2020 WATER SHORTAGE CONTINGENCY PLAN

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AWSAR	Annual Water Shortage Assessment Report	1
CGC	California Government Code	15
CWC	California Water Code	1
DWR	Department of Water Resources	1
FOWD	Fair Oaks Water District	1
LHMP	Local Hazard Mitigation Plan	13
SJWD	San Juan Water District	11
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1.0 WATER SHORTAGE CONTINGENCY PLAN

This Water Shortage Contingency Plan (WSCP) presents Fair Oaks Water District's (FOWD or District) plan and approach for identifying and mitigating various water shortage conditions should they arise, such as drought or system emergencies. This WSCP satisfies the requirements of California Water Code (CWC) §10632 and has been produced as part of FOWD's 2020 Urban Water Management Plan (UWMP) update, although the WSCP can be amended, as needed, without the need to amend the UWMP. It is noted, the CWC does not exclude the District from taking actions not specifically contained in its WSCP in response to supply shortage conditions.

2.0 WATER SUPPLY RELIABILITY ANALYSIS

As part of FOWD's UWMP, reliability planning was conducted to evaluate the District's ability to meet demands. Two separate efforts were conducted to characterize both long- and near-term reliability scenarios. The Water Reliability Assessment is conducted for a normal year, single dry year, and a drought lasing five consecutive years, and is used to evaluate long-term supplies with demands over the next 25 years, in five-year increments. The Drought Risk Assessment assumes the occurrence of a drought over the next five years and aims to assess the District's near-term reliability.

Results from the Water Reliability Assessment indicate FOWD has ample supplies through 2045 to meet demands under the normal, single dry year, and five-year drought conditions. Similarly, the District's Drought Risk Assessment indicates sufficient supplies to meet expected demands during an assumed drought occurring in the next five consecutive years (2021-2025).

3.0 ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

As established by CWC Section 10632.1, urban water suppliers must conduct annual water supply and demand assessments and submit an annual water shortage assessment report to DWR. Beginning by July 1, 2022, the District must prepare an annual water supply and demand assessment (Annual Assessment) and submit an Annual Water Shortage Assessment Report (AWSAR) to DWR. The Annual Water Shortage Assessment Report will be due by July 1 of every year. Per CWC, the Annual Assessment must include:

- A written description of the decision-making process that the District will use each year to determine its water supply reliability.

- The key data inputs and assessment methodology used to evaluate the supplier's water supply reliability for the current year and one dry year[1].

3-1 Decision-Making Process

The AWSAR evaluates the system's reliability for the coming year based on recent water use and before any projected response actions are implemented to identify potential shortages and response actions. This approach allows the District's staff to plan and prepare for water shortages to ensure proactive responses are implemented to mitigate impacts to its customers. The District

[1] The District can consider more than one dry year.

will follow the decision-making process and timeline summarized in Table 3-1.

Table 3-1. Decision-Making Process and Timeline.

Task	Timeline
District General Manager and Technical Services Manager will perform the annual supply and demand assessment and prepare the AWSAR.	Completed by May 15th
District GM will meet with the Board of Directors to discuss AWSAR and results. District GM will declare a water shortage when deemed appropriate after considering results from AWSAR.	Completed by May 31st
Technical Services Manager to finalize AWSAR	Completed by June 30th
AWSAR Submittal	Submit AWSAR by July 1st
AWSAR Availability	AWSAR to be available no later than 30 days after submittal to DWR

The District will prepare its Annual Assessment using the following key data and analytical procedures (which may be modified as needed):

- Prepare supply estimates for each water source on a monthly basis for the analysis period.
- Update unconstrained customer demand and estimate anticipated actual water use on a monthly basis for the analysis period.
- Update infrastructure assessment, including estimated water supply production capability on a monthly basis for the analysis period.
- Identify and quantify any locally applicable factors that may influence or disrupt supplies during the analysis period.
- Refine the definition of “dry year” as relevant to dry conditions.
- Identify any shortfall between projected supply and anticipated demand.
- Identify and incorporate any applicable constraints (infrastructure, regulatory, etc.).
- Develop, analyze, and propose water resource management strategies to address any shortfall between projected supply and anticipated demand with reference to the water shortage stages identified in this WSCP.
- Present the Annual Assessment (and resulting water shortage stage declaration, if applicable) to District decision-makers.

If the results of the Annual Assessment indicate the need for any alternative water shortage response actions which may be addition to those specified in Section 5, below, the alternative response actions will be described and submitted in the Annual Assessment, as specified in CWC 10632.2.

4.0 SIX STANDARD WATER SHORTAGE STAGES

The following subsections and tables present information on the District's supply scenarios, including the six water shortage stages. Results from the Annual Water Supply and Demand Assessment are used to determine if a respective shortage stage needs to be declared.

No provisions of this WSCP shall apply to fire hydrants, fire mains, fire sprinkler lines or other equipment used solely for fire protection purposes. Nor shall any provisions apply to any health care or convalescent facility or any other type of facility where the health and welfare would be affected by restrictions on water used. Such facilities are encouraged to conserve water to the extent possible. However, this WSCP does apply to the outdoor grounds, yards, and parking areas of these facilities.

The stages presented in this WSCP differ, consistent with DWR guidance, from the State identified shortage levels of 10, 20, 30, 40, 50, and greater than 50 percent shortage. Pursuant to CWC §10632(a)(3)(B), Table 4-1 cross-references this WSCP's shortage levels to the State identified levels above. FOWD supply characteristics and reliability are better suited for the existing four drought stages identifying 10, 25, 50, and >50 percent supply shortages.

Table 4-1. Corresponding Shortage Levels

FOWD WSCP Stages		State Mandated Shortage Levels
Stage 1 – Normal Water Supply		
Stage 2 – Water Alert	10%	Stage 1: Up to 10%
Stage 3 – Water Warning	25%	Stage 2: Up to 20%
Stage 3– Water Warning Stage 4 – Water Crisis: Short-Term Stage 4 – Water Crisis: Long-Term	25%/50%	Stage 3: Up to 30%
Stage 4 – Water Crisis: Short-Term Stage 4 – Water Crisis: Long-Term	50%	Stage 4: Up to 40%
Stage 4 – Water Crisis: Short-Term Stage 4 – Water Crisis: Long-Term	50%	Stage 5: Up to 50%
Stage 5 – Water Emergency: Short-Term Stage 5 – Water Emergency: Long-Term	>50%	Stage 6: Greater than 50%

4-1 Stage 1: Normal Water Supply

Under Normal Water Supply conditions, the District's water supply and distribution system is expected to be able to meet all the water demands of its customers in the immediate future.

Regulations for Normal Water Supply <u>are applicable to all stages</u> and include the following:

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Washing vehicles is permitted only with the use of an automatic shut off hose bib nozzle. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Voluntarily limit irrigating of ornamental landscapes to THREE DAYS PER WEEK based on an ODD-EVEN schedule. Customers with street addresses that end with an ODD number should irrigate only on TUESDAYS, THURSDAYS, and SATURDAYS. Customers with street addresses that end with an EVEN number should irrigate only on WEDNESDAYS, FRIDAYS, and SUNDAYS. Irrigating on MONDAYS is discouraged.
5. The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited.
6. Irrigating of ornamental turf on public street medians is prohibited.
7. Inspect all irrigation systems, repair leaks, adjust spray heads to eliminate avoidable over-spray and adjust watering schedules.
8. Leaking customer pipes, toilets or faulty sprinklers shall be repaired within five (5) working days or less if warranted by the severity of the problem.
9. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool covers are recommended to reduce evaporation. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
10. Washing streets, parking lots, driveways or sidewalks is prohibited.
11. Customers are encouraged to take advantage of the water agency's conservation programs and rebates.
12. Voluntarily reduce water use by 20% compared to 2013.

4-2 Stage 2 – Water Alert

When the following actions are implemented, these actions together are expected to eliminate up to a 10% gap between supply and demand.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Washing vehicles is permitted only with the use of an automatic hose bib shut off nozzle.

Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.

4. Irrigating of ornamental landscapes or turf shall be limited to a maximum of THREE DAYS PER WEEK based on an ODD-EVEN schedule. Customers with street addresses that end with an ODD number may irrigate only on TUESDAYS, THURSDAYS, and SATURDAYS. Customers with street addresses that end with an EVEN number may only irrigate only on WEDNESDAYS, FRIDAYS, and SUNDAYS. NO irrigating is permitted on MONDAYS.
5. The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited.
6. Irrigating of ornamental turf on public street medians is prohibited.
7. Inspect all irrigation systems, repair leaks, adjust spray heads to eliminate avoidable over-spray and adjust watering schedules.
8. Leaking customer pipes, toilets or faulty sprinklers shall be repaired within five (5) working days or less if warranted by the severity of the problem.
9. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool covers are recommended to reduce evaporation. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
10. Washing streets, parking lots, driveways or sidewalks is prohibited.
11. Customers are encouraged to take advantage of the water agency's conservation programs and rebates.
12. Reduce landscape and pasture irrigation by 5 – 10%. Customers with 'smart" irrigation timers or controllers are asked to set their controllers to achieve 90 to 95% of the evapotranspiration (ET) rate. Drip irrigation systems are excluded from this requirement.
13. Reduce indoor water use by 5 – 10%. Contact your water provider for tips and techniques to reduce indoor water use.
14. Restaurants shall serve water only upon request.
15. Users of construction meters and fire hydrant meters will be monitored for efficient water use.

4-3 Stage 3 – Water Warning

When the following actions are implemented, these actions together are expected to eliminate up to a 25% gap between supply and demand.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. No spray irrigating between 8am-8pm to eliminate evaporation. Hand watering with the use of an automatic hose bib shut off nozzle is allowed.
5. Irrigating of ornamental landscapes or turf shall be limited to a maximum of THREE DAYS

PER WEEK based on an ODD-EVEN schedule. Customers with street addresses that end with an ODD number may irrigate only on TUESDAYS, THURSDAYS, and SATURDAYS. Customers with street addresses that end with an EVEN number may irrigate only on WEDNESDAYS, FRIDAYS, and SUNDAYS. NO irrigating is permitted on MONDAYS.

6. The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited.
7. Irrigating of ornamental turf on street medians is prohibited.
8. Inspect all irrigation systems, repair leaks, adjust spray heads to eliminate avoidable over-spray and adjust watering schedules.
9. Leaking customer pipes, toilets or faulty sprinklers shall be repaired within two (2) working days or less if warranted by the severity of the problem.
10. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool covers are recommended to reduce evaporation. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
11. Washing streets, parking lots, driveways or sidewalks is prohibited.
12. Customers are encouraged to take advantage of the water agency's conservation programs and rebates.
13. Reduce landscape and pasture irrigation by 11 – 25%. Customers with 'smart" irrigation timers or controllers are asked to set their controllers to achieve 75 to 89% of the evapotranspiration (ET) rate. Drip irrigation systems are excluded from this requirement.
14. Reduce indoor water use by 11 – 25%. Contact your water provider for tips and techniques to reduce indoor water use.
15. Restaurants shall serve water only upon request.
16. Users of construction meters and fire hydrant meters will be monitored for efficient water use.

4-4 Stage 4 – Water Crisis: Short-Term

The declaration of Short-Term Stage 4 water conservation requirements may be declared by the agency's General Manager or his/her designee and subject to ratification by the agency's Board of Directors in a regular or special session. A short-term declaration is for water shortage conditions expected for a duration of 45 days or less.

When the following actions are implemented, these actions together are expected to eliminate up to a 50% gap between supply and demand.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. No spray irrigating between 8am-8pm to eliminate evaporation. Hand watering with the use of an automatic hose bib shut off nozzle is allowed.
4. Irrigating of ornamental landscapes or turf shall be limited to a <u>maximum</u> of TWO DAYS

PER WEEK based on an ODD-EVEN schedule. Customers with street addresses that end with an ODD number may irrigate only on TUESDAYS and SATURDAYS. Customers with street addresses that end with an EVEN number may irrigate only on WEDNESDAYS and SUNDAYS. NO irrigating is permitted on MONDAYS.

5. The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited.
6. Irrigating of ornamental turf on street medians is prohibited.
7. Inspect all irrigation systems, repair leaks, adjust spray heads to eliminate avoidable over-spray and adjust watering schedules.
8. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
9. Leaking customer pipes, toilets or faulty sprinklers shall be repaired within 24 hours or less if warranted by the severity of the problem.
10. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool covers are recommended to reduce evaporation. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
11. Washing streets, parking lots, driveways, sidewalks, or buildings is prohibited.
12. Customers are encouraged to take advantage of the water agency's conservation programs and rebates.
13. Reduce landscape and pasture irrigation by 26 – 50%. Customers with 'smart" irrigation timers or controllers are asked to set their controllers to achieve 50 to 74% of the evapotranspiration (ET) rate. Drip irrigation systems are NOT excluded from this requirement.
14. Reduce indoor water use by 26 – 50%. Contact your water provider for tips and techniques to reduce indoor water use.
15. Restaurants shall serve water only upon request.
16. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations.
17. Irrigating outside of newly constructed homes and buildings that is not delivered by drip or micro spray systems is prohibited.

4-5 Stage 4 – Water Crisis: Long-Term

The declaration of Long-Term Stage 4 water conservation requirements will be declared by the agency's Board of Directors in a regular or special session. A Long-term declaration is for water shortage conditions expected for a duration of more than 45 days.

When the following actions are implemented, these actions together are expected to eliminate up to a 50% gap between supply and demand.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.

3. Irrigating of ornamental landscapes or turf shall be limited to a maximum of THREE DAYS PER WEEK based on an ODD-EVEN schedule. Customers with street addresses that end with an ODD number may irrigate only on TUESDAYS, THURSDAYS, and SATURDAYS. Customers with street addresses that end with an EVEN number may irrigate only on WEDNESDAYS, FRIDAYS, and SUNDAYS. NO irrigating is permitted on MONDAYS.
4. The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited.
5. Irrigating of ornamental turf on public street medians is prohibited.
6. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
7. Leaking customer pipes or faulty sprinklers shall be repaired within 24 hours or less if warranted by the severity of the problem.
8. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
9. Washing streets, parking lots, driveways, sidewalks, or buildings is prohibited.
10. Customers are encouraged to take advantage of the water agency's conservation programs and rebates.
11. Reduce landscape and pasture irrigation by 26 – 50%. Customers with 'smart" irrigation timers or controllers are asked to set their controllers to achieve 50 to 74% of the evapotranspiration (ET) rate. Drip irrigation systems are NOT excluded from this requirement.
12. Reduce indoor water use by 26 – 50%. Contact your water provider for tips and techniques to reduce indoor water use.
13. Restaurants shall serve water only upon request.
14. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations.
15. Irrigating outside of newly constructed homes and buildings that is not delivered by drip or micro spray systems is prohibited.

4-6 Stage 5 – Water Emergency: Short-Term

The declaration of Short-Term Stage 5 water conservation requirements may be declared by the agency's General Manager or his/her designee and subject to ratification by the agency's Board of Directors in a regular or special session. A short-term declaration is for water shortage conditions expected for a duration of 45 days or less.

When the following actions are implemented, these actions together are expected to eliminate a >50% gap between supply and demand.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Landscape and pasture irrigation is prohibited. Only irrigation of mature trees is allowed.
3. Washing vehicles is prohibited. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes, toilets or faulty tree irrigation lines shall be repaired

immediately. Water service will be suspended until repairs are made.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool covers are recommended to reduce evaporation. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds, or streams. Water use for ornamental ponds and fountains is prohibited.
6. Washing streets, parking lots, driveways, sidewalks, or buildings is prohibited.
7. Customers are encouraged to take advantage of the water agency's conservation programs and rebates.
8. Reduce indoor water use by more than 50%. Contact your water provider for tips and techniques to reduce indoor water use.
9. Restaurants shall serve water only upon request.
10. Water flow for testing and construction purposes from water agency fire hydrants and blow-offs is prohibited. No potable water from the District's system shall be used for construction purposes including but not limited to dust control, compaction, or trench jetting. Use of reclaimed water for construction purposes is encouraged.
11. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations.
12. Installation of new turf or landscaping is prohibited.
13. Automobiles or equipment shall be washed only at commercial establishments that use recycled or reclaimed water.

4-7 Stage 5 – Water Emergency: Long-Term

The declaration of Long-Term Stage 5 water conservation requirements will be declared by the agency's Board of Directors in a regular or special session. A Long-term declaration is for water shortage conditions expected for a duration of more than 45 days.

When the following actions are implemented, these actions together are expected to eliminate a >50% gap between supply and demand.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. All outdoor irrigation is prohibited.
3. Washing vehicles is prohibited. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes and toilets shall be repaired immediately. Water service will be suspended until repairs are made.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool covers are recommended to reduce evaporation. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds, or streams. Water use for commercial and multi-family residential ornamental ponds and fountains is prohibited.
6. Washing streets, parking lots, driveways, sidewalks, or buildings is prohibited.
7. Customers are encouraged to take advantage of the water agency's conservation

programs and rebates.
8. Reduce indoor water use by more than 50%.
9. Restaurants shall serve water only upon request.
10. Water flow for testing and construction purposes from water agency fire hydrants and blow-offs is prohibited. No potable water from the District's system shall be used for construction purposes including but not limited to dust control, compaction, or trench jetting. Use of reclaimed water for construction purposes is encouraged.
11. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations.
12. Installation of new turf or landscaping is prohibited.
13. Automobiles or equipment shall be washed only at commercial establishments that use recycled or reclaimed water.
14. New connections to the District water distribution system will not be allowed.
15. Water Crisis/Emergency tiered pricing will be implemented.
16. No commitments will be made to provide service for new water service connections.

5.0 SHORTAGE RESPONSE ACTIONS

The following table presents the individual estimated demand savings of each response action. Actual savings will likely vary greatly based on external influences, shortage stage level, and general customer understanding of drought severity. It is assumed the savings estimates are not necessarily additive, but when implemented together as a program with all the actions in each respective stage, they are intended and estimated to eliminate each stage's identified supply to demand shortage gap.

5-1 Demand Reduction

The goal of demand reduction is to balance supply and demand. The District offers various rebates to encourage conservation (i.e., High Efficiency Toilet rebate and Smart Water Sprinkler Controller rebate). In addition to rebates, the demand reduction actions that will be implemented at each shortage level are shown in Table 5-1.

Table 5-1. Demand Reduction Actions.

State Mandated Shortage Level	Demand Reduction Actions.	How much is this going to reduce the shortage gap?	Additional Explanation or Reference	Penalty, Charge, or Other Enforcement?
1	Landscape - Restrict or prohibit runoff from landscape irrigation	0-5%	Excess Runoff	Yes
1	Landscape - Prohibit certain types of landscape irrigation	0-5%	Free-flowing hoses for all hoses	Yes
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	0-1%	Uncorrected plumbing or irrigation leaks	Yes

State Mandated Shortage Level	Demand Reduction Actions.	How much is this going to reduce the shortage gap?	Additional Explanation or Reference	Penalty, Charge, or Other Enforcement?
1	Other - Prohibit use of potable water for washing hard surfaces	0-1%	Washing of streets, driveways, sidewalks, building	Yes
2	Landscape - Prohibit certain types of landscape irrigation	0-5%	Full flow of landscape and pasture irrigation	Yes
3	Restaurants may only serve water upon request	0-1%	Serving water at restaurants only when requested by customers	Yes
4/5	Landscape - Prohibit certain types of landscape irrigation	0-5%	Irrigating of ornamental turf on public street medians is prohibited	Yes
4/5	Restaurants may only serve water upon request	0-1%	Serving water at restaurants only when requested by customers	Yes
6	Other restriction or prohibition	10-15%	Flushing of sewers or fire hydrants	Yes
6	Other	0-5%	New connection to the District's water distribution system	Yes
NOTES: See Table 4-1 for crosswalk of District's shortage levels compared to those mandated by statute.				

5-2 Supply Augmentation

The District's conjunctive use goals have typically been to serve 90% of its demands with surface water and 10% with groundwater. Upon the declaration of a water shortage, the San Juan Water District (SJWD) will allocate surface water supplies on a pro-rata basis, using the ratio of the average amount of surface water supplies delivered to the District during the five prior non-shortage years, divided by the average of the total wholesale surface water deliveries to the retail agencies in that period. The SJWD will deliver the resulting proportion of available SJWD surface water supplies to District in a water shortage. The District is solely responsible for water supply reliability in our service area and will meet the remaining water demand of our customers during a water shortage with groundwater from District facilities. The District expects to mitigate water shortages through supply augmentation methods such as those outlined in Table 5-2 below.

Table 5-2. Supply Augmentation and Other Actions.

State Mandated Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	How much is this going to reduce the shortage gap?	Additional Explanation or Reference
2, 3, 4, 5	Other Actions- Customers must repair leaks, breaks and malfunctions in a timely manner	Varies	Mandatory reduction of indoor water use
2	Landscape – Limit landscape irrigation to specific days	0-10%	Reduce landscape and pasture irrigation. Customers with "smart" irrigation timers or controllers are asked to set the controllers to achieve 90 to 95% of the evapotranspiration (ET) rate.
3	Landscape – Limit landscape irrigation to specific days	0-10%	Reduce landscape and pasture irrigation. Customers with "smart" irrigation timers or controllers are asked to set the controllers to achieve 90 to 95% of the evapotranspiration (ET) rate.
4	Landscape – Limit landscape irrigation to specific days	0-10%	Reduce landscape and pasture irrigation. Customers with "smart" irrigation timers or controllers are asked to set the controllers to achieve 90 to 95% of the evapotranspiration (ET) rate.
5	Landscape – Limit landscape irrigation to specific days	0-10%	Reduce landscape and pasture irrigation. Customers with "smart" irrigation timers or controllers are asked to set the controllers to achieve 90 to 95% of the evapotranspiration (ET) rate.
6	Other Actions – Other Landscape restriction or prohibition	15-25%	Landscape and pasture irrigation is prohibited.
NOTES: See Table 4-1 for crosswalk of District's shortage levels compared to those mandated by statute.			

5-3 Operational Changes

The District has identified a series of restrictions that will be implemented at different shortage levels. Examples of these restrictions are included in Table 5-2.

5-4 Additional Mandatory Restrictions

The District has identified a series of restrictions that will be implemented at different shortage levels. These prohibitions are included in the demand reduction actions in Table 5-1.

5-5 Emergency Response Plan

Besides drought, the District may experience a catastrophic interruption of the water supply as a result of natural disasters such as earthquake or flooding, a regional power outage, terrorism, wildfire, or sabotage. The District's Emergency Operations Plan outlines the District's planned responses to emergencies associated with disasters, technological incidents, or other dangerous conditions created either by man or nature.

5-6 Seismic Risk Assessment and Mitigation Plan

Sacramento and Placer counties have completed Local Hazard Mitigation Plans (LHMP) under the federal Disaster Mitigation Act of 2000 (Public Law 106-390). Per DWR requirements, a copy of the most recent adopted plan by each County is included by way of electronic reference at the following locations:

- Sacramento County (2016): https://waterresources.saccounty.net/stormready/Pages/Local-Hazard-Mititagtion-%20Report.aspx

- Placer County (2016): https://www.placer.ca.gov/DocumentCenter/View/397/Complete2016-LHMP--Including-ChaptersAnnexes-and-Appendices-PDF

Sacramento County is currently in the process of updating the LHMP 2016. The update includes participation with other entities, including Cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt, Isleton, Rancho Cordova, and other special districts. The update is anticipated to be completed and finalized during 2021.

5-7 Shortage Response Action Effectiveness

Measuring reductions in water use is part of regular procedures, whether during normal or water shortage conditions. Water is produced and introduced into the distribution system in response to customer demand and is tracked monthly as an indicator of overall demand. The potential savings for the shortage response actions are available in Table 4-1.

6.0 COMMUNICATION PROTOCOLS

Communication protocols for the WSCP include public outreach and notification to customers and entities within the District upon a change in stage declaration. Information shall include and describe the appropriate shortage response actions for the declared stage. Such communication will be delivered by direct-mail, District website, and media outlets.

FOWD will coordinate with the San Juan Water District if anticipated water supplies and demands necessitate the declaration of a local emergency.

7.0 COMPLIANCE AND ENFORCEMENT

The District shall terminate water service to the property of a customer who receives two violations for noncompliance with conditions set forth herein.

- Upon observation by authorized District personnel of a water waste condition, the District shall issue a warning with the first two observations by personal service or by notice left on premises requesting compliance with the District's conservation rules.

- Upon observation by authorized District personnel of a **third** water waste condition at the same property address, the customer shall be issued a violation by personal service or by notice left on premise and a copy mailed to customer at the premises. The customer shall be notified, in writing, that if an additional observation of water waste is documented, the District shall issue a third violation notice and begin termination actions of water service to the subject address. In lieu of service termination, the District may opt to impose a penalty charge for water waste. The District shall indicate in writing said penalty charge in the violation notice. If the customer is not the property owner, a copy of the writing shall be mailed to the owner of record.

- Upon observation by authorized District personnel of a **fourth**, or subsequent water waste condition at the same property address, the customer shall be issued a violation notice by personal service or by notice left on premises and a copy mailed to the customer at the premises. The owner/customer shall then be notified, in writing by certified mail, that the water service to the subject address shall be terminated in fifteen (15) days. Reconnection to the District's system after said termination procedure shall be subject to a reconnect charge equal to the District's actual incurred costs to date, including penalty fees, or to a minimum charge as follows, whichever is greater:

    - 1st reconnect charge $100.00 per service connection.
    - 2nd reconnect charge $200.00 per service connection.
    - 3rd reconnect charge $300.00 per service connection.
    - 4th reconnect charge $400.00 per service connection.

- Prior to the scheduled termination, the customer may choose to pay the District's costs associated with the subject action, and any penalty costs in lieu of terminating service. The customer may, in writing, request a meeting with the District's General Manager to discuss the proposed termination of service. Payment of the penalty charge and fees shall avoid said termination and shall be considered a "waiver of appeal".

- If the customer requests a meeting with the General Manager and said meeting does not resolve the proposed termination of service to the customer's satisfaction, the customer may request a hearing before the Board of Directors. Such request shall be made in writing and delivered to the District office within five (5) days from the date of the meeting between the customer and the District's General Manager.

- If such request is made for a hearing before the Board, the matter shall be scheduled at the earliest possible date. A written notice of such hearing shall be mailed to customer at the premises at least ten (10) days prior to the date of such hearing.

- Reconnection to the District's system after said termination procedure shall be subject to a reconnect charges equal to the District's actual incurred costs to date, including penalty fees, and other related charges. The District must receive payment for said charges before the water service is restored.

If the customer is not issued a warning or violation for a period of one year from the date of the last observed conservation rules violation, enforcement actions shall revert to paragraph (1) of this section.

- Subsequent violations shall be treated in the same manner as a 4^{th} water waste or 2^{nd} violation (subsequent reconnect charges applied).

8.0 LEGAL AUTHORITIES

FOWD was organized under the provisions of Division 11 of the CWC. The District's current policy No. 6060 authorizes the General Manager to authorize implementation of stage 4/5 water conservation measures.

The District's Board will vote to adopt its UWMP and WSCP as stated in Resolutions No. 21-04 and No. 21-05, respectively. The two Resolutions authorize the implementation and enforcement of this WSCP, which is included in the 2020 UWMP.

FOWD also coordinates with San Juan Water District which it receives water supply services for the possible proclamation of a "local emergency" pursuant to the California Emergency Services Act (see CGC §8558).

9.0 FINANCIAL CONSEQUENCES OF WSCP

The District has recently transitioned to a commodity-based billing approach. District completed a metering implementation program in 2011 and started charging all customers based on volumetric rates in 2012. The District relies significantly more on revenue associated with customer water use to ensure it remains revenue neutral. Therefore, reductions in water sales are a significant concern going forward, and the District has implemented protocols to prevent deficit conditions.

Additional monitoring, public outreach, and enforcement is expected to increase total costs to the District when operating under a water shortage condition. These additional efforts become prioritized for current staff, and other normal work efforts and projects are likely to be delayed or reassigned. If conditions warrant, the District may need to hire additional staff or seek assistance through third-party service providers.

The District maintains a cash reserve account to offset a temporary reduction in water sales in the event of a short-term catastrophic event or limited drought. While reduced demands would result in decreased operations costs (such as water purchases and pumping), a long-term event would

likely require budgetary adjustments to fund the District at needed levels. In the event that it becomes necessary for the District to utilize its reserves, the District may have to increase rates and all rate increases will require completion of a Proposition 218 public approval process.

10.0 Monitoring and Reporting

The District will monitor customer use through water metering. Data collected from the meters allows close tracking of water demands during a declared shortage stage. The ability to track performance metrics allow refinement and enhancement of the WSCP by providing valuable data, including information on customer use and system loss. Meter usage monitoring also offers insight regarding the efficacy of a declared shortage stage and associated shortage response actions.

Reporting on the implementation of the WSCP will be provided by District staff at regularly scheduled Board meetings. District staff will update the Board (and public) on the Water Conservation Program, including information on the performance of the declared shortage stage.

The District will also report information to the State regarding implementation of this WSCP as required.

11.0 WSCP Refinement Procedures

The District's WSCP is an adaptive plan that allows for active refinement to respond to particular shortage conditions. The general procedures for refinement are presented below.

1. For each shortage response action, compare expected results with actual shortage response and identify any shortfall or over achievement.

2. Revise expected reduction for a specific shortage response action based on updated information.

3. Assess the aggregate expected reductions (from revised shortage response actions) for each shortage stage.

4. Revise stage declaration or modify stage shortage response actions to better balance demands with supplies.

The procedures presented above aim ensure an adaptive WSCP that is able to be relied upon under various and changing circumstances.

12.0 Special Water Feature Procedures

The District has separate response actions, enforcement actions, and monitoring programs for both decorative water features and pools and spas. These shortage response actions are included in each Stage. Decorative water features that are not pools or spas will be defined as artificial ponds, lakes, waterfalls, fountains, or non-pool or non-spa water features.

13.0 PLAN ADOPTION, SUBMITTAL, AND AVAILABILITY

The WSCP (including subsequent updates) shall be adopted in accordance with standard District procedures, including requirements for public participation (public hearing), and approval by the FOWD Board of Directors. Upon adoption, the WSCP will be submitted to DWR within 30 days. The adopted WSCP will be available on the District's website, as well as at the District office.

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Attachment I: Board Resolution Adopting the 2020 Urban Water Management Plan and Water Shortage Contingency Plan

FAIR OAKS
WATER DISTRICT

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RESOLUTION NO. 21-04

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE FAIR OAKS WATER DISTRICT

A RESOLUTION ADOPTING THE 2020 URBAN WATER MANAGEMENT PLAN

WHEREAS, the Fair Oaks Water District Urban Water Management Plan is prepared and submitted to fulfill the requirements of the California Urban Water Management Planning Act of 1983, Assembly Bill No. 797, Water Code Section 10610 et seq.; and

WHEREAS, the District has prepared and made available for public review a draft Urban Water Management Plan July 22nd , and a properly noticed public hearing regarding said Plan was conducted by the Board of Directors on August 9, 2021; and

WHEREAS, the Board of Directors intends that the Plan shall serve as a guideline to assist the District in its efforts to encourage conservation and efficient use of water.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Fair Oaks Water District as follows:

1. That the 2020 Urban Water Management Plan is hereby adopted; and the District Secretary is hereby authorized and directed to file the plan with the California Department of Water Resources; and

2. The District General Manager is hereby directed to implement the program as set forth in the 2020 Urban Water Management Plan, subject to review and express authorization of the Board of Directors for actions requiring approval of the Board of Directors.

I certify that the foregoing Resolution was adopted by the Board of Directors of the Fair Oaks Water District at a Regular meeting held on the 9th day of August 2021, by the following vote:

AYES: Directors Marx, Page and Sarkovich

NOES:

ABSTAIN:

ABSENT: Directors McRae and Reid

Misha Sarkovich, President
Board of Directors

ATTEST: _____

Tom R. Gray, General Manager / Secretary

FAIR OAKS WATER DISTRICT
FAIR OAKS
SACRAMENTO COUNTY
CALIFORNIA
ORGANIZED MARCH 26, 1917

RESOLUTION NO. 21-05

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE FAIR OAKS WATER DISTRICT

A RESOLUTION ADOPTING THE 2020 WATER SHORTAGE CONTINGENCY PLAN

WHEREAS, the California Urban Water Management Planning Act of 1983, Assembly Bill No. 797, Water Code Section 10610 et seq. mandate that every urban supplier of water for municipal purposes to more than 3,000 customers, or supplying more than 3,000 acre feet of water annually, prepare and adopt by Board resolution a Water Shortage Contingency Plan (WSCP) as part of its 2020 Urban Water Management Plan (UWMP); and

WHEREAS, the District desires to adopt the WSCP and to incorporate it as part of its 2020 UWMP; and

WHEREAS, the District has prepared and made available for public review a draft WSCP on July 22, 2021, and a properly noticed public hearing regarding said Plan was conducted by the Board of Directors on August 9, 2021; and

WHEREAS, the Board of Directors intends that the WSCP shall serve as a guideline to ensure the District in its efforts to supply all District customers with a reliable water supply.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Fair Oaks Water District as follows:

1. That the 2020 Water Shortage Contingency Plan is hereby adopted; and the District Secretary is hereby authorized and directed to file the Plan with the California Department of Water Resources; and

2. The District General Manager is hereby directed to implement the program as set forth in and made part of the 2020 Urban Water Management Plan, subject to review and express authorization of the Board of Directors for actions requiring approval of the Board of Directors.

I certify that the foregoing Resolution was adopted by the Board of Directors of the Fair Oaks Water District at a Regular meeting held on the 9th day of August 2021, by the following vote:

AYES: Directors Marx, Page and Sarkovich

NOES:

ABSTAIN:

ABSENT: Directors McRae and Reid

Misha Sarkovich

Misha Sarkovich, President
Board of Directors

FAIR OAKS WATER DISTRICT
FAIR OAKS
SACRAMENTO COUNTY
CALIFORNIA
ORGANIZED MARCH 26, 1917

ATTEST: Tom R Gray

Tom R. Gray, General Manager / Secretary

Attachment J: DWR Population Tool Output

FAIR OAKS
WATER DISTRICT

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WUEdata - Fair Oaks Water District

Sign Out

Please print this page to a PDF and include as part of your UWMP submittal.

Confirmation Information

Generated By	Water Supplier Name	Confirmation #	Generated On
Ashley Smith	Fair Oaks Water District	7638593375	6/9/2021 10:28:36 AM

Boundary Information

Census Year	Boundary Filename	Internal Boundary ID
1990	FOWD_Pre2007.kml	801
2000	FOWD_Pre2007.kml	801
2010	FOWD_Current_Bndy.kml	800
1990	FOWD_Pre2007.kml	801
2000	FOWD_Pre2007.kml	801
2010	FOWD_Current_Bndy.kml	800
1990	FOWD_Pre2007.kml	801
2000	FOWD_Pre2007.kml	801
2010	FOWD_Current_Bndy.kml	800
1990	FOWD_Pre2007.kml	801
2000	FOWD_Pre2007.kml	801
2010	FOWD_Current_Bndy.kml	800

Baseline Period Ranges

10 to 15-year baseline period

Number of years in baseline period:	10
Year beginning baseline period range:	1995
Year ending baseline period range[1]:	2004

5-year baseline period

Year beginning baseline period range:	2004
Year ending baseline period range[2]:	2008

[1] The ending year must be between December 31, 2004 and December 31, 2010.
[2] The ending year must be between December 31, 2007 and December 31, 2010.

Persons per Connection

Year	Census Block Level Total Population	Number of Connections *	Persons per Connection
1990	35,279	11891	2.97
1991	-	-	2.95
1992	-	-	2.92
1993	-	-	2.90
1994	-	-	2.87
1995	-	-	2.85
1996	-	-	2.83
1997	-	-	2.80
1998	-	-	2.78
1999	-	-	2.75
2000	35,869	13147	2.73
2001	-	-	2.72
2002	-	-	2.70
2003	-	-	2.69
2004	-	-	2.68
2005	-	-	2.67
2006	-	-	2.65
2007	-	-	2.64
2008	-	-	2.63
2009	-	-	2.61
2010	36,681	14129	2.60
2011	-	-	2.59
2012	-	-	2.57
2013	-	-	2.56
2014	-	-	2.54
2015	-	-	2.53
2020	-	-	2.46 **

Population Using Persons-Per-Connection

Year		Number of Connections *	Persons per Connection	Total Population
10 to 15 Year Baseline Population Calculations				
Year 1	1995	12639	2.85	36,021
Year 2	1996	12788	2.83	36,139
Year 3	1997	12938	2.80	36,252
Year 4	1998	12952	2.78	35,981
Year 5	1999	13050	2.75	35,940
Year 6	2000	13147	2.73	35,869
Year 7	2001	13179	2.72	35,807
Year 8	2002	13248	2.70	35,823
Year 9	2003	13370	2.69	35,979
Year 10	2004	13471	2.68	36,075
5 Year Baseline Population Calculations				
Year 1	2004	13471	2.68	36,075
Year 2	2005	13544	2.67	36,095
Year 3	2006	13643	2.65	36,181
Year 4	2007	13700	2.64	36,154
Year 5	2008	13843	2.63	36,352
2020 Compliance Year Population Calculations				
2020		14390	2.46 **	35,377

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Attachment K: SACOG Population Forecast by Traffic Analysis Zone (TAZ)

FAIR OAKS
WATER DISTRICT

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FOWD POPULATION PROJECTIONS

					SACOG Data[a] for Total TAZ						SACOG Data[a] for Portion of TAZ within FOWD					
					2016			2040			2016			2040		
TAZ #	Total TAZ Acres	TAZ Acres within FOWD	Percentage of TAZ within FOWD	City	Population	Dwelling Units	Employment	Population	Dwelling Units	Employment	Population	Dwelling Units	Employment	Population	Dwelling Units	Employment
398	384.9	0.0	0.0%	Carmichael	2,460	1,129	468	2,569	1,194	468	0	0	0	0	0	0
403	603.2	57.4	9.5%	Carmichael	4,120	1,816	576	4,378	1,907	625	392	173	55	417	181	59
406	254.3	141.2	55.5%	Carmichael	2,107	759	410	2,056	774	410	1,170	421	228	1,141	430	228
407	305.3	53.0	17.4%	Carmichael	3,164	1,202	274	3,565	1,281	274	549	209	47	619	222	47
408	322.7	322.7	100.0%	Fair Oaks	1,138	510	251	1,180	532	254	1,138	510	251	1,180	532	254
409	246.7	246.7	100.0%	Fair Oaks	1,125	498	241	1,196	516	241	1,125	498	241	1,196	516	241
410	242.1	242.1	100.0%	Fair Oaks	1,741	782	616	1,812	827	616	1,741	782	616	1,812	827	616
411	496.7	471.3	94.9%	Fair Oaks	3,397	1,557	487	3,607	1,610	500	3,223	1,477	462	3,422	1,528	475
412	1029.2	285.0	27.7%	Fair Oaks	1,347	550	290	1,338	550	294	373	152	80	370	152	81
413	540.3	282.4	52.3%	Fair Oaks	1,602	740	281	1,705	750	281	837	387	147	891	392	147
414	238.3	238.3	100.0%	Fair Oaks	1,958	788	776	2,083	832	845	1,958	788	776	2,083	832	845
415	342.7	327.9	95.7%	Fair Oaks	2,207	1,046	1,512	2,517	1,196	1971	2,111	1,001	1,447	2,408	1,145	1886
416	315.3	302.6	96.0%	Fair Oaks	1,468	642	219	1,806	771	222	1,409	616	210	1,734	740	213
417	446.6	319.1	71.5%	Fair Oaks	812	347	117	872	347	123	580	248	84	623	248	88
418	510.5	510.5	100.0%	Fair Oaks	3,146	1,298	725	3,383	1,375	754	3,146	1,298	725	3,383	1,375	754
419	521.9	341.2	65.4%	Fair Oaks	3,783	1,533	1,540	3,932	1,588	1560	2,474	1,002	1,007	2,571	1,038	1020
420	378.0	378.0	100.0%	Fair Oaks	2,330	938	472	2,484	976	485	2,330	938	472	2,484	976	485
421	312.8	312.0	99.7%	Fair Oaks	1,396	551	740	1,714	675	790	1,392	550	738	1,710	673	788
422	331.6	192.9	58.2%	Fair Oaks	1,549	633	408	1,668	654	442	901	368	238	970	381	257
423	269.5	94.5	35.1%	Fair Oaks	203	70	196	198	75	196	71	25	69	69	26	69
445	374.4	1.0	0.3%	Citrus Heights	3,656	1,535	1,572	3,674	1,575	1871	9	4	4	9	4	5
446	243.8	0.5	0.2%	Citrus Heights	3,632	1,975	1,604	3,687	1,975	1794	8	4	3	8	4	4
447	619.0	254.6	41.1%	Fair Oaks	3,542	1,436	674	4,238	1,685	714	1,457	591	277	1,743	693	294
461	319.6	162.1	50.7%	Orangevale	2,203	896	576	2,349	948	634	1,117	454	292	1,191	481	321
462	321.4	160.2	49.8%	Orangevale	2,254	1,003	740	2,297	1,012	780	1,123	500	369	1,145	504	389
464	625.9	332.2	53.1%	Orangevale	2,391	987	398	2,506	990	411	1,269	524	211	1,330	525	218
465	576.1	255.7	44.4%	Orangevale	5,008	1,955	1,033	5,193	2,037	1150	2,222	868	459	2,305	904	510
571	869.2	0.1	0.0%	Rancho Cordova West	3,700	1,295	395	368	1,304	404	0	0	0	0	0	0
892	310.3	0.0	0.0%	Orangevale	1,494	615	346	1,492	615	358	0	0	0	0	0	0
										Totals:	34,127	14,387	9,509	36,814	15,329	10,294
										Growth Rates:	--	--	--	7.9%	6.5%	8.3%
										Annual Growth Rate:	--	--	--	0.33%	0.27%	0.34%

Annual Growth Rates from 2016-2040

FOWD PROJECTED POPULATION

Year	**2020**	2021	2022	2023	2024	**2025**	2026	2027	2028	2029	**2030**	2031	2032	2033	2034	**2035**	2036	2037	2038	2039	**2040**
Population	**35,377**	35,493	35,610	35,726	35,844	35,961	36,079	36,198	36,316	36,436	36,555	36,675	36,795	36,916	37,037	37,159	37,281	37,403	37,526	37,649	37,772

2020 Population from DWR Population Tool

Annual growth rate of 0.0.33% applied between 2020-2040

[a] **Data Source:** SACOG. *Modeling Projections for 2016 and 2040* . Dated May 2021.

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Attachment L: Fair Oaks Water District 2020 Consumer Confidence Report

FAIR OAKS
WATER DISTRICT

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2020 CONSUMER CONFIDENCE REPORT

SAN JUAN WATER Wholesale

This report is published by the San Juan Wholesale Customer Agencies: San Juan Water District, Citrus Heights Water District, Fair Oaks Water District and Orange Vale Water Company. San Juan Water District provides reliable, high-quality water supplies to our customers. We serve nearly 151,000 customers in our retail and wholesale service areas throughout Sacramento and Placer counties. We test our surface water, which comes from the American River watershed, and our local groundwater for microbiological and chemical quality.

The U.S. Environmental Protection Agency and the State Water Resources Control Board maintain strict water quality standards designed to protect customers from waterborne disease organisms and harmful chemicals. As a public water agency, we are required by the USEPA to provide you with an annual Consumer Confidence Report.

This report provides you with information about drinking water quality and how we comply with drinking water quality standards. As your water provider, we are proud to report this year's CCR concludes that, once again, **your drinking water meets all federal and state drinking water standards.**

WHERE DOES YOUR WATER COME FROM?

Water from the Agencies comes from two sources: treated surface water and groundwater. San Juan Water District diverts and treats surface water from Folsom Lake. This treated water is then distributed to the Agencies. Orange Vale Water Company and San Juan Water District receive 100 percent of their supply from treated surface water. If you are a consumer of Citrus Heights or Fair Oaks Water Districts, your water is a mixture of treated surface water from San Juan Water District and groundwater from local wells.

SJWD – 100% surface water
OVWC – 100% surface water
CHWD – 88% surface water, 12% groundwater
FOWD – 74.22% surface water, 25.78% groundwater

Source water assessments have been conducted for all the water sources to enable the Agencies to understand the activities that have the greatest potential for contaminating the drinking water supplies. The groundwater sources were assessed in 2002 and the surface water source was evaluated in 2001. New wells for Citrus Heights Water District were assessed in 2008, 2009, and 2015. A new well for Fair Oaks Water District was assessed in 2014. These assessments were conducted in accordance with State Water Board guidelines and copies of the complete assessments are available for review at the respective agency offices.

San Juan Water District conducted the evaluation of the Folsom Lake source. It was found to be most vulnerable to potential contamination from the Folsom Lake State Recreation Area facilities, high-density housing and associated activities such as sewer and septic systems and fertilizer, pesticide and herbicide application, as well as illegal activities and dumping. The source water is typically treated using conventional treatment with filtration and disinfection that is designed to remove many contaminants. Again this year, your water meets all federal and state drinking water standards.

Citrus Heights and Fair Oaks water districts conducted assessments of their local groundwater wells. It was found that all the wells are vulnerable to commercial urban activities, such as active and historic gas stations, dry cleaners, leaking underground storage tanks, known contaminant plumes, automobile repair shops, and sewer collection systems, none of which are associated with any detected contaminants. One well for Fair Oaks Water District was found to be vulnerable to irrigation, associated with low level detects of nitrate.

Although Orange Vale Water Company does not currently utilize available local groundwater, assessments found that wells within their service area would be most vulnerable to rural grazing activities.

WHAT'S IN YOUR WATER?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in the source water include:

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

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Water Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Water Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

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

A NOTE FOR SENSITIVE POPULATIONS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. U.S. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

GENERAL INFORMATION ON LEAD

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The San Juan Family Agencies are responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at **www.epa.gov/lead**.

The San Juan Family Agencies also conducts lead tap sampling in schools if requested. One school requested lead tap sampling by Fair Oaks Water District in 2020.

KEY TO ABBREVIATIONS

PPB	parts per billion or micrograms per liter (µg/L)
PPM	parts per million or milligrams per liter (mg/L)
pCi/L	picocuries per liter
NTU	nephelometric turbidity units
µS/CM	microsiemens per centimeter
ND	not detected
NR	not required
N/A	not applicable

WATER QUALITY DEFINITIONS

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

Public Health Goal (PHG) — The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

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

Maximum Residual Disinfectant Level (MRDL) — The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) — The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standard (PDWS) — MCLs, MRDLs and Treatment Techniques (TT) for contaminants that affect health, along with their monitoring and reporting requirements.

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

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

Notification Level (NL) — Health-based advisory level set by the State Water Board for constituents with no MCL. This is not an enforceable standard, although requirements and recommendations may apply if detected above this level.

UNREGULATED CONTAMINANT MONITORING RULE (UCMR) RESULTS

USEPA requires public water systems to collect data for unregulated constituents in drinking water supplies under the Unregulated Contaminant Monitoring Rule program. Currently, these constituents have no drinking water standards but may be regulated in the future. The fourth round (UCMR4) was conducted from 2018 – 2020.

More information on the UCMR4 round can be found at **www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule**. Fair Oaks Water District was required to monitor in 2018, while San Juan Water District, Citrus Heights Water District, and Orange Vale Water Company conducted sampling in 2019. Several constituents were detected, none at any level of human health concern.

Constituent	Range (ug/L)	Average (ug/L)	Human Health Advisory	Potential Sources
Manganese	ND – 1.9 [1] ND – 3.24 [2] 1.8 – 9.92 [3] 0.56 – 4.9 [4]	1.9 [1] 1.05 [2] 3.81 [3] 2.72 [4]	USEPA Lifetime Health Advisory - 300 ug/L State Board Notification Level – 500 ug/L	Naturally-occurring metal
HAA5	ND - 25 [1] 18.97 – 31.6 [2] 19.46 – 21.22 [3] 22.8 – 33 [4]	6.7 [1] 21.14 [2] 20 [3] 27.1 [4]	State Water Board Maximum Contaminant Level – 60 ug/L	By-product of drinking water disinfection
HAA6Br	ND – 1.44 [4]	1.03 [4]	None	By-product of drinking water disinfection
HAA9	ND - 17 [1] 15.57 – 32.62 [2] 20.04 – 22.21 [3] 23.42 – 34.38 [4]	14.5 [1] 24.66 [2] 20.85 [3] 28.11 [4]	None	By-product of drinking water disinfection
Bromide	ND - 32 [1]	24.7 [1]	None	Naturally-occurring compound

1 – Fair Oaks Water District (wells, treated surface water from SJWD, and distribution system – 2018 and 2019)
2 – SJWD (treated surface water and distribution system - 2019)
3 – Citrus Heights Water District (wells, treated surface water from SJWD, and distribution system - 2019)
4 – Orange Vale Water Company (treated surface water from SJWD and distribution system - 2019)

SAN JUAN WHOLESALE CUSTOMER AGENCIES – 2020 TABLE OF DETECTED CONSTITUENTS

DETECTED PRIMARY DRINKING WATER CONSTITUENTS regulated to protect your health

CONSTITUENT	UNITS	PHG or (MCLG) or [MRDLG]	MCL or [MRDL]	San Juan Surface Water Including Orange Vale Water Company(a)			Citrus Heights Groundwater			Fair Oaks Groundwater			MAJOR SOURCES
				RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	
Arsenic	PPB	0.004	10	ND	ND	2019	ND - 2.2	ND	2016, 2019	ND - 4.6	ND	2019	Erosion of natural deposits; runoff from orchards; glass and electronics production waste
Barium	PPM	2	1	ND	ND	2019	ND - 0.11	ND	2016, 2019	ND	ND	2019	Erosion of natural deposits and wastes from metal refineries
Fluoride	PPM	1	2.0	ND	ND	2019	ND - 0.18	0.11	2016, 2019	ND - 0.11	0.11	2019	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (as N)	PPM	10	10	ND	ND	2020	1.4 - 2.6	2.2	2020	ND	ND	2020	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Uranium	pCi/L	0.43	20	NR	N/A	N/A	ND - 1.3	ND	2017	ND	ND	2018	Erosion of natural deposits
Chlorine Residual - distribution system	PPM	[4]	[4]	0.37 - 0.98 (0.3 - 0.9)	0.68 (0.65)	2020	0.22 - 1.1	0.73	2020	0.2 - 0.83	0.53	2020	Drinking water disinfectant added for treatment
Total Trihalomethanes - distribution system	PPB	N/A	80	32 - 46 (21 - 40)	46 (44)	2020	ND - 38	41	2020	7 - 36	36.8	2020	By-product of drinking water disinfection
Haloacetic Acids - distribution system	PPB	N/A	60	20 - 46 (13 - 29)	46 (33)	2020	ND - 29	26	2020	ND - 27	24.0	2020	By-product of drinking water disinfection
Control of Disinfection By-Product Precursors (TOC) (treated water) (b)	PPM	N/A	TT = 2	0.8 - 1.25	0.97	2020	NR	N/A	N/A	NR	N/A	N/A	Various natural and manmade sources

CONSTITUENT	UNITS	PHG OR (MCLG)	MCL	LEVEL FOUND	YEAR SAMPLED	LEVEL FOUND	YEAR SAMPLED	LEVEL FOUND	YEAR SAMPLED	MAJOR SOURCES
Turbidity (b)	NTU	N/A	TT = 1 NTU	0.038	2020	NR	N/A	NR	N/A	Soil runoff
	% Samples	N/A	TT = ≤0.3 NTU	100	2020	NR	N/A	NR	N/A	

CONSTITUENT	UNITS	PHG OR (MCLG)	MCL	HIGHEST MONTHLY RESULT	# MONTHS WITH POSITIVE SAMPLE	YEAR SAMPLED	HIGHEST MONTHLY RESULT	# MONTHS WITH POSITIVE SAMPLE	YEAR SAMPLED	HIGHEST MONTHLY RESULT	# MONTHS WITH POSITIVE SAMPLE	YEAR SAMPLED	MAJOR SOURCES
Total Coliform Bacteria	% Samples	(0)	>5% monthly samples positive	2.32 (N/A)	1 (N/A)	2020	0	0	2020	0	0	2020	Naturally present in the environment

CONSTITUENT	UNITS	PHG OR (MCLG)	AL	90th PERCENTILE	# SAMPLED/ # EXCEED AL	YEAR SAMPLED	90th PERCENTILE	# SAMPLED/ # EXCEED AL	YEAR SAMPLED	90th PERCENTILE	# SAMPLED/ # EXCEED AL	YEAR SAMPLED	MAJOR SOURCES
Lead (c)	PPB	0.2	15	ND (ND)	30/1 (30/1)	2018 (2018)	ND	30/0	2018	ND	31/0	2019	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper	PPM	0.3	1.3	0.067 (0.11)	30/0 (30/0)	2018 (2018)	0.095	30/0	2018	0.063	31/0	2019	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

DETECTED SECONDARY DRINKING WATER CONSTITUENTS regulated for aesthetic qualities

CONSTITUENT	UNITS	PHG or (MCLG)	MCL	San Juan Surface Water Including Orange Vale Water Company			Citrus Heights Groundwater			Fair Oaks Groundwater			MAJOR SOURCES
				RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	
Total Dissolved Solids	PPM	N/A	1,000	30	30	2019	220 - 260	245	2016, 2019	110 - 190	140	2019	Runoff/leaching from natural deposits
Specific Conductance	µS/CM	N/A	1,600	53 - 88	72.5	2020	280 - 360	325	2016, 2019	120 - 240	182	2020	Substances that form ions when in water
Sulfate	PPM	N/A	500	3.8	3.8	2019	8.4 - 12	10.6	2016, 2019	4.3 - 15	8.45	2019	Runoff/leaching from natural deposits
Chloride	PPM	N/A	500	1.8	1.8	2019	12 - 18	15.5	2016, 2019	3.2 - 7.4	4.4	2019	Runoff/leaching from natural deposits
Turbidity	NTU	N/A	5	0.018 - 0.038	0.023	2020	ND - 0.1	ND	2016, 2019	ND	ND	2019	Soil runoff

DETECTED UNREGULATED DRINKING WATER CONSTITUENTS (d)

CONSTITUENT	UNITS	PHG or (MCLG)	NL	San Juan Surface Water Including Orange Vale Water Company			Citrus Heights Groundwater			Fair Oaks Groundwater			MAJOR SOURCES
				RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	
Bicarbonate Alkalinity	PPM	N/A	NONE	13	13	2019	130 - 180	150	2016, 2019	54 - 93	74	2019	Bicarbonate alkalinity is the measure of the capacity of water or any solution to neutralize or "buffer" acids, represented as the bicarbonate ion.
Hardness	PPM	N/A	NONE	12	12	2019	110 - 150	132.5	2016, 2019	47 - 83	65	2019	Hardness is the sum of polyvalent cations present in the water, generally naturally occurring magnesium and calcium.
Sodium	PPM	N/A	NONE	1.6	1.6	2019	16 - 22	19	2016, 2019	4.9 - 17	9.1	2019	Naturally occurring salt in the water
Calcium	PPM	N/A	NONE	3.3	3.3	2019	24 - 33	29.25	2016, 2019	12 - 21	16	2019	Erosion of natural deposits
Magnesium	PPM	N/A	NONE	1	1	2019	12 - 16	14.25	2016, 2019	4.2 - 8.3	6.3	2019	Erosion of natural deposits

(a) – Data for OVWC Distribution System is shown in parenthesis.
(b) – Only surface water sources must comply with PDWS for Control of Disinfection By-Product Precursors and turbidity. Turbidity is a mesure of the cloudiness of water. We monitor for it because it is a good indicator of the effectiveness of our filtration system.
(c) – One school requested Fair Oaks Water District conduct monitoring for lead in 2020
(d) – Unregulated contaminant monitoring helps determine where certain contaminants occur and whether they need to be regulated.
The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

SAN JUAN WATER Wholesale

2020 CONSUMER CONFIDENCE REPORT

Yearly Water Quality Report

San Juan Wholesale Customer Agencies
P.O. Box 2157
Granite Bay, CA 95746

Board of Directors

Pamela Tobin	Marty Hanneman
Kenneth H. Miller	Dan Rich
Edward J. "Ted" Costa	

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. Favor de comunicarse San Juan Family Agency para asistirlo en español.

Этот отчет содержит важную информацию о вашей питьевой воде. Пожалуйста, свяжитесь с San Juan Family Agency для получения помощи на русском языке.

CONTACT US

If you have any questions about this report or your water supply, please contact your local water provider. Each of the member agencies holds monthly board meetings that are open to the public as indicated below.

CITRUS HEIGHTS WATER DISTRICT

Contact Person:
Brian Hensley
(916) 725-6873
bhensley@chwd.org
chwd.org

Board Meetings:
3rd Wednesday each month
6:30 p.m.
6230 Sylvan Road
Citrus Heights

FAIR OAKS WATER DISTRICT

Contact Person:
Shawn Huckaby
(916) 844-3507
shuckaby@fowd.com
fowd.com

Board Meetings:
2nd Monday every month
6:30 p.m.
10326 Fair Oaks Boulevard
Fair Oaks

ORANGE VALE WATER CO.

Contact Person:
Mark DuBose
(916) 988-1693
mdubose@orangevalewater.com
orangevalewater.com

Board Meetings:
1st Tuesday each month
4:00 p.m.
9031 Central Avenue
Orangevale

SAN JUAN WATER SINCE 1854

Contact Person:
Greg Turner
(916) 791-1715
gturner@sjwd.org
sjwd.org

Board Meetings:
4th Wednesday each month, except November and December where they occur on the 2nd Wednesday
6:00 p.m.
9935 Auburn-Folsom Road
Granite Bay

LEARN MORE ABOUT YOUR WATER AT SJWD.ORG

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