

City of Ceres

Water Shortage Contingency Plan

AMENDED FINAL

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Prepared for:

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LIST OF ACRONYMS AND ABBREVIATIONS

Annual Assessment	Annual Water Supply and Demand Assessment
AWSAR	Annual Water Shortage Assessment Report
City	City of Ceres
CMC	Ceres Municipal Code
CWC	California Water Code
DPRP	Drought Preparedness & Response Planning for the City of Ceres
DWR	California Department of Water Resources
ERP	Emergency Response Plan
gpcd	gallons per capita per day
MGD	million gallons per day
PW	Department of Public Works
RSWSP	Regional Surface Water Supply Project
SB	Senate Bill
SRWA	Stanislaus Regional Water Authority
TID	Turlock Irrigation District
UWMP	Urban Water Management Plan
WSCP	Water Shortage Contingency Plan

1 Introduction

In response to the severe drought of 2012-2016, legislation was adopted in 2018 mandating that the Urban Water Management Plan (UWMP) include a Water Shortage Contingency Plan (WSCP) that provides a detailed proposal for assessing water supply availability and response actions to water shortage conditions. Although required to be included with the 2020 UWMP, the WSCP is a stand-alone document and can be amended on its own.

The WSCP is required to include:

- Key attributes of the water supply reliability analysis conducted pursuant to California Water Code (CWC) Section 10632. [CWC Section 10632(a)(1)]
- 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. [CWC Section 10632(a)(3)(A)]
- Locally appropriate “shortage response actions” for each shortage level, with a corresponding estimate of the extent the action will address the gap between supplies and demands. [CWC Section 10632(a)(4)]
- Procedures for conducting an Annual Water Supply and Demand Assessment (Annual Assessment) with prescribed elements. Under CWC 10632.1, urban water suppliers are required to submit, by July 1 of each year, beginning in the year following adoption of the 2020 UWMP, an annual water shortage assessment report (AWSAR) to the California Department of Water Resources (DWR). [CWC Section 10632(a)(2)]
- Communication protocols and procedures to inform customers, the public, and government entities of any current or predicted water shortages and associated response actions. [CWC Section 10632(a)(5)]
- Monitoring and reporting procedures to assure appropriate data is collected to monitor customer compliance and to respond to any state reporting requirements. [CWC Section 10632(a)(9)]
- A re-evaluation and improvement process to assess the functionality of the WSCP and to make appropriate adjustments as warranted. [CWC Section 10632(a)(10)]

2 Water Supply Reliability Analysis

Water Code Section 10632(a)(1)

The analysis of water supply reliability conducted pursuant to Section 10635.

Pursuant to CWC Section 10632(a)(1), this section examines the (a) findings related to water system reliability conducted pursuant to CWC Section 10632, and (b) the key issues that may create a shortage condition based on the City’s water asset portfolio. These topics are described in Chapters 6 and 7 of the 2020 UWMP, but are summarized below, recognizing that the WSCP is a stand-alone document.

The City's sole source of drinking water is from the groundwater aquifer underlying the community. The City currently obtains groundwater from 13 wells. The City's wells pump from a non-adjudicated groundwater basin (Turlock Subbasin) with no limits on pumping.

The City has partnered at the local and state level to diversify the City's water supply portfolio to significantly increase reliability benefits while reducing the City's reliance on groundwater. Locally, the City has partnered with neighboring City of Turlock to form the Stanislaus Regional Water Authority (SRWA) to develop a future water supply plan from Turlock Irrigation District (TID). The City, as a member of the SRWA, has entered into a water sales agreement for delivery of 1,825 MG per year (5 million gallons per day (MGD)) of treated TID surface water from the SRWA Regional Surface Water Supply Project (RSWSP) in mid-2023. The amount delivered to the City is projected to increase to 15 MGD at buildout.

The City's 2020 UWMP evaluated the long-term (20-year) and near-term (5-year) supply reliability of the City's water system, including consideration for a normal year, single dry year, and a 5-year dry period. Constraints on the water supply reliability for the City are primarily water quantity, water quality, and climate change. The 2020 UWMP estimated that the reliability of the City's water supply is sufficient to meet long-term and near-term demands based on positive impacts from State requirements for sustainable groundwater management and the addition of a surface water supply source starting in 2025.

3 Annual Water Supply and Demand Assessment Procedures

Water Code Section 10632(a)(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 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.

Water Code Section 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 July 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 July 1 of each year, whichever is later.

Beginning in 2022, CWC Section 10632.1 requires the City to conduct an Annual Water Supply and Demand Assessment (Annual Assessment) on or before July 1 of each year and submit an Annual Water Shortage Assessment Report (AWSAR) by July 1 of every year. The purpose of the Annual Assessment and AWSAR is to forecast near-term water supply conditions (for the current year) and ensure appropriate shortage response actions are triggered in a timely manner. This section of the WSCP details the procedures used to prepare the Annual Assessment. The intent of the procedures is to provide a description of annual timing and steps to complete the document. The Annual Assessment will be a part of the AWSAR.

On April 20, 2022, the DWR finalized the Annual Water Supply and Demand Assessment Guidance (Annual Assessment Guidance) and accompanying tables. The Annual Assessment will be performed annually by the City using the most current version of the Annual Assessment Guidance. The Annual Assessment shall then be used to complete the AWSAR, which will include recommendations for triggering shortage response actions consistent with the WSCP.

This section describes methods and processes related to the Annual Assessment. All information provided in this section is subject to guidance from the DWR. If the DWR provides modified guidance, then the methods used to perform the Annual Assessment shall change accordingly.

3.1 Decision-Making Process

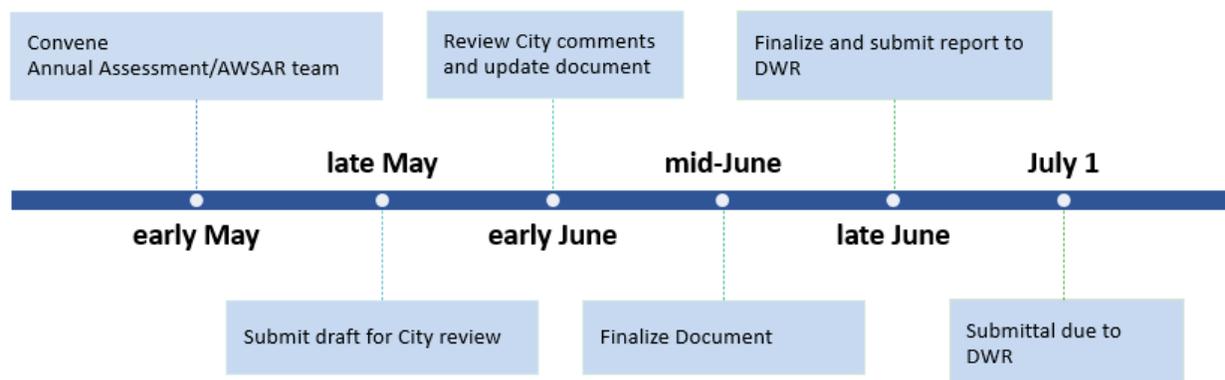
The City Department of Public Works (PW) will be responsible for preparation, obtaining formal approval, and submitting the AWSAR to the DWR. Key responsibilities for preparation of the Annual Assessment and AWSAR are listed in **Table 3-1**. Early in the process, the key team members will be selected and assigned responsibilities to ensure accurate and timely completion of the documents. The Director of Public Works or their designee shall be responsible for approving the AWSAR and presenting recommended shortage response actions to the City for approval (if applicable).

Table 3-1 – Annual Assessment Key Responsibilities

#	Activity
1	Convene Annual Assessment and AWSAR team
2	Information collection and review (see Section 3.2, Key Data Inputs and Methodologies)
3	Prepare draft AWSAR
4	Finalize AWSAR
5	Submit AWSAR to DWR

An example timeline for the decision-making process is provided in **Figure 3-1**. Actual dates for each activity may vary, however the Annual Assessment is required to be submitted to DWR by July 1 each year, starting in 2022.

Figure 3-1 Example Annual Assessment and AWSAR Timeline



3.2 Key Data Inputs and Methodologies

The following sections describe the key data inputs and methodologies which may be used to evaluate the water system reliability for the current year, while considering that the year to follow will be a dry year. To be consistent with the Annual Assessment Guidance, the current year is defined as the twelve-month period which ends on June 30th, preceding the July 1st due date of the AWSAR and the year to follow is defined as the subsequent calendar year. If the definition of current year and dry year is changed by the DWR, then the City shall use the updated definitions for its Annual Assessment.

Key data inputs may include, but are not required to include, the following:

- Summary of active water supply sources and their capacities.
- Monthly water production data for the previous calendar year.
- Available weather data for the previous calendar year and current year.
- Population data for the previous calendar year and current year.
- Growth projections in terms of land use and/or population for the current year.
- Recently completed documents and studies related to the water system and water supply sources.
- Recent regulatory documents.
- Water quality data for the previous calendar year.
- Water system improvements completed in the previous calendar year and planned for the next two years.
- Information on issues encountered in water system for the previous calendar year. Issues may include exceeding contaminant limits, breaks in pipeline, and decreased well production.
- Current and projected hydrological conditions.
- Other data which affects the water system.

Data for additional years prior to the current year may be analyzed as part of the assessment. The data will be used to develop projections for available water supply and unconstrained customer demands for the current calendar year, considering a dry subsequent year. The criteria used in the calculations should be described and be consistent with the most recently prepared City documents and regulatory requirements.

3.3 Evaluation Criteria

The Annual Assessment will compare the projected water supply and the unconstrained average customer demand. If unconstrained average customer demands are higher than the projected water supply, shortage response actions corresponding to the projected WSCP shortage level should be activated.

3.4 Water Supply

The Annual Assessment will describe and quantify each source of water supply. This shall include descriptive text and methods used to determine the supply values.

3.5 Unconstrained Customer Demand

Unconstrained customer demand for the current year will be developed as part of the Annual Assessment. The methodology for the calculations will be described in the Annual Assessment. References for the sources and assumptions used should be provided. Unconstrained customer demands for subsequent years may be calculated and included.

Various methods could be used to calculate unconstrained customer demand. The method should be consistent with previous City documents, including the 2020 UWMP. If an alternative method is used, reasons for the change in approach shall be provided. The most common methods will either involve:

- Population data and projections and a per capita water demand, or

- Water demand factors for various types of land uses and estimates for developed areas, by land use type.

The projected unconstrained customer demands are likely to be higher than historical water demands because the City has been implementing shortage response actions that reduce water usage.

3.6 Current Year Available Supply

The current year available supply shall be analyzed as part of the Annual Assessment. The available supply shall consider hydrological and regulatory conditions in the current year and one dry year. The City may, but is not required to, consider more than one dry year.

3.7 Infrastructure Considerations

This section is to include an evaluation of how the infrastructure capabilities and constraints may affect the City’s ability to deliver supplies to meet customer demands in the coming year. Anticipated capital projects that may influence capabilities, such as repairs that may constrain capabilities (e.g., planned treatment plant upgrades, well rehabilitation or replacement) or new projects that may add capacity (e.g., a new groundwater well or system intertie) may be described in the AWSAR.

3.8 Other Factors

Other factors that can influence or disrupt the water supply, along with unique local considerations should be described in the Annual Assessment. These factors may include recent regulatory requirements, documents and studies related to the water system and water supply sources, and weather conditions.

4 Six Standard Water Shortage Levels

Water Code Section 10632(a)(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.

CWC Section 10632(a)(3) requires water suppliers to define six shortage levels based on the supplier’s 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. **Table 4-1 (DWR Table 8-1)** lists the six standard WSCP levels that were introduced for the 2020 UWMP by the DWR. The six standard water shortage levels

are used in the City’s WSCP instead of the three levels of water supply restrictions listed in the 2015 UWMP to correspond with the changes to the CWC. **Table 4-2** shows the supply restriction levels that were adopted in Resolution No. 2014-27 by the City Council and how they correspond with the six standard water shortage levels.

Table 4-1 – WSCP Levels (DWR Table 8-1)

Submittal Table 8-1 Water Shortage Contingency Plan Levels		
Shortage Level	Percent Shortage Range	Shortage Response Actions (Narrative description)
1	Up to 10%	Provision of rebates, water surveys, and water usage data to customers; landscape irrigation limitations; timely leak repair requirement.
2	Up to 20%	Same as Level 1
3	Up to 30%	Increased landscape irrigation limitations; water served upon request at restaurants; vehicle washing limitations; decorative water feature limitations.
4	Up to 40%	Same as Level 3
5	Up to 50%	Same as Level 3
6	>50%	Prohibit all landscape irrigation; vehicle washing limitations; additional water feature limitations; no new potable water service permitted.
NOTES:		

Table 4-2 – Previous Drought Condition Stages

2020 WSCP Level	Shortage Level	Previous Drought Condition Stages	
		Stage	Stage Title
1	≤ 10%	I	Normal
2	10 - 20%	I	Normal
3	20 - 30%	II	Critical
4	30 - 40%	II	Critical
5	40 - 50%	II	Critical
6	> 50%	III	Emergency

5 Shortage Response Actions

Water Code Section 10632 (a)(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.

CWC Section 10632(a)(4) requires shortage response actions that align with the shortage levels defined in **Table 4-1 (DWR Table 8-1)** and include locally appropriate supply augmentation actions, demand reduction actions, operational changes, and additional mandatory prohibitions against specific water use practices. An estimate of the extent to which the gap between supplies and demand will be reduced by implementation of the actions must be provided.

In 2014, the City adopted a resolution for a program of mandatory prohibitions related to water conservation. The City adopted this ordinance in response to the water shortage emergency associated with the drought of 2012 through 2016. The Drought Preparedness & Response Planning for the City of Ceres Public Water System (DPRP) dated February 23, 2016, outlines practices for the City to manage water use demand and evaluates alternative water supply sources. The DPRP includes general provisions, definitions, application of regulations, and water conservation restrictions. The water conservation restrictions are described in more detail in this section.

5.1 Supply Augmentation Actions

The City solely relies on groundwater and does not currently have alternate water sources for normal or emergency conditions. In the future, surface water will be acquired through TID and utilized to lower groundwater usage. This will be done during normal conditions and does not qualify as a supply augmentation action. However, it is likely that in the future, certain groundwater wells will be unused except during a water shortage event. **Table 5-1 (DWR Table 8-3)** lists the supply augmentation strategies that the City currently uses.

Table 5-1 – Supply Augmentation and Other Actions (DWR Table 8-3)

Submittal Table 8-3: Supply Augmentation and Other Actions			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUdata online submittal tool</i>	How much is this going to reduce the shortage gap? <i>Include units used (volume type or percentage)</i>	Additional Explanation or Reference <i>(optional)</i>
<i>Add additional rows as needed</i>			
1	Expand Public Information Campaign		Drought Preparedness & Response Plan Section 12.1.2, 12.2.2, 12.3.2
3	Implement or Modify Drought Rate Structure or Surcharge		Resolution No. 2015-64
NOTES:			

5.2 Demand Reduction Actions

Increasing demand reduction actions will be enforced with increasing WSCP levels. **Table 5-2 (DWR Table 8-2)** summarizes demand reduction actions and the WSCP shortage level at which the action will be mandated. The demand reduction actions column was limited to a drop-down list provided by DWR. Additional explanation or reference information is listed to provide details specific to the City. Some demand reduction actions listed in the table correspond to operational changes which are described in Section 5.3. Because the City relies solely on groundwater for water supply and to prevent groundwater basin overdraft, the City urges residents to conserve water and is currently enforcing DPRP Stage II demand reduction actions which limits outdoor watering to two days per week.

Table 5-2 – Demand Reduction Actions (DWR Table 8-2)

Submittal Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.</i>	How much is this going to reduce the shortage gap? <i>Include units used (volume type or percentage)</i>	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement? <i>For Retail Suppliers Only Drop Down List</i>
<i>Add additional rows as needed</i>				
1	Expand Public Information Campaign	Supports other demand reduction actions. Less than 2 gpcd (1% of baseline water demand)		No
1	Provide Rebates on Plumbing Fixtures and Devices	Supports other demand reduction actions. Less than 2 gpcd (1% of baseline water demand)	Toilets, washing machines, dishwasher, and smart irrigation controller	No
1	Provide Rebates for Turf Replacement	Supports other demand reduction actions. Less than 2 gpcd (1% of baseline water demand)	\$1/sf of lawn removed	No
1	Offer Water Use Surveys	Supports other demand reduction actions. Less than 2 gpcd (1% of baseline water demand)		No
1	Other	Supports other demand reduction actions. Less than 2 gpcd (1% of baseline water demand)	Water usage available for customer viewing; leak notifications available	No
1	Landscape - Limit landscape irrigation to specific times	Supports other demand reduction actions. Less than 2 gpcd (1% of baseline water demand)	No watering from 12 PM to 7 PM	Yes
1	Landscape - Limit landscape irrigation to specific days	60 gpcd	Three days per week	Yes

Submittal Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.</i>	How much is this going to reduce the shortage gap? <i>Include units used (volume type or percentage)</i>	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement? <i>For Retail Suppliers Only Drop Down List</i>
1	Landscape - Restrict or prohibit runoff from landscape irrigation	Supports other demand reduction actions. Less than 2 gpcd (1% of baseline water demand)	Ceres Municipal Code: A-1 (b)	Yes
1	Landscape - Prohibit certain types of landscape irrigation	Supports other demand reduction actions. Less than 2 gpcd (1% of baseline water demand)	Ceres Municipal Code: A-1 (c)	Yes
1	Other - Require automatic shut of hoses	Supports other demand reduction actions. Less than 2 gpcd (1% of baseline water demand)	Ceres Municipal Code: A-1 (d)	Yes
1	Other - Prohibit use of potable water for washing hard surfaces	Supports other demand reduction actions. Less than 2 gpcd (1% of baseline water demand)	Ceres Municipal Code: A-1 (e)	Yes
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	3-6 gpcd	Within 24 hours of notification by City	Yes
1	Decrease Line Flushing	Supports other demand reduction actions. Less than 2 gpcd (1% of baseline water demand)		No
1	Increase Water Waste Patrols	Supports other demand reduction actions. Less than 2 gpcd (1% of baseline water demand)		Yes
3	Landscape - Limit landscape irrigation to specific days	20 gpcd	Two days per week	Yes
3	CII – Other CII restriction or prohibition	1.5 gpcd	CII users required to remove all grass	Yes

Submittal Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.</i>	How much is this going to reduce the shortage gap? <i>Include units used (volume type or percentage)</i>	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement? <i>For Retail Suppliers Only Drop Down List</i>
3	Other	Supports other demand reduction actions. Less than 2 gpcd (1% of baseline water demand)	No outdoor water is permitted with use of a hose or shutoff nozzle	Yes
3	Water Features - Restrict water use for decorative water features, such as fountains	Supports other demand reduction actions. Less than 2 gpcd (1% of baseline water demand)	Drought Preparedness & Response Plan Section 11.2	Yes
3	CII - Restaurants may only serve water upon request	Supports other demand reduction actions. Less than 2 gpcd (1% of baseline water demand)	Drought Preparedness & Response Plan Section 11.1	Yes
3	Landscape - Limit landscape irrigation to specific times	Supports other demand reduction actions. Less than 2 gpcd (1% of baseline water demand)	Sprinklers can run no more than 10 minutes per day	Yes
6	Landscape - Prohibit all landscape irrigation	20 gpcd	Drought Preparedness & Response Plan Section 11.3	Yes
6	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Supports other demand reduction actions. Less than 2 gpcd (1% of baseline water demand)	High pressure/low volume wash systems are also permitted	Yes
6	Other water feature or swimming pool restriction	Supports other demand reduction actions. Less than 2 gpcd (1% of baseline water demand)	Prohibit re-filling of ornamental lakes or ponds	Yes

Submittal Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.</i>	How much is this going to reduce the shortage gap? <i>Include units used (volume type or percentage)</i>	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement? <i>For Retail Suppliers Only Drop Down List</i>
6	Other	Supports other demand reduction actions. Less than 2 gpcd (1% of baseline water demand)	No new potable water service provided	No
NOTES: Per Ceres Municipal Code and Corresponding Ordinances				

Water use reductions for each demand reduction action included in **Table 5-2** were estimated based on information from water conservation studies and an analysis of historical per capita water production data for the City between 2001 – 2020. Most of the demand reduction is assumed to occur from restrictions on landscape irrigation.

Water use reduction associated with the demand reduction actions for shortage levels 1 and 3 were primarily assigned to limiting landscape irrigation to a two-day water schedule and estimated to be the difference between the 2020 target per capita gross water use of 180 gpcd from the SB X7-7 tables in the 2020 UWMP and the average per capita baseline water use of 118 gpcd, achieved between 2016 – 2020. SB X7-7 refers to the Water Conservation Act of 2009 which required that all California water suppliers increase their water use efficiency, including achieving a 20 percent reduction in urban in per capita water use by December 31, 2020.

Water use reduction associated with reducing landscape irrigation by one day was estimated by comparing the average water use for the three lowest months of each year with the annual average water use for the year on a per capita basis for 2016 – 2020, and assuming that outdoor water use was occurring two days per week. The overall difference between outdoor water use and baseline water use was divided by two to estimate landscape irrigation water use per day. **Tables 5-3** and **5-4** summarize the calculations for estimating the impacts from the demand reduction actions.

Table 5-3 – Historical Water Production Data

Month	# of days	Water Pumped (MG)				
		Year				
		2016	2017	2018	2019	2020
January	31	108.0	103.4	114.5	112.6	120.2
February	28	103.0	95.3	114.8	98.4	114.5
March	31	113.7	118.9	120.7	116.0	137.2
April	30	142.5	137.7	147.6	154.4	151.1
May	31	194.3	210.7	214.0	182.5	222.1
June	30	229.6	237.8	248.3	212.4	218.8
July	31	245.9	268.0	255.4	233.8	245.7
August	31	227.6	253.7	237.9	230.5	231.5
September	30	203.9	224.4	214.2	197.7	218.4
October	31	176.2	195.7	199.9	172.4	197.8
November	30	125.1	138.8	161.9	131.5	155.9
December	31	110.5	125.1	108.4	116.4	137.9
Total		1,980.3	2,109.5	2,137.5	1,958.5	2,151.1
Population		47,325	47,823	47,915	48,027	48,430
Average water use, gpcd		115	121	122	112	122
5-year average water use, gpcd		118				
Baseline water use(lowest 3 months), MG		321.49	317.63	337.70	326.92	372.60
Baseline, gpcd		75	74	78	76	85
5-year baseline water use, gpcd		78				
Estimated outdoor water use, gpcd		39	47	44	36	36
5-year average outdoor water use, gpcd		40				

Table 5-4 – Shortage Gap Estimates

#	Description	Value
(1)	Average Water Use without Demand Reduction Actions, gpcd (SB X7-7 2020 Target)	180
(2)	Average Water Use after Shortage Level 1, 2, and 3 Actions, gpcd (Average water use, 2016-2020)	118
(3)	Estimated Reduction in Shortage Gap from Level 1, 2, and 3 Actions, gpcd	62
(4)	Average outdoor water use (2-day watering schedule), gpcd	40
(5)	Reduction in Shortage Gap by one day reduction in watering schedule, gpcd	20

Notes:

(2) Average Water Use after Shortage Level 1, 2, and 3 Actions = Average water use from Table 5-3.

(3) Estimated Reduction in Shortage Gap from Level 1, 2, and 3 Actions = (1) Average Water Use without Demand Reduction Actions - (2) Average Water Use after Shortage Level 1, 2, and 3 Actions.

(4) Average outdoor water use (2-day watering schedule) = Average outdoor water use from Table 5-3.

(5) Reduction in Shortage Gap by one day reduction in watering schedule = (4) ÷ 2, rounded.

5.3 Operational Changes

Operational changes to address water shortages will be focused on implementing and enforcing the supply augmentation and demand reduction actions. The following operational changes were listed in **Tables 5-1 and 5-2 (DWR Tables 8-2 and 8-3)** and assist with reduction of water demands.

- Expand public information campaign.
- Implement or modify drought rate structure or surcharge.
- Offer water use surveys.
- Decrease line flushing.
- Increase water waste patrols.

5.4 Additional Mandatory Prohibitions

Additional mandatory prohibitions related to water usage are detailed in Title 13, Chapter 8 of the Ceres Municipal Code (CMC) which includes rules and regulations for the City’s water conservation program.

6 Seismic Risk Assessment and Mitigation Plan

Water Code Section 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.

The City falls under the Stanislaus County Local Hazard Mitigation Plan, which was updated in July 2017. The plan addresses seismic risk and satisfies the requirement of CWC Section 10632.5(a). A copy of the 2017 Local Hazard Mitigation Plan can be found at this website:

<https://www.stanoes.com/lhmp.shtm>

Another useful reference for assessing and mitigating seismic risks to the water system is the City’s Emergency Response Plan (ERP). The ERP includes findings of the City’s risk and resilience assessment and describes strategies, resources, plans, and procedures utilities can use to prepare for and respond to an incident, natural or man-made, that threatens life, property, or the environment.

7 Communication Protocols

Water Code Section 10632 (a)(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

In accordance with CWC 10632(a)(5), the City shall initiate communication procedures to inform customers, the public, interested parties, and local, regional, and state governments when the AWSAR predicts a current or predicted shortage and the shortage response actions that will be triggered or anticipated to be triggered. Communication protocols are included in the DPRP and ERP.

8 Compliance and Enforcement

Water Code Section 10632 (a)(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.

Title 13, Chapter 09 of the CMC describes enforcement, appeal, and exemption procedures for City water code violations which apply to violations of City shortage response actions.

9 Legal Authorities

Water Code Section 10632 (a)(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. [see below]

(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.

Water Code Section Division 1, Section 350

Declaration of water shortage emergency condition. 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.

Title 13 of the CMC gives the City the authority to implement and enforce its shortage response actions. When the conditions deem it necessary, the City shall declare a water shortage emergency in accordance with Water Code Chapter 3 (commencing with Section 350) of Division 1 general provision regarding water shortage emergencies. Because the City is also the water supplier, City staff can coordinate the possible proclamation of a local emergency under California Government Code, California Emergency Services Act (Article 2, Section 8558).

10 Financial Consequences of WSCP

Water Code Section 10632(a)(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.

Revenues for the cost of operating the City water system are collected from customer water rates. The City conducted a Water Rate and Connection Fee Update in September 2017 (Water Rate Study) [1]. Based on that study, the City adopted changes to the water service fee rate structure on November 13, 2017 that went into effect for five years, starting on January 1, 2018.

The current pricing structure is comprised of two components. The volumetric charge is based on gallons of water use and has rates for two categories: single-family and non-single family. The volumetric charges have a two-tier conservation pricing structure with targets for each tier that change depending on the season. The second component of the pricing structure is the service charge. This charge accounts for the cost of the meter, operation and maintenance, and other facility costs and is based on the meter size.

When shortage response actions are activated, revenues will be reduced due to reduced consumption. However, the costs for operating the water system will not correspondingly decrease. There may also be additional costs associated with implementing the shortage response actions and enforcing compliance. The adopted rates from the Water Rate Study are anticipated to provide the City with sufficient funds for revenue reductions and expense increases associated with activated shortage response actions. The Water Rate Study included maintaining operations and capital reserves and was based on a water demand of 10,000 gallons per month for a single-family customer, equating approximately to 90 gpcd (using a household size of 3.66 persons) or 50% of the SB X7-7 2020 target water use.

The cost of compliance with Chapter 3.3 (commencing with Section 365) of Division 1 of the CWC is not projected to be significant because the Water Rate Study was recently completed and assumed a conservative customer water demand and a low customer growth rate of 0.07%.

If needed, the City may implement additional strategies to address decreased revenue from water sales. These strategies may include use of financial reserves, deferring capital improvement projects, reducing current and future operation and maintenance expenses, and conducting a rate study.

11 Monitoring and Reporting

Water Code Section 10632(a)(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.

The City's water system has water meters on all production sources and customers. The City will use the production meters and customer usage meters to determine actual water use reductions. Monthly water pumping volumes and water billing data analyzed for the previous year will be summarized in the Annual Assessment and will assist with monitoring and reporting the adequacy of the shortage response actions.

12 Refining

Water Code Section 10632 (a)(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.

The Annual Assessment, including monitoring and reporting procedures, will provide data to determine if the water shortage mitigation strategies are adequate for reducing water demands. If the data indicates that the strategies are not adequate or can be reduced, the WSCP should be amended and formally approved as described in Section 12.2.

12.1 Special Water Feature Distinction

Water Code Section 10632 (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.

In accordance with Water Code Section 10632 (b), swimming pools and spas are considered different from other water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains. The City follows the definition of a swimming pool found in the Swimming Pool Safety Act.

12.2 Plan Adoption, Submittal and Availability

12.2.1 Notice to the Public

Water Code Section 10642

...Prior to adopting either [the plan or water shortage contingency plan], the urban water supplier shall make both of 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 [see below]. 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.

Government Code section 6066

Publication of notice pursuant to this section shall be once a week for two successive weeks. Two publications in a newspaper published once a week or oftener, with at least five days intervening between the respective publication dates not counting such publication dates, are sufficient. The period of notice commences upon the first day of publication and terminates at the end of the fourteenth day, including therein the first day.

The City is committed to encouraging the active involvement of diverse social, cultural, and economic elements of its citizenry. The City placed a notice in the local newspaper stating that its WSCP has been prepared and that a public hearing would be conducted to take testimony from members of the community. A copy of this notification is included in **Appendix A**. The WSCP was made available for public inspection at the City Public Works Department, located at 2220 Hackett Road, and posted a copy of the WSCP on its website (www.ci.ceres.ca.us), prior to the public hearing.

12.2.2 Public Hearing and Adoption

Water Code Section 10642

...Prior to adopting either, the [plan or water shortage contingency plan], 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.

Water Code Section 10608.26

(a) In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:

- (1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.*
- (2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.*
- (3) Adopt a method, pursuant to subdivision (b) of Section 10608.20 for determining its urban water use target.*

The City has encouraged community and public interest involvement in the WSCP using mailings, public meetings, and web-based communication. Copies of the City's outreach efforts are included in **Appendix A**.

12.2.3 Public Hearing

A public hearing was held on **October 25, 2021** at the City Council Chamber. The hearing provided an opportunity for the City's customers, residents, and employees to learn and ask questions about the current and future water supply of the City.

12.2.4 Adoption

Water Code Section 10642

...After the hearing or hearings, the plan or water shortage contingency plan shall be adopted as prepared or as modified after the hearing.

This WSCP was adopted by the City Council on **October 25, 2021**. A copy of the adopted resolution is included in **Appendix B**.

12.2.5 Plan Submittal

A copy of the adopted WSCP will be submitted to DWR electronically using the WUE Data Portal submittal tool.

12.2.6 Submitting a UWMP to Cities and Counties

The 2020 UWMP will be submitted in electronic format to Stanislaus County within 30 days of adoption.

12.2.7 Public Availability

Water Code Section 10632 (a)(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.

Water Code Section 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.

Within 30 days of submitting the WSCP to DWR, the adopted WSCP will be available for public review during normal business hours at the City Public Works Department. The City will also post a copy of the adopted WSCP on its website (<https://www.ci.ceres.ca.us/>).

12.2.8 Notification to Public Utilities Commission

The City is not regulated by the California Public Utilities Commission.

12.2.9 Amending an Adopted Water Shortage Contingency Plan

Water Code Section 10644 (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...no later than 30 days after adoption, in accordance with protocols for submission and using electronic reporting tools developed by the department.

If the City revises the WSCP, copies of amendments or changes to the plans will be submitted electronically to the DWR through the WUE Data Portal within 30 days of its adoption.

13 References

- [1] City of Ceres Water Rate and Connection Fee Update, HF&H Consultants, LLC, September 12, 2017

Appendix A

Notices to Public and Public Outreach Efforts

Appendix B

City Resolution Adopting WSCP