three water use scenarios, based on recent historical average per account water use for selected time periods, representing pre-drought water use rates, post-drought water use rates, and a partial rebound to pre-drought water use rates. Specifically:

1. *Pre-drought demand factors* based on the maximum per account water use by sector for 2011 through 2013 (**Table 3-4**), generally representing higher water use before drought restrictions were put in place.
2. *Post-drought demand factors* based on the maximum per account water use by sector for 2017 through 2019 (**Table 3-4**), generally representing lower water use than pre-drought conditions but with some amount of rebound.
3. *Partial rebound demand factors* estimated as the midpoint of the pre-drought and post-drought demand factors, representing an average of the two scenarios.

Table 4-4
Potential Potable Water Demand Factors Considered

Water Use Sector	Water Demand Factor (GPD/account)		
	Pre-Drought (2011-2013)	Partial Rebound	Post-Drought (2017-2019)
Single Family Residential	235	214	192
Multi-Family Residential	4,087	3,934	3,781
Commercial/Industrial/Institutional	1,559	1,263	968
Dedicated Irrigation	1,054	1,014	975
Recycled Water	29,040	28,593	28,147

Abbreviations:
GPD = gallons per day

As shown in **Table 4-5**, below, for purposes of developing the City's 2045 demand projections, the City directed EKI to apply partial rebound demand factors to all water use sectors.

Table 4-5
Selected Water Demand Factors

Water Use Sector	Water Demand Factor (GPD/account) (a)	Basis for Demand Factor
Single Family Residential	214	Partial rebound
Multi-Family Residential	3,934	Partial rebound
Commercial/Industrial/Institutional	1,263	Partial rebound
Dedicated Irrigation	1,014	Partial rebound
Recycled Water	28,593	Partial rebound

Abbreviations:
GPD = gallons per day

4.3.2. Non-Revenue Water (Potable Water System)

Non-revenue water is water that has been produced but not billed, and thus does not generate revenue for the supplier. Non-revenue water includes unbilled authorized uses (such as water for fighting fires and flushing mains) and water losses (including real losses due to distribution system leaks and apparent losses due to metering inaccuracies). Urban water agencies are required to perform an annual audit of water loss of their potable water distribution system, which is used as the basis for estimating future water use associated with non-revenue water. As shown in **Table 4-6**, potable non-revenue water is projected to range from 491 AFY to 555 AFY through 2045, based on the average percentage of water loss reported from 2017 to 2019 (8.5%, see **Table 3-2**).

4.4. Passive Water Savings Estimates

Passive water savings are the water savings associated with the natural replacement of older toilets, showerheads, clothes washers, and other water using appliances with newer high efficiency devices that are available due to both market shifts and increasing efficiency mandated by the building code and other regulatory requirements. The AWE model[4] was used to estimate future passive savings within the City. The AWE model takes into account estimates of historical population, residential building stock, number of accounts, and projected population and account growth to estimate future passive savings. The estimated passive savings are presented in **Table 4-6** and are subtracted from the water demand projected based on the water demand factors described in Section 4.3 above. Passive savings are only applied to potable water use.

4.5. Projected Water Demand Through 2045

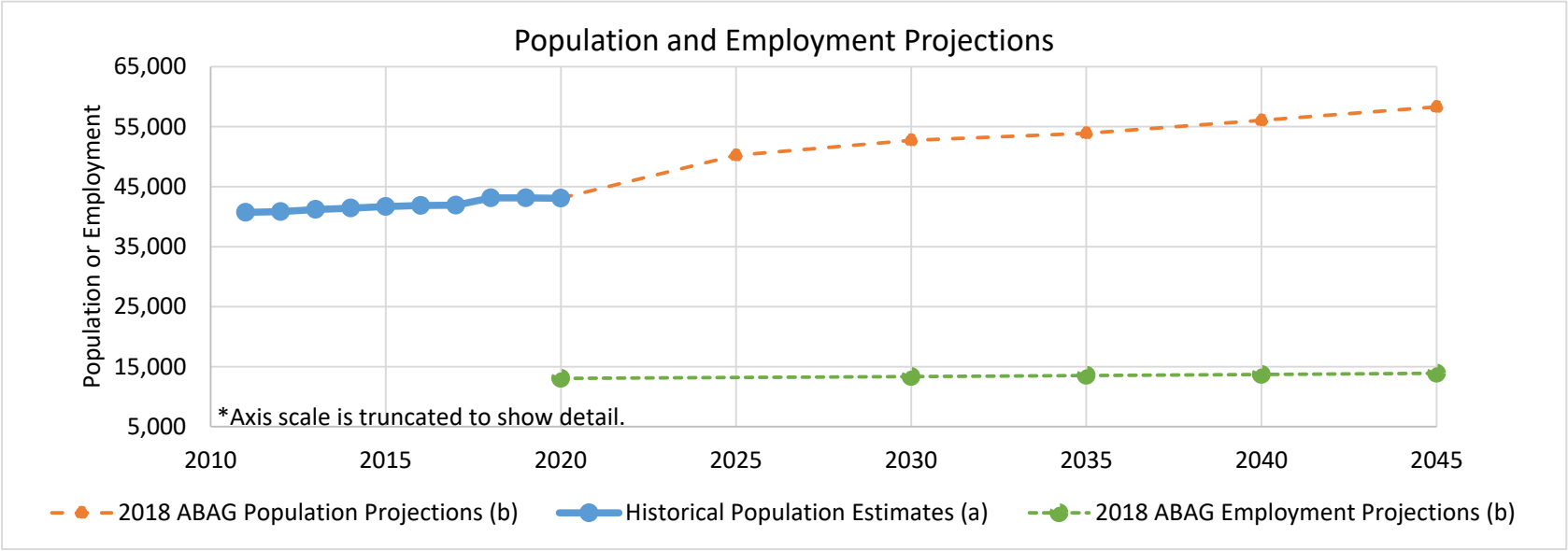
Future potable and recycled water demand was projected for each sector based on their respective demand factors, non-revenue water estimated as a proportion of total potable water production, and estimated passive savings, and is shown in **Table 4-6**. Potable water demand is projected to increase to 5,878 AFY in 2045, which is a 19% increase over 2019 water demand. Recycled water demand is projected

[4] Alliance for Water Efficiency, Water Conservation Tracking Tool Version 3, released in July 2016.

to increase to 1,532 AFY, which is a 40% increase over 2019 water demand. Potable water demand projections are slightly lower than the City's 2015 UWMP demand projections; recycled water demand projections are higher than those projected in the 2015 UWMP (Rohnert Park, 2016).

Table 4-1
Population and Employment Growth Projections
City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Category	Growth Projections											Total Growth Rate 2020-2040	Average Annual Growth Rate 2020-2040
	2015	2016	2017	2018	2019	2020	2025	2030	2035	2040	2045 (c)(d)		
Population													
Historical Population Estimates (a)	41,681	41,868	41,909	43,121	43,134	43,069	--	--	--	--	--	--	--
2018 ABAG Population Projections (b)	--	--	--	--	--	--	50,220	52,720	53,895	56,050	58,291	30%	1.51%
Employment													
2018 ABAG Employment Projections (b)	--	--	--	--	--	13,040	13,355	13,535	13,705	13,900	14,098	6.6%	0.33%



Abbreviations:
-- = not available
ABAG = Association of Bay Area Governments

Table 4-1

Population and Employment Growth Projections

City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Notes:

(a) Historical population estimates for 2011 to 2019 per Reference 3 and 2020 per Reference 2.

(b) 2018 ABAG population and employment projections per Reference 1.

(c) ABAG 2018 includes projections through 2040. 2045 population and employment projections are calculated based on 2035-2040 growth rates (4.0% and 1.4%, respectively).

(d) Rohnert Park General Plan 2040 "buildout" population is estimated at 58,987 based on planned land uses, which is within 0.1% of 2018 ABAG projections.

References:

1. ABAG, 2018. Association of Bay Area Governments, Plan Bay Area Projections 2040, released on November 2018.
2. DOF, 2020. California Department of Finance - Demographic Research Unit, Population Estimates for Cities, Counties, and the State, 2011-2020, with 2010 Benchmark, Report E-4, released on 1 May 2020.
3. Rohnert Park, 2020. RP POP.xlsx, provided by the City of Rohnert Park, dated 8 May 2020.

Table 4-3
Change in Number of Accounts based on Projected Growth
City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Projected Number of Accounts

Water Use Sector	Number of Accounts (a)				
	2025	2030	2035	2040	2045 (b)
Single Family Residential	8,947	9,393	9,602	9,986	10,385
Multi-Family Residential	372	390	399	415	432
Commercial/Industrial/Institutional	738	748	757	768	779
Dedicated Irrigation	389	394	399	405	411
Recycled Water	45	46	46	47	48
Total Accounts	**10,492**	**10,971**	**11,204**	**11,621**	**12,054**

Incremental Increase in Accounts from 2019

Water Use Sector	Number of Accounts				
	2025	2030	2035	2040	2045
Single Family Residential	503	948	1,158	1,542	1,941
Multi-Family Residential	21	39	48	64	81
Commercial/Industrial/Institutional	21	31	40	51	62
Dedicated Irrigation	11	16	21	27	33
Recycled Water	1	2	2	3	4
Total New Accounts	**557**	**1,037**	**1,270**	**1,687**	**2,120**

Estimate of Known Planned Development

Water Use Sector	Number of Accounts (c)				
	2025	2030	2035	2040	2045
Single Family Residential	--	--	--	--	--
Multi-Family Residential	--	--	--	--	--
Commercial/Industrial/Institutional	--	--	--	--	--
Dedicated Irrigation	--	--	--	--	--
Recycled Water	--	--	--	--	--
Total New Accounts	**--**	**--**	**--**	**--**	**--**

Abbreviations:
-- = not available
ABAG = Association of Bay Area Governments
CII = commercial, industrial and institutional

Table 4-3
Change in Number of Accounts based on Projected Growth
City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Notes:

(a) Growth in number of accounts is estimated based on ABAG 2018 projected growth rates for population and employment, per Reference 1 and shown in Table 4-2. Residential sectors are estimated relative to population growth, while CII, irrigation and recycled water accounts are estimated relative to employment growth.
(b) ABAG 2018 includes projections through 2040. For purposes of demand and account projections, it is assumed that the growth rate remains constant from 2036 through 2045.
(c) No new developments are known/anticipated.

References:

1. ABAG, 2018. Association of Bay Area Governments, Plan Bay Area Projections 2040, released on November 2018.

Table 4-6
Projected Water Demand
City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Water Use Sector	Projected Demand (AFY) (a)				
	2025	2030	2035	2040	2045
Potable Water					
Single Family Residential	2,142	2,248	2,298	2,390	2,486
Multi-Family Residential	1,640	1,722	1,760	1,830	1,904
Commercial/Industrial/Institutional	1,045	1,059	1,073	1,088	1,103
Dedicated Irrigation	442	448	454	460	467
Non-revenue Water (b)	8.5%	8.5%	8.5%	8.5%	8.5%
	491	510	520	537	555
Estimated Passive Savings (c)	-221	-358	-458	-553	-636
Total Potable Demand	**5,539**	**5,629**	**5,646**	**5,752**	**5,878**
Recycled Water					
Recycled Water	1,451	1,471	1,489	1,510	1,532
Total Recycled Water Demand	1,451	1,471	1,489	1,510	1,532

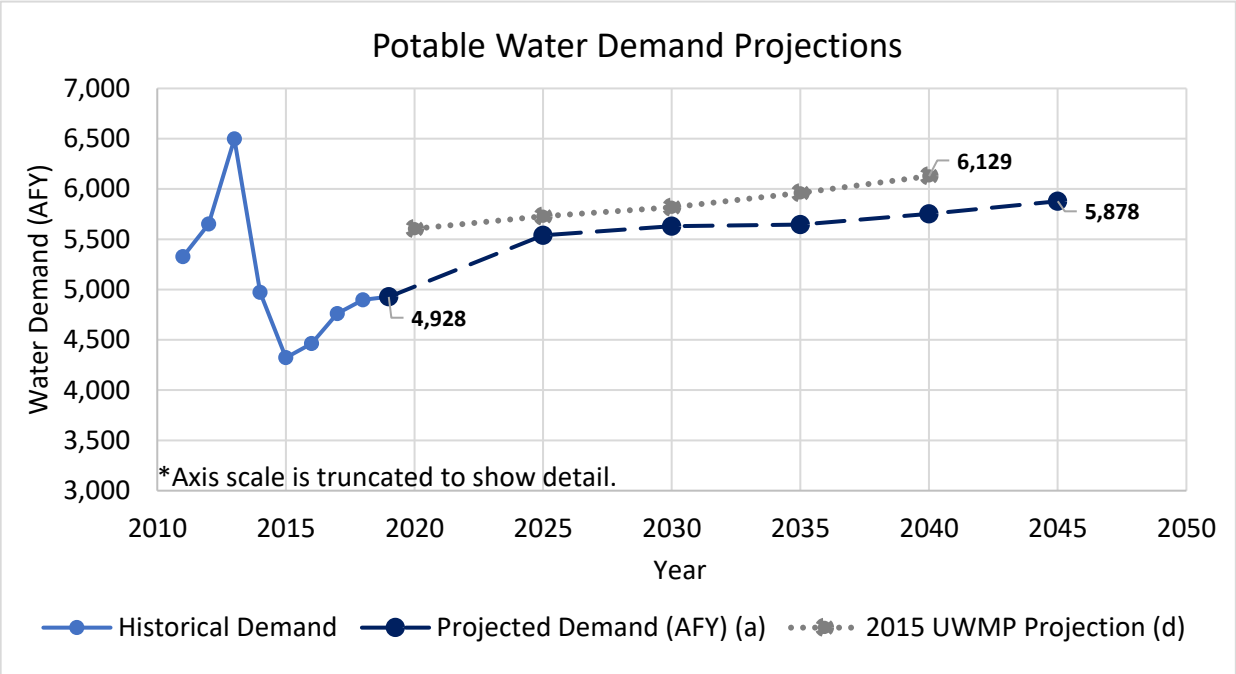
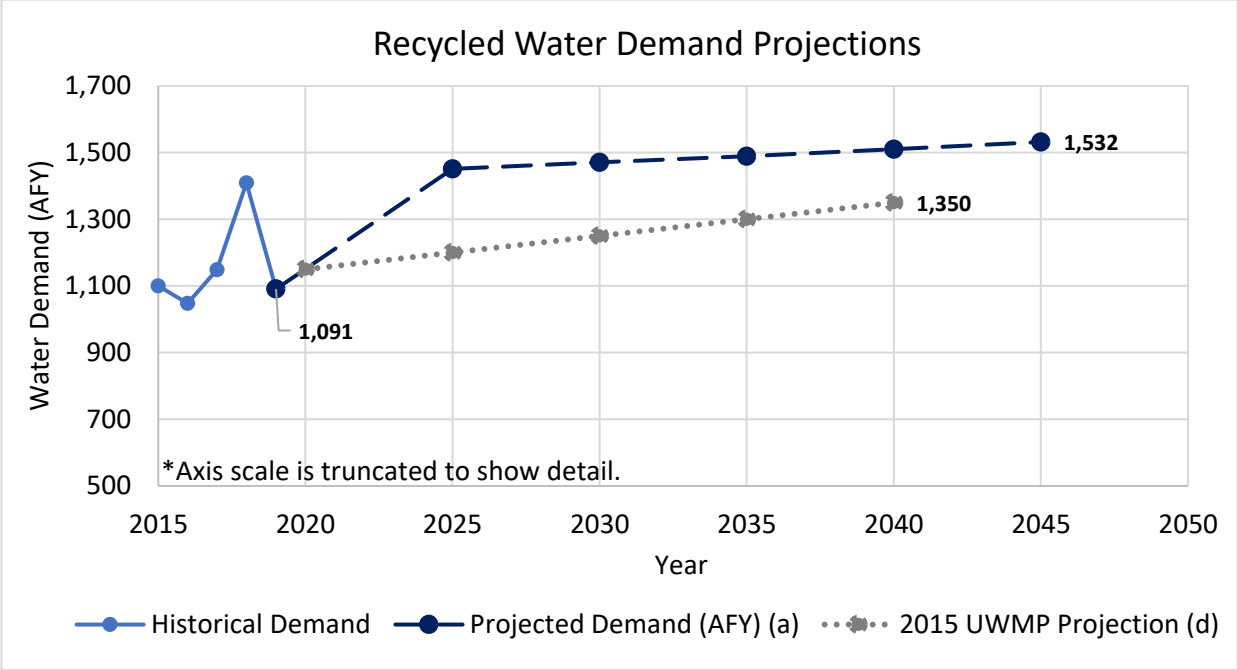


Table 4-6
Projected Water Demand
City of Rohnert Park, Sonoma-Marin Saving Water Partnership



Abbreviations:
ABAG = Association of Bay Area Governments
AFY = acre-feet per year
AWE = Alliance for Water Efficiency
UWMP = Urban Water Management Plan

Notes:
(a) Water demand projections are estimated based on partial rebound demand factors, based on recent historical use. Growth in accounts is based on ABAG 2018 projections, as identified in Table 4-1.
(b) Estimates of non-revenue water are based on the average percentage of water loss reported for 2017 through 2019, per Table 3-2.
(c) Passive water savings are based on the AWE Conservation Tracking Tool.
(d) 2015 UWMP projections per Reference 2.

References:
1. ABAG, 2018. Association of Bay Area Governments, Plan Bay Area Projections 2040, released on November 2018.
2. Rohnert Park, 2016. City of Rohnert Park Final Urban Water Management Plan 2015, dated June 2016.

5. CONSERVATION PROGRAM PARTICIPATION

The following section evaluates past participation in water conservation programs by City customers, including presenting historic program participation and estimated water savings associated with program participation. The purpose of this section is to document program participation and savings in order to inform future program selection and implementation, and to support the demand management measure (DMM) reporting required in the UWMP under CWC § 10631.(e).[5]

5.1. Conservation Programs

The City currently implements four conservation programs offered directly to customers. These programs are described below.

- **High-efficiency toilet (HET) Rebate Program** Get up to $150.00 back on the purchase and installation of each new, qualifying HET from the List of Qualifying Models. An HET uses, on average, 1.28 gallons per flush (gpf) or less – a minimum of 20% less than the standard 1.6 gpf toilets. Replacing your older toilet saves water and reduces wastewater without sacrificing performance.

- **High-Efficiency Clothes Washer (HECW) Rebate** Get up to $75.00 back on the purchase and installation of a new, qualifying HCEW. A new washer can use 40 to 60% less water and energy than older, top loading clothes washers. High capacity HECWs use 18 to 25 gallons of water per load compared to 50 or more gallons for top loading models.

- **Green House Call Program** The Green House Call Program provides free outdoor and indoor water efficiency checks, a landscape irrigation schedule, a leak detection test, low-flow shower heads, aerators, rebate and incentive information, and convenient scheduling.

In addition to programs offered by the City, several regional programs are offered through the SMSWP, including: (1) education and outreach to schools, (2) public outreach and educational workshops, (3) Qualified Water Efficient Landscaper (QWEL) Training, and (4) garden tours.

5.2. Historical Conservation Program Participation

Table 5-1 summarizes participation in the City's conservation programs, including rebates for high-efficiency toilets, urinals, and clothes washers, and the Water Smart Survey Program for residential homes for fiscal year (FY) 2007 through FY 2020. Of these programs, the HECW Rebate Program has reached the most customers, with approximately 980 participants. Participation in the HET and HECW programs was generally the highest from FY 2010 through FY 2015, with reduced participation observed from FY 2018 through FY 2020.[6]

[5] The information presented herein supports a portion of the required DMM analysis, focusing on device and education-focused programs. Additional details regarding customer billing rates and structure, conservation staffing levels, customer metering, etc. are required under CWC § 10631.(e), but not addressed herein.

[6] Water Smart Survey Program was administered by Sonoma Water and ended in 2017. Then, the program was administered by Rising Sun Center for Opportunity in 2018.

Table 5-2 summarizes participation in the regional SMSWP water conservation school education and outreach programs from the 2015-2016 to 2019-2020 school years. Over this period, over 4,000 students were reached by direct instruction and nearly 19,000 students were reached through indirect instruction such as assemblies, video and poster contests, and other educational materials.

5.3. Estimated Savings from Past Conservation Programs

The AWE model[7] was used to estimate water savings associated with the implementation of all device or turf replacement and audit programs identified in **Table 5-1** for the period of 2010 to 2020. Water savings estimates were based on City-specific values calculated per AWE model default values, assumptions developed for the City as a part of the 2015 conservation modeling, and other literature values, as needed. The specific assumptions used in this assessment are presented in **Appendix B**. The results of this analysis are presented in **Table 5-3.**

Based on this, it is estimated that conservation programs included in this assessment resulted in a savings of between 1,821 AFY and 1,964 AFY between 2010 and 2020.[8] In addition, over this period, it is estimated that the City saved 1,745 AFY through passive savings. Thus, total active and passive savings is estimated to be between 3,566 AFY and 3,709 AFY.

[7] Alliance for Water Efficiency, Water Conservation Tracking Tool Version 3, released in July 2016.

[8] Free ridership refers to customers who participate in a conservation program, but who would have taken the water saving action (e.g., replace a toilet) regardless of whether the conservation program incentive was available. The amount of free ridership is unknown, and thus a range of savings is shown, assuming 0% to 100% free ridership for programs, as appropriate.

Table 5-1

Summary of Conservation Program Participation

City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Program Name	End Use		Number of Program Participants in Fiscal Year													Pct. of Accounts (b)
	Sector (a)	Indoor/ Outdoor	2006/ 2007	2007/ 2008	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2020	Total	
HECW Rebate Program	SFR	Indoor	1	2	178	256	183	129	97	78	14	10	19	9	4	**980**	**12%**
HET Rebate Program	SFR	Indoor	--	--	93	33	53	13	7	22	24	22	12	11	15	**305**	**3.6%**
Water Smart Survey Program (c)	SFR	Both	--	--	--	--	--	--	--	--	31	40	--	60	31	**162**	**1.9%**

Abbreviations

-- = not available

HET = High Efficiency Toilet

HECW = High Efficiency Clothes Washer

SFR = Single-family residential

Notes

(a) Sector indicates the predominant customer category for program participants.

(b) Participation is calculated as a percentage of total accounts of the predominant sector indicated.

(c) Water Smart Survey Program was administered by Sonoma Water and ended in 2017. Then, the program was administered by Rising Sun Center for Opportunity as the Green House Call Program in 2018.

(d) Colored shading is added for visualization purposes. Green shading represents higher participation values.

Table 5-2
Summary of Conservation School Education Program Participation
City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Program Name	Number of Students Reached by School Year					
	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	Total
Direct Instruction						
Kindergarten	0	114	100	159	48	**421**
3rd Grade	395	415	379	417	331	**1,937**
5th Grade	290	347	269	326	243	**1,475**
Middle/High School	39	185	3	0	0	**227**
Total	**724**	**1,061**	**751**	**902**	**622**	**4,060**
Indirect Instruction						
ZunZun Assembly	280	550	1,029	0	438	**2,297**
Video Contest	6	5	5	40	0	**56**
WA Poster Contest	300	173	250	269	362	**1,354**
Materials	3,087	2,378	2,822	3,659	3,333	**15,279**
Total	**3,673**	**3,106**	**4,029**	**3,968**	**4,133**	**18,986**

Abbreviations

SMSWP = Sonoma-Marin Saving Water Partnership

WA = Water Awareness

Notes

(a) School education program participation is presented by number of students reached, per SMSWP, 2020.

(b) Colored shading is added for visualization purposes. Green shading represents higher participation values.

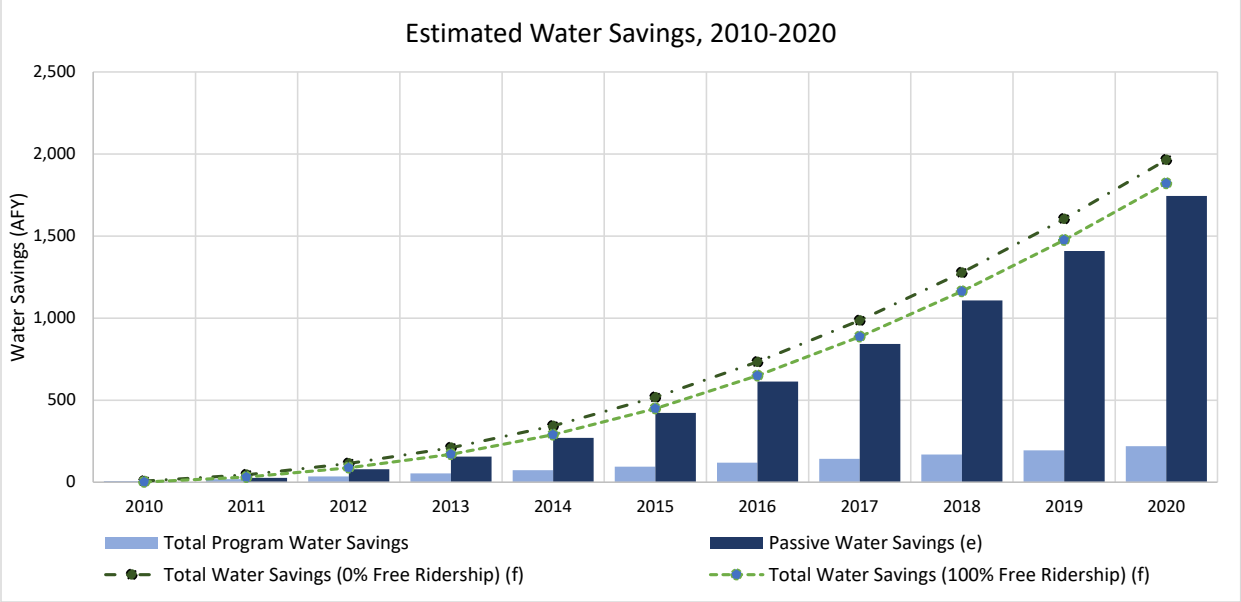
(c) ZunZun Assembly was provided as distance learning for 227 students in 2019-2020.

Source

SMSWP, 2020. Water Conservation School Education Participation 2015 - 2020, provided by SMSWP on 8 June 2020.

Table 5-3
Estimated Water Savings Achieved by Conservation Programs and Passive Savings
City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Water Saving Type	End Use		Estimated Cumulative Water Savings (AFY) (b)										
	Sector (a)	Indoor/ Outdoor	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Conservation Programs (c)													
HECW Rebate Program	SFR	Indoor	3	9	18	29	40	53	64	76	87	98	108
HET Rebate Program	SFR	Indoor	4	9	17	25	33	42	51	62	72	83	94
Water Smart Survey Program (d)	SFR	Both	0	0	0	0	0	1	4	6	9	14	17
Total Program Water Savings			*7*	*19*	*35*	*54*	*73*	*95*	*119*	*143*	*169*	*195*	*220*
Passive Water Savings (e)			*0*	*27*	*79*	*156*	*270*	*423*	*614*	*843*	*1,108*	*1,410*	*1,745*
Total Water Savings (100% Free Ridership) (f)			**2**	**31**	**88**	**170**	**290**	**449**	**649**	**887**	**1,163**	**1,476**	**1,821**
Total Water Savings (0% Free Ridership) (f)			**7**	**46**	**115**	**210**	**344**	**518**	**733**	**986**	**1,277**	**1,604**	**1,964**



Abbreviations

HET = High Efficiency Toilet
HECW = High Efficiency Clothes Washer
SFR = Single-family residential

Notes

(a) Predominant sector for program participants.
(b) Water savings are estimated per the AWE model.
(c) Conservation program participations are summarized in fiscal year.
(d) Water Smart Survey Program was administered by Sonoma Water and ended in 2017. Then, the program was administered by Rising Sun Center for Opportunity as the Green House Call Program in 2018.
(e) Passive water savings are water savings associated with the natural change out of water using fixtures and devices with higher efficiency ones, due to plumbing code and market changes. Passive savings are estimated for the whole service area.
(f) Free ridership refers to customers who participate in a conservation program, but who would have taken the water saving action (e.g., replace a toilet) regardless of whether the conservation program incentive was available. The amount of free ridership is unknown, and thus a range is shown. Free ridership is applied to device and turf replacement programs only.

Sources

1. City of Rohnert Park, 2020. Program Participation Data, provided by Rohnert Park on 6 May 2020.

6. CONSERVATION PROGRAM UPDATE

The following section evaluates current and potential conservation programs for both the City and the SMSWP. The purpose of this section is to compile programs that are prioritized by both the City and by all Water Contractors in the SMSWP collectively in order to calculate the potential water savings and economic feasibility of those programs. Section 6.1 discusses the methodology used to prioritize conservation programs. Section 6.2 describes the programs given high priority for implementation by all nine Water Contractors collectively, and Section 6.3 describes programs given high priority by the City. Section 6.4 analyzes the potential water savings and cost-benefit for those programs selected by the City as both individual programs and in three implementation scenarios. By assessing the feasibility of these programs, the City can make more informed decisions regarding program selection and implementation.

6.1. Methodology for Screening of Potential Water Conservation Programs

In order to evaluate the potential for new conservation programs, a comprehensive list of over 100 conservation programs was developed (**Appendix C**). Each of the nine Water Contractors were first asked to review and identify any additional programs to add to this list. Following receipt of feedback from the Water Contractors, each Water Contractor was asked to review the list and identify:

- Priority (on a scale of 1 to 5, with 5 being the highest priority) as a program to be implemented regionally through the SMSWP;
- Priority (on a scale of 1 to 5, with 5 being the highest priority) as a program to be implemented locally through their agency;
- Preference for the program to be implemented either regionally or locally; and
- Whether each program is currently or has previously been implemented by their agency.

The list of water conservation programs is organized into four categories, specifically: (1) agency actions and water rates, (2) public outreach and education, (3) device-based and financial incentive programs, and (4) policies and regulations. The results of the water conservation program prioritization and screening are summarized for all Water Contractors combined, representing overall regional priorities and preferences (**Table 6-1**), and for each individual Water Contractor, representing each agencies local priorities and preferences. **Table 6-1** shows the average prioritization ranking for all Water Contractors for each program for regional and local implementation as well as the percentage of Water Contractors that prefer each program to be implemented at the local level or the regional level.[9] The results presented in **Table 6-1** are discussed below for each water conservation program category. **Table 6-2** provides the results of this screening for the City of Rohnert Park, including priorities and preferences for each water conservation program, and identifies the target sector, whether the program addresses indoor or outdoor water use, and the primary end use.

[9] Water Contractors were asked to provide a preference for local or regional implementation for all programs they ranked a priority score of 3 or above. Thus, the percentages of Water Contractors shown in **Table 6-1** does not sum to 100%.

6.2. Screening of Regional Conservation Measures

The results summarized below are the collective prioritization by all nine Water Contractors, and do not necessary reflect priorities by the City.

6.2.1. Agency Actions and Water Rate Based Conservation Programs

Of the 15 agency action and water rate based conservation programs included in the screening list, the Water Contractors identified the following eleven programs as high priority (average score of three or higher) to implement at the local level:

1. Install Advanced Metering Infrastructure (AMI) for High Water Users and Large Landscape Accounts
2. Install AMI in New Development
3. Customer Water Loss Reduction (AMI Leak Detection)
4. Install AMI for Existing Accounts
5. Tiered Water Rates (Conservation Pricing)
6. Water Budgeting/Monitoring for Large Landscape Accounts
7. Water Budget Based Billing for Only Irrigation Customers
8. Modification to or Implementation of Tiered Rate Conservation Pricing
9. Establish Separate Pricing Structure for Irrigation Accounts
10. Rate Structure Evaluation
11. Increase Enforcement of State Water Waste Regulations

By their nature as water retailer actions, these programs do not lend themselves to regional implementation. However, in some cases, such as the "Increase Enforcement of State Water Waste Regulations" program, there may be an opportunity to coordinate across the region at a policy or education level. For example, SB-407[10] requires older plumbing fixtures to be replaced with new, more efficient fixtures that meet current water efficiency standards; this requirement is supposed to be enforced at time of sale. If this or similar policies are being enforced differently across Water Contractor jurisdictions, it could result in confusion among customers. Thus, even for agency action-based programs, there may be opportunity for the Water Contractors to coordinate these efforts and share staff education resources.

6.2.2. Public Outreach and Education Based Conservation Programs

Of the 11 public outreach and education-based water conservation programs included in the screening, the Water Contractors identified the following six programs as high priority (average score of three or higher), with a preference for regional implementation through SMSWP:

1. QWEL Training
2. Public Outreach through Print & Electronic Media – Focused on Outdoor Irrigation
3. Educational Workshops
4. School Education Programs

[10] SB 407: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200920100SB407

5. Public Outreach through Print & Electronic Media – Focused on Indoor Conservation
6. Garden tour

All of these programs are currently being implemented by the SMWSP. In addition to these programs, the Water Contractors also indicated that water use surveys or audits for single-family residential and CII customers were a high priority; however, the Water Contractors generally expressed a preference for these programs to be implemented locally.

6.2.3. Device and Financial Incentive Based Conservation Programs

Of the 61 device- and financial incentive- based water conservation programs included in the screening list, the Water Contractors identified the following 11 programs as high priority (average score of three or higher) to implement at either the regional or local level:

1. Landscape Conversion or Turf Removal – MFR and CII
2. Landscape Conversion or Turf Removal – SFR
3. High Efficiency Faucet Aerator / Showerhead Giveaway – Residential Customers
4. Smart Irrigation Controller (Weather-Based Irrigation Controller) Rebates – Large Landscape
5. Drip Irrigation Incentive for SFR
6. High Efficiency Faucet Aerator / Showerhead Giveaway – CII Customers
7. Drip Irrigation Incentive for MFR and CII
8. High Efficiency Clothes Washer Rebate – Residential
9. Smart Irrigation Controller (Weather-Based Irrigation Controller) Rebates – SFR
10. Restaurant Spray Nozzle Rebates
11. Incentivize Irrigation Equipment Upgrades – SFR

The above list includes four programs that focus on indoor water use ("High Efficiency Faucet Aerator / Showerhead Giveaway – Residential Customers", "High Efficiency Faucet Aerator / Showerhead Giveaway – CII Customers", "High Efficiency Clothes Washer Rebate – Residential," and "Restaurant Spray Nozzle Rebates"). The remaining preferred programs all focus on outdoor water use, including turf removal and methods to increase irrigation efficiency.

Of these preferred programs, the Water Contractors expressed a preference for two of the programs to be administered at a regional level rather than local level, specifically the "High Efficiency Clothes Washer Rebate – Residential" and the "Restaurant Spray Nozzle Rebates".

6.2.4. Policy and Regulation Based Conservation Programs

Of the 29 policy- and regulation- based water conservation programs included in the screening list, the Water Contractors identified the following six programs as high priority (average score of three or higher) to implement at the local level:

1. Water Waste Ordinance
2. Require Submetering of Landscaping for New MFR and Commercial Developments
3. Require Water Efficiency Plan Reviews for New CII Development
4. Require High Efficiency Clothes Washers in New Development

5. Require Weather Adjusting Smart Irrigation Controllers, Rain Sensors, and/or Soil Moisture Sensors in New Development
6. Demand Offset/Water Neutral Policy for Large New Developments

Nearly all of the highest priority programs focus on ensuring efficiency in new developments, and target both indoor and outdoor water use. The Water Contractors expressed that the program "Require Irrigation Designers / Installers be Certified (QWEL)" is a high priority at the local level but were split equally as to whether they would prefer this program to be implemented at a local or regional level. Further, given the shift in state policy regarding recycled water use (i.e., that non-potable use of recycled water use will no longer be counted towards water conservation), some Water Contractors were conflicted as to how recycled water should be considered in policies regarding new development, in particular with respect to the program "Demand Offset/Water Neutral Policy for Large New Development."

6.2.5. Regional Program Screening Findings

With some exceptions, the Water Contractors expressed a strong preference for water conservation programs to be implemented locally rather than regionally through the SMSWP, with the exception of programs that are already implemented regionally by the SMSWP. However, as listed above, there was general consensus among Water Contractors about which water conservation programs are a high priority, and thus important for the region. Given this consensus, while there is not an apparent desire to implement programs regionally, there may be opportunity for further coordination and collaboration on these programs, such as sharing of educational resources, training of staff (e.g., building permit and plan review staff), and collaboration on creating similar program structure and requirements (such as for financial incentive-based programs) across the region.

6.3. Screening of Local Conservation Measures

Table 6-2 shows the results of this screening for the City of Rohnert Park, and lists the programs considered by the City to be medium or high priority to consider for the future. **Table 6-2** also identifies the target sector, whether the program addresses indoor or outdoor water use, and the primary targeted end use.

- **Agency Actions and Water Rate Based Conservation Programs.** Five agency action and water rate based conservation programs were identified for potential future implementation. Of these, four are existing programs or actions currently implemented by the City and only one is a potential new program for consideration (i.e., "Rate Structure Evaluation"). The high priority programs preferred by the City target both indoor and outdoor water use and primarily address end uses related to water loss.

- **Public Outreach and Education Based Conservation Programs.** The City ranked five public outreach and education-based water conservation programs as medium priority for potential future implementation. Of these, one is an existing program currently implemented by the City and four are potential new programs for consideration. The City indicated a preference for all new public outreach and education programs to be implemented at the regional level, all of which are currently implemented by the SMSWP (see **Table 6-1**). The SMWSP currently implements a variety

of public education and outreach programs that are available to school age children, adults, and landscape professionals. The potential new programs identified are as follows:

  - Public Outreach through Print & Electronic Media - Focused on Indoor Conservation
  - Public Outreach through Print & Electronic Media - Focused on Outdoor Irrigation
  - QWEL Training (Qualified Water Efficient Landscaper)
  - School Education Programs

- **Device and Financial Incentive Based Conservation Programs.** Fourteen device and financial incentive based programs were ranked as medium to medium-high priority for potential future implementation, including six that would target indoor water use and eight that would target outdoor water use. Two of these programs are currently implemented by the City (i.e., "High Efficiency Clothes Washer Install – Low Income Residential Customers" and "High Efficiency Faucet Aerator / Showerhead Giveaway - Residential Customers"). The potential new programs identified are as follows, in general order of priority:

  - Drip Irrigation Incentive for SFR
  - Direct Install of Efficient Indoor Fixtures - Low Income Residential
  - Drip Irrigation Incentive for MFR and CII
  - High Efficiency Clothes Washer Install - Low Income Residential Customers
  - Hot Water on Demand Pump System Rebate
  - Incentivize Artificial Turf for Sports Fields
  - Landscape Conversion or Turf Removal - MFR and CII
  - Landscape Conversion or Turf Removal -SFR
  - Mulch rebate
  - Smart Irrigation Controller (Weather-Based Irrigation Controller) Rebates - Large Landscape
  - Swimming Pool and Hot Tub Cover Rebates
  - Ultra high-efficiency toilet (UHET) <1.0 gal/flush Rebate – Residential

- **Policy and Regulation Based Conservation Programs.** Eight policy and regulation based programs were identified as medium to medium-high priority for potential future implementation, all of which would be new programs for the City. The selected programs preferred by the City target both indoor and outdoor water use and address a range of end uses, including indoor water use efficiency, irrigation efficiency, and recycled water infrastructure. The potential new programs identified are as follows:

  - Require Submetering by Unit for Existing Commercial Customers
  - Require Swimming Pool and Hot Tub Covers

6.4. Evaluation of Future Water Conservation Programs

Based on the conservation screening process described in Sections 6.2 and 6.3 above, a suite of conservation programs to be considered for future implementation were evaluated. These programs were evaluated both individually and as components in three water conservation program scenarios, as shown in **Table 6-3a**. The three program scenarios represent three potential approaches or strategies for the City's future conservation programs, specifically:

- **Scenario A** represents a focus on programs that target outdoor water savings,
- **Scenario B** represents a more "business as usual" approach based on programs ranked most highly by the City, and
- **Scenario C** represents a focus on the programs that all nine Water Contractors collectively identified as highest priority.

Table 6-3a also identifies the customer sectors each program would target as well as whether the program focuses on indoor or outdoor water use, or both.

The benefits and costs associated with implementation of these programs were evaluated using the AWE model, using a series of assumptions documented in **Appendix B**.[11] Key assumptions and considerations related to the methodology used by the AWE model and in this analysis are provided below:

- Financial assumptions related to both costs to the utility and customer water rates were provided by the City.
- Financial assumptions related to energy costs to the customer were assumed based on typical PG&E rates (PG&E, 2020; PG&E and Sonoma Clean Water, 2020).
- Water savings assumptions were based on a combination of AWE model default assumptions, assumptions developed for the City as a part of the 2015 conservation modeling per Rohnert Park (2016), and water savings factors developed based on other published literature sources.
- Assumed rate of program implementation was based on historical participation levels by City customers in similar programs.
- For purposes of near-term conservation program analysis, it is assumed that all programs are active from 2021 through 2025; water savings projections beyond this period reflect cumulative savings achieved over time from implementation during this five-year period.
- Benefit-costs ratios are particularly sensitive to the assumed nominal rate of increase of the utility water cost.
- Lost revenue due to reduced water sales is not included as a cost.
- Additional program-specific considerations are provided as notes in the attached tables.

Table 6-3b presents a comparison of individual water conservation measures, and identifies the following information for each program:

- **Net present value of costs and benefits** – represents the present value over the 25-year period discounted to current 2020 dollars.
- **Benefit to cost ratio** – calculated as present value of costs divided by the present value of benefits.
- **Water Utility Costs** – costs that the City as a water utility will incur to operate the program including administrative costs.

[11] Alliance for Water Efficiency, Water Conservation Tracking Tool Version 3, released in July 2016.

- **Customer Costs** – costs customers will incur to implement a program in the Water Contractor's service area.
- **Utility Benefits** – the avoided cost to the City to produce the volume of water saved.
- **Customer Benefits** – the savings from reduced water/sewer utility bills and energy savings resulting from reduced use of hot water.
- **Total Water Utility Costs** – includes costs to the City for program implementation from 2021-2025.
- **Water Savings in 2025** – one-year estimated water savings in 2025.
- **Water Utility Cost of Water Saved for individual programs** – cost of water saved dividing by the lifetime water savings of that program.
- **Water Utility Cost of Water Saved for program scenarios** – weighted average of Water Utility Cost of Water Saved for the individual programs by the cumulative water savings through 2045.

This analysis estimates active program savings based on the AWE model, and does not include additional savings anticipated from passive savings (i.e., water savings associated with the natural replacement of less efficient water using fixtures and appliances due to both market shifts and increasing efficiency mandated by the building code and other regulatory requirements). Based on this analysis, and the assumptions presented in **Appendix B**, the benefit-cost ratios for the City range from 0.20 to 11.

Table 6-3c presents the results of the analysis of the three conservation program scenarios identified in **Table 6-3a**, and includes a summary of costs and benefits to the City and customers, estimated cumulative water savings through 2045 (based on assumed program implementation from 2021-2025), and the estimated cost of water saved to the City. Based on this, the approach of focusing water conservation measures on those ranked highest by all nine Water Contractors collectively (i.e., Scenario C) has a greater benefit to cost ratio than that of Scenarios A or B. The projected water savings associated with implementation of Scenario C is 333 AF by 2025 and 865 by 2045, at a cost of approximately $1,108/AF.

Table 6-1
Regional Prioritization of Conservation Measures and Programs
Sonoma-Marin Saving Water Partnership

Conservation Measure/Program	Prioritization (a)		Preference (b)		Current SMSWP Program	
	Regional	Local	Regional Program	Local Program		
AGENCY ACTIONS AND WATER RATES						
Install AMI for High Water Users and Large Landscape Accounts	2.5	4.7	11%	67%	No	✗
Install AMI in New Development	2.4	4.7	0%	67%	No	✗
Customer Water Loss Reduction (AMI Leak Detection)	2.4	4.4	0%	89%	No	✗
Install AMI for Existing Accounts	2.4	4.0	0%	86%	No	✗
Tiered Water Rates (Conservation Pricing)	2.0	3.6	0%	88%	No	✗
Water Budgeting/Monitoring for Large Landscape Accounts	2.5	3.4	0%	83%	No	✗
Water Budget Based Billing for Only Irrigation Customers	2.1	3.4	0%	86%	No	✗
Modification to or Implementation of Tiered Rate Conservation Pricing	2.0	3.4	0%	88%	No	✗
Establish Separate Pricing Structure for Irrigation Accounts	2.0	3.2	0%	83%	No	✗
Rate Structure Evaluation	2.4	3.1	0%	78%	No	✗
Increase Enforcement of State Water Waste Regulations	2.6	3.0	0%	86%	No	✗
Water Budget Based Billing for All Customers	2.3	2.4	0%	50%	No	✗
Increase Enforcement of Indoor Fixture Retrofit at Time of Sale	1.9	2.2	17%	67%	No	✗
Increase Enforcement of Customer Pressure Reducing Valve (PRV) Requirement	1.6	1.9	0%	40%	No	✗
Regional UHET and/or Urinal Bulk Purchase Program	1.9	1.7	75%	0%	No	✗
Average by Program Type	2.2	3.3				
PUBLIC OUTREACH AND EDUCATION						
QWEL Training (Qualified Water Efficient Landscaper)	4.3	2.0	89%	0%	Yes	✓
Public Outreach through Print & Electronic Media - Focused on Outdoor Irrigation	4.0	3.9	67%	0%	Yes	✓
Educational Workshops	4.0	3.2	63%	0%	Yes	✓
School Education Programs	4.0	3.1	78%	0%	Yes	✓

Table 6-1
Regional Prioritization of Conservation Measures and Programs
Sonoma-Marin Saving Water Partnership

Conservation Measure/Program	Prioritization (a)		Preference (b)		Current SMSWP Program	
	Regional	Local	Regional Program	Local Program		
Water Use Surveys/Audits - SFR	3.5	3.9	22%	44%	No	✗
Public Outreach through Print & Electronic Media - Focused on Indoor Conservation	3.6	3.3	57%	0%	Yes	✓
Garden tour	3.6	1.9	86%	0%	Yes	✓
Water Use Surveys/Audits - CII	3.0	3.4	38%	38%	No	✗
Water Use Surveys/Audits - MFR	2.8	3.3	29%	43%	No	✗
Promote Green Building and Certification	3.1	2.2	33%	17%	No	✗
Provide Support with Smart Irrigation Controller Setup	2.9	2.3	60%	0%	No	✗
Average by Program Type	3.5	3.0				
DEVICE-BASED AND FINANCIAL INCENTIVE PROGRAMS						
Landscape Conversion or Turf Removal - MFR and CII	3.9	4.6	11%	78%	No	✗
Landscape Conversion or Turf Removal -SFR	3.9	4.6	22%	67%	No	✗
High Efficiency Faucet Aerator / Showerhead Giveaway - Residential Customers	3.0	3.9	11%	44%	No	✗
Smart Irrigation Controller (Weather-Based Irrigation Controller) Rebates - Large Landscape	3.1	3.6	38%	38%	No	✗
Drip Irrigation Incentive for SFR	2.4	3.6	25%	50%	No	✗
High Efficiency Faucet Aerator / Showerhead Giveaway - CII Customers	2.9	3.4	14%	57%	No	✗
Drip Irrigation Incentive for MFR and CII	2.4	3.4	25%	50%	No	✗
High Efficiency Clothes Washer Rebate - Residential	3.3	3.3	44%	11%	Yes	✓
Smart Irrigation Controller (Weather-Based Irrigation Controller) Rebates - SFR	2.9	3.2	14%	57%	No	✗
Restaurant Spray Nozzle Rebates	3.1	2.8	50%	0%	No	✗
Incentivize Irrigation Equipment Upgrades - SFR	2.1	3.0	17%	50%	No	✗
Indoor Fixture Program For Schools	2.9	2.9	14%	71%	No	✗
Rotating Sprinkler Nozzle Rebate	2.9	2.9	40%	20%	No	✗

Table 6-1
Regional Prioritization of Conservation Measures and Programs
Sonoma-Marin Saving Water Partnership

Conservation Measure/Program	Prioritization (a)		Preference (b)		Current SMSWP Program	
	Regional	Local	Regional Program	Local Program		
High Efficiency Clothes Washer Rebate Program - CII	2.8	2.8	29%	29%	No	✗
Direct Install of Efficient Indoor Fixtures - Low Income Residential	2.8	2.6	60%	0%	No	✗
Indoor Fixture Program For Hotels & Motels	2.8	2.2	29%	43%	No	✗
Mulch rebate	2.6	2.7	33%	50%	No	✗
Rain Sensor Rebate	2.5	2.6	33%	50%	No	✗
Incentivize Submetering for Existing Customers - CII	2.4	2.6	25%	25%	No	✗
Incentivize Submetering for Existing Customers - MFR	2.4	2.6	25%	25%	No	✗
Incentivize Gray Water Retrofit for Existing SFR Customers	2.3	2.6	20%	60%	No	✗
Toilet Flapper Giveaway - SFR customers	2.1	2.6	40%	40%	No	✗
Rotating Sprinkler Nozzle Giveaway	2.5	2.1	60%	0%	No	✗
Incentivize Replacement of Inefficient Commercial and Industrial Equipment	2.4	2.4	33%	33%	No	✗
Soil Moisture Sensor Rebate	2.4	2.4	60%	20%	No	✗
High Efficiency Urinal (<0.25 gal/flush) Rebates - CII	2.4	2.4	25%	0%	No	✗
Incentivize Gray Water Systems for New CII Development	2.3	2.4	50%	25%	No	✗
Incentivize Irrigation Equipment Upgrades - Large Landscapes	1.9	2.4	20%	40%	No	✗
Direct Install of Efficient Indoor Fixtures - Residential	2.4	2.2	50%	0%	No	✗
High Efficiency Clothes Washer Install - Low Income Residential Customers	2.4	2.2	50%	0%	No	✗
Smart Irrigation Controller (Weather-Based Irrigation Controller) Giveaway - Large Landscape	2.4	2.0	80%	0%	No	✗
Smart Irrigation Controller (Weather-Based Irrigation Controller) Giveaway - SFR	2.4	2.0	60%	20%	No	✗
Incentivize Artificial Turf for Sports Fields	2.3	2.3	75%	0%	No	✗
UHET <1.0 gal/flush Rebate - Residential	2.1	2.3	50%	17%	No	✗
Water Savings Incentive Program for CII	2.1	2.2	40%	40%	No	✗

Table 6-1
Regional Prioritization of Conservation Measures and Programs
Sonoma-Marin Saving Water Partnership

Conservation Measure/Program	Prioritization (a)		Preference (b)		Current SMSWP Program	
	Regional	Local	Regional Program	Local Program		
Hot Water on Demand Pump System Rebate	2.0	2.2	60%	20%	No	✗
UHET Direct Installation - CII	2.1	1.8	40%	0%	No	✗
Plumber Initiated UHET and / or Urinal Retrofit Program	2.1	1.8	67%	0%	No	✗
Direct Install of Efficient Indoor Fixtures - Government Buildings	2.1	1.6	50%	0%	No	✗
Rain Barrel Rebate	1.9	2.1	40%	40%	No	✗
Incentivize Replacement of Pressure Reducing Valves (PRVs) with 60-70 psi PRVs	2.0	2.0	33%	33%	No	✗
Thermostatic Shut-Off Valve Showerheads/Tub Spouts Rebates	2.0	1.9	50%	0%	No	✗
Dipper Well Rebates	2.0	1.8	50%	0%	No	✗
Rain Sensor Giveaway	2.0	1.7	75%	0%	No	✗
Rebates for Conductivity Controllers on Cooling Towers	2.0	1.6	75%	0%	No	✗
Rainwater Catchment System Rebate for Large Landscapes	1.9	2.0	50%	25%	No	✗
Nonresidential Incentive for Self-closing or Metering Faucets	1.9	1.9	33%	33%	No	✗
Efficient (EnergyStar) Dishwasher Rebates	1.9	1.8	50%	0%	No	✗
Rain Barrel Giveaway	1.9	1.7	75%	0%	No	✗
UHET Direct Installation - Residential	1.9	1.7	50%	0%	No	✗
Autoclave (Steam-Sterilizer) Retrofit Rebates	1.9	1.7	67%	0%	No	✗
Connectionless Food Steamer Rebates	1.9	1.7	67%	0%	No	✗
Dry Vacuum Pumps	1.9	1.6	33%	0%	No	✗
Incentivize Cooling Tower Upgrades	1.9	1.6	50%	0%	No	✗
UHET <1.0 gal/flush Rebate - CII	1.8	1.8	60%	20%	No	✗
Soil Moisture Sensor Giveaway	1.8	1.7	67%	0%	No	✗
Direct Install of Efficient Indoor Fixtures - Commercial and Industrial	1.8	1.7	67%	0%	No	✗

Table 6-1
Regional Prioritization of Conservation Measures and Programs
Sonoma-Marin Saving Water Partnership

Conservation Measure/Program	Prioritization (a)		Preference (b)		Current SMSWP Program	
	Regional	Local	Regional Program	Local Program		
Swimming Pool and Hot Tub Cover Rebates	1.3	1.7	50%	25%	No	✗
Urinal Direct Installation - CII	1.5	1.4	50%	0%	No	✗
Tier 4 Exemption	1.3	1.4	25%	25%	No	✗
Incentivize Submetering of Cooling Towers for Existing Customers	1.3	1.4	50%	0%	No	✗
Average by Program Type	2.3	2.3				
POLICIES AND REGULATIONS						
Water Waste Ordinance	2.9	4.3	0%	63%	No	✗
Require Submetering of Landscaping for New MFR and Commercial Developments	2.8	4.0	0%	63%	No	✗
Require Water Efficiency Plan Reviews for New CII Development	2.5	3.7	14%	57%	No	✗
Require High Efficiency Clothes Washers in New Development	2.8	3.3	17%	67%	No	✗
Require Weather Adjusting Smart Irrigation Controllers, Rain Sensors, and/or Soil Moisture Sensors in New Development	2.4	3.1	0%	80%	No	✗
Require Irrigation Designers / Installers be Certified (QWEL)	3.0	2.9	40%	40%	No	✗
Demand Offset/Water Neutral Policy for Large New Developments	2.4	3.0	0%	83%	No	✗
Require Efficient (EnergyStar) Dishwashers in New Development	2.8	2.9	20%	60%	No	✗
Require <0.25 gal/flush Urinals in New Development	2.3	2.8	0%	67%	No	✗
Water Conserving Landscape and Irrigation Codes, More Stringent than MWELO	1.6	2.8	0%	67%	No	✗
Require Swimming Pool and Hot Tub Covers	2.0	2.7	40%	20%	No	✗
Require Submetering by Unit for New Commercial Developments	2.3	2.6	0%	50%	No	✗
Require Submetering of Landscaping for Existing MFR and Commercial Customers	2.4	2.4	0%	67%	No	✗
Require Hot Water on Demand / Structured Plumbing in New Residential Development	2.3	2.4	25%	50%	No	✗
Require Submetering by Unit for Existing Commercial Customers	2.1	2.4	0%	25%	No	✗

Table 6-1
Regional Prioritization of Conservation Measures and Programs
Sonoma-Marin Saving Water Partnership

Conservation Measure/Program	Prioritization (a)		Preference (b)		Current SMSWP Program	
	Regional	Local	Regional Program	Local Program		
Require Submetering for New MFR Developments	1.9	2.4	0%	50%	No	✗
Require Plumbing for Recycled Water in New MFR Development	2.0	2.3	0%	60%	No	✗
Require <1.0 gal/flush Toilets in New Development	2.0	2.3	0%	80%	No	✗
Require Submetering for New Mobile Home Park Developments	2.0	2.3	0%	40%	No	✗
Prohibit Once through Cooling Systems	2.0	2.2	0%	50%	No	✗
Require Plumbing for Recycled Water in New CII Development	1.9	2.2	0%	60%	No	✗
Require On-Site Water Reuse Systems (Grey Water or Black Water) for Large CII Developments	1.8	2.1	25%	50%	No	✗
Require Plumbing for Gray Water in New SFR Development	1.6	2.1	0%	75%	No	✗
Require Submetering of Cooling Towers for New Development	2.0	1.9	0%	33%	No	✗
Require Submetering of Existing MFR (and Mobile Home Park) Customers	1.9	1.9	0%	50%	No	✗
Restrict Landscape Irrigation to Designated Days/Times	1.6	1.8	33%	0%	No	✗
Require Rain Barrels in New Development	1.5	1.8	0%	67%	No	✗
Require Submetering of Cooling Towers for Existing Customers	1.8	1.6	0%	50%	No	✗
Require Cooling Tower Retrofits	1.5	1.4	0%	33%	No	✗
Average by Program Type	2.1	2.5				

Table 6-1
Regional Prioritization of Conservation Measures and Programs
Sonoma-Marin Saving Water Partnership

Abbreviations:

AMI = advanced metering infrastructure
CII = commercial, industrial, institutional
MFR = multi-family residential
MWELO = Model Water Efficient Landscape Ordinance
PRV = pressure reducing valve
SFR = single-family residential
SMSWP = Sonoma-Marin Saving Water Partnership
UHET = ultra high efficiency toilet

Notes:

(a) Each Water Contractor was asked to rank each conservation program or measure in terms of priority as a regionally-administered program, and as a locally-administered program, where 5 indicated highest priority and 1 indicated the lowest priority. Results are presented as an average of the responses of all nine Water Contractors.

(b) For each program a Water Contractor ranked as "3" or above, the Water Contractor was asked to indicate whether they would prefer the program to be administered regionally or locally. The results are presented as a percentage of the number of Water Contractors. Results of contractors who expressed "no preference" are not shown, and thus the total may not sum to 100% for a given measure.

Table 6-2
Prioritization of Conservation Measures and Programs
City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Conservation Measure/Program	Prioritization (a)	Sector	Indoor	Outdoor	Primary End Use	Preference (b)	Local Program
AGENCY ACTIONS AND WATER RATES							
Customer Water Loss Reduction (AMI Leak Detection)	5	All	X	X	Water Loss	Locally	Yes, currently
Install AMI for Existing Accounts	5	All	X	X	Water Loss	Locally	Yes, currently
Install AMI for High Water Users and Large Landscape Accounts	5	All		X	Water Loss	Locally	Yes, currently
Install AMI in New Development	5	All	X	X	Water Loss	Locally	Yes, currently
Rate Structure Evaluation	3	All	X	X	All	No preference	No
PUBLIC OUTREACH AND EDUCATION							
Public Outreach through Print & Electronic Media - Focused on Indoor Conservation	3	All		X	All Indoor	Regionally	No
Public Outreach through Print & Electronic Media - Focused on Outdoor Irrigation	3	All	X		Irrigation	Regionally	No
QWEL Training (Qualified Water Efficient Landscaper)	3	All		X	Irrigation	Regionally	No
School Education Programs	3	SFR, MFR	X	X	All	Regionally	No
Water Use Surveys/Audits - SFR	3	SFR	X	X	All	Locally	Yes, currently
DEVICE-BASED AND FINANCIAL INCENTIVE PROGRAMS							
Drip Irrigation Incentive for SFR	4	SFR		X	Irrigation	Regionally	No
Direct Install of Efficient Indoor Fixtures - Low Income Residential	3	SFR, MFR	X		Toilet, Faucet, Showerhead	Regionally	No
Drip Irrigation Incentive for MFR and CII	3	MFR, CII		X	Irrigation	Regionally	No
High Efficiency Clothes Washer Install - Low Income Residential Customers	3	SFR, MFR	X		Clothes Washer	Regionally	No
High Efficiency Clothes Washer Rebate - Residential	3	SFR, MFR	X		Clothes Washer	No preference	Yes, currently
High Efficiency Faucet Aerator / Showerhead Giveaway - Residential Customers	3	SFR, MFR	X		Faucet, Showerhead	No preference	Yes, currently
Hot Water on Demand Pump System Rebate	3	SFR, MFR	X		Hot Water	Regionally	No
Incentivize Artificial Turf for Sports Fields	3	CII		X	Irrigation	Regionally	No
Landscape Conversion or Turf Removal - MFR and CII	3	MFR, CII		X	Irrigation	Locally	No
Landscape Conversion or Turf Removal -SFR	3	SFR		X	Irrigation	Regionally	No
Mulch rebate	3	SFR		X	Irrigation	Regionally	No
Smart Irrigation Controller (Weather-Based Irrigation Controller) Rebates - Large Landscape	3	MFR, CII		X	Irrigation	Regionally	No

Table 6-2
Prioritization of Conservation Measures and Programs
City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Conservation Measure/Program	Prioritization (a)	Sector	Indoor	Outdoor	Primary End Use	Preference (b)	Local Program
Swimming Pool and Hot Tub Cover Rebates	3	SFR, MFR		X	Pool/Hot Tub	Regionally	No
UHET <1.0 gal/flush Rebate - Residential	3	SFR, MFR	X		Toilet	No preference	No
POLICIES AND REGULATIONS							
Require Submetering for New MFR Developments	4	MFR	X		All Indoor	No preference	Yes, currently
Require Plumbing for Recycled Water in New CII Development	3	CII		X	Irrigation / Recycled Water	No preference	Yes, currently
Require Plumbing for Recycled Water in New MFR Development	3	MFR		X	Irrigation / Recycled Water	No preference	Yes, currently
Require Submetering by Unit for Existing Commercial Customers	3	CII	X		All Indoor	No preference	No
Require Submetering by Unit for New Commercial Developments	3	CII	X		All Indoor	No preference	Yes, currently
Require Submetering for New Mobile Home Park Developments	3	MFR	X		All Indoor	No preference	Yes, currently
Require Submetering of Landscaping for New MFR and Commercial Developments	3	CII		X	Irrigation	No preference	Yes, currently
Require Swimming Pool and Hot Tub Covers	3	SFR, MFR		X	Pool/Hot Tub	No preference	No

Abbreviations:
AMI = advanced metering infrastructure
CII = commercial, industrial, institutional
COM = commercial
IRR = irrigation account
MFR = multi-family residential
MWELO = Model Water Efficient Landscape Ordinance
PRV = pressure reducing valve
SFR = single-family residential
SMSWP = Sonoma-Marin Saving Water Partnership
UHET = ultra high efficiency toilet

Notes:

(a) Each Water Contractor was asked to rank each conservation program or measure in terms of priority as a locally-administered program, where 5 indicated highest priority and 1 indicated the lowest priority.

(b) For each program a Water Contractor ranked as "3" or above, the Water Contractor was asked to indicate whether they would prefer the program to be administered regionally or locally. N/A indicates no preference given for programs given a ranking lower than three for both local and regional priority.

Table 6-3a
Conservation Program Scenarios
City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Program	Sector	Indoor/ Outdoor	Program Scenario (a)		
			A) Outdoor Programs	B) Highly-Ranked Local Programs	C) Highly-Ranked Regional Programs
Drip Irrigation Incentive for MFR and CII	MFR, CII	Outdoor	X		
Drip Irrigation Incentive for SFR	SFR	Outdoor	X		
High Efficiency Clothes Washer Rebate - Residential	SFR, MFR	Indoor		X	X
High Efficiency Faucet Aerator / Showerhead Giveaway - Residential Customers	SFR, MFR	Indoor		X	X
Incentivize Artificial Turf for Sports Fields	CII	Outdoor	X	X	
Landscape Conversion or Turf Removal - MFR and CII	MFR, CII	Outdoor	X	X	X
Landscape Conversion or Turf Removal -SFR	SFR	Outdoor	X		X
Mulch rebate	SFR	Outdoor	X		
Restaurant Spray Nozzle Rebates	CII	Indoor			X
Smart Irrigation Controller (Weather-Based Irrigation Controller) Rebates - Large Landscape	MFR, CII	Outdoor	X	X	X
Swimming Pool and Hot Tub Cover Rebates	SFR, MFR	Outdoor	X		
Water Use Surveys/Audits - CII	CII	Both	X	X	X
Water Use Surveys/Audits - MFR	MFR	Indoor		X	
Water Use Surveys/Audits - SFR	SFR	Both	X	X	X

Abbreviations

CII = Commercial, Industrial, and Institutional
MFR = multi-family residential
SFR = Single-family residential

Notes

(a) Program scenarios represent three potential approaches to program selection. Scenario A represents a focus on outdoor water savings, Scenario B represents a more "business as usual" approach based on programs ranked most highly by City of Rohnert Park, and Scenario C represents a focus on the programs all nine Water Contractors collectively identified as highest priority.

Table 6-3b
Costs and Savings of Potential Conservation Programs
City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Program (a)	Sector	Indoor/ Outdoor	Note	Present Value of Benefits		Present Value of Cost		Benefit to Cost Ratio (b)		Water Utility Costs 2021-2025 (c)	Water Savings in 2025 (AFY)	Water Utility Cost of Water Saved ($/AF)
				Water Utility	Customers	Water Utility	Customers	Water Utility	Customers			
Drip Irrigation Incentive for MFR and CII	MFR, CII	Outdoor	(d)	$18,011	$21,775	$22,225	$17,096	0.81	1.3	$20,313	1.2	$1,324
Drip Irrigation Incentive for SFR	SFR	Outdoor	(d)	$3,602	$3,742	$17,780	$13,677	0.20	0.27	$16,250	0.25	$5,295
High Efficiency Clothes Washer Rebate - Residential	SFR, MFR	Indoor		$84,492	$578,739	$42,671	$317,298	2.0	1.8	$39,000	5.6	$549
High Efficiency Faucet Aerator / Showerhead Giveaway - Residential Customers	SFR, MFR	Indoor		$81,285	$84,418	$40,964	$65,648	2.0	1.3	$37,440	14	$541
Incentivize Artificial Turf for Sports Fields	CII	Outdoor		$960,022	$1,161,092	$1,638,572	$5,041,759	0.59	0.23	$1,497,600	38	$1,830
Landscape Conversion or Turf Removal - MFR and CII	MFR, CII	Outdoor		$259,502	$313,707	$355,593	$820,599	0.73	0.38	$325,000	21	$1,470
Landscape Conversion or Turf Removal -SFR	SFR	Outdoor		$77,851	$80,870	$106,678	$246,180	0.73	0.33	$97,500	6.4	$1,470
Mulch rebate	SFR	Outdoor		$38,261	$39,736	$53,339	$16,412	0.72	2.4	$48,750	6.4	$1,496
Restaurant Spray Nozzle Rebates	CII	Indoor		$40,600	$273,042	$3,556	$2,735	11	100	$3,250	6.7	$95
Smart Irrigation Controller (Weather-Based Irrigation Controller) Rebates - Large Landscape	MFR, CII	Outdoor		$359,213	$434,245	$142,237	$54,707	2.5	7.9	$130,000	30	$425
Swimming Pool and Hot Tub Cover Rebates	SFR, MFR	Outdoor		$11,359	$11,797	$7,112	$16,412	1.6	0.7	$6,500	1.9	$672
Water Use Surveys/Audits - CII	CII	Both		$111,059	$134,220	$218,826	$273,533	0.51	0.49	$200,000	19	$2,114
Water Use Surveys/Audits - MFR	MFR	Indoor		$111,059	$134,220	$218,826	$273,533	0.51	0.49	$200,000	19	$2,114
Water Use Surveys/Audits - SFR	SFR	Both		$31,234	$93,454	$47,237	$11,215	0.66	8.3	$43,173	5.2	$1,632

Abbreviations

AFY = acre-feet per year
CII = Commercial, Industrial, and Institutional
MFR = multi-family residential
SFR = Single-family residential
sq ft = square feet
$/AF = dollars per acre-foot

Table 6-3b
Costs and Savings of Potential Conservation Programs
City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Notes

(a) Estimated water savings, benefits, and costs are calculated using the AWE model. Assumptions used are presented in Appendix B.
(b) City of Rohnert Park assumes a nominal increase in water purchase cost of 3.0%, which is lower than the values used by other agencies. The lower water cost results in lower benefit-cost ratios for the conservation programs.
(c) For purposes of near-term conservation program analysis, it is assumed that all programs are active from 2021 through 2025.
(d) The benefit-cost results of the drip irrigation programs are strongly influenced by the lawn size. As lawn size goes up, the unit cost goes down, and the benefit-cost ratio goes up.

Table 6-3c
Comparison of Program Scenarios – Costs and Savings
City of Rohnert Park, Sonoma-Marin Saving Water Partnership

Scenario (a)	Present Value of Benefits		Present Value of Cost		Benefit to Cost Ratio		Cumulative Water Savings (AF)					Water Utility Cost of Water Saved ($/AF) (b)
	Water Utility	Customers	Water Utility	Customers	Water Utility	Customers	2025	2030	2035	2040	2045	
A) Outdoor Programs	$1,870,114	$2,294,637	$2,609,597	$6,511,588	0.72	0.35	399	940	1,252	1,443	1,520	$1,717
B) Highly-Ranked Local Programs	$1,997,865	$2,934,095	$2,704,926	$6,858,291	0.74	0.43	473	1,038	1,351	1,549	1,626	$1,664
C) Highly-Ranked Regional Programs	$1,045,235	$1,992,694	$957,762	$1,791,914	1.09	1.11	333	723	858	865	865	$1,108

Abbreviations
AF = acre-feet
$/AF = dollars per acre-foot

Notes
(a) For purposes of near-term conservation program analysis, it is assumed that all programs are active from 2021 through 2025. Cumulative water savings achieved beyond 2025 reflect the ongoing benefit of program implementation.
(b) The water utility cost is based on the cumulative savings achieved through 2045 cumulative water savings.

7. CONCLUSION

This report presents the results of demand analysis and projections, developed consistent with CWC § 10631(d)(4)(A), which requires that "Water use projections, where available, shall display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area." The assumptions used as the bases for demand projections were developed in close coordination with the City and reflect a land-use based approach consistent with the City's community planning, using the best available information. It should be noted that all demand and conservation projections have limitations and should be considered estimates that require revisiting as factors that affect demands arise, such as significant economic or population shifts, extreme hydrological conditions, etc.

The methodology used to develop demand projections herein is also consistent with the CWC §10635(b)(4), requirement to consider climate change on projected demands.[12] California experienced a historic drought between 2011-2017. In 2014, Governor Brown issued Executive Order B-26-14 declaring a Drought State of Emergency and requested all Californians to voluntarily reduce water use by 20%. In 2015, the State Water Resources Control Board implemented emergency conservation regulations that, among other things, required water agencies to reduce their water use and prohibited certain types of water uses. As a result, the City experienced an overall decrease in demands during the historic drought, most significantly during 2014. The demand factors evaluated herein consider both the 2011-2013 period, in which customers increased their water use (in part due to the drought conditions, prior to the imposed restrictions), as well as the observed rebound in demand following the drought (2017-2019). Thus, the periods used to develop the demand projections reflect conditions representative of the hotter, drier weather expected as a result of climate change.

[12] CWC §10635(b)(4) requires that suppliers consider plausible changes on projected supplies and demands under climate change conditions specific to their five-year drought risk assessments. Section 4.5 of the draft 2020 UWMP Guidebook more generally recommends that consideration of climate change be incorporated into all demand projections.

8. REFERENCES

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Appendix A

California Water Code Revisions per AB-1668, SB-606, and SB-664, Redlines prepared by DWR

SB-664 Water: urban water management planning. (2015-2016)

As Amends the Law Today **As Amends the Law on Nov 20, 2015**

SECTION 1. *Section 10632.5 is added to the Water Code, to read:*

10632.5. *(a) In addition to the requirements of paragraph (3) of subdivision (a) of Section 10632, beginning January 1, 2020, the plan shall include a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities.*

(b) An urban water supplier shall update the seismic risk assessment and mitigation plan when updating its urban water management plan as required by Section 10621.

(c) An urban water supplier may comply with this section by submitting, pursuant to Section 10644, a copy of the most recent adopted local hazard mitigation plan or multihazard mitigation plan under the federal Disaster Mitigation Act of 2000 (Public Law 106-390) if the local hazard mitigation plan or multihazard mitigation plan addresses seismic risk.

AB-1668 Water management planning. (2017-2018)

As Amends the Law Today | **As Amends the Law on Nov 08, 2018**

SECTION 1. Section 531.10 of the Water Code is amended to read:

531.10. (a) (1) An agricultural water supplier shall submit an annual report to the department that summarizes aggregated farm-gate delivery data, on a monthly or bimonthly basis, using best professional practices. The annual report for the prior year shall be submitted to the department by April 1 of each year. The annual report shall be organized by basin, as defined in Section 10721, within the service area of the agricultural water supplier, if applicable.

(2) The report, and any amendments to the report, submitted to the department pursuant to this subdivision shall be submitted electronically and shall include any standardized forms, tables, or displays specified by the department.

(3) The department shall post all reports on its Internet Web site in a manner that allows for comparisons across water suppliers. The department shall make the reports available for public viewing in a timely manner after it receives them.

(b) Nothing in this article shall be construed to require the implementation of water measurement programs or practices that are not locally cost effective.

(c) It is the intent of the Legislature that the requirements of this section shall complement and not affect the scope of authority granted to the department or the board by provisions of law other than this article.

SEC. 2. Section 1120 of the Water Code is amended to read:

1120. This chapter applies to any decision or order issued under this part or Section 275, Part 2 (commencing with Section 1200), Part 2 (commencing with Section 10500) of Division 6, Part 2.55 (commencing with Section 10608) of Division 6, or Chapter 11 (commencing with Section 10735) of Part 2.74 of Division 6, Article 7 (commencing with Section 13550) of Chapter 7 of Division 7, or the public trust doctrine.

SEC. 3. *Section 1846.5 is added to the Water Code, to read:*

1846.5. *(a) An urban retail water supplier who commits any of the violations identified in subdivision (b) may be liable in an amount not to exceed the following, as applicable:*

(1) If the violation occurs in a critically dry year immediately preceded by two or more consecutive below normal, dry, or critically dry years or during a period for which the Governor has issued a proclamation of a state of emergency under the California Emergency Services Act (Chapter 7 (commencing with Section 8550) of Division 1 of Title 2 of the Government Code) based on drought conditions, ten thousand dollars ($10,000) for each day in which the violation occurs.

(2) For all violations other than those described in paragraph (1), one thousand dollars ($1,000) for each day in which the violation occurs.

(b) Liability pursuant to this section may be imposed for any of the following violations:

(1) Violation of an order issued under Chapter 9 (commencing with Section 10609) of Part 2.55 of Division 6.

(2) Violation of a regulation issued under Chapter 9 (commencing with Section 10609) of Part 2.55 of Division 6, if the violation occurs after November 1, 2027.

(c) Civil liability may be imposed by the superior court. The Attorney General, upon the request of the board, shall petition the superior court to impose, assess, and recover those sums.

(d) Civil liability may be imposed administratively by the board pursuant to Section 1055.

SEC. 4. Section 10608.12 of the Water Code is amended to read:

10608.12. Unless the context otherwise requires, the following definitions govern the construction of this part:

(a) "Agricultural water supplier" means a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding recycled water. "Agricultural water supplier" includes a supplier or contractor for water, regardless of the basis of right, that distributes or sells water for ultimate resale to customers. "Agricultural water supplier" does not include the department.

(b) "Base daily per capita water use" means any of the following:

(1) The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

(2) For an urban retail water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, the urban retail water supplier may extend the calculation described in paragraph (1) up to an additional five years to a maximum of a continuous 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

(3) For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.

(c) "Baseline commercial, industrial, and institutional water use" means an urban retail water supplier's base daily per capita water use for commercial, industrial, and institutional users.

(d) "CII water use" means water used by commercial water users, industrial water users, institutional water users, and large landscape water users.

(e) "Commercial water user" means a water user that provides or distributes a product or service.

(f) "Compliance daily per capita water use" means the gross water use during the final year of the reporting period, reported in gallons per capita per day.

(g) "Disadvantaged community" means a community with an annual median household income that is less than 80 percent of the statewide annual median household income.

(h) "Gross water use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:

(1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier.

(2) The net volume of water that the urban retail water supplier places into long-term storage.

(3) The volume of water the urban retail water supplier conveys for use by another urban water supplier.

(4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.

(i) "Industrial water user" means a water user that is primarily a manufacturer or processor of materials as defined by the North American Industry Classification System code sectors 31 to 33, inclusive, or an entity that is a water user primarily engaged in research and development.

(j) "Institutional water user" means a water user dedicated to public service. This type of user includes, among other users, higher education institutions, schools, courts, churches, hospitals, government facilities, and nonprofit research institutions.

(k) "Interim urban water use target" means the midpoint between the urban retail water supplier's base daily per capita water use and the urban retail water supplier's urban water use target for 2020.

(l) "Large landscape" means a nonresidential landscape as described in the performance measures for CII water use adopted pursuant to Section 10609.10.

(m) "Locally cost effective" means that the present value of the local benefits of implementing an agricultural efficiency water management practice is greater than or equal to the present value of the local cost of implementing that measure.

(n) "Performance measures" means actions to be taken by urban retail water suppliers that will result in increased water use efficiency by CII water users. Performance measures may include, but are not limited to, educating CII water users on best management practices, conducting water use audits, and preparing water management plans. Performance measures do not include process water.

(o) "Potable reuse" means direct potable reuse, indirect potable reuse for groundwater recharge, and reservoir water augmentation as those terms are defined in Section 13561.

(p) "Process water" means water used by industrial water users for producing a product or product content or water used for research and development. Process water includes, but is not limited to, continuous manufacturing processes, and water used for testing, cleaning, and maintaining equipment. Water used to cool machinery or buildings used in the manufacturing process or necessary to maintain product quality or chemical characteristics for product manufacturing or control rooms, data centers, laboratories, clean rooms, and other industrial facility units that are integral to the manufacturing or research and development process is process water. Water used in the manufacturing process that is necessary for complying with local, state, and federal health and safety laws, and is not incidental water, is process water. Process water does not mean incidental water uses.

(q) "Recycled water" means recycled water, as defined in subdivision (n) of Section 13050.

(r) "Regional water resources management" means sources of supply resulting from watershed-based planning for sustainable local water reliability or any of the following alternative sources of water:

(1) The capture and reuse of stormwater or rainwater.

(2) The use of recycled water.

(3) The desalination of brackish groundwater.

(4) The conjunctive use of surface water and groundwater in a manner that is consistent with the safe yield of the groundwater basin.

(s) "Reporting period" means the years for which an urban retail water supplier reports compliance with the urban water use targets.

(t) "Urban retail water supplier" means a water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet of potable water annually at retail for municipal purposes.

(u) "Urban water use objective" means an estimate of aggregate efficient water use for the previous year based on adopted water use efficiency standards and local service area characteristics for that year, as described in Section 10609.20.

(v) "Urban water use target" means the urban retail water supplier's targeted future daily per capita water use.

(w) "Urban wholesale water ~~supplier"~~ *supplier,"* means a water supplier, either publicly or privately owned, that provides more than 3,000 acre-feet of water annually at wholesale for potable municipal purposes.

SEC. 5. Section 10608.20 of the Water Code is amended to read:

10608.20. (a) (1) Each urban retail water supplier shall develop urban water use targets and an interim urban water use target by July 1, 2011. Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis, as provided in subdivision (a) of Section 10608.28, and may determine the targets on a fiscal year or calendar year basis.

(2) It is the intent of the Legislature that the urban water use targets described in paragraph (1) cumulatively result in a 20-percent reduction from the baseline daily per capita water use by December 31, 2020.

(b) An urban retail water supplier shall adopt one of the following methods for determining its urban water use target pursuant to subdivision (a):

(1) Eighty percent of the urban retail water supplier's baseline per capita daily water use.

(2) The per capita daily water use that is estimated using the sum of the following performance standards:

(A) For indoor residential water use, 55 gallons per capita daily water use as a provisional standard. Upon completion of the department's ~~2017~~ *2016* report to the Legislature pursuant to Section 10608.42, this standard may be adjusted by the Legislature by statute.

(B) For landscape irrigated through dedicated or residential meters or connections, water efficiency equivalent to the standards of the Model Water Efficient Landscape Ordinance set forth in Chapter 2.7 (commencing with Section 490) of Division 2 of Title 23 of the California Code of Regulations, as in effect the later of the year of the landscape's installation or 1992. An urban retail water supplier using the approach specified in this subparagraph shall use satellite imagery, site visits, or other best available technology to develop an accurate estimate of landscaped areas.

(C) For commercial, industrial, and institutional uses, a 10-percent reduction in water use from the baseline commercial, industrial, and institutional water use by 2020.

(3) Ninety-five percent of the applicable state hydrologic region target, as set forth in the state's draft 20x2020 Water Conservation Plan (dated April 30, 2009). If the service area of an urban water supplier includes more than one hydrologic region, the supplier shall apportion its service area to each region based on population or area.

(4) A method that shall be identified and developed by the department, through a public process, and reported to the Legislature no later than December 31, 2010. The method developed by the department shall identify per capita targets that cumulatively result in a statewide 20-percent reduction in urban daily per capita water use by December 31, 2020. In developing urban daily per capita water use targets, the department shall do all of the following:

(A) Consider climatic differences within the state.

(B) Consider population density differences within the state.

(C) Provide flexibility to communities and regions in meeting the targets.

(D) Consider different levels of per capita water use according to plant water needs in different regions.

(E) Consider different levels of commercial, industrial, and institutional water use in different regions of the state.

(F) Avoid placing an undue hardship on communities that have implemented conservation measures or taken actions to keep per capita water use low.

(c) If the department adopts a regulation pursuant to paragraph (4) of subdivision (b) that results in a requirement that an urban retail water supplier achieve a reduction in daily per capita water use that is greater than 20 percent by December 31, 2020, an urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may limit its urban water use target to a reduction of not more than 20 percent by December 31, 2020, by adopting the method described in paragraph (1) of subdivision (b).

(d) The department shall update the method described in paragraph (4) of subdivision (b) and report to the Legislature by December 31, 2014. An urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may adopt a new urban daily per capita water use target pursuant to this updated method.

(e) An urban retail water supplier shall include in its urban water management plan due in 2010 pursuant to Part 2.6 (commencing with Section 10610) the baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.

(f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.

(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).

(h) (1) The department, through a public process and in consultation with the California Urban Water Conservation Council, shall develop technical methodologies and criteria for the consistent implementation of this part, including, but not limited to, both of the following:

(A) Methodologies for calculating base daily per capita water use, baseline commercial, industrial, and institutional water use, compliance daily per capita water use, gross water use, service area population, indoor residential water use, and landscaped area water use.

(B) Criteria for adjustments pursuant to subdivisions (d) and (e) of Section 10608.24.

(2) The department shall post the methodologies and criteria developed pursuant to this subdivision on its ~~internet website,~~ *Internet Web site,* and make written copies available, by October 1, 2010. An urban retail water supplier shall use the methods developed by the department in compliance with this part.

(i) (1) The department shall adopt regulations for implementation of the provisions relating to process water in accordance with Section 10608.12, subdivision (e) of Section 10608.24, and subdivision (d) of Section 10608.26.

(2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.

(j) (1) An urban retail water supplier is granted an extension to July 1, 2011, for adoption of an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) due in 2010 to allow the use of technical methodologies developed by the department pursuant to paragraph (4) of subdivision (b) and subdivision (h). An urban retail water supplier that adopts an urban water management plan due in 2010 that does not use the methodologies developed by the department pursuant to subdivision (h) shall amend the plan by July 1, 2011, to comply with this part.

(2) An urban wholesale water supplier whose urban water management plan prepared pursuant to Part 2.6 (commencing with Section 10610) was due and not submitted in 2010 is granted an extension to July 1, 2011, to permit coordination between an urban wholesale water supplier and urban retail water suppliers.

SEC. 6. Section 10608.48 of the Water Code is amended to read:

10608.48. (a) On or before July 31, 2012, an agricultural water supplier shall implement efficient water management practices pursuant to subdivisions (b) and (c).

(b) Agricultural water suppliers shall implement both of the following critical efficient management practices:

(1) Measure the volume of water delivered to customers with sufficient accuracy to comply with subdivision (a) of Section 531.10 and to implement paragraph (2).

(2) Adopt a pricing structure for water customers based at least in part on quantity delivered.

(c) Agricultural water suppliers shall implement additional efficient management practices, including, but not limited to, practices to accomplish all of the following, if the measures are locally cost effective and technically feasible:

(1) Facilitate alternative land use for lands with exceptionally high water duties or whose irrigation contributes to significant problems, including drainage.

(2) Facilitate use of available recycled water that otherwise would not be used beneficially, meets all health and safety criteria, and does not harm crops or soils.

(3) Facilitate the financing of capital improvements for on-farm irrigation systems.

(4) Implement an incentive pricing structure that promotes one or more of the following goals:

(A) More efficient water use at the farm level.

(B) Conjunctive use of groundwater.

(C) Appropriate increase of groundwater recharge.

(D) Reduction in problem drainage.

(E) Improved management of environmental resources.

(F) Effective management of all water sources throughout the year by adjusting seasonal pricing structures based on current conditions.

(5) Expand line or pipe distribution systems, and construct regulatory reservoirs to increase distribution system flexibility and capacity, decrease maintenance, and reduce seepage.

(6) Increase flexibility in water ordering by, and delivery to, water customers within operational limits.

(7) Construct and operate supplier spill and tailwater recovery systems.

(8) Increase planned conjunctive use of surface water and groundwater within the supplier service area.

(9) Automate canal control structures.

(10) Facilitate or promote customer pump testing and evaluation.

(11) Designate a water conservation coordinator who will develop and implement the water management plan and prepare progress reports.

(12) Provide for the availability of water management services to water users. These services may include, but are not limited to, all of the following:

(A) On-farm irrigation and drainage system evaluations.

(B) Normal year and real-time irrigation scheduling and crop evapotranspiration information.

(C) Surface water, groundwater, and drainage water quantity and quality data.

(D) Agricultural water management educational programs and materials for farmers, staff, and the public.

(13) Evaluate the policies of agencies that provide the supplier with water to identify the potential for institutional changes to allow more flexible water deliveries and storage.

(14) Evaluate and improve the efficiencies of the supplier’s pumps.

(d) Agricultural water suppliers shall include in the agricultural water management plans required pursuant to Part 2.8 (commencing with Section 10800) a report on which efficient water management practices have been implemented and are planned to be implemented, an estimate of the water use efficiency improvements that have occurred since the last report, and an estimate of the water use efficiency improvements estimated to occur five and 10 years in the future. If an agricultural water supplier determines that an efficient water management practice is not locally cost effective or technically feasible, the supplier shall submit information documenting that determination.

(e) The department shall require information about the implementation of efficient water management practices to be reported using a standardized form developed pursuant to Section 10608.52.

(f) An agricultural water supplier may meet the requirements of subdivisions (d) and (e) by submitting to the department a water conservation plan submitted to the United States Bureau of Reclamation that meets the requirements described in Section 10828.

(g) On or before December 31, 2013, December 31, 2016, and December 31, 2021, the department, in consultation with the board, shall submit to the Legislature a report on the agricultural efficient water management practices that have been implemented and are planned to be implemented and an assessment of the manner in which the implementation of those efficient water management practices has affected and will affect agricultural operations, including estimated water use efficiency improvements, if any.

(h) The department may update the efficient water management practices required pursuant to subdivision (c), in consultation with the Agricultural Water Management Council, the United States Bureau of Reclamation, and the board. All efficient water management practices for agricultural water use pursuant to this chapter shall be adopted or revised by the department only after the department conducts public hearings to allow participation of the diverse geographical areas and interests of the state.

(i) (1) The department shall adopt regulations that provide for a range of options that agricultural water suppliers may use or implement to comply with the measurement requirement in paragraph (1) of subdivision (b).

(2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.

SEC. 7. *Chapter 9 (commencing with Section 10609) is added to Part 2.55 of Division 6 of the Water Code, to read:*

CHAPTER 9. Urban Water Use Objectives and Water Use Reporting

10609. *(a) The Legislature finds and declares that this chapter establishes a method to estimate the aggregate amount of water that would have been delivered the previous year by an urban retail water supplier if all that water had been used efficiently. This estimated aggregate water use is the urban retail water supplier's urban water use objective. The method is based on water use efficiency standards and local service area characteristics for that year. By comparing the amount of water actually used in the previous year with the urban water use objective, local urban water suppliers will be in a better position to help eliminate unnecessary use of water; that is, water used in excess of that needed to accomplish the intended beneficial use.*

(b) The Legislature further finds and declares all of the following:

(1) This chapter establishes standards and practices for the following water uses:

(A) Indoor residential use.

(B) Outdoor residential use.

(C) CII water use.

(D) Water losses.

(E) Other unique local uses and situations that can have a material effect on an urban water supplier's total water use.

(2) This chapter further does all of the following:

(A) Establishes a method to calculate each urban water use objective.

(B) Considers recycled water quality in establishing efficient irrigation standards.

(C) Requires the department to provide or otherwise identify data regarding the unique local conditions to support the calculation of an urban water use objective.

(D) Provides for the use of alternative sources of data if alternative sources are shown to be as accurate as, or more accurate than, the data provided by the department.

(E) Requires annual reporting of the previous year's water use with the urban water use objective.

(F) Provides a bonus incentive for the amount of potable recycled water used the previous year when comparing the previous year's water use with the urban water use objective, of up to 10 percent of the urban water use objective.

(3) This chapter requires the department and the board to solicit broad public participation from stakeholders and other interested persons in the development of the standards and the adoption of regulations pursuant to this chapter.

(4) This chapter preserves the Legislature's authority over long-term water use efficiency target setting and ensures appropriate legislative oversight of the implementation of this chapter by doing all of the following:

(A) Requiring the Legislative Analyst to conduct a review of the implementation of this act, including compliance with the adopted standards and regulations, accuracy of the data, use of alternate data, and other issues the Legislative Analyst deems appropriate.

(B) Stating legislative intent that the director of the department and the chairperson of the board appear before the appropriate Senate and Assembly policy committees to report on progress in implementing this chapter.

(C) Providing one-time-only authority to the department and board to adopt water use efficiency standards, except as explicitly provided in this chapter. Authorization to update the standards shall require separate legislation.

(c) It is the intent of the Legislature that the following principles apply to the development and implementation of long-term standards and urban water use objectives:

(1) Local urban retail water suppliers should have primary responsibility for meeting standards-based water use targets, and they shall retain the flexibility to develop their water supply portfolios, design and implement water conservation strategies, educate their customers, and enforce their rules.

(2) Long-term standards and urban water use objectives should advance the state's goals to mitigate and adapt to climate change.

(3) Long-term standards and urban water use objectives should acknowledge the shade, air quality, and heat-island reduction benefits provided to communities by trees through the support of water-efficient irrigation practices that keep trees healthy.

(4) The state should identify opportunities for streamlined reporting, eliminate redundant data submissions, and incentivize open access to data collected by urban and agricultural water suppliers.

10609.2. *(a) The board, in coordination with the department, shall adopt long-term standards for the efficient use of water pursuant to this chapter on or before June 30, 2022.*

(b) Standards shall be adopted for all of the following:

(1) Outdoor residential water use.

(2) Outdoor irrigation of landscape areas with dedicated irrigation meters in connection with CII water use.

(3) A volume for water loss.

(c) When adopting the standards under this section, the board shall consider the policies of this chapter and the proposed efficiency standards' effects on local wastewater management, developed and natural parklands, and urban tree health. The standards and potential effects shall be identified by May 30, 2022. The board shall allow for public comment on potential effects identified by the board under this subdivision.

(d) The long-term standards shall be set at a level designed so that the water use objectives, together with other demands excluded from the long-term standards such as CII indoor water use and CII outdoor water use not connected to a dedicated landscape meter, would exceed the statewide conservation targets required pursuant to Chapter 3 (commencing with Section 10608.16).

(e) The board, in coordination with the department, shall adopt by regulation variances recommended by the department pursuant to Section 10609.14 and guidelines and methodologies pertaining to the calculation of an urban retail water supplier's urban water use objective recommended by the department pursuant to Section 10609.16.

10609.4. *(a) (1) Until January 1, 2025, the standard for indoor residential water use shall be 55 gallons per capita daily.*

(2) Beginning January 1, 2025, and until January 1, 2030, the standard for indoor residential water use shall be the greater of 52.5 gallons per capita daily or a standard recommended pursuant to subdivision (b).

(3) Beginning January 1, 2030, the standard for indoor residential water use shall be the greater of 50 gallons per capita daily or a standard recommended pursuant to subdivision (b).

(b) (1) The department, in coordination with the board, shall conduct necessary studies and investigations and may jointly recommend to the Legislature a standard for indoor residential water use that more appropriately reflects best practices for indoor residential water use than the standard described in subdivision (a). A report on the results of the studies and investigations shall be made to the chairpersons of the relevant policy committees of each house of the Legislature by January 1, 2021, and shall include information necessary to support the recommended standard, if there is one. The studies and investigations shall also include an analysis of the benefits and impacts of how the changing standard for indoor residential water use will impact water and wastewater management, including potable water usage, wastewater, recycling and reuse systems, infrastructure, operations, and supplies.

(2) The studies, investigations, and report described in paragraph (1) shall include collaboration with, and input from, a broad group of stakeholders, including, but not limited to, environmental groups, experts in indoor plumbing, and water, wastewater, and recycled water agencies.

10609.6. *(a) (1) The department, in coordination with the board, shall conduct necessary studies and investigations and recommend, no later than October 1, 2021, standards for outdoor residential use for adoption by the board in accordance with this chapter.*

(2) (A) The standards shall incorporate the principles of the model water efficient landscape ordinance adopted by the department pursuant to the Water Conservation in Landscaping Act (Article 10.8 (commencing with Section 65591) of Chapter 3 of Division 1 of Title 7 of the Government Code).

(B) The standards shall apply to irrigable lands.

(C) The standards shall include provisions for swimming pools, spas, and other water features. Ornamental water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, shall be analyzed separately from swimming pools and spas.

(b) The department shall, by January 1, 2021, provide each urban retail water supplier with data regarding the area of residential irrigable lands in a manner that can reasonably be applied to the standards adopted pursuant to this section.

(c) The department shall not recommend standards pursuant to this section until it has conducted pilot projects or studies, or some combination of the two, to ensure that the data provided to local agencies are reasonably accurate for the data's intended uses, taking into consideration California's diverse landscapes and community characteristics.

10609.8. *(a) The department, in coordination with the board, shall conduct necessary studies and investigations and recommend, no later than October 1, 2021, standards for outdoor irrigation of landscape areas with dedicated irrigation meters or other means of calculating outdoor irrigation use in connection with CII water use for adoption by the board in accordance with this chapter.*

(b) The standards shall incorporate the principles of the model water efficient landscape ordinance adopted by the department pursuant to the Water Conservation in Landscaping Act (Article 10.8 (commencing with Section 65591) of Chapter 3 of Division 1 of Title 7 of the Government Code).

(c) The standards shall include an exclusion for water for commercial agricultural use meeting the definition of subdivision (b) of Section 51201 of the Government Code.

10609.9. *For purposes of Sections 10609.6 and 10609.8, "principles of the model water efficient landscape ordinance" means those provisions of the model water efficient landscape ordinance applicable to the establishment or determination of the amount of water necessary to efficiently irrigate both new and existing landscapes. These provisions include, but are not limited to, all of the following:*

(a) Evapotranspiration adjustment factors, as applicable.

(b) Landscape area.

(c) Maximum applied water allowance.

(d) Reference evapotranspiration.

(e) Special landscape areas, including provisions governing evapotranspiration adjustment factors for different types of water used for irrigating the landscape.

10609.10. *(a) The department, in coordination with the board, shall conduct necessary studies and investigations and recommend, no later than October 1, 2021, performance measures for CII water use for adoption by the board in accordance with this chapter.*

(b) Prior to recommending performance measures for CII water use, the department shall solicit broad public participation from stakeholders and other interested persons relating to all of the following:

(1) Recommendations for a CII water use classification system for California that address significant uses of water.

(2) Recommendations for setting minimum size thresholds for converting mixed CII meters to dedicated irrigation meters, and evaluation of, and recommendations for, technologies that could be used in lieu of requiring dedicated irrigation meters.

(3) Recommendations for CII water use best management practices, which may include, but are not limited to, water audits and water management plans for those CII customers that exceed a recommended size, volume of water use, or other threshold.

(c) Recommendations of appropriate performance measures for CII water use shall be consistent with the October 21, 2013, report to the Legislature by the Commercial, Industrial, and Institutional Task Force entitled "Water Use Best Management Practices," including the technical and financial feasibility recommendations provided in that report, and shall support the economic productivity of California's commercial, industrial, and institutional sectors.

(d) (1) The board, in coordination with the department, shall adopt performance measures for CII water use on or before June 30, 2022.

(2) Each urban retail water supplier shall implement the performance measures adopted by the board pursuant to paragraph (1).

10609.12. *The standards for water loss for urban retail water suppliers shall be the standards adopted by the board pursuant to subdivision (i) of Section 10608.34.*

10609.14. *(a) The department, in coordination with the board, shall conduct necessary studies and investigations and, no later than October 1, 2021, recommend for adoption by the board in accordance with this chapter appropriate variances for unique uses that can have a material effect on an urban retail water supplier's urban water use objective.*

(b) Appropriate variances may include, but are not limited to, allowances for the following:

(1) Significant use of evaporative coolers.

(2) Significant populations of horses and other livestock.

(3) Significant fluctuations in seasonal populations.

(4) Significant landscaped areas irrigated with recycled water having high levels of total dissolved solids.

(5) Significant use of water for soil compaction and dust control.

(6) Significant use of water to supplement ponds and lakes to sustain wildlife.

(7) Significant use of water to irrigate vegetation for fire protection.

(8) Significant use of water for commercial or noncommercial agricultural use.

(c) The department, in recommending variances for adoption by the board, shall also recommend a threshold of significance for each recommended variance.

(d) Before including any specific variance in calculating an urban retail water supplier's water use objective, the urban retail water supplier shall request and receive approval by the board for the inclusion of that variance.

(e) The board shall post on its Internet Web site all of the following:

(1) A list of all urban retail water suppliers with approved variances.

(2) The specific variance or variances approved for each urban retail water supplier.

(3) The data supporting approval of each variance.

10609.15. *To help streamline water data reporting, the department and the board shall do all of the following:*

(a) Identify urban water reporting requirements shared by both agencies, and post on each agency's Internet Web site how the data is used for planning, regulatory, or other purposes.

(b) Analyze opportunities for more efficient publication of urban water reporting requirements within each agency, and analyze how each agency can integrate various data sets in a publicly accessible location, identify priority actions, and implement priority actions identified in the analysis.

(c) Make appropriate data pertaining to the urban water reporting requirements that are collected by either agency available to the public according to the principles and requirements of the Open and Transparent Water Data Act (Part 4.9 (commencing with Section 12400)).

10609.16. *The department, in coordination with the board, shall conduct necessary studies and investigations and recommend, no later than October 1, 2021, guidelines and methodologies for the board to adopt that identify how an urban retail water supplier calculates its urban water use objective. The guidelines and methodologies shall address, as necessary, all of the following:*

(a) Determining the irrigable lands within the urban retail water supplier's service area.

(b) Updating and revising methodologies described pursuant to subparagraph (A) of paragraph (1) of subdivision (h) of Section 10608.20, as appropriate, including methodologies for calculating the population in an urban retail water supplier's service area.

(c) Using landscape area data provided by the department or alternative data.

(d) Incorporating precipitation data and climate data into estimates of a urban retail water supplier's outdoor irrigation budget for its urban water use objective.

(e) Estimating changes in outdoor landscape area and population, and calculating the urban water use objective, for years when updated landscape imagery is not available from the department.

(f) Determining acceptable levels of accuracy for the supporting data, the urban water use objective, and compliance with the urban water use objective.

10609.18. *The department and the board shall solicit broad public participation from stakeholders and other interested persons in the development of the standards and the adoption of regulations pursuant to this chapter. The board shall hold at least one public meeting before taking any action on any standard or variance recommended by the department.*

SEC. 8. *Chapter 10 (commencing with Section 10609.40) is added to Part 2.55 of Division 6 of the Water Code, to read:*

CHAPTER 10. Countywide Drought and Water Shortage Contingency Plans

10609.40. *The Legislature finds and declares both of the following:*

(a) Small water suppliers and rural communities are often not covered by established water shortage planning requirements. Currently, most counties do not address water shortages or do so minimally in their general plan or the local hazard mitigation plan.

(b) The state should provide guidance to improve drought planning for small water suppliers and rural communities.

10609.42. *(a) No later than January 1, 2020, the department, in consultation with the board and other relevant state and local agencies and stakeholders, shall use available data to identify small water suppliers and rural communities that may be at risk of drought and water shortage vulnerability. The department shall notify counties and groundwater sustainability agencies of those suppliers or communities that may be at risk within its jurisdiction, and may make the information publicly accessible on its Internet Web site.*

(b) The department shall, in consultation with the board, by January 1, 2020, propose to the Governor and the Legislature recommendations and guidance relating to the development and implementation of countywide drought and water shortage contingency plans to address the planning needs of small water suppliers and rural communities. The department shall recommend how these plans can be included in county local hazard

mitigation plans or otherwise integrated with complementary existing planning processes. The guidance from the department shall outline goals of the countywide drought and water shortage contingency plans and recommend components including, but not limited to, all of the following:

(1) Assessment of drought vulnerability.

(2) Actions to reduce drought vulnerability.

(3) Response, financing, and local communication and outreach planning efforts that may be implemented in times of drought.

(4) Data needs and reporting.

(5) Roles and responsibilities of interested parties and coordination with other relevant water management planning efforts.

(c) In formulating the proposal, the department shall utilize a public process involving state agencies, cities, counties, small communities, small water suppliers, and other stakeholders.

SEC. 9. Section 10801 of the Water Code is amended to read:

10801. The Legislature finds and declares all of the following:

(a) The waters of the state are a limited and renewable resource.

(b) The California Constitution requires that water in the state be used in a reasonable and beneficial manner.

(c) The efficient use of agricultural water supplies is of great statewide concern.

(d) There is a great amount of reuse of delivered water, both inside and outside the water service areas of agricultural water suppliers.

(e) Significant noncrop beneficial uses are associated with agricultural water use, including the preservation and enhancement of fish and wildlife resources.

(f) Significant opportunities exist in some areas, through improved irrigation water management, to conserve water or to reduce the quantity of highly saline or toxic drainage water.

(g) Changes in water management practices should be carefully planned and implemented to minimize adverse effects on other beneficial uses currently being served.

(h) Agricultural water suppliers that receive water from the federal Central Valley Project are required by federal law to prepare and implement water conservation plans.

(i) Agricultural water users applying for a permit to appropriate water from the board are required to prepare and implement water conservation plans.

SEC. 10. Section 10802 of the Water Code is amended to read:

10802. The Legislature finds and declares that all of the following are the policies of the state:

(a) The efficient use of water shall be pursued actively to protect both the people of the state and the state's water resources.

(b) The efficient use of agricultural water supplies shall be an important criterion in public decisions with regard to water.

(c) Agricultural water suppliers shall be required to prepare water management plans to achieve greater efficiency in the use of water.

SEC. 11. Section 10814 of the Water Code is amended to read:

10814. "Person" has the same meaning as defined in Section 10614.

SEC. 12. Section 10817 of the Water Code is amended to read:

10817. "Water use efficiency" means the efficient management of water resources for beneficial uses, preventing waste, or accomplishing additional benefits with the same amount of water.

SEC. 13. Section 10820 of the Water Code is amended to read:

10820. (a) (1) Except as provided in paragraph (2), an agricultural water supplier shall prepare and adopt an agricultural water management plan in the manner set forth in this chapter on or before December 31, 2012, and shall update that plan on December 31, 2015.

(2) (A) The agricultural water management plan shall be updated on or before April 1, 2021, and thereafter on or before April 1 in the years ending in six and one. The plan shall satisfy the requirements of Section 10826.

(B) An agricultural water supplier shall submit its plan to the department no later than 30 days after the adoption of the plan. The plan shall be submitted electronically and shall include any standardized forms, tables, or displays specified by the department.

(b) (1) The department shall review each plan that is due pursuant to paragraph (2) of subdivision (a). The department may coordinate its review with the Department of Food and Agriculture and the board.

(2) The department shall notify an agricultural water supplier that it is not in compliance with this part if the department determines that actions are required to comply with the requirements of this part or if a supplier fails to update a plan as provided in paragraph (2) of subdivision (a). The department shall identify the specific deficiencies and the supplier shall have 120 days to remedy an identified deficiency. The department may provide additional time to remedy a deficiency if it finds that a supplier is making substantial progress toward remedying the deficiency. An agricultural water supplier that fails to submit corrective actions or a completed plan shall not be in compliance with this part.

(3) If the department has not received a plan or the department has determined that the plan submitted does not comply with the requirements of this part, and a revised plan has not been submitted, the department may undertake the following actions:

(A) Contract with a state academic institution or qualified entity to prepare or complete an agricultural water management plan on behalf of the supplier. The costs and expenses related to preparation or completion of a plan, including the costs of the contract and contract administration, shall be recoverable by the department from the supplier.

(B) If a supplier does not provide data necessary for the preparation or completion of a plan to the department or the contracting entity as determined by the department in accordance with subparagraph (A), the department may assess a fine of one thousand dollars ($1,000) per day, not to exceed twenty-five thousand dollars ($25,000), until data is made available.

(4) (A) A plan prepared or completed pursuant to paragraph (3) shall be deemed the adopted plan for the supplier.

(B) Any action to challenge or invalidate the adequacy of the plan prepared or completed pursuant to paragraph (3) shall be brought against the supplier for whom the plan was prepared.

(c) Every supplier that becomes an agricultural water supplier after December 31, 2012, shall prepare and adopt an agricultural water management plan within one year after the date it has become an agricultural water supplier.

(d) A water supplier that indirectly provides water to customers for agricultural purposes shall not prepare a plan pursuant to this part without the consent of each agricultural water supplier that directly provides that water to its customers.

SEC. 14. Section 10825 of the Water Code is amended to read:

10825. (a) It is the intent of the Legislature in enacting this part to allow levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.

(b) This part does not require the implementation of water use efficiency programs or practices that are not locally cost effective.

SEC. 15. Section 10826 of the Water Code is amended to read:

10826. An agricultural water management plan shall be adopted in accordance with this chapter. The plan shall do all of the following:

(a) Describe the agricultural water supplier and the service area, including all of the following:

(1) Size of the service area.

(2) Location of the service area and its water management facilities.

(3) Terrain and soils.

(4) Climate.

(5) Operating rules and regulations.

(6) Water delivery measurements or calculations.

(7) Water rate schedules and billing.

(8) Water shortage allocation policies.

(b) Describe the quantity and quality of water resources of the agricultural water supplier, including all of the following:

(1) Surface water supply.

(2) Groundwater supply.

(3) Other water supplies, including recycled water.

(4) Source water quality monitoring practices.

(5) Water uses within the agricultural water supplier's service area, including all of the following:

(A) Agricultural.

(B) Environmental.

(C) Recreational.

(D) Municipal and industrial.

(E) Groundwater recharge, including estimated flows from deep percolation from irrigation and seepage.

(c) Include an annual water budget based on the quantification of all inflow and outflow components for the service area of the agricultural water supplier. Components of inflow shall include surface inflow, groundwater pumping in the service area, and effective precipitation. Components of outflow shall include surface outflow, deep percolation, and evapotranspiration. An agricultural water supplier shall report the annual water budget on a water-year basis. The department shall provide tools and resources to assist agricultural water suppliers in developing and quantifying components necessary to develop a water budget.

(d) Include an analysis, based on available information, of the effect of climate change on future water supplies.

(e) Describe previous water management activities.

(f) Identify water management objectives based on the water budget to improve water system efficiency or to meet other water management objectives. The agricultural water supplier shall identify, prioritize, and implement actions to reduce water loss, improve water system management, and meet other water management objectives identified in the plan.

(g) Include in the plan information regarding efficient water management practices required pursuant to Section 10608.48.

(h) Quantify the efficiency of agricultural water use within the service area of the agricultural water supplier using the appropriate method or methods from among the four water use efficiency quantification methods developed by the department in the May 8, 2012, report to the Legislature entitled "A Proposed Methodology for

Quantifying the Efficiency of Agricultural Water Use." The agricultural water supplier shall account for all water uses, including crop water use, agronomic water use, environmental water use, and recoverable surface flows.

SEC. 16. *Section 10826.2 is added to the Water Code, to read:*

10826.2. *As part of its agricultural water management plan, each agricultural water supplier shall develop a drought plan for periods of limited water supply describing the actions of the agricultural water supplier for drought preparedness and management of water supplies and allocations during drought conditions. The drought plan shall contain both of the following:*

(a) Resilience planning, including all of the following:

(1) Data, indicators, and information needed to determine the water supply availability and levels of drought severity.

(2) Analyses and identification of potential vulnerability to drought.

(3) A description of the opportunities and constraints for improving drought resilience planning, including all of the following:

(A) The availability of new technology or information.

(B) The ability of the agricultural water supplier to obtain or use additional water supplies during drought conditions.

(C) A description of other actions planned for implementation to improve drought resilience.

(b) Drought response planning, including all of the following:

(1) Policies and a process for declaring a water shortage and for implementing water shortage allocations and related response actions.

(2) Methods and procedures for the enforcement or appeal of, or exemption from, triggered shortage response actions.

(3) Methods and procedures for monitoring and evaluation of the effectiveness of the drought plan.

(4) Communication protocols and procedures to inform and coordinate customers, the public, interested parties, and local, regional, and state government.

(5) A description of the potential impacts on the revenues, financial condition, and planned expenditures of the agricultural water supplier during drought conditions that reduce water allocations, and proposed measures to overcome those impacts, including reserve-level policies.

SEC. 17. Section 10843 of the Water Code is amended to read:

10843. (a) An agricultural water supplier shall submit to the entities identified in subdivision (b) a copy of its plan no later than 30 days after review of the plan pursuant to subdivision (b) of Section 10820.

(b) An agricultural water supplier shall submit a copy of its plan to each of the following entities:

(1) The department.

(2) Any city, county, or city and county within which the agricultural water supplier provides water supplies.

(3) Any groundwater management entity within which jurisdiction the agricultural water supplier extracts or provides water supplies.

(4) The California State Library.

SEC. 18. Section 10845 of the Water Code is amended to read:

10845. (a) The department shall prepare and submit to the Legislature, on or before April 30, 2022, and thereafter in the years ending in seven and years ending in two, a report summarizing the status of the plans adopted pursuant to this part.

(b) The report prepared by the department shall identify the outstanding elements of any plan adopted pursuant to this part. The report shall include an evaluation of the effectiveness of this part in promoting efficient agricultural water management practices and recommendations relating to proposed changes to this part, as appropriate.

(c) The department shall provide a copy of the report to each agricultural water supplier that has submitted its plan to the department. The department shall also prepare reports and provide data for any legislative hearing designed to consider the effectiveness of plans submitted pursuant to this part.

(d) This section does not authorize the department, in preparing the report, to approve, disapprove, or critique individual plans submitted pursuant to this part.

SEC. 19. Section 10910 of the Water Code is amended to read:

10910. (a) Any city or county that determines that a project, as defined in Section 10912, is subject to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) under Section 21080 of the Public Resources Code shall comply with this part.

(b) The city or county, at the time that it determines whether an environmental impact report, a negative declaration, or a mitigated negative declaration is required for any project subject to the California Environmental Quality Act pursuant to Section 21080.1 of the Public Resources Code, shall identify any water system whose service area includes the project site and any water system adjacent to the project site that is, or may become as a result of supplying water to the project identified pursuant to this subdivision, a public water system, as defined in Section 10912, that may supply water for the project. If the city or county is not able to identify any public water system that may supply water for the project, the city or county shall prepare the water assessment required by this part after consulting with any entity serving domestic water supplies whose service area includes the project site, the local agency formation commission, and any public water system adjacent to the project site.

(c) (1) The city or county, at the time it makes the determination required under Section 21080.1 of the Public Resources Code, shall request each public water system identified pursuant to subdivision (b) to determine whether the projected water demand associated with a proposed project was included as part of the most recently adopted urban water management plan adopted pursuant to Part 2.6 (commencing with Section 10610).

(2) If the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan, the public water system may incorporate the requested information from the urban water management plan in preparing the elements of the assessment required to comply with subdivisions (d), (e), (f), and (g).

(3) If the projected water demand associated with the proposed project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment for the project shall include a discussion with regard to whether the public water system’s total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system’s existing and planned future uses, including agricultural and manufacturing uses.

(4) If the city or county is required to comply with this part pursuant to subdivision (b), the water supply assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses.

(d) (1) The assessment required by this section shall include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and a description of the quantities of water received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts.

(2) An identification of existing water supply entitlements, water rights, or water service contracts held by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall be demonstrated by providing information related to all of the following:

(A) Written contracts or other proof of entitlement to an identified water supply.

(B) Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.

(C) Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.

(D) Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.

(e) If no water has been received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts, the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall also include in its water supply assessment pursuant to subdivision (c), an identification of the other public water systems or water service contractholders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water as the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has identified as a source of water supply within its water supply assessments.

(f) If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water supply assessment:

(1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.

(2) (A) A description of any groundwater basin or basins from which the proposed project will be supplied.

(B) For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree.

(C) For a basin that has not been adjudicated that is a basin designated as high- or medium-priority pursuant to Section 10722.4, information regarding the following:

(i) Whether the department has identified the basin as being subject to critical conditions of overdraft pursuant to Section 12924.

(ii) If a groundwater sustainability agency has adopted a groundwater sustainability plan or has an approved alternative, a copy of that alternative or plan.

(D) For a basin that has not been adjudicated that is a basin designated as low- or very low priority pursuant to Section 10722.4, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current bulletin of the department that characterizes the condition of the groundwater basin, and a detailed description by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(5) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project. A water supply assessment shall not be required to include the information required by this paragraph if the public water system

determines, as part of the review required by paragraph (1), that the sufficiency of groundwater necessary to meet the initial and projected water demand associated with the project was addressed in the description and analysis required by subparagraph (D) of paragraph (4) of subdivision (b) of Section 10631.

(g) (1) Subject to paragraph (2), the governing body of each public water system shall submit the assessment to the city or county not later than 90 days from the date on which the request was received. The governing body of each public water system, or the city or county if either is required to comply with this act pursuant to subdivision (b), shall approve the assessment prepared pursuant to this section at a regular or special meeting.

(2) Prior to the expiration of the 90-day period, if the public water system intends to request an extension of time to prepare and adopt the assessment, the public water system shall meet with the city or county to request an extension of time, which shall not exceed 30 days, to prepare and adopt the assessment.

(3) If the public water system fails to request an extension of time, or fails to submit the assessment notwithstanding the extension of time granted pursuant to paragraph (2), the city or county may seek a writ of mandamus to compel the governing body of the public water system to comply with the requirements of this part relating to the submission of the water supply assessment.

(h) Notwithstanding any other provision of this part, if a project has been the subject of a water supply assessment that complies with the requirements of this part, no additional water supply assessment shall be required for subsequent projects that were part of a larger project for which a water supply assessment was completed and that has complied with the requirements of this part and for which the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has concluded that its water supplies are sufficient to meet the projected water demand associated with the proposed project, in addition to the existing and planned future uses, including, but not limited to, agricultural and industrial uses, unless one or more of the following changes occurs:

(1) Changes in the project that result in a substantial increase in water demand for the project.

(2) Changes in the circumstances or conditions substantially affecting the ability of the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), to provide a sufficient supply of water for the project.

(3) Significant new information becomes available that was not known and could not have been known at the time when the assessment was prepared.

(i) For the purposes of this section, hauled water is not considered as a source of water.

SEC. 20. *This act shall become operative only if Senate Bill 606 of the 2017–18 Regular Session is enacted and becomes effective.*

SB-606 Water management planning. (2017-2018)

As Amends the Law Today | **As Amends the Law on Nov 08, 2018**

SECTION 1. Section 350 of the Water Code is amended to read:

350. The governing body of a distributor of a public water supply, whether publicly or privately owned and including a mutual water company, shall declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.

SEC. 2. Section 377 of the Water Code is amended to read:

377. (a) From and after the publication or posting of any ordinance or resolution pursuant to Section 376, a violation of a requirement of a water conservation program adopted pursuant to Section 376 is a misdemeanor. A person convicted under this subdivision shall be punished by imprisonment in the county jail for not more than 30 days, or by a fine not exceeding one thousand dollars ($1,000), or by both.

(b) A court or public entity may hold a person civilly liable in an amount not to exceed ten thousand dollars ($10,000) for a violation of any of the following:

(1) An ordinance or resolution adopted pursuant to Section 376.

(2) A regulation adopted by the board under Section 1058.5 or Chapter 9 (commencing with Section 10609) of Part 2.55 of Division 6, unless the board regulation provides that it cannot be enforced under this section or provides for a lesser applicable maximum penalty.

(c) Commencing on the 31st day after the public entity notified a person of a violation described in subdivision (b), the person additionally may be civilly liable in an amount not to exceed ten thousand dollars ($10,000) plus five hundred dollars ($500) for each additional day on which the violation continues.

(d) Remedies prescribed in this section are cumulative and not alternative, except that no liability shall be recoverable under this section for any violation of paragraph (2) of subdivision (b) if the board has filed a complaint pursuant to Section 1846 alleging the same violation.

(e) A public entity may administratively impose the civil liability described in subdivisions (b) and (c) after providing notice and an opportunity for a hearing. The public entity shall initiate a proceeding under this subdivision by a complaint issued pursuant to Section 377.5. The public entity shall issue the complaint at least 30 days before the hearing on the complaint and the complaint shall state the basis for the proposed civil liability order.

(f) (1) In determining the amount of civil liability to assess, a court or public entity shall take into consideration all relevant circumstances, including, but not limited to, the nature and persistence of the violation, the extent of the harm caused by the violation, the length of time over which the violation occurs, and any corrective action taken by the violator.

(2) The civil liability calculated pursuant to paragraph (1) for the first violation of subdivision (b) by a residential water user shall not exceed one thousand dollars ($1,000) except in extraordinary situations where the court or public entity finds all of the following:

(A) The residential user had actual notice of the requirement found to be violated.

(B) The conduct was intentional.

(C) The amount of water involved was substantial.

(g) Civil liability imposed pursuant to this section shall be paid to the public entity and expended solely for the purposes of this chapter.

(h) An order setting administrative civil liability shall become effective and final upon issuance of the order and payment shall be made. Judicial review of any final order shall be pursuant to Section 1094.5 of the Code of Civil Procedure.

(i) In addition to the remedies prescribed in this section, a public entity may enforce water use limitations established by an ordinance or resolution adopted pursuant to this chapter, or as otherwise authorized by law, by a volumetric penalty in an amount established by the public entity.

SEC. 3. Section 1058.5 of the Water Code is amended to read:

1058.5. (a) This section applies to any emergency regulation adopted by the board for which the board makes both of the following findings:

(1) The emergency regulation is adopted to prevent the waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion, of water, to promote water recycling or water conservation, to require curtailment of diversions when water is not available under the diverter's priority of right, or in furtherance of any of the foregoing, to require reporting of diversion or use or the preparation of monitoring reports.

(2) The emergency regulation is adopted in response to conditions which exist, or are threatened, in a critically dry year immediately preceded by two or more consecutive below normal, dry, or critically dry years or during a period for which the Governor has issued a proclamation of a state of emergency under the California Emergency Services Act (Chapter 7 (commencing with Section 8550) of Division 1 of Title 2 of the Government Code) based on drought conditions.

(b) Notwithstanding Sections 11346.1 and 11349.6 of the Government Code, any findings of emergency adopted by the board, in connection with the adoption of an emergency regulation under this section, are not subject to review by the Office of Administrative Law.

(c) An emergency regulation adopted by the board under this section may remain in effect for up to one year, as determined by the board, and is deemed repealed immediately upon a finding by the board that due to changed conditions it is no longer necessary for the regulation to remain in effect. An emergency regulation adopted by the board under this section may be renewed if the board determines that the conditions specified in paragraph (2) of subdivision (a) are still in effect.

(d) In addition to any other applicable civil or criminal penalties, any person or entity ~~that~~ *who* violates a regulation adopted by the board pursuant to this section is guilty of an infraction punishable by a fine of up to five hundred dollars ($500) for each day in which the violation occurs.

(e) (1) Notwithstanding subdivision (b) of Section 1551 or subdivision (e) of Section 1848, a civil liability imposed under Chapter 12 (commencing with Section 1825) of Part 2 of Division 2 by the board or a court for a violation of an emergency conservation regulation adopted pursuant to this section shall be deposited, and separately accounted for, in the Water Rights Fund. Funds deposited in accordance with this subdivision shall be available, upon appropriation, for water conservation activities and programs.

(2) For purposes of this subdivision, an "emergency conservation regulation" means an emergency regulation that requires an end user of water, a water retailer, or a water wholesaler to conserve water or report to the board on water conservation. Water conservation includes restrictions or limitations on particular uses of water or a reduction in the amount of water used or served, but does not include curtailment of diversions when water is not available under the diverter's priority of right or reporting requirements related to curtailments.

SEC. 4. Section 1120 of the Water Code is amended to read:

1120. This chapter applies to any decision or order issued under this part or Section 275, Part 2 (commencing with Section 1200), Part 2 (commencing with Section 10500) of Division 6, Part 2.55 (commencing with Section 10608) of Division 6, or Chapter 11 (commencing with Section 10735) of Part 2.74 of Division 6, Article 7 (commencing with Section 13550) of Chapter 7 of Division 7, or the public trust doctrine.

SEC. 5. Section 10608.12 of the Water Code is amended to read:

10608.12. Unless the context otherwise requires, the following definitions govern the construction of this part:

(a) "Agricultural water supplier" means a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding recycled water. "Agricultural water supplier" includes a supplier or contractor for water, regardless of the basis of right, that distributes or sells water for ultimate resale to customers. "Agricultural water supplier" does not include the department.

(b) "Base daily per capita water use" means any of the following:

(1) The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

(2) For an urban retail water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, the urban retail water supplier may extend the calculation described in paragraph (1) up to an additional five years to a maximum of a continuous 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

(3) For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.

(c) "Baseline commercial, industrial, and institutional water use" means an urban retail water supplier's base daily per capita water use for commercial, industrial, and institutional users.

(d) "CII water use" means water used by commercial water users, industrial water users, institutional water users, and large landscape water users.

(e) "Commercial water user" means a water user that provides or distributes a product or service.

(f) "Compliance daily per capita water use" means the gross water use during the final year of the reporting period, reported in gallons per capita per day.

(g) "Disadvantaged community" means a community with an annual median household income that is less than 80 percent of the statewide annual median household income.

(h) "Gross water use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:

(1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier.

(2) The net volume of water that the urban retail water supplier places into long-term storage.

(3) The volume of water the urban retail water supplier conveys for use by another urban water supplier.

(4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.

(i) "Industrial water user" means a water user that is primarily a manufacturer or processor of materials as defined by the North American Industry Classification System code sectors 31 to 33, inclusive, or an entity that is a water user primarily engaged in research and development.

(j) "Institutional water user" means a water user dedicated to public service. This type of user includes, among other users, higher education institutions, schools, courts, churches, hospitals, government facilities, and nonprofit research institutions.

(k) "Interim urban water use target" means the midpoint between the urban retail water supplier's base daily per capita water use and the urban retail water supplier's urban water use target for 2020.

(l) "Large landscape" means a nonresidential landscape as described in the performance measures for CII water use adopted pursuant to Section 10609.10.

(m) "Locally cost effective" means that the present value of the local benefits of implementing an agricultural efficiency water management practice is greater than or equal to the present value of the local cost of implementing that measure.

(n) "Performance measures" means actions to be taken by urban retail water suppliers that will result in increased water use efficiency by CII water users. Performance measures may include, but are not limited to, educating CII water users on best management practices, conducting water use audits, and preparing water management plans. Performance measures do not include process water.

(o) "Potable reuse" means direct potable reuse, indirect potable reuse for groundwater recharge, and reservoir water augmentation as those terms are defined in Section 13561.

(p) "Process water" means water used by industrial water users for producing a product or product content or water used for research and development. Process water includes, but is not limited to, continuous manufacturing processes, and water used for testing, cleaning, and maintaining equipment. Water used to cool machinery or buildings used in the manufacturing process or necessary to maintain product quality or chemical characteristics for product manufacturing or control rooms, data centers, laboratories, clean rooms, and other industrial facility units that are integral to the manufacturing or research and development process is process water. Water used in the manufacturing process that is necessary for complying with local, state, and federal health and safety laws, and is not incidental water, is process water. Process water does not mean incidental water uses.

(q) "Recycled water" means recycled water, as defined in subdivision (n) of Section 13050.

(r) "Regional water resources management" means sources of supply resulting from watershed-based planning for sustainable local water reliability or any of the following alternative sources of water:

(1) The capture and reuse of stormwater or rainwater.

(2) The use of recycled water.

(3) The desalination of brackish groundwater.

(4) The conjunctive use of surface water and groundwater in a manner that is consistent with the safe yield of the groundwater basin.

(s) "Reporting period" means the years for which an urban retail water supplier reports compliance with the urban water use targets.

(t) "Urban retail water supplier" means a water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet of potable water annually at retail for municipal purposes.

(u) "Urban water use objective" means an estimate of aggregate efficient water use for the previous year based on adopted water use efficiency standards and local service area characteristics for that year, as described in Section 10609.20.

(v) "Urban water use target" means the urban retail water supplier's targeted future daily per capita water use.

(w) "Urban wholesale water ~~supplier"~~ *supplier,"* means a water supplier, either publicly or privately owned, that provides more than 3,000 acre-feet of water annually at wholesale for potable municipal purposes.

SEC. 6. Section 10608.20 of the Water Code is amended to read:

10608.20. (a) (1) Each urban retail water supplier shall develop urban water use targets and an interim urban water use target by July 1, 2011. Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis, as provided in subdivision (a) of Section 10608.28, and may determine the targets on a fiscal year or calendar year basis.

(2) It is the intent of the Legislature that the urban water use targets described in paragraph (1) cumulatively result in a 20-percent reduction from the baseline daily per capita water use by December 31, 2020.

(b) An urban retail water supplier shall adopt one of the following methods for determining its urban water use target pursuant to subdivision (a):

(1) Eighty percent of the urban retail water supplier's baseline per capita daily water use.

(2) The per capita daily water use that is estimated using the sum of the following performance standards:

(A) For indoor residential water use, 55 gallons per capita daily water use as a provisional standard. Upon completion of the department's ~~2017~~ *2016* report to the Legislature pursuant to Section 10608.42, this standard may be adjusted by the Legislature by statute.

(B) For landscape irrigated through dedicated or residential meters or connections, water efficiency equivalent to the standards of the Model Water Efficient Landscape Ordinance set forth in Chapter 2.7 (commencing with Section 490) of Division 2 of Title 23 of the California Code of Regulations, as in effect the later of the year of the landscape's installation or 1992. An urban retail water supplier using the approach specified in this subparagraph shall use satellite imagery, site visits, or other best available technology to develop an accurate estimate of landscaped areas.

(C) For commercial, industrial, and institutional uses, a 10-percent reduction in water use from the baseline commercial, industrial, and institutional water use by 2020.

(3) Ninety-five percent of the applicable state hydrologic region target, as set forth in the state's draft 20x2020 Water Conservation Plan (dated April 30, 2009). If the service area of an urban water supplier includes more than one hydrologic region, the supplier shall apportion its service area to each region based on population or area.

(4) A method that shall be identified and developed by the department, through a public process, and reported to the Legislature no later than December 31, 2010. The method developed by the department shall identify per capita targets that cumulatively result in a statewide 20-percent reduction in urban daily per capita water use by December 31, 2020. In developing urban daily per capita water use targets, the department shall do all of the following:

(A) Consider climatic differences within the state.

(B) Consider population density differences within the state.

(C) Provide flexibility to communities and regions in meeting the targets.

(D) Consider different levels of per capita water use according to plant water needs in different regions.

(E) Consider different levels of commercial, industrial, and institutional water use in different regions of the state.

(F) Avoid placing an undue hardship on communities that have implemented conservation measures or taken actions to keep per capita water use low.

(c) If the department adopts a regulation pursuant to paragraph (4) of subdivision (b) that results in a requirement that an urban retail water supplier achieve a reduction in daily per capita water use that is greater than 20 percent by December 31, 2020, an urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may limit its urban water use target to a reduction of not more than 20 percent by December 31, 2020, by adopting the method described in paragraph (1) of subdivision (b).

(d) The department shall update the method described in paragraph (4) of subdivision (b) and report to the Legislature by December 31, 2014. An urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may adopt a new urban daily per capita water use target pursuant to this updated method.

(e) An urban retail water supplier shall include in its urban water management plan due in 2010 pursuant to Part 2.6 (commencing with Section 10610) the baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.

(f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.

(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).

(h) (1) The department, through a public process and in consultation with the California Urban Water Conservation Council, shall develop technical methodologies and criteria for the consistent implementation of this part, including, but not limited to, both of the following:

(A) Methodologies for calculating base daily per capita water use, baseline commercial, industrial, and institutional water use, compliance daily per capita water use, gross water use, service area population, indoor residential water use, and landscaped area water use.

(B) Criteria for adjustments pursuant to subdivisions (d) and (e) of Section 10608.24.

(2) The department shall post the methodologies and criteria developed pursuant to this subdivision on its ~~internet website,~~ *Internet Web site,* and make written copies available, by October 1, 2010. An urban retail water supplier shall use the methods developed by the department in compliance with this part.

(i) (1) The department shall adopt regulations for implementation of the provisions relating to process water in accordance with Section 10608.12, subdivision (e) of Section 10608.24, and subdivision (d) of Section 10608.26.

(2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.

(j) (1) An urban retail water supplier is granted an extension to July 1, 2011, for adoption of an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) due in 2010 to allow the use of technical methodologies developed by the department pursuant to paragraph (4) of subdivision (b) and subdivision (h). An urban retail water supplier that adopts an urban water management plan due in 2010 that does not use the methodologies developed by the department pursuant to subdivision (h) shall amend the plan by July 1, 2011, to comply with this part.

(2) An urban wholesale water supplier whose urban water management plan prepared pursuant to Part 2.6 (commencing with Section 10610) was due and not submitted in 2010 is granted an extension to July 1, 2011, to permit coordination between an urban wholesale water supplier and urban retail water suppliers.

SEC. 7. *Section 10608.35 is added to the Water Code, to read:*

10608.35. *(a) The department, in coordination with the board, shall conduct necessary studies and investigations and make a recommendation to the Legislature, by January 1, 2020, on the feasibility of developing and enacting water loss reporting requirements for urban wholesale water suppliers.*

(b) The studies and investigations shall include an evaluation of the suitability of applying the processes and requirements of Section 10608.34 to urban wholesale water suppliers.

(c) In conducting necessary studies and investigations and developing its recommendation, the department shall solicit broad public participation from stakeholders and other interested persons.

SEC. 8. *Section 10609.20 is added to the Water Code, immediately following Section 10609.18, to read:*

10609.20. *(a) Each urban retail water supplier shall calculate its urban water use objective no later than November 1, 2023, and by November 1 every year thereafter.*

(b) The calculation shall be based on the urban retail water supplier's water use conditions for the previous calendar or fiscal year.

(c) Each urban water supplier's urban water use objective shall be composed of the sum of the following:

(1) Aggregate estimated efficient indoor residential water use.

(2) Aggregate estimated efficient outdoor residential water use.

(3) Aggregate estimated efficient outdoor irrigation of landscape areas with dedicated irrigation meters or equivalent technology in connection with CII water use.

(4) Aggregate estimated efficient water losses.

(5) Aggregate estimated water use in accordance with variances, as appropriate.

(d) (1) An urban retail water supplier that delivers water from a groundwater basin, reservoir, or other source that is augmented by potable reuse water may adjust its urban water use objective by a bonus incentive calculated pursuant to this subdivision.

(2) The water use objective bonus incentive shall be the volume of its potable reuse delivered to residential water users and to landscape areas with dedicated irrigation meters in connection with CII water use, on an acre-foot basis.

(3) The bonus incentive pursuant to paragraph (1) shall be limited in accordance with one of the following:

(A) The bonus incentive shall not exceed 15 percent of the urban water supplier's water use objective for any potable reuse water produced at an existing facility.

(B) The bonus incentive shall not exceed 10 percent of the urban water supplier's water use objective for any potable reuse water produced at any facility that is not an existing facility.

(4) For purposes of this subdivision, "existing facility" means a facility that meets all of the following:

(A) The facility has a certified environmental impact report, mitigated negative declaration, or negative declaration on or before January 1, 2019.

(B) The facility begins producing and delivering potable reuse water on or before January 1, 2022.

(C) The facility uses microfiltration and reverse osmosis technologies to produce the potable reuse water.

(e) (1) The calculation of the urban water use objective shall be made using landscape area and other data provided by the department and pursuant to the standards, guidelines, and methodologies adopted by the board. The department shall provide data to the urban water supplier at a level of detail sufficient to allow the urban water supplier to verify its accuracy at the parcel level.

(2) Notwithstanding paragraph (1), an urban retail water supplier may use alternative data in calculating the urban water use objective if the supplier demonstrates to the department that the alternative data are equivalent, or superior, in quality and accuracy to the data provided by the department. The department may provide technical assistance to an urban retail water supplier in evaluating whether the alternative data are appropriate for use in calculating the supplier's urban water use objective.

SEC. 9. *Section 10609.22 is added to the Water Code, to read:*

10609.22. *(a) An urban retail water supplier shall calculate its actual urban water use no later than November 1, 2023, and by November 1 every year thereafter.*

(b) The calculation shall be based on the urban retail water supplier's water use for the previous calendar or fiscal year.

(c) Each urban water supplier's urban water use shall be composed of the sum of the following:

(1) Aggregate residential water use.

(2) Aggregate outdoor irrigation of landscape areas with dedicated irrigation meters in connection with CII water use.

(3) Aggregate water losses.

SEC. 10. *Section 10609.24 is added to the Water Code, to read:*

10609.24. *(a) An urban retail water supplier shall submit a report to the department no later than November 1, 2023, and by November 1 every year thereafter. The report shall include all of the following:*

(1) The urban water use objective calculated pursuant to Section 10609.20 along with relevant supporting data.

(2) The actual urban water use calculated pursuant to Section 10609.22 along with relevant supporting data.

(3) Documentation of the implementation of the performance measures for CII water use.

(4) A description of the progress made towards meeting the urban water use objective.

(b) The department shall post the reports and information on its Internet Web site.

(c) The board may issue an information order or conservation order to, or impose civil liability on, an entity or individual for failure to submit a report required by this section.

SEC. 11. *Section 10609.26 is added to the Water Code, to read:*

10609.26. *(a) (1) On and after November 1, 2023, the board may issue informational orders pertaining to water production, water use, and water conservation to an urban retail water supplier that does not meet its urban water use objective required by this chapter. Informational orders are intended to obtain information on supplier activities, water production, and conservation efforts in order to identify technical assistance needs and assist urban water suppliers in meeting their urban water use objectives.*

(2) In determining whether to issue an informational order, the board shall consider the degree to which the urban retail water supplier is not meeting its urban water use objective, information provided in the report required by Section 10609.24, and actions the urban retail water supplier has implemented or will implement in order to help meet the urban water use objective.

(3) The board shall share information received pursuant to this subdivision with the department.

(4) An urban water supplier may request technical assistance from the department. The technical assistance may, to the extent available, include guidance documents, tools, and data.

(b) On and after November 1, 2024, the board may issue a written notice to an urban retail water supplier that does not meet its urban water use objective required by this chapter. The written notice may warn the urban retail water supplier that it is not meeting its urban water use objective described in Section 10609.20 and is not making adequate progress in meeting the urban water use objective, and may request that the urban retail water supplier address areas of concern in its next annual report required by Section 10609.24. In deciding whether to issue a written notice, the board may consider whether the urban retail water supplier has received an informational order, the degree to which the urban retail water supplier is not meeting its urban water use objective, information provided in the report required by Section 10609.24, and actions the urban retail water supplier has implemented or will implement in order to help meet its urban water use objective.

(c) (1) On and after November 1, 2025, the board may issue a conservation order to an urban retail water supplier that does not meet its urban water use objective. A conservation order may consist of, but is not limited to, referral to the department for technical assistance, requirements for education and outreach, requirements for local enforcement, and other efforts to assist urban retail water suppliers in meeting their urban water use objective.

(2) In issuing a conservation order, the board shall identify specific deficiencies in an urban retail water supplier's progress towards meeting its urban water use objective, and identify specific actions to address the deficiencies.

(3) The board may request that the department provide an urban retail water supplier with technical assistance to support the urban retail water supplier's actions to remedy the deficiencies.

(d) A conservation order issued in accordance with this chapter may include requiring actions intended to increase water-use efficiency, but shall not curtail or otherwise limit the exercise of a water right, nor shall it require the imposition of civil liability pursuant to Section 377.

SEC. 12. *Section 10609.28 is added to the Water Code, to read:*

10609.28. *The board may issue a regulation or informational order requiring a wholesale water supplier, an urban retail water supplier, or a distributor of a public water supply, as that term is used in Section 350, to provide a monthly report relating to water production, water use, or water conservation.*

SEC. 13. *Section 10609.30 is added to the Water Code, to read:*

10609.30. *On or before January 10, 2024, the Legislative Analyst shall provide to the appropriate policy committees of both houses of the Legislature and the public a report evaluating the implementation of the water use efficiency standards and water use reporting pursuant to this chapter. The board and the department shall provide the Legislative Analyst with the available data to complete this report.*

(a) The report shall describe all of the following:

(1) The rate at which urban retail water users are complying with the standards, and factors that might facilitate or impede their compliance.

(2) The accuracy of the data and estimates being used to calculate urban water use objectives.

(3) Indications of the economic impacts, if any, of the implementation of this chapter on urban water suppliers and urban water users, including CII water users.

(4) The frequency of use of the bonus incentive, the volume of water associated with the bonus incentive, value to urban water suppliers of the bonus incentive, and any implications of the use of the bonus incentive on water use efficiency.

(5) The early indications of how implementing this chapter might impact the efficiency of statewide urban water use.

(6) Recommendations, if any, for improving statewide urban water use efficiency and the standards and practices described in this chapter.

(7) Any other issues the Legislative Analyst deems appropriate.

SEC. 14. *Section 10609.32 is added to the Water Code, to read:*

10609.32. *It is the intent of the Legislature that the chairperson of the board and the director of the department appear before the appropriate policy committees of both houses of the Legislature on or around January 1, 2026, and report on the implementation of the water use efficiency standards and water use reporting pursuant to this chapter. It is the intent of the Legislature that the topics to be covered include all of the following:*

(a) The rate at which urban retail water suppliers are complying with the standards, and factors that might facilitate or impede their compliance.

(b) What enforcement actions have been taken, if any.

(c) The accuracy of the data and estimates being used to calculate urban water use objectives.

(d) Indications of the economic impacts, if any, of the implementation of this chapter on urban water suppliers and urban water users, including CII water users.

(e) The frequency of use of the bonus incentive, the volume of water associated with the bonus incentive, value to urban water suppliers of the bonus incentive, and any implications of the use of the bonus incentive on water use efficiency.

(f) An assessment of how implementing this chapter is affecting the efficiency of statewide urban water use.

SEC. 15. *Section 10609.34 is added to the Water Code, to read:*

10609.34. *Notwithstanding Section 15300.2 of Title 14 of the California Code of Regulations, an action of the board taken under this chapter shall be deemed to be a Class 8 action, within the meaning of Section 15308 of Title 14 of the California Code of Regulations, provided that the action does not involve relaxation of existing water conservation or water use standards.*

SEC. 16. *Section 10609.36 is added to the Water Code, to read:*

10609.36. *(a) Nothing in this chapter shall be construed to determine or alter water rights. Sections 1010 and 1011 apply to water conserved through implementation of this chapter.*

(b) Nothing in this chapter shall be construed to authorize the board to update or revise water use efficiency standards authorized by this chapter except as explicitly provided in this chapter. Authorization to update the standards beyond that explicitly provided in this chapter shall require separate legislation.

(c) Nothing in this chapter shall be construed to limit or otherwise affect the use of recycled water as seawater barriers for groundwater salinity management.

SEC. 17. *Section 10609.38 is added to the Water Code, to read:*

10609.38. The board may waive the requirements of this chapter for a period of up to five years for any urban retail water supplier whose water deliveries are significantly affected by changes in water use as a result of damage from a disaster such as an earthquake or fire. In establishing the period of a waiver, the board shall take into consideration the breadth of the damage and the time necessary for the damaged areas to recover from the disaster.

SEC. 18. Section 10610.2 of the Water Code is amended to read:

10610.2. (a) The Legislature finds and declares all of the following:

(1) The waters of the state are a limited and renewable resource subject to ever-increasing demands.

(2) The conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level.

(3) A long-term, reliable supply of water is essential to protect the productivity of California's businesses and economic climate, and increasing long-term water conservation among Californians, improving water use efficiency within the state's communities and agricultural production, and strengthening local and regional drought planning are critical to California's resilience to drought and climate change.

(4) As part of its long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years now and into the foreseeable future, and every urban water supplier should collaborate closely with local land-use authorities to ensure water demand forecasts are consistent with current land-use planning.

(5) Public health issues have been raised over a number of contaminants that have been identified in certain local and imported water supplies.

(6) Implementing effective water management strategies, including groundwater storage projects and recycled water projects, may require specific water quality and salinity targets for meeting groundwater basins water quality objectives and promoting beneficial use of recycled water.

(7) Water quality regulations are becoming an increasingly important factor in water agencies' selection of raw water sources, treatment alternatives, and modifications to existing treatment facilities.

(8) Changes in drinking water quality standards may also impact the usefulness of water supplies and may ultimately impact supply reliability.

(9) The quality of source supplies can have a significant impact on water management strategies and supply reliability.

(b) This part is intended to provide assistance to water agencies in carrying out their long-term resource planning responsibilities to ensure adequate water supplies to meet existing and future demands for water.

SEC. 19. Section 10610.4 of the Water Code is amended to read:

10610.4. The Legislature finds and declares that it is the policy of the state as follows:

(a) The management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources.

(b) The management of urban water demands and efficient use of urban water supplies shall be a guiding criterion in public decisions.

(c) Urban water suppliers shall be required to develop water management plans to achieve the efficient use of available supplies and strengthen local drought planning.

SEC. 20. Section 10612 of the Water Code is amended and renumbered to read:

~~**10612.**~~ *10611.3.* ~~"Drought risk assessment"~~ *"Customer"* means a ~~method that examines water shortage risks based on the driest five-year historic sequence for the agency's water supply, as described in subdivision (b) of Section 10635.~~ *purchaser of water from a water supplier who uses the water for municipal purposes, including residential, commercial, governmental, and industrial uses.*

SEC. 21. *Section 10612 is added to the Water Code, to read:*

10612. *"Drought risk assessment" means a method that examines water shortage risks based on the driest five-year historic sequence for the agency's water supply, as described in subdivision (b) of Section 10635.*

SEC. 22. *Section 10617.5 is added to the Water Code, to read:*

10617.5. *"Water shortage contingency plan" means a document that incorporates the provisions detailed in subdivision (a) of Section 10632 and is subsequently adopted by an urban water supplier pursuant to this article.*

SEC. 23. *Section 10618 is added to the Water Code, to read:*

10618. *"Water supply and demand assessment" means a method that looks at current year and one or more dry year supplies and demands for determining water shortage risks, as described in Section 10632.1.*

SEC. 24. Section 10620 of the Water Code is amended to read:

10620. (a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).

(b) Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.

(c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.

(d) (1) An urban water supplier may satisfy the requirements of this part by participation in areawide, regional, watershed, or basinwide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation, efficient water use, and improved local drought resilience.

(2) Notwithstanding paragraph (1), each urban water supplier shall develop its own water shortage contingency plan, but an urban water supplier may incorporate, collaborate, and otherwise share information with other urban water suppliers or other governing entities participating in an areawide, regional, watershed, or basinwide urban water management plan, an agricultural management plan, or groundwater sustainability plan development.

(3) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.

(e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.

(f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

SEC. 25. Section 10621 of the Water Code is amended to read:

10621. (a) Each urban water supplier shall update its plan at least once every five years on or before July 1, in years ending in six and one, incorporating updated and new information from the five years preceding each update.

(b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days before the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.

(c) An urban water supplier regulated by the Public Utilities Commission shall include its most recent plan and water shortage contingency plan as part of the supplier's general rate case filings.

(d) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).

(e) Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.

(f) *(1)* Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.

(2) By January 1, 2024, each urban retail water supplier shall adopt and submit to the department a supplement to the adopted 2020 plan that includes information required pursuant to subparagraph (B) of paragraph (1) of subdivision (e) of Section 10631. This supplement is not an update or an amendment to the plan and, therefore, an urban water supplier is not required to comply with the public notice, hearing, and adoption requirements of Section 10642 before submitting the information to the department.

SEC. 26. Section 10630 of the Water Code is amended to read:

10630. It is the intention of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied, while accounting for impacts from climate change.

SEC. 27. *Section 10630.5 is added to the Water Code, to read:*

10630.5. *Each plan shall include a simple lay description of how much water the agency has on a reliable basis, how much it needs for the foreseeable future, what the agency's strategy is for meeting its water needs, the challenges facing the agency, and any other information necessary to provide a general understanding of the agency's plan.*

SEC. 28. Section 10631 of the Water Code is amended to read:

10631. A plan shall be adopted in accordance with this chapter that shall do all of the following:

(a) Describe the service area of the supplier, including current and projected population, climate, and other social, economic, and demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available. The description shall include the current and projected land uses within the existing or anticipated service area affecting the supplier's water management planning. Urban water suppliers shall coordinate with local or regional land use authorities to determine the most appropriate land use information, including, where appropriate, land use information obtained from local or regional land use authorities, as developed pursuant to Article 5 (commencing with Section 65300) of Chapter 3 of Division 1 of Title 7 of the Government Code.

(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a), providing supporting and related information, including all of the following:

(1) A detailed discussion of anticipated supply availability under a normal water year, single dry year, and droughts lasting at least five years, as well as more frequent and severe periods of drought, as described in the drought risk assessment. For each source of water supply, consider any information pertinent to the reliability analysis conducted pursuant to Section 10635, including changes in supply due to climate change.

(2) When multiple sources of water supply are identified, a description of the management of each supply in correlation with the other identified supplies.

(3) For any planned sources of water supply, a description of the measures that are being undertaken to acquire and develop those water supplies.

(4) If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information:

(A) The current version of any groundwater sustainability plan or alternative adopted pursuant to Part 2.74 (commencing with Section 10720), any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management for basins underlying the urban water supplier's service area.

(B) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For basins that a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For a basin that has not been adjudicated, information as to whether the department has identified the basin as a high- or medium-priority basin in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to coordinate with groundwater sustainability agencies or groundwater management agencies listed in subdivision (c) of Section 10723 to maintain or achieve sustainable groundwater conditions in accordance with a groundwater sustainability plan or alternative adopted pursuant to Part 2.74 (commencing with Section 10720).

(C) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(D) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(c) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

(d) (1) For an urban retail water supplier, quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, based upon information developed pursuant to subdivision (a), identifying the uses among water use sectors, including, but not necessarily limited to, all of the following:

(A) Single-family residential.

(B) Multifamily.

(C) Commercial.

(D) Industrial.

(E) Institutional and governmental.

(F) Landscape.

(G) Sales to other agencies.

(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.

(I) Agricultural.

(J) Distribution system water loss.

(2) The water use projections shall be in the same five-year increments described in subdivision (a).

(3) (A) The distribution system water loss shall be quantified for each of the five years preceding the plan update, in accordance with rules adopted pursuant to Section 10608.34.

(B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.

(C) In the plan due July 1, 2021, and in each update thereafter, data shall be included to show whether the urban retail water supplier met the distribution loss standards enacted by the board pursuant to Section 10608.34.

(4) (A) Water use projections, where available, shall display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.

(B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following:

(i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections.

(ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.

(e) Provide a description of the supplier's water demand management measures. This description shall include all of the following:

(1) (A) For an urban retail water supplier, as defined in Section 10608.12, a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years. The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.

(B) For the supplement required of urban retail water suppliers by paragraph (2) of subdivision (f) of Section 10621, a narrative that describes the water demand management measures that the supplier plans to implement to achieve its urban water use objective by January 1, 2027, pursuant to Chapter 9 (commencing with Section 10609) of Part 2.55.

~~(B)~~ *(C)* The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:

(i) Water waste prevention ordinances.

(ii) Metering.

(iii) Conservation pricing.

(iv) Public education and outreach.

(v) Programs to assess and manage distribution system real loss.

(vi) Water conservation program coordination and staffing support.

(vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.

(2) For an urban wholesale water supplier, as defined in Section 10608.12, a narrative description of the items in clauses (ii), (iv), (vi), and (vii) of subparagraph ~~(B)~~ *(C)* of paragraph (1), and a narrative description of its distribution system asset management and wholesale supplier assistance programs.

(f) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use, as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in normal and single-dry water years and for a period of drought lasting five consecutive water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

(g) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

(h) An urban water supplier that relies upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (f). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (f).

SEC. 29. Section 10631.2 of the Water Code is amended to read:

10631.2. (a) In addition to the requirements of Section 10631, an urban water management plan shall include any of the following information that the urban water supplier can readily obtain:

(1) An estimate of the amount of energy used to extract or divert water supplies.

(2) An estimate of the amount of energy used to convey water supplies to the water treatment plants or distribution systems.

(3) An estimate of the amount of energy used to treat water supplies.

(4) An estimate of the amount of energy used to distribute water supplies through its distribution systems.

(5) An estimate of the amount of energy used for treated water supplies in comparison to the amount used for nontreated water supplies.

(6) An estimate of the amount of energy used to place water into or withdraw from storage.

(7) Any other energy-related information the urban water supplier deems appropriate.

(b) The department shall include in its guidance for the preparation of urban water management plans a methodology for the voluntary calculation or estimation of the energy intensity of urban water systems. The department may consider studies and calculations conducted by the Public Utilities Commission in developing the methodology.

(c) The Legislature finds and declares that energy use is only one factor in water supply planning and shall not be considered independently of other factors.

SEC. 30. Section 10631.7 of the Water Code is repealed.

SEC. 31. Section 10632 of the Water Code is repealed.

~~**10632.** (a) Every urban water supplier shall prepare and adopt a water shortage contingency plan as part of its urban water management plan that consists of each of the following elements:~~

~~(1) The analysis of water supply reliability conducted pursuant to Section 10635.~~

~~(2) The procedures used in conducting an annual water supply and demand assessment that include, at a minimum, both of the following:~~

~~(A) The written decisionmaking process that an urban water supplier will use each year to determine its water supply reliability.~~

~~(B) The key data inputs and assessment methodology used to evaluate the urban water supplier's water supply reliability for the current year and one dry year, including all of the following:~~

~~(i) Current year unconstrained demand, considering weather, growth, and other influencing factors, such as policies to manage current supplies to meet demand objectives in future years, as applicable.~~

~~(ii) Current year available supply, considering hydrological and regulatory conditions in the current year and one dry year. The annual supply and demand assessment may consider more than one dry year solely at the discretion of the urban water supplier.~~

~~(iii) Existing infrastructure capabilities and plausible constraints.~~

~~(iv) A defined set of locally applicable evaluation criteria that are consistently relied upon for each annual water supply and demand assessment.~~

~~(v) A description and quantification of each source of water supply.~~

~~(3) (A) Six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, and 50 percent shortages and greater than 50 percent shortage. Urban water suppliers shall define these shortage levels based on the suppliers' water supply conditions, including percentage reductions in water supply, changes in groundwater levels, changes in surface elevation or level of subsidence, or other changes in hydrological or other local conditions indicative of the water supply available for use. Shortage levels shall also apply to catastrophic interruption of water supplies, including, but not limited to, a regional power outage, an earthquake, and other potential emergency events.~~

~~(B) An urban water supplier with an existing water shortage contingency plan that uses different water shortage levels may comply with the requirement in subparagraph (A) by developing and including a cross-reference relating its existing categories to the six standard water shortage levels.~~

~~(4) Shortage response actions that align with the defined shortage levels and include, at a minimum, all of the following:~~

~~(A) Locally appropriate supply augmentation actions.~~

~~(B) Locally appropriate demand reduction actions to adequately respond to shortages.~~

~~(C) Locally appropriate operational changes.~~

~~(D) Additional, mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions and appropriate to the local conditions.~~

~~(E) For each action, an estimate of the extent to which the gap between supplies and demand will be reduced by implementation of the action.~~

~~(5) Communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments, regarding, at a minimum, all of the following:~~

~~(A) Any current or predicted shortages as determined by the annual water supply and demand assessment described pursuant to Section 10632.1.~~

~~(B) Any shortage response actions triggered or anticipated to be triggered by the annual water supply and demand assessment described pursuant to Section 10632.1.~~

~~(C) Any other relevant communications.~~

~~(6) For an urban retail water supplier, customer compliance, enforcement, appeal, and exemption procedures for triggered shortage response actions as determined pursuant to Section 10632.2.~~

~~(7) (A) A description of the legal authorities that empower the urban water supplier to implement and enforce its shortage response actions specified in paragraph (4) that may include, but are not limited to, statutory authorities, ordinances, resolutions, and contract provisions.~~

~~(B) A statement that an urban water supplier shall declare a water shortage emergency in accordance with Chapter 3 (commencing with Section 350) of Division 1.~~

~~(C) A statement that an urban water supplier shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code.~~

~~(8) A description of the financial consequences of, and responses for, drought conditions, including, but not limited to, all of the following:~~

~~(A) A description of potential revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).~~

~~(B) A description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).~~

~~(C) A description of the cost of compliance with Chapter 3.3 (commencing with Section 365) of Division 1.~~

~~(9) For an urban retail water supplier, monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance and to meet state reporting requirements.~~

~~(10) Reevaluation and improvement procedures for systematically monitoring and evaluating the functionality of the water shortage contingency plan in order to ensure shortage risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented as needed.~~

~~(b) For purposes of developing the water shortage contingency plan pursuant to subdivision (a), an urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes,~~

~~waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.~~

~~(c) The urban water supplier shall make available the water shortage contingency plan prepared pursuant to this article to its customers and any city or county within which it provides water supplies no later than 30 days after adoption of the water shortage contingency plan.~~

SEC. 32. *Section 10632 is added to the Water Code, to read:*

10632. *(a) Every urban water supplier shall prepare and adopt a water shortage contingency plan as part of its urban water management plan that consists of each of the following elements:*

(1) The analysis of water supply reliability conducted pursuant to Section 10635.

(2) The procedures used in conducting an annual water supply and demand assessment that include, at a minimum, both of the following:

(A) The written decisionmaking process that an urban water supplier will use each year to determine its water supply reliability.

(B) The key data inputs and assessment methodology used to evaluate the urban water supplier's water supply reliability for the current year and one dry year, including all of the following:

(i) Current year unconstrained demand, considering weather, growth, and other influencing factors, such as policies to manage current supplies to meet demand objectives in future years, as applicable.

(ii) Current year available supply, considering hydrological and regulatory conditions in the current year and one dry year. The annual supply and demand assessment may consider more than one dry year solely at the discretion of the urban water supplier.

(iii) Existing infrastructure capabilities and plausible constraints.

(iv) A defined set of locally applicable evaluation criteria that are consistently relied upon for each annual water supply and demand assessment.

(v) A description and quantification of each source of water supply.

(3) (A) Six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, and 50 percent shortages and greater than 50 percent shortage. Urban water suppliers shall define these shortage levels based on the suppliers' water supply conditions, including percentage reductions in water supply, changes in groundwater levels, changes in surface elevation or level of subsidence, or other changes in hydrological or other local conditions indicative of the water supply available for use. Shortage levels shall also apply to catastrophic interruption of water supplies, including, but not limited to, a regional power outage, an earthquake, and other potential emergency events.

(B) An urban water supplier with an existing water shortage contingency plan that uses different water shortage levels may comply with the requirement in subparagraph (A) by developing and including a cross-reference relating its existing categories to the six standard water shortage levels.

(4) Shortage response actions that align with the defined shortage levels and include, at a minimum, all of the following:

(A) Locally appropriate supply augmentation actions.

(B) Locally appropriate demand reduction actions to adequately respond to shortages.

(C) Locally appropriate operational changes.

(D) Additional, mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions and appropriate to the local conditions.

(E) For each action, an estimate of the extent to which the gap between supplies and demand will be reduced by implementation of the action.

(5) Communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments, regarding, at a minimum, all of the following:

(A) Any current or predicted shortages as determined by the annual water supply and demand assessment described pursuant to Section 10632.1.

(B) Any shortage response actions triggered or anticipated to be triggered by the annual water supply and demand assessment described pursuant to Section 10632.1.

(C) Any other relevant communications.

(6) For an urban retail water supplier, customer compliance, enforcement, appeal, and exemption procedures for triggered shortage response actions as determined pursuant to Section 10632.2.

(7) (A) A description of the legal authorities that empower the urban water supplier to implement and enforce its shortage response actions specified in paragraph (4) that may include, but are not limited to, statutory authorities, ordinances, resolutions, and contract provisions.

(B) A statement that an urban water supplier shall declare a water shortage emergency in accordance with Chapter 3 (commencing with Section 350) of Division 1.

(C) A statement that an urban water supplier shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code.

(8) A description of the financial consequences of, and responses for, drought conditions, including, but not limited to, all of the following:

(A) A description of potential revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).

(B) A description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).

(C) A description of the cost of compliance with Chapter 3.3 (commencing with Section 365) of Division 1.

(9) For an urban retail water supplier, monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance and to meet state reporting requirements.

(10) Reevaluation and improvement procedures for systematically monitoring and evaluating the functionality of the water shortage contingency plan in order to ensure shortage risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented as needed.

(b) For purposes of developing the water shortage contingency plan pursuant to subdivision (a), an urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

(c) The urban water supplier shall make available the water shortage contingency plan prepared pursuant to this article to its customers and any city or county within which it provides water supplies no later than 30 days after adoption of the water shortage contingency plan.

SEC. 33. *Section 10632.1 is added to the Water Code, to read:*

10632.1. *An urban water supplier shall conduct an annual water supply and demand assessment pursuant to subdivision (a) of Section 10632 and, on or before June 1 of each year, submit an annual water shortage assessment report to the department with information for anticipated shortage, triggered shortage response actions, compliance and enforcement actions, and communication actions consistent with the supplier's water shortage contingency plan. An urban water supplier that relies on imported water from the State Water Project or the Bureau of Reclamation shall submit its annual water supply and demand assessment within 14 days of receiving its final allocations, or by June 1 of each year, whichever is later.*

SEC. 34. *Section 10632.2 is added to the Water Code, to read:*

10632.2. *An urban water supplier shall follow, where feasible and appropriate, the prescribed procedures and implement determined shortage response actions in its water shortage contingency plan, as identified in subdivision (a) of Section 10632, or reasonable alternative actions, provided that descriptions of the alternative*

actions are submitted with the annual water shortage assessment report pursuant to Section 10632.1. Nothing in this section prohibits an urban water supplier from taking actions not specified in its water shortage contingency plan, if needed, without having to formally amend its urban water management plan or water shortage contingency plan.

SEC. 35. *Section 10632.3 is added to the Water Code, to read:*

10632.3. *It is the intent of the Legislature that, upon proclamation by the Governor of a state of emergency under the California Emergency Services Act (Chapter 7 (commencing with Section 8550) of Division 1 of Title 2 of the Government Code) based on drought conditions, the board defer to implementation of locally adopted water shortage contingency plans to the extent practicable.*

SEC. 36. Section 10635 of the Water Code is amended to read:

10635. (a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.

(b) Every urban water supplier shall include, as part of its urban water management plan, a drought risk assessment for its water service to its customers as part of information considered in developing the demand management measures and water supply projects and programs to be included in the urban water management plan. The urban water supplier may conduct an interim update or updates to this drought risk assessment within the five-year cycle of its urban water management plan update. The drought risk assessment shall include each of the following:

(1) A description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts five consecutive water years, starting from the year following when the assessment is conducted.

(2) A determination of the reliability of each source of supply under a variety of water shortage conditions. This may include a determination that a particular source of water supply is fully reliable under most, if not all, conditions.

(3) A comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.

(4) Considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.

(c) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.

(d) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.

(e) Nothing in this article is intended to change existing law concerning an urban water supplier’s obligation to provide water service to its existing customers or to any potential future customers.

SEC. 37. Section 10640 of the Water Code is amended to read:

10640. (a) Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630). The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

(b) Every urban water supplier required to prepare a water shortage contingency plan shall prepare a water shortage contingency plan pursuant to Section 10632. The supplier shall likewise periodically review the water

shortage contingency plan as required by paragraph (10) of subdivision (a) of Section 10632 and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

SEC. 38. Section 10641 of the Water Code is amended to read:

10641. An urban water supplier required to prepare a plan or a water shortage contingency plan may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water demand management methods and techniques.

SEC. 39. Section 10642 of the Water Code is amended to read:

10642. Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of both the plan and the water shortage contingency plan. Prior to adopting either, the urban water supplier shall make both the plan and the water shortage contingency plan available for public inspection and shall hold a public hearing or hearings thereon. Prior to any of these hearings, notice of the time and place of the hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of a hearing to any city or county within which the supplier provides water supplies. Notices by a local public agency pursuant to this section shall be provided pursuant to Chapter 17.5 (commencing with Section 7290) of Division 7 of Title 1 of the Government Code. A privately owned water supplier shall provide an equivalent notice within its service area. After the hearing or hearings, the plan or water shortage contingency plan shall be adopted as prepared or as modified after the hearing or hearings.

SEC. 40. Section 10644 of the Water Code is amended to read:

10644. (a) (1) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.

(2) The plan, or amendments to the plan, submitted to the department pursuant to paragraph (1) shall be submitted electronically and shall include any standardized forms, tables, or displays specified by the department.

(b) If an urban water supplier revises its water shortage contingency plan, the supplier shall submit to the department a copy of its water shortage contingency plan prepared pursuant to subdivision (a) of Section 10632 no later than 30 days after adoption, in accordance with protocols for submission and using electronic reporting tools developed by the department.

(c) (1) (A) Notwithstanding Section 10231.5 of the Government Code, the department shall prepare and submit to the Legislature, on or before July 1, in the years ending in seven and two, a report summarizing the status of the plans and water shortage contingency plans adopted pursuant to this part. The report prepared by the department shall identify the exemplary elements of the individual plans and water shortage contingency plans. The department shall provide a copy of the report to each urban water supplier that has submitted its plan and water shortage contingency plan to the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans and water shortage contingency plans submitted pursuant to this part.

(B) The department shall prepare and submit to the board, on or before September 30 of each year, a report summarizing the submitted water supply and demand assessment results along with appropriate reported water shortage conditions and the regional and statewide analysis of water supply conditions developed by the department. As part of the report, the department shall provide a summary and, as appropriate, urban water supplier specific information regarding various shortage response actions implemented as a result of annual supplier-specific water supply and demand assessments performed pursuant to Section 10632.1.

(C) The department shall submit the report to the Legislature for the 2015 plans by July 1, 2017, and the report to the Legislature for the 2020 plans and water shortage contingency plans by July 1, 2022.

(2) A report to be submitted pursuant to subparagraph (A) of paragraph (1) shall be submitted in compliance with Section 9795 of the Government Code.

(d) The department shall make available to the public the standard the department will use to identify exemplary water demand management measures.

SEC. 41. Section 10645 of the Water Code is amended to read:

10645. (a) Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

(b) Not later than 30 days after filing a copy of its water shortage contingency plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

SEC. 42. Section 10650 of the Water Code is amended to read:

10650. Any actions or proceedings, other than actions by the board, to attack, review, set aside, void, or annul the acts or decisions of an urban water supplier on the grounds of noncompliance with this part shall be commenced as follows:

(a) An action or proceeding alleging failure to adopt a plan or a water shortage contingency plan shall be commenced within 18 months after that adoption is required by this part.

(b) Any action or proceeding alleging that a plan or water shortage contingency plan, or action taken pursuant to either, does not comply with this part shall be commenced within 90 days after filing of the plan or water shortage contingency plan or an amendment to either pursuant to Section 10644 or the taking of that action.

SEC. 43. Section 10651 of the Water Code is amended to read:

10651. In any action or proceeding to attack, review, set aside, void, or annul a plan or a water shortage contingency plan, or an action taken pursuant to either by an urban water supplier on the grounds of noncompliance with this part, the inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the supplier has not proceeded in a manner required by law or if the action by the water supplier is not supported by substantial evidence.

SEC. 44. Section 10653 of the Water Code is amended to read:

10653. The adoption of a plan shall satisfy any requirements of state law, regulation, or order, including those of the board and the Public Utilities Commission, for the preparation of water management plans, water shortage contingency plans, or conservation plans; provided, that if the board or the Public Utilities Commission requires additional information concerning water conservation, drought response measures, or financial conditions to implement its existing authority, nothing in this part shall be deemed to limit the board or the commission in obtaining that information. The requirements of this part shall be satisfied by any urban water demand management plan that complies with analogous federal laws or regulations after the effective date of this part, and which substantially meets the requirements of this part, or by any existing urban water management plan which includes the contents of a plan required under this part.

SEC. 45. Section 10654 of the Water Code is amended to read:

10654. An urban water supplier may recover in its rates the costs incurred in preparing its urban water management plan, its drought risk assessment, its water supply and demand assessment, and its water shortage contingency plan and implementing the reasonable water conservation measures included in either of the plans.

SEC. 46. Section 10656 of the Water Code is amended to read:

10656. An urban water supplier is not eligible for a water grant or loan awarded or administered by the state unless the urban water supplier complies with this part.

SEC. 47. *Section 10657 is added to the Water Code, to read:*

10657. *The department may adopt regulations regarding the definitions of water, water use, and reporting periods, and may adopt any other regulations deemed necessary or desirable to implement this part. In developing regulations pursuant to this section, the department shall solicit broad public participation from stakeholders and other interested persons.*

SEC. 48. *This act shall become operative only if Assembly Bill 1668 of the 2017–18 Regular Session is enacted and becomes effective.*

Appendix B

AWE Model Assumptions

AWE CONSERVATION TRACKING TOOL: COMMON ASSUMPTIONS WORKSHEET

Getting Started: On this worksheet you enter information the tracking tool needs to operate. This includes specifying whether to use English or Metric units, setting up customer classes, specifying the first year for forecasts, entering forecasted population, housing, and customer accounts, setting financial assumptions, providing information needed to calculate water and energy savings due to appliance and plumbing standards for toilets, clothes washers, and dishwashers, and providing information needed to calculate water savings for landscape conservation measures included in the conservation measure library. It sounds like a lot, but you probably have developed much of this data for other planning purposes.

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State	CA	Model will use CA plumbing standards	
Volume Units	Acre-Feet (AF)	Flow Units Will Be:	MGD

Population, Housing, and Account Forecasts

Enter Starting Year for Forecasts: 2010

DU scaled based on the 2018 ABAG Population estimates, and sector based on both pop and emply, 2020 sector based on pop only

Population & Housing	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**	**2040**	**2045**
Population	40,794	41,681	43,069	50,220	52,720	53,895	56,050	58,291
Single Family Dwelling Units	9,029	9,029	9,330	10,879	11,420	11,675	12,142	12,627
Multi Family Dwelling Units	5,972	5,972	6,171	7,195	7,554	7,722	8,031	8,352
Number of Accounts								
Single Family	8,515	8,475	8,757	8,947	9,393	9,602	9,986	10,385
Multi Family	352	354	366	372	390	399	415	432
CII	710	751	776	738	748	757	768	779
Irrigation	332	414	428	389	394	399	405	411
Not in use								
Not in use								
Not in use								
Not in use								
Not in use								

Financial Assumptions

These inputs are used by the tracking tool to standardize costs and benefits, calculate present values, and estimate utility and customer benefits of conservation.

Dollar Base Year	2020
Annual Inflation Rate	3.0%
Nominal Interest Rate	2.3%

Utility Rates in 2010	**Average Class Rate (2020 Dollars)**				**Annual Rate of Increase**			
	Water	Sewer	Electricity	Gas	Water	Sewer	Electricity	Gas

Customer Class	($/Thou Gal)	($/Thou Gal)	($/KWh)	($/Therm)	(%/Yr)	(%/Yr)	(%/Yr)	(%/Yr)
Single Family	$3.42	$11.43	$0.28	$2.00	3.0%	3.0%	3.0%	3.0%
Multi Family	$3.98	$11.43	$0.28	$2.00	3.0%	3.0%	3.0%	3.0%
CII	$3.98	$11.97	$0.24	$0.78	3.0%	3.0%	3.0%	3.0%
Irrigation	$3.42		$0.32		3.0%	3.0%	3.0%	3.0%
Not in use								
Not in use								
Not in use								
Not in use								
Not in use								

Information Needed to Calculate Water/Energy Savings from Plumbing/Appliance Standards

These inputs are used by the tracking tool to estimate water and energy savings for national toilet and showerhead standards, which first took effect in 1994, and clothes washer and dishwasher appliance standards, which first included maximum allowable water factors in 2011 and 2010, respectively. Toilet standards took effect in 1992 in California and Texas.

	Single Family	Multi Family
Persons per household	2.65	2.65
Full Baths/Dwelling Unit	2.17	1.39
Half Baths/Dwelling Unit	0.19	0.83
Dwellling Units in 1992	8,573	4,661

Population in 1990 36,326

Information Needed to Calculate Water Savings for Landscape Measures in Library

Average landscape water use for residential and non-residential sites is used by the model to calculate water savings for various landscape conservation measures included in the program library. Average landscape water use is calculated using the following equation. Alternatively, you can use your own landscape water use estimate by selecting the "Use My Own Estimate" option.

$$use\ per\ site = \left(\frac{1}{irr.eff.}\right) \times (ET_0 \times K_L - R_e)\ \times Area \times C_v, where$$

$irr.eff. = typical\ irrigation\ efficiency$
$ET_0 = reference\ evapotranspiration$
$K_L = landscape\ coefficient\ (\%\ of ET_0\ needed\ by\ crop)$
$R_e = effective\ rainfall\ (\%\ of\ annual\ rainfall\ contributing\ to\ plant\ water\ requirement)$
$C_v = coefficient\ that\ converts\ water\ use\ to\ appropriate\ volume\ units\ (gal\ for\ english\ units, M^3 for\ metric\ units)$

○ Use my own landscape water use estimates ◉ Use model's landscape water use calculator

Reference ET in/yr 42.00

Avg Annual Rainfall	in/yr	30.18
Effective Rainfall	%	25%

Landscape Water Requirement Coefficient (K_L)

Turf	% of ET_0	80%
Other than turf	% of ET_0	40%

		Residential	Non Residential
Avg Landscape Area Per Site	ft^2		
Avg Turf Area (% of Total)	%		
Avg Irrigation Efficiency (%)	%	75%	81%

Drip irrigation system saving estimates

Irrigation Requirement		Residential	Non Residential
Turf Area	in/ft^2/yr	35	32
Other	in/ft^2/yr	12	11

artifical turf sav	21.65610541	in/ft^2/yr
Drip savings	2.573333333	in/ft^2/yr

Avg Landscape Water Use Per Site		Residential	Non Residential
Turf Area	Gal/Yr	0	0
Other	Gal/Yr	0	0
Total	Gal/Yr	**0**	**0**

AWE CONSERVATION TRACKING TOOL: ENTER UTILITY AVOIDED COSTS WORKSHEET

Enter utility avoided costs: The primary benefit of conservation to the utility and its ratepayers is avoiding future water supply and wastewater costs. A utility avoids cost by not having to purchase (or otherwise acquire), transport, treat and distribute water supply, and by not having to collect, treat, and dispose of wastewater. The variable costs of these activities are major components of avoided cost. Conservation, if done at sufficient scale, may also allow the utility to defer or even entirely avoid future expansion of system capacity. This can be a major source of benefit in some cases.

The tracking tool comes with a calculator you can use to estimate your avoided costs. Alternatively, you can enter you own avoided cost estimates by selecting

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Download CUWCC Avoided Cost & Environmental Benefits Models

○ Use my own avoided cost estimates ◉ Use model's avoided cost calculator

Tracking Tool Utility Avoided Cost Calculator

Water and Wastewater System Variable Costs (2020 Dollars)

	Water		Wastewater	
	$/AF	Nominal Increase	$/AF	Nominal Increase
Water purchase	$967	3.0%	NA	NA
Energy	$101	3.0%	$15	3.0%
Chemicals	$6	3.0%	$0	3.0%
Other variable cost				
Total	**$1,074**	**3.0%**	**$15**	**3.0%**

Variable Cost Forecast

Variable Cost	Units	2010	2015	2020	2025	2030	2035	2040	2045	2040-2045 Ann Grwth %
Water Supply	$/AF	$1,074	$1,074	$1,074	$1,073	$1,073	$1,072	$1,072	$1,071	0.0%
Wastewater	$/AF	$15	$15	$15	$15	$15	$15	$15	$15	0.0%

AWE CONSERVATION TRACKING TOOL: DEFINE CONSERVATION ACTIVITIES WORKSHEET

Define conservation activities: Click the Define/Edit/Delete button to setup and edit conservation activities. You can use the form to define your own activities or import activities from the tracking tool's library. Once imported, library activities can be customized. Conservation activity specifications are stored in a table on this worksheet. This table is hidden by default. You can unhide the table by clicking the "Show Activities Table" button. You can edit activities directly in the table if you find this easier than using the form. HOWEVER, DO NOT DELETE TABLE ROWS. ONLY USE THE FORM TO DELETE CONSERVATION ACTIVITIES.

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NOTE: You can define activities in the table rather than using the form. BUT ONLY USE THE FORM TO DELETE ACTIVITIES.

Activity ID	Activity Name	Class	Savings, Per Unit (gpy)	Savings, Annual Rate of Decay (%)	Savings, Peak Period (% of Annual Savings)	Savings, Useful Life (yrs)	Savings, Participant Free Riders (% of Participants)	Utility Costs, Year Denominated	Utility Costs, Initial Fixed ($)	Utility Costs, Initial Variable ($/unit)	Utility Costs, Years of Follow-up (yrs)	Utility Costs, Follow-up Fixed ($/yr)	Utility Costs, Follow-up Variable ($/unit/yr)	Participant Costs, Year Denominated	Participant Costs, Initial ($)	Participant Costs, Years of On-going (yrs)	Participant Costs, On-going ($/Yr)	Participant Savings, Sewer (gpy)	Participant Savings, Gas (Therms/Gal)	Participant Savings, Electricity (KWh/Gal)	Plumbing Code, Year Effective	Plumbing Code, Unit Savings (gpy)	Plumbing Code, Natural Replacement Rate NRR (%)
1	Drip Irrigation Incentive for MFR and CII	CII	8,021	0%		12	0%	2020		$406.25				2020	$312.50								
2	Drip Irrigation Incentive for SFR	Single Family	1,604	0%	0%	12	0%	2020		$325.00				2020	$250.00								
3	High Efficiency Clothes Washer Rebate - Residentia	Single Family	5,000	0%	0%	15	0%	2020		$97.50				2020	$725.00			5,000.00	0.0035	0.0036	2011	3500	7.14%
4	High Efficiency Faucet Aerator / Showerhead Giveav	Single Family	3,708	0%		5	0%	2020		$31.20				2020	$50.00								
5	Incentivize Artificial Turf for Sports Fields	CII	22	0%		20	0%	2020		$2.60				2020	$8.00								
6	Landscape Conversion or Turf Removal - MFR and (	CII	14	0%		10	0%	2020		$0.65				2020	$1.50								
7	Landscape Conversion or Turf Removal -SFR	Single Family	14	0%		10	0%	2020		$0.65				2020	$1.50								
8	Mulch rebate	Single Family	14	0%		5	0%	2020		$0.33				2020	$0.10								
9	Restaurant Spray Nozzle Rebates	CII	43,830	0%		5	0%	2020		$65.00				2020	$50.00			43,830.00	0.0083				
10	Smart Irrigation Controller (Weather-Based Irrigation	CII	96,645	0%	70%	10	0%	2020		$1,300.00				2020	$500.00			0.00	0.0000	0.0000	0	0	0.00%
11	Swimming Pool and Hot Tub Cover Rebates	Single Family	6,218	0%		5	0%	2020		$65.00				2020	$150.00								
12	Water Use Surveys/Audits - CII	CII	90,700	20%	0%	5	0%	2020		$2,000.00				2020	$2,500.00								
13	Water Use Surveys/Audits - MFR	Multi Family	90,700	20%	0%	5	0%	2020		$2,000.00				2020	$2,500.00								
14	Water Use Surveys/Audits - SFR	Single Family	12,373	20%	68%	5	0%	2020		$210.60				2020	$50.00			4,949.20	0.0010	0.0000	0	0	0.00%
15																							
16																							

AWE CONSERVATION TRACKING

Enter annual conservation activity: Use this worksheet to enter the annual activity levels for the conservation activities you defined on the 4. Define Activities worksheet. You can enter activity through the end of your forecast period, but this is not required. It is okay to enter activity for shorter periods. You also can start an activity in

Enter Annual Conservation Activity

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	10	10	10	10	10																				
2	Single Family	Drip Irrigation Incentive for SFR	10	10	10	10	10																				
3	Single Family	High Efficiency Clothes Washer Rebate - Res	80	80	80	80	80																				
4	Single Family	High Efficiency Faucet Aerator / Showerhead	240	240	240	240	240																				
5	CII	Incentivize Artificial Turf for Sports Fields	115200	115200	115200	115200	115200																				
6	CII	Landscape Conversion or Turf Removal - MF	100000	100000	100000	100000	100000																				
7	Single Family	Landscape Conversion or Turf Removal -SFR	30000	30000	30000	30000	30000																				
8	Single Family	Mulch rebate	30000	30000	30000	30000	30000																				
9	CII	Restaurant Spray Nozzle Rebates	10	10	10	10	10																				
10	CII	Smart Irrigation Controller (Weather-Based Ir	20	20	20	20	20																				
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	20	20	20	20	20																				
12	CII	Water Use Surveys/Audits - CII	20	20	20	20	20																				
13	Multi Family	Water Use Surveys/Audits - MFR	20	20	20	20	20																				
14	Single Family	Water Use Surveys/Audits - SFR	41	41	41	41	41																				

Annual Program Overhead Cost (2020 dollars)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Enter additional program cost not included in activity definitions																									

Model calculation tables below this line. Do not delete or modify.

Effective Conservation Activity

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	10	20	30	40	50	50	50	50	50	50	50	50	40	30	20	10	0	0	0	0	0	0	0	0	0
2	Single Family	Drip Irrigation Incentive for SFR	10	20	30	40	50	50	50	50	50	50	50	50	40	30	20	10	0	0	0	0	0	0	0	0	0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	80	160	240	320	400	400	400	400	400	400	400	400	400	400	400	320	240	160	80	0	0	0	0	0	0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	240	480	720	960	1,200	960	720	480	240	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	CII	Incentivize Artificial Turf for Sports Fields	115,200	230,400	345,600	460,800	576,000	576,000	576,000	576,000	576,000	576,000	576,000	576,000	576,000	576,000	576,000	576,000	576,000	576,000	576,000	576,000	460,800	345,600	230,400	115,200	0
6	CII	Landscape Conversion or Turf Removal - MF	100,000	200,000	300,000	400,000	500,000	500,000	500,000	500,000	500,000	500,000	400,000	300,000	200,000	100,000	0	0	0	0	0	0	0	0	0	0	0
7	Single Family	Landscape Conversion or Turf Removal -SFR	30,000	60,000	90,000	120,000	150,000	150,000	150,000	150,000	150,000	150,000	120,000	90,000	60,000	30,000	0	0	0	0	0	0	0	0	0	0	0
8	Single Family	Mulch rebate	30,000	60,000	90,000	120,000	150,000	120,000	90,000	60,000	30,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	CII	Restaurant Spray Nozzle Rebates	10	20	30	40	50	40	30	20	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	CII	Smart Irrigation Controller (Weather-Based Ir	20	40	60	80	100	100	100	100	100	100	80	60	40	20	0	0	0	0	0	0	0	0	0	0	0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	20	40	60	80	100	80	60	40	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	CII	Water Use Surveys/Audits - CII	20	36	49	59	67	47	31	18	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Multi Family	Water Use Surveys/Audits - MFR	20	36	49	59	67	47	31	18	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	Single Family	Water Use Surveys/Audits - SFR	41	74	100	121	138	97	64	38	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Gross Water Savings (AF)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	0.2	0.5	0.7	1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.0	0.7	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Single Family	Drip Irrigation Incentive for SFR	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	1.2	2.5	3.7	4.9	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	4.9	3.7	2.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	2.7	5.5	8.2	10.9	13.7	10.9	8.2	5.5	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	CII	Incentivize Artificial Turf for Sports Fields	7.7	15.3	23.0	30.6	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	30.6	23.0	15.3	7.7	0.0
6	CII	Landscape Conversion or Turf Removal - MF	4.3	8.6	12.9	17.1	21.4	21.4	21.4	21.4	21.4	21.4	17.1	12.9	8.6	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	Single Family	Landscape Conversion or Turf Removal -SFR	1.3	2.6	3.9	5.1	6.4	6.4	6.4	6.4	6.4	6.4	5.1	3.9	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	Single Family	Mulch rebate	1.3	2.6	3.9	5.1	6.4	5.1	3.9	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	CII	Restaurant Spray Nozzle Rebates	1.3	2.7	4.0	5.4	6.7	5.4	4.0	2.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	CII	Smart Irrigation Controller (Weather-Based Ir	5.9	11.9	17.8	23.7	29.7	29.7	29.7	29.7	29.7	29.7	23.7	17.8	11.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	0.4	0.8	1.1	1.5	1.9	1.5	1.1	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	CII	Water Use Surveys/Audits - CII	5.6	10.0	13.6	16.4	18.7	13.1	8.7	5.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Multi Family	Water Use Surveys/Audits - MFR	5.6	10.0	13.6	16.4	18.7	13.1	8.7	5.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Single Family	Water Use Surveys/Audits - SFR	1.6	2.8	3.8	4.6	5.2	3.7	2.4	1.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total Gross Water Savings		**39.1**	**75.7**	**110.2**	**143.2**	**174.8**	**156.4**	**140.5**	**126.6**	**114.4**	**103.4**	**91.9**	**80.4**	**68.6**	**56.8**	**45.0**	**43.5**	**42.0**	**40.7**	**39.5**	**38.3**	**30.6**	**23.0**	**15.3**	**7.7**	**0.0**

Peak Gross Water Savings (AF)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Single Family	Drip Irrigation Incentive for SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

4	Single Family	High Efficiency Faucet Aerator / Showerhead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	CII	Incentivize Artificial Turf for Sports Fields	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	CII	Landscape Conversion or Turf Removal - MF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	Single Family	Landscape Conversion or Turf Removal -SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	Single Family	Mulch rebate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	CII	Restaurant Spray Nozzle Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	CII	Smart Irrigation Controller (Weather-Based Ir	4.2	8.3	12.5	16.6	20.8	20.8	20.8	20.8	20.8	20.8	16.6	12.5	8.3	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	CII	Water Use Surveys/Audits - CII	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Multi Family	Water Use Surveys/Audits - MFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Single Family	Water Use Surveys/Audits - SFR	1.1	1.9	2.6	3.1	3.6	2.5	1.7	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total Gross Water Savings		**5.2**	**10.2**	**15.0**	**19.7**	**24.3**	**23.3**	**22.4**	**21.7**	**21.2**	**20.8**	**16.6**	**12.5**	**8.3**	**4.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Off Peak Gross Water Savings (AF)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	0.2	0.5	0.7	1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.0	0.7	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Single Family	Drip Irrigation Incentive for SFR	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	1.2	2.5	3.7	4.9	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	4.9	3.7	2.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	2.7	5.5	8.2	10.9	13.7	10.9	8.2	5.5	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	CII	Incentivize Artificial Turf for Sports Fields	7.7	15.3	23.0	30.6	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	30.6	23.0	15.3	7.7	0.0
6	CII	Landscape Conversion or Turf Removal - MF	4.3	8.6	12.9	17.1	21.4	21.4	21.4	21.4	21.4	21.4	17.1	12.9	8.6	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	Single Family	Landscape Conversion or Turf Removal -SFR	1.3	2.6	3.9	5.1	6.4	6.4	6.4	6.4	6.4	6.4	5.1	3.9	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	Single Family	Mulch rebate	1.3	2.6	3.9	5.1	6.4	5.1	3.9	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	CII	Restaurant Spray Nozzle Rebates	1.3	2.7	4.0	5.4	6.7	5.4	4.0	2.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	CII	Smart Irrigation Controller (Weather-Based Ir	1.8	3.6	5.3	7.1	8.9	8.9	8.9	8.9	8.9	8.9	7.1	5.3	3.6	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	0.4	0.8	1.1	1.5	1.9	1.5	1.1	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	CII	Water Use Surveys/Audits - CII	5.6	10.0	13.6	16.4	18.7	13.1	8.7	5.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Multi Family	Water Use Surveys/Audits - MFR	5.6	10.0	13.6	16.4	18.7	13.1	8.7	5.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Single Family	Water Use Surveys/Audits - SFR	0.5	0.9	1.2	1.5	1.7	1.2	0.8	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total Gross Water Savings		**33.9**	**65.5**	**95.2**	**123.4**	**150.5**	**133.1**	**118.0**	**104.9**	**93.2**	**82.6**	**75.3**	**67.9**	**60.3**	**52.7**	**45.0**	**43.5**	**42.0**	**40.7**	**39.5**	**38.3**	**30.6**	**23.0**	**15.3**	**7.7**	**0.0**

Active Water Savings (AF)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	0.2	0.5	0.7	1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.0	0.7	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Single Family	Drip Irrigation Incentive for SFR	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	1.2	2.4	3.5	4.6	5.6	5.3	5.1	4.8	4.6	4.4	4.2	4.1	3.9	3.8	3.6	2.8	2.1	1.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	2.7	5.5	8.2	10.9	13.7	10.9	8.2	5.5	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	CII	Incentivize Artificial Turf for Sports Fields	7.7	15.3	23.0	30.6	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	30.6	23.0	15.3	7.7	0.0
6	CII	Landscape Conversion or Turf Removal - MF	4.3	8.6	12.9	17.1	21.4	21.4	21.4	21.4	21.4	21.4	17.1	12.9	8.6	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	Single Family	Landscape Conversion or Turf Removal -SFR	1.3	2.6	3.9	5.1	6.4	6.4	6.4	6.4	6.4	6.4	5.1	3.9	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	Single Family	Mulch rebate	1.3	2.6	3.9	5.1	6.4	5.1	3.9	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	CII	Restaurant Spray Nozzle Rebates	1.3	2.7	4.0	5.4	6.7	5.4	4.0	2.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	CII	Smart Irrigation Controller (Weather-Based Ir	5.9	11.9	17.8	23.7	29.7	29.7	29.7	29.7	29.7	29.7	23.7	17.8	11.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	0.4	0.8	1.1	1.5	1.9	1.5	1.1	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	CII	Water Use Surveys/Audits - CII	5.6	10.0	13.6	16.4	18.7	13.1	8.7	5.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Multi Family	Water Use Surveys/Audits - MFR	5.6	10.0	13.6	16.4	18.7	13.1	8.7	5.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Single Family	Water Use Surveys/Audits - SFR	1.6	2.8	3.8	4.6	5.2	3.7	2.4	1.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total Active Water Savings		**39.1**	**75.6**	**110.1**	**142.8**	**174.2**	**155.5**	**139.4**	**125.3**	**112.8**	**101.7**	**90.0**	**78.3**	**66.4**	**54.4**	**42.5**	**41.4**	**40.4**	**39.6**	**39.0**	**38.3**	**30.6**	**23.0**	**15.3**	**7.7**	**0.0**

Peak Active Water Savings (AF)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Single Family	Drip Irrigation Incentive for SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	CII	Incentivize Artificial Turf for Sports Fields	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	CII	Landscape Conversion or Turf Removal - MF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	Single Family	Landscape Conversion or Turf Removal -SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	Single Family	Mulch rebate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	CII	Restaurant Spray Nozzle Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	CII	Smart Irrigation Controller (Weather-Based Ir	4.2	8.3	12.5	16.6	20.8	20.8	20.8	20.8	20.8	20.8	16.6	12.5	8.3	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	CII	Water Use Surveys/Audits - CII	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Multi Family	Water Use Surveys/Audits - MFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Single Family	Water Use Surveys/Audits - SFR	1.1	1.9	2.6	3.1	3.6	2.5	1.7	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total Active Water Savings		**5.2**	**10.2**	**15.0**	**19.7**	**24.3**	**23.3**	**22.4**	**21.7**	**21.2**	**20.8**	**16.6**	**12.5**	**8.3**	**4.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Off Peak Active Water Savings (AF)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	0.2	0.5	0.7	1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.0	0.7	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Single Family	Drip Irrigation Incentive for SFR	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	1.2	2.4	3.5	4.6	5.6	5.3	5.1	4.8	4.6	4.4	4.2	4.1	3.9	3.8	3.6	2.8	2.1	1.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	2.7	5.5	8.2	10.9	13.7	10.9	8.2	5.5	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	CII	Incentivize Artificial Turf for Sports Fields	7.7	15.3	23.0	30.6	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	30.6	23.0	15.3	7.7	0.0

6	CII	Landscape Conversion or Turf Removal - MF	4.3	8.6	12.9	17.1	21.4	21.4	21.4	21.4	21.4	21.4	17.1	12.9	8.6	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	Single Family	Landscape Conversion or Turf Removal -SFR	1.3	2.6	3.9	5.1	6.4	6.4	6.4	6.4	6.4	6.4	5.1	3.9	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	Single Family	Mulch rebate	1.3	2.6	3.9	5.1	6.4	5.1	3.9	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	CII	Restaurant Spray Nozzle Rebates	1.3	2.7	4.0	5.4	6.7	5.4	4.0	2.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	CII	Smart Irrigation Controller (Weather-Based Ir	1.8	3.6	5.3	7.1	8.9	8.9	8.9	8.9	8.9	8.9	7.1	5.3	3.6	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	0.4	0.8	1.1	1.5	1.9	1.5	1.1	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	CII	Water Use Surveys/Audits - CII	5.6	10.0	13.6	16.4	18.7	13.1	8.7	5.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Multi Family	Water Use Surveys/Audits - MFR	5.6	10.0	13.6	16.4	18.7	13.1	8.7	5.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Single Family	Water Use Surveys/Audits - SFR	0.5	0.9	1.2	1.5	1.7	1.2	0.8	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total Active Water Savings		**33.9**	**65.4**	**95.0**	**123.1**	**149.9**	**132.3**	**117.0**	**103.5**	**91.6**	**80.9**	**73.4**	**65.9**	**58.1**	**50.3**	**42.5**	**41.4**	**40.4**	**39.6**	**39.0**	**38.3**	**30.6**	**23.0**	**15.3**	**7.7**	**0.0**

Passive Water Savings (AF)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Single Family	Drip Irrigation Incentive for SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.3	1.5	1.7	1.9	2.1	2.2	2.4	2.5	2.1	1.6	1.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	CII	Incentivize Artificial Turf for Sports Fields	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	CII	Landscape Conversion or Turf Removal - MF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	Single Family	Landscape Conversion or Turf Removal -SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	Single Family	Mulch rebate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	CII	Restaurant Spray Nozzle Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	CII	Smart Irrigation Controller (Weather-Based Ir	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	CII	Water Use Surveys/Audits - CII	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Multi Family	Water Use Surveys/Audits - MFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Single Family	Water Use Surveys/Audits - SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total Passive Water Savings		**0.0**	**0.1**	**0.2**	**0.4**	**0.6**	**0.8**	**1.1**	**1.3**	**1.5**	**1.7**	**1.9**	**2.1**	**2.2**	**2.4**	**2.5**	**2.1**	**1.6**	**1.1**	**0.6**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Peak Passive Water Savings (AF)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Single Family	Drip Irrigation Incentive for SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	CII	Incentivize Artificial Turf for Sports Fields	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	CII	Landscape Conversion or Turf Removal - MF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	Single Family	Landscape Conversion or Turf Removal -SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	Single Family	Mulch rebate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	CII	Restaurant Spray Nozzle Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	CII	Smart Irrigation Controller (Weather-Based Ir	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	CII	Water Use Surveys/Audits - CII	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Multi Family	Water Use Surveys/Audits - MFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Single Family	Water Use Surveys/Audits - SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total Passive Water Savings		**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Off Peak Passive Water Savings (AF)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Single Family	Drip Irrigation Incentive for SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.3	1.5	1.7	1.9	2.1	2.2	2.4	2.5	2.1	1.6	1.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	CII	Incentivize Artificial Turf for Sports Fields	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	CII	Landscape Conversion or Turf Removal - MF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	Single Family	Landscape Conversion or Turf Removal -SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	Single Family	Mulch rebate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	CII	Restaurant Spray Nozzle Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	CII	Smart Irrigation Controller (Weather-Based Ir	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	CII	Water Use Surveys/Audits - CII	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Multi Family	Water Use Surveys/Audits - MFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Single Family	Water Use Surveys/Audits - SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total Passive Water Savings		**0.0**	**0.1**	**0.2**	**0.4**	**0.6**	**0.8**	**1.1**	**1.3**	**1.5**	**1.7**	**1.9**	**2.1**	**2.2**	**2.4**	**2.5**	**2.1**	**1.6**	**1.1**	**0.6**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Customer Water Bill Savings (2020 dollars)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	$319	$638	$958	$1,277	$1,596	$1,596	$1,596	$1,596	$1,596	$1,596	$1,596	$1,596	$1,277	$958	$638	$319	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2	Single Family	Drip Irrigation Incentive for SFR	$55	$110	$165	$219	$274	$274	$274	$274	$274	$274	$274	$274	$219	$165	$110	$55	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	$1,368	$2,668	$3,904	$5,081	$6,203	$5,907	$5,631	$5,376	$5,138	$4,918	$4,713	$4,523	$4,347	$4,183	$4,030	$3,164	$2,329	$1,526	$750	$0	$0	$0	$0	$0	$0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	$3,044	$6,087	$9,131	$12,175	$15,218	$12,175	$9,131	$6,087	$3,044	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
5	CII	Incentivize Artificial Turf for Sports Fields	$9,929	$19,858	$29,788	$39,717	$49,646	$49,646	$49,646	$49,646	$49,646	$49,646	$49,646	$49,646	$49,646	$49,646	$49,646	$49,646	$49,646	$49,646	$49,646	$39,717	$29,788	$19,858	$9,929	$0	
6	CII	Landscape Conversion or Turf Removal - MF	$5,558	$11,115	$16,673	$22,230	$27,788	$27,788	$27,788	$27,788	$27,788	$27,788	$22,230	$16,673	$11,115	$5,558	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

7	Single Family	Landscape Conversion or Turf Removal -SFR	$1,433	$2,865	$4,298	$5,731	$7,163	$7,163	$7,163	$7,163	$7,163	$7,163	$5,731	$4,298	$2,865	$1,433	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Single Family	Mulch rebate	$1,433	$2,865	$4,298	$5,731	$7,163	$5,731	$4,298	$2,865	$1,433	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	CII	Restaurant Spray Nozzle Rebates	$1,744	$3,489	$5,233	$6,978	$8,722	$6,978	$5,233	$3,489	$1,744	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	CII	Smart Irrigation Controller (Weather-Based Ir	$7,693	$15,386	$23,079	$30,772	$38,465	$38,465	$38,465	$38,465	$38,465	$38,465	$30,772	$23,079	$15,386	$7,693	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	$425	$851	$1,276	$1,701	$2,127	$1,701	$1,276	$851	$425	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	CII	Water Use Surveys/Audits - CII	$7,220	$12,995	$17,616	$21,313	$24,270	$17,050	$11,274	$6,654	$2,957	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
13	Multi Family	Water Use Surveys/Audits - MFR	$7,220	$12,995	$17,616	$21,313	$24,270	$17,050	$11,274	$6,654	$2,957	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
14	Single Family	Water Use Surveys/Audits - SFR	$1,735	$3,123	$4,233	$5,122	$5,832	$4,097	$2,709	$1,599	$711	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Total Wastewater Savings		**$49,175**	**$95,046**	**$138,267**	**$179,358**	**$218,738**	**$195,621**	**$175,760**	**$158,506**	**$143,342**	**$129,850**	**$114,962**	**$100,089**	**$84,855**	**$69,634**	**$54,425**	**$53,184**	**$51,976**	**$51,172**	**$50,396**	**$49,646**	**$39,717**	**$29,788**	**$19,858**	**$9,929**	**$0**

Wastewater Savings (AF)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Single Family	Drip Irrigation Incentive for SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	1.2	2.4	3.5	4.6	5.6	5.3	5.1	4.8	4.6	4.4	4.2	4.1	3.9	3.8	3.6	2.8	2.1	1.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	CII	Incentivize Artificial Turf for Sports Fields	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	CII	Landscape Conversion or Turf Removal - MF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	Single Family	Landscape Conversion or Turf Removal -SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	Single Family	Mulch rebate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	CII	Restaurant Spray Nozzle Rebates	1.3	2.7	4.0	5.4	6.7	5.4	4.0	2.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	CII	Smart Irrigation Controller (Weather-Based Ir	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	CII	Water Use Surveys/Audits - CII	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Multi Family	Water Use Surveys/Audits - MFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Single Family	Water Use Surveys/Audits - SFR	0.6	1.1	1.5	1.8	2.1	1.5	1.0	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total Wastewater Savings		**3.2**	**6.2**	**9.1**	**11.8**	**14.4**	**12.2**	**10.1**	**8.1**	**6.2**	**4.4**	**4.2**	**4.1**	**3.9**	**3.8**	**3.6**	**2.8**	**2.1**	**1.4**	**0.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Customer Sewer Bill Savings (2020 dollars)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2	Single Family	Drip Irrigation Incentive for SFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	$4,572	$8,915	$13,047	$16,981	$20,732	$19,741	$18,820	$17,966	$17,173	$16,436	$15,752	$15,116	$14,526	$13,979	$13,470	$10,573	$7,785	$5,098	$2,506	$0	$0	$0	$0	$0	$0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
5	CII	Incentivize Artificial Turf for Sports Fields	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
6	CII	Landscape Conversion or Turf Removal - MF	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
7	Single Family	Landscape Conversion or Turf Removal -SFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Single Family	Mulch rebate	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	CII	Restaurant Spray Nozzle Rebates	$5,246	$10,493	$15,739	$20,986	$26,232	$20,986	$15,739	$10,493	$5,246	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	CII	Smart Irrigation Controller (Weather-Based Ir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	CII	Water Use Surveys/Audits - CII	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
13	Multi Family	Water Use Surveys/Audits - MFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
14	Single Family	Water Use Surveys/Audits - SFR	$2,319	$4,175	$5,659	$6,847	$7,797	$5,477	$3,622	$2,138	$950	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Total Wastewater Savings		**$12,138**	**$23,583**	**$34,445**	**$44,813**	**$54,760**	**$46,204**	**$38,182**	**$30,596**	**$23,369**	**$16,436**	**$15,752**	**$15,116**	**$14,526**	**$13,979**	**$13,470**	**$10,573**	**$7,785**	**$5,098**	**$2,506**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Customer Electricity Savings (KWh)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Single Family	Drip Irrigation Incentive for SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	1,440.0	2,808.0	4,109.1	5,348.2	6,529.6	6,217.5	5,927.7	5,658.6	5,408.7	5,176.6	4,961.1	4,761.1	4,575.3	4,402.8	4,242.6	3,330.1	2,452.0	1,605.8	789.2	0.0	0.0	0.0	0.0	0.0	0.0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	CII	Incentivize Artificial Turf for Sports Fields	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	CII	Landscape Conversion or Turf Removal - MF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	Single Family	Landscape Conversion or Turf Removal -SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	Single Family	Mulch rebate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	CII	Restaurant Spray Nozzle Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	CII	Smart Irrigation Controller (Weather-Based Ir	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	CII	Water Use Surveys/Audits - CII	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Multi Family	Water Use Surveys/Audits - MFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Single Family	Water Use Surveys/Audits - SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total Electricity Savings		**1,440.0**	**2,808.0**	**4,109.1**	**5,348.2**	**6,529.6**	**6,217.5**	**5,927.7**	**5,658.6**	**5,408.7**	**5,176.6**	**4,961.1**	**4,761.1**	**4,575.3**	**4,402.8**	**4,242.6**	**3,330.1**	**2,452.0**	**1,605.8**	**789.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Customer Electricity Bill Savings (2020 dollars)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2	Single Family	Drip Irrigation Incentive for SFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	$404	$788	$1,153	$1,501	$1,832	$1,745	$1,663	$1,588	$1,518	$1,453	$1,392	$1,336	$1,284	$1,235	$1,190	$934	$688	$451	$221	$0	$0	$0	$0	$0	$0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
5	CII	Incentivize Artificial Turf for Sports Fields	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
6	CII	Landscape Conversion or Turf Removal - MF	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
7	Single Family	Landscape Conversion or Turf Removal -SFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Single Family	Mulch rebate	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

9	CII	Restaurant Spray Nozzle Rebates	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	CII	Smart Irrigation Controller (Weather-Based Ir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	CII	Water Use Surveys/Audits - CII	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
13	Multi Family	Water Use Surveys/Audits - MFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
14	Single Family	Water Use Surveys/Audits - SFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Total Electricity Savings		**$404**	**$788**	**$1,153**	**$1,501**	**$1,832**	**$1,745**	**$1,663**	**$1,588**	**$1,518**	**$1,453**	**$1,392**	**$1,336**	**$1,284**	**$1,235**	**$1,190**	**$934**	**$688**	**$451**	**$221**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Customer Gas Savings (Therms)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Single Family	Drip Irrigation Incentive for SFR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	1,400	2,730	3,995	5,200	6,348	6,045	5,763	5,501	5,258	5,033	4,823	4,629	4,448	4,280	4,125	3,238	2,384	1,561	767	0	0	0	0	0	0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	CII	Incentivize Artificial Turf for Sports Fields	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	CII	Landscape Conversion or Turf Removal - MF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Single Family	Landscape Conversion or Turf Removal -SFR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Single Family	Mulch rebate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	CII	Restaurant Spray Nozzle Rebates	3,653	7,305	10,958	14,610	18,263	14,610	10,958	7,305	3,653	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	CII	Smart Irrigation Controller (Weather-Based Ir	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	CII	Water Use Surveys/Audits - CII	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Multi Family	Water Use Surveys/Audits - MFR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	Single Family	Water Use Surveys/Audits - SFR	486	874	1,185	1,434	1,633	1,147	759	448	199	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Gas Savings		**5,538**	**10,909**	**16,138**	**21,244**	**26,244**	**21,802**	**17,479**	**13,254**	**9,110**	**5,033**	**4,823**	**4,629**	**4,448**	**4,280**	**4,125**	**3,238**	**2,384**	**1,561**	**767**	**0**	**0**	**0**	**0**	**0**	**0**

Customer Gas Savings (2020 dollars)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2	Single Family	Drip Irrigation Incentive for SFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	$2,803	$5,466	$7,998	$10,410	$12,710	$12,102	$11,538	$11,014	$10,528	$10,076	$9,657	$9,267	$8,906	$8,570	$8,258	$6,482	$4,773	$3,126	$1,536	$0	$0	$0	$0	$0	$0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
5	CII	Incentivize Artificial Turf for Sports Fields	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
6	CII	Landscape Conversion or Turf Removal - MF	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
7	Single Family	Landscape Conversion or Turf Removal -SFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Single Family	Mulch rebate	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	CII	Restaurant Spray Nozzle Rebates	$2,854	$5,707	$8,561	$11,414	$14,268	$11,414	$8,561	$5,707	$2,854	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	CII	Smart Irrigation Controller (Weather-Based Ir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	CII	Water Use Surveys/Audits - CII	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
13	Multi Family	Water Use Surveys/Audits - MFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
14	Single Family	Water Use Surveys/Audits - SFR	$973	$1,751	$2,373	$2,871	$3,269	$2,297	$1,519	$896	$398	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Total Gas Savings		**$6,629**	**$12,923**	**$18,932**	**$24,695**	**$30,247**	**$25,813**	**$21,617**	**$17,618**	**$13,780**	**$10,076**	**$9,657**	**$9,267**	**$8,906**	**$8,570**	**$8,258**	**$6,482**	**$4,773**	**$3,126**	**$1,536**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

User Entered Utility Avoided Water System Cost (2020 dollars)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2	Single Family	Drip Irrigation Incentive for SFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
5	CII	Incentivize Artificial Turf for Sports Fields	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
6	CII	Landscape Conversion or Turf Removal - MF	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
7	Single Family	Landscape Conversion or Turf Removal -SFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Single Family	Mulch rebate	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	CII	Restaurant Spray Nozzle Rebates	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	CII	Smart Irrigation Controller (Weather-Based Ir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	CII	Water Use Surveys/Audits - CII	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
13	Multi Family	Water Use Surveys/Audits - MFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
14	Single Family	Water Use Surveys/Audits - SFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Total Avoided Cost		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

User Entered Utility Avoided Wastewater System Cost (2020 dollars)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2	Single Family	Drip Irrigation Incentive for SFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
5	CII	Incentivize Artificial Turf for Sports Fields	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
6	CII	Landscape Conversion or Turf Removal - MF	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
7	Single Family	Landscape Conversion or Turf Removal -SFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Single Family	Mulch rebate	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	CII	Restaurant Spray Nozzle Rebates	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	CII	Smart Irrigation Controller (Weather-Based Ir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

11	Single Family	Swimming Pool and Hot Tub Cover Rebates	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	CII	Water Use Surveys/Audits - CII	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
13	Multi Family	Water Use Surveys/Audits - MFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
14	Single Family	Water Use Surveys/Audits - SFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Total Avoided Cost		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

User Entered Other Utility Avoided Cost (2020 dollars)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2	Single Family	Drip Irrigation Incentive for SFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
5	CII	Incentivize Artificial Turf for Sports Fields	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
6	CII	Landscape Conversion or Turf Removal - MF	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
7	Single Family	Landscape Conversion or Turf Removal -SFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Single Family	Mulch rebate	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	CII	Restaurant Spray Nozzle Rebates	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	CII	Smart Irrigation Controller (Weather-Based Ir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	CII	Water Use Surveys/Audits - CII	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
13	Multi Family	Water Use Surveys/Audits - MFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
14	Single Family	Water Use Surveys/Audits - SFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Total Avoided Cost		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Model Calculator Utility Water System Avoided Cost (2020 dollars)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	$264	$528	$793	$1,057	$1,321	$1,321	$1,320	$1,320	$1,320	$1,320	$1,320	$1,320	$1,056	$792	$528	$264	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2	Single Family	Drip Irrigation Incentive for SFR	$53	$106	$159	$211	$264	$264	$264	$264	$264	$264	$264	$264	$211	$158	$106	$53	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	$1,318	$2,569	$3,759	$4,893	$5,973	$5,687	$5,421	$5,175	$4,946	$4,733	$4,536	$4,352	$4,182	$4,024	$3,877	$3,043	$2,241	$1,467	$721	$0	$0	$0	$0	$0	$0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	$2,932	$5,863	$8,794	$11,724	$14,654	$11,722	$8,791	$5,860	$2,930	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
5	CII	Incentivize Artificial Turf for Sports Fields	$8,218	$16,435	$24,651	$32,865	$41,077	$41,074	$41,070	$41,066	$41,063	$41,059	$41,055	$41,052	$41,048	$41,044	$41,040	$41,037	$41,033	$41,029	$41,026	$41,022	$32,815	$24,609	$16,404	$8,201	$0
6	CII	Landscape Conversion or Turf Removal - MF	$4,600	$9,199	$13,797	$18,395	$22,992	$22,990	$22,987	$22,985	$22,983	$22,981	$18,383	$13,786	$9,190	$4,595	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
7	Single Family	Landscape Conversion or Turf Removal -SFR	$1,380	$2,760	$4,139	$5,518	$6,897	$6,897	$6,896	$6,896	$6,895	$6,894	$5,515	$4,136	$2,757	$1,378	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Single Family	Mulch rebate	$1,380	$2,760	$4,139	$5,518	$6,897	$5,517	$4,138	$2,758	$1,379	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	CII	Restaurant Spray Nozzle Rebates	$1,444	$2,887	$4,331	$5,774	$7,217	$5,773	$4,329	$2,886	$1,443	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	CII	Smart Irrigation Controller (Weather-Based Ir	$6,367	$12,734	$19,099	$25,463	$31,826	$31,823	$31,820	$31,817	$31,814	$31,812	$25,447	$19,083	$12,721	$6,360	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	$410	$819	$1,229	$1,638	$2,048	$1,638	$1,228	$819	$409	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	CII	Water Use Surveys/Audits - CII	$5,976	$10,755	$14,578	$17,636	$20,081	$14,106	$9,327	$5,504	$2,446	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
13	Multi Family	Water Use Surveys/Audits - MFR	$5,976	$10,755	$14,578	$17,636	$20,081	$14,106	$9,327	$5,504	$2,446	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
14	Single Family	Water Use Surveys/Audits - SFR	$1,671	$3,008	$4,077	$4,932	$5,616	$3,945	$2,608	$1,539	$684	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Total Avoided Cost		**$41,989**	**$81,179**	**$118,123**	**$153,260**	**$186,943**	**$166,862**	**$149,527**	**$134,393**	**$121,022**	**$109,063**	**$96,520**	**$83,993**	**$71,165**	**$58,351**	**$45,551**	**$44,397**	**$43,274**	**$42,497**	**$41,747**	**$41,022**	**$32,815**	**$24,609**	**$16,404**	**$8,201**	**$0**

Model Calculator Utility Wastewater System Avoided Cost (2020 dollars)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2	Single Family	Drip Irrigation Incentive for SFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	$19	$36	$53	$69	$85	$81	$77	$73	$70	$67	$64	$62	$59	$57	$55	$43	$32	$21	$10	$0	$0	$0	$0	$0	$0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
5	CII	Incentivize Artificial Turf for Sports Fields	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
6	CII	Landscape Conversion or Turf Removal - MF	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
7	Single Family	Landscape Conversion or Turf Removal -SFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Single Family	Mulch rebate	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	CII	Restaurant Spray Nozzle Rebates	$20	$41	$61	$82	$102	$82	$61	$41	$20	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	CII	Smart Irrigation Controller (Weather-Based Ir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	CII	Water Use Surveys/Audits - CII	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
13	Multi Family	Water Use Surveys/Audits - MFR	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
14	Single Family	Water Use Surveys/Audits - SFR	$9	$17	$23	$28	$32	$22	$15	$9	$4	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Total Avoided Cost		**$49**	**$94**	**$138**	**$179**	**$219**	**$185**	**$153**	**$123**	**$95**	**$67**	**$64**	**$62**	**$59**	**$57**	**$55**	**$43**	**$32**	**$21**	**$10**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Total Avoided Water and Wastewater Production Cost (2020 dollars)

Activity ID	Class	Activity Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	CII	Drip Irrigation Incentive for MFR and CII	$264	$528	$793	$1,057	$1,321	$1,321	$1,320	$1,320	$1,320	$1,320	$1,320	$1,320	$1,056	$792	$528	$264	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2	Single Family	Drip Irrigation Incentive for SFR	$53	$106	$159	$211	$264	$264	$264	$264	$264	$264	$264	$264	$211	$158	$106	$53	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3	Single Family	High Efficiency Clothes Washer Rebate - Res	$1,336	$2,606	$3,813	$4,962	$6,058	$5,768	$5,498	$5,248	$5,016	$4,800	$4,600	$4,414	$4,242	$4,081	$3,932	$3,086	$2,272	$1,488	$731	$0	$0	$0	$0	$0	$0
4	Single Family	High Efficiency Faucet Aerator / Showerhead	$2,932	$5,863	$8,794	$11,724	$14,654	$11,722	$8,791	$5,860	$2,930	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
5	CII	Incentivize Artificial Turf for Sports Fields	$8,218	$16,435	$24,651	$32,865	$41,077	$41,074	$41,070	$41,066	$41,063	$41,059	$41,055	$41,052	$41,048	$41,044	$41,040	$41,037	$41,033	$41,029	$41,026	$41,022	$32,815	$24,609	$16,404	$8,201	$0
6	CII	Landscape Conversion or Turf Removal - MF	$4,600	$9,199	$13,797	$18,395	$22,992	$22,990	$22,987	$22,985	$22,983	$22,981	$18,383	$13,786	$9,190	$4,595	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
7	Single Family	Landscape Conversion or Turf Removal -SFR	$1,380	$2,760	$4,139	$5,518	$6,897	$6,897	$6,896	$6,896	$6,895	$6,894	$5,515	$4,136	$2,757	$1,378	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Single Family	Mulch rebate	$1,380	$2,760	$4,139	$5,518	$6,897	$5,517	$4,138	$2,758	$1,379	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	CII	Restaurant Spray Nozzle Rebates	$1,464	$2,928	$4,392	$5,856	$7,319	$5,855	$4,391	$2,927	$1,463	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	CII	Smart Irrigation Controller (Weather-Based Ir	$6,367	$12,734	$19,099	$25,463	$31,826	$31,823	$31,820	$31,817	$31,814	$31,812	$25,447	$19,083	$12,721	$6,360	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Single Family	Swimming Pool and Hot Tub Cover Rebates	$410	$819	$1,229	$1,638	$2,048	$1,638	$1,228	$819	$409	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	CII	Water Use Surveys/Audits - CII	$5,976	$10,755	$14,578	$17,636	$20,081	$14,106	$9,327	$5,504	$2,446	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

13	Multi Family	Water Use Surveys/Audits - MFR	$5,976	$10,755	$14,578	$17,636	$20,081	$14,106	$9,327	$5,504	$2,446	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
14	Single Family	Water Use Surveys/Audits - SFR	$1,681	$3,025	$4,100	$4,960	$5,648	$3,967	$2,623	$1,548	$688	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Total Avoided Cost		**$42,037**	**$81,274**	**$118,261**	**$153,439**	**$187,162**	**$167,046**	**$149,680**	**$134,516**	**$121,117**	**$109,130**	**$96,585**	**$84,055**	**$71,225**	**$58,409**	**$45,606**	**$44,440**	**$43,305**	**$42,517**	**$41,757**	**$41,022**	**$32,815**	**$24,609**	**$16,404**	**$8,201**	**$0**

Appendix C

Prioritization and Screening of Future Water Conservation Measures

Prioritization and Screening of Future Water Conservation Measures
Marin-Sonoma Saving Water Partnership

INSTRUCTIONS: Please review and complete the orange highlighted cells using the provided dropdown lists. Comments and clarifications may be added to the comments column on the right. You may use the filter features to help navigate this list. "Preference for Implementation" need only be completed when a program is given a priorty of 3 or greater. See READ ME tab for additional information.

Conservation Measure/Program	Type	Indoor / Outdoor	Primary End Use	Sector	Priority as a Regional Program	Priority as a Local Program	Preference for Implementation	Current Implementation Status	Notes / Comments	Source	Added By
Agency Actions and Water Rates											
Customer Water Loss Reduction (AMI Leak Detection)	Agency action	Both	Water Loss	All						2015 Screening	EKI
Increase Enforcement of Customer Pressure Reducing Valve (PRV) Requirement	Agency action	Both	Water loss; Irrigation	All						Added 2020	EKI
Increase Enforcement of Indoor Fixture Retrofit at Time of Sale	Agency action	Indoor	Toilet, Urinal, Faucet, Showerhead	All					Enforcement of SB 407 at time of sale.	2015 Screening	EKI
Increase Enforcement of State Water Waste Regulations	Agency action	Outdoor	Irrigation	All					Assumes water waste regulations per Executive Order B-40-17 rulemaking is completed largely as currently proposed.	Added 2020	EKI
Install AMI for Existing Accounts	Agency action	Both	Water Loss	All						2015 Screening	EKI
Install AMI for High Water Users and Large Landscape Accounts	Agency action	Outdoor	Water Loss	All						2015 Screening	EKI
Install AMI in New Development	Agency action	Both	Water Loss	All						2015 Screening	EKI
Rate Structure Evaluation	Agency action	Both	All	All						2015 Screening	EKI
Regional UHET and/or Urinal Bulk Purchase Program	Agency action	Indoor	Toilet / Urinal	All					Fixtures are purchased in bulk at a discounted rate and then sold to customers at the discounted rate	2015 Screening	EKI
Water Budgeting/Monitoring for Large Landscape Accounts	Agency action	Both	Irrigation	IRR						2015 Screening	EKI
Establish Separate Pricing Structure for Irrigation Accounts	Water Rates	Outdoor	Irrigation	IRR						2015 Screening	EKI
Modification to or Implementation of Tiered Rate Conservation Pricing	Water Rates	Both	All	All						2015 Screening	EKI
Tiered Water Rates (Conservation Pricing)	Water Rates	Both	All	All						2015 Screening	EKI
Water Budget Based Billing for All Customers	Water Rates	Both	All	All						2015 Screening	EKI
Water Budget Based Billing for Only Irrigation Customers	Water Rates	Outdoor	Irrigation	CII, IRR						2015 Screening	EKI
Public Outreach and Education											
Water Use Surveys/Audits - CII	Audit/ Survey	Both	All	CII						2015 Screening	EKI
Water Use Surveys/Audits - MFR	Audit/ Survey	Indoor	All Indoor	MFR						2015 Screening	EKI
Water Use Surveys/Audits - SFR	Audit/ Survey	Both	All	SFR						2015 Screening	EKI
Educational Workshops	Public Outreach/ Workshop	Outdoor	All Outdoor	SFR						Added 2020	MMWD
Garden tour	Public Outreach/ Workshop	Outdoor	Outdoor	SFR						Added 2020	MMWD
Promote Green Building and Certification	Public Outreach/ Workshop	Both	All	All						2015 Screening	EKI
Provide Support with Smart Irrigation Controller Setup	Public Outreach/ Workshop	Outdoor	Irrigation	All						Added 2020	EKI
Public Outreach through Print & Electronic Media - Focused on Indoor Conservation	Public Outreach/ Workshop	Outdoor	All Indoor	All						2015 Screening	EKI
Public Outreach through Print & Electronic Media - Focused on Outdoor Irrigation	Public Outreach/ Workshop	Indoor	Irrigation	All						2015 Screening	EKI
QWEL Training (Qualified Water Efficient Landscaper)	Public Outreach/ Workshop	Outdoor	Irrigation	All						Added 2020	EKI
School Education Programs	Public Outreach/ Workshop	Both	All	SFR, MFR						2015 Screening	EKI
Device-Based and Financial Incentive Programs											
Direct Install of Efficient Indoor Fixtures - Commercial and Industrial	Direct Install/ No-Cost Device	Indoor	Toilet, Urinal, Faucet, Showerhead	CII						2015 Screening	EKI
Direct Install of Efficient Indoor Fixtures - Government Buildings	Direct Install/ No-Cost Device	Indoor	Toilet, Urinal, Faucet, Showerhead	CII						2015 Screening	EKI
Direct Install of Efficient Indoor Fixtures - Low Income Residential	Direct Install/ No-Cost Device	Indoor	Toilet, Faucet, Showerhead	SFR, MFR						2015 Screening	EKI
Direct Install of Efficient Indoor Fixtures - Residential	Direct Install/ No-Cost Device	Indoor	Toilet, Faucet, Showerhead	SFR, MFR						2015 Screening	EKI
High Efficiency Clothes Washer Install - Low Income Residential Customers	Direct Install/ No-Cost Device	Indoor	Clothes Washer	SFR, MFR						Added 2020	EKI
High Efficiency Faucet Aerator / Showerhead Giveaway - CII Customers	Direct Install/ No-Cost Device	Indoor	Faucet, Showerhead	CII						2015 Screening	EKI
High Efficiency Faucet Aerator / Showerhead Giveaway - Residential Customers	Direct Install/ No-Cost Device	Indoor	Faucet, Showerhead	SFR, MFR						2015 Screening	EKI
Rain Barrel Giveaway	Direct Install/ No-Cost Device	Outdoor	Irrigation	SFR						Added 2020	EKI
Rain Sensor Giveaway	Direct Install/ No-Cost Device	Outdoor	Irrigation	All						2015 Screening	EKI
Rotating Sprinkler Nozzle Giveaway	Direct Install/ No-Cost Device	Outdoor	Irrigation	All						Added 2020	EKI
Smart Irrigation Controller (Weather-Based Irrigation Controller) Giveaway - Large Landscape	Direct Install/ No-Cost Device	Outdoor	Irrigation	MFR, CII						2015 Screening	EKI
Smart Irrigation Controller (Weather-Based Irrigation Controller) Giveaway - SFR	Direct Install/ No-Cost Device	Outdoor	Irrigation	SFR						Added 2020	EKI
Soil Moisture Sensor Giveaway	Direct Install/ No-Cost Device	Outdoor	Irrigation	All						Added 2020	EKI
Toilet Flapper Giveaway - SFR customers	Direct Install/ No-Cost Device	Indoor	Toilet	SFR, MFR					Could be used for CII customers, but hasn't been yet.	Added 2020	Santa Rosa
UHET Direct Installation - CII	Direct Install/ No-Cost Device	Indoor	Toilet	CII						2015 Screening	EKI
UHET Direct Installation - Residential	Direct Install/ No-Cost Device	Indoor	Toilet	SFR, MFR						2015 Screening	EKI
Urinal Direct Installation - CII	Direct Install/ No-Cost Device	Indoor	Urinal	CII						Added 2020	EKI
Autoclave (Steam-Sterilizer) Retrofit Rebates	Rebate/ Financial Incentive	Indoor	CII Equipment	CII					More info: https://www.energy.gov/eere/femp/water-efficient-technology-opportunity-steam-sterilizer-condensate-retrofit-kit	Added 2020	EKI
Connectionless Food Steamer Rebates	Rebate/ Financial Incentive	Indoor	CII Equipment	CII					More info: https://www.energy.gov/eere/femp/water-efficient-technology-opportunity-connectionless-food-steamer	Added 2020	EKI
Dipper Well Rebates	Rebate/ Financial Incentive	Indoor	CII Equipment	CII					Incentivize replacement of perpetual-flow holders for ice cream dippers & utensils; https://server-products.com/equipment/conservewell/utensil-holder/87740.htm	Added 2020	EKI
Drip Irrigation Incentive for MFR and CII	Rebate/ Financial Incentive	Outdoor	Irrigation	MFR, CII						2015 Screening	EKI
Drip Irrigation Incentive for SFR	Rebate/ Financial Incentive	Outdoor	Irrigation	SFR						2015 Screening	EKI
Dry Vacuum Pumps	Rebate/ Financial Incentive	Indoor	CII Equipment	CII						2015 Screening	EKI
Efficient (EnergyStar) Dishwasher Rebates	Rebate/ Financial Incentive	Indoor	Dishwashers	SFR						2015 Screening	EKI
High Efficiency Clothes Washer Rebate - Residential	Rebate/ Financial Incentive	Indoor	Clothes Washer	SFR, MFR						2015 Screening	EKI
High Efficiency Clothes Washer Rebate Program - CII	Rebate/ Financial Incentive	Indoor	Clothes Washer	CII						2015 Screening	EKI
High Efficiency Urinal (<0.25 gal/flush) Rebates - CII	Rebate/ Financial Incentive	Indoor	Urinal	CII						2015 Screening	EKI

Prioritization and Screening of Future Water Conservation Measures
Marin-Sonoma Saving Water Partnership

INSTRUCTIONS: Please review and complete the orange highlighted cells using the provided dropdown lists. Comments and clarifications may be added to the comments column on the right. You may use the filter features to help navigate this list. "Preference for Implementation" need only be completed when a program is given a priorty of 3 or greater. See READ ME tab for additional information.

Conservation Measure/Program	Type	Indoor / Outdoor	Primary End Use	Sector	Priority as a Regional Program	Priority as a Local Program	Preference for Implementation	Current Implementation Status	Notes / Comments	Source	Added By
Hot Water on Demand Pump System Rebate	Rebate/ Financial Incentive	Indoor	Hot Water	SFR, MFR						2015 Screening	EKI
Incentivize Artificial Turf for Sports Fields	Rebate/ Financial Incentive	Outdoor	Irrigation	CII						2015 Screening	EKI
Incentivize Cooling Tower Upgrades	Rebate/ Financial Incentive	Indoor	Cooling Towers	CII						Added 2020	EKI
Incentivize Gray Water Retrofit for Existing SFR Customers	Rebate/ Financial Incentive	Outdoor	Irrigation / Gray Water	SFR						2015 Screening	EKI
Incentivize Gray Water Systems for New CII Development	Rebate/ Financial Incentive	Both	Irrigation / Gray Water	CII						2015 Screening	EKI
Incentivize Irrigation Equipment Upgrades - Large Landscapes	Rebate/ Financial Incentive	Outdoor	Irrigation	MFR, CII, IRR						2015 Screening	EKI
Incentivize Irrigation Equipment Upgrades - SFR	Rebate/ Financial Incentive	Outdoor	Irrigation	SFR						2015 Screening	EKI
Incentivize Replacement of Inefficient Commercial and Industrial Equipment	Rebate/ Financial Incentive	Indoor	CII Equipment	CII					Example: SoCal Water Smart Water Savings Incentive Program: https://socalwatersmart.com/en/commercial/water-savings-incentive-program/	2015 Screening	EKI
Incentivize Replacement of Pressure Reducing Valves (PRVs) with 60-70 psi PRVs	Rebate/ Financial Incentive	Both	Water loss; Irrigation	All					PRVs must be installed by customers with pressure exceeding 80 psi, per the plumbing code	2015 Screening	EKI
Incentivize Submetering for Existing Customers - CII	Rebate/ Financial Incentive	Both	All Indoor	MFR, COM, IRR						2015 Screening	EKI
Incentivize Submetering for Existing Customers - MFR	Rebate/ Financial Incentive	Both	All Indoor	MFR						2015 Screening	EKI
Incentivize Submetering of Cooling Towers for Existing Customers	Rebate/ Financial Incentive	Indoor	Cooling Towers	CII						2015 Screening	EKI
Indoor Fixture Program For Hotels & Motels	Rebate/ Financial Incentive	Indoor	All Indoor	CII						2015 Screening	EKI
Indoor Fixture Program For Schools	Rebate/ Financial Incentive	Indoor	All Indoor	CII						2015 Screening	EKI
Landscape Conversion or Turf Removal - MFR and CII	Rebate/ Financial Incentive	Outdoor	Irrigation	MFR, CII						2015 Screening	EKI
Landscape Conversion or Turf Removal -SFR	Rebate/ Financial Incentive	Outdoor	Irrigation	SFR						2015 Screening	EKI
Mulch rebate	Rebate/ Financial Incentive	Outdoor	Irrigation	SFR						Added 2020	MMWD
Nonresidential Incentive for Self-closing or Metering Faucets	Rebate/ Financial Incentive	Indoor	Faucet	CII						Added 2020	Sonoma
Plumber Initiated UHET and / or Urinal Retrofit Program	Rebate/ Financial Incentive	Indoor	Toilet	All						2015 Screening	EKI
Rain Barrel Rebate	Rebate/ Financial Incentive	Outdoor	Irrigation	SFR						2015 Screening	EKI
Rain Sensor Rebate	Rebate/ Financial Incentive	Outdoor	Irrigation	All						2015 Screening	EKI
Rainwater Catchment System Rebate for Large Landscapes	Rebate/ Financial Incentive	Outdoor	Irrigation	MFR, CII						2015 Screening	EKI
Rebates for Conductivity Controllers on Cooling Towers	Rebate/ Financial Incentive	Indoor	Cooling Towers	CII						2015 Screening	EKI
Restaurant Spray Nozzle Rebates	Rebate/ Financial Incentive	Indoor	CII Equipment	CII						2015 Screening	EKI
Rotating Sprinkler Nozzle Rebate	Rebate/ Financial Incentive	Outdoor	Irrigation	All						2015 Screening	EKI
Smart Irrigation Controller (Weather-Based Irrigation Controller) Rebates - Large Landscape	Rebate/ Financial Incentive	Outdoor	Irrigation	MFR, CII						2015 Screening	EKI
Smart Irrigation Controller (Weather-Based Irrigation Controller) Rebates - SFR	Rebate/ Financial Incentive	Outdoor	Irrigation	SFR						2015 Screening	EKI
Soil Moisture Sensor Rebate	Rebate/ Financial Incentive	Outdoor	Irrigation	All						2015 Screening	EKI
Swimming Pool and Hot Tub Cover Rebates	Rebate/ Financial Incentive	Outdoor	Pool/Hot Tub	SFR, MFR						Added 2020	EKI
Thermostatic Shut-Off Valve Showerheads/Tub Spouts Rebates	Rebate/ Financial Incentive	Indoor	Shower	SFR, MFR, CII					Reduce hot water use before showering https://www.thinkevolve.com/	Added 2020	EKI
Tier 4 Exemption	Rebate/ Financial Incentive	Both	toilet, Faucet, Showerhead, clothes washer, irrigation	SFR					Exemption from high tier water rates w/installation of devices	Added 2020	MMWD
UHET <1.0 gal/flush Rebate - CII	Rebate/ Financial Incentive	Indoor	Toilet	CII						2015 Screening	EKI
UHET <1.0 gal/flush Rebate - Residential	Rebate/ Financial Incentive	Indoor	Toilet	SFR, MFR						2015 Screening	EKI
Water Savings Incentive Program for CII	Rebate/ Financial Incentive	Indoor	All Indoor	CII					Financial incentive to reward demonstrated water savings and offset capital improvement costs; Example: SoCal Water Smart Water Savings Incentive Program: https://socalwatersmart.com/en/commercial/water-savings-incentive-program/	2015 Screening	EKI
Policies and Regulations											
Demand Offset/Water Neutral Policy for Large New Developments	Policy/ Regulation	Both	All	All						Added 2020	EKI
Prohibit Once through Cooling Systems	Policy/ Regulation	Both	CII Equipment	CII						2015 Screening	EKI
Require <0.25 gal/flush Urinals in New Development	Policy/ Regulation	Indoor	Urinal	CII						2015 Screening	EKI
Require <1.0 gal/flush Toilets in New Development	Policy/ Regulation	Indoor	Toilet	All					State minimum efficiency is 1.28 gal/flush	Added 2020	EKI
Require Cooling Tower Retrofits	Policy/ Regulation	Indoor	Cooling Towers	CII						2015 Screening	EKI
Require Efficient (EnergyStar) Dishwashers in New Development	Policy/ Regulation	Indoor	Dishwashers	SFR, MFR						2015 Screening	EKI
Require High Efficiency Clothes Washers in New Development	Policy/ Regulation	Indoor	Clothes Washer	SFR, MFR						2015 Screening	EKI
Require Hot Water on Demand / Structured Plumbing in New Residential Development	Policy/ Regulation	Indoor	Shower/Sink	SFR, MFR						2015 Screening	EKI
Require Irrigation Designers / Installers be Certified (QWEL)	Policy/ Regulation	Outdoor	Irrigation	All						2015 Screening	EKI
Require On-Site Water Reuse Systems (Grey Water or Black Water) for Large CII Developments	Policy/ Regulation	Outdoor	Irrigation / Recycled Water	CII					Example: https://sfwater.org/index.aspx?page=686	Added 2020	EKI
Require Plumbing for Gray Water in New SFR Development	Policy/ Regulation	Outdoor	Irrigation / Gray Water	SFR						2015 Screening	EKI
Require Plumbing for Recycled Water in New CII Development	Policy/ Regulation	Outdoor	Irrigation / Recycled Water	CII						Added 2020	EKI
Require Plumbing for Recycled Water in New MFR Development	Policy/ Regulation	Outdoor	Irrigation / Recycled Water	MFR						Added 2020	EKI
Require Rain Barrels in New Development	Policy/ Regulation	Outdoor	Irrigation	SFR						2015 Screening	EKI
Require Submetering by Unit for Existing Commercial Customers	Policy/ Regulation	Indoor	All Indoor	CII						Added 2020	EKI
Require Submetering by Unit for New Commercial Developments	Policy/ Regulation	Indoor	All Indoor	CII						Added 2020	EKI
Require Submetering for New MFR Developments	Policy/ Regulation	Indoor	All Indoor	MFR						2015 Screening	EKI
Require Submetering for New Mobile Home Park Developments	Policy/ Regulation	Indoor	All Indoor	MFR						2015 Screening	EKI
Require Submetering of Cooling Towers for Existing Customers	Policy/ Regulation	Indoor	Cooling Towers	CII						Added 2020	EKI
Require Submetering of Cooling Towers for New Development	Policy/ Regulation	Indoor	Cooling Towers	CII						Added 2020	EKI
Require Submetering of Existing MFR (and Mobile Home Park) Customers	Policy/ Regulation	Indoor	All Indoor	MFR						Added 2020	EKI
Require Submetering of Landscaping for Existing MFR and Commercial Customers	Policy/ Regulation	Outdoor	Irrigation	MFR, CII						Added 2020	EKI
Require Submetering of Landscaping for New MFR and Commercial Developments	Policy/ Regulation	Outdoor	Irrigation	CII						Added 2020	EKI
Require Swimming Pool and Hot Tub Covers	Policy/ Regulation	Outdoor	Pool/Hot Tub	SFR, MFR						2015 Screening	EKI

Prioritization and Screening of Future Water Conservation Measures
Marin-Sonoma Saving Water Partnership

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Conservation Measure/Program	Type	Indoor / Outdoor	Primary End Use	Sector	Priority as a Regional Program	Priority as a Local Program	Preference for Implementation	Current Implementation Status	Notes / Comments	Source	Added By
Require Water Efficiency Plan Reviews for New CII Development	Policy/ Regulation	Both	All Indoor	CII						2015 Screening	EKI
Require Weather Adjusting Smart Irrigation Controllers, Rain Sensors, and/or Soil Moisture Sensors in New Development	Policy/ Regulation	Outdoor	Irrigation	All						2015 Screening	EKI
Restrict Landscape Irrigation to Designated Days/Times	Policy/ Regulation	Outdoor	Irrigation	All					Under all conditions, not just drought	2015 Screening	EKI
Water Conserving Landscape and Irrigation Codes, More Stringent than MWELO	Policy/ Regulation	Outdoor	Irrigation	All						2015 Screening	EKI
Water Waste Ordinance	Policy/ Regulation	Outdoor	All Outdoor	All						Added 2020	MMWD

Abbreviations:
AMI = advanced metering infrastructure
CII = commercial, industrial, institutional
COM = commercial
HET = high efficiency toilet
HEU = high efficiency urinal
Info = information
IRR = irrigation account
MFR = multi-family residential
MWELO = Model Water Efficient Landscape Ordinance
PRV = pressure reducing valve
SFR = single-family residential
SMSWP = Sonoma-Marin Saving Water Partnership
UHET = ultra high efficiency toilet

Appendix 4 – AWWA Water Loss Worksheets

Supplier	Real loss Three-year average from 2016 to 2018		Real loss 2028 volumetric standard	
	Gallons per connection per day	Gallons per mile per day	Gallons per connection per day	Gallons per mile per day
Adelanto City Of	49.1	N/A	17.9	N/A
Alameda County Water District	21.5	N/A	17.1	N/A
Alco Water Service	15.1	N/A	15.1	N/A
Alhambra City Of	8.6	N/A	8.6	N/A
Amador Water Agency	66.3	N/A	20.5	N/A
American Canyon City Of	30.8	N/A	17.3	N/A
Anaheim City Of	23.5	N/A	18.7	N/A
Anderson City Of	53.4	N/A	16.0	N/A
Antioch City Of	11.9	N/A	11.9	N/A
Apple Valley Ranchos Water Company	23.3	N/A	23.3	N/A
Arcadia City Of	32.1	N/A	17.5	N/A
Arcata City Of	48.7	N/A	19.1	N/A
Arroyo Grande City Of	7.7	N/A	7.7	N/A
Arvin Community Service District	67.9	N/A	14.3	N/A
Atascadero Mutual Water Company	35.9	N/A	30.5	N/A
Atwater City Of	308.8	N/A	11.5	N/A
Azusa Light and Water	78.5	N/A	13.6	N/A
Bakersfield City Of	19.3	N/A	16.9	N/A
Bakman Water Company	85.3	N/A	15.4	N/A
Banning City Of	63.1	N/A	28.6	N/A
Beaumont-Cherry Valley Water District	41.0	N/A	20.2	N/A
Bella Vista Water District	N/A	1710.6	N/A	653.2
Bellflower-Somerset Mutual Water Company	13.2	N/A	13.2	N/A
Benicia City Of	46.1	N/A	18.5	N/A
Beverly Hills City Of	30.0	N/A	16.4	N/A
Big Bear Community Services District	12.8	N/A	12.8	N/A
Big Bear Lake City Of	9.5	N/A	9.5	N/A
Blythe City Of	80.3	N/A	14.8	N/A
Brawley City Of	54.8	N/A	12.7	N/A
Brea City Of	15.2	N/A	15.2	N/A
Brentwood City Of	30.5	N/A	14.5	N/A
Buena Park City Of	36.8	N/A	15.9	N/A
Burbank City Of	13.4	N/A	13.4	N/A
Burlingame City Of	19.5	N/A	19.5	N/A
Calaveras County Water District (Ebbetts Pass)	84.8	N/A	20.4	N/A

Calaveras County Water District (Jenny Lind)	155.9	N/A	20.8	N/A
Calexico City Of	4.2	N/A	4.2	N/A
California American Water Company-Los Angeles Division(Baldwin Hills)	24.6	N/A	16.8	N/A
California American Water Company-Los Angeles Division(Duarte)	85.9	N/A	17.7	N/A
California American Water Company-Los Angeles Division(San Marino)	27.4	N/A	17.4	N/A
California American Water Company-Monterey District	6.4	N/A	6.4	N/A
California American Water Company-Sacramento District-(Antelope)	19.4	N/A	14.5	N/A
California American Water Company-Sacramento District-(Lincoln Oaks)	5.6	N/A	5.6	N/A
California American Water Company-Sacramento District-(Parkway)	25.3	N/A	13.9	N/A
California American Water Company-Sacramento District-(Surburban-Rosemont)	29.4	N/A	17.1	N/A
California American Water Company-San Diego District	25.6	N/A	15.0	N/A
California American Water Company-Ventura District	33.5	N/A	22.8	N/A
California City	N/A	1328.1	N/A	450.3
California Water Service Company Bakersfield(North Garden)	65.7	N/A	18.0	N/A
California Water Service Company Bakersfield	74.6	N/A	16.7	N/A
California Water Service Company Bear Gulch	13.9	N/A	13.9	N/A
California Water Service Company Chico District	28.6	N/A	18.0	N/A
California Water Service Company Dominguez	23.8	N/A	17.6	N/A
California Water Service Company East Los Angeles	4.0	N/A	4.0	N/A
California Water Service Company Hermosa-Redondo	12.4	N/A	12.4	N/A
California Water Service Company Livermore	17.2	N/A	15.0	N/A
California Water Service Company Los Altos-Suburban	24.5	N/A	17.2	N/A
California Water Service Company Marysville	40.6	N/A	14.9	N/A
California Water Service Company Mid Peninsula(SC)	6.2	N/A	6.2	N/A
California Water Service Company Mid Peninsula(SM)	20.6	N/A	15.6	N/A
California Water Service Company Oroville	27.4	N/A	17.8	N/A
California Water Service Company Palos Verdes	32.6	N/A	22.5	N/A
California Water Service Company Salinas District	9.2	N/A	9.2	N/A
California Water Service Company Selma	35.1	N/A	13.8	N/A

California Water Service Company South San Francisco	0.6	N/A	0.6	N/A
California Water Service Company Stockton	20.6	N/A	13.5	N/A
California Water Service Company Visalia	10.1	N/A	10.1	N/A
California Water Service Company Westlake	31.7	N/A	23.0	N/A
Camarillo City Of	3.4	N/A	3.4	N/A
Cambria Community Service District	15.5	N/A	15.5	N/A
Camrosa Water District	35.9	N/A	18.6	N/A
Carlsbad Municipal Water District	21.5	N/A	19.4	N/A
Carmichael Water District	36.3	N/A	15.2	N/A
Carpinteria Valley Water District	26.9	N/A	24.0	N/A
Castaic Lake Water Agency Santa Clarita Water Division	47.0	N/A	23.7	N/A
Ceres City Of	14.6	N/A	11.4	N/A
Cerritos City Of	19.9	N/A	19.9	N/A
Chino City Of	37.3	N/A	17.2	N/A
Chino Hills City Of	6.2	N/A	6.2	N/A
Citrus Heights Water District	15.3	N/A	15.3	N/A
Cloverdale Cityof	30.9	N/A	12.4	N/A
Clovis City Of	7.4	N/A	7.4	N/A
Coachella City Of	31.9	N/A	18.0	N/A
Coachella Valley Water District	43.3	N/A	23.0	N/A
Coalinga City Of	41.0	N/A	20.1	N/A
Coastside County Water District	18.5	N/A	18.5	N/A
Colton City Of	65.5	N/A	16.3	N/A
Contra Costa Water District	21.8	N/A	17.9	N/A
Corcoran City Of	N/A	2415.1	N/A	461.5
Corona City Of	16.1	N/A	16.1	N/A
Covina City Of	30.2	N/A	21.0	N/A
Covina Irrigating Company	37.7	N/A	20.9	N/A
Crescent City	80.2	N/A	20.8	N/A
Crescenta Valley Community Water District	22.4	N/A	22.4	N/A
Crestline Village Water District	4.3	N/A	4.3	N/A
Cucamonga Valley Water District	28.6	N/A	20.3	N/A
Cupertino City Of	25.6	N/A	25.6	N/A
Daly City	12.3	N/A	12.3	N/A
Davis City Of	37.3	N/A	11.1	N/A
Del Oro Water Company	22.0	N/A	22.0	N/A
Delano City Of	40.2	N/A	13.9	N/A
Desert Water Agency	87.1	N/A	20.2	N/A
Diablo Water District	15.3	N/A	15.3	N/A
Dinuba City Of	32.9	N/A	11.7	N/A

Discovery Bay Community Services District	14.0	N/A	12.4	N/A
Downey City Of	27.4	N/A	14.6	N/A
Dublin San Ramon Services District	7.3	N/A	7.3	N/A
East Bay Municipal Utility District	45.6	N/A	20.7	N/A
East Niles Community Services District	47.1	N/A	14.5	N/A
East Orange County Water District	25.8	N/A	25.8	N/A
East Palo Alto City Of	25.1	N/A	13.9	N/A
East Valley Water District	37.3	N/A	18.9	N/A
Eastern Municipal Water District	28.1	N/A	20.0	N/A
El Centro City Of	128.0	N/A	13.5	N/A
El Dorado Irrigation District	83.2	N/A	38.0	N/A
El Monte City Of	49.9	N/A	13.3	N/A
El Segundo City Of	37.6	N/A	15.0	N/A
El Toro Water District	23.6	N/A	23.6	N/A
Elk Grove Water District	15.9	N/A	15.9	N/A
Elsinore Valley Municipal Water District	20.1	N/A	20.1	N/A
Escondido City Of	22.2	N/A	22.2	N/A
Estero Municipal Improvement District	31.4	N/A	14.0	N/A
Eureka City Of	23.2	N/A	14.8	N/A
Exeter City Of	41.0	N/A	12.6	N/A
Fair Oaks Water District	23.3	N/A	18.7	N/A
Fairfield City Of	73.7	N/A	14.6	N/A
Fallbrook Public Utilities District	62.5	N/A	39.6	N/A
Folsom City Of	133.3	N/A	16.5	N/A
Fortuna City Of	45.4	N/A	24.2	N/A
Fountain Valley City Of	11.9	N/A	11.9	N/A
Fresno City Of	47.7	N/A	13.7	N/A
Fruitridge Vista Water Company	71.4	N/A	10.8	N/A
Fullerton City Of	18.4	N/A	18.4	N/A
Galt City Of	24.4	N/A	11.6	N/A
Garden Grove City Of	22.9	N/A	11.9	N/A
Georgetown Divide Public Utility District	N/A	787.5	N/A	787.5
Gilroy City Of	33.4	N/A	16.5	N/A
Glendale City Of	18.2	N/A	18.2	N/A
Glendora City Of	68.5	N/A	19.0	N/A
Golden State Water Company-Artesia	23.3	N/A	13.1	N/A
Golden State Water Company-Barstow	51.0	N/A	24.3	N/A
Golden State Water Company-Bay Point	24.2	N/A	17.1	N/A
Golden State Water Company-Bell-Bell Gardens	21.7	N/A	13.3	N/A
Golden State Water Company-Claremont	46.9	N/A	22.0	N/A
Golden State Water Company-Cordova	67.3	N/A	12.1	N/A
Golden State Water Company-Culver City	15.2	N/A	15.2	N/A

Golden State Water Company-Florence Graham	25.2	N/A	12.9	N/A
Golden State Water Company-Norwalk	16.3	N/A	13.4	N/A
Golden State Water Company-Orcutt	49.5	N/A	16.2	N/A
Golden State Water Company-Placentia	27.3	N/A	21.1	N/A
Golden State Water Company-San Dimas	16.7	N/A	16.7	N/A
Golden State Water Company-Simi Valley	12.2	N/A	12.2	N/A
Golden State Water Company-South Arcadia	15.2	N/A	15.2	N/A
Golden State Water Company-South San Gabriel	41.7	N/A	13.0	N/A
Golden State Water Company-Southwest	14.7	N/A	14.7	N/A
Golden State Water Company-West Orange	19.5	N/A	17.1	N/A
Goleta Water District	24.3	N/A	20.4	N/A
Great Oaks Water Company Incorporated	22.5	N/A	14.0	N/A
Greenfield City Of	37.3	N/A	13.5	N/A
Groveland Community Services District	14.5	N/A	14.5	N/A
Hawthorne City Of	14.1	N/A	12.4	N/A
Hayward City Of	20.5	N/A	20.5	N/A
Healdsburg City Of	10.4	N/A	10.4	N/A
Helix Water District	18.4	N/A	18.4	N/A
Hemet City Of	7.6	N/A	7.6	N/A
Hesperia Water District	19.2	N/A	19.2	N/A
Hi Desert Water District	23.5	N/A	23.5	N/A
Hillsborough Town Of	26.6	N/A	24.3	N/A
Hollister City Of	30.4	N/A	15.3	N/A
Humboldt Community Services District	59.1	N/A	13.8	N/A
Huntington Beach City Of	14.8	N/A	14.8	N/A
Huntington Park City Of	18.2	N/A	12.2	N/A
Imperial City Of	45.6	N/A	14.4	N/A
Indian Wells Valley Water District	38.7	N/A	16.4	N/A
Indio City Of	30.5	N/A	17.1	N/A
Inglewood City Of	12.6	N/A	12.6	N/A
Irvine Ranch Water District	14.9	N/A	14.9	N/A
Joshua Basin Water District	N/A	507.0	N/A	507.0
Jurupa Community Service District	33.0	N/A	23.2	N/A
Kerman City Of	32.4	N/A	11.4	N/A
Kingsburg City Of	505.3	N/A	12.2	N/A
La Habra City Of	28.0	N/A	19.1	N/A
La Palma City Of	37.2	N/A	14.6	N/A
La Verne City Of	35.9	N/A	18.4	N/A
Laguna Beach County Water District	24.4	N/A	17.0	N/A
Lake Arrowhead Community Services District	20.7	N/A	20.7	N/A
Lake Hemet Municipal Water District	32.2	N/A	19.0	N/A
Lakeside Water District	19.8	N/A	19.8	N/A

Lakewood City Of	12.9	N/A	12.9	N/A
Lamont Public Utility District	69.3	N/A	12.5	N/A
Las Virgenes Municipal Water District	25.1	N/A	25.1	N/A
Lathrop City Of	18.6	N/A	13.3	N/A
Liberty Utilities(Park Water)Corp	6.1	N/A	6.1	N/A
Lincoln Avenue Water Company	21.4	N/A	21.4	N/A
Lincoln City Of	35.2	N/A	22.1	N/A
Linda County Water District	88.1	N/A	13.8	N/A
Livermore City Of	27.8	N/A	16.4	N/A
Livingston City Of	67.4	N/A	11.4	N/A
Lodi City Of	10.6	N/A	10.6	N/A
Loma Linda City Of	62.3	N/A	16.4	N/A
Lomita City Of	17.7	N/A	12.6	N/A
Lompoc City Of	15.9	N/A	15.9	N/A
Long Beach City Of	7.0	N/A	7.0	N/A
Los Angeles City Department Of Water And Power	36.9	N/A	32.1	N/A
Los Angeles County Waterworks District29-Malibu&Marina Del Rey	26.7	N/A	26.7	N/A
Los Angeles County Waterworks District40-Antelope Valley	23.3	N/A	19.9	N/A
Los Banos City Of	83.6	N/A	11.7	N/A
Lynwood City Of	22.3	N/A	12.2	N/A
Madera City Of	3.5	N/A	3.5	N/A
Mammoth Community Water District	26.6	N/A	26.6	N/A
Manhattan Beach City Of	6.2	N/A	6.2	N/A
Manteca City Of	22.0	N/A	12.6	N/A
Marin Municipal Water District	24.5	N/A	24.5	N/A
Marina Coast Water District	30.6	N/A	17.4	N/A
Martinez City Of	43.7	N/A	19.3	N/A
Mc Kinleyville Community Services District	19.5	N/A	15.2	N/A
Menlo Park City Of	59.2	N/A	18.4	N/A
Merced City Of	41.9	N/A	11.5	N/A
Mesa Water District	18.0	N/A	18.0	N/A
Mid-Peninsula Water District	14.8	N/A	14.8	N/A
Millbrae City Of	28.4	N/A	17.1	N/A
Milpitas City Of	35.0	N/A	21.9	N/A
Mission Springs Water District	48.1	N/A	18.9	N/A
Modesto City Of	80.9	N/A	14.5	N/A
Monrovia City Of	17.9	N/A	17.9	N/A
Monte Vista Water District	9.7	N/A	9.7	N/A
Montebello Land And Water Company	38.9	N/A	14.9	N/A
Montecito Water District	33.7	N/A	33.7	N/A

Monterey Park City Of	23.6	N/A	17.5	N/A
Morgan Hill City Of	30.4	N/A	17.1	N/A
Morro Bay City Of	2.1	N/A	2.1	N/A
Moulton Niguel Water District	30.0	N/A	24.5	N/A
Mountain House Community Services District	44.9	N/A	14.5	N/A
Mountain View City Of	18.9	N/A	15.8	N/A
Myoma Dunes Mutual Water Company	43.1	N/A	18.9	N/A
Napa City Of	24.9	N/A	15.8	N/A
Nevada Irrigation District-2910004-E.George	58.7	N/A	21.2	N/A
Nevada Irrigation District-2910006-Loma Rica	28.1	N/A	28.1	N/A
Nevada Irrigation District-2910023-Lake Wildwood	13.5	N/A	13.5	N/A
Newhall County Water District	36.2	N/A	25.4	N/A
Newman Cityof	61.7	N/A	10.9	N/A
Newport Beach City Of	26.2	N/A	17.6	N/A
Nipomo Community Service District	N/A	755.7	N/A	601.8
Norco City Of	29.3	N/A	23.2	N/A
North Coast County Water District	14.0	N/A	14.0	N/A
North Marin Water District	8.5	N/A	8.5	N/A
North Tahoe Public Utilities District	64.5	N/A	24.8	N/A
Norwalk City Of	0.4	N/A	0.4	N/A
Oakdale City Of	34.6	N/A	10.9	N/A
Oceanside City Of	15.7	N/A	15.7	N/A
Oildale Mutual Water Company	12.2	N/A	12.2	N/A
Olivehurst Public Utilities District	54.4	N/A	13.5	N/A
Olivenhain Municipal Water District	36.2	N/A	36.2	N/A
Ontario City Of	23.0	N/A	23.0	N/A
Orange City Of	31.1	N/A	20.4	N/A
Orangevale Water Company	29.6	N/A	16.0	N/A
Orchard Dale Water District	32.3	N/A	13.4	N/A
Otay Water District	15.9	N/A	15.9	N/A
Oxnard City Of	31.3	N/A	16.6	N/A
Padre Dam Municipal Water District	6.6	N/A	6.6	N/A
Palmdale Water District	44.7	N/A	19.0	N/A
Palo Alto City Of	13.4	N/A	13.4	N/A
Paradise Irrigation District	20.9	N/A	20.9	N/A
Paramount City Of	68.5	N/A	18.5	N/A
Pasadena City Of	31.8	N/A	18.3	N/A
Paso Robles City Of	11.0	N/A	11.0	N/A
Patterson City Of	73.5	N/A	12.3	N/A
Petaluma City Of	23.7	N/A	13.3	N/A
Phelan Pinon Hills Community Services District	N/A	819.7	N/A	819.7
Pico Rivera City Of	10.0	N/A	10.0	N/A

Pico Water District	10.3	N/A	10.3	N/A
Pismo Beach City Of	11.8	N/A	11.8	N/A
Pittsburg City Of	24.9	N/A	15.0	N/A
Placer County Water Agency(Auburn-Bownman)	56.9	N/A	19.1	N/A
Placer County Water Agency(Foothill-Sunset)	47.0	N/A	19.3	N/A
Pleasanton City Of	49.2	N/A	18.1	N/A
Pomona City Of	25.6	N/A	20.2	N/A
Port Hueneme City Of	8.6	N/A	8.6	N/A
Porterville City Of	47.2	N/A	14.5	N/A
Poway City Of	37.4	N/A	29.0	N/A
Quartz Hill Water District	19.3	N/A	19.3	N/A
Rainbow Municipal Water District	N/A	682.7	N/A	682.7
Ramona Municipal Water District	18.4	N/A	18.4	N/A
Rancho California Water District	41.1	N/A	33.1	N/A
Red Bluff City Of	14.3	N/A	14.3	N/A
Redding City Of	57.1	N/A	22.0	N/A
Redlands City Of	46.8	N/A	23.3	N/A
Redwood City	23.6	N/A	14.2	N/A
Reedley City Of	155.1	N/A	12.0	N/A
Rialto City Of	21.2	N/A	17.8	N/A
Rincon Del Diablo Municipal Water District	31.7	N/A	28.2	N/A
Rio Linda-Elverta Community Water District	37.6	N/A	12.3	N/A
Rio Vista City Of	22.3	N/A	14.5	N/A
Riverbank City Of	19.3	N/A	12.7	N/A
Riverside City Of	54.8	N/A	22.6	N/A
Riverside Highland Water Company	10.5	N/A	10.5	N/A
Rohnert Park City Of	27.0	N/A	13.1	N/A
Rosamond Community Service District	27.2	N/A	21.1	N/A
Roseville City Of	41.0	N/A	21.2	N/A
Rowland Water District	18.6	N/A	18.6	N/A
Rubidoux Community Service District	55.8	N/A	19.4	N/A
Rubio Canyon Land And Water Association	22.4	N/A	18.1	N/A
Sacramento City Of	38.2	N/A	12.2	N/A
Sacramento County Water Agency	47.1	N/A	15.8	N/A
Sacramento Suburban Water District	22.1	N/A	15.0	N/A
San Bernardino City Of	47.6	N/A	20.8	N/A
San Bernardino County Service Area64Spring Valley Lake	69.9	N/A	16.5	N/A
San Bernardino County Service Area70J Oak Hills	N/A	1040.5	N/A	721.0
San Bruno City Of	17.5	N/A	17.5	N/A
San Buenaventura City Of(Ventura)	19.9	N/A	19.9	N/A
San Clemente City Of	36.4	N/A	17.2	N/A

San Diego City Of	31.7	N/A	23.6	N/A
San Dieguito Water District	23.5	N/A	19.9	N/A
San Fernando City Of	28.7	N/A	16.7	N/A
San Francisco Public Utilities Commision	24.9	N/A	17.6	N/A
San Gabriel County Water District	24.5	N/A	17.2	N/A
San Gabriel Valley Water Company Fontana Division	40.4	N/A	20.2	N/A
San Gabriel Valley Water Company	21.2	N/A	17.9	N/A
San Jacinto City Of	39.7	N/A	19.9	N/A
San Jose City Of	38.0	N/A	21.5	N/A
San Jose Water Company	25.9	N/A	18.2	N/A
San Juan Capistrano City Of	13.1	N/A	13.1	N/A
San Juan Water District	77.1	N/A	18.8	N/A
San Lorenzo Valley Water District	49.2	N/A	22.5	N/A
San Luis Obispo City Of	27.3	N/A	17.1	N/A
Santa Ana City Of	13.8	N/A	13.8	N/A
Santa Barbara City Of	27.4	N/A	27.4	N/A
Santa Clara City Of	25.6	N/A	15.0	N/A
Santa Cruz City Of	18.5	N/A	18.5	N/A
Santa Fe Irrigation District	53.2	N/A	21.9	N/A
Santa Fe Springs City Of	31.0	N/A	17.3	N/A
Santa Margarita Water District	16.2	N/A	16.2	N/A
Santa Maria City Of	11.2	N/A	11.2	N/A
Santa Monica City Of	2.2	N/A	2.2	N/A
Santa Paula City Of	10.8	N/A	10.8	N/A
Santa Rosa City Of	16.3	N/A	16.3	N/A
Scotts Valley Water District	19.9	N/A	19.9	N/A
Seal Beach City Of	26.3	N/A	15.1	N/A
Shafter City Of	62.2	N/A	14.9	N/A
Shasta Lake City Of	24.0	N/A	24.0	N/A
Sierra Madre City Of	76.3	N/A	25.1	N/A
Signal Hill City Of	18.6	N/A	18.6	N/A
Soledad City Of	17.6	N/A	10.5	N/A
Sonoma City Of	22.8	N/A	16.1	N/A
Soquel Creek Water District	13.3	N/A	13.3	N/A
South Coast Water District	8.1	N/A	8.1	N/A
South Feather Waterand Power	57.0	N/A	28.3	N/A
South Gate City Of	20.4	N/A	20.4	N/A
South Pasadena City Of	30.1	N/A	17.7	N/A
South Tahoe Public Utility District	71.5	N/A	21.7	N/A
Stockton City Of	30.0	N/A	14.6	N/A
Suburban Water Systems-San Jose Hills	16.8	N/A	16.8	N/A

Suburban Water Systems-Whittier-La Mirada	22.7	N/A	17.6	N/A
Suisun-Solano Water Authority	47.1	N/A	12.2	N/A
Sunny Slope Water Company	27.2	N/A	15.6	N/A
Sunnyslope Community Water District	14.8	N/A	14.8	N/A
Sunnyvale City Of	20.6	N/A	16.5	N/A
Susanville City Of	59.5	N/A	18.6	N/A
Sweetwater Authority	15.4	N/A	15.4	N/A
Sweetwater Springs Water District	29.4	N/A	18.8	N/A
Tehachapi City Of	48.6	N/A	18.9	N/A
Thousand Oaks City Of	14.1	N/A	14.1	N/A
Torrance City Of	6.7	N/A	6.7	N/A
Trabuco Canyon Water District	20.2	N/A	20.2	N/A
Tracy City Of	38.9	N/A	15.3	N/A
Triunfo Sanitation District-Oak Park Water Service	1.6	N/A	1.6	N/A
Truckee-Donner Public Utilities District	62.9	N/A	21.9	N/A
Tulare City Of	18.8	N/A	11.2	N/A
Tuolumne Utilities District-Sonora-Jamestown	75.7	N/A	24.0	N/A
Tuolumne Utilities District-Upper Basin	31.6	N/A	21.1	N/A
Turlock City Of	58.0	N/A	13.2	N/A
Tustin City Of	37.4	N/A	11.3	N/A
Twentynine Palms Water District	31.3	N/A	25.4	N/A
Ukiah City Of	38.3	N/A	20.0	N/A
Upland City Of	25.2	N/A	25.2	N/A
Vacaville City Of	28.3	N/A	18.6	N/A
Valencia Water Company	30.2	N/A	24.5	N/A
Vallecitos Water District	35.1	N/A	32.0	N/A
Vallejo City Of	57.9	N/A	14.6	N/A
Valley Center Municipal Water District	N/A	834.6	N/A	834.6
Valley County Water District	12.8	N/A	12.8	N/A
Valley Of The Moon Water District	29.0	N/A	14.9	N/A
Valley Water Company	9.0	N/A	9.0	N/A
Vaughn Water Company	31.2	N/A	13.0	N/A
Ventura County Waterworks District No01-Moorpark	35.5	N/A	20.6	N/A
Ventura County Waterworks District No08-Simi Valley	13.4	N/A	13.4	N/A
Vernon Public Utilities	N/A	5232.9	N/A	609.5
Victorville Water District	53.6	N/A	25.0	N/A
Vista Irrigation District	23.8	N/A	23.8	N/A
Walnut Valley Water District	28.3	N/A	28.3	N/A
Wasco City Of	15.3	N/A	12.5	N/A
Watsonville City Of	20.2	N/A	14.6	N/A

West Kern Water District	N/A	5110.3	N/A	511.8
West Sacramento City Of	236.0	N/A	12.8	N/A
West Valley Water District	62.5	N/A	17.6	N/A
Westborough Water District	8.1	N/A	8.1	N/A
Western Municipal Water District Of Riverside	64.6	N/A	29.7	N/A
Westminster City Of	14.5	N/A	14.5	N/A
Whittier City Of	20.0	N/A	14.7	N/A
Windsor Town Of	28.2	N/A	22.8	N/A
Woodland City Of	25.7	N/A	13.6	N/A
Yorba Linda Water District	43.4	N/A	19.9	N/A
Yreka City Of	68.6	N/A	26.7	N/A
Yuba City	35.8	N/A	13.5	N/A
Yucaipa Valley Water District	46.3	N/A	12.2	N/A

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

? Click to access definition
\+ Click to add a comment

Water Audit Report for: City of Rohnert Park (4910014)
Reporting Year: 2016 | 1/2016 - 12/2016

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' --------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

	Grading	Value		Pcnt:	Value:	
Volume from own sources:	3	612.666	MG/Yr			MG/Yr
Water imported:	5	753.600	MG/Yr			MG/Yr
Water exported:	n/a	0.000	MG/Yr			MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 1,366.266 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

	Grading	Value		Pcnt:	Value:	
Billed metered:	5	1,224.038	MG/Yr			
Billed unmetered:	10	1.955	MG/Yr			
Unbilled metered:	n/a	0.000	MG/Yr			
Unbilled unmetered:	5	3.416	MG/Yr		3.416	MG/Yr

Use buttons to select percentage of water supplied **OR** value

AUTHORIZED CONSUMPTION: ? 1,229.409 MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption) 136.857 MG/Yr

Apparent Losses

	Grading	Value		Pcnt:	Value:	
Unauthorized consumption:		3.416	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	3	24.980	MG/Yr	2.00%		MG/Yr
Systematic data handling errors:		3.060	MG/Yr	0.25%		MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: ? 31.456 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: ? 105.401 MG/Yr

WATER LOSSES: 136.857 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: ? 140.273 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

	Grading	Value	
Length of mains:	8	115.0	miles
Number of active AND inactive service connections:	9	8,994	
Service connection density:		78	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line:

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 5 60.0 psi

COST DATA

	Grading	Value	
Total annual cost of operating water system:	10	$7,267,482	$/Year
Customer retail unit cost (applied to Apparent Losses):	4	$2.92	$/1000 gallons (US)
Variable production cost (applied to Real Losses):	3	$714.00	$/Million gallons

☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 52 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Water imported
3: Customer metering inaccuracies

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

? Click to access definition
\+ Click to add a comment

Water Audit Report for: City of Rohnert Park (4910014)
Reporting Year: 2017 | 1/2017 - 12/2017

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

					Pcnt:	Value:	
Volume from own sources:	7	582,000,000.000	MG/Yr		0.00%		MG/Yr
Water imported:	8	900,000,000.000	MG/Yr		0.00%		MG/Yr
Water exported:	n/a	0.000	MG/Yr				MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 1,482,000,000.000 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	5	1,349,928,807.000	MG/Yr			
Billed unmetered:	8	56,228,430.000	MG/Yr			
Unbilled metered:	n/a		MG/Yr			
Unbilled unmetered:		18,525,000.000	MG/Yr	1.25%		MG/Yr

Use buttons to select percentage of water supplied **OR** value

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: 1,424,682,237.000 MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption) 57,317,763.000 MG/Yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		3,705,000.000	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	3	27,549,567.490	MG/Yr	2.00%	MG/Yr
Systematic data handling errors:		3,374,822.018	MG/Yr	0.25%	MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 34,629,389.507 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 22,688,373.493 MG/Yr

WATER LOSSES: 57,317,763.000 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 75,842,763.000 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	115.0	miles
Number of active AND inactive service connections:	9	9,093	
Service connection density:		79	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line:

(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 8 | 57.0 psi

COST DATA

Total annual cost of operating water system:	10	$7,645,128	$/Year
Customer retail unit cost (applied to Apparent Losses):	8	$97.83	$/1000 gallons (US)
Variable production cost (applied to Real Losses):	9	$2,492.00	$/Million gallons

☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 71 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Customer metering inaccuracies
2: Billed metered
3: Water imported

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Reporting Worksheet

WAS v5.0

? Click to access definition
\+ Click to add a comment

Water Audit Report for: City of Rohnert Park (4910014)
Reporting Year: 2018 1/2018 - 12/2018

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

					Pcnt:	Value:	
Volume from own sources:	3	546.309	MG/Yr				MG/Yr
Water imported:	7	967.020	MG/Yr				MG/Yr
Water exported:	n/a	0.000	MG/Yr				MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 1,513.329 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	5	1,368.000	MG/Yr			
Billed unmetered:	10	18.620	MG/Yr			
Unbilled metered:	n/a		MG/Yr			
Unbilled unmetered:	5	3.783	MG/Yr		3.783	MG/Yr

Use buttons to select percentage of water supplied **OR** value

AUTHORIZED CONSUMPTION: 1,390.403 MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption) 122.926 MG/Yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		3.783	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	3	27.918	MG/Yr	2.00%	MG/Yr
Systematic data handling errors:		3.420	MG/Yr	0.25%	MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 35.122 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 87.804 MG/Yr

WATER LOSSES: 122.926 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 126.709 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	115.0	miles
Number of active AND inactive service connections:	9	9,764	
Service connection density:		85	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line:

(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 5 57.0 psi

COST DATA

Total annual cost of operating water system:	10	$8,995,976	$/Year
Customer retail unit cost (applied to Apparent Losses):	5	$8.00	$/1000 gallons (US)
Variable production cost (applied to Real Losses):	10	$2,694.11	$/Million gallons

☑ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 63 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Water imported
3: Customer metering inaccuracies

AWWA Free Water Audit Software:
Reporting Worksheet

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? Click to access definition
+ Click to add a comment

Water Audit Report for: City of Rohnert Park (4910014)
Reporting Year: 2019 1/2019 - 12/2019

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

					Pcnt:	Value:	
Volume from own sources:	3	761.617	MG/Yr	n/a			MG/Yr
Water imported:	7	742.030	MG/Yr	n/a			MG/Yr
Water exported:	n/a	0.000	MG/Yr				MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: **1,503.647** MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	5	1,367.275	MG/Yr			
Billed unmetered:	10	37.500	MG/Yr			
Unbilled metered:	n/a		MG/Yr			
Unbilled unmetered:		18.796	MG/Yr	1.25%		MG/Yr

Use buttons to select percentage of water supplied **OR** value

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: **1,423.571** MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption)

80.076 MG/Yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		3.759	MG/Yr	0.25%		MG/Yr
Customer metering inaccuracies:	3	27.904	MG/Yr	2.00%		MG/Yr
Systematic data handling errors:		3.418	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **35.081** MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **44.996** MG/Yr

WATER LOSSES: **80.076** MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: **98.872** MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	117.0	miles
Number of active AND inactive service connections:	9	9,814	
Service connection density:		84	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 8 57.0 psi

COST DATA

Total annual cost of operating water system:	10	$11,731,411	$/Year
Customer retail unit cost (applied to Apparent Losses):	8	$6.47	$/1000 gallons (US)
Variable production cost (applied to Real Losses):	5	$1,826.12	$/Million gallons

☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 60 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Customer metering inaccuracies
3: Water imported

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

? Click to access definition
\+ Click to add a comment

Water Audit Report for: Rohnert Park (CA4910014)
Reporting Year: 2020 | 1/2020 - 12/2020

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

					Pcnt:	Value:	
Volume from own sources:	5	705.078	MG/Yr	2			MG/Yr
Water imported:	7	785.469	MG/Yr	5			MG/Yr
Water exported:			MG/Yr				MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 1,490.547 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	5	1,397.129	MG/Yr			
Billed unmetered:	10	37.500	MG/Yr			
Unbilled metered:	n/a		MG/Yr			
Unbilled unmetered:	5	3.726	MG/Yr		3.726	MG/Yr

Use buttons to select percentage of water supplied **OR** value

AUTHORIZED CONSUMPTION: 1,438.355 MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption) 52.192 MG/Yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		3.726	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	3	28.513	MG/Yr	2.00%		MG/Yr
Systematic data handling errors:		3.493	MG/Yr	0.25%		MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 35.732 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 16.460 MG/Yr

WATER LOSSES: 52.192 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 55.918 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	117.0	miles
Number of active AND inactive service connections:	8	9,673	
Service connection density:		83	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line:

(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	8	57.0	psi

COST DATA

Total annual cost of operating water system:	10	$7,325,357	$/Year
Customer retail unit cost (applied to Apparent Losses):	9	$6.34	$/1000 gallons (US)
Variable production cost (applied to Real Losses):	5	$1,933.10	$/Million gallons

☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 65 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Water imported
3: Customer metering inaccuracies

Appendix 5 – Draft General Plan 2040 Climate Change Element

9 Climate Change Element

In 2015, the State of California adopted Senate Bill 379 (Land Use: General Plan: Safety Element) which requires all general plan updates to include a climate change vulnerability assessment, measures to address these vulnerabilities, and a comprehensive hazard mitigation and emergency response strategy.

While Greenhouse gas emissions (GHGs) are not required by statute to be addressed in the general plan, they are required to be addressed in the California Environmental Quality Act (CEQA) analysis prepared for the general plan. Additionally, the State has adopted several bills requiring jurisdictions to meet greenhouse gas emissions reduction targets in order to contribute to the overall State reduction targets. Local governments have the choice of developing an optional Climate Change Element or addressing climate change and GHG mitigation strategies in the other required elements. Rohnert Park has elected to prepare a stand alone Climate Change Element rather than a separate Climate Action Plan to satisfy the legal requirements of Senate Bill 379, facilitate the CEQA analysis for the General Plan and support implementation of the various measures to reduce GHGs and mitigate the anticipated impacts of changing climate.

The Climate Change Element identifies the sources of GHGs in the city and seeks to lay out specific strategies for mitigating and adapting to climate change impacts for the City of Rohnert Park. It contains an inventory of greenhouse gas emissions from 2010 and 2015 for the city, expected climate-related changes to natural hazards throughout the life of the General Plan, and climate adaptation strategies to mitigate these changes. Adaptation to climate change impacts include addressing increasing risk of extreme heat days, extreme precipitation events and droughts, flooding, widlfires, and an increasing average temperature over the coming decades. In alignment with the Local Hazard Mitigation Plan (LHMP) this Element discusses the city's vulnerabilities to climate hazards and what potential actions can be taken to mitigate impacts when these events occur.

While the majority of the City's climate change goals and policies are included in this Element, goals and policies in the Circulation Element, the Public Facilities and Services Element, the Resource Conservation Element and the Health and Safety Element will also play a role in the City's overall climate change mitigation plan.

The key components of the Climate Change Element include:

- Resilient Economy: Powered by clean and renewable energy sources, making the economy more resilient to unpredictable climate emergencies, providing more efficient and affordable utilities, creating local clean energy jobs, and promoting resource conservation.

- Regional Leadership in Sustainability: Encouraging effective collaboration throughout the community to promote collective change.

- Environmental Justice: Protecting those most vulnerable against the impacts of climate change by directing resources and efforts effectively.
- Legal Compliance: California has ambitious mandates and standards for addressing climate change and greenhouse gas emissions that must be addressed in the City's General Plan.

9.1 Climate Change at a Glance

Potential Impacts of Climate Change

Implementing climate adaptation strategies and reducing GHG's are the primary ways to mitigate and reduce the impacts of climate change as they unfold. The effects of climate change are being felt in the City of Rohnert Park and the greater Sonoma County area in the form of extended droughts, larger and more frequent destructive wildfires, heavy precipitation events and "atmospheric rivers", and an increasing number of extreme heat days. These weather-related events require the City to prepare adaptation strategies to better protect their communities by moderating risk and maximizing benefits.

9.2 Greenhouse Gas Emissions

The State of California has set state-wide GHG emissions reduction goals to mitigate negative climate change impacts and transition the State to a low-carbon economy. In particular, the State has set goals to reduce state-wide GHG emissions to 1990 levels by 2020, as established by Assembly Bill (AB) 32, and 40 percent below 1990 levels by 2030, as established by Senate Bill (SB) 32. The 2020 goal set by AB 32 was achieved by the State in 2016 (CARB 2018). In addition, Executive Order (EO) B-55-18 established a state goal of carbon neutrality by 2045. The California Air Resources Board (CARB) is the agency responsible for addressing these goals. One area where local governments can strive to meet their fair share in meeting the State's GHG reduction goals is through requirements in CEQA documents for local projects, including meeting GHG targets or thresholds in the General Plan CEQA analysis.

GHG Emissions Inventory

The Sonoma County Regional Climate Protection Authority (RCPA) developed two community-wide GHG inventories for Rohnert Park for the years 2010 and 2015. Based on these inventories, GHG emissions in Rohnert Park decreased from 2010 to 2015, primarily as a result of joining the Sonoma Clean Power program, which provides nearly all of the City's energy from carbon free sources. Communitywide emissions in 2010 were nine percent below 1990 levels, and this percentage increased to about 10 percent below 1990 levels in 2015. This slight downward trend in Rohnert Park emissions matches the countywide trend. Even though the energy sector implemented a significant reduction in GHG emissions, the transportation sector emissions grew comparably, limited the overall reduction in GHG emissions.

This section uses the 2015 GHG inventory as the baseline year for the updated analysis. The baseline year is used as a point of comparison so that the City of Rohnert Park can clearly see how effective greenhouse gas reduction measures are at reducing GHGs in the city. The inventory presents carbon dioxide (CO2), nitrous oxide (N2O), and methane (CH4) emissions generated from activities by the City of Rohnert Park community members. These three gases comprise the emissions of interest to the City for the implementation of targeted GHG reduction strategies to meet local and State goals.

2010 GHG Inventory Summary

Greenhouse gas emissions are measured in metric tons of carbon dioxide equivalent ($MTCO_2e$). This is the commonly used metric for comparing other greenhouse gases and their global-warming potential (GWP) to carbon dioxide, which is used as the baseline gas for understanding the impact of emissions on the global climate. This is done by converting amounts of other gases to the equivalent amount of carbon dioxide with the same GWP; therefore, illustrating the amount of other gases using the carbon dioxide GWP.

The emissions sources that were calculated for the GHG Inventory for 2010, as shown in Figure CC-1 and Table CC-1, include on-road transportation, building energy use, solid waste, off-road transportation and equipment, water, and wastewater. The on-road transportation sector is the largest source of GHG emissions for the city at 62 percent of the total. Following transportation, building energy use makes up the second most at 32 percent of total emissions. The remaining contributor sources in order of largest to smallest are solid waste, off-road transportation and equipment, and water and wastewater.

Figure CC-1: 2010 Community GHG Emissions Inventory by Source

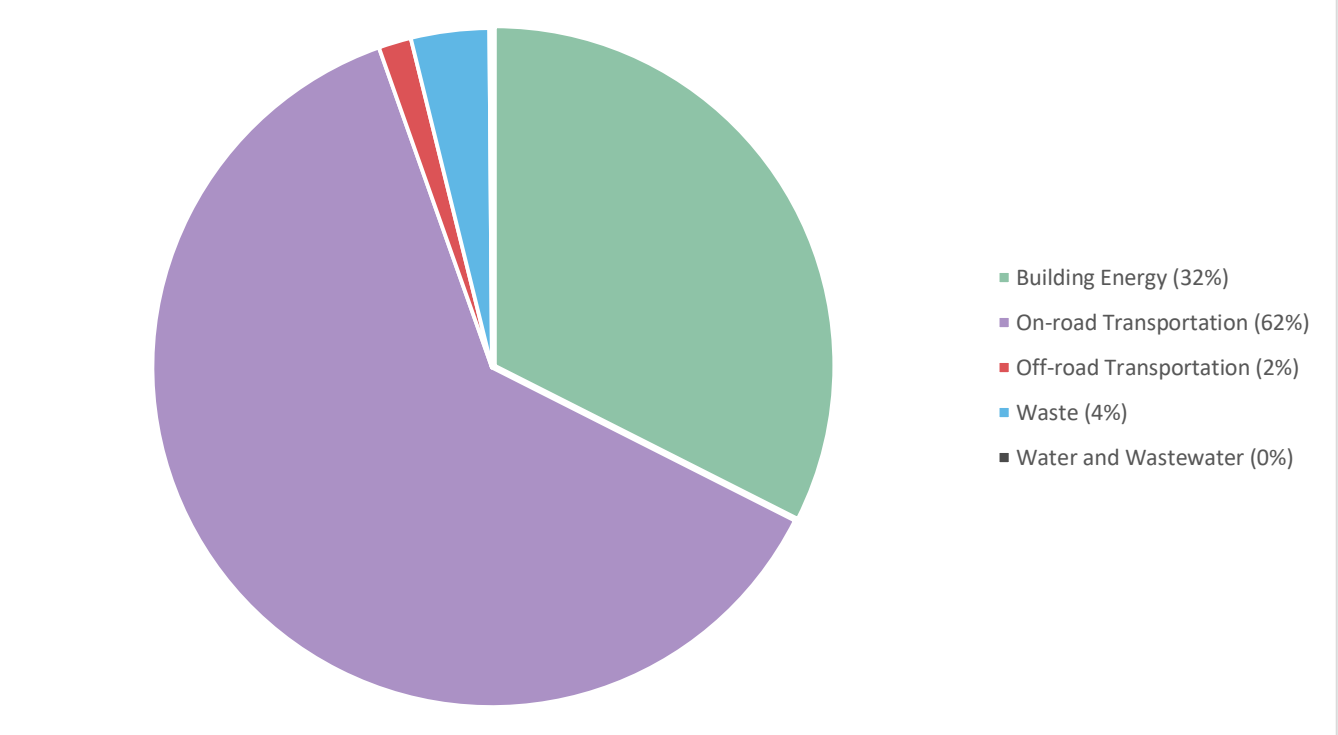


Table CC-1: 2010 GHG Inventory Results for Rohnert Park

Sector	Emissions (MT CO_2e)	Contribution to Total (%)
On-road Transportation	164,228	62.1%
Building Energy	85,749	32.4%
Waste	9,840	3.7%
Off-road Transportation	4,117	1.6%
Water and Wastewater	329	0.1%
Total	**264,263**	-

2015 GHG Inventory Summary

The 2015 inventory includes the same sectors as the 2010 inventory, with a further breakdown of building energy use to residential electricity, commercial electricity, residential natural gas, and commercial natural gas, as shown in Figure CC-2 and Table CC-2. The on-road transportation sector is the largest source of GHG emissions for the city at 67 percent of the total. Following transportation, building energy use makes up the second most at 27

percent of total emissions. The remaining contributor sources in order of largest to smallest are solid waste, off-road transportation and equipment, and water and wastewater.

Figure CC-2: 2015 Community GHG Emissions Inventory by Source

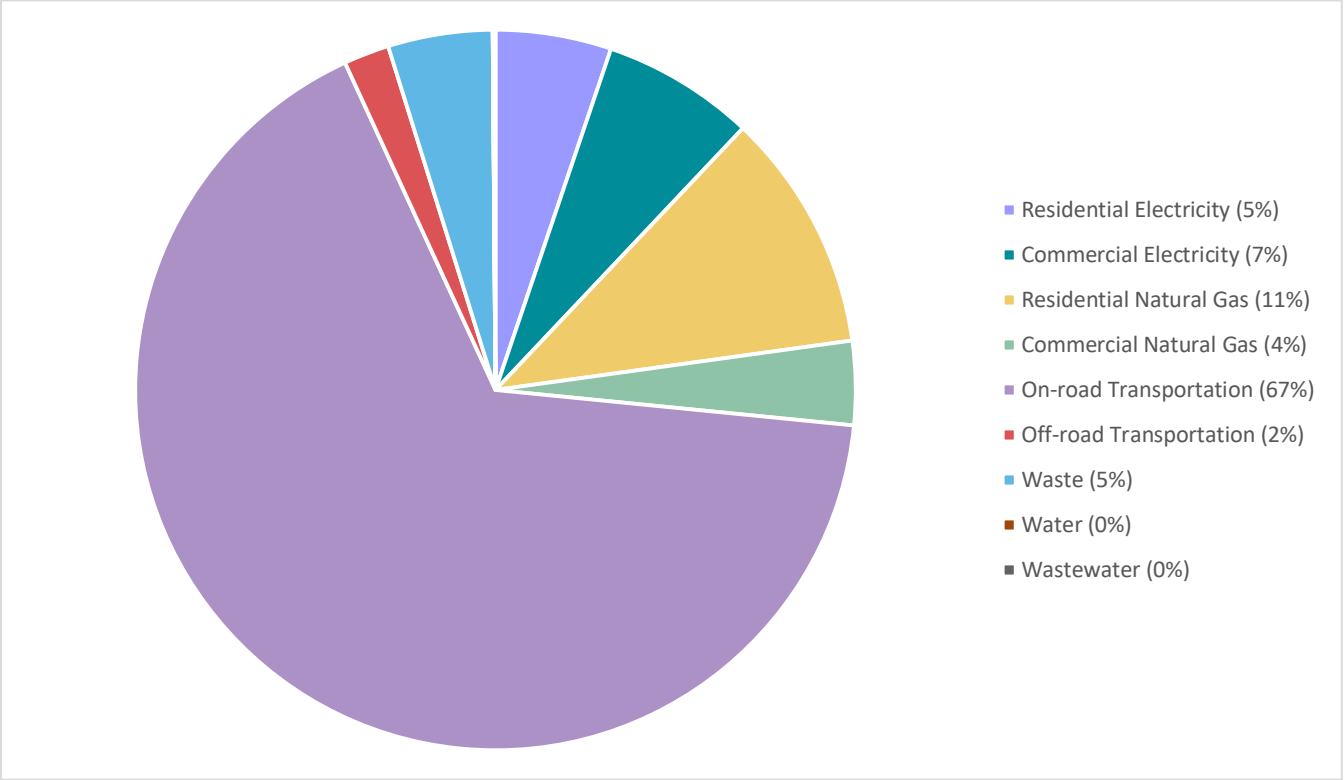


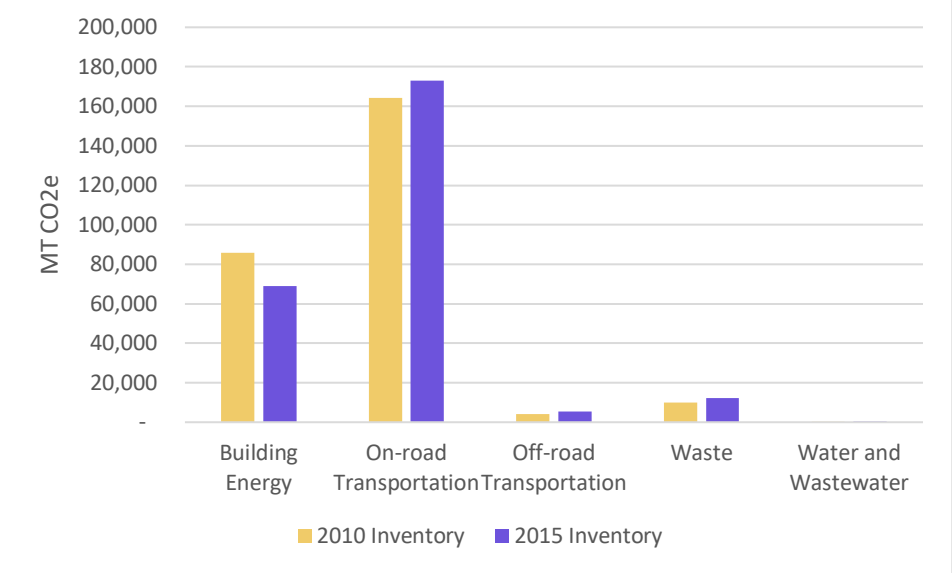
Table CC-2: 2015 GHG Inventory Results for Rohnert Park

Sector	Emissions (MT CO_2e)	Contribution to Total (%)
On-road Transportation	172,859	66.6%
Residential Natural Gas	27,921	10.8%
Commercial Electricity	17,802	6.9%
Residential Electricity	13,495	5.2%
Waste	12,183	4.7%
Commercial Natural Gas	9,779	3.8%
Off-road Transportation	5,305	2.0%
Water	13	0.0%
Wastewater	311	0.1%
Total - Absolute Emissions	**259,667**	-
Total - Per Capita Emissions	**6.23**	-

Change between 2010 and 2015 Community GHG Emissions Inventory

Between 2010 and 2015, the transportation sector remained the largest source of GHG emissions for the city and grew 5 percent, as shown in Figure CC-3. Solid waste had an increase in GHG emissions of about 24 percent between 2010 and 2015, while GHG emissions from building energy decreased by 26 percent. This large reduction in the building energy sector is due to the City's enrollment in the Sonoma Clean Power (SCP) community choice aggregation (CCA), which transferred a large portion of the community's PG&E electricity accounts to SCP. About 97 percent of SCP energy is now procured from carbon-free sources, including large hydro, wind, solar, and geothermal.

Figure CC-3: 2010 and 2015 GHG Inventory Comparison



1990 GHG Emissions Back-Cast

The State's GHG emissions reduction goal for 2030 (i.e., SB 32) was established based on a percentage reduction from 1990 levels. A 1990 GHG Emissions back-cast was developed from Rohnert Park's 2015 inventory, in lieu of a 1990 inventory, to aid Rohnert Park in developing its own climate action targets consistent with the State. The back-cast was developed by establishing a relationship between GHG emissions at the state-level for 2015 compared to 1990 and applying the change factor to Rohnert Park's 2015 GHG emissions. (Table CC-3).

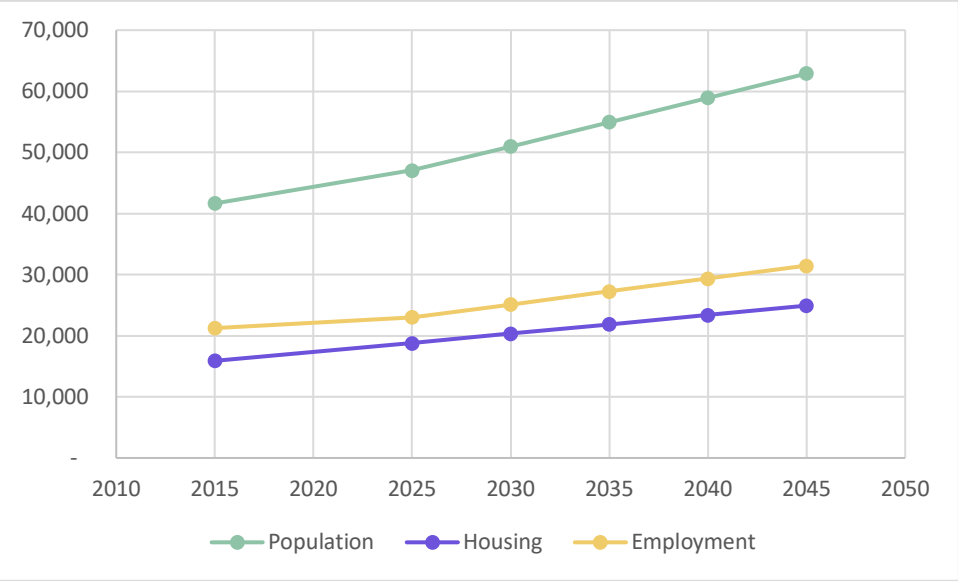
Table CC-3: 1990 GHG Emissions Back-Cast for Rohnert Park

2015 Rohnert Park GHG Emissions (MT CO_2e)	259,667.48
2015 to 1990 State GHG Emissions Change Factor (%)[1]	2.23%
1990 Rohnert Park GHG Emissions (MT CO_2e)	**265,449.20**
1990 Rohnert Park Population	36,326
1990 Rohnert Park Per Capita Emissions (MT CO_2e/person)	**7.31**
1. Change factor calculated as the percent difference between 1990 and 2015 state-level emissions. the State emitted 298.60 million MT CO2e in 2015 compared to 305.4 million MT CO2e in 1990 in the relevant emissions sectors – a 2.20% decrease between 1990 and 2015.	

GHG Emissions Forecast

A community-wide forecast of GHG emissions and future climate action targets were developed for Rohnert Park based on the GHG inventory. The forecast was developed for Rohnert Park for years 2025, 2030, 2035, 2040, and 2045, in line with required GHG emissions State reduction goals and based on the General Plan buildout projections for population, housing, and employment through 2040, shown in Figure CC-4.

Figure CC-4: Demographics Projections for Rohnert Park (2015-2045)

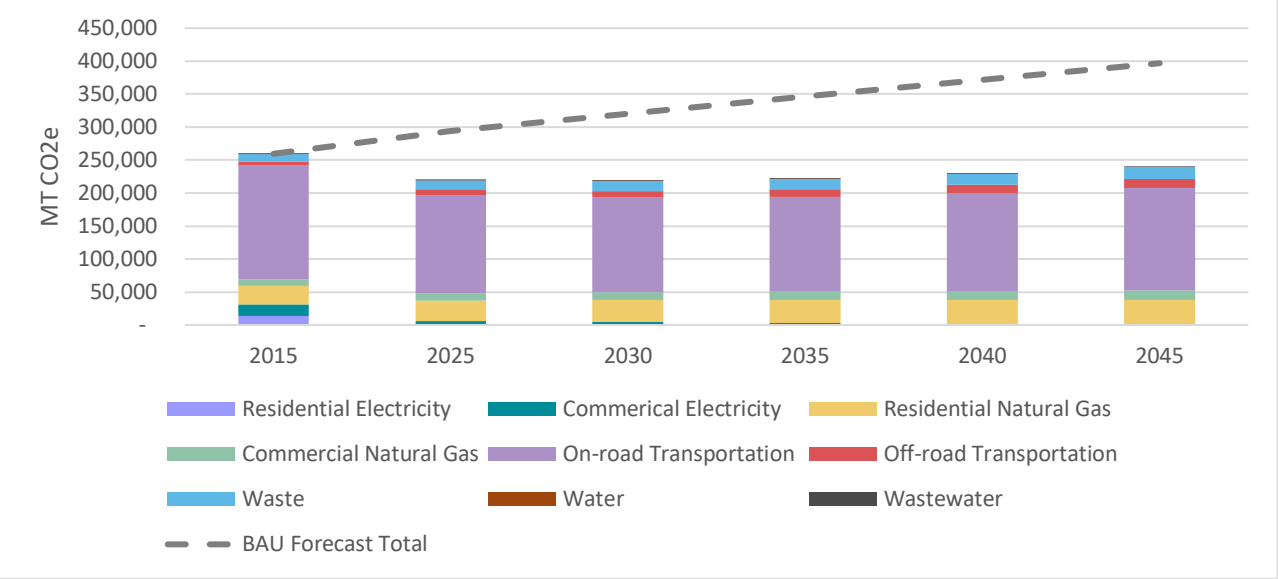


GHG Forecasting Summary

The forecast included two forecast scenarios, as described below, and compared in Figure CC-5:

- **BAU (Business-as-Usual)** forecast scenario projects the expected growth in all emission sectors based on job and population growth alone.
- **Adjusted** forecast accounts for job and population growth and additionally quantifies and incorporates all State-level legislative reduction programs that are expected to help reduce California's, and therefore Rohnert Park's, GHG emissions through 2030 and 2045. Each of the state-level legislative programs incorporated into the adjusted forecast were incorporated because the State has established concrete pathways for implementation that have shown demonstrated success. The adjusted forecast provides a more accurate picture of future emissions growth for Rohnert Park.

Figure CC-5 GHG Emissions Forecast for Rohnert Park



The state-level legislative reduction programs incorporated into the adjusted forecast include Advanced Clean Cars Program, California's Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations Title 24), and the California Renewable Portfolio Standard (RPS):

- The **Advanced Clean Cars Program**, approved by CARB in January 2012, coordinates the goals of the Low Emissions Vehicles, Zero Emissions Vehicles, and Clean Fuels Outlet programs, and is more stringent than the federal corporate average fuel economy (CAFE) standards. The new standards will reduce Californian GHG emissions by 34 percent in 2025.

- California's **Energy Efficiency Standards for Residential and Nonresidential Buildings** (Title 24), adopted in 1978, determine energy efficiency standards for new development in California. The California Energy Commission estimates the 2019 standards will reduce consumption by 34 percent for residential buildings and 30 percent for commercial buildings, relative to the 2016 standards, for new development projects implemented after January 1, 2020.

- The **California Renewables Portfolio Standard (RPS)** requires retail electricity providers to increase procurement from eligible renewable energy resources to 50 percent of total procurement by 2026, 60 percent of total procurement by 2030, and 100 percent of total procurement by 2045. These standards will reduce electricity emissions in California to zero by 2045.

Other existing programs and potentially new programs will aid in reducing GHG emissions in Rohnert Park. The Short-Lived Climate Pollutant Reduction Strategy program, will reduce organic waste sent to the landfill. Executive Order (EO) N-75-20 requires that all new cars and passenger trucks sold in California by 2035 be zero-emission vehicles. These programs were not incorporated due to the lack of understanding around how they will be implemented and to what extent they will be enforced.

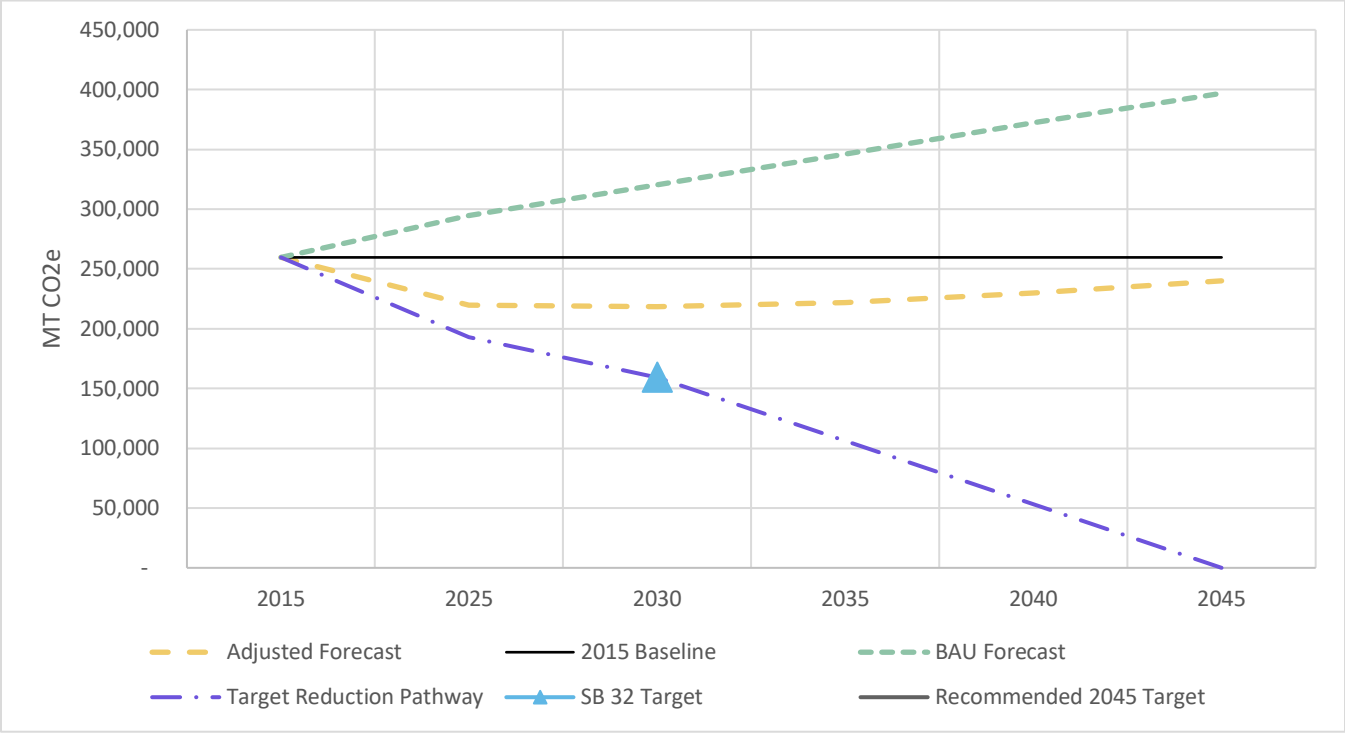
Based on the forecast, state-level legislative reduction programs are expected to reduce GHG emissions in Rohnert Park by 31 percent in 2030, and 39 percent in 2045, primarily through the California RPS. In 2030, transportation emissions are still expected to be the largest contributor to overall emissions (65 percent), followed by building energy (23 percent), waste, off-road transportation, water and wastewater. In 2045, transportation emissions are expected to account for 64 percent of emissions, followed by building energy (22 percent), waste,

off-road transportation, and water and wastewater. By 2045, only natural gas usage will contribute to building energy emissions, due to California RPS.

Climate Action Targets

Climate action targets were developed from the inventory to align with the State's 2030 goal to reduce GHG emissions 40 percent below 1990 levels by 2030 (SB 32), and to zero in 2045 (EO B-55-18). These targets are shown for Rohnert Park, relative to the BAU and adjusted forecast scenarios and 2015 GHG emissions baseline, in Figure CC-6. The target reduction pathway shown in the figure below is representative of a per-capita target reduction so that Rohnert Park can still meet its targets if unexpected changes in population or housing occur in the future.

Figure CC-6: GHG Emissions Forecasts and Climate Action Targets for Rohnert Park



Rohnert Park will work towards the identified target reduction pathway through implementation of the Climate Change Element and the associated actions contained in this General Plan Update. The City is also working in partnership with Sonoma County and RCPA to reduce emissions county-wide. These efforts include a Climate Mobilization Strategy, implemented by Sonoma County, to support a resolution declaring a Climate Emergency that was adopted by RCPA in September of 2019.

Effective GHG Emissions Reduction Methods for Rohnert Park

The most efficient methods of reducing emissions in Rohnert Park are those focusing on emissions reductions for buildings and on-road vehicles. Electrification of buildings (i.e., installation of all-electric equipment in place of natural gas-powered equipment) and vehicles (i.e., putting electricity-powered cars on the road in place of fossil fuel-powered vehicles) is a demonstrated pathway for reducing these emissions. Using electricity rather than fossil fuels to power buildings and vehicles will reduce emissions in Rohnert Park because of the City's participation in Sonoma Clean Power, which procures renewable electricity for Rohnert Park. In addition, the

State's Renewable Portfolio Standard requires all electricity providers, including Sonoma Clean Power, to procure 100% carbon-free electricity by 2045 or earlier, ensuring that anything powered by electricity in 2045 will be operationally carbon-free. Combined with energy efficiency improvements, electrification can reduce building and transportation emissions to near-zero well before 2045. Building electrification is also a central component of the State of California's decarbonization plan.

CC-1 Provide leadership to manage climate change and organize community action. (Source: New Goal)

CC-1.1 Lead by Example
The city shall lead by example by establishing an internal working group comprised of city departments that also works with regional partners to implement climate-related policies to achieve the City's GHG reduction and climate resiliency goals. (Source: New Policy)

CC-1.2 Create a Climate Coalition
Support a community led roundtable dedicated to responding to climate change and identify funding to sponsor its organizing efforts to bring community members in and delegate community engagement responsibilities to. (Source: New Policy)

CC-1.3 Sustainable Business Practices
The City shall encourage green business certification in order to minimize waste generation, create recycling programs that reduce waste, improve energy efficiency and conservation practices (Source: New Policy)

CC-1.4 Evolve with Technological Changes
The City shall evolve with technological changes and adapt City policies and development standards as necessary to reflect changes in the way the community works and lives, including sustainability and mobility. (Source: New Policy)

GHG Emissions Reductions

CC-2 Ensure clean, emissions-free energy to new developments. (Source: New goal)

CC-2.1 All-electric Buildings Ordinance
Adopt a new building ordinance which bans the installation of natural gas in new residential construction. (Source: New Policy)

CC-2.2 Retrofit Requirements
Monitor emerging technologies so that retrofit requirements can be tailored to affordable alternate solutions. (Source: New Policy)

CC-2.3 Electrify Municipal Buildings
Adopt an electrification plan to convert municipal buildings to all-electric by 2045. This plan would include a new building electrification policy as well as an existing building natural gas phase-out policy. (Source: New Policy)

CC-2.4 Streamline Battery Storage Requirements
Work with various City departments to establish and streamline battery storage requirements to allow for easier implementation of these technologies throughout the City. (Source: New Policy)

CC-2.5 Community Organizing
Create a local organizing effort with neighboring communities in Sonoma County to build consensus for electrification programs and policies. (Source: New Policy)

CC-3 Improve community health and sustainability through land use planning to reduce GHG emissions. (Source: New Goal)

CC-3.1 GHG Reduction Priorities for New Development
The City shall prioritize new development that reduces GHG emissions by lowering vehicle miles traveled (VMT); discourages auto-dependence; is compact, mixed-use, pedestrian friendly, and transit oriented; promotes energy-efficient building design and site planning; and improves the jobs/housing balance ratio. (Source: New Policy)

CC-3.2 Community Focal Points
The City shall encourage the development of mixed-use, pedestrian-oriented activity centers that serve as community focal points in Rohnert Park. (Source: Existing GP Policy LU-4, Policy CD-1, Goal CD-A, modified)

CC-3.3 Accessibility to Resources
The City shall maintain and encourage land use patterns that maximize residents' accessibility to parks, open space, and shopping opportunities. (Source: Existing GP Goal LU-H and Policy LU-7, modified)

CC-3.4 Infill Growth
The City shall promote high-quality, compact infill growth that enhances the character of existing neighborhoods, complements the identity of subareas, and improves the bike, pedestrian, and transit orientation. (Source: Existing GP Goal LU-L, modified)

CC-3.5 Neighborhood Park Location and Design
The City shall ensure that neighborhood parks are located and designed for easy pedestrian access. Where possible, neighborhood parks should also be designed to preserve and showcase natural features, connect to trails, and be close to schools and higher-density housing. (Source: Existing GP Policy CD-52, modified)

CC-4 Continue municipal efforts to reduce GHG emissions. (Source: New Goal)

CC-4.1 Sustainable Environmental Practices
The City shall include and implement sustainable environmental practices within City-owned buildings and operation of public facilities. (Source: New Policy)

CC-4.2 Reduced-Emission Equipment Preference

The City shall require contractors to use electric-powered equipment, where available and feasible for City construction projects and contracts for services. (Source: New Policy)

9.3 Buildings and Energy

Energy generation and demand

Energy used in the homes and businesses of Rohnert Park is currently provided primarily by Sonoma Clean Power (SCP). SCP procures energy from a mix of renewable and nonrenewable energy such as large hydroelectric, solar, geothermal, and wind sources. PG&E provides the natural gas used in homes and buildings in the City of Rohnert Park. The most common uses of electricity are for lighting and heating or cooling buildings, for powering appliances such as refrigerators, computers, and washing machines, and for conveying water around the county and into homes or to treatment plants. Natural gas is most typically used for heating buildings and water, in addition to powering industrial and manufacturing processes.

The City of Rohnert Park joined the Sonoma Clean Power program in 2014 to transition away from non-renewable sources of energy for buildings. The energy mix of this provider includes large hydroelectric, wind, solar, geothermal, and general system power, or untraceable power sources. Sonoma Clean Power is a CCA, an energy procurement provider that purchases energy on behalf of the consumers, and that energy is delivered by PG&E transmission infrastructure.

As shown in Figure CC-7 below, most of the energy supplied to the city is carbon-free, with the largest portion coming from large hydroelectric power stations, which is designated carbon-free but does not qualify as a renewable source. Wind energy and geothermal make up the next largest energy sources. Solar is the smallest source of renewable energy. The three percent that comes from CAISO System Power is from unspecified sources of energy generation through open market transactions that are not traceable to specific generation sources and may include a variety of renewable and non-renewable sources.

Renewable energy

The Sonoma Clean Power (SCP) program supplies fifty percent of its power from renewable resources including wind, solar, and geothermal. The primary source of energy is from large hydroelectric power, which is not categorized as renewable due to the variability in production based on the water cycle. Wind energy is twenty-five percent of all the energy that is procured through SCP for Rohnert Park, making it the largest renewable source of energy for the city. Geothermal consists of eighteen percent of overall energy procured and solar makes up the remaining eight percent from renewable sources. The city's energy breakdown can be seen in Figure CC-7 below. Renewable energy will continue to claim an increasingly larger portion of the energy matrix for the City of Rohnert Park as SB 100 requires the state's power grid to completely decarbonize by 2045. This bill sets the standard for all energy in the state to be procured from eligible renewable energy and zero-carbon resources by 2045.

In Figure CC-8, a breakdown of PG&E's power source matrix is illustrated. If a customer of SCP decides to opt out of the program, they will return to the previous default provider, PG&E. Figure CC-8 shows PG&E's power source breakdown with a majority of their energy sourced from a mix of renewables, large hydroelectric, and nuclear power. About 15% of PG&E's electricity comes from natural gas. Which is the only fossil fuel source of energy in their power matrix.

Figure CC-7: Sonoma Clean Power Energy Source Breakdown

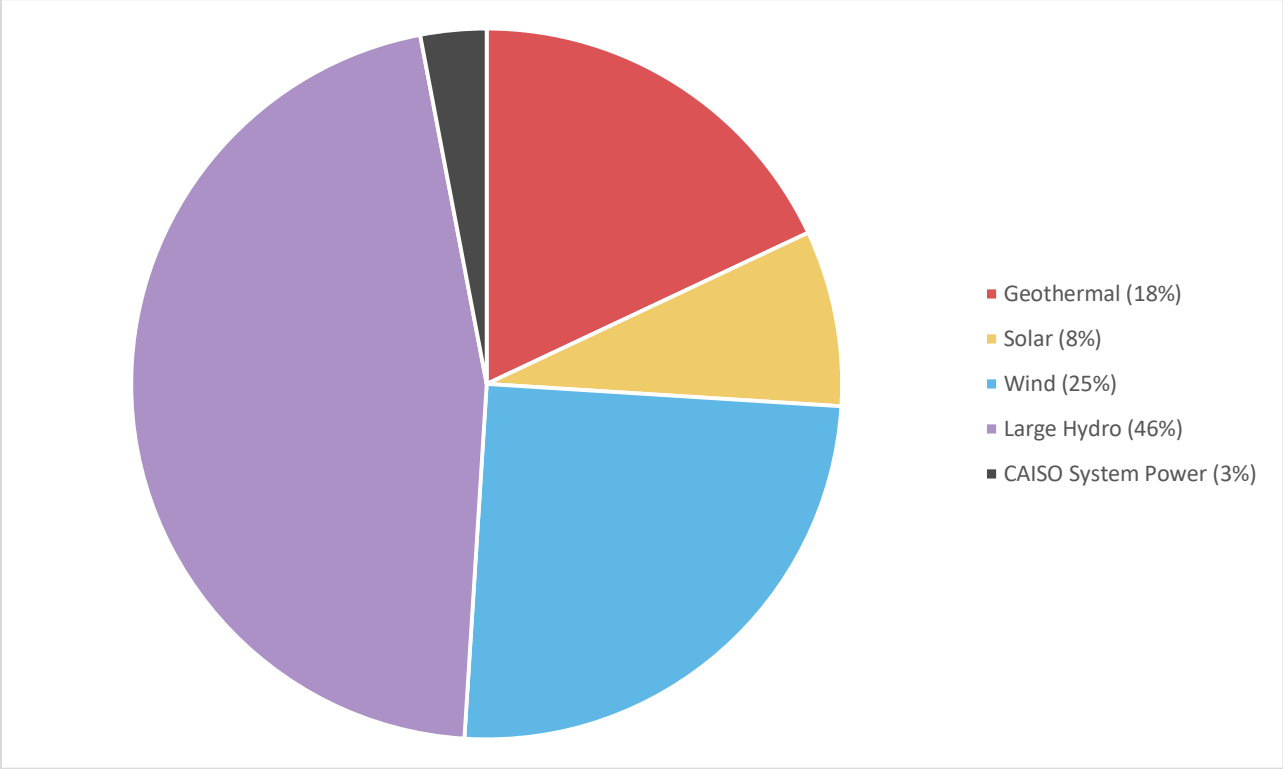


Figure CC-7 shows the energy source breakdown from the City's energy procurement provider Sonoma Clean Power. The figures above may not sum up to 100 percent due to rounding. Source: Sonoma Clean Power.

Figure CC-8: PG&E Energy Source Breakdown

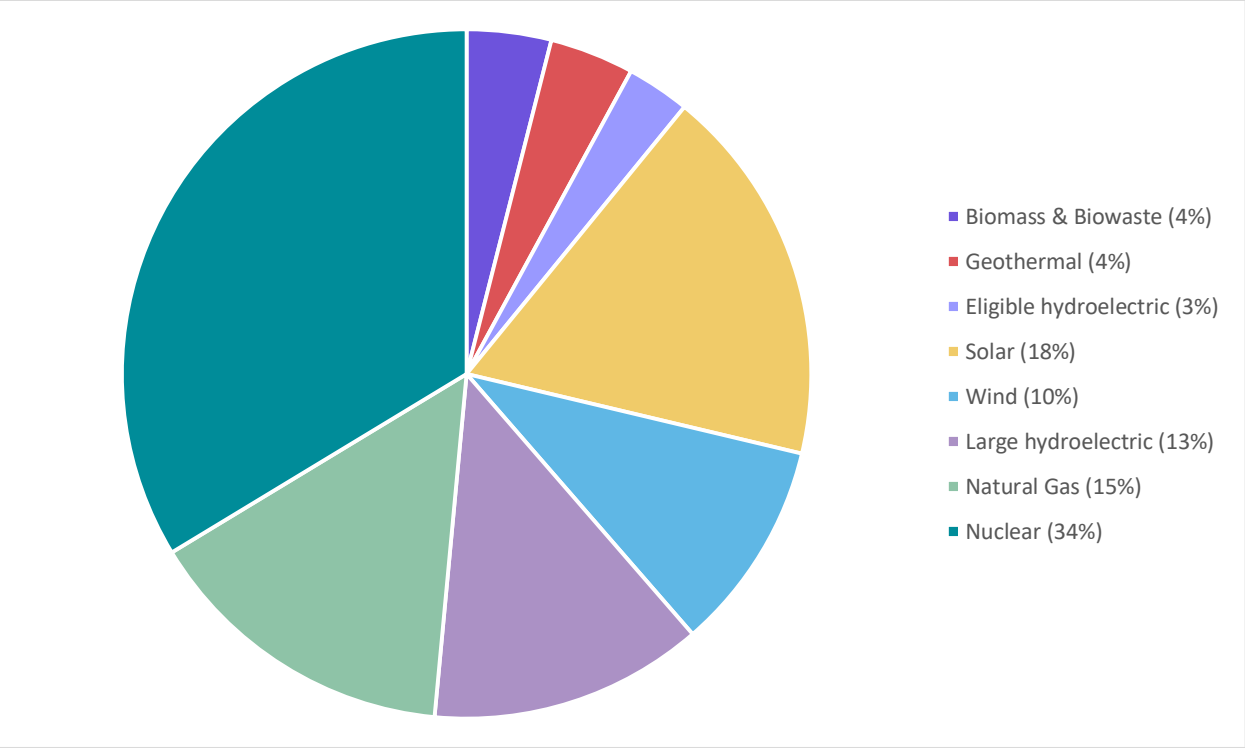


Figure CC-8 shows the energy source breakdown from PG&E and where Rohnert Park's energy previously was sourced. The figures above may not sum up to 100 percent due to rounding. Source: Sonoma Clean Power.

Electrification

The City of Rohnert Park has begun a path towards electrification and decarbonization by joining the SCP. Gaining that nearly carbon-free power mix through SCP makes the transition to a fully carbon-free economy feasible through a shift to electric vehicles and buses, adopting electric appliances, and shifting buildings away from natural gas usage.

SCP is currently (as of May 2021) procuring 97% of its energy from carbon-free sources. Because of this, electric vehicles (EV) charged within Rohnert Park will charge using power that is clean and renewable. Additionally, buildings can be fitted with electric appliances such as induction stoves, electric dryer and washers, and heat pumps for thermoregulation. By achieving full electrification in Rohnert Park, the city can meet the 2045 carbon neutrality goal set by the State, reduce air pollution by promoting EV vehicles and electric appliances, and improve the safety and efficiency in buildings throughout the community.

BUILDINGS AND ENERGY

CC-5 Promote the production of renewable energy.

CC-5.1 Sonoma Clean Power (SCP)
Coordinate with SCP to procure carbon-neutral energy for long-term and short-term supplies, in particular renewable resources. (Source: New Policy)

CC-5.2 Renewable Energy
The City shall promote efforts to increase the use of renewable energy resources such as wind, solar, hydropower, and biomass both in the community and in City operations. (Source: New Policy)

CC-5.3 Municipal Renewable Energy Opportunities
The City shall look for opportunities to use 100% renewable energy in City-owned facilities and promote renewable energy use in new development. (Source: New Policy)

CC-5.4 Solar Electric Systems
Support the maximum economic use of solar electric (photovoltaic) systems on-site with battery storage capabilities to augment the renewable energy portfolio available to new development, businesses, and municipal facilities. (Source: New Policy)

CC-5.5 Design for a Transition in Energy Sources
The City shall encourage developers of all new development to partner with Sonoma Clean Power and include solar power infrastructure, with a focus on energy storage, vehicle charging stations and distributed renewable energy production. (Source: New Policy)

CC-6 Implement and promote electrification and efficiency programs. (Source: New Goal)

CC-6.1 Renewables Battery Storage
Encourage the development of micro-grid/small scale battery storage facilities in Rohnert Park for storing renewable energy for nighttime energy use. (Source: New Policy)

CC-6.2 Electric Appliances
Identify funding and other financial incentives to promote the adoption of electric appliances for rentals, homeowners, and small businesses. (Source: New Policy)

CC-6.3 Energy-Efficient Buildings and Infrastructure
The City shall continue to improve energy efficiency of City buildings and infrastructure through efficiency improvements, equipment upgrades, and installation of clean, renewable energy systems to achieve climate action goals and reduce operating costs. (Source: New Policy)

CC-6.4 Energy-Efficient by Design
The City shall promote site and building design that improves energy efficiency through natural cooling and passive solar heating design, including extended eaves, window overhangs, and

awnings; tree placement for natural cooling; and orientation of buildings and windows to take advantage of passive solar heating. (Source: Existing GP Policy LU-62, modified)

CC-6.5 High Efficiency Outdoor Lighting
The City shall adopt high efficiency outdoor lighting (e.g., LED light bulbs) in new facilities and replace existing less efficient outdoor lighting when opportunities arise. (Source: New Policy)

CC-6.6 Public Outreach
Conduct regular public outreach to facilitate a dialogue with the community about electrification programs available to them and gather input from the community about programs they would like to see. (Source: New Policy)

9.4 Transportation

Transportation related GHG emissions are the highest portion of total emissions produced in Rohnert Park. Taking direct action to address transportation emissions will yield the greatest benefit to reducing GHGs for the city. Actions such as creating new infrastructure for electric vehicles (EV), increasing the share of road space that bikes can have, and creating new standards for development that promote EV and bicycle usage can improve multimodal transportation and EV adoption rates, which will provide direct benefits to air quality, community health and environmental justice, and reduce GHG emissions.

As seen in the GHG Inventory section above, the emissions from the transportation sector alone account for more than half of all emissions in Rohnert Park. SB 100 will require all energy production to come from renewable and carbon free sources by 2045, which will make transitioning to EVs a critical step toward reducing GHG emissions and meeting this goal. This section provides a set of goals and policies that will reduce emissions from the transportation sector and aid the City in meeting the goals set by the State.

Transportation

CC-7 Increase Electric Vehicle (EV) Adoption and Infrastructure. (Source: New Goal)

CC-7.1 Develop an EV Readiness Plan
Develop an EV Readiness Plan that is consistent with Sonoma County EV planning. This plan should establish a path forward to increase EV infrastructure within the City, promote equitable mode shift to EVs, and identify funding for implementation of public charging infrastructure in key locations. (Source: New Policy)

CC-7.2 Preference to Hybrid and Electric Vehicles
The City shall encourage commercial areas and new multifamily developments to provide dedicated parking for hybrid and electric vehicles. (Source: New Policy)

CC-7.3 Electric Vehicle Incentive
Create incentives for electric vehicle adoption by providing EV parking only spots in high traffic convenience locations and public parking EV chargers. Develop a parking space ratio for new developments to have a specified amount of EV only parking with chargers. (Source: New Policy)

CC-7.4 **Increase Public EV Infrastructure**
Require installation of electric vehicle charging stations as a ratio of total required parking for new and redeveloped commercial, multi-family, residential subdivision, and condominium projects. (Source: New Policy)

CC-7.5 **Non-Residential Electric Vehicle Charging Stations**
The City shall require new non-residential development projects to include the installation of electric vehicle charging stations consistent with the State of California Green Building Code (CALGreen). The charging stations should be sited to provide prioritized access to building entrances. (Source: New Policy)

CC-7.6 **Residential Electric Vehicle Charging Stations**
The City shall require new residential development projects to be "electric vehicle charging ready," including the installation of higher-voltage electric systems to serve for the Level 2 charging of electric vehicles consistent with the California Green Building Code. (Source: New Policy)

CC-7.7 **Alternative Fuel for City Vehicle Fleet**
The City shall transition the City municipal vehicle fleet to alternative-fuel vehicles provided that the alternative fuel vehicle can meet the performance standards required for its use. (Source: New Policy)

9.5 Climate Adaptation

The climate is changing more rapidly each year as human activities continue to discharge emissions into the atmosphere, warming the planet and causing shifts in climate patterns. We adapt to climate change by observing and preparing for the worsening of natural events such as precipitation and flooding, average temperature, wildfire acreage burned, drought frequency and severity, and extreme heat events. In a world where no climate adaptation measures are taken and our GHG emissions continue at the same historic rate, we would see dramatic changes to the world's climate. The City of Rohnert Park has its own set of vulnerabilities to this changing climate, making local adaptation measures necessary.

This section illustrates the climate change narrative of several natural hazards that are impacting the city now and how they are forecasted to change in the future under various emissions scenarios. As analyzed in the California 4th Climate Change Assessment, California as a whole could see an increase in average annual maximum daily temperatures of 5.6 to 8.8 degrees if no changes to GHG emissions were made. The Sierra Nevada snowpack could decline by 19% by 2025-2050 and amplify to an 83% decline by 2075-2100 in a state where water supply is highly dependent on snowpack. More intense heat waves with a projection of two to three times more heat-related deaths by mid-century – with a disproportionate impact on vulnerable populations with less resources to adapt to climate extremes – could cause a serious public health threat.

Climate Hazards, Increasing Temperatures

For the City of Rohnert Park, the temperature projections show an increase in the annual average temperatures for the year 2040 (Figure CC-8). The recorded average temperature from 1990 to 2005 was 71.6 degrees and the projected average temperature for 2006 to 2040 is 73.7 degrees. By 2040, there is projected to be an increase of 2.1 degrees for Rohnert Park, and these increasing temperatures also pose additional risks to the community in the form of extreme heat and deepening drought impacts.

Figure CC-8: Observed and Projected Annual Average Maximum Temperatures in the City of Rohnert Park

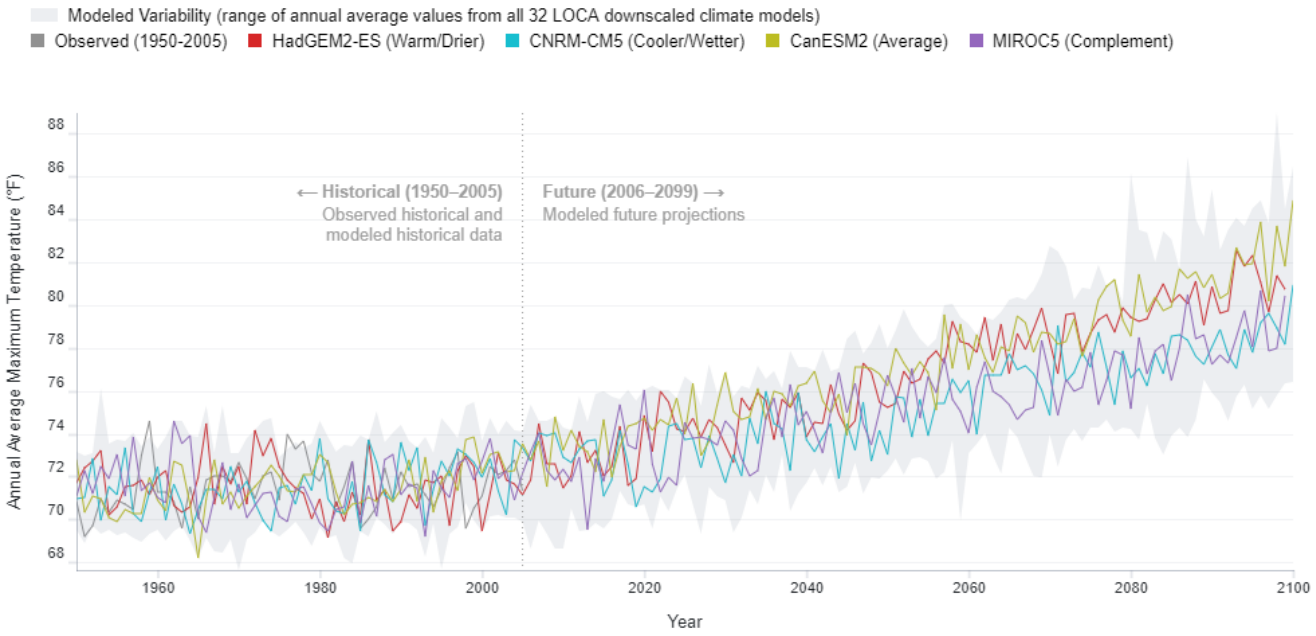


Figure CC-8 shows the historical and future projected annual average maximum temperatures in the City of Rohnert Park using the high emissions scenario (RCP 8.5). The four models shown are considered priority models for research in California and cover a wide range of possible futures. Source: Cal-Adapt.

Extreme Heat Days

The number of extreme heat days per year in Rohnert Park will increase. In Figure CC-9, the observed data from 1990 to 2005 show an average of 3 extreme heat days per year. The forecasted average from 2006 to 2040 is 8 extreme heat days per year. This presents a direct threat to public health likely increasing the number of heat related illnesses like heat stroke and heat exhaustion. As the average temperatures and number of extreme heat days increase, the length and severity of droughts are projected to worsen, as discussed in the next section below.

Figure CC-9: Observed and Projected Extreme Heat Days by Year for the City of Rohnert Park

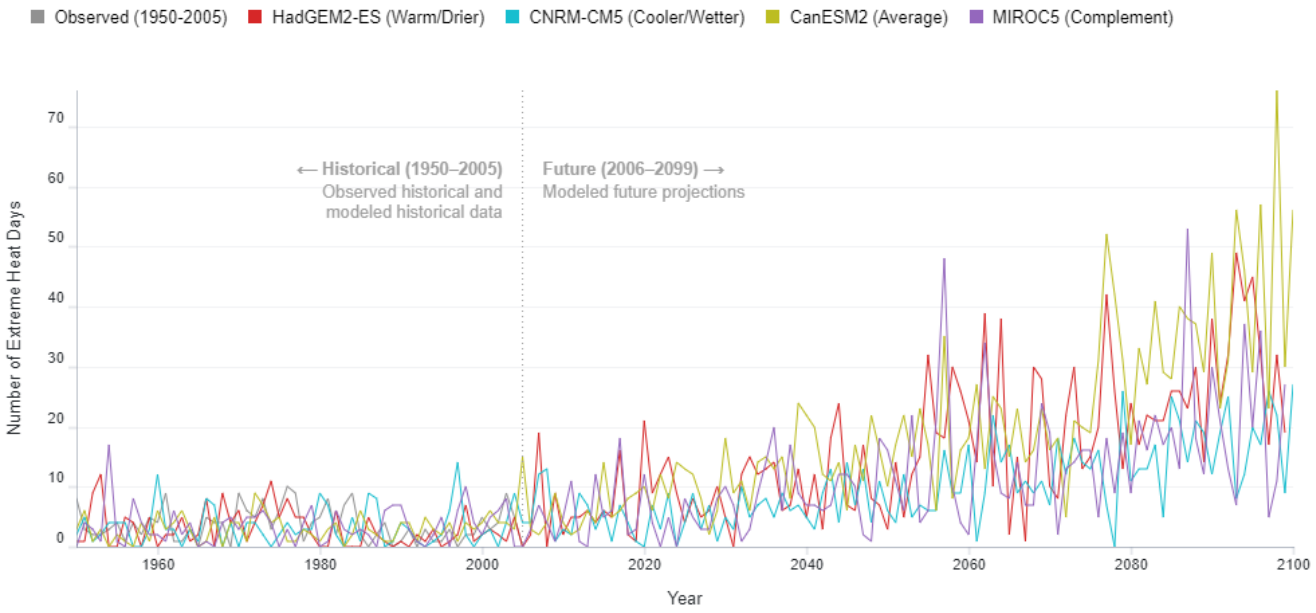


Figure CC-9 shows the historical and future projected extreme heat days by year in the City of Rohnert Park using the high emissions scenario (RCP 8.5). The four models shown are considered priority models for research in California and cover a wide range of possible futures. Source: Cal-Adapt.

Extreme Precipitation Events

Climate change is also expected to increase the severity and frequency of extreme precipitation events in the city. In Figure CC-10, the observed data from 1990 to 2005 show an average of 2 extreme precipitation events per "water year", which occurs from October 1 of a year through September 30 of the following year. The projections for 2006 to 2040 average are predicted to be 3 extreme precipitation events per water year. However, in the future there will be more variability in extreme precipitation events, with some years having many extreme precipitation events and other years having much fewer, likely mirroring drought extremities.

Figure CC-10: Extreme Precipitation Events by Water Year for the City of Rohnert Park

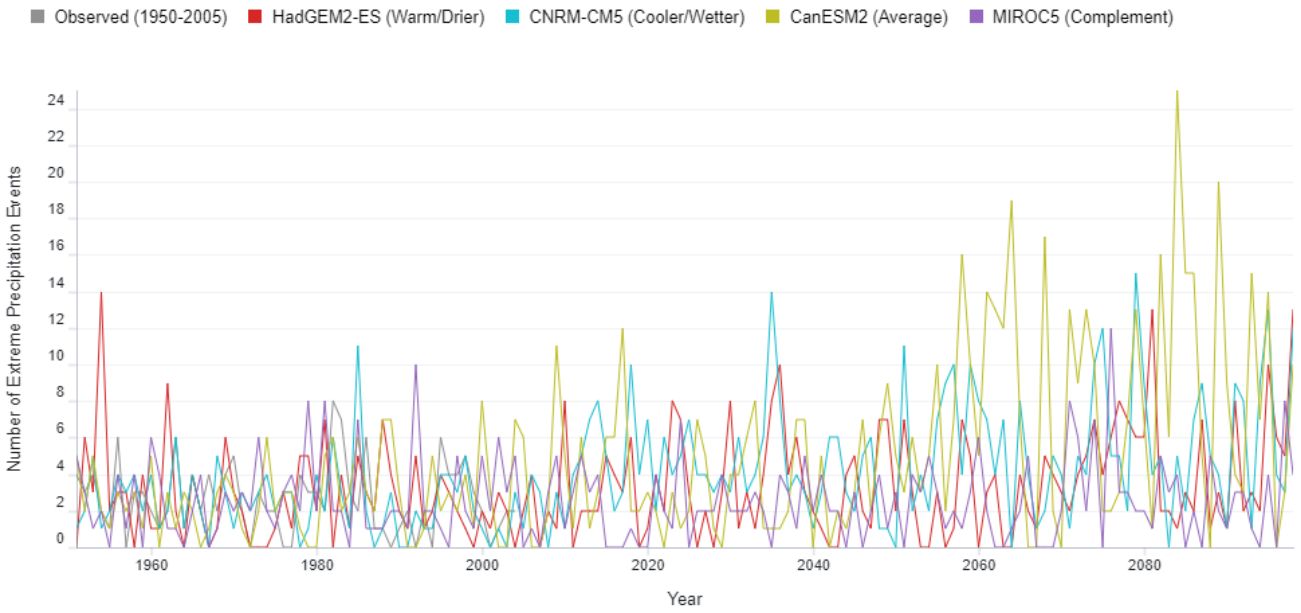


Figure CC-10 shows the historical and future projected extreme precipitation events by water year in the City of Rohnert Park using the high emissions scenario (RCP 8.5). The four models shown are considered priority models for research in California and cover a wide range of possible futures. Source: Cal-Adapt.

Droughts are often regional, and their impacts vary by location. If there is a statewide drought the impacts would be felt everywhere in the state. Rohnert Park is projected to receive less overall rainfall in the 2023 to 2042 scenario. While extreme precipitation events are expected to become worse, the overall rainfall average is projected to be less than in the past. This means that precipitation will become more variable, with more intense downpours but less overall precipitation, which will worsen drought conditions.

Flooding Risk

As seen in Figure CC-11 below, the flood risk areas are primarily in the eastern, western, and southern portions of the City. This figure illustrates the flooding potential for areas of the city, where flooding may become more frequent due to more extreme precipitation events. Table CC-4 below lists critical facilities that are vulnerable to flood hazards enhanced by climate change, and several miles of roadways are also at risk to flooding. Mobile home parks in Rohnert Park are at an adverse risk to extreme precipitation events with Rancho Verde, Rancho Grande, Rancho Feliz, and Valley Village as medium to very high risk for flooding events. Vulnerability to floods disproportionately poses a risk to the mobile home communities of Rohnert Park.

Figure CC-11: City of Rohnert Park Flood Map

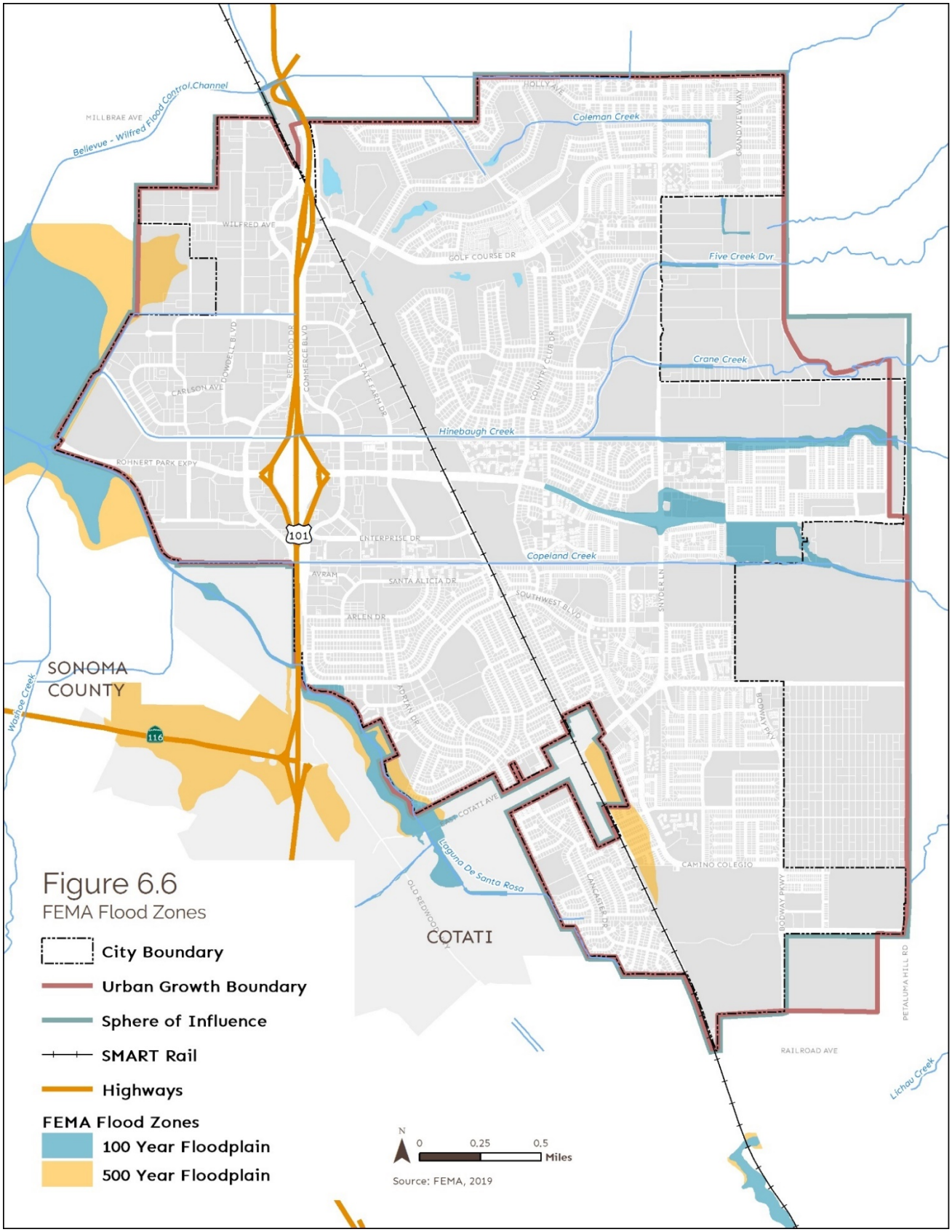


Figure CC-12: Projected Extended Drought Period in the City of Rohnert Park (2023-2042)

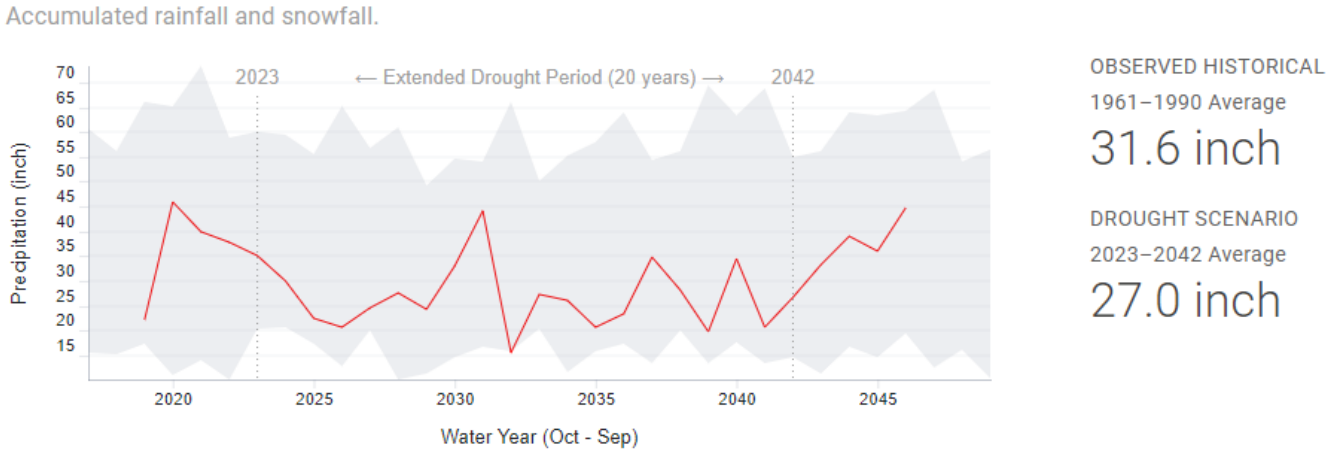


Figure CC-12 shows the projected extended drought period from 2023 to 2042 in the City of Rohnert Park. Source: Cal-Adapt.

Increasing Wildfire Risks and Impacts

The impacts of wildfires in Rohnert Park and the broader region is becoming an annual hazard. This includes not only fire directly threatening the city itself, but also the impacts from a nearby wildfire or unhealthy periods of air pollution from smoke originating from a wildfire outside the city or region. Many Rohnert Park residents have experienced days of smoke pollution that have blocked out the sun and hindered breathing, especially for those with health concerns. According to Rohnert Park's Local Hazard Mitigation Plan (LHMP), fires have historically burned within the wildland urban interface (WUI) east of the city outside Sonoma State University and south toward Petaluma. In October 2017, the Sonoma Complex Fires burned north, east, and south of the city for nearly three weeks, with the Tubbs and Nuns Fires burning closest to Rohnert Park and destroying a combined 6,991 structures and 93,363 acres of land. Wildfire risk is apparent and as the city expands more into the wildland-urban interface (WUI) the risk of wildfires will increase. As the average temperatures of the City are expected to rise as a result of climate change, the additional heat will dry vegetation and lower the water content of the soil. This will increase the risk of wildfires starting and increase their fuel burning potential.

These recent fires and the growing risk across the state have highlighted the significant wildfire risks that exist within the wildland urban interface on both the east and west sides of Rohnert Park. These risks are amplified by the on-going challenges with Tan Oaks falling victim to Sudden Oak Death Syndrome, which provide dry wood as fuel for wildfires when the Tan Oaks succumb to the disease. As climate change increases the average annual temperature, length and frequency of droughts, and the variability in climate patterns between wet and dry conditions, changes to the fire risks will occur in two different ways: by altering vegetation growth rates (e.g., fuel accumulation), or through changes in fire season length and severity.

The Cal Adapt climate tool for modeling wildfire area burned in Rohnert Park shows the city may experience, on average, 3.9 acres of burned land area over the course of each year out to the end of the century. This will vary year-by-year, but the greatest ongoing impact from wildfires for Rohnert Park is the public health risks involved with smoke pollution from regional or statewide fires during the wildfire season. Smoke pollution will have adverse impacts on children, older adults, and those with chronic health issues such as asthma and heart and lung disease. Even though Rohnert Park may not be at as great a risk for a wildfire to burn in the city as its neighbors to the north, the impacts of nearby or regional fires with poor air quality poses a substantial risk to public health.

Vulnerabilities for Rohnert Park

According to the City of Rohnert Park Local Hazard Mitigation Plan there are numerous critical facilities that are vulnerable to climate hazard risk. These include medical facilities, schools, mobile home parks, pump facilities, water tanks, community facilities, and senior centers. The most frequent and highest vulnerability identified in the LHMP is fire and flood risk, as seen in Table CC-4 below. Areas and facilities prone to flooding are predicted to experience greater risk from this hazard as climate change impacts intensify, as seen in the Cal-Adapt charts above. Extreme precipitation events increasing in frequency and intensity will translate into more frequent and hazardous flooding scenarios for these critical facilities and neighborhoods.

Table CC-4 List of Facilities at Risk to Flood and Wildfire Hazards

Facility	Address	Facility Type	Flood	WUI-Fire
City Hall	130 Avram Avenue	Government Center	High	
Senior Center	6800 Hunter Drive	Community	Medium	
Community Center	5401 Snyder Lane	Community	Medium	
Spreckels Performing Arts Center	5409 Snyder Lane	Community	Medium	
Pump Facility	201 J Rogers Lane	Public Works	Medium	
Enterprise Avenue Landscaping	Enterprise Avenue	Public Works	Medium	
Water Tanks	Various Locations	Public Works		Medium
Sutter Pacific	1400 Medical Center Drive	Medical	Medium	
Urgent Care Center	1450 Medical Center Drive	Medical	Medium	
Lawrence E. Jones Middle School	5154 Snyder Lane	School	Medium	Medium
Sonoma State University	1801 East Cotati Avenue	University		Medium
Credo High School	1300 Valley House Drive	School		Medium
Rancho Verde	650 Rohnert Park Expressway	Mobile Home Park	Very High	
Rancho Grande	5099 Snyder Lane	Mobile Home Park	Medium	Medium
Rancho Feliz	6607 Redwood Drive	Mobile Home Park	Medium	Medium
Valley Village	6401 Country Club Drive	Mobile Home Park	High	

Source: City of Rohnert Park Local Hazard Mitigation Plan (LHMP).

Resilient Development

Adapting to changes in the climate can be achieved through transforming the way buildings and communities are designed. Resilient communities are ones that can respond and adapt to changes and protect against vulnerabilities such as extreme heat, precipitation events, drought, and wildfires. Rohnert Park has a number of vulnerabilities that need to be addressed as climate change increases risks. Resilient development is the intentional design of buildings and infrastructure to respond to and address those vulnerabilities.

Local government has a fundamental role to play in creating a more resilient community. Local municipalities can implement an urban forest master plan to adapt to extreme heat days, require all new buildings to be all-electric to improve safety during fires, and focus on water conservation efforts. Critical facilities in the public sector such as emergency response operations can have on-site renewable energy and storage to be resilient to power outages

during extreme weather events. Resilient development can also come in the form of natural solutions, planting street trees to mitigate the urban heat island effect and implementing new buildings standards to incentivize passive heating and cooling strategies. This section lays out strategies that the city can take to increase the resiliency of the Rohnert Park and mitigate the impacts of future hazards related to a changing climate.

Climate Adaptation

CC-8 Promote the reduction of water use through innovative methods and technologies. (Source: New Goal)

CC-8.1 Sustainable Development Practices
Promote sustainable development practices that result in more energy and water efficient development. (Source: Existing GP Policy CD-61, modified)

CC-8.2 Water Conservation Education and Incentives
The City shall work with Sonoma Marin Water Saving Partnership to expand outreach programs and incentivize water conservation throughout Rohnert Park.

CC-8.3 Alternative Water Supplies
The City shall require the use of alternative water supplies, such as recycled water, for urban irrigation and landscaping in municipal buildings and new, private commercial and industrial development, where possible and feasible. (Source: New Policy)

CC-8.4 Water Efficiency Measures in New Construction
The City shall require water efficiency measures in all new construction in compliance with or exceeding State and City building code requirements. (Source: Existing GP Policy PF-15, PF-16 modified)

CC-8.5 Water Efficiency in Existing Buildings
The City shall encourage renovation of existing buildings to achieve higher levels of water efficiency beyond what is required in the City's building code. (Source: New Policy)

CC-8.6 Best Water Conservation Practices
The City shall encourage industrial and commercial businesses and City facilities to use best practices in water conservation. (Source: Existing Policy PF-23, modified)

CC-9 Identify and prepare the City for climate change impacts.

CC-9.1 Climate-Resilient Public Facilities
The City shall promote sustainable and resilient planning, design, construction, renovation, and maintenance of public facilities. (Source: New Policy)

CC-9.2 Sustainable Building Materials
The City shall support the use of sustainable building materials, including recycled-content materials that are consistent with the style and character of buildings, and integrate more advanced optional provisions of the CALGreen building energy code into Rohnert Park development standards. (Source: Existing GP Policy LU-63, modified)

CC-9.3 Urban Forest Master Plan
Create an Urban Forest Master Plan to identify areas in need of more tree coverage. (Source: New Policy)

CC-9.4 Tree Planting Program
The City shall establish a tree maintenance and planting program for all new and existing street trees. (Source: Existing GP Policy EC-9, modified)

CC-9.5 Native Tree Planting
The City shall encourage residents and businesses to plant and maintain native tree species on their properties. (Source: New Policy)

CC-9.6 Preserve Open Space and Natural Features
Ensure that the existing open spaces, parks and creeks are preserved and maintained to reinforce the relationship between Rohnert Park and its natural setting. (Source: Existing GP Policy CD-C, modified)

CC-9.7 Landscaping Vegetation
The City shall require new development, parks, public areas, and open space to use landscaping vegetation that is drought-tolerant and fire-resistant, unless alternative vegetation is approved by the City. Native plant species should be used in public areas and in open space corridors along creeks to the extent feasible. (Source: Existing GP Policies LU-60, EC-7, modified)

CC-9.8 Flooding Adaptation Plan
Adopt a Flooding Adaptation Plan that prepares for climate exacerbated impacts to flooding events from heavy precipitation and sea level rise.

CC-10 Enhance the adaptive capacity of man-made and natural systems to mitigate climate change risks. (Source: New Goal)

CC-10.1 Critical Facilities
Ensure future critical facilities are not located in areas at risk of being impacted by climate change related hazards. (Source: New Policy)

CC-10.2 Restoration Partnerships
The City shall work with private, non-profit, and public groups to secure funding for potential restoration projects in the region. (Source: Existing GP Policy EC-6, modified)

CC-10.3 Large Landscape Conservation Programs
The City shall implement appropriate large landscape conservation programs during any temporary water delivery impairment. (Source: Existing GP Policy PF-24, modified)

CC-11 Goal: Promote a high standard of air quality in order to protect public health, safety, and welfare, and mitigate any adverse air quality impacts. (Source: New Goal)

CC-11.1 Clean Air Plan Implementation

The City shall cooperate with BAAQMD to implement the Clean Air Plan, enforce air quality standards, and achieve emissions reductions for nonattainment pollutants, including ozone, PM_{10}, and $PM_{2.5}$ by implementation of air pollution control measures as required by State and federal statutes. (Source: New Policy)

CC-11.2 Vehicle Idling

The City shall limit idling of all commercial vehicles to three minutes within a period not to exceed 30 minutes, except as necessary for the loading or unloading of cargo. (Source: Sonoma County Regional Climate Action Plan, Climate Action 2020 and Beyond, Measure 8-L1: Idling Ordinance)

CC-11.3 Minimum Exposure

The City shall require construction and operation of new development to mitigate any potential significant air quality impacts to ensure that proximate sensitive receptors (i.e., residences, schools, senior facilities) are not exposed to significant levels of criteria air pollutants or toxic air contaminants. (Source: New Policy)

CC-11.4 Health Risk Assessments for Sensitive Receptors

The City shall require new development within 500 feet of freeways and roadways with over 100,000 vehicle trips per day that include residential uses or other sensitive receptors prepare a health risk assessment (HRA) to identify potential health risk impacts. Based on the results of the HRA, the City shall require mitigation measures as necessary, to reduce potential exposure to toxic air contaminants. (Source: Existing GP Policy EC-23, modified)

9.6 Implementation Programs

Programs		Implements Which Policy(ies)	Responsible / Supporting Department(s)	2021 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
Energy and Buildings								
A	Conduct a feasibility study for small-scale wind energy production in Rohnert Park by 2023.	CC-2, CC-5, CC-5.1, CC-5.2, CC-5.3, CC-6, CC-9	Public Works/ Development Services	■				
B	Decarbonize electricity prior to 2025 to reduce electricity emissions 100% by 2030 through negotiations with the SCP coalition.	CC-2, CC-5, CC-5.1, CC-5.2, CC-5.3, CC-5.4, CC-5.5, CC-6, CC-9	Public Works/ Development Services		■			
C	Create an outreach program during the planning process for implementing new electrification measures for the city.	CC-1, CC-1.1, CC-1.2, CC-1.3, CC-2.5, CC-5.1, CC-5.5, CC-6, CC-6.6, CC-6.7	Public Works/ Development Services	■				
D	Coordinate with SCP and other local programs to create incentives for retrofitting for electric appliances in existing buildings by 2022.	CC-2.1, CC-2.2, CC-5.1, CC-5.5, CC-6, CC-6.2, CC-6.3	Public Works/ Development Services	■				
E	Partner with SCP to increase generation and storage of local renewable energy by taking advantage of federal and State grant programs.	CC-2, CC-2.4, CC-2.5, CC-5, CC-5.1, CC-5.2, CC-5.3, CC-5.4, CC-5.5, CC-6, CC-6.1	Public Works/ Development Services			■		
F	Review approval process for micro-grid energy storage facilities and other on-site battery storage options to ensure a streamlined approval process for preferred methods of battery storage in Rohnert Park.	CC-6, CC-6.1, CC-6.3	Public Works/ Development Services	■				
G	Identify rebates and funding opportunities for residential battery storage capabilities and notify residents and businesses of opportunities through existing communication channels.	CC-6, CC-6.1, CC-6.7	Public Works/ Development Services	■				
H	Adopt a new building ordinance which bans the installation of natural gas in new residential construction by 2023 and in new commercial construction by 2024. The	CC-2.1, CC-2.3, CC-6, CC-6.3	Building Division	■				

Programs		Implements Which Policy(ies)	Responsible / Supporting Department(s)	2021 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
	ordinance will only apply for building types where electrification is shown to be cost-effective.							
I	Create building guidelines or incentives for new buildings to utilize passive heating and cooling strategies.	CC-1.3, CC-3.1, CC-6, CC-6.3, CC-6.4, CC-6.5, CC-6.6, CC-9	Building Division	■				
J	Require on-site renewable energy and battery storage for critical public facilities and large residential and commercial buildings.	CC-2, CC-2.1, CC-2.4, CC-6, CC-6.1, CC-9.1	Public Works/ Building Division	■				
K	Request that developers salvage local plant materials, to the greatest extent possible, for integration into project landscaping as a way to provide or enhance wildlife habitat. Incorporation of these vegetation materials shall be integrated into project landscape plans and shall be submitted to the City for approval.	CC-1.3, CC-3.1, CC-9.2, CC-9.7	Planning Division					■
Transportation								
L	Identify and implement incentives for sustainable infill development, prioritizing mixed-use, that will reduce VMT.	CC-3.1, CC-3.2, CC-3.4, CC-11.2	Planning Division					■
M	Coordinate with surrounding jurisdictions to improve active transportation connections to regional transit services, parks, and open spaces by 2030.	CC-3.2, CC-3.3, CC-3.5, CC-9.6	Development Services/ Public Works		■			
N	Improve shared mobility, transit programs, and infrastructure to reduce passenger VMT by two percent by 2030, and four percent by 2045.	CC-3.2, CC-3.3, CC-11.2	Development Services/ Public Works			■		
O	Conduct a community EV Feasibility Study to assess infrastructure needs and challenges, particularly in disadvantaged communities.	CC-1.4, CC-7, CC-7.3, CC-7.6, CC-9	Development Services/ Public Works	■				
P	As new municipal vehicles are purchased, the City shall phase out the use of gasoline vehicles in favor of the use of compressed natural gas and electric powered vehicles, as well as other alternative and/or renewable energy sources to the extent cost-effective and where the vehicle meets the requirements for its use.	CC-1.4, CC-7, CC-7.2, CC-7.4, CC-7.7	Planning Division					■
Q	The City shall coordinate with the Regional Climate Protection Authority to develop a framework for the consistent adoption of electric vehicle technologies in the City. The framework will outline strategies for new	CC-7, CC-7.1, CC-7.5, CC-7.6	Development Services and Public Works	■				

Programs		Implements Which Policy(ies)	Responsible / Supporting Department(s)	2021 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
	residential uses, new non-residential uses, and the retrofit of existing uses.							
R	The City shall develop a mobility hubs program for the City, identifying locations where different modes of travel and mobility services could interact with locations of employment, housing, shopping, recreation and/or areas of underused surface parking, and funneling activation efforts to these hubs.	CC-3.1, CC-3.2, CC-3.3, CC-7, CC-7.1, CC-7.4	Development Services	■				
Carbon Sequestration								
A	Maximize local carbon sequestration by increasing urban canopy cover by at least 12% by 2035, preserving existing open spaces, and explore carbon farming projects.	CC-3, CC-9, CC-9.3, CC-9.4, CC-9.5, CC-9.6, CC-10, CC-10.2, CC-10.3, CC-11, CC-11.3	Regional Partnerships			■		
B	Explore climate restoration partnerships and investment strategies to remove GHG emissions from the atmosphere.	CC-3.1, CC-3.5, CC-9, CC-9.3, CC-9.7, CC-10, CC-10.2	Regional Partnerships	■				
C	Utilize public lands and spaces to increase local carbon sequestration, reduce urban heat island effect, and improve air quality.	CC-3, CC-3.5, CC-9, CC-9.3, CC-9.4, CC-9.5, CC-9.6, CC-9.7, CC-10, CC-11, CC-11.3	Regional Partnerships					■
Waste								
A	Update waste hauler contracts to implement the requirements of SB 1383 and achieve 75% reduction in organic waste disposal by 2025 by including composting in multi-family housing and commercial centers.	CC-1.3	Waste Hauler/Public Works	■				
B	Establish and implement edible food recovery programs by 2023 to improve efficiency of edible food generators, food recovery services, and food recovery organizations comply with requirements to increase recovery rates.	CC-1.3	Waste Hauler/Public Works	■				
C	Implement an ordinance by 2022 requiring residential and commercial organic generators to subscribe to organics collection programs or alternatively report organics self-hauling and/or backhauling.	CC-1.3	Waste Hauler/Public Works	■				
Water and Wastewater								

Programs		Implements Which Policy(ies)	Responsible / Supporting Department(s)	2021 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
A	Implement and enforce water conservation efforts throughout Rohnert Park.	CC-1.3, CC-8, CC-8.1, CC-8.2, CC-8.3, CC-8.4, CC-8.7, CC-9	Public Works					■
B	Partner with local groups to help inform the community about what they can do to reduce their water usage and what to expect during peak drought years.	CC-1.3, CC-8, CC-8.2, CC-8.3, CC-8.7	Public Works					■
C	The City shall adopt and update every five years a comprehensive water conservation program to encourage efficient water use by City employees and other users of City facilities. Measures could include, but are not limited to: • Leak detection and repair • Water-efficient landscaping • Automatic turn-off fixtures • Recycled water • Flow restrictors on hoses and faucets • Water meter connections and billing by volume • Dedicated landscape meters	CC-8, CC-8.1, CC-8.2, CC-8.4, CC-8.5, CC-8.6, CC-8.7	Public Works	■	■	■	■	■
D	The City shall develop a guide for developers and businesses to use when determining appropriate water efficiency measures and strategies to incorporate into new development and business operations, including but not limited to: low-flush toilets, low-flow showers, and low-flow faucets.	CC-8, CC-8.1, CC-8.4, CC-8.5, CC-8.6, CC-8.7	Public Works	■	■	■	■	■
Adaptation								
A	The City shall prepare and update every five years an Urban Forest Master Plan. The Plan should include the types of trees appropriate to Rohnert Park's natural environment and identify locations that would most benefit from tree plantings.	CC-9, CC-9.3, CC-9.4, CC-9.5, CC-10	Planning Division		■	■		
B	Establish a "Green Team" consisting of staff from city departments, community and regional partners to implement policy goals and measures related to climate action.	CC-1, CC-1.1, CC-1.2, CC-2.5, CC-9	Planning Division, Public Works					■
C	Comply with BAAQMD's non-attainment standards and implement required pollution control measures by State and Federal statutes.	C-11, CC-11.1, CC-11.4	Public Works					■
D	Upgrade public critical facilities such as libraries and community centers to incorporate resiliency and preparedness to extreme heat events and poor air quality,	CC-1.4, CC-4, CC-4.1, CC-4.2, CC-9,	Public Works					■

Programs		Implements Which Policy(ies)	Responsible / Supporting Department(s)	2021 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
	prioritizing the protection of public health for vulnerable populations.	CC-9.1, CC-10, CC-10.1						
E	The City shall update the citywide GHG emissions inventory every five years.	CC-3.1, CC-4, CC-9	Planning Division	■	■	■	■	
F	Every two years, review and if necessary, update the development standards in the City's zoning ordinance to ensure they reflect current best practices for resilient development.	CC-3.1, CC-3.4, CC-3.5, CC-4, CC-9	Planning Division					■

Appendix 6 – City and Regional Alliance SBx7-7 Tables

WUEdata Entry Exceptions

The data from the tables below will not be entered into WUEdata tables (the tabs for these tables' worksheets are colored **purple**). These tables will be submitted as separate uploads, in Excel, to WUEdata.

Process Water Deduction

SB X7-7 tables 4-C, 4-C.1, 4-C.2, 4-C.3, 4-C.4 and 4-D A supplier that will use the process water deduction will complete the appropriate tables in Excel, submit them as a separate upload to the WUE data tool, and include them in its UWMP.

Target Method 2

SB X7-7 tables 7-B, 7-C, and 7-D

A supplier that selects Target Method 2 will contact DWR (gwen.huff@water.ca.gov) for SB X7-7 tables 7-B, 7-C, and 7-D.

Target Method 4

These tables are only available online at http://www.dwr.water.ca.gov/wateruseefficiency/sb7/committees/urban/u4/ptm4.cfm A supplier that selects Target Method 4 will save the tables from the website listed above, complete the tables, submit as a separate upload to WUE data, and include them with its UWMP.

SB X7-7 Table 0: Units of Measure Used in UWMP* *(select one from the drop down list)*
Acre Feet
**The unit of measure must be consistent with Table 2-3*
NOTES:

SB X7-7 Table-1: Baseline Period Ranges			
Baseline	**Parameter**	**Value**	**Units**
10- to 15-year baseline period	2008 total water deliveries	5,733	Acre Feet
	2008 total volume of delivered recycled water	1,113	Acre Feet
	2008 recycled water as a percent of total deliveries	19.41%	Percent
	Number of years in baseline period[1]	13	Years
	Year beginning baseline period range	1992	
	Year ending baseline period range[2]	2004	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2003	
	Year ending baseline period range[3]	2007	

[1] *If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period.*

[2] *The ending year must be between December 31, 2004 and December 31, 2010.*

[3] *The ending year must be between December 31, 2007 and December 31, 2010.*

NOTES:

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population (may check more than one)	
☑	**1. Department of Finance** (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
☐	**2. Persons-per-Connection Method**
☐	**3. DWR Population Tool**
☐	**4. Other** DWR recommends pre-review
NOTES:	

SB X7-7 Table 3: Service Area Population		
Year		**Population**
10 to 15 Year Baseline Population		
Year 1	1992	38,766
Year 2	1993	39,128
Year 3	1994	39,056
Year 4	1995	39,843
Year 5	1996	40,495
Year 6	1997	41,314
Year 7	1998	42,025
Year 8	1999	42,209
Year 9	2000	42,046
Year 10	2001	41,710
Year 11	*2002*	41,687
Year 12	*2003*	41,284
Year 13	*2004*	40,985
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	2003	41,284
Year 2	2004	40,985
Year 3	2005	41,290
Year 4	2006	40,997
Year 5	2007	41,000
2015 Compliance Year Population		
2015		41,675
NOTES: Census data for 1/1 is used as the population on 12/31 of the prior year		

12/31/92 = 1/1/93 DOF Data

SB X7-7 Table 4: Annual Gross Water Use *

	Baseline Year *Fm SB X7-7 Table 3*	Volume Into Distribution System *Fm SB X7-7 Table(s) 4-A*	Deductions					Annual Gross Water Use
			Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water *Fm SB X7-7 Table 4-B*	Water Delivered for Agricultural Use	Process Water *Fm SB X7-7 Table(s) 4-D*	
10 to 15 Year Baseline - Gross Water Use								
Year 1	1992	6975.957	0	0	0	0	0	6,976
Year 2	1993	7040.858	0	0	0	0	0	7,041
Year 3	1994	7510.651	0	0	0	0	0	7,511
Year 4	1995	7858.063	0	0	0	0	0	7,858
Year 5	1996	7927.102	0	0	0	0	0	7,927
Year 6	1997	8094.774	0	0	0	0	0	8,095
Year 7	1998	7299.066	0	0	0	0	0	7,299
Year 8	1999	7694.626	0	0	0	0	0	7,695
Year 9	2000	7332.113	0	0	0	0	0	7,332
Year 10	2001	7459.38	0	0	0	0	0	7,459
Year 11	2002	7141.948	0	0	0	0	0	7,142
Year 12	2003	6711.378	0	0	0	0	0	6,711
Year 13	2004	6632.265	0	0	0	0	0	6,632
Year 14	0	0	0	0	0	0	0	0
Year 15	0	0	0	0	0	0	0	0
10 - 15 year baseline average gross water use								**6,379**
5 Year Baseline - Gross Water Use								
Year 1	2003	6,711	0	0	0	0	0	6,711
Year 2	2004	6,632	0	0	0	0	0	6,632
Year 3	2005	5,772	0	0	0	0	0	5,772
Year 4	2006	5,512	0	0	0	0	0	5,512
Year 5	2007	5,187	0	0	0	0	0	5,187
5 year baseline average gross water use								**5,963**
2015 Compliance Year - Gross Water Use								
2015		4,228			0		0	4,228

* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3

NOTES:

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)

Complete one table for each source.

Name of Source	Sonoma County Water Agency
This water source is:	
☐	The supplier's own water source
☑	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System	
10 to 15 Year Baseline - Water into Distribution System					
Year 1	1992	2420.345		2,420	Year ending 12/31/92
Year 2	1993	2092.014		2,092	
Year 3	1994	2636.630		2,637	
Year 4	1995	2512.318		2,512	
Year 5	1996	2555.052		2,555	
Year 6	1997	2752.340		2,752	
Year 7	1998	2934.600		2,935	
Year 8	1999	3006.658		3,007	
Year 9	2000	2716.065		2,716	
Year 10	2001	2978.600		2,979	
Year 11	2002	2869.700		2,870	
Year 12	2003	3193.600		3,194	
Year 13	2004	5103.300		5,103	
Year 14	0			0	
Year 15	0			0	
5 Year Baseline - Water into Distribution System					
Year 1	2003	3193.600		3,194	
Year 2	2004	5103.300		5,103	
Year 3	2005	4966.900		4,967	
Year 4	2006	5163.300		5,163	
Year 5	2007	4253.900		4,254	
2015 Compliance Year - Water into Distribution System					
2015		2773.52		2,774	

** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES:

SB X7-7 Table 4-A: Volume Entering the Distribution

Name of Source	Local Groundwater
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1992	4555.612		4,556
Year 2	1993	4948.844		4,949
Year 3	1994	4874.021		4,874
Year 4	1995	5345.745		5,346
Year 5	1996	5372.05		5,372
Year 6	1997	5342.434		5,342
Year 7	1998	4364.466		4,364
Year 8	1999	4687.968		4,688
Year 9	2000	4616.048		4,616
Year 10	2001	4480.78		4,481
Year 11	2002	4272.248		4,272
Year 12	2003	3517.778		3,518

Year 13	2004	1528.965		1,529
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003	3517.778		3,518
Year 2	2004	1528.965		1,529
Year 3	2005	805.083		805
Year 4	2006	349.178		349
Year 5	2007	933.476		933
2015 Compliance Year - Water into Distribution System				
2015		1,455		1,455
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				
NOTES:				

SB X7-7 Table 4-A: Volume Entering the Distribution				
Name of Source	Source 3			
This water source is:				
☐	The supplier's own water source			
☐	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1992			0
Year 2	1993			0
Year 3	1994			0
Year 4	1995			0
Year 5	1996			0
Year 6	1997			0
Year 7	1998			0
Year 8	1999			0
Year 9	2000			0
Year 10	2001			0
Year 11	2002			0
Year 12	2003			0
Year 13	2004			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003			0
Year 2	2004			0
Year 3	2005			0
Year 4	2006			0
Year 5	2007			0
2015 Compliance Year - Water into Distribution System				
2015				0
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				
NOTES:				

SB X7-7 Table 4-A: Volume Entering the Distribution				
Name of Source	Source 4			
This water source is:				
☐	The supplier's own water source			
☐	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				

Year 1	1992			0
Year 2	1993			0
Year 3	1994			0
Year 4	1995			0
Year 5	1996			0
Year 6	1997			0
Year 7	1998			0
Year 8	1999			0
Year 9	2000			0
Year 10	2001			0
Year 11	2002			0
Year 12	2003			0
Year 13	2004			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003			0
Year 2	2004			0
Year 3	2005			0
Year 4	2006			0
Year 5	2007			0
2015 Compliance Year - Water into Distribution System				
2015				0
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				
NOTES:				

SB X7-7 Table 4-A: Volume Entering the Distribution	
Name of Source	Source 5
This water source is:	
☐	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1992			0
Year 2	1993			0
Year 3	1994			0
Year 4	1995			0
Year 5	1996			0
Year 6	1997			0
Year 7	1998			0
Year 8	1999			0
Year 9	2000			0
Year 10	2001			0
Year 11	2002			0
Year 12	2003			0
Year 13	2004			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003			0
Year 2	2004			0
Year 3	2005			0
Year 4	2006			0
Year 5	2007			0
2015 Compliance Year - Water into Distribution System				
2015				0
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				
NOTES:				

SB X7-7 Table 4-A: Volume Entering the Distribution				
Name of Source	Source 6			
This water source is:				
☐	The supplier's own water source			
☐	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1992			0
Year 2	1993			0
Year 3	1994			0
Year 4	1995			0
Year 5	1996			0
Year 6	1997			0
Year 7	1998			0
Year 8	1999			0
Year 9	2000			0
Year 10	2001			0
Year 11	2002			0
Year 12	2003			0
Year 13	2004			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003			0
Year 2	2004			0
Year 3	2005			0
Year 4	2006			0
Year 5	2007			0
2015 Compliance Year - Water into Distribution System				
2015				0
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				
NOTES:				

SB X7-7 Table 4-A: Volume Entering the Distribution				
Name of Source	Source 7			
This water source is:				
☐	The supplier's own water source			
☐	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1992			0
Year 2	1993			0
Year 3	1994			0
Year 4	1995			0
Year 5	1996			0
Year 6	1997			0
Year 7	1998			0
Year 8	1999			0
Year 9	2000			0
Year 10	2001			0
Year 11	2002			0
Year 12	2003			0
Year 13	2004			0
Year 14	0			0

Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003			0
Year 2	2004			0
Year 3	2005			0
Year 4	2006			0
Year 5	2007			0
2015 Compliance Year - Water into Distribution System				
2015				0
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				
NOTES:				

SB X7-7 Table 4-A: Volume Entering the Distribution				
Name of Source	Source 8			
This water source is:				
☐	The supplier's own water source			
☐	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1992			0
Year 2	1993			0
Year 3	1994			0
Year 4	1995			0
Year 5	1996			0
Year 6	1997			0
Year 7	1998			0
Year 8	1999			0
Year 9	2000			0
Year 10	2001			0
Year 11	2002			0
Year 12	2003			0
Year 13	2004			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003			0
Year 2	2004			0
Year 3	2005			0
Year 4	2006			0
Year 5	2007			0
2015 Compliance Year - Water into Distribution System				
2015				0
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				
NOTES:				

SB X7-7 Table 4-A: Volume Entering the Distribution				
Name of Source	Source 9			
This water source is:				
☐	The supplier's own water source			
☐	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1992			0
Year 2	1993			0

Year 3	1994			0
Year 4	1995			0
Year 5	1996			0
Year 6	1997			0
Year 7	1998			0
Year 8	1999			0
Year 9	2000			0
Year 10	2001			0
Year 11	2002			0
Year 12	2003			0
Year 13	2004			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003			0
Year 2	2004			0
Year 3	2005			0
Year 4	2006			0
Year 5	2007			0
2015 Compliance Year - Water into Distribution System				
2015				0
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				
NOTES:				

SB X7-7 Table 4-A: Volume Entering the Distribution			
Name of Source	Source 10		
This water source is:			
☐	The supplier's own water source		
☐	A purchased or imported source		
Baseline Year *Fm SB X7-7 Table 3*	Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System			
Year 1	1992		0
Year 2	1993		0
Year 3	1994		0
Year 4	1995		0
Year 5	1996		0
Year 6	1997		0
Year 7	1998		0
Year 8	1999		0
Year 9	2000		0
Year 10	2001		0
Year 11	2002		0
Year 12	2003		0
Year 13	2004		0
Year 14	0		0
Year 15	0		0
5 Year Baseline - Water into Distribution System			
Year 1	2003		0
Year 2	2004		0
Year 3	2005		0
Year 4	2006		0
Year 5	2007		0
2015 Compliance Year - Water into Distribution System			
2015			0
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*			
NOTES:			

SB X7-7 Table 4-A: Volume Entering the Distribution

Name of Source	Source 11			
This water source is:				
☐	The supplier's own water source			
☐	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1992			0
Year 2	1993			0
Year 3	1994			0
Year 4	1995			0
Year 5	1996			0
Year 6	1997			0
Year 7	1998			0
Year 8	1999			0
Year 9	2000			0
Year 10	2001			0
Year 11	2002			0
Year 12	2003			0
Year 13	2004			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003			0
Year 2	2004			0
Year 3	2005			0
Year 4	2006			0
Year 5	2007			0
2015 Compliance Year - Water into Distribution System				
2015				0
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				
NOTES:				

SB X7-7 Table 4-A: Volume Entering the Distribution				
Name of Source	Source 12			
This water source is:				
☐	The supplier's own water source			
☐	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1992			0
Year 2	1993			0
Year 3	1994			0
Year 4	1995			0
Year 5	1996			0
Year 6	1997			0
Year 7	1998			0
Year 8	1999			0
Year 9	2000			0
Year 10	2001			0
Year 11	2002			0
Year 12	2003			0
Year 13	2004			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				

Year 1	2003			0
Year 2	2004			0
Year 3	2005			0
Year 4	2006			0
Year 5	2007			0
2015 Compliance Year - Water into Distribution System				
2015				0
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				
NOTES:				

SB X7-7 Table 4-A: Volume Entering the Distribution				
Name of Source	Source 13			
This water source is:				
☐	The supplier's own water source			
☐	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1992			0
Year 2	1993			0
Year 3	1994			0
Year 4	1995			0
Year 5	1996			0
Year 6	1997			0
Year 7	1998			0
Year 8	1999			0
Year 9	2000			0
Year 10	2001			0
Year 11	2002			0
Year 12	2003			0
Year 13	2004			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003			0
Year 2	2004			0
Year 3	2005			0
Year 4	2006			0
Year 5	2007			0
2015 Compliance Year - Water into Distribution System				
2015				0
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				
NOTES:				

SB X7-7 Table 4-A: Volume Entering the Distribution				
Name of Source	Source 14			
This water source is:				
☐	The supplier's own water source			
☐	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1992			0
Year 2	1993			0
Year 3	1994			0
Year 4	1995			0

Year 5	1996			0
Year 6	1997			0
Year 7	1998			0
Year 8	1999			0
Year 9	2000			0
Year 10	2001			0
Year 11	2002			0
Year 12	2003			0
Year 13	2004			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003			0
Year 2	2004			0
Year 3	2005			0
Year 4	2006			0
Year 5	2007			0
2015 Compliance Year - Water into Distribution System				
2015				0
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				
NOTES:				

SB X7-7 Table 4-A: Volume Entering the Distribution			
Name of Source	Source 15		
This water source is:			
☐	The supplier's own water source		
☐	A purchased or imported source		
Baseline Year *Fm SB X7-7 Table 3*	Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System			
Year 1	1992		0
Year 2	1993		0
Year 3	1994		0
Year 4	1995		0
Year 5	1996		0
Year 6	1997		0
Year 7	1998		0
Year 8	1999		0
Year 9	2000		0
Year 10	2001		0
Year 11	2002		0
Year 12	2003		0
Year 13	2004		0
Year 14	0		0
Year 15	0		0
5 Year Baseline - Water into Distribution System			
Year 1	2003		0
Year 2	2004		0
Year 3	2005		0
Year 4	2006		0
Year 5	2007		0
2015 Compliance Year - Water into Distribution System			
2015			0
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*			
NOTES:			

SB X7-7 Table 4-B: Indirect Recycled Water Use Deduction *(For use only by agencies that are deducting indirect recycled water)*

Baseline Year *Fm SB X7-7 Table 3*		Surface Reservoir Augmentation					Groundwater Recharge			**Total Deductible Volume of Indirect Recycled Water Entering the Distribution System**
		Volume Discharged from Reservoir for Distribution System Delivery	Percent Recycled Water	Recycled Water Delivered to Treatment Plant	Transmission/ Treatment Loss	Recycled Volume Entering Distribution System from Surface Reservoir Augmentation	Recycled Water Pumped by Utility*	Transmission/ Treatment Losses	Recycled Volume Entering Distribution System from Groundwater Recharge	
10-15 Year Baseline - Indirect Recycled Water Use										
Year 1	1992			0		0			0	0
Year 2	1993			0		0			0	0
Year 3	1994			0		0			0	0
Year 4	1995			0		0			0	0
Year 5	1996			0		0			0	0
Year 6	1997			0		0			0	0
Year 7	1998			0		0			0	0
Year 8	1999			0		0			0	0
Year 9	2000			0		0			0	0
Year 10	2001			0		0			0	0
Year 11	2002			0		0			0	0
Year 12	2003			0		0			0	0
Year 13	2004			0		0			0	0
Year 14	0			0		0			0	0
Year 15	0			0		0			0	0
5 Year Baseline - Indirect Recycled Water Use										
Year 1	2003			0		0			0	0
Year 2	2004			0		0			0	0
Year 3	2005			0		0			0	0
Year 4	2006			0		0			0	0
Year 5	2007			0		0			0	0
2015 Compliance - Indirect Recycled Water Use										
2015				0		0			0	0

**Suppliers will provide supplemental sheets to document the calculation for their input into "Recycled Water Pumped by Utility". The volume reported in this cell must be less than total groundwater pumped - See Methodology 1, Step 8, section 2.c.*

NOTES:

SB X7-7 Table 4-C: Process Water Deduction Eligibility *(For use only by agencies that are deducting process water) Choose Only One*	
☐	**Criteria 1**- Industrial water use is equal to or greater than 12% of gross water use. Complete SB X7-7 Table 4-C.1
☐	**Criteria 2** - Industrial water use is equal to or greater than 15 GPCD. Complete SB X7-7 Table 4-C.2
☐	**Criteria 3** - Non-industrial use is equal to or less than 120 GPCD. Complete SB X7-7 Table 4-C.3
☐	**Criteria 4** - Disadvantaged Community. Complete SB x7-7 Table 4-C.4
NOTES:	

SB X7-7 Table 4-C.1: Process Water Deduction Eligibility					
Criteria 1 Industrial water use is equal to or greater than 12% of gross water use					
Baseline Year *Fm SB X7-7 Table 3*		Gross Water Use Without Process Water Deduction	Industrial Water Use	Percent Industrial Water	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility					
Year 1	1992	6,976		0%	NO
Year 2	1993	7,041		0%	NO
Year 3	1994	7,511		0%	NO
Year 4	1995	7,858		0%	NO
Year 5	1996	7,927		0%	NO
Year 6	1997	8,095		0%	NO
Year 7	1998	7,299		0%	NO
Year 8	1999	7,695		0%	NO
Year 9	2000	7,332		0%	NO
Year 10	2001	7,459		0%	NO
Year 11	2002	7,142		0%	NO
Year 12	2003	6,711		0%	NO
Year 13	2004	6,632		0%	NO
Year 14	0	0			NO
Year 15	0	0			NO
5 Year Baseline - Process Water Deduction Eligibility					
Year 1	2003	6,711		0%	NO
Year 2	2004	6,632		0%	NO
Year 3	2005	5,772		0%	NO
Year 4	2006	5,512		0%	NO
Year 5	2007	5,187		0%	NO
2015 Compliance Year - Process Water Deduction Eligiblity					
2015		4,228		0%	NO
NOTES:					

SB X7-7 Table 4-C.2: Process Water Deduction Eligibility					
Criteria 2 Industrial water use is equal to or greater than 15 GPCD					
Baseline Year *Fm SB X7-7 Table 3*		Industrial Water Use	Population	Industrial GPCD	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility					
Year 1	1992		38,766	0	NO
Year 2	1993		39,128	0	NO
Year 3	1994		39,056	0	NO
Year 4	1995		39,843	0	NO
Year 5	1996		40,495	0	NO
Year 6	1997		41,314	0	NO
Year 7	1998		42,025	0	NO
Year 8	1999		42,209	0	NO
Year 9	2000		42,046	0	NO
Year 10	2001		41,710	0	NO
Year 11	2002		41,687	0	NO
Year 12	2003		41,284	0	NO
Year 13	2004		40,985	0	NO
Year 14	0		0		NO
Year 15	0		0		NO
5 Year Baseline - Process Water Deduction Eligibility					
Year 1	2003		41,284	0	NO
Year 2	2004		40,985	0	NO
Year 3	2005		41,290	0	NO
Year 4	2006		40,997	0	NO
Year 5	2007		41,000	0	NO
2015 Compliance Year - Process Water Deduction Eligibility					
2015			41,675	0	NO
NOTES:					

SB X7-7 Table 4-C.3: Process Water Deduction Eligibility							
Criteria 3 Non-industrial use is equal to or less than 120 GPCD							
Baseline Year *Fm SB X7-7 Table 3*		Gross Water Use Without Process Water Deduction *Fm SB X7-7 Table 4*	Industrial Water Use	Non-industrial Water Use	Population *Fm SB X7-7 Table 3*	Non-Industrial GPCD	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility							
Year 1	1992	6,976		6,976	38,766	161	NO
Year 2	1993	7,041		7,041	39,128	161	NO
Year 3	1994	7,511		7,511	39,056	172	NO
Year 4	1995	7,858		7,858	39,843	176	NO
Year 5	1996	7,927		7,927	40,495	175	NO
Year 6	1997	8,095		8,095	41,314	175	NO
Year 7	1998	7,299		7,299	42,025	155	NO
Year 8	1999	7,695		7,695	42,209	163	NO
Year 9	2000	7,332		7,332	42,046	156	NO
Year 10	2001	7,459		7,459	41,710	160	NO
Year 11	2002	7,142		7,142	41,687	153	NO
Year 12	2003	6,711		6,711	41,284	145	NO
Year 13	2004	6,632		6,632	40,985	144	NO
Year 14	0	0		0	0		NO
Year 15	0	0		0	0		NO
5 Year Baseline - Process Water Deduction Eligibility							
Year 1	2003	6,711		6,711	41,284	145	NO
Year 2	2004	6,632		6,632	40,985	144	NO
Year 3	2005	5,772		5,772	41,290	125	NO
Year 4	2006	5,512		5,512	40,997	120	NO
Year 5	2007	5,187		5,187	41,000	113	YES
2015 Compliance Year - Process Water Deduction Eligiblity							
2015		4,228		4,228	41,675	91	YES
NOTES:							

SB X7-7 Table 4-C.4: Process Water Deduction Eligibility				
Criteria 4 Disadvantaged Community *Use IRWM DAC Mapping tool* http://www.water.ca.gov/irwm/grants/resources_dac.cfm				
California Median Household Income		Service Area Median Household Income	Percentage of Statewide Average	**Eligible for Exclusion? Y/N**
2015 Compliance Year - Process Water Deduction Eligibility				
2010	$53,046		0%	YES
A "Disadvantaged Community" is a community with a median household income less than 80 percent of the statewide average.				
NOTES:				

SB X7-7 Table 4-D: Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*						
Name of Industrial Customer		*Industrial Customer 1*				
Baseline Year *Fm SB X7-7 Table 3*		Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer
10 to 15 Year Baseline - Process Water Deduction						
Year 1	1992					0
Year 2	1993					0
Year 3	1994					0
Year 4	1995					0
Year 5	1996					0
Year 6	1997					0
Year 7	1998					0
Year 8	1999					0
Year 9	2000					0
Year 10	2001					0
Year 11	2002					0
Year 12	2003					0
Year 13	2004					0
Year 14	0					0
Year 15	0					0
5 Year Baseline - Process Water Deduction						
Year 1	2003					0
Year 2	2004					0
Year 3	2005					0
Year 4	2006					0
Year 5	2007					0
2015 Compliance Year - Process Water Deduction						
2015						0
NOTES:						

SB X7-7 Table 4-D: Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*						
Name of Industrial Customer		*Industrial Customer 2*				
Baseline Year *Fm SB X7-7 Table 3*		Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer
10 to 15 Year Baseline - Process Water Deduction						

Year 1	1992					0
Year 2	1993					0
Year 3	1994					0
Year 4	1995					0
Year 5	1996					0
Year 6	1997					0
Year 7	1998					0
Year 8	1999					0
Year 9	2000					0
Year 10	2001					0
Year 11	2002					0
Year 12	2003					0
Year 13	2004					0
Year 14	0					0
Year 15	0					0
5 Year Baseline - Process Water Deduction						
Year 1	2003					0
Year 2	2004					0
Year 3	2005					0
Year 4	2006					0
Year 5	2007					0
2015 Compliance Year - Process Water Deduction						
2015						0
NOTES:						

SB X7-7 Table 4-D: Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*

Name of Industrial Customer		*Industrial Customer 3*			
Baseline Year *Fm SB X7-7 Table 3*	Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer
10 to 15 Year Baseline - Process Water Deduction					
Year 1	1992				0
Year 2	1993				0
Year 3	1994				0
Year 4	1995				0
Year 5	1996				0
Year 6	1997				0
Year 7	1998				0
Year 8	1999				0
Year 9	2000				0
Year 10	2001				0
Year 11	2002				0

Year 12	2003					0
Year 13	2004					0
Year 14	0					0
Year 15	0					0
5 Year Baseline - Process Water Deduction						
Year 1	2003					0
Year 2	2004					0
Year 3	2005					0
Year 4	2006					0
Year 5	2007					0
2015 Compliance Year - Process Water Deduction						
2015						0
NOTES:						

SB X7-7 Table 4-D: Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*

Name of Industrial Customer		*Industrial Customer 4*				
Baseline Year *Fm SB X7-7 Table 3*	Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer
10 to 15 Year Baseline - Process Water Deduction					
Year 1	1992				0
Year 2	1993				0
Year 3	1994				0
Year 4	1995				0
Year 5	1996				0
Year 6	1997				0
Year 7	1998				0
Year 8	1999				0
Year 9	2000				0
Year 10	2001				0
Year 11	2002				0
Year 12	2003				0
Year 13	2004				0
Year 14	0				0
Year 15	0				0
5 Year Baseline - Process Water Deduction					
Year 1	2003				0
Year 2	2004				0
Year 3	2005				0
Year 4	2006				0
Year 5	2007				0
2015 Compliance Year - Process Water Deduction					

2015					0
NOTES:					

SB X7-7 Table 4-D: Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*						
Name of Industrial Customer		*Industrial Customer 5*				
Baseline Year *Fm SB X7-7 Table 3*		Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer
10 to 15 Year Baseline - Process Water Deduction						
Year 1	1992					0
Year 2	1993					0
Year 3	1994					0
Year 4	1995					0
Year 5	1996					0
Year 6	1997					0
Year 7	1998					0
Year 8	1999					0
Year 9	2000					0
Year 10	2001					0
Year 11	2002					0
Year 12	2003					0
Year 13	2004					0
Year 14	0					0
Year 15	0					0
5 Year Baseline - Process Water Deduction						
Year 1	2003					0
Year 2	2004					0
Year 3	2005					0
Year 4	2006					0
Year 5	2007					0
2015 Compliance Year - Process Water Deduction						
2015						0
NOTES:						

SB X7-7 Table 4-D: Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*	
Name of Industrial Customer	*Industrial Customer 6*

Baseline Year *Fm SB X7-7 Table 3*		Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer
10 to 15 Year Baseline - Process Water Deduction						
Year 1	1992					0
Year 2	1993					0
Year 3	1994					0
Year 4	1995					0
Year 5	1996					0
Year 6	1997					0
Year 7	1998					0
Year 8	1999					0
Year 9	2000					0
Year 10	2001					0
Year 11	2002					0
Year 12	2003					0
Year 13	2004					0
Year 14	0					0
Year 15	0					0
5 Year Baseline - Process Water Deduction						
Year 1	2003					0
Year 2	2004					0
Year 3	2005					0
Year 4	2006					0
Year 5	2007					0
2015 Compliance Year - Process Water Deduction						
2015						0
NOTES:						

SB X7-7 Table 4-D: Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*

Name of Industrial Customer		*Industrial Customer 7*				
Baseline Year *Fm SB X7-7 Table 3*		Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer
10 to 15 Year Baseline - Process Water Deduction						
Year 1	1992					0
Year 2	1993					0
Year 3	1994					0

Year 4	1995					0
Year 5	1996					0
Year 6	1997					0
Year 7	1998					0
Year 8	1999					0
Year 9	2000					0
Year 10	2001					0
Year 11	2002					0
Year 12	2003					0
Year 13	2004					0
Year 14	0					0
Year 15	0					0
5 Year Baseline - Process Water Deduction						
Year 1	2003					0
Year 2	2004					0
Year 3	2005					0
Year 4	2006					0
Year 5	2007					0
2015 Compliance Year - Process Water Deduction						
2015						0
NOTES:						

SB X7-7 Table 4-D: Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*

Name of Industrial Customer		*Industrial Customer 8*			
Baseline Year *Fm SB X7-7 Table 3*	Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer
10 to 15 Year Baseline - Process Water Deduction					
Year 1	1992				0
Year 2	1993				0
Year 3	1994				0
Year 4	1995				0
Year 5	1996				0
Year 6	1997				0
Year 7	1998				0
Year 8	1999				0
Year 9	2000				0
Year 10	2001				0
Year 11	2002				0
Year 12	2003				0
Year 13	2004				0
Year 14	0				0

Year 15	0					0
5 Year Baseline - Process Water Deduction						
Year 1	2003					0
Year 2	2004					0
Year 3	2005					0
Year 4	2006					0
Year 5	2007					0
2015 Compliance Year - Process Water Deduction						
2015						0
NOTES:						

SB X7-7 Table 4-D: Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*

Name of Industrial Customer		*Industrial Customer 9*			
Baseline Year *Fm SB X7-7 Table 3*	Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer
10 to 15 Year Baseline - Process Water Deduction					
Year 1	1992				0
Year 2	1993				0
Year 3	1994				0
Year 4	1995				0
Year 5	1996				0
Year 6	1997				0
Year 7	1998				0
Year 8	1999				0
Year 9	2000				0
Year 10	2001				0
Year 11	2002				0
Year 12	2003				0
Year 13	2004				0
Year 14	0				0
Year 15	0				0
5 Year Baseline - Process Water Deduction					
Year 1	2003				0
Year 2	2004				0
Year 3	2005				0
Year 4	2006				0
Year 5	2007				0
2015 Compliance Year - Process Water Deduction					
2015					0
NOTES:					

SB X7-7 Table 4-D: Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*						
Name of Industrial Customer		*Industrial Customer 10*				
Baseline Year *Fm SB X7-7 Table 3*		Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer
10 to 15 Year Baseline - Process Water Deduction						
Year 1	1992					0
Year 2	1993					0
Year 3	1994					0
Year 4	1995					0
Year 5	1996					0
Year 6	1997					0
Year 7	1998					0
Year 8	1999					0
Year 9	2000					0
Year 10	2001					0
Year 11	2002					0
Year 12	2003					0
Year 13	2004					0
Year 14	0					0
Year 15	0					0
5 Year Baseline - Process Water Deduction						
Year 1	2003					0
Year 2	2004					0
Year 3	2005					0
Year 4	2006					0
Year 5	2007					0
2015 Compliance Year - Process Water Deduction						
2015						0
NOTES:						

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Annual Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	1992	38,766	6,976	161
Year 2	1993	39,128	7,041	161
Year 3	1994	39,056	7,511	172
Year 4	1995	39,843	7,858	176
Year 5	1996	40,495	7,927	175
Year 6	1997	41,314	8,095	175
Year 7	1998	42,025	7,299	155
Year 8	1999	42,209	7,695	163
Year 9	2000	42,046	7,332	156
Year 10	2001	41,710	7,459	160
Year 11	2002	41,687	7,142	153
Year 12	2003	41,284	6,711	145
Year 13	2004	40,985	6,632	144
Year 14	0	0	0	
Year 15	0	0	0	
10-15 Year Average Baseline GPCD				**161.11**
5 Year Baseline GPCD				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use
Year 1	2003	41,284	6,711	145
Year 2	2004	40,985	6,632	144
Year 3	2005	41,290	5,772	125
Year 4	2006	40,997	5,512	120
Year 5	2007	41,000	5,187	113
5 Year Average Baseline GPCD				**129.48**
2015 Compliance Year GPCD				
2015		41,675	4,228	90.58
NOTES:				

167.0651

SB X7-7 Table 6: Gallons per Capita per Day *Summary From Table SB X7-7 Table 5*	
10-15 Year Baseline GPCD	161.11
5 Year Baseline GPCD	129.48
2015 Compliance Year GPCD	90.58
NOTES:	

SB X7-7 Table 7: 2020 Target Method *Select Only One*		
Target Method		Supporting Documentation
☑	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D *Contact DWR for these tables*
☐	Method 3	SB X7-7 Table 7-E
☐	Method 4	Method 4 Calculator
NOTES:		

SB X7-7 Table 7-A: Target Method 1 20% Reduction	
10-15 Year Baseline GPCD	2020 Target GPCD
161.11	128.89
NOTES:	

SB X7-7 Table 7-B: Target Method 2 Target

Landscape Water Use

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

SB X7-7 Table 7-C: Target Method 2

Target CII Water Use

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

SB X7-7 Table 7-D: Target Method 2 Summary

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

SB X7-7 Table 7-E: Target Method 3				
Agency May Select More Than One as Applicable	Percentage of Service Area in This Hydrological Region	Hydrologic Region	"2020 Plan" Regional Targets	Method 3 Regional Targets (95%)
☐		North Coast	137	130
☐		North Lahontan	173	164
☐		Sacramento River	176	167
☑		San Francisco Bay	131	124
☐		San Joaquin River	174	165
☐		Central Coast	123	117
☐		Tulare Lake	188	179
☐		South Lahontan	170	162
☐		South Coast	149	142
☐		Colorado River	211	200
Target *(If more than one region is selected, this value is calculated.)*				**0**
NOTES:				

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target			
5 Year Baseline GPCD *From SB X7-7 Table 5*	Maximum 2020 Target*	Calculated 2020 Target *Fm Appropriate Target Table*	Confirmed 2020 Target
129.48	123.00		123.00
** Maximum 2020 Target is 95% of the 5 Year Baseline GPCD*			
NOTES:			

SB X7-7 Table 8: 2015 Interim Target GPCD		
Confirmed 2020 Target *Fm SB X7-7 Table 7-F*	10-15 year Baseline GPCD *Fm SB X7-7 Table 5*	2015 Interim Target GPCD
123.00	161.11	142.06
NOTES:		

SB X7-7 Table 9: 2015 Compliance								
Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments *(in GPCD)*					2015 GPCD *(Adjusted if applicable)*	Did Supplier Achieve Targeted Reduction for 2015?
		Extraordinary Events	Weather Normalization	Economic Adjustment	TOTAL Adjustments	Adjusted 2015 GPCD		
91	142	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	0	90.57781124	90.57781124	YES
NOTES:								

April 8, 2021

MEMORANDUM

VIA EMAIL

Attn: Drew McIntyre
General Manager, Technical Advisory Committee Chair
North Marin Water District
P.O. Box 146
Novato, CA 94948

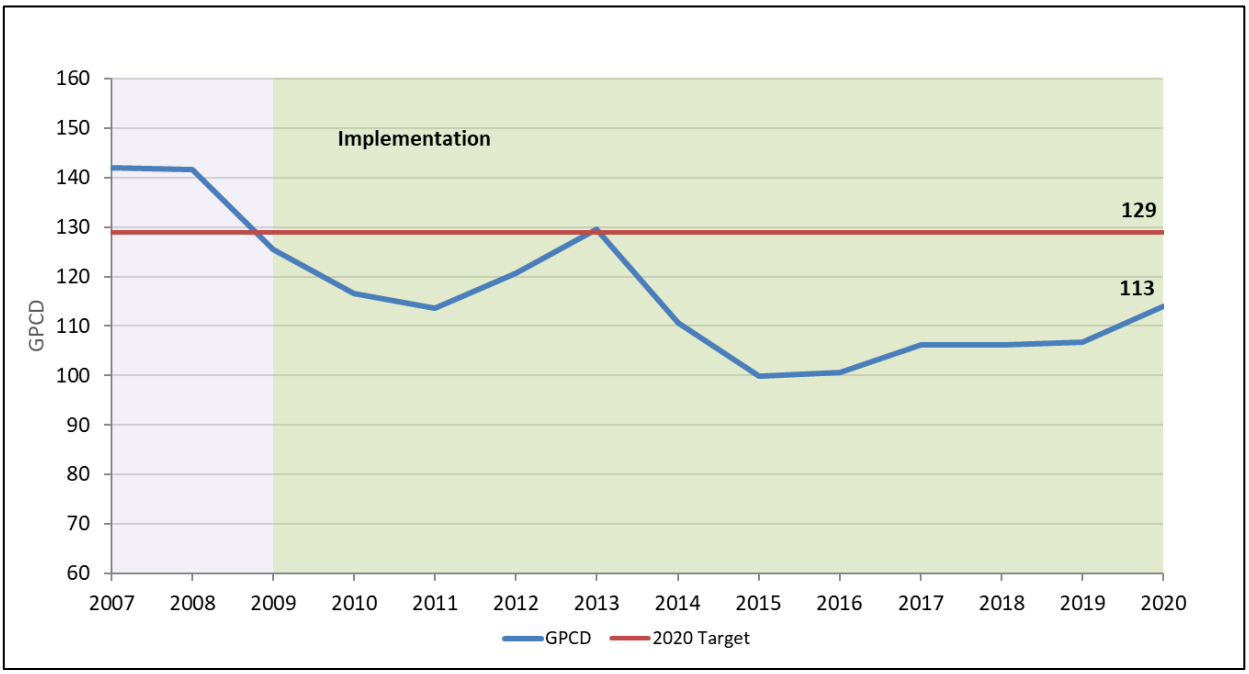
RE: Sonoma-Marin Regional Alliance 2020 GPCD for SBx7-7

Dear Chair McIntyre:

In 2010, the Sonoma-Marin Saving Water Partnership (SMSWP) established a regional commitment to work collaboratively on the implementation of appropriate water use efficiency programs. The Department of Water Resources was then subsequently notified that a North Marin-Sonoma Regional Alliance had been formed between and among the cities of Santa Rosa, Rohnert Park, Sonoma, Cotati, Petaluma, Town of Windsor and North Marin, Marin Municipal and Valley of the Moon Water Districts to comply with Senate Bill X7-7, the Water Conservation Act of 2009. Senate Bill X7-7 (SBx7-7) calls for a 20% reduction in gallon per capita per day (GPCD) water use by the year 2020. The regional alliance was formed pursuant to the Department of Water Resources *Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use* (DWR Methodology) because the parties receive water from a common wholesale water supplier, the Sonoma County Water Agency (Sonoma Water).

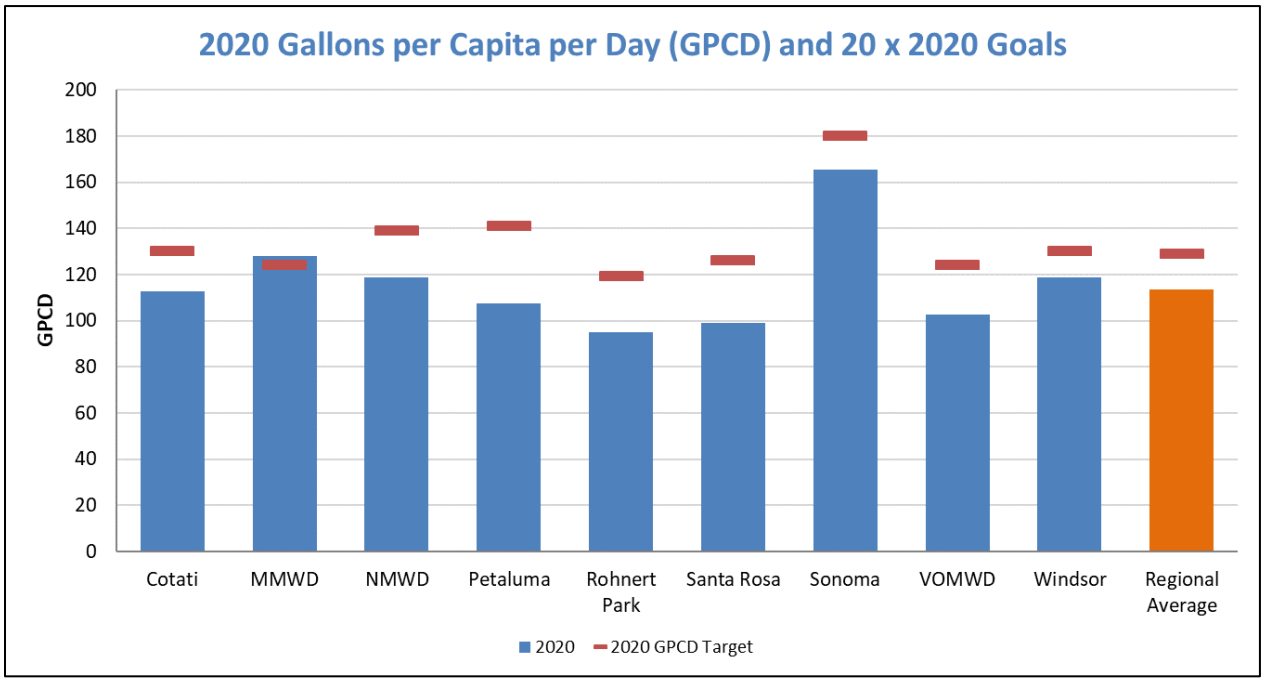
Graph 1 below demonstrates the long term progress our region has made towards incorporating water use efficiency as a social norm to our customers. Starting from a weighted average regional baseline GPCD of 156, which was established in accordance with the DWR Methodology, the regional alliance was required to achieve a 20% reduction, or 129 GPCD by 2020. As shown, the SMSWP regional alliance has achieved a 28% reduction in per capita water use while experiencing a 5.8% increase in population over the implementation period.

Graph 1: Regional Gallons per Capita per Day



The Partnership is the agreed upon mechanism used for tracking each water contractor's individual progress towards SBx7-7 compliance on an annual basis. This data is collected and utilized to calculate the regional status. Graph 2 below shows the reported 2020 per capita water use and the 2020 SBx7-7 GPCD Target for each water contractor and the region as a whole. There are many factors that contribute to the range of per capita water use in our region including climate, tourism, water intensive industries and socioeconomic factors.

Graph 2: 2020 GPCD by Water Contractor and Region Alliance



	Cotati	MMWD	NMWD	Petaluma	Rohnert Park	Santa Rosa	Sonoma	VOMWD	Windsor	Regional Average
2020 GPCD	113	128	119	107	95	99	166	103	119	**113**
2020 Target	130	124	143	136	119	127	173	124	130	**129**

If you have any questions about this memorandum, please do not hesitate to contact me at paul.piazza@scwa.ca.gov.

Sincerely,

Paul Piazza

Paul Piazza
Principal Programs Specialist
Sonoma Water

Appendix 7 – Water Policy Resolution

CITY OF ROHNERT PARK
OFFICE OF THE CITY MANAGER/CITY CLERK

** * * City Clerk Use Only * * **

NOTICE OF COUNCIL/CDC MEETING ACTION

Date: April 29, 2004

To: Toni Bertolero, City Engineer

For Agenda Title: Consider and approve the Water Policy Resolution

---

Meeting Date: April 27, 2004
Agenda Item No: #8
Council Action: Approved as Amended
Vote: 5 - 0
Resolution No:
2004-95 Implementing Requirements Imposed on Specific Plan Areas Outside the City's 1999 Boundaries

---

The City Council approved the above item authorizing you to proceed with the appropriate follow-up and handling process. The enclosed documents checked ☑ below are provided for this purpose:

- ☑ **Transmittal Report provided to Council for this agenda item.**
- ☑ **Resolution/executed**
- ☐ **Ordinance/executed**
- ☐ **One set of the fully executed agreement with original signatures for you to forward to the contractor. The second set with original signatures has been retained in the City Manager's Office for the City's Agreement Files.**
- ☐ **Two (2) sets of the Agreement signed by the appropriate City representatives and forwarded to you for signing. When available, please RETURN one set to the City Manager's Office for the City's Agreement Files.**
- ☑ **Other: The adoption of this resolution included amendments as recommended by Interim City Attorney, Michelle Kenyon, to change the word "defined" to "estimated" in 4.b.6, and to make some minor typographical corrections as follows: change 4.b.7 to 4.c; change 4.b.8 to 4.d; and change 4.b.9 to 4.e**

Thank you,

Judy Hauff, City Clerk
For Carl Eric Leivo, City Manager

cc: Gabrielle Whelan, Interim City Attorney
Mike Bracewell, PW Utilities Services Supervisor
Engineering Staff: Darrin Jenkins, Civil Engineer; Rick Pedroncelli, Sr. Eng. Tech.; Eydie Tacata, Admin. Asst.
FILE – ENGINEERING DEPT. – Water Policy Resolution
FILE – CROSS REFERENCE – Water Policy Resolution [SEE: ENGINEERING DEPT.]
FILE - Council Agenda Chron File/ADD TO: Agreement File List

JH/cam-M:2004 Council Agenda Action

FOR RESO. NO. 2004 - 95

CITY OF ROHNERT PARK
COUNCIL AGENDA ITEM TRANSMITTAL REPORT

Meeting Date: April 27, 2004

Department: Engineering

Submitted By: Toni Bertolero, City Engineer
(Name & Title)

Submittal Date: April 20, 2004

Agenda Title: Water Policy Resolution

Council:	X
Miscellaneous	
Communications	
Agenda 4/27/04	X
Copy to:	
Copy to:	

4/21/04 asm

Requested Council Action: Consider and approve the Water Policy Resolution

Summary:
The Water Policy Resolution implements a provision of the Judgement entered by the Sonoma County Superior Court in *South County Resource Preservation Committee v. City of Rohnert Park* (Case No. 224976 – the "Penngrove litigation"). That provision prevents the City from approving development within the specific plan areas identified in the General Plan if the development's "net consumptive use impact" causes the City to exceed an average annual groundwater pumping rate of 2.3 mgd. The purpose of this resolution is to set forth the procedure the City will follow to implement this provision of the Judgement.

This resolution was first presented to Council on February 24, 2004. Three letters of opposition to the resolution were received at the meeting. In an effort to consider the comments and to make appropriate changes, the resolution was continued until such changes were made. Staff has attempted, on several occasions, to meet with John King and his attorney but was unsuccessful in meeting to discuss their concerns. Nevertheless, the attached resolution has been revised from the version presented on February 24, 2004 in an effort to address concerns stated in the letters that were submitted.

CITY MANAGER'S RECOMMENDATION: ( ) Consent Item (✓) Regular Time
(✓) Approval ( ) Public Hearing Required
( ) Not Recommended ( ) Submitted with Comment
( ) Policy Determination by Council
( ) City Comments:

City Manager's Signature: _____ Date: 4/21/04

Resolution No. 2004-95

A Resolution of the City Council of the City of Rohnert Park Implementing Requirements Imposed on Specific Plan Areas Outside the City's 1999 Boundaries

WHEREAS, a Judgment was entered on September 5, 2002 by the Sonoma County Superior Court in *South County Resource Preservation Committee and John King v. City of Rohnert Park* (Case No. 224976) (hereinafter "Judgment"), which directed that certain General Plan policies be interpreted and applied consistent with language included in the Judgment, and that the language in the Judgment be treated as part of the General Plan; and

WHEREAS, the General Plan of the City of Rohnert Park requires that all development outside the City's 1999 boundaries be included within one of the specific plan areas identified in the General Plan; and

WHEREAS, the purpose of this resolution is to implement language included in the Judgment by describing the way in which certain interpretations of the General Plan will be applied to new developments in specific plan areas outside the City's 1999 boundaries; and

WHEREAS, nothing in this Resolution shall be construed to impair the City's ability to deliver water to its customers or respond to the needs of its water customers.

NOW, THEREFORE, the City Council of the City of Rohnert Park does hereby resolve as follows:

1. This Resolution applies to the Specific Plan Areas outside the City's 1999 boundaries that are identified in the General Plan and development projects within those Areas for which the City determines a negative declaration, mitigated negative declaration or environmental impact report is required ("Projects"). The City's 1999 boundaries are depicted on Exhibit A to this Resolution.

2. A negative declaration, mitigated negative declaration, or environmental impact report for a Project shall include the following information:

    a. Projected water demand for the Project before and after water supply reduction measures are implemented and an explanation of how these measures are planned to reduce consumption.

    b. 20-year projection of water supplies available to the City during normal, single-dry, and multiple-dry years. These terms shall have the same meaning as set forth in the most recent Urban Water Management Plan for the City of Rohnert Park.

    c. Analysis of whether the total projected water supplies will meet the projected water demand associated with the Project.

3. The approval of any tentative map for a Project shall be conditioned upon identification, before final map approval, of the water supply that is projected to serve the Project. Groundwater pumped from new or existing private wells within the Penngrove community (with zip code 94951 as of September 2002) will not be permitted as a water supply source.

4. Net Consumptive Water Use Impact Determinations. The information required by this section shall be submitted as part of the application for the first discretionary approval for a Project.

a. Definitions for Net Consumptive Water Use Impact Determinations: The following definitions shall be used to make the Net Consumptive Water Use Impact Determinations required by this section:

- *Net Consumptive Water Use Impact* is the amount of potable water demand of a Project less reductions for (1) Potable Water Conservation Practices and (2) Potable Water Use Offsets. Only those Potable Water Use Conservation Practices and Potable Water Use Offsets that the City Engineer determines will be acceptable, feasible and consistent with the City's water conservation program may be used in determining a project's Net Consumptive Water Use Impact.

- *Potable Water Conservation Practices* are on-site water conservation equipment and practices, including use of recycled water that reduces the projected potable water consumption of a Project and that can be implemented and completed with the Project.

- *Potable Water Use Offsets* are water conservation equipment, practices or programs that are funded, constructed, installed or implemented by a Project and that offset the amount of potable water consumed by that Project, including use of recycled water, that are applied outside of the project area ("off-site"), but which reduce demand on the City's water system for potable water, or, the funding, construction or implementation of facilities or practices in any location that increase recharge to the groundwater supplies available to the City's municipal wells; all of which can be implemented and completed with the Project.

- *Average Annual Groundwater Pumping Rate of 2.3 mgd* is the projected pumping rate from the City's municipal wells for the year estimated to be the Project's buildout year

b. The following calculations shall be included in the application for the first discretionary approval for a Project and shall be reviewed by the City Engineer.

1. Determine a Project's potable water demand (before any proposed Potable Water Conservation Practices or Water Use Offsets) using information and a methodology approved by the City Engineer.

2. Identify Potable Water Conservation Practices and estimated water savings. Potable water conservation practices selected for use in a Project requires concurrence from the City Engineer that the practices are acceptable and consistent with the City's Water Conservation Program. Water savings shall be determined using information and a methodology approved by the City Engineer.

3. Identify onsite and/or offsite recycled water use that is included in the Potable Water conservation Practices or Water Use Offsets proposed for the Project. Offsite use is limited to areas of use in the City's water service area.

4. Identify Water Use Offsets. Said offsets must identify a projected reduction in potable water use in the City's water service area and/or increase in recharge of groundwater supplies available to the City's municipal wells. In calculating the projected reduction in potable water use savings from Potable Water Conservation Practices and Water Use Offsets, estimates shall comply with guidelines established by the California Urban Water Conservation Council or other recognized professional water industry organizations such as the American Water Works Association.

5. Estimate the Project's Net Consumptive Water Use Impact taking into consideration the Potable Water Conservation Practices, and Water Use Offsets.

6. Provide an estimated year of when buildout of all commercial and residential development for the Project will occur. For purposes of this document, the "buildout year" is estimated as the year when 80 percent of the commercial and residential development have been constructed and occupied. For the percentage calculation, commercial development will be based on square footage and residential development will be based on number of dwelling units.

c. The City Engineer shall determine whether the Project's Net Consumptive Water Use Impact is projected to contribute to the City exceeding an Average Annual Groundwater Pumping Rate of 2.3 mgd. Said determination will consider the City's water supply sources, based on best reasonable information available at the time the determination is made. Such determination is without prejudice to the applicant submitting new or additional information and seeking a different determination.

d. The Project cannot be approved if its Net Consumptive Water Use Impact is determined to contribute to the City exceeding an Average Groundwater Pumping Rate of 2.3 mgd.

e. If a Project's Potable Water Conservation Practices and/or Recycled Water Use and/or Water Use Offsets include ongoing activities, the Developer will identify how these ongoing activities will remain in place and identify long-term operation and maintenance of the practices and water systems.

5. This Resolution implements General Plan policy by determining the reasonableness, legality and validity of decisions relating to Specific Plans. As such this Resolution is subject to the 90-day statute of limitations of Government Code section 65009(c).

DULY AND REGULARLY ADOPTED by the Rohnert Park City Council this 27th day of April, 2004.

ATTEST: **CITY OF ROHNERT PARK**

City Clerk Judy Hauff Mayor Gregory A. Nordin

FLORES: AYE MACKENZIE: AYE SPRADLIN: AYE
VIDAK-MARTINEZ: AYE NORDIN: AYE
AYES: (5) NOES: (0) ABSENT: (0) ABSTAIN: (0)

Appendix 8 – Recent Groundwater Hydrographs

Plate 2
Groundwater Level Hydrograph
Municipal Well No. 17
City of Rohnert Park

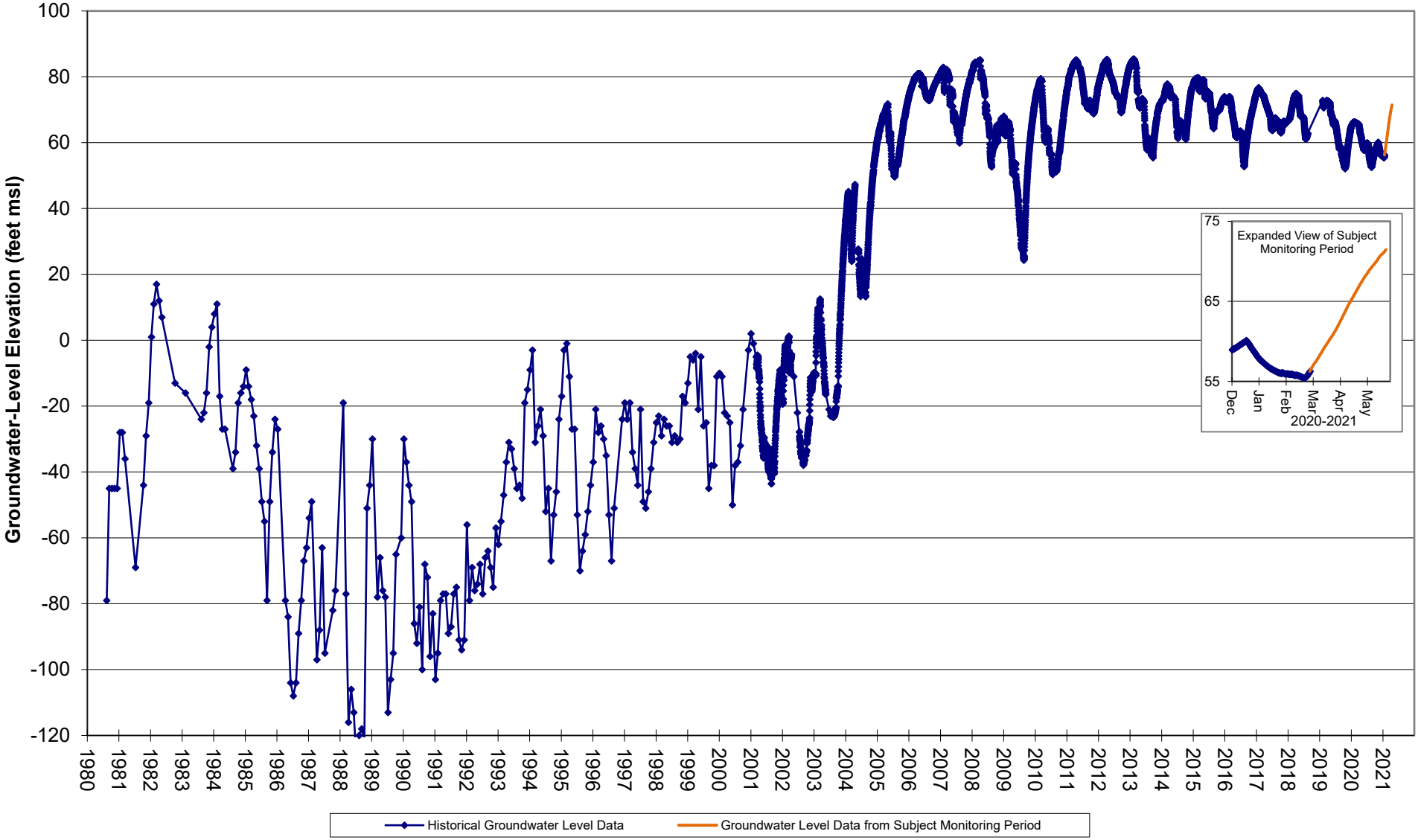


Plate 3
Groundwater Level Hydrograph
Municipal Well No. 24
City of Rohnert Park

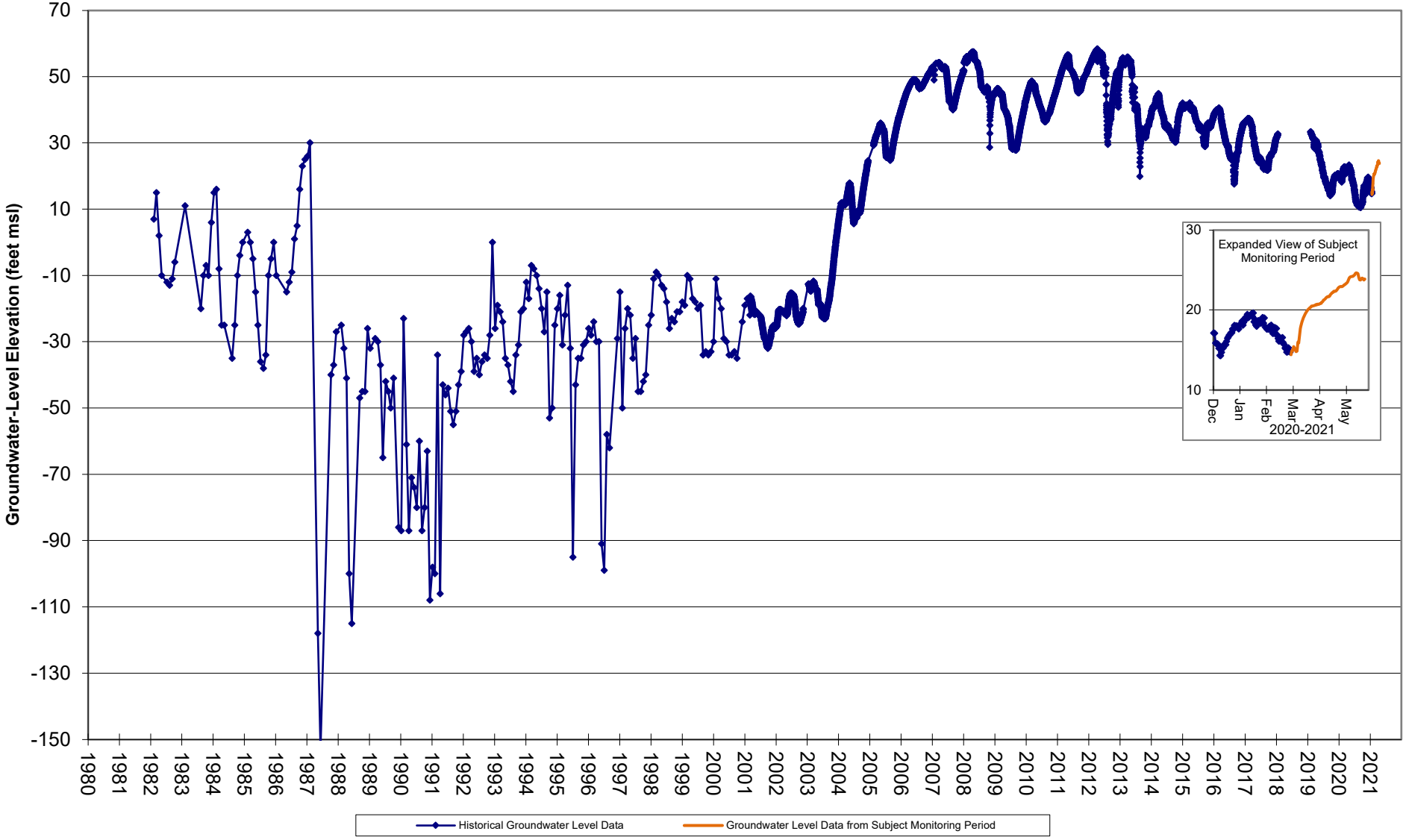


Plate 4
Groundwater Level Hydrograph
Municipal Well No. 26
City of Rohnert Park

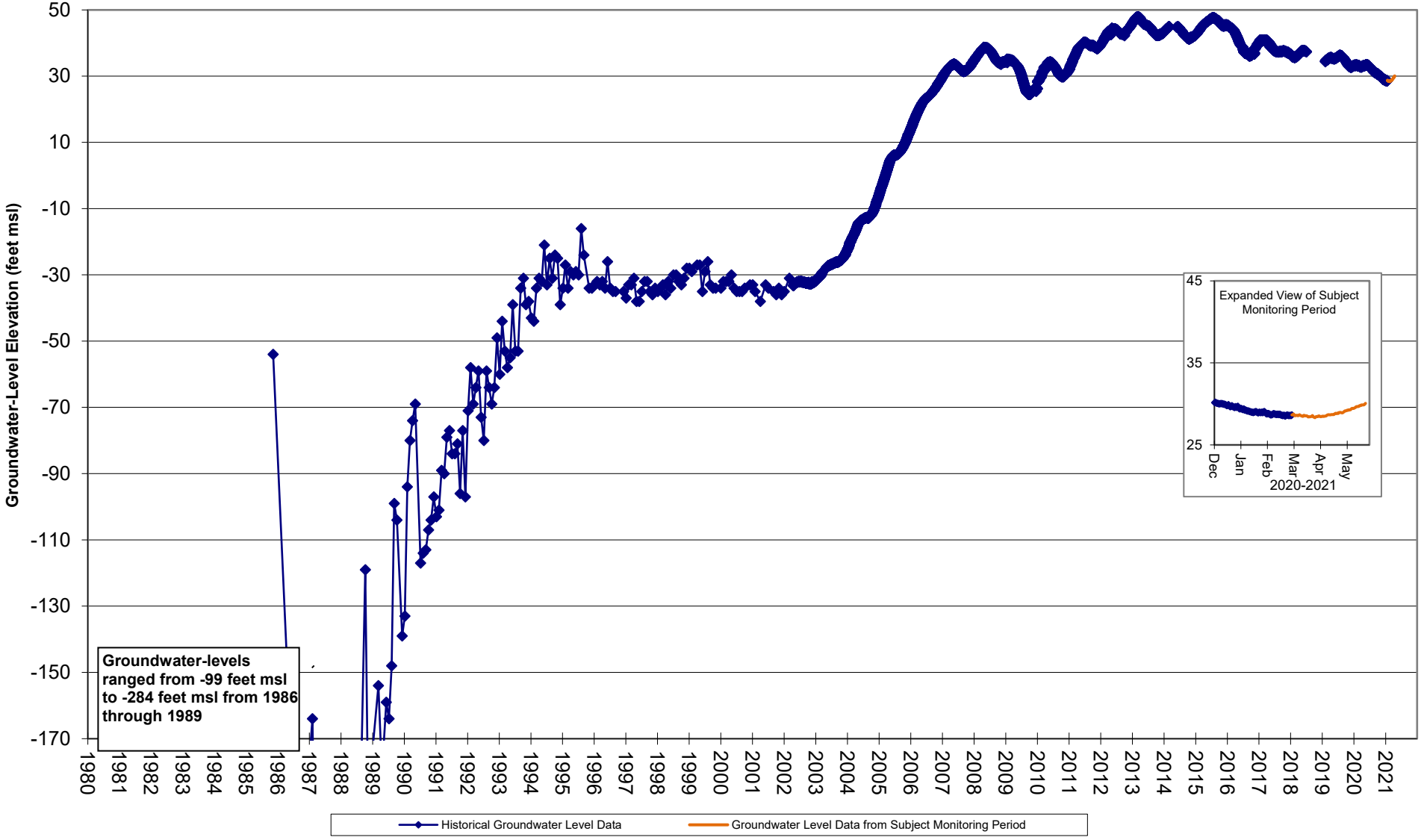
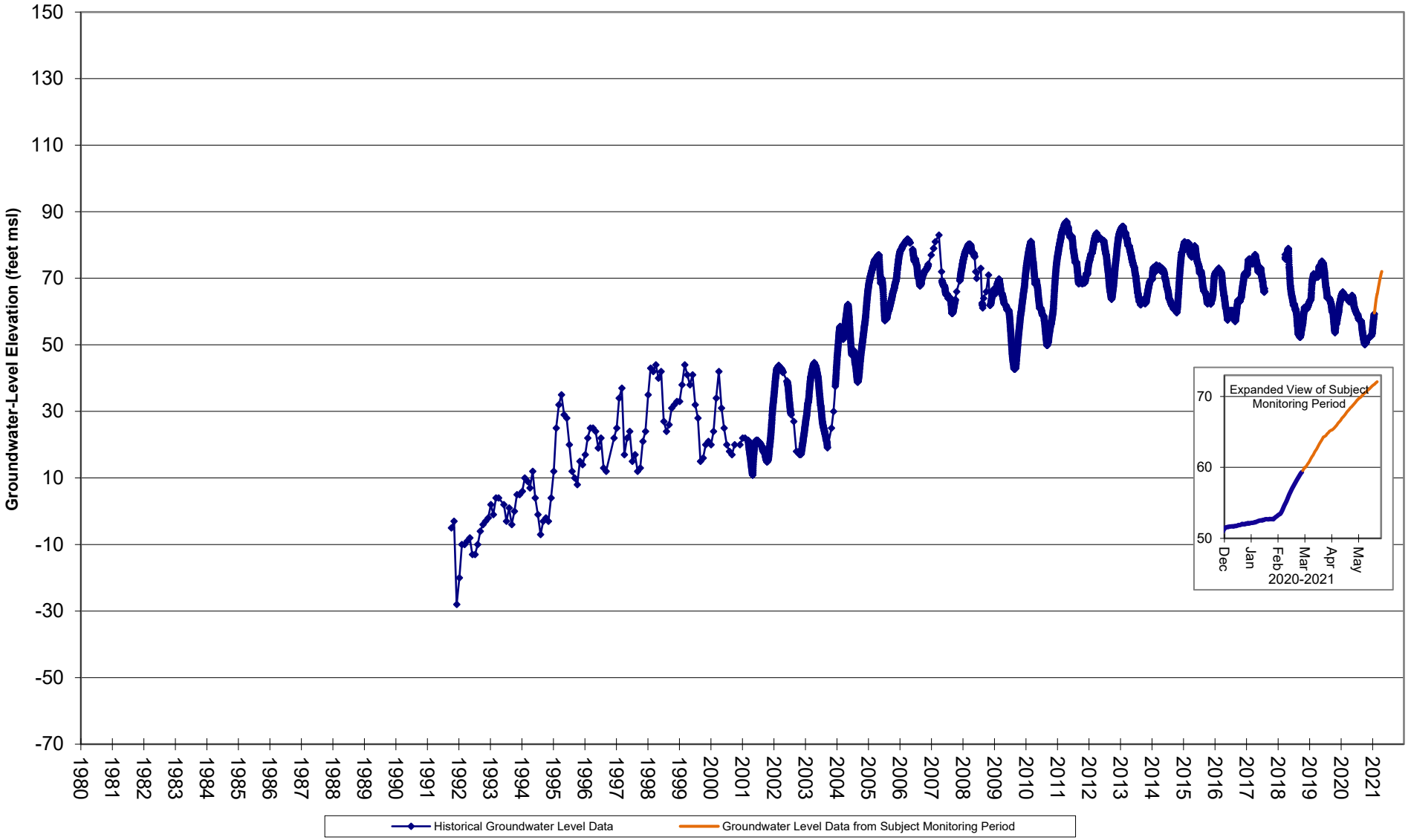


Plate 5
Groundwater Level Hydrograph
Municipal Well No. 38
City of Rohnert Park



Appendix 9 – Reporting of Energy Intensity

Urban Water Supplier: *City of Rohnert Park*

Water Delivery Product (If delivering more than one type of product use Table O-1C)

Retail Potable Deliveries

Table O-1B: Recommended Energy Reporting - Total Utility Approach

Enter Start Date for Reporting Period	1/1/2020	**Urban Water Supplier Operational Control**		
End Date	12/31/2020			
☐ Is upstream embedded in the values reported?		**Sum of All Water Management Processes**	**Non-Consequential Hydropower**	
Water Volume Units Used	*AF*	Total Utility	Hydropower	Net Utility
Volume of Water Entering Process (volume unit)		*4574.32*		*4574.32*
Energy Consumed (kWh)		*122,645.60*		*122645.6*
Energy Intensity (kWh/vol. converted to MG)		*82.3*	*0.0*	*82.3*

Quantity of Self-Generated Renewable Energy

kWh

Data Quality *(Estimate, Metered Data, Combination of Estimates and Metered Data)*

Combination of Estimates and Metered Data

Data Quality Narrative:

Narrative:

Appendix 10 – Water Shortage Contingency Plan

City of Rohnert Park

Water Shortage Contingency Plan

Update 2020

Contents

List of Tables

SECTION 1: INTRODUCTION

The City of Rohnert Park's (City's) Water Shortage Contingency Plan (Shortage Plan) was first adopted by Ordinance in 2004. The Ordinance was described and appended to the City's 2005 and 2010 Urban Water Management Plans. In both 2014 and 2015 the City found it necessary to adopt interim urgency ordinances to respond to the State Water Resources Control Board's emergency drought regulations, because its codified plan was not sufficiently flexible to demonstrate comprehensive response to those emergency regulations. In 2016, the City adopted a revised and updated Water Shortage Contingency Plan with its 2015 UWMP. In 2017, the City undertook a comprehensive update of the water system provisions of its Municipal Code. Municipal Code Section 13.05.030 now refers to the City' independently adopted Water Shortage Contingency Plan.

Additionally, in 2018, new water conservation legislation was signed into law (AB 1668 - Friedman and SB 606 - Hertzberg), that among other things included enhanced drought preparedness and water shortage contingency planning for urban water suppliers.

This Water Shortage Contingency Plan (Shortage Plan) takes into consideration the changes to the City's Municipal Code, and the requirements of the new of the new water conservation legislation described above. It will be adopted with the City's 2020 UWMP and serve as the current Shortage Plan required by the Municipal Code.

SECTION 2: WATER SUPPLY RELIABILITY ASSESSMENT

The City's 2020 Urban Water Management Plan includes a water supply reliability and drought risk assessment in Chapter 7. The 2020 UWMP concludes that the City's water supply is reliable under a range of hydrologic conditions both in the near term and through 2045. This section summarizes the findings of the 2020 UWMP and focuses on the City's potable water demands and potable water supplies. While the City also has a significant non-potable recycled water system, the recycled water only supplies non-essential irrigation uses and it is not analyzed in this Shortage Plan.

2.1 Water Use Characterization

The City's potable water use has ranged from 3,942 AFA to 5,375 AFA over the period from 2011 through 2020. Potable water use in 2020 was 4,575 AF. Potable use declined from 2014 through 2016, likely influenced by the historic drought conditions and mandatory state-wide restrictions. Potable water use remains below pre-drought conditions but has been increasing since 2016. While growth in water use may be associated with a degree of rebound following the drought, it is most likely the result of housing construction, including affordable housing construction, as required to meet the City's Regional Housing Needs Allocation (RHNA), imposed by the state's Housing and Community Development agency. The City is one of the few agencies in California on track to meet its RHNA. Table 1 summarizes the City's historic water use pattern and illustrates that residential uses are the preponderant water use in the City.

TABLE 1 TOTAL PAST WATER USE, AF

	Water Use (AFA)									
Water Use Sector	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Single Family Residential	2,017	2,238	2,229	1,768	1,572	1,577	1,817	1,761	1,816	1,966
Multi-Family Residential	1,561	1,608	1,535	1,489	1,332	1,329	1,466	1,481	1,448	1,462
Commercial/Industrial/Institutional	1,020	851	1,239	726	641	801	748	776	778	455
Dedicated irrigation	319	391	372	316	397	325	397	402	413	408
Total Potable Consumption	**4,917**	**5,088**	**5,375**	**4,299**	**3,942**	**4,032**	**4,428**	**4,420**	**4,455**	**4,290**
Non Revenue Water	356	562	1,123	674	380	430	333	478	434	284
Total Potable Use	**5,273**	**5,650**	**6,498**	**4,973**	**4,322**	**4,462**	**4,761**	**4,898**	**4,889**	**4,575**
Recycled Water					1,100	1,047	1,149	1,403	1,091	1,429
Total Water Use	**5,273**	**5,650**	**6,498**	**4,973**	**5,422**	**5,509**	**5,910**	**6,301**	**5,980**	**6,004**

As required by the Urban Water Management Planning Act, the City projected water use through the year 2045 based on projections from the Association of Bay Area Government's Plan Area and validated with land use projections being developed as part of the City's General Plan 2040 Update. Potable water use is projected to grow from the current demand of 4,575 AF in 2020 to 5,879 AF in 2045. This is an average growth rate of a little over 1% per year and is consistent with the City's growth management ordinance that limits residential growth to 1% per year. Table 2 illustrates the City's projected potable water use as presented in its 2020 UWMP.

TABLE 2 (DWR TABLE 4-2) PROJECTED DEMANDS FOR POTABLE AND RAW WATER

Submittal Table 4-2 Retail: Use for Potable and Non-Potable[1] Water - Projected

Use Type	Additional Description (as needed)	Projected Water Use[2] *Report To the Extent that Records are Available*				
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool		2025	2030	2035	2040	2045 (opt)
Add additional rows as needed						
Single Family		2,142	2,248	2,298	2,390	2,486
Multi-Family		1,640	1,722	1,760	1,830	1,904
Commercial	see notes	1,045	1,059	1,073	1,088	1,103
Landscape	Dedicated meters	442	448	454	460	467
Losses	Estimated at 8.5%	491	510	520	537	555
Other	Passive Savings	-221	-358	-458	-533	-636
TOTAL		5,539	5,629	5,647	5,772	5,879

[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.* [2] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES: Commerical estimate includes industrial and institutional use

2.2 Water Supply Characterization

The City currently has two potable water supply sources: a 7,500 acre-feet per year (AFY) entitlement from the Sonoma County Water Agency (Sonoma Water), which the City discounts when analyzing reliability and 2,577 AFY of groundwater from the City's wells, which is highly reliable under all hydrologic conditions.

As described in the City's 2020 Urban Water Management Plan, the City's supply from Sonoma Water is constrained by the Agency's water rights and by hydrologic and environmental constraints. While the City's has a 7,500 AFY allocation under the Restructured Agreement for Water Supply the City considers its "reliable" supply

from the Agency to be approximately 6,250 AFY under normal and multiple dry year scenarios and 4,573 AFY under single dry year conditions. The City uses these projections in its multi-year planning and drought risk assessment.

The City's groundwater supply is from the Santa Rosa Plain Subbasin of the Santa Rosa Valley Groundwater Basin. The City has conducted a number of technical studies since the late 1990s which concluded that the reliable yield from the City's wellfield is 2,577 AFY. The City adopted this supply limit in its 2004 Water Policy Resolution and manages its pumping to this limit. The USGS's recent technical study, *The Hydrologic and Geochemical Characterization of the Santa Rosa Plain Watershed, Sonoma County California* (U. S. Geological Survey Scientific Investigations Report 2013-5118), confirms that this pumping rate is sustainable under a range of hydrologic conditions based on both modelling work and analysis of ongoing groundwater level data. The developing Groundwater Sustainability Plan for the basin also takes into account the City's managed pumping practices.

Table 3 below, presents the City's water supply that is available under normal, single dry and multiple dry year conditions, which informed the reliability and drought risk analysis in the City's UMWP.

TABLE 3 –POTABLE WATER SUPPLY AVAILABLE THROUGH 2045 UNDER VARIOUS HYDROLOGIC CONDITIONS

Supply Description	Supply Available in AFY				
	2025	2030	2035	2040	2045
Normal Year					
Sonoma Water	6,250	6,250	6,250	6,250	6,250
Groundwater	2,577	2,577	2,577	2,577	2,577
Total	8,827	8,827	8,827	8,827	8,827
Single Dry Year					
Sonoma Water	4,573	4,573	4,573	4,573	4,573
Groundwater	2,577	2,577	2,577	2,577	2,577
Total	7,150	7,150	7,150	7,150	7,150
Multiple Dry Years					
Sonoma Water	6,250	6,250	6,250	6,250	6,250
Groundwater	2,577	2,577	2,577	2,577	2,577
Total	8,827	8,827	8,827	8,827	8,827

2.3 Water Service Reliability Findings

The City's 2020 UMWP concludes that both the potable water supply and the recycled water supply are sufficient to meet demand through 2045. Table 4 summarizes the findings of the 2020 UWMP. While the City maintains this Shortage Plan to assist it in responding to emergencies and regulatory requirements to reduce demands, the City does not anticipate the need to utilize this Shortage Plan to manage hydrologic supply insufficiency before 2045.

TABLE 4 – POTABLE WATER SUPPLY AND DEMAND COMPARISON IN 2045 UNDER VARIOUS HYDROLOGIC CONDITIONS

Hydrologic Condition	Supply and Demand Comparison				
	2025	2030	2035	2040	2045
Normal Year					
Water Supply	8,827	8,827	8,827	8,827	8,827
Water Demand	5,539	5,629	5,647	5,772	5,879
Surplus (Deficit)	3,288	3,198	3,180	3,055	2,948
Single Dry Year					
Sonoma Water	7,150	7,150	7,150	7,150	7,150
Groundwater	5,539	5,269	5,647	5,772	5,879
Total					
Multiple Dry Years					
Sonoma Water	8,827	8,827	8,827	8,827	8,827
Groundwater	5,539	5,269	5,647	5,772	5,879
Total	3,288	3,198	3,180	3,055	2,948

2.3.1 Drought Risk Assessment

As required by state law, the City's 2020 UWMP includes a comparison of multiple dry year supply versus projected demands over the next five years. The 2020 UWMP concludes that supplies are sufficient to meet demand. While the City maintains this Shortage Plan to assist it in responding to emergencies and regulatory requirements to reduce demands, the City does not anticipate the need to utilize this Shortage Plan to manage hydrologic supply insufficiency before 2025.

2.4 Demand Management Tools and Options

The City implements a range of demand management measures which are described below.

Water Waste Ordinance – the purpose of this ordinance is to promote the efficient use of the water and recycled water supply provided by the city; to eliminate the intentional or unintentional waste of water when a reasonable alternative solution is available; to prohibit the use of equipment that is wasteful and to outline the city's policy with respect to water shortages.

Recycled Water Use Required – the City requires new development to connect to the recycled water system where feasible, reducing new demands on its potable water supply.

Metering – the City requires that all active service connections be metered.

Conservation Pricing – the City has tiered utility rates for water customers which incentivizes customers to use less than 4,000 gallons per month.

Public Education and Outreach – the City is a member of the Sonoma Marin Saving Water Partnership who performs education and outreach to K-12 students. City staff performs education and outreach through social media, print advertising and community events.

Water Loss Management – City staff is actively managing water loss by repairing leaks, breaks and faulty meters as they are discovered.

Water Conservation Program Coordination and Staffing Support – the City has a dedicated Environmental Coordinator who is tasked with implementing the City's water conservation program.

Rebate Programs – the City offers monetary rebates to customers who replace older toilets and clothes washers with water efficient units. The City offers Green House Calls to residents who wish to have a technician evaluate their home water use and receive water and energy efficient fixtures.

Development Standards – the City enforces building and plumbing codes and the model water efficient landscape ordinance for new development.

2.5 Emergency Response Planning

In addition to responding to drought conditions, the City's Shortage Plan can be used to respond to emergency conditions that interrupt water supplies. Water supplies may be interrupted in the future due to water supply contamination, major transmission pipeline break, regional power outage, or a natural disaster such as an earthquake. In accordance with the Emergency Services Act, the City has developed an Emergency Operation Plan (EOP). This EOP guides response to unpredicted catastrophic events that might impact water delivery including regional power outages, earthquakes or other disasters. The EOP outlines standard operating procedures for all levels of emergency, from minor accidents to major disasters. The EOP has been coordinated with the Agency and neighboring water purveyors. Table 5 summarizes the City's documented emergency planning actions.

TABLE 5 – EMERGENCY PLANNING ACTIONS

Possible Catastrophe	Summary of Actions
Earthquake	Shut-off isolation valves and use of spare piping for ruptured mains
	Storage supplies for service interruption
	Portable and emergency generators available for City facilities
	Procedures for assessing water quality, notifying public and disinfecting system
Flooding	Portable and emergency generators available for City facilities
	Storage supplies for service interruption
	Procedures for assessing water quality, notifying public and disinfecting system
Toxic Spill (interrupts Agency Supply)	Use of local groundwater
	Procedures for assessing water quality, notifying public and disinfecting system
Fire	Storage supplies for fire flows
	Mutual aid plans and responders identified
	Portable and emergency generators available for City facilities
Power outage or grid failure	Portable and emergency generators available for City facilities
Sever winter storms	Portable and emergency generators available for City facilities
Hot weather	Portable and emergency generators available for City facilities

In addition to the EOP, the City also utilizes a Local Hazard Mitigation Plan (LHMP) to assess water system vulnerabilities and mitigate those vulnerabilities. The City's 2018 LHMP was adopted by City Council on September 10, 2019 by Resolution No. 2019-116.

SECTION 3: ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT

The Annual Assessment is required to be submitted annually to DWR beginning on July 1, 2022. The Annual Assessment forecasts near-term water supply conditions (12 months) to ensure shortage response action are triggered in a timely manner. The Annual Assessment will provide a description and quantification of each source of the City's water supply compared to water demands for the current year and on subsequent dry year. The decision-making process and data and methodologies are described in this section. These procedures may be modified overtime. While the City does not anticipate true hydrologic shortages, both emergencies and regulatory requirements, particularly with respect to its Sonoma Water supply, could trigger the need to implement demand management measures in any given year.

Decision-Making Process. This section presents the decision-making process and timeline that the City will use each year to determine its water supply reliability. The assessment will be conducted annually and completed by July 1 of each year.

Develop Annual Assessment. Sonoma Water staff will provide a draft of their Annual Assessment of water supply conditions, considering demand projections for their contractors, by April. City staff will work with Sonoma Water and its contractors to provide City demand projections and review Sonoma Water's draft Annual Assessment, which is to be released as final in June. City staff will complete the Annual Assessment based on projected demands for the current year and one subsequent dry year, the availability of Sonoma Water supply and the availability of groundwater supplies. City staff will present a draft of the Annual Assessment to the Director of Public Works & Utilities (Director) for review and approval by June, or an earlier date determined by the release date of the Agency's final Annual Assessment. If the Annual Assessment determines that projected supply will not meet projected demand, the Director may decide to present the Annual Assessment to the City Council, and request input on the findings and staff recommendations for specific shortage response actions resulting from the assessment.

Submit Annual Assessment to DWR. The City will submit the Annual Assessment to DWR by July 1 of each year.

Data and Methodologies. Data and methodologies present the data inputs and assessment methodology that will be used to evaluate the City's water supply. The evaluation criteria, water supply, unconstrained demand, water supply, planned water use, and infrastructure considerations are described.

Evaluation Criteria. Evaluation criteria are determined by forecasted demand and Sonoma Water's supply conditions and factors that may impact the City's groundwater supply. The recycled water supply will be evaluated informally to ensure the City' remains in compliance with its allocation from Santa Rosa Water. The criteria include the key data inputs and the constraints imposed on water supply and demand. Key data inputs used by the City to forecast water supply and demand for the remainder of the current year and a subsequent dry year include the items described below.

Unconstrained customer demand. Current and subsequent year unconstrained demand considering growth, weather, prior-year conditions, anticipated new demands, policy, and other influencing factors.

Sonoma Water Supply. Sonoma Water's Russian River system is controlled and influenced by a variety of agreements and decisions. There are several constraints, requirements, and restrictions on water supply that will be considered as part of Sonoma Water's Annual Assessment.

Groundwater Supply. Planned groundwater supply and quantity will be described and consistent with supply projections in the UWMP, and will consider growth, weather, prior-year conditions, water quality, infrastructure, coordination with the Santa Rosa Plain GSA, and other influencing factors.

Recycled Water Supply. Planned recycled water supply and quantity will be described and consistent with supply projections in the UWMP, and will consider growth, weather, prior-year conditions, anticipated new demand, infrastructure, and other influencing factors.

Water Supply. Water supply sources will be described, and estimates made of the availability of supply sources, in the Annual Assessment. Water supply source and quantity will be consistent with the supply projections in the UWMP and based on the Agency's Annual Assessment results for the City of Rohnert Park. The City may adjust water supply projections to account for weather, prior year conditions, Agency supply availability, water quality, infrastructure, or other influencing factors.

Unconstrained Customer Demand. Unconstrained customer demand refers to anticipated customer water needs for the year, prior to any water shortage response actions that might be necessary to ensure demand does not exceed supply. Unconstrained customer demand projections will be consistent with the demand projections in Chapter 4 of the City's UWMP. The City may adjust water demand projections to account for weather, prior-year conditions, Agency supply availability, infrastructure, or other influencing factors.

Planned Water Use for Current Year Considering Dry Subsequent Year. The Annual Assessment will provide an evaluation of the amount of anticipated water supply for the current year as well as how supply will be used, while anticipating that the following year will be dry. The assessment of planned water use will be based on evaluating the key data inputs to determine availability and reliability of each water supply source.

Infrastructure Considerations. The Annual Assessment will include an evaluation of how infrastructure capabilities and constraints may affect the City's ability to deliver supply to meet expected customer water use needs in the coming year. Evaluation will include anticipated capital projects that may influence capabilities, such as repairs or new projects.

Other Factors. The City will describe any specific locally applicable factors that can influence or disrupt supply, along with other unique local considerations that are considered as part of the Annual Assessment.

SECTION 4: WATER SHORTAGE LEVELS

Per Water Code Section 10632 (a) (3)(A), the City must include the six standard water shortage levels that represent shortages from the normal reliability as determined in the Annual Assessment. The shortage levels have been standardized to provide a consistent regional and statewide approach to conveying the relative severity of water supply shortage conditions. The six standard water shortage levels correspond to progressively increasing estimated shortage conditions (up to 10-, 20-, 30-, 40-, 50-percent, and greater than 50-percent shortage compared to the normal reliability condition) and align with the response actions the supplier would implement to meet the severity of the impending shortages.

For each of the State's standard shortage levels, Table 6 (DWR Table 8-1) summarizes the water shortage range (i.e., percent shortage from normal supplies) and description of water shortage conditions and response actions. These water shortage stages apply to both foreseeable and unforeseeable water supply shortage conditions.

TABLE 6 (DWR TABLE 8-1) – WATER SHORTAGE CONTINGENCY PLAN LEVELS

Submittal Table 8-1 Water Shortage Contingency Plan Levels		
Shortage Level	**Percent Shortage Range**	**Shortage Response Actions** ***(Narrative description)***
1	Up to 10%	Voluntary compliance is sought. City will expand education and outreach, increase water waste patrols and target high water users (top 100 users)
2	Up to 20%	Compliance is Mandatory. City will continue Stage 1 activities and expand education and outreach, require restaurants to serve water on request, require hotels to allow guests to opt out of linen service, prohibit filing new pools, prohibit new water hauler accounts and consider implementing rate surcharges
3	Up to 30%	Compliance is Mandatory. City will continue Stage 1 and 2 activities and expand education and outreach, prohibit filing or topping off pools, new pools, prohibit new landscape construction, limit irrigation with potable water at parks, schools, golf courses medians ans frontages, implement rate surcharges
4	Up to 40%	Compliance is Mandatory. City will continue Stage 1, 2 and 3 activities and expand education and outreach, prohibit replanting of existing landscapes, require new development to offset water demands, require streetsweepers to use recycled water when available.
5	Up to 50%	Compliance is Mandatory. City will continue Stage 1, 2, 3 and 4 activities and expand education and outreach, prohibit landscape irrigation except for mature trees and food gardens.
6	>50%	Compliance is Mandatory. City will continue Stage 1, 2, 3, 4 and 5 activities and expand education and outreach, and prohibit all landscape irrigation.
NOTES:		

SECTION 5: SHORTAGE RESPONSE ACTIONS

Per Water Code Section 10632 (a)(4), the City must implement shortage response actions that align with the defined shortage levels. These response actions include a combination of locally appropriate supply augmentation, demand reduction, operational changes and mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions and appropriate to the local conditions. Each of these response actions include an estimate, when feasible, of the extent to which the gap between supplies and demand will be reduced by implementation of the action.

5.1 Demand Reduction Actions

Table 7 (DWR Table 8-2) lists the demand reduction actions that the City may implement in response to water shortage conditions and their corresponding estimated reduction in shortage gap between water supply and water demand. In addition these demand reduction actions, the City may implement additional mandatory water restrictions as they currently exist within the City's municipal code.

TABLE 7 (DWR TABLE 8-2) – DEMAND REDUCTION ACTIONS

Submittal Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** *Drop Down List*
Add additional rows as needed				
1	Expand Public Information Campaign	8.0%	Expanded information campaing includes targeted messaing at high users	No
1	Increase Water Waste Patrols	2.0%		No
2	Expand Public Information Campaign	2.5%	Increased information above shortage level 1 efforts	No
2	Landscape - Limit landscape irrigation to specific times	0.5%		Yes
2	CII - Lodging establishment must offer opt out of linen service	0.5%		Yes
2	CII - Restaurants may only serve water upon request	0.5%		Yes
2	Other water feature or swimming pool restriction	0.5%	Prohibit filling new pools	Yes
2	Implement or Modify Drought Rate Structure or Surcharge	5.0%	Implement 8% drought surcharge rate	Yes
2	Other	0.5%	No new potable water hauler accounts authorized	Yes
2	Other	10.0%	Level 1 actions remain	Yes
3	Expand Public Information Campaign	0.5%	Increased information above shortage level 2 efforts	No
3	Other water feature or swimming pool restriction	0.5%	Prohibit filling or topping off of pools	Yes
3	Landscape - Other landscape restriction or prohibition	5.0%	Prohibit new landscape installation and prohibit potable water irrigation on parks, golf courses, schools medians and frontages	Yes
3	Implement or Modify Drought Rate Structure or Surcharge	4.0%	Implement 12% drought surcharge	Yes
3	Other	20.0%	Level 1 and 2 actions remain	Yes
4	Expand Public Information Campaign	2.0%		No
4	Landscape - Other landscape restriction or prohibition	1.0%		Yes
4	Moratorium or Net Zero Demand Increase on New Connections	2.5%	require no net water use development	Yes
4	Implement or Modify Drought Rate Structure or Surcharge	4.0%	Implement 15% drought rate surcharge	Yes
4	Other	0.5%	Require streetsweepers to use recycled water	Yes
4	Other	30.0%	Level 1, 2 and 3 actions remain	Yes
5	Expand Public Information Campaign	3.0%		No
5	Landscape - Prohibit certain types of landscape irrigation	7.0%	No landscape irrigation except for food gardens and mature trees. Public irrigation may be eliminated	Yes
5	Other	40.0%	Level 1, 2 ,3 and 4 actions remain	Yes
6	Expand Public Information Campaign	2.0%		No
6	Landscape - Prohibit all landscape irrigation	8.0%		Yes
6	Other	50.0%	Level 1, 2 3, 4, and 5 actions remain	Yes
NOTES:				

5.2 Supply Augmentation Actions

Because the City has access to relatively reliable contract and groundwater supplies, the City uses these supplies conjunctively to manage demand. In the event of constraints on the Sonoma Water supply, the City can expand its groundwater pumping to meet demands. In the event that the City's wellfield experiences disruptions, the City can utilize Sonoma Water supply to meet demands. Table 8 (DWR Table 8-3) summarizes this strategy.

TABLE 8 (DWR TABLE 8-3) SUPPLY AUGMENTATION ACTIONS

Submittal Table 8-3: Supply Augmentation and Other Actions			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*
Add additional rows as needed			
Any	Other Actions - utilize conjunctive use capacity to offset Sonoma Water shortages with groundwater or groundwater disruptions with Sonoma Water supply	Up to 100%	Groundwater can meet winter water demands in absense of Sonoma Water Supply. Sonoma Water supply, when available, can meet all potable water demands if groundwater supply is disrupted
NOTES:			

5.3 Operational Changes

Because the City has two sources of potable water supply that it operates conjunctively, the City's first response to water shortage emergencies is often to modify its operational strategy.

Under normal circumstances, the City supplies baseline demands from water purchased from Sonoma Water and utilizes its groundwater to manage peaking. When the Sonoma Water supply is constrain, the City will supply baselines demands from groundwater and utilize its Sonoma Water supply only when necessary.

Other operational changes that the City can undertake include but may not be limited to the following:

- Minimize hydrant and line flushing
- Expand public information campaign
- Expand incentive programs for water users
- Increase frequency of water waste patrols
- Increase enforcement of municipal code and water waste ordinance

SECTION 6: COMMUNICATION PROTOCOLS

In accordance with the Water Code Section 10632 (a) (5), the City has well established communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments, regarding any current or predicted shortages, shortage response actions triggered or anticipated to be triggered by the annual water supply and demand assessment, or any other relevant communications.

The City has a Public Information Officer and several other staff that routinely disseminate a variety of information to the public through several mediums including digital, print, radio and interactive, and is available in both English and Spanish. The City is a member of the Sonoma Marin Saving Water Partnership and is a Co-Permittee to the Phase I MS4 Stormwater Permit for Sonoma and Mendocino counties and is thus frequently engaged in collaborative outreach with our regional partners to ensure consistent messaging within the region.

In the event of a water shortage, the City and its partners in the region will initiate an expanded public outreach campaign to alert the community of the water shortage and any response actions the City has implemented. The public outreach campaign will include but is not limited to the following actions:

- Frequent postings on social media – Facebook, Twitter and Nextdoor
- Updated information posted on the City website
- Targeted outreach to high water users
- Direct mailing to all water users – postcards, bill inserts, newsletters
- Informational articles in the local newspaper
- Information messaging on fixed signs throughout the City
- Information messaging on two digital billboards in the City
- Interactive outreach at local events – Farmers Markets, local events
- Presentations to community groups and City Council

SECTION 7: COMPLIANCE AND ENFORCEMENT

The City maintains the authority through its municipal code (RPMC) to enforce penalties for violations of the water waste ordinance and the Shortage Plan. Customer compliance is initially sought through education and outreach but ultimately the City has the ability to achieve compliance through RPMC. Chapter 13.05 – Water Waste and Water Shortage Contingency Plan of RPMC provides the authority for enforcement as well as appeal procedures and exemptions.

SECTION 8: LEGAL AUTHORITIES

The City of Rohnert Park maintains the authority through RPMC to implement and enforce its shortage response actions and shall declare a water shortage emergency in accordance with Chapter 3 of Division 1 of the water code. In the event of a water shortage emergency the City Council shall declare a water shortage emergency and implement the Shortage Plan to respond to water shortages caused by drought or other natural or manmade disaster.

SECTION 9: FINANCIAL CONSEQUENCES AND RESPONSES

In the event the City declares a water shortage emergency and implements its Shortage Plan and associated response actions, the City would potentially experience a temporary reduction in revenue from water sales, however this would be balanced by some reduction in costs, since the City would be purchasing less water from the Agency while relying more heavily on local groundwater supplies. Additionally, the City would have the option of deferring planned capital expenditures and utilizing its utility system reserves to cover operational expenses.

In 2015, the City adopted procedures to automatically adjust water rates each January to incorporate the effects of changes in the Agency's water rate and the cost of water supply purchases, and to counter the effects of general inflation and appear adequate to meet the water utility's financial needs for operating and maintenance and debt service. The City has also established a Rate Stabilization Reserve which is intended to provide additional protections for the water utility against financial risk that may be associated with drought-related water supply shortages, earthquakes and related water system damage, or other emergency conditions.

Under modest shortage conditions and voluntary use restrictions, the City would rely on its Operating Reserve and/or Rate Stabilization Reserve to bridge the deficit gap. Under more significant conditions with mandatory use restrictions, the City would implement temporary water shortage rate surcharges to provide supplemental water rate revenue, thereby minimizing the impact on reserves. By invoking the temporary water shortage surcharge during periods of mandatory use restrictions the City would provide customers with a financial incentive for meeting use reduction goals, and also preserve its water system reserves as protection against extended droughts or other risks.

SECTION 10: MONITORING AND REPORTING

City staff has the capability through its metering and billing systems to monitor, track and analyze water consumption data for all customer classes for the purposes of customer compliance and to meet state reporting requirements. The City provides monthly reporting to both the state and the Agency as required by law. City staff regularly ensures that the appropriate water supply and demand data is gathered, stored and reported when necessary. During a water shortage emergency, the frequency of monitoring is increased in order to assess the effectiveness of demand reduction response actions and to consider implementing other mitigation strategies.

SECTION 11 REEVALUATION AND IMPROVEMENT PROCEDURES

The City's Shortage Plan is intended to be an adaptively managed plan that allows for changes to be made if needed. Based on the effectiveness of the City's demand reduction response actions and through the monitoring process, the City may elect to adjust its methods in order to achieve greater demand reduction. Any revisions to the Shortage Plan would be reviewed by the City Council prior to adoption.

For the purposes of this Shortage Plan, the City defines water features that are artificially supplied with potable water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

SECTION 12: PLAN ADOPTION, SUBMITTAL AND AVAILABILITY

This Water Shortage Contingency plan was made available with the City's 2020 Urban Water Management Plan. All notices and public hearings for the 2020 Urban Water Management Plan included information on this Updated Water Shortage Contingency Plan.

This Water Shortage Contingency Plan was submitted to state agencies together with the 2020 Urban Water Management Plan.

Appendix 11 – Completed DWR UWMP Tables

Submittal Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2020	Volume of Water Supplied 2020 *
Add additional rows as needed			
4910014	City of Rohnert Park	9,696	4,574
	TOTAL	9,696	4,574
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES:			

Submittal Table 2-2: Plan Identification			
Select Only One	**Type of Plan**		**Name of RUWMP or Regional Alliance** *if applicable* (select from drop down list)
☑	**Individual UWMP**		
	☐	Water Supplier is also a member of a RUWMP	
	☑	Water Supplier is also a member of a Regional Alliance	North Marin-Sonoma Alliance
☐	**Regional Urban Water Management Plan (RUWMP)**		
NOTES:			

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
☐	Supplier is a wholesaler
☑	Supplier is a retailer
Fiscal or Calendar Year (select one)	
☑	UWMP Tables are in calendar years
☐	UWMP Tables are in fiscal years
If using fiscal years provide month and date that the fiscal year begins (mm/dd)	
Units of measure used in UWMP * (select from drop down)	
Unit	AF
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*	
NOTES:	

Submittal Table 2-4 Retail: Water Supplier Information Exchange
The retail Supplier has informed the following wholesale supplier(s) of projected water use in accordance with Water Code Section 10631.
Wholesale Water Supplier Name
Add additional rows as needed
Sonoma County Water Agency
Santa Rosa Subregional System
NOTES:

Submittal Table 3-1 Retail: Population - Current and Projected						
Population Served	2020	2025	2030	2035	2040	2045*(opt)*
	42,484	50,220	52,720	53,895	56,050	58,291

NOTES:
1. 2020 population figure is from Department of Finance Data and used in SBX7-7 calculations. Remaining projections are ABAG Plan Bay Area - see EKI 2020 Water Demand Analysis and Water Conservation Measure Update - Table 4-1
2. Recently available 2020 census data suggests a population of 44,360 (4.4% above DOF data). For consistency with the DWR UWMP Guidebook and the 2020 Water Demand Analysis, the City is using DOF data in this 2020 UWMPs. Future UWMPs will report based on final 2020 census data

If you choose to fill these optional tables, please paste all information in the submittal table to the left for submission into the electronic WUE Data Portal.

Submittal Table 4-1 Retail: Demands for Potable and Non-Potable[1] Water - Actual

Use Type	2020 Actual		
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	Level of Treatment When Delivered Drop down list	Volume[2]
Add additional rows as needed			
Single Family		Drinking Water	1,966
Multi-Family		Drinking Water	1,462
Commercial	Includes all use from commercial, industrial and institutional aside from dedicated landscape meters	Drinking Water	455
Landscape	Includes use through all dedicated landscape meters	Drinking Water	408
Losses		Drinking Water	283
		TOTAL	4,574

[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.*
[2] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

OPTIONAL Table 4-1 Retail: Demands for Potable Water - Actual

Use Type	2020 Actual		
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	Level of Treatment When Delivered Drop down list	Volume*
Add additional rows as needed			
		TOTAL	0

* *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

OPTIONAL Table 4-1 Retail: Demands for Non-Potable [1] Water - Actual

Use Type	2020 Actual		
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	Level of Treatment When Delivered Drop down list	Volume[2]
Add additional rows as needed			
		TOTAL	0

1 *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.*
2 *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

If you choose to fill these optional tables, please paste the combined information in the submittal table to the left.

Submittal Table 4-2 Retail: Use for Potable and Non-Potable[1] Water - Projected

Use Type	Additional Description (as needed)	Projected Water Use[2] *Report To the Extent that Records are Available*				
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool		2025	2030	2035	2040	2045 (opt)
Add additional rows as needed						
Single Family		2,142	2,248	2,298	2,390	2,486
Multi-Family		1,640	1,722	1,760	1,830	1,904
Commercial	see notes	1,045	1,059	1,073	1,088	1,103
Landscape	Dedicated meters	442	448	454	460	467
Losses	Estimated at 8.5%	491	510	520	537	555
Other	Passive Savings	-221	-358	-458	-533	-636
TOTAL		5,539	5,629	5,647	5,772	5,879

[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.* [2] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES: Commerical estimate includes industrial and institutional use

OPTIONAL Table 4-2 Retail: Use for Potable Water - Projected

Use Type	Additional Description (as needed)	Projected Water Use * Report To the Extent that Records are Available				
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool		2025	2030	2035	2040	2045 (opt)
Add additional rows as needed						
TOTAL		0	0	0	0	0

** Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

OPTIONAL Table 4-2 Retail: Use for Non-Potable[1] Water - Projected

Use Type	Additional Description (as needed)	Projected Water Use[2] To the Extent that Records are Available				Report
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool		2025	2030	2035	2040	2045 (opt)
Add additional rows as needed						
TOTAL		0	0	0	0	0

[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.*
[2] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

Submittal Table 4-3 Retail: Total Water Use (Potable and Non-Potable)

	2020	2025	2030	2035	2040	2045 (opt)
Potable Water, Raw, Other Non-potable *From Tables 4-1R and 4-2 R*	4,574	5,539	5,629	5,647	5,772	5,879
Recycled Water Demand[1] *From Table 6-4*	1,429	1,350	1,350	1,350	1,350	1,350
Optional Deduction of Recycled Water Put Into Long-Term Storage[2]						
TOTAL WATER USE	6,003	6,889	6,979	6,997	7,122	7,229

[1] Recycled water demand fields will be blank until Table 6-4 is complete
*Long term storage means water placed into groundwater or surface storage that is not removed from storage in the same year. Supplier **may** deduct recycled water placed in long-term storage from their reported demand. This value is manually entered into Table 4-3.* [2]

NOTES: Future recycled water availability is assumed to be 1,350 AFA, based on the agreement between the City and Santa Rosa. Recent use, during favorable hydrologic conditions has exceeded this amount.

If you choose to fill these optional tables, please paste information in the submittal table to the left.

OPTIONAL Table 4-3 Retail: Total Water Use (Potable)

	2020	2025	2030	2035	2040	2045 (opt)
Potable Water *From Tables 4-1R and 4-2 R*	0	0	0	0	0	0
TOTAL WATER USE	0	0	0	0	0	0

NOTES:

OPTIONAL Table 4-3 Retail: Total Water Use (Non-Potable)

	2020	2025	2030	2035	2040	2045 (opt)
Recycled Water Demand[1] *From Table 6-4*	1,429	1,350	1,350	1,350	1,350	1,350
Raw and Other Non-potable *From Tables 4-1R and 4-2 R*	0	0	0	0	0	0
Optional Deduction of Recycled Water Put Into Long-Term Storage[2]						
TOTAL WATER USE	1,429	1,350	1,350	1,350	1,350	1,350

[1] Recycled water demand fields will be blank until Table 6-4 is complete
*Long term storage means water placed into groundwater or surface storage that is not removed from storage in the same year. Supplier **may** deduct recycled water placed in long-term storage from their reported demand. This value is manually entered into Table 4-3.* [2]

NOTES:

Submittal Table 4-4 Retail: Last Five Years of Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss [1,2]
01/2016	420
01/2017	175.9
01/2018	377.24
01/2019	245.74
01/2020	160.17
[1] *Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.* [2] ***Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*	
NOTES:	

Submittal Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) *Drop down list (y/n)*	Yes
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found.	Section 4.5 and Appendix 3
Are Lower Income Residential Demands Included In Projections? *Drop down list (y/n)*	Yes
NOTES: 2020 Demand Update included in Appendix 3 includes a discussion of assumptions regarding passive water conservation savings	

Submittal Table 5-1 Baselines and Targets Summary
From SB X7-7 Verification Form
Retail Supplier or Regional Alliance Only

Baseline Period	Start Year *	End Year *	Average Baseline GPCD*	Confirmed 2020 Target*
10-15 year	*1992*	*2004*	*161.11*	*123*
5 Year	*2003*	*2007*	*129.48*	

**All cells in this table should be populated manually from the supplier's SBX7-7 Verification Form and reported in Gallons per Capita per Day (GPCD)*

NOTES:

Submittal Table 5-2: 2020 Compliance **From** **SB X7-7 2020 Compliance Form** *Retail Supplier or Regional Alliance Only*				
2020 GPCD			2020 Confirmed Target GPCD*	Did Supplier Achieve Targeted Reduction for 2020? Y/N
Actual 2020 GPCD*	2020 TOTAL Adjustments*	Adjusted 2020 GPCD* *(Adjusted if applicable)*		
96	*0*	*0*	*123*	*Y*
**All cells in this table should be populated manually from the supplier's SBX7-7 2020 Compliance Form and reported in Gallons per Capita per Day (GPCD)*				
NOTES:				

If you choose to fill these optional tables, please paste the combined information in the submittal table to the left.

Submittal Table 6-1 Retail: Groundwater Volume Pumped

☐	Supplier does not pump groundwater. The supplier will not complete the table below.
☐	All or part of the groundwater described below is desalinated.

Groundwater Type *Drop Down List* *May use each category multiple times*	Location or Basin Name	2016*	2017*	2018*	2019*	2020*
Add additional rows as needed						
Alluvial Basin	Santa Rosa Plain Subbasin	1880.24	1785.68	1675.88	2210.15	2163.81
TOTAL		1,880	1,786	1,676	2,210	2,164

**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

OPTIONAL Table 6-1 Retail: Groundwater Volume Pumped - Potable

☐	Supplier does not pump groundwater. The supplier will not complete the table below.
☐	All or part of the groundwater described below is desalinated.

Groundwater Type *Drop Down List* *May use each category multiple times*	Location or Basin Name	2016*	2017*	2018*	2019*	2020*
Add additional rows as needed						
TOTAL		0	0	0	0	0

**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

OPTIONAL Table 6-1 Retail: Groundwater Volume Pumped - Non-Potable

☐	Supplier does not pump groundwater. The supplier will not complete the table below.
☐	All or part of the groundwater described below is desalinated.

Groundwater Type *Drop Down List* *May use each category multiple times*	Location or Basin Name	2016*	2017*	2018*	2019*	2020*
Add additional rows as needed						
TOTAL		0	0	0	0	0

**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area in 2020							
☐	There is no wastewater collection system. The supplier will not complete the table below.						
80E	Percentage of 2020 service area covered by wastewater collection system *(optional)*						
100	Percentage of 2020 service area population covered by wastewater collection system *(optional)*						
Wastewater Collection			**Recipient of Collected Wastewater**				
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? *Drop Down List*	Volume of Wastewater Collected from UWMP Service Area 2020 *	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? *Drop Down List*	Is WWTP Operation Contracted to a Third Party? *(optional)* *Drop Down List*	
City of Rohnert Park	Metered	3,166	Santa Rosa Water	Laguna Water Reclamation Plant	No	Yes	
Total Wastewater Collected from Service Area in 2020:		3,166					
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3* **.**							
NOTES:							

Submittal Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2020

☐ **No wastewater is treated or disposed of within the UWMP service area.** The supplier will not complete the table below.

Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number *(optional)* [2]	Method of Disposal ***Drop down list***	Does This Plant Treat Wastewater Generated Outside the Service Area? ***Drop down list***	Treatment Level ***Drop down list***	2020 volumes [1]				
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area	Instream Flow Permit Requirement
Laguna	Laguna de Santa Rosa	Flows to Russian River	1B830990SON	River or creek outfall	Yes	Tertiary	16,935	0	1,429	15,506	0
						Total	16,935	0	1,429	15,506	0

[1] **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.

[2] If the **Wastewater Discharge ID Number** is not available to the UWMP preparer, access the SWRCB CIWQS regulated facility website at https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/CiwqsReportServlet?inCommand=reset&reportName=RegulatedFacility

NOTES: Report covers Santa Rosa Water's Laguna Treatment Plant and recycled water used within Rohnert Park's service area

Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area

☐ Recycled water is not used and is not planned for use within the service area of the supplier.
The supplier will not complete the table below.

Name of Supplier Producing (Treating) the Recycled Water:	Santa Rosa Subregional Water Reclamation System
Name of Supplier Operating the Recycled Water Distribution System:	City of Rohnert Park
Supplemental Water Added in 2020 (volume) *Include units*	0 acre feet
Source of 2020 Supplemental Water	

Beneficial Use Type *Insert additional rows if needed.*	**Potential** Beneficial Uses of Recycled Water (Describe)	Amount of **Potential** Uses of Recycled Water (Quantity) *Include volume units* [1]	General Description of 2020 Uses	Level of Treatment *Drop down list*	2020 [1]	2025 [1]	2030 [1]	2035 [1]	2040 [1]	2045 [1] (opt)
Agricultural irrigation										
Landscape irrigation (exc golf courses)				Tertiary	927	850	850	850	850	850
Golf course irrigation				Tertiary	502	500	500	500	500	500
Commercial use										
Industrial use										
Geothermal and other energy production										
Seawater intrusion barrier										
Recreational impoundment										
Wetlands or wildlife habitat										
Groundwater recharge (IPR)										
Reservoir water augmentation (IPR)										
Direct potable reuse										
Other (Description Required)										
				Total:	1,429	1,350	1,350	1,350	1,350	1,350
				2020 Internal Reuse						

[1] ***Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

Submittal Table 6-5 Retail: 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual

☐	Recycled water was not used in 2015 nor projected for use in 2020. The supplier will not complete the table below. If recycled water was not used in 2020, and was not predicted to be in 2015, then check the box and do not complete the table.

Beneficial Use Type	2015 Projection for 2020 [1]	2020 Actual Use[1]
Insert additional rows as needed.		
Agricultural irrigation		
Landscape irrigation (exc golf courses)	850	927
Golf course irrigation	500	502
Commercial use		
Industrial use		
Geothermal and other energy production		
Seawater intrusion barrier		
Recreational impoundment		
Wetlands or wildlife habitat		
Groundwater recharge (IPR)		
Reservoir water augmentation (IPR)		
Direct potable reuse		
Other (Description Required)		
Total	1,350	1,429

[1] **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.

NOTE:

Submittal Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
☑	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
Section 6.3.5	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use *
Add additional rows as needed			
		Total	0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES:			

If you choose to fill these optional tables, please paste the combined information in the submittal table to the left.

Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
☑	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
☐	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other suppliers?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type *Drop Down List*	Expected Increase in Water Supply to Supplier* *This may be a range*
	Drop Down List (y/n)	*If Yes, Supplier Name*				
Add additional rows as needed						
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES:						

OPTIONAL Table 6-7 Retail: Expected Future Water Supply Projects or Programs - *Potable*						
☐	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
☐	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other suppliers?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type *Drop Down List*	Expected Increase in Water Supply to Supplier* *This may be a range*
	Drop Down List (y/n)	*If Yes, Agency Name*				
Add additional rows as needed						
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES:						

OPTIONAL Table 6-7 Retail: Expected Future Water Supply Projects or Programs - *Non-potable*						
☐	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
☐	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other suppliers?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type *Drop Down List*	Expected Increase in Water Supply to Supplier* *This may be a range*
	Drop Down List (y/n)	*If Yes, Agency Name*				
Add additional rows as needed						
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES:						

If you choose to fill these optional tables, please paste the combined information in the submittal table to the left.

Submittal Table 6-8 Retail: Water Supplies — Actual

Water Supply		2020		
Drop down list May use each category multiple times.These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Detail on Water Supply	Actual Volume*	Water Quality Drop Down List	Total Right or Safe Yield* (optional)
Add additional rows as needed				
Purchased or Imported Water	from Sonoma Water	2,411	Drinking Water	6,250
Groundwater (not desalinated)	from the Santa Rosa Plain Basin	2,164	Drinking Water	2,577
Recycled Water	from Santa Rosa Water	1,429	Recycled Water	1,350
	Total	6,003		10,177

***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

OPTIONAL Table 6-8 Retail: Water Supplies — Actual *Potable*

Water Supply		2020		
Drop down list May use each category multiple times.These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Detail on Water Supply	Actual Volume*	Water Quality Drop Down List	Total Right or Safe Yield* (optional)
Add additional rows as needed				
	Total	0		0

***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

OPTIONAL Table 6-8 Retail: Water Supplies — Actual *Non-Potable*

Water Supply		2020		
Drop down list May use each category multiple times.These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Detail on Water Supply	Actual Volume*	Water Quality Drop Down List	Total Right or Safe Yield* (optional)
Add additional rows as needed				
	Total	0		0

***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

Submittal Table 6-9 Retail: Water Supplies — Projected

Water Supply	Additional Detail on Water Supply	Projected Water Supply * Report To the Extent Practicable									
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool		**2025**		**2030**		**2035**		**2040**		**2045** (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
Add additional rows as needed											
Purchased or Imported Water	Sonoma Water	6,250	7,500	6,250	7,500	6,250	7,500	6,250	7,500	6,250	7,500
Groundwater (not desalinated)	Santa Rosa Plain Basin	2,577	2,577	2,577	2,577	2,577	2,577	2,577	2,577	2,577	2,577
Recycled Water	Santa Rosa Water	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350
Total		10,177	11,427	10,177	11,427	10,177	11,427	10,177	11,427	10,177	11,427

***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES: City's contractual water supply from Sonoma Water exceeds what City believes is reasonably available given Sonoma Water's current water rights

If you choose to fill these optional tables, please paste the combined information in the submittal table to the left.

OPTIONAL Table 6-9 Retail: Water Supplies — Projected *Potable*

Water Supply	Additional Detail on Water Supply	Projected Water Supply * Report To the Extent Practicable									
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool		**2025**		**2030**		**2035**		**2040**		**2045** (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
Add additional rows as needed											
Total		0	0	0	0	0	0	0	0	0	0

***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

OPTIONAL Table 6-9 Retail: Water Supplies — Projected *Non-Potable*

Water Supply	Additional Detail on Water Supply	Projected Water Supply* Report To the Extent Practicable									
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool		**2025**		**2030**		**2035**		**2040**		**2045** (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
Add additional rows as needed											
Total		0	0	0	0	0	0	0	0	0	0

***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

If you choose to fill these optional tables, please paste the combined information in the submittal table to the left.

Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)

Year Type	Base Year If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2019-2020, use 2020	Available Supplies if Year Type Repeats	
		☐	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____
		☑	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available *	% of Average Supply
Average Year	2002	10,117	100%
Single-Dry Year	1977	8,222	81%
Consecutive Dry Years 1st Year	1987	10,117	100%
Consecutive Dry Years 2nd Year	1988	10,117	100%
Consecutive Dry Years 3rd Year	1989	10,117	100%
Consecutive Dry Years 4th Year	1990	10,117	100%
Consecutive Dry Years 5th Year	1991	10,117	100%

Supplier may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If a Supplier uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.

***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

OPTIONAL Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment) - Potable

Year Type	Base Year If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2019-2020, use 2020	Available Supplies if Year Type Repeats	
		☐	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____
		☐	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available *	% of Average Supply
Average Year			100%
Single-Dry Year			
Consecutive Dry Years 1st Year			
Consecutive Dry Years 2nd Year			
Consecutive Dry Years 3rd Year			
Consecutive Dry Years 4th Year			
Consecutive Dry Years 5th Year			

Supplier may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If a Supplier uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.

***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

OPTIONAL Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment) - Non-Potable

Year Type	Base Year If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2019-2020, use 2020	Available Supplies if Year Type Repeats	
		☐	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____
		☐	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available *	% of Average Supply
Average Year			100%
Single-Dry Year			
Consecutive Dry Years 1st Year			
Consecutive Dry Years 2nd Year			
Consecutive Dry Years 3rd Year			
Consecutive Dry Years 4th Year			
Consecutive Dry Years 5th Year			

Supplier may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If a Supplier uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.

***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

Submittal Table 7-2 Retail: Normal Year Supply and Demand Comparison

	2025	2030	2035	2040	2045 *(Opt)*
Supply totals *(autofill from Table 6-9)*	10,177	10,177	10,177	10,177	10,177
Demand totals *(autofill from Table 4-3)*	6,889	6,979	6,997	7,122	7,229
Difference	3,288	3,198	3,180	3,055	2,948
NOTES:					

If you choose to fill these optional tables, please paste the combined information in the submittal table to the left.

OPTIONAL Table 7-2 Retail: Normal Year Supply and Demand Comparison - Potable

	2025	2030	2035	2040	2045 *(Opt)*
Supply totals *(autofill from Table 6-9)*	0	0	0	0	0
Demand totals *(autofill from Table 4-3)*	0	0	0	0	0
Difference	0	0	0	0	0
NOTES:					

OPTIONAL Table 7-2 Retail: Normal Year Supply and Demand Comparison - NonPotable

	2025	2030	2035	2040	2045 *(Opt)*
Supply totals *(autofill from Table 6-9)*	0	0	0	0	0
Demand totals *(autofill from Table 4-3)*	1,350	1,350	1,350	1,350	1,350
Difference	(1,350)	(1,350)	(1,350)	(1,350)	(1,350)
NOTES:					

If you choose to fill these optional tables, please paste the combined information in the submittal table to the left.

Submittal Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045 (Opt)
Supply totals*	8,222	8,222	8,222	8,222	8,222
Demand totals*	6,889	6,979	6,997	7,122	7,229
Difference	1,333	1,243	1,225	1,100	993
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*					
NOTES:					

OPTIONAL Table 7-3 Retail: Single Dry Year Supply and Demand Comparison - Potable					
	2025	2030	2035	2040	2045 (Opt)
Supply totals*					
Demand totals*					
Difference	0	0	0	0	0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*					
NOTES:					

OPTIONAL Table 7-3 Retail: Single Dry Year Supply and Demand Comparison - Non-Potable					
	2025	2030	2035	2040	2045 (Opt)
Supply totals*					
Demand totals*					
Difference	0	0	0	0	0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*					
NOTES:					

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison

		2025*	2030*	2035*	2040*	2045* (Opt)
First year	Supply totals	10,177	10,177	10,177	10,177	10,177
	Demand totals	6,889	6,979	6,997	7,122	7,229
	Difference	3,288	3,198	3,180	3,055	2,948
Second year	Supply totals	10,177	10,177	10,177	10,177	10,177
	Demand totals	6,889	6,979	6,997	7,122	7,229
	Difference	3,288	3,198	3,180	3,055	2,948
Third year	Supply totals	10,177	10,177	10,177	10,177	10,177
	Demand totals	6,889	6,979	6,997	7,122	7,229
	Difference	3,288	3,198	3,180	3,055	2,948
Fourth year	Supply totals	10,177	10,177	10,177	10,177	10,177
	Demand totals	6,889	6,979	6,997	7,122	7,229
	Difference	3,288	3,198	3,180	3,055	2,948
Fifth year	Supply totals	10,177	10,177	10,177	10,177	10,177
	Demand totals	6,889	6,979	6,997	7,122	7,229
	Difference	3,288	3,198	3,180	3,055	2,948
Sixth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0

***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

If you choose to fill these optional tables, please paste the combined information in the submittal table to the left.

OPTIONAL Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison - Potable

		2025*	2030*	2035*	2040*	2045* (Opt)
First year	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Second year	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Third year	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Fourth year	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Fifth year	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Sixth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0

***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

OPTIONAL Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison - Non-Potable

		2025*	2030*	2035*	2040*	2045* (Opt)
First year	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Second year	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Third year	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Fourth year	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Fifth year	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Sixth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0

***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

Note: Totals can be entered directly or from the Optional Planning Tool available in a different Excel Workbook, available at wuedata.water.ca.gov under Resources in the UWMP section.

If you choose to fill these optional tables, please paste the combined information in the submittal table to the left.

Submittal Table 7-5: Five-Year Drought Risk Assessment Tables to address Water Code Section 10635(b)

2021	Total
Total Water Use	6,456
Total Supplies	10,177
Surplus/Shortfall w/o WSCP Action	3,721
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	3,721
Resulting % Use Reduction from WSCP action	0%

2022	Total
Total Water Use	6,564
Total Supplies	10,177
Surplus/Shortfall w/o WSCP Action	3,613
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	3,613
Resulting % Use Reduction from WSCP action	0%

2023	Total
Total Water Use	6,672
Total Supplies	10,177
Surplus/Shortfall w/o WSCP Action	3,505
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	3,505
Resulting % Use Reduction from WSCP action	0%

2024	Total
Total Water Use	6,781
Total Supplies	10,177
Surplus/Shortfall w/o WSCP Action	3,396
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	3,396
Resulting % Use Reduction from WSCP action	0%

2025	Total
Total Water Use	6,889
Total Supplies	10,177
Surplus/Shortfall w/o WSCP Action	3,288
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	3,288
Resulting % Use Reduction from WSCP action	0%

OPTIONAL Table 7-5 Five-year Drought Risk Assessment Tables to address Water Code Section 10635(b) - Potable

2021	Total
Total Water Use - *Potable*	
Total Supplies - *Potable*	
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	#DIV/0!

2022	Total
Total Water Use [Use Worksheet]	
Total Supplies [Supply Worksheet]	
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	#DIV/0!

2023	Total
Total Water Use [Use Worksheet]	
Total Supplies [Supply Worksheet]	
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	#DIV/0!

2024	Total
Total Water Use [Use Worksheet]	
Total Supplies [Supply Worksheet]	
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	
Resulting % Use Reduction from WSCP action	#DIV/0!

2025	Total
Total Water Use [Use Worksheet]	
Total Supplies [Supply Worksheet]	
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	#DIV/0!

OPTIONAL Table 7-5 Five-year Drought Risk Assessment Tables to address Water Code Section 10635(b) - Non-Potable

2021	Total
Total Water Use - Non-potable	
Total Supplies	
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	#DIV/0!

2022	Total
Total Water Use [Use Worksheet]	
Total Supplies [Supply Worksheet]	
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	#DIV/0!

2023	Total
Total Water Use [Use Worksheet]	
Total Supplies [Supply Worksheet]	
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	#DIV/0!

2024	Total
Total Water Use [Use Worksheet]	
Total Supplies [Supply Worksheet]	
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	#DIV/0!

2025	Total
Total Water Use [Use Worksheet]	
Total Supplies [Supply Worksheet]	
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	#DIV/0!

Submittal Table 8-1
Water Shortage Contingency Plan Levels

Shortage Level	Percent Shortage Range	Shortage Response Actions (*Narrative description*)
1	Up to 10%	Voluntary compliance is sought. City will expand education and outreach, increase water waste patrols and target high water users (top 100 users)
2	Up to 20%	Compliance is Mandatory. City will continue Stage 1 activities and expand education and outreach, require restaurants to serve water on request, require hotels to allow guests to opt out of linen service, prohibit filing new pools, prohibit new water hauler accounts and consider implementing rate surcharges
3	Up to 30%	Compliance is Mandatory. City will continue Stage 1 and 2 activities and expand education and outreach, prohibit filing or topping off pools, new pools, prohibit new landscape construction, limit irrigation with potable water at parks, schools, golf courses medians ans frontages, implement rate surcharges
4	Up to 40%	Compliance is Mandatory. City will continue Stage 1, 2 and 3 activities and expand education and outreach, prohibit replanting of existing landscapes, require new development to offset water demands, require streetsweepers to use recycled water when available.
5	Up to 50%	Compliance is Mandatory. City will continue Stage 1, 2, 3 and 4 activities and expand education and outreach, prohibit landscape irrigation except for mature trees and food gardens.
6	>50%	Compliance is Mandatory. City will continue Stage 1, 2, 3, 4 and 5 activities and expand education and outreach, and prohibit all landscape irrigation.

NOTES:

Submittal Table 8-2: Demand Reduction Actions

Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** *Drop Down List*
Add additional rows as needed				
1	Expand Public Information Campaign	8.0%	Expanded information campaing includes targeted messaing at high users	No
1	Increase Water Waste Patrols	2.0%		No
2	Expand Public Information Campaign	2.5%	Increased information above shortage level 1 efforts	No
2	Landscape - Limit landscape irrigation to specific times	0.5%		Yes
2	CII - Lodging establishment must offer opt out of linen service	0.5%		Yes
2	CII - Restaurants may only serve water upon request	0.5%		Yes
2	Other water feature or swimming pool restriction	0.5%	Prohibit filling new pools	Yes
2	Implement or Modify Drought Rate Structure or Surcharge	5.0%	Implement 8% drought surcharge rate	Yes
2	Other	0.5%	No new potable water hauler accounts authorized	Yes
2	Other	10.0%	Level 1 actions remain	Yes
3	Expand Public Information Campaign	0.5%	Increased information above shortage level 2 efforts	No
3	Other water feature or swimming pool restriction	0.5%	Prohibit filling or topping off of pools	Yes
3	Landscape - Other landscape restriction or prohibition	5.0%	Prohibit new landscape installation and prohibit potable water irrigation on parks, golf courses, schools medians and frontages	Yes
3	Implement or Modify Drought Rate Structure or Surcharge	4.0%	Implement 12% drought surcharge	Yes
3	Other	20.0%	Level 1 and 2 actions remain	Yes
4	Expand Public Information Campaign	2.0%		No
4	Landscape - Other landscape restriction or prohibition	1.0%		Yes
4	Moratorium or Net Zero Demand Increase on New Connections	2.5%	require no net water use development	Yes
4	Implement or Modify Drought Rate Structure or Surcharge	4.0%	Implement 15% drought rate surcharge	Yes
4	Other	0.5%	Require streetsweepers to use recycled water	Yes
4	Other	30.0%	Level 1, 2 and 3 actions remain	Yes
5	Expand Public Information Campaign	3.0%		No
5	Landscape - Prohibit certain types of landscape irrigation	7.0%	No landscape irrigation except for food gardens and mature trees. Public irrigation may be eliminated	Yes
5	Other	40.0%	Level 1, 2 ,3 and 4 actions remain	Yes
6	Expand Public Information Campaign	2.0%		No
6	Landscape - Prohibit all landscape irrigation	8.0%		Yes
6	Other	50.0%	Level 1, 2 3, 4, and 5 actions remain	Yes

NOTES:

Submittal Table 8-3: Supply Augmentation and Other Actions			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*
Add additional rows as needed			
Any	Other Actions - utilize conjunctive use capacity to offset Sonoma Water shortages with groundwater or groundwater disruptions with Sonoma Water supply	Up to 100%	Groundwater can meet winter water demands in absense of Sonoma Water Supply. Sonoma Water supply, when available, can meet all potable water demands if groundwater supply is disrupted
NOTES:			

Submittal Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
City of Santa Rosa	Yes	Yes
County Name *Drop Down List*	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
Sonoma County	Yes	Yes
NOTES: City also notified Sonoma County Water Agency, its wholesale water supplier		

Appendix 12 – DWR Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and Overview	Executive Summary
x	x	Chapter 1	10630.5	Each plan shall include a simple description of the supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a supplier may also choose to include a simple description at the beginning of each chapter.	Summary	Executive Summary
x	x	Section 2.2	10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Chapter 10 and Appendix 2
x	x	Section 2.6	10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 1.4, 2.5 and Appendix 1
x	x	Section 2.6.2	10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan Preparation	Chapter 10 and Appendix 1
x		Section 2.6, Section 6.1	10631(h)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) - if any - with water use projections from that source.	System Supplies	Appendix 1
	x	Section 2.6	10631(h)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	NA
x	x	Section 3.1	10631(a)	Describe the water supplier service area.	System Description	Chapter 3.1 and 3.2
x	x	Section 3.3	10631(a)	Describe the climate of the service area of the supplier.	System Description	Chapter 3.3. and Table 3-1
x	x	Section 3.4	10631(a)	Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045.	System Description	Chapter 3.4 and Table 3-2
x	x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	System Description	Chapter 3.4
x	x	Sections 3.4 and 5.4	10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Chapter 3.4
x	x	Section 3.5	10631(a)	Describe the land uses within the service area.	System Description	Chapter 3.5
x	x	Section 4.2	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Chapter 4.4 and Appendix 3
x	x	Section 4.2.4	10631(d)(3)(C)	Retail suppliers shall provide data to show the distribution loss standards were met.	System Water Use	Chapter 4.3 and Appendix 4
x	x	Section 4.2.6	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans and other policies or laws.	System Water Use	Chapter 4.4, 4.6 and Appendix 3
x	x	Section 4.2.6	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System Water Use	Appendix 3
x	optional	Section 4.3.2.4	10631(d)(3)(A)	Report the distribution system water loss for each of the 5 years preceding the plan update.	System Water Use	Chapter 4.3 and Appendix 4
x	optional	Section 4.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Chapter 4.5 and Appendix 3
x	x	Section 4.5	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	Chapter 4.4.5, 4.7 and Appendix 5
x		Chapter 5	10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Chapter 5.4 and Table 5-1
x		Chapter 5	10608.24(a)	Retail suppliers shall meet their water use target by December 31, 2020.	Baselines and Targets	Chapter 5.5 and Table 5-2
	x	Section 5.1	10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	NA
x		Section 5.2	10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	NA
x		Section 5.5	10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	n/a supplier gpcd = 96
x		Section 5.5 and Appendix E	10608.4	Retail suppliers shall report on their compliance in meeting their water use targets. The data shall be reported using a standardized form in the SBX7-7 2020 Compliance Form.	Baselines and Targets	Appendix 6
x	x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought.	System Supplies	Chapter 6.1, 6.2, 6.3, 6.9
x	x	Sections 6.1	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, *including changes in supply due to climate change.*	System Supplies	Chapter 6.10
x	x	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System Supplies	Chapter 6.1, 6.2, 6.3, 6.9

x	x	Section 6.1.1	10631(b)(3)	Describe measures taken to acquire and develop planned sources of water.	System Supplies	Chapter 6.1, 6.2, 6.3, 6.9
x	x	Section 6.2.8	10631(b)	Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030, 2035, 2040 and optionally 2045.	System Supplies	Chapter 6.1, 6.2, 6.3, 6.9
x	x	Section 6.2	10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Chapter 6.2
x	x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Chapter 6.2
x	x	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	Chapter 6.2
x	x	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	N/A
x	x	Section 6.2.2.1	10631(b)(4)(B)	For unadjudicated basins, indicate whether or not the department has identified the basin as a high or medium priority. Describe efforts by the supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	System Supplies	Chapter 6.2
x	x	Section 6.2.2.4	10631(b)(4)(C)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	Chapter 6.2
x	x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Chapter 6.2
x	x	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long- term basis.	System Supplies	Chapter 6.7
x	x	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Chapter 6.3
x	x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Chapter 6.3
x	x	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Chapter 6.3
x	x	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	Chapter 6.3
x	x	Section 6.2.5	10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Chapter 6.3
x	x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Chapter 6.3
x	x	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Chapter 6.6
x	x	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area with quantified amount of collection and treatment and the disposal methods.	System Supplies (Recycled Water)	Chapter 6.3
x	x	Section 6.2.8, Section 6.3.7	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and for a period of drought lasting 5 consecutive water years.	System Supplies	Chapter 6.8
x	x	Section 6.4 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a supplier can readily obtain.	System Suppliers, Energy Intensity	Chapter 6.11
x	x	Section 7.2	10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Chapter 7.1
x	x	Section 7.2.4	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Chapter 7.2.5
x	x	Section 7.3	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Chapter 7.2
x	x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water Supply Reliability Assessment	Chapter 7.3
x	x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts 5 consecutive years.	Water Supply Reliability Assessment	Chapter 7.3
x	x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water Supply Reliability Assessment	Chapter 7.1
x	x	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.	Water Supply Reliability Assessment	Chapter 7.1
x	x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water Supply Reliability Assessment	Chapter 7.1
x	x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	Chapter 8 and Appendix 10

x	x	Chapter 8	10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP	Water Shortage Contingency Planning	Appendix 10
x	x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	Appendix 10
x	x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the supplier will use each year to determine its water reliability.	Water Shortage Contingency Planning	Appendix 10
x	x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water Shortage Contingency Planning	Appendix 10
x	x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water Shortage Contingency Planning	Appendix 10
x	x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	Water Shortage Contingency Planning	Appendix 10
x	x	Section 8.4	10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	Appendix 10
x	x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	Appendix 10
x	x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	Appendix 10
x	x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions are appropriate to local conditions.	Water Shortage Contingency Planning	Appendix 10
x	x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water Shortage Contingency Planning	Appendix 10
x	x	Section 8.4.6	10632.5	The plan shall include a seismic risk assessment and mitigation plan.	Water Shortage Contingency Plan	Appendix 10
x	x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water Shortage Contingency Planning	Appendix 10
x	x	Section 8.5 and 8.6	10632(a)(5)(B) 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water Shortage Contingency Planning	Appendix 10
x		Section 8.6	10632(a)(6)	Retail supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water Shortage Contingency Planning	Appendix 10
x		Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Water Shortage Contingency Planning	Appendix 10
x	x	Section 8.7	10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency Water Code Chapter 3.	Water Shortage Contingency Planning	Appendix 10
x	x	Section 8.7	10632(a)(7)(C)	Provide a statement that the supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water Shortage Contingency Planning	Appendix 10
x	x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	Appendix 10
x	x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	Appendix 10
x		Section 8.8	10632(a)(8)(C)	Retail suppliers must describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought	Water Shortage Contingency Planning	Appendix 10
x		Section 8.9	10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	Appendix 10
x		Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water Shortage Contingency Planning	Appendix 10
x	x	Sections 8.12 and 10.4	10635(c)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 30 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	Appendix 1
x	x	Section 8.12	10632(c)	Make available the Water Shortage Contingency Plan to customers and any city or county where it provides water within 30 after adopted the plan.	Water Shortage Contingency Planning	Appendix 1
	x	Sections 9.1 and 9.3	10631(e)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	Chapter 9
x		Sections 9.2 and 9.3	10631(e)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Chapter 9
x		Chapter 10	10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan Adoption, Submittal, and Implementation	Chapter 10 and Appendix 1

x	x	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Reported in Table 10-1.	Plan Adoption, Submittal, and Implementation	Appendix 1
x	x	Section 10.4	10621(f)	Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.	Plan Adoption, Submittal, and Implementation	Plan submitted 11/10/2021 - City has been communicating with DWR on delayed submittal
x	x	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the urban water supplier made the plan and contingency plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan and contingency plan.	Plan Adoption, Submittal, and Implementation	Chapter 10 and Appendix 1
x	x	Section 10.2.2	10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Chapter 10 and Appendix 1
x	x	Section 10.3.2	10642	Provide supporting documentation that the plan and contingency plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Appendix 2
x	x	Section 10.4	10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Appendix 1
x	x	Section 10.4	10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Appendix 1
x	x	Sections 10.4.1 and 10.4.2	10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Chapter 10
x	x	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Chapter 10
x	x	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its water shortage contingency plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Chapter 10
x	x	Section 10.6	10621(c)	If supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan Adoption, Submittal, and Implementation	NA
x	x	Section 10.7.2	10644(b)	If revised, submit a copy of the water shortage contingency plan to DWR within 30 days of adoption.	Plan Adoption, Submittal, and Implementation	NA