

Board of Public Utilities Water Conservation Committee

Update on the 2020 Urban Water Management Plan and 2020 Water Shortage Contingency Plan

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California Urban Water Management Planning Act



Who: Urban water retailers
(at least 3,000 connections
or 3,000 acre-feet per year)

What: Assess long-term water supply
adequacy and reliability (at least
20-year horizon)

Why: Ensure water supply reliability.
Comply with State law.
Maintain eligibility for grants &
drought assistance.

When: Every 5 years (July 1, 2021)



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Urban Water Management Plan (UWMP)



Chapter 1 – Introduction

- a lay description (**new**)

Chapter 2 – Plan Preparation

- coordination, outreach

Chapter 3 – System Description

- facilities/system, service area, climate, land use, population



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Urban Water Management Plan (UWMP)



Chapter 4 – Water Use

- past, current, & projected to 2045 and 2021-2025 Drought Risk Assessment (**new**)

Chapter 5 - Compliance with Conservation Target

- 20% by 2020

Chapter 6 – Water Supplies

- past, current, & projected to 2045 and 2021-2025 Drought Risk Assessment (**new**)



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Urban Water Management Plan (UWMP)



Chapter 7 – Water Service Reliability

- Out to 2045 for normal water years and dry years, including dry 5-year periods (**new**)
- For 2021-2025 Drought Risk Assessment (**new**)
 - Assumes hydrology will be equivalent to driest 5-year period on record

Urban Water Management Plan (UWMP)



Chapter 8 – Water Shortage and Contingency Planning

- Stand-alone plan (**new**)

Chapter 9 – Demand Management Measures

- past, current, future water use efficiency programs
- how we'll achieve new conservation targets and water loss standards (**new**)



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Urban Water Management Plan (UWMP)



Chapter 10 – Plan Adoption, Submittal, & Implementation

- documenting steps taken

Appendices

- about 20, including WSCP



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Questions?



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Water Shortage Contingency Plan



- Operations plan for mild to severe water shortages
- Response actions for managing and reducing water use during shortages

Shortage Plan



Priorities during shortages

- Health & Safety
- Economic Stability
- Landscaping
- New Demand

Shortage Plan



New Requirements

- “Stand alone”
- Define shortage levels -- in comparison to State’s (**new**)
- Describe response actions -- & estimate water savings (**new**)
- Describe financial impacts of water shortages (**expanded**)

Shortage Plan



New Requirements

- Seismic risk assessment & mitigation
- Procedures for Annual Water Supply & Demand Assessment
- Communication protocols
- Compliance & enforcement steps

Shortage Plan



New Requirements

- Monitoring & reporting procedures
- Procedures for reevaluating and improving plan
- Legal authorities
- Plan adoption, submittal, availability

Santa Rosa's Shortage Plan

- Stages
- Response actions
- Overall framework



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Proposed Shortage Stages

CITY	Shortage	STATE	Shortage
Stage 1*	up to 10%	Stage 1*	up to 10%
Stage 2	11-15%	Stage 2	up to 20%
Stage 3	16-20%		
Stage 4	21-25%	Stage 3	up to 30%
Stage 5	26-30%		
Stage 6	31-40%	Stage 4	up to 40%
Stage 7	41-50%	Stage 5	up to 50%
Stage 8	Over 50%	Stage 6	over 50%
* Stage 1 is voluntary			



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Response Actions



Outreach & Education

- Keeping everyone informed

Customer Service & Assistance

- Helping customers save water

Prohibitions and Restrictions

- Eliminating waste and minimizing non-essential uses

Operational Changes

- Adjusting internally to shortages



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Response Actions



Water Shortage Charge

- Stages 2-8
- Partially bridges gap in revenue shortfall during shortages
- Requires Council action

Proposed Water Shortage Charge

Stage	Shortage	Water Shortage Charge
1	10%	no WSC
2	15%	5% of customer use rate
3	20%	7.5% of customer use rate
4	25%	10% of customer use rate
5	30%	15% of customer use rate
6	40%	25% of customer use rate
7	50%	35% of customer use rate
8	>50%	45% of customer use rate

Response Actions



Water Allocations

- Stages 5 - 8
- Every water service
- Requires Council action

Excess Use Penalties

- To enforce Water Allocations
- Requires Council action

Proposed Water Allocations

- Health & Safety accounts (e.g., public safety, hospitals, etc.)

Stage	Shortage	H&S Allocation
5	30%	95% of previous 12 months use
6	40%	90% of previous 12 months use
7	50%	85% of previous 12 months use
8	>50%	80% of previous 12 months use

Proposed Water Allocations

- Residential (single family and multi-family)

Stage	Shortage	Residential Allocation
5	30%	40 gallons per capita per day (gpcd) + landscape allocation May-Oct
6	40%	36 gpcd + landscape allocation May-Oct
7	50%	32 gpcd with no landscape allocation
8	>50%	28 gpcd with no landscape allocation

Proposed Water Allocations

- CII (Commercial, Industrial, Institutional)

Stage	Shortage	CII Allocation
5	30%	85% of previous 12 months use
6	40%	80% of previous 12 months use
7	50%	75% of previous 12 months use
8	>50%	70% of previous 12 months use

Proposed Water Allocations

- Irrigation meters (MFR and CII landscapes)

Stage	Shortage	Irrigation Meter Allocation
5	30%	40% of ET* based water budget
6	40%	20% of ET* based water budget
7	50%	10% of ET* based water budget
8	>50%	No allocation

* ET – Evapotranspiration (weather conditions that drive plant water needs)

Proposed Excess Use Penalty

- Entirely avoidable by all customers

Stage	Shortage	Penalty for use that exceeds allocation	
		101-150% of Allocation	Over 150%
5	30%	10% of water rate with WSC	20%
6	40%	25% of water rate with WSC	50%
7	50%	40% of water rate with WSC	80%
8	>50%	50% of water rate with WSC	100%



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Response Actions



Compliance and Enforcement

- Progressive approach
 - Alert customer to violation.
 - Offer assistance.
 - If needed, issue warning(s).
 - If needed, enforce with penalty.

Shortage Plan Framework



Summary of response
actions by shortage stage

Draft 2020 Water Shortage Contingency Plan
Proposed Framework

Stage	Water Reduction	Water Shortage Charge	Water Allocations	Excess Use Charge ⁽²⁾	Communication, Prohibitions, and Restrictions
1 ⁽¹⁾	10%	-	-	-	<p>Outreach campaign: Shortage stage, reduction target, rebates & assistance, prohibitions & restrictions.</p> <ul style="list-style-type: none"> · Water Waste Ordinance (always in effect) · Hose-end shut-off nozzles required on all garden & utility hoses · Prohibit washing hard surfaces (sidewalks, driveways, patios, etc) unless for public health/safety
2	15%	5%	-	-	<p>Outreach campaign: Shortage stage, reduction target, rebates & assistance, prohibitions & restrictions.</p> <ul style="list-style-type: none"> · Previous Stage prohibitions · Restaurants may only serve water upon request. · Prohibit use of potable water for street cleaning.
3	20%	7.5%	-	-	<p>Outreach campaign: Shortage stage, reduction target, rebates & assistance, prohibitions & restrictions.</p> <ul style="list-style-type: none"> · Previous Stage prohibitions · Prohibit pressure washing (except for public health, safety) unless a variance obtained from Water Dept. · Landscape irrigation is limited to the hours of 8 PM to 6 AM.
4	25%	10%	-	-	<p>Outreach campaign: Shortage stage, reduction target, rebates & assistance, prohibitions & restrictions.</p> <ul style="list-style-type: none"> · Previous Stage prohibitions · Prohibit operation of ornamental fountains & water features
5	30%	15%	See chart on back	10% / 20%	<p>Outreach campaign: Shortage stage, reduction target, rebates & assistance, prohibitions & restrictions.</p> <ul style="list-style-type: none"> · Previous Stage prohibitions · Prohibit filling of new swimming pools & spas. · Recycled water only for construction dust control (if avail. & if filling stn w/in 1 mile radius of constr site). · New construction must offset new demand by a ratio of one to one (1:1).
6	40%	25%	See chart on back	25% / 40%	<p>Outreach campaign: Shortage stage, reduction target, rebates & assistance, prohibitions & restrictions.</p> <ul style="list-style-type: none"> · Previous Stage prohibitions · Prohibit filling or topping of existing swimming pools & spas. · Prohibit installation of water-using landscaping at new construction. · New construction must offset new demand by a ratio of two to one (2:1).
7	50%	35%	See chart on back	40% / 80%	<p>Outreach campaign: Shortage stage, reduction target, rebates & assistance, prohibitions & restrictions.</p> <ul style="list-style-type: none"> · Previous Stage prohibitions · Prohibit installation or replanting of water-using landscaping. · New construction must offset new demand by a ratio of three to one (3:1).
8	over 50%	45%	See chart on back	50% / 100%	<p>Outreach campaign: Shortage stage, reduction target, rebates & assistance, prohibitions & restrictions.</p> <ul style="list-style-type: none"> · Previous Stage prohibitions · Prohibit all landscape irrigation. · New construction must offset new demand by a ratio of four to one (4:1).

(1) Voluntary

(2) Excess Use Penalty applies to use that is 101-150% of allocation / over 150% of allocation

Draft 2020 Water Shortage Contingency Plan

Proposed Water Allocations

Stage	Target	Allocations
1	10%	Communitywide reduction target without site-specific allocations
2	15%	Communitywide reduction target without site-specific allocations
3	20%	Communitywide reduction target without site-specific allocations
4	25%	Communitywide reduction target without site-specific allocations
5	30%	<p>Single Family Residential - 40 gallons per capita per day (gpcd) + 2,000 gals/mo landscape May-Oct</p> <p>Multi-Family Residential - 40 gpcd + moderate landscape budget if no dedicated irrigation service</p> <p>Commercial/Industrial/Institutional - 85% of most recent 12 months with no water shortage</p> <p>Dedicated Irrigation service - 40% of historic net ET x square footage of landscaped area</p> <p>Health care and public safety - 95% of most recent 12 months with no water shortage</p>
6	40%	<p>Single Family Residential - 36 gallons per capita per day (gpcd) + 1,000 gals/mo landscape May-Oct</p> <p>Multi-Family Residential - 36 gpcd + minimal landscape budget if no dedicated irrigation service</p> <p>Commercial/Industrial/Institutional - 80% of most recent 12 months with no water shortage</p> <p>Dedicated Irrigation service - 20% of historic net ET x square footage of landscaped area</p> <p>Health care and public safety - 90% of most recent 12 months with no water shortage</p>
7	50%	<p>Single Family Residential - 32 gallons per capita per day (gpcd). No landscape allocation.</p> <p>Multi-Family Residential - 32 gpcd. No landscape allocation.</p> <p>Commercial/Industrial/Institutional - 75% of most recent 12 months with no water shortage</p> <p>Dedicated Irrigation service - 10% of historic net ET x sqft of landscaped area</p> <p>Health care and public safety - 85% of most recent 12 months with no water shortage</p>
8	over 50%	<p>Single Family Residential - 28 gallons per capita per day (gpcd). No landscape allocation.</p> <p>Multi-Family Residential - 28 gpcd. No landscape allocation.</p> <p>Commercial/Industrial/Institutional - 70% of most recent 12 months with no water shortage</p> <p>Dedicated Irrigation service - No landscape allocation.</p> <p>Health care and public safety - 80% of most recent 12 months with no water shortage</p>

Next Steps



- Mar** WCC update on UWMP
City Council Study Session on rates
- Apr** BPU Study Session on UWMP & WSCP
- May** Publish draft UWMP & WSCP for public review and comment (30 days)
City Council Public Hearing & Consideration of water rates (incl. Water Shortage Charge)
BPU Recommendation to Council Regarding UWMP & WSCP
- Jun** City Council Public Hearing & Consideration of UWMP & WSCP
- Jul** UWMP & WSCP submitted to DWR



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Questions?



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