



2020 WATER SHORTAGE CONTINGENCY PLAN

Public Draft

101 Montgomery Street | Suite 1850
San Francisco, California 94104
415.321.3400

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

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ACRONYMS AND ABBREVIATIONS

Term	Definition
AFY	acre-feet per year
AWA	Amador Water Agency
AWS	Amador Water System
CAWP	Central Amador Water Project
cfs	cubic feet per second
CII	commercial, institutional, industrial
CWC	California Water Code
DWR	California Department of Water Resources
EBMUD	East Bay Municipal Utilities District
LHMP	Local Hazard Mitigation Plan
PG&E	Pacific Gas & Electric
UWMP	Urban Water Management Plan
WSCP	Water Shortage Contingency Plan
WSDA	Water Supply and Demand Assessment

1. INTRODUCTION

The Amador Water Agency (AWA or Agency) was formed in 1959 for the purpose of providing water and wastewater services to the residents of Amador County. The Agency has four general service areas: the Amador Water System (AWS), the Central Amador Water Project (CAWP) System, La Mel Heights, and Lake Camanche Village.

The Agency is the main water purveyor for residential and commercial use in Amador County and has the legal jurisdiction to serve water throughout Amador County. The Agency's primary source of water is the Mokelumne River watershed which supplies the primary water systems of the AWS and the CAWP. Lake Camanche Village and La Mel Heights are served through groundwater. There are a total of approximately 10,730 water service connections in the Agency's service area as of 2020, including approximately 7,500 retail connections and 3,230 wholesale customer connections.

A Water Shortage Contingency Plan (WSCP) is meant to be a document that provides a water supplier with an action plan for a drought or catastrophic water supply shortage. Previously, the WSCP had been written as a single chapter in an Urban Water Management Plan (UWMP) according to UWMP requirements. New legislation in 2018 created a WSCP mandate replacing previous water shortage contingency analysis requirements under former law. New requirements, including, but not limited to, documentation of procedures for an annual Water Supply and Demand Assessment (WSDA) as well as quantification of savings from water shortage response actions, are reflected in this WSCP. New guidance from the California Department of Water Resources (DWR) also directs that the WSCP should be a standalone document separate from the UWMP and can be updated in parallel or separately from the UWMP.

This WSCP presents the latest information about the Agency's annual WSDA procedures (Section 2) and describes the Agency's water shortage contingency planning (Sections 3 through 12). This WSCP coincides with additional planning efforts conducted by the Agency, including its urban water management planning.

2. ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

California Water Code (CWC) Section 10632.1 requires the preparation of an annual WSDA and submission to DWR beginning July 1, 2022. The WSDA is meant to capture a comparison of projected supplies and demands for the coming year and report on the anticipation of a shortage and any subsequent shortage response actions triggered by the WSCP. The background and procedures for conducting the Agency's annual WSDA are described in the subsections below which are organized by the procedures required in CWC Section 10632(a)(2).

2.1 Supply Assessment and Criteria

The Agency has both groundwater and surface water supplies. Groundwater in the La Mel Heights system is pumped from two wells where either well is capable of meeting peak day demands on its own. Groundwater wells in the Lake Camanche Village area system have a sustainable yield greater than projected demands.

Surface water is the sole supply source for both the AWS and the CAWP and is obtained from the Mokelumne River watershed. The Mokelumne River is located on the Agency's southern boundary with the headwaters in parts of Amador, Alpine, El Dorado and Calaveras Counties. The majority of flow is derived from snowmelt. The watershed ranges from peak elevations of approximately 10,000 feet above mean sea level at the Pacific Crest, down to 580 feet

above mean sea level at Pardee Reservoir. The Mokelumne watershed upstream of Pardee Reservoir is approximately 578 square miles.

The watershed above Pardee Reservoir is mostly protected and undeveloped, with a large portion located in the Mokelumne Wilderness. Many tributaries flow into the Mokelumne River before it reaches Pardee Reservoir. Reservoirs in the higher portions of the watershed include Lower Bear and Salt Springs, both owned by Pacific Gas & Electric Company (PG&E). Upstream hydropower facilities owned and operated by PG&E include diversion tunnels and regulating reservoirs, with most of the diverted flow released back into the river system. Pardee Reservoir and its downstream companion, Lake Camanche, are owned and operated by the East Bay Municipal Utilities District (EBMUD).

The AWS has a pre-1914 senior water right contracted for 15,000 acre-feet per year (AFY) diverted at a rate not to exceed 30 cubic feet per second (cfs). The CAWP surface water diversion is limited to a firm yield of 1,150 AFY at a rate not to exceed 3 cfs. The Agency is currently working to obtain additional surface water rights for the CAWP system which would expand the surface water diversions to 2,200 AFY with a flow rate not to exceed 5 cfs. The Agency also has an agreement with PG&E to store water in the Lower Bear River Reservoir. Under the current water right permit, 1,600 AF can be stored in Lower Bear River Reservoir on an annual basis. The storage would be expanded to 3,000 AFY with the proposed water right permit.

The Agency regularly reviews reservoir level monitoring data for the various reservoirs that comprise the surface water supply from the Mokelumne River. Current reservoir levels and records of historical storage together comprise the evaluation criteria that the Agency uses to project available water supply in any given year. Chapter 7 of the 2020 UWMP describes the assessment of supply reliability for single dry and multiple-dry years in more detail.

2.2 Demand Assessment and Criteria

To calculate unconstrained customer demand for the purpose of an annual WSDA, the Agency estimates demands based on the best available information to date, and typically includes the previous year's demands as well as consideration of current demand use patterns or other conditions impacting demands.

2.3 System Modeling and Infrastructure Considerations

The Agency's transmission lines were sized to meet or exceed the relevant water right of the supply they serve. The flow through these mains is continuously monitored and flow continues to be well below the design capacity.

The Agency has several capital improvement projects planned in the next decades to continue replacing sections of open canals with pipelines to reduce or eliminate seepage, further increasing the efficiency and reliability of the Agency's surface water supply.

2.4 Decision-Making Process

The Agency has a significant surplus of water supply above current and projected demands. Additionally, that supply is very reliable and unlikely to be reduced to result in a shortage. The AWS water supply has never been curtailed in the most severe single-year or a multiple-year drought. While the water supply for the CAWP system has been curtailed in some drought years, the significant storage volume right in Lower Bear River Reservoir has meant that 100 percent of demands have always been met and are expected to be met, even in dry years. The sustainable yields for both systems reliant on groundwater are larger than current and projected demands.

Given the high reliability of water supplies, historically the Agency has not had to respond to a shortage gap. However, as part of the annual WSDA, the Agency will review projected water supplies (Section 2.1) and projected demands (Section 2.2) for the coming year and determine if a shortage is likely. If a shortage is identified, the Agency will make a presentation to its Board of Directors summarizing the shortage and implement the WSCP as needed (see Sections 3 and 4).

3. STAGES OF ACTION

The Agency’s reasonably available projected water supplies (excluding recycled water) are 18,820 AF in 2045. Total potable and raw water demand in the same year is projected to be 8,322 AF which is 44 percent of available normal year supply (10,498 AF surplus). The Agency does not reasonably expect that a drought or even a catastrophic supply shortage of up to 50 percent would result in a shortage gap between supplies and demands. Supply reductions of approximately 56 percent or greater would have the potential to result in a shortage gap that would require the direct need for demand reductions. The shortage stages of action (interchangeably referred to as “shortage levels”) described below are primarily intended to meet a State-mandated water demand reduction as was required during the recent 2012-2016 drought. Shortage Stage 5 reflects that an internal emergency (catastrophic supply shortage) could also result in the need to respond to low water supplies.

Table 3-1 describes the shortage stages of the Agency’s WSCP. Stage 0 of the WSCP represents recommended conservation during normal conditions, while Stages 1 through 5 are determined by the level of State-mandated water restrictions or by the advent of an internal emergency, such as the failure of a dam or treatment plant. Stages 1 through 5 are mandatory restrictions, and violations are enforced by penalties. Appendix A contains the Agency’s complete WSCP (referred to as its Water Conservation Policy, Article 3 of the Agency’s Water Code), as adopted on January 28, 2021 (AWA 2021).

Table 3-1: Stages of Water Shortage Contingency Plan (DWR Table 8-1)

Stage Level (Stage)	Percent Shortage Range	Shortage Response Actions (Narrative Description)
0	0%	Normal Conditions—Recommended Conservation Measures (see Table 4-2)
1	1%–20%	State-Mandated Water Alert—20% reduction in demands goal via water shortage surcharge
2	21%–30	State-Mandated Water Warning—30% reduction in demands goal via water shortage surcharge
3	31%–40%	State-Mandated Water Crisis—40% reduction in demands goal via water shortage surcharge
4	41–50%	State-Mandated Water Emergency—50% reduction in demands goal via water shortage surcharge
5	>50%	State-Mandated Water Shortage or Internal Emergency— >50% reduction in demands goal via water shortage surcharge ^{a,b}

Notes:

^a Per DWR, one stage in the WSCP must address a water shortage of >50%.

^b An Internal Emergency could be a dam or treatment plant failure.

CWC Section 10632 (a)(3) requires suppliers to develop six standard water shortage levels, but also authorizes suppliers to continue using their own water shortage levels that may have been included in past WSCPs. The Agency's Stage 1 shortage of 1–20 percent supply reduction covers both shortage levels 1 (up to 10 percent) and 2 (up to 20 percent) described by Code. The remaining shortage stages align with the Code-recommended shortage levels directly. See Table 3-2 for a crosswalk between DWR and AWA shortage levels.

Table 3-2: Crosswalk Table Between DWR and AWA Shortage Levels

DWR Standard Shortage Level	DWR Standard Percent Shortage Range	AWA Stage Level (Stage)	AWA Percent Shortage Range
N/A	N/A	0	0%
1	Up to 10%	1	1%–20%
2	Up to 20%		
3	Up to 30%	2	21%–30%
4	Up to 40%	3	31%–40%
5	Up to 50%	4	41%–50%
6	>50%	5	>50%

4. SHORTAGE RESPONSE ACTIONS

For the purpose of this WSCP, the Agency's shortage response action used to respond to a water shortage emergency is the implementation of a water shortage surcharge. The Agency also implements numerous water use restrictions and conservation guidelines; however, the implementation of these prohibitions is not directly linked to a shortage stage for the purpose of this WSCP. The only action that may be implemented specifically in response to a particular shortage stage is the water shortage surcharge. Table 4-1 highlights the Agency's shortage response actions and the shortage stage under which each is implemented.

Section 4.1 describes the response triggered by shortage stage: the water shortage surcharge. Section 4.2 describes additional prohibitions on end uses while Section 4.3 describes additional water consumption reduction methods employed by the Agency.

Table 4-1: Shortage Response Actions (Demand Reduction Actions) (DWR Table 8-2)

Shortage Level (Stage)	Demand Reduction Actions	Associated Volume (AF)	Additional Explanation or Reference (Optional)	Penalty, Charge, or Other Enforcement?
1	Implement or Modify Drought Rate Structure or Surcharge	1,664	20% reduction in demands goal based on water shortage surcharge	Yes
2	Implement or Modify Drought Rate Structure or Surcharge	2,497	30% reduction in demands goal based on water shortage surcharge	Yes
3	Implement or Modify Drought Rate Structure or Surcharge	3,329	40% reduction in demands goal based on water shortage surcharge	Yes
4	Implement or Modify Drought Rate Structure or Surcharge	4,161	50% reduction in demands goal based on water shortage surcharge	Yes
5	Implement or Modify Drought Rate Structure or Surcharge	4,577	55% reduction in demands goal based on water shortage surcharge	Yes
Notes: 2045 total potable and raw water demands (8,322 AF) were used to calculate the expected volume of demand reduction.				

4.1 Water Shortage Surcharge

Due to reduced water sales causing an unsustainable financial situation during the 2012-2016 drought, the Agency adopted Resolution 2015-19 on July 21, 2015 to implement water shortage surcharges. Stage 2 drought surcharges were in effect September 1, 2015 through June 30, 2016. The amount of the water shortage surcharge, as detailed in the resolution, is determined by the stage of water shortage declared by the Agency and is projected to resolve revenue deficits and increased expenditures during water shortages. The surcharge level for each stage of shortage is detailed below:

- Stage 1 = 18 percent surcharge on all usage rates
- Stage 2 = 34 percent surcharge on all usage rates
- Stage 3 = 54 percent surcharge on all usage rates
- Stage 4 = 75 percent surcharge on all usage rates
- Stage 5 = (new stage in this WSCP, surcharge not determined as of most recent drought in 2015)

The implementation of this surcharge structure does not affect the monthly service charge to customers and is temporary, as it will be terminated at the end of a declared shortage. The water shortage surcharge also has the impact of incentivizing customers to reduce their water use in accordance with the stage set as part of the water shortage emergency. The water shortage surcharge increases with the stage and severity of the water shortage, thus increasing the signal to customers to reduce water use.

4.2 Prohibitions on End Uses

This section describes the program elements of the WSCP that place prohibitions against specific end uses in order to reduce water use and eliminate waste where possible. Table 4-2 details the restrictions that may be considered for implementation by the Agency at different stages of water shortage. As described earlier, while the Agency delineates a shortage stage associated with each action, the implementation of these prohibitions is not directly linked to a shortage stage. The only method that will be implemented specifically in response to a particular shortage stage is the water shortage surcharge.

Each stage of water shortage requires adherence to the measures of the previous stage of water shortage in addition to new measures required for the current stage. The water use restrictions in Stages 1 through 5 are enforced by penalties as described in Section 6 (Compliance and Enforcement).

Table 4-2: Restrictions and Prohibitions on End Uses

Shortage Level (Stage)	Restrictions and Prohibitions on End Users	Additional Explanation or Reference	Penalty, Charge, or Other Enforcement?
0	Other—Customers must repair leaks, breaks, and malfunctions in a timely manner	--	No
0	Landscape—Limit landscape irrigation to specific times	Discontinue landscape irrigation between 9:00am and 7:00pm	No
0	Water Features—Restrict water use for decorative water features, such as fountains	Drinking water used in decorative fountains must be recirculated and leak proof	No
0	Landscape—Restrict or prohibit runoff from landscape irrigation	--	No
0	Other—Require automatic shut of hoses	--	No
0	Other—Prohibit use of potable water for washing hard surfaces	Washing down sidewalks and driveways is prohibited unless for public health/safety. Use of pressure washing devices is recommended	No
0	Other water feature or swimming pool restriction	Unauthorized use of hydrants is prohibited	No
0	CII—Other CII restriction or prohibition	Commercial, Industrial, and Institutional equipment must be properly maintained and in full working order	No
0	Other	Wash only full loads when machine washing dishes or clothes	No
0	Pools and Spas—Require covers for pools and spas	--	No
0	CII—Restaurants may only serve water upon request	--	No

Shortage Level (Stage)	Restrictions and Prohibitions on End Users	Additional Explanation or Reference	Penalty, Charge, or Other Enforcement?
0	Other	Use conservation kits supplied by the Agency or other water utilities	No
1	Landscape—Limit landscape irrigation to specific times	Discontinue landscape irrigation between 9:00am and 7:00pm	Yes
1	CII—Restaurants may only serve water upon request	--	Yes
1	Landscape—Restrict or prohibit runoff from landscape irrigation	--	Yes
1	Landscape—Other landscape restriction or prohibition	No unattended watering unless automatic shut-off equipment is used	Yes
1	Other—Require automatic shut of hoses	Automatic shut-off nozzles or valves required when washing cars or other vehicles	Yes
1	Other—Prohibit use of potable water for washing hard surfaces	Washing sidewalks, driveways, patios, parking lots, and tennis courts with water is prohibited	Yes
1	Other water feature or swimming pool restriction	Emptying and refilling of swimming pools and hot tubs is prohibited	Yes
1	Water Features—Restrict water use for decorative water features, such as fountains	Drinking water used in decorative fountains must be recirculated	Yes
1	Water Features—Restrict water use for decorative water features, such as fountains	Drinking water may not be used in scenic ponds and lakes except for the minimum amount needed to support existing aquatic life	Yes
1	Other	Use conservation kits supplied by the Agency or other water utilities	Yes
1	Landscape—Other landscape restriction or prohibition	No irrigation of new landscaping for new construction	Yes
1	Landscape—Other landscape restriction or prohibition	No irrigation during and up to 48 hours after measurable rainfall	Yes
1	Other—Customers must repair leaks, breaks, and malfunctions in a timely manner	Fix leaks or faulty sprinklers within 7 days	Yes
1	Landscape—Limit landscape irrigation to specific days	Water only three days per week for turf watering when using potable water	Yes
1	Landscape—Prohibit certain types of landscape irrigation	Plant containers, trees, shrubs, and vegetables may be watered more than three days a week if using drip irrigation or watering by hand with an automatic shut-off device	Yes

Shortage Level (Stage)	Restrictions and Prohibitions on End Users	Additional Explanation or Reference	Penalty, Charge, or Other Enforcement?
2	Other	Applications for new service connections will be granted only on the condition that the water will be used for interior purposes only during the drought emergency	Yes
2	Other—Customers must repair leaks, breaks, and malfunctions in a timely manner	Fix leaks or faulty sprinklers within 5 days	Yes
2	Landscape—Limit landscape irrigation to specific days	In the warm and dry season, turf may be watered using potable water only two days per week	Yes
2	Landscape—Other landscape restriction or prohibition	In the cold and wet season, turf may not be watered unless utilizing non-potable water	Yes
3	Other—Customers must repair leaks, breaks, and malfunctions in a timely manner	Fix leaks or faulty sprinklers within 3 days	Yes
3	Landscape—Limit landscape irrigation to specific days	In the warm and dry season, turf may be watered using potable water only one day per week	Yes
4	Other	Water use for public health and safety purposes only. Special provisions for recycled water will be handled on a case-by-case basis	Yes
Notes: All stages require the measures from the previous stage in addition to new measures. CII = commercial, institutional, industrial			

4.3 Consumption Reduction Methods

Consumption reduction methods are actions that are taken solely by the Agency to reduce water use during a period of shortage. In addition to the Agency's ongoing conservation efforts (i.e., demand management measures) detailed in Chapter 9 of the 2020 UWMP, the Agency's WSCP specifies additional consumption reduction methods during times of shortage, such as increased giveaways of low-flow fixtures including water-conserving showerheads, faucet aerators, and toilet conservation kits. Consumption reduction methods are offered and apply to both retail and wholesale customers. The consumption reduction actions that occur under normal conditions and various stages of water shortage are described in the list below:

- **Provide Replacement Plumbing Fixtures and Devices**—The use of conservation kits provided by the Agency is suggested for all levels of water shortage.
- **Expand Public Information Campaign**—The Agency visits public events and schools, hang banners, and maintain a public website.
- **Improve Customer Billing**—Information, such as tips on how to conserve water, is included on customer's water bills.

- **Offer Water Use Surveys**—The Agency will perform surveys upon requests and offer do-it-yourself water use survey kits.
- **Reduce System Water Loss**—The Agency completes regular water audits, has recently piped/lined earthen canals, lined redwood tanks, replaced hundreds of service lines in high-leakage areas, and has undertaken a leak detection and repair program.
- **Increase Water Waste Patrols**—The Agency's website has a page to anonymously report water waste.
- **Implement or Modify Drought Rate Structure or Surcharge**—Escalating Water Shortage Surcharges are implemented for each stage of a water shortage.

4.4 Supply Augmentation Actions

At this time, the Agency's shortage response actions do not include supply augmentation. Supply augmentation is procurement of emergency water supplies, available during a time of shortage, that would be managed uniquely in response to shortages in other supplies. Examples of such supply augmentation actions typically utilized by other urban water suppliers include pursuing water supply transfers and exchanges, developing temporary recycled water opportunities, rain (cloud) seeding, or accessing stored emergency supplies.

4.5 Operational Actions

At this time, the Agency's shortage response actions do not include operational changes. Examples of operational changes employed by other urban water suppliers include decreasing line flushing or other water loss control actions.

5. COMMUNICATION PROTOCOLS

Prior to the implementation of a water shortage surcharge, the Agency will present the proposed surcharge in a publicly noticed meeting of its Board of Directors. Messages will be sent out to all customers as an insert to a bill prior to the first bill where the water shortage surcharge is effective. The message will notify customers about the adopted surcharges and provide a baseline water use against which future months of bills will be compared for purpose of calculating the surcharge amount. Account holders receive mailed notifications either through the billing service utilized by the Agency or an outside mail-house. Additional methods the Agency may use to communicate with customers include: newspaper postings, signs, social media, newsletters, and other methods of public communication.

6. COMPLIANCE AND ENFORCEMENT

Once the WSCP is implemented, the drought surcharge will be calculated by the Agency based on a comparison of current billing period's consumption to a baseline period. The Agency's Water Code provides procedures for levying fees or liens in the case of delinquent payments.

The Agency depends heavily on voluntary adherence to other drought-imposed restrictions, and its primary focus is customer education on the critical need to conserve water resources during a water shortage. Use reductions are generally not enforced on an individual basis unless water is being wasted. Historically, voluntary conservation has been effective and customers have been receptive to the water use reduction needs of the Agency. However, in the event that compliance is ignored during any stage of emergency, penalties are included in this WSCP. The penalties and charges are as follows:

- **First violation**—A written warning that further violation will result in possible water restrictions.
- **Second violation**—A water restriction device will be placed on the customer's meter for one week and associated call fees will be charged to the customer.
- **Third violation**—A water restriction device will be placed on the customer's meter for the duration of the water drought or water emergency, and associated service call fees will be charged to the customer.

Variations may be granted to any of the above regulations and restrictions upon application in writing stating in detail the reason therefor.

In order to address waste of Agency water, the Agency has established penalties. After two warnings by mail or personal service to the customer, the Agency may limit or disconnect the service for failure to comply. The limited or disconnected service will be restored only upon correction of the water waste condition and payment of the fees set forth in the Agency Rate Schedule.

7. LEGAL AUTHORITIES

Under the CWC Chapters 3.3 and 3.5 of Division 1, Parts 2.55 and 2.6 of Division 6, Division 13, the Agency Board of Directors (Board) is authorized to implement the water shortage actions for its service area, as outlined in this WSCP. Additionally, the California Constitution Article X, Section 2, requires that the water resources of the State be put "to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented." As such, the Agency is bound to pursuing the most beneficial and reasonable use of its water rights and supplies in a manner that ensures the reasonableness of water use during water shortage and/or other emergency conditions. The Agency shall declare a water shortage emergency in accordance with CWC Chapter 3, Section 350 of Division 1 (general provision regarding water shortage emergencies). In all water shortage cases, implemented Agency shortage response actions will be at the discretion of the Board and will be based on an assessment of the supply shortage, customer response, and need for demand reductions. Any such actions will be reviewed and enacted during public regular Board meetings in compliance with the Brown Act contained in Section 54950 *et seq.* of the California Government Code.

It is noted that upon proclamation by the California Governor of a 'state of emergency' under the California Emergency Services Act (Chapter 7, commencing with Section 8550 of Division 1 of Title 2 of the Government Code) based on declared drought conditions, the state will defer to implementation of locally adopted WSCPs to the extent practicable. The Agency will coordinate with regional and local water suppliers for which it provides water supply services for possible proclamation of a local emergency, as deemed necessary by the Board.

8. FINANCIAL CONSEQUENCES OF WATER SHORTAGE CONTINGENCY PLAN

During water shortages, it is not uncommon for an agency's revenue to decrease as a result of reduced water sales from conservation measures and implementation of the WSCP. Expenditures can also increase due to increased public outreach, water conservation giveaways, and rate studies needed during times of drought. In 2015, the Agency found that the mandatory reductions in water use due to a multi-year drought led to a deficit between revenues and expenses. In response to the April 20, 2015 Fourth District Court of Appeal decision in the Capistrano Tax Payers Association v. City of San Juan Capistrano, the Agency eliminated its tiered rate structure in July 2015 in favor of a uniform water rate applied on a volumetric basis. The Agency's inclusion of the water shortage surcharge helps to ensure that fees are charged at the rate required to meet the Agency's costs during periods of water shortage.

In addition to implementing the water shortage surcharge, the Agency has cut costs wherever possible. The Agency can use a portion of available financial reserves, when available, to help bridge the deficit and can reduce funding for planned capital projects in the most severe shortage conditions.

9. MONITORING AND REPORTING

Water use during normal, wet, and dry periods is monitored by several means. Agency customers are fully metered and meters are installed on all new connections to an Agency water system. All customers receiving water service are metered and billed on a volumetric basis. Records of water production and consumption (meter readings) are kept. These records are maintained and analyzed internally to identify losses in the system, to establish baselines in case of a declaration of emergency, and to track consumption during a shortage for potential application of a drought surcharge. Enforcement of the drought surcharge is described in more detail above in Section 6. These data will also be used in evaluating the effectiveness of the WSCP (see Section 11).

10. PREPARATION FOR CATASTROPHIC SUPPLY INTERRUPTION

In addition to drought, the Agency has planned for other catastrophes that could impact water supply and quality. For example, in the case of a short-term regional power outage, the Agency has purchased or has access to emergency generators to pump and treat water. The Buckhorn, Tanner, and Lone Water Treatment Plants have been assessed for possible water supply emergency scenarios and emergency response plans have been developed. Table 10-1 summarizes the catastrophes for which the Agency has prepared to address in some or all of their facilities. Appendix B contains the Agency's current Emergency Response Plan for All Water Systems (AWA, 2016). Note that at the time of publishing of this WSCP, Emergency Response Plans are being updated for each of the five water systems in 2021 and will be completed after the publication of this WSCP.

Table 10-1: Preparation Actions for a Catastrophe

Possible Catastrophe	Check if Discussed
Chlorine/Hazardous Materials Release	X
Water Outages due to Extended Power Outages	X
Untreatable/Contaminated Water	X
Maximum Contaminant Level Failure	X
Loss of System Pressure	X
Plant/Well Failure	X
Acts of Sabotage/Bioterrorism	X
Earthquakes	X
Major Fire Emergencies	X
Localized Flooding	X

Amador County's 2020 Local Hazard Mitigation Plan (LHMP) identifies several hazard and disaster events which may impact County resources and infrastructure. That plan also defines mitigation measures meant to reduce vulnerabilities associated with these events, and provides information related to County response actions. The LHMP is developed per Federal Emergency Management Agency guidelines, in coordination with a Hazard Mitigation Planning Committee comprised of key Agency, County, City, and other regional representatives (Amador County 2020).

Due to the Agency's geographic location and the area's seismic classification, service interruption due to seismic activity is considered minimal and is therefore not extensively addressed in the Emergency Response Plan. A seismic event could lead to a power outage, which is addressed within the Emergency Response Plan.

The LHMP describes moderate or major earthquakes as unlikely (less than 1 percent of chance of occurrence in next 100 years) and minor earthquakes as likely (between 10 and 100 percent chance of occurrence in next year) (Amador County 2020). The LHMP is attached as Appendix C. Annex F to the LHMP details the hazard mitigation planning elements specific to the Agency, including seismic risks.

11. WATER SHORTAGE CONTINGENCY PLAN REFINEMENT PROCEDURES

The WSCP is considered by the Agency to be a dynamic tool that will be subject to regular refinement as needed to ensure shortage response actions are effective and produce the desired results. If planned shortage response actions are implemented in the future, the Agency will conduct an evaluation of their effectiveness using the monitoring and reporting described in Section 9 and incorporate edits as needed to the WSCP.

12. WATER SHORTAGE CONTINGENCY PLAN ADOPTION, SUBMITTAL, AND AVAILABILITY

The Agency prepared this 2020 WSCP and presented it to the Agency's Board of Directors for adoption during a regularly scheduled meeting on June 24, 2021. A copy of the Agency resolution adopting this 2020 WSCP update is provided in Appendix D.

Within 30 days of Agency Board approval, the adopted 2020 WSCP will be submitted electronically to the DWR via its Water Use Efficiency data online submittal tool (WUEdata). Electronic copies will also be provided on compact disc to the California State Library and via e-mail (within 60 days of WSCP submittal to DWR) to cities and the county within which the Agency provides water. In addition, the Agency will make this adopted 2020 WSCP available for public review during normal business hours by placing a copy at the main offices of the Agency, as well as by posting an electronic copy on the Agency web site at www.amadorwater.org.

Should amendments to the WSCP be required in future years, it is expected that the same adoption, submittal, and availability processes described above would be followed for the updated WSCP.

13. REFERENCES

Amador County. 2020. Amador County Local Hazard Mitigation Plan Update. May. Sutter Creek, California. Prepared by Foster Morrison Consulting. Available: https://amadorsheriff.org/images/Amador_County_LHMP_Update_Complete1.pdf. Accessed: 1 April, 2021.

Amador Water Agency (AWA). 2016. *Amador Water Agency Water System Emergency Response Plan for all Water Systems*. Sutter Creek, CA.

Amador Water Agency (AWA). 2021. Amador Water Agency Water Code. Available: <https://amadorwater.org/wp-content/uploads/2021/01/2020-Water-Code.pdf>. Accessed: 1 April, 2021.

APPENDIX A
WATER CONSERVATION POLICY FROM AMADOR WATER CODE

**APPENDIX B
EMERGENCY RESPONSE PLAN FOR ALL WATER SYSTEMS**

APPENDIX C
AMADOR COUNTY 2020 LOCAL HAZARD MITIGATION PLAN

**APPENDIX D
AGENCY RESOLUTION ADOPTING THE 2020 WSCP**