

CITY OF YUBA CITY
STAFF REPORT

Date: April 19, 2022
To: Honorable Mayor & Members of the City Council
From: Public Works Department
Presentation By: Ben Moody, Public Works & Development Services Director

Summary

Subject: Water Supply Outlook and Emergency Water Conservation Measures
Recommendation: Adopt a Resolution declaring that water supply conditions are such that they dictate and justify the need for the implementation of mandatory conservation measures to achieve 20% conservation, in alignment with Stage 3 of the Water Shortage Contingency Plan
Fiscal Impact: Conservation will result in a reduction in water revenues and increased costs for public outreach and compliance

Purpose:

To provide the City's current water supply outlook and implement conservation measures to obtain a 20% reduction in consumption **as compared to 2020**.

Council's Strategic Goal:

This item addresses Council's Strategic Goal of Public Safety by ensuring adequate water supply for the health and safety of the City's utilities customers.

Background:

The City of Yuba City primarily obtains water for its water system through four different permits/contracts from the Feather River; the City also has access to groundwater for use in drought or emergency conditions via Groundwater Well #1, located at the Water Treatment Plant (WTP), with plans to have Hillcrest Groundwater Well #9 back online in June 2022.

With the current drought, the City's water supplies have been curtailed and reduced, many to the levels experienced during the 2012-2016 drought. The projected allocation/utilization for 2022 is shown below in Table A and further detailed in Attachment 3.

Table A: Yuba City Water Sources (Acre-Feet)

Water Source	Contract Maximum	Projected 2022 Allocation/Utilization	Availability Calculation	Time of Use
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SWRCB License	13855	6,500	923	Curtailed to 15%	September - June
SWRCB Permit	18558	9,000	4,742	Seasonal Availability	October - June
North Yuba Water District		4,500	4,500	Total Contract	Summer
DWR State Water Project		9,600	1,440	15% Allotment*	Year-round
DWR State Water Project - Carryover			1,612	Out of 3,999**	Year-round
Groundwater Well #1			900	Maximum Production	As Needed
Groundwater Well #9			500	Maximum Production	As Needed – June
Surface Water Total:			13,217		
Groundwater Total:			1,400		
Supply Total:			14,617		

* Allotment for current-year DWR State Water Project is subject to change should drought conditions continue. Any reduction in supply will need to be supplemented by carryover water.

**The City's highest priority is to maximize carryover water savings in order to preserve resources for future need, especially if drought conditions continue into Fiscal Year 23/24.

During California's 2012-2016 drought, the City utilized the backup groundwater well at the WTP, "carryover" water from the State Water Project (SWP) Contract to supplement supplies, and encouraged customers to conserve water. Customers did an excellent job reducing consumption during the 2012-2016 drought, and adopted long-term habits that reduced water consumption overall. Through these efforts, the City was able to meet water demands.

Curtailement of water supply allotment began again in 2021 in response to low precipitation and snowpack, and, subsequently, the City voluntarily implemented Stage 2 of the Water Shortage Contingency Plan with a 15% target in July 2021 in order to conserve carryover water and match Executive Order N-10-21.

Though the City has been fortunate to have had enough water supplies to serve customers through 2021 and into 2022, another dry winter has further threatened the water supply level for agencies across California, including Yuba City.

Analysis:

On March 28, 2022, Governor Newsom issued Executive Order N-7-22 (Executive Order), which directs the State Water Resources Control Board to require all urban water suppliers to implement minimum Stage 2 (Water Warning) of their Water Shortage Contingency Plans with a target of 20% conservation. As the City already voluntarily implemented Stage 2 in July 2021, staff has been able to evaluate the effectiveness of that stage to address current and future water supply concerns. Staff has concluded that the voluntary Stage 2 measures have not reached the desired conservation target

during this period and recommends more stringent measures to address the ongoing drought conditions.

In order to meet the state conservation target and conserve SWP Contract carryover water as much as is practicable, staff recommends implementing Stage 3 (Severe Shortage) with a designated 20% reduction target, which includes mandatory water use prohibitions. While this is not mandatory by the State at this time, staff believes that these conservation measures are necessary to better meet the City's water supply needs and anticipated future shortages in Fiscal Year 22/23. Additional water use restrictions under Stage 3 include:

- **Outdoor irrigation restriction to two (2) designated days per week**
 - Irrigation will be limited to Mondays and Thursdays for all addresses
- **Enforcement of water use prohibitions, including:**
 1. Irrigation outside of designated times
 2. Excessive watering resulting in gutter flooding
 3. Using a hose without a shutoff nozzle
 4. Washing down hard surfaces such as sidewalks and driveways
 5. Using a non-recirculating fountain
 6. Not repairing leaks in a timely manner

A full description of Stage 3 is in Attachment 2, along with the other stages of the Water Shortage Contingency Plan. With Council's direction, staff will prepare an outreach campaign to inform customers of the need for significant water conservation and the implemented Stage 3 required actions. The irrigation schedule and water violation information can be found in Attachment 5.

In addition to customer conservation, City efforts to conserve water include further evaluation and construction of groundwater sources, including beginning construction of Groundwater Well #2 at the Water Treatment Plant in the fall, analysis of water supply reduction and water loss within the City's water treatment and distribution system, and reduction in irrigation and water activity at the City's parks and facilities.

Public Works recommends the following schedule for increased water conservation measures:

Council Approval	April 19, 2022
Outreach Campaign & Water Warnings	May 1, 2022
Full Implementation & Enforcement	June 1, 2022

Fiscal Impact:

A reduction in consumption will result in a reduction in revenues. The water and wastewater rate increases will partially offset this loss in sales. An historical comparison of water supply and utilities revenue from Fiscal Year 10/11 through projected Fiscal Year 22/23 is included as Attachment 4.

Alternatives:

Direct staff to remain at Stage 2 voluntary conservation and do not initiate mandatory water conservation measures unless directed to do so at a later time by the State.

Recommendation:

Adopt a Resolution declaring that water supply conditions are such that they dictate and justify the need

for the implementation of mandatory conservation measures to achieve 20% conservation, in alignment with Stage 3 of the Water Shortage Contingency Plan.

Attachments:

1. Resolution - Water Outlook 2022
2. Water Shortage Contingency Plan Stages - Water Outlook 2022
3. Water Supply 2022 - Water Outlook 2022
4. Drought Revenue Analysis - Water Outlook 2022
5. Mandatory Water Enforcement - Water Outlook 2022

Prepared By:
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Submitted By:
Diana Langley
City Manager

ATTACHMENT 1

RESOLUTION NO. 22-__

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF YUBA CITY
DECLARING THAT WATER SUPPLY CONDITIONS ARE SUCH THAT THEY
DICTATE AND JUSTIFY THE NEED FOR IMPLEMENTATION OF WATER
SHORTAGE CONTINGENCY PLAN STAGE 3**

WHEREAS, on March 28, 2022, Governor Newsom issued Executive Order N-7-22 ordering the State Water Resource Control Board to require urban water suppliers to implement, at minimum, Stage 2 of said suppliers' Water Shortage Contingency Plans to achieve a goal of 20% water conservation in response to ongoing drought conditions; and

WHEREAS, the City voluntarily implemented Stage 2 of the City's Water Shortage Contingency Plan on July 20, 2021 in order to achieve a 15% water conservation target in response to Governor Newsom's Executive Order N-10-21; and

WHEREAS, the City's mandatory water restrictions to achieve up to a 30% reduction in water consumption are a part of Stage 3 of the City's Water Shortage Contingency Plan; and

WHEREAS, staff recommends that the more stringent restrictions of Stage 3 be implemented in order to better reach the minimum 20% target due to the insufficiency of the voluntary Stage 2 implementation during the previous nine months; and

WHEREAS, Section 6-6.19 of the Municipal Code dictates that upon declaration of the City Council that water supply conditions are such that they dictate and justify the implementation of emergency water restrictions, the regulations in the Water Shortage Contingency Plan within the City's adopted Urban Water Management Plan will apply.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Yuba City hereby declares that water supply conditions are such that they dictate and justify the need for implementation of emergency water restrictions at Stage 3 of the City's Water Shortage Contingency Plan. The City Council orders implementation of emergency water restrictions at Stage 3 of the City's Water Shortage Contingency Plan.

The foregoing resolution was duly and regularly introduced, passed, and adopted by the City Council of the City of Yuba City at a regular meeting thereof held on the 19th day of April, 2022.

AYES:

NOES:

ABSENT:

Dave Shaw, Mayor

ATTEST:

Ciara Wakefield, Deputy City Clerk

APPROVED AS TO FORM
COUNSEL FOR YUBA CITY

Shannon L. Chaffin, City Attorney
Aleshire & Wynder, LLP

ATTACHMENT 2

Table 6-1: WSCP Actions to Reduce Customer Use - Stage 1

Water Alert: Shortage up to 10%	
1.	Waste and Unreasonable Use of Water Prohibited and Voluntary conservation encouraged (up to 10%)
2.	Situation and possible subsequent water shortage stages explained to the public and governmental bodies (up to 10%)
3.	Focus on customers with high per capita water usage to achieve proportionally greater reduction than those with low use
4.	Actions include, but not limited to: <ul style="list-style-type: none"> • Public information campaign consisting of distribution of literature, speaking engagements, website updates, bill inserts, and conversation messages printed in local newspapers • Educational programs in area schools • Conservation Hotline (combined up to 10%)
5.	Consumption Reduction Methods, including: <ul style="list-style-type: none"> • Demand reduction program • Plumbing and irrigation fixture replacement • Water conservation kits • Education programs • Voluntary rationing (combined up to 10%)
6.	Conservation Rules and Restrictions and Prohibitions on End Uses, to include: <ul style="list-style-type: none"> • Allowing water to run off unused into a gutter, ditch, or drain; • Failing to repair a controllable leak; • Washing sidewalks, driveways, parking areas, tennis courts, patios, or other paved areas; • Utilizing a hand-held hose without an automatic shut-off nozzle; and • Irrigating during a precipitation event • For new development additional prohibitions include single pass-through cooling water systems; commercial car washes and laundries without recirculating water systems; and decorative fountains without recirculating water systems.

Table 6-2: WSCP Actions to Reduce Customer Use - Stage 2

Moderate Shortage (up to 20%)
<ul style="list-style-type: none"> • All measures implemented in Stage 1 • Request voluntary conservation water usage reductions (up to 20%) • Enforce Conservation Rules and Restrictions and Prohibitions on End Uses listed in Table 6-1 (10-20%) • Usage in excess of customer baseline may be subject to drought penalty • All Consumption Reduction Methods from Stage I and intensified as needed; additionally: • Use prohibitions • Encourage customers to voluntarily water one day less per week and to water during the coolest part of the day • Vehicle washing must be done using a bucket or hand-held hose with an automatic shut-off nozzle, or take place at a commercial car wash. • Limit hours or close spray pads and water slide at City parks.

Table 6-3: WSCP Actions to Reduce Customer Use - Stage 3 **RECOMMENDED**

Severe Shortage (up to 30%)	
1.	All measures implemented in Stages 1 and 2
2.	Enforce outdoor irrigation restrictions including limiting number of watering days per week, and time when irrigation can occur (e.g., between 6:00 pm and 9:00 am)
3.	Some or all of the following: <ul style="list-style-type: none"> • Adherence to customer baselines and actual water use reductions water allocations and mandatory conservation rules • Water usage goals established by an authorized government agency or official • Customer water usage in excess of baseline to be monitored and recorded • Intensify enforcement of water use prohibitions; including restrictions of days and daytime hours for watering, excessive watering resulting in gutter flooding, using a hose without a positive shutoff device, use of decorative fountains with non-recirculating pumps, washing down sidewalks or patios, not repairing leaks in a timely manner, etc. (up to 30%)
4.	Monitor water production weekly for compliance with necessary reductions;
5.	All activities are intensified and production is monitored daily for compliance with necessary reductions. (up to 30%)
6.	All Consumption Reduction Methods from Stage 2 and intensified as needed; additionally: <ul style="list-style-type: none"> • Reduce pressure in water lines; Flow restriction • Mandatory rationing • Close spray pads and water slide at City parks • Incentives to reduce water consumption; Excess use penalty • Percentage reduction by customer type (combined up to 30%)
7.	Penalties and Charges for Excessive Use, including penalties for not reducing consumption, charges for excess use

Table 6-4: WSCP Actions to Reduce Customer Use - Stage 4

Critical Shortage (up to 40%)	
1.	All measures implemented in Stages 1-3
2.	All activities are intensified and production is monitored daily for compliance with necessary reductions. (up to 40%)
3.	All Consumption Reduction Methods from Stage 3 and intensified as needed; additionally: <ul style="list-style-type: none"> • Restrict building permits; Restrict for only priority uses
4.	Penalties and Charges for Excessive Use, including penalties for not reducing consumption, charges for excess use (up to 40%) <ul style="list-style-type: none"> • Continue monitoring and addressing water use above baseline with penalties
5.	Catastrophic Event (Supply reduction up to 40%): Implement Applicable Actions for Catastrophic Events

Table 6-5: WSCP Actions to Reduce Customer Use - Stage 5

Shortage Crisis (up to 50%)
<ol style="list-style-type: none"> 1. All measures implemented in Stages 1-4 2. Source of supply for the System is severely curtailed to the level that requires each customer to restrict their water use for only human health and safety purposes (up to 50%) 3. All activities are intensified and production is monitored daily for compliance with necessary reductions (up to 50%) 4. All Consumption Reduction Methods from previous stages and intensified as needed 5. Possible reductions in customer baselines and actual water use reductions (up to 50%) 6. Usage in excess of customer baseline to be charged at regular rate plus an additional drought emergency surcharge amount (up to 50%) Update current water shortage condition response measures based on Council approvals and direction, state policy directives, emergency conditions, or to improve customer response 7. Catastrophic Event (Supply reduction up to 50%): Implement Applicable Actions for Catastrophic Events (such as boil water order) - Continue water monitoring for reduction from baseline with potential penalties

Table 6-6: WSCP Actions to Reduce Customer Use - Stage 6

Emergency Shortage (greater than 50%)
<ol style="list-style-type: none"> 1. All measures implemented in Stages 1-5 2. Source of supply for the System is severely curtailed to the level that requires each customer to restrict their water use for only human health and safety purposes (>50%) 3. All activities are intensified and production is monitored continually for compliance with necessary reductions (up to >50%) 4. All Consumption Reduction Methods from previous stages and intensified as needed 5. Possible reductions in customer baselines and actual water use reductions (up to >50%) 6. Usage in excess of customer baseline to be charged at regular rate plus an additional drought emergency surcharge amount 7. Update current water shortage condition response measures based on Council approvals and direction, state policy directives, emergency conditions, or to improve customer response 8. Catastrophic Event (Supply reduction greater than 50%): Implement Applicable Actions for Catastrophic Events. Continue water monitoring for reduction from baseline with potential penalties

ATTACHMENT 3

Yuba City Water Supply 2022

Source	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	Contract Maximum		Additional Information
Lic. #13855 (SWRCB - A018025) ¹	0	0	0	96	0	0	X	X	0	0	827	0	923	6,500		POST - 1914
Permit #18558 (SWRCB - A025751) ²	783	910	1,128	1,171	0	0	X	X	X	0	0	750	4,742	9,000		TERM 91
NYWD ³	X	X	X	0	922	892	922	922	654	188	X	X	4,500	4,500		LIC# 12984
WTP Well #1	0	0	0	0	150	150	150	150	150	150	0	0	900			
WTP Well #2	X	X	X	X	X	X	X	X	X	X	X	X	0			Online Target Spring 2023
Well #5	X	X	X	X	X	X	X	X	X	X	X	X	0			Under Evaluation
Well #8	X	X	X	X	X	X	X	X	X	X	X	X	0			Under Evaluation
Well #9	X	X	X	X	X	100	100	100	100	100	0	0	500			Online Target June 2022
SWP Table A (DWR) ⁴	0	0	0	0	545	412	480	3	0	0	0	0	1,440	9,600		Contract # 160254 - Estimated 15% Allocation*
SWP ADV TBLA (DWR)	0	0	0	0	0	0	0	0	0	0	0	0	0	5,000		Area of Origin
SWP Art 21 (DWR) ⁵	0	0	0	0	0	0	0	0	0	0	0	0	0			Surplus
SWP CO Art 56C (DWR) ⁶	0	0	0	0	0	0	0	460	474	678	0	0	1,612	3,999		Carryover Previous Year
Subtotal - Surface Water	783	910	1,128	1,267	1,467	1,304	1,402	1,385	1,128	866	827	750	13,217	38,599		
Subtotal - Groundwater	0	0	0	0	150	250	250	250	250	250	0	0	1,400			
TOTAL WATER SUPPLY	783	910	1,128	1,267	1,617	1,554	1,652	1,635	1,378	1,116	827	750	14,617			

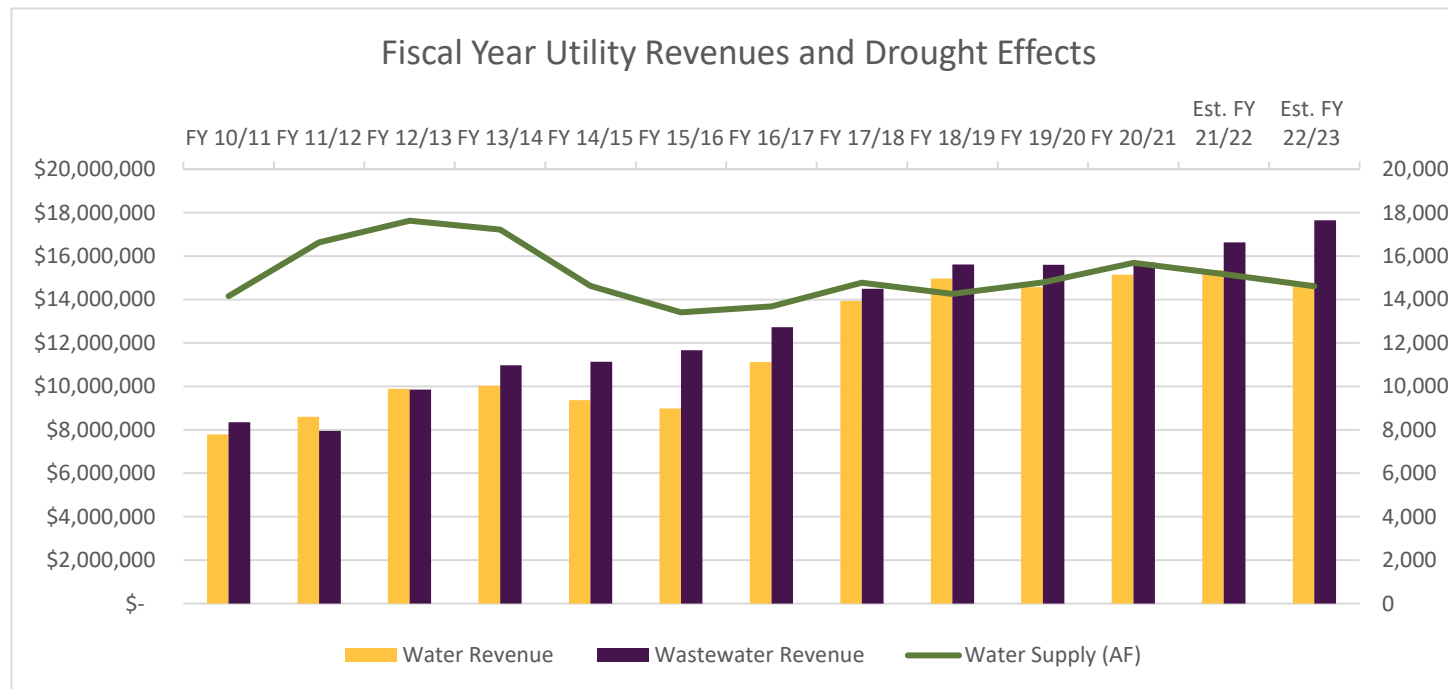
*SWP Table A allocation is subject to change should drought conditions continue. Any reductions in SWP Table A supply will need to be supplemented by carryover water.

ATTACHMENT 4

Fiscal Year Utility Revenues and Drought Effects

Fiscal Year	Water Supply (AF)	Water Consumption (AF)	Water Revenue	Wastewater Revenue
2010/2011	14,162	14,012	\$ 7,787,000	\$ 8,350,000
2011/2012	16,635	14,561	\$ 8,604,000	\$ 7,952,000
2012/2013	17,628	15,634	\$ 9,887,000	\$ 9,856,000
2013/2014	17,218	15,020	\$ 10,027,000	\$ 10,977,000
2014/2015	14,623	12,764	\$ 9,369,000	\$ 11,129,000
2015/2016	13,409	11,258	\$ 8,984,000	\$ 11,658,000
2016/2017	13,680	12,175	\$ 11,120,000	\$ 12,726,000
2017/2018	14,770	13,109	\$ 13,933,000	\$ 14,500,000
2018/2019	14,264	12,772	\$ 14,966,000	\$ 15,613,000
2019/2020	14,791	12,545	\$ 14,567,000	\$ 15,594,000
2020/2021	15,681	13,461	\$ 15,145,000	\$ 15,709,000
Est. 2021/2022	15,176	12,770	\$ 15,355,000	\$ 16,634,000
Est. 2022/2023*	14,617	10,769	\$ 14,770,000	\$ 17,651,000

*Using calendar year 2022 water supply and 20% conservation of FY 20/21 water consumption



ATTACHMENT 5

Water Shortage Stage 3: Mandatory Irrigation Restrictions

IMPLEMENTATION - MAY 1, 2022

ENFORCEMENT - JUNE 1, 2022



	IRRIGATION SCHEDULE	ENFORCEMENT
M	Irrigation: Mornings & Evenings Recommended	<p>Per Municipal Code Sec. 6-6.20., violations of emergency water restrictions are subject to the following enforcement measures:</p> <ol style="list-style-type: none"> 1. First violation: A <u>written warning</u> of such violation. 2. Second violation: <u>\$50</u> surcharge which shall appear on the next monthly water billing. 3. Third violation: <u>\$100</u> surcharge which shall appear on the next monthly water billing. 4. Fourth and subsequent violations: <u>\$250</u> surcharge which shall appear on the next monthly water billing.
T	NO Irrigation	
W	NO Irrigation	
T	Irrigation: Mornings & Evenings Recommended	
F	NO Irrigation	
S	NO Irrigation	
S	NO Irrigation	