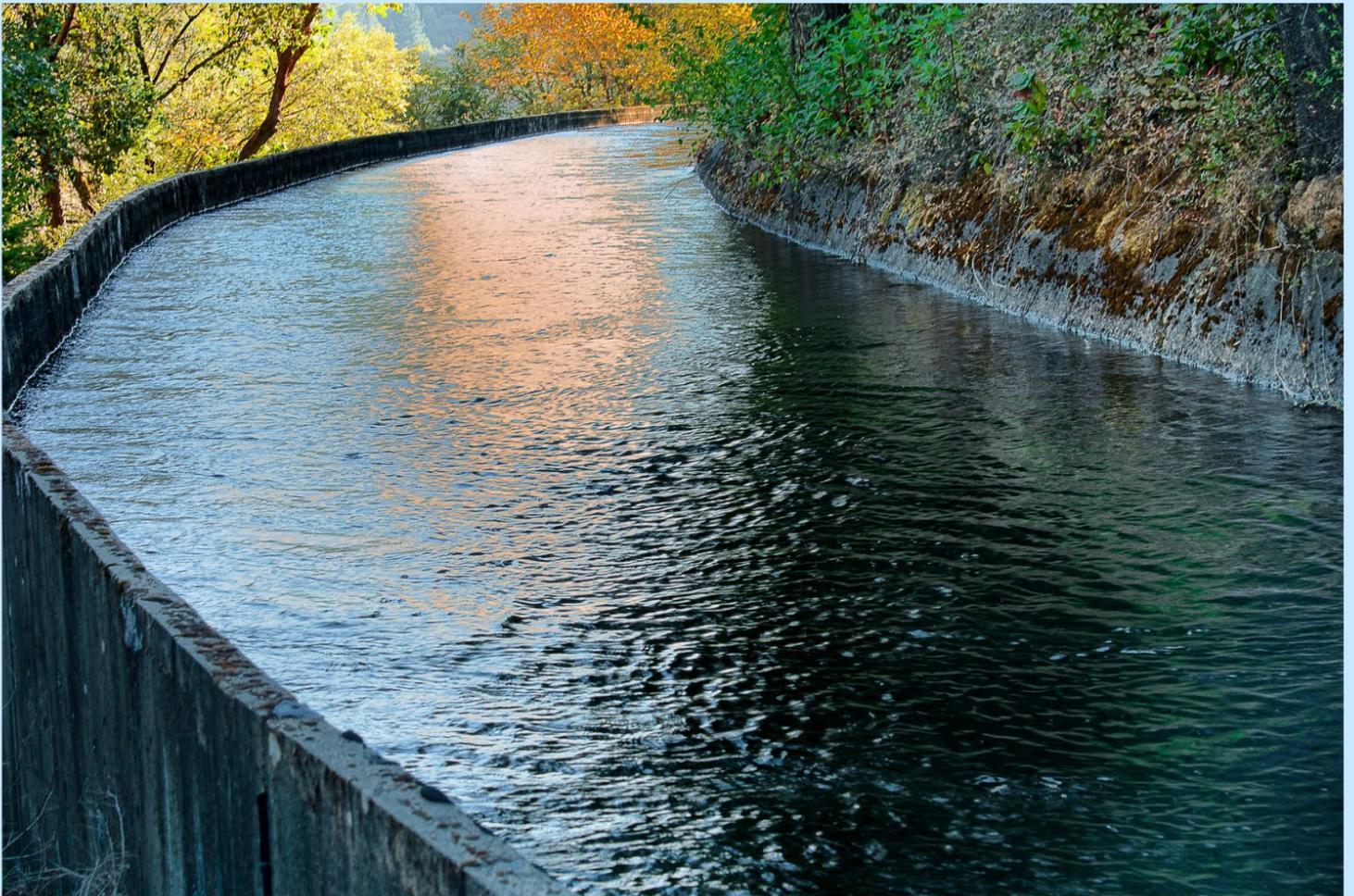


SUBMITTED JULY 1, 2021

2020 WATER SHORTAGE CONTINGENCY PLAN



SOUTH FEATHER WATER & POWER AGENCY



South Feather Water and Power Agency

South Feather Power Project General Description

South Feather Water and Power Agency (SFWPA) owns and operates the South Feather Power Project (SFPP, FERC No. 2088) a water supply/hydropower project located within Plumas, Yuba and Butte counties in the Sierra Nevada Mountain Range in Northern California. The project lies within the Middle Fork Feather hydrologic unit (1802023), and South Fork Feather River watershed. The United States Forest Service has managed up to 1,146,000 acres of scenic mountain lands designated as the Plumas National Forest in the northern Sierra Nevada since the Forest was established in 1905. The SFPP lies within the boundaries of the Plumas National Forest, includes a small piece situated on federal lands administered by the Bureau of Land Management, and the balance is on South Feather Water and Power Agency (SFWPA) owned lands, or private property. Project facilities are located on the South Fork Feather River; on Lost Creek, a tributary to the South Fork Feather River; and on Slate Creek, a tributary to the North Yuba River. The highest elevation facility, Little Grass Valley Dam is located at about 5,050 feet above sea level, while the lowest elevation facility, Kelly Ridge Powerhouse, is located at about 225 feet above sea level.

The power project facilities include eight dams, seven tunnels, four powerhouses, and an open conduit that includes elevated flume and siphon sections. Irrigation and treated water is supplied to customers of South Feather Water and Power Agency in Butte County and North Yuba Water District in Yuba County. Water not consumed by the customers of these two organizations is released to the State Water Project's Feather River facilities (FERC No. 2100) at either Lake Oroville or Thermalito Diversion Dam.

South Feather Water & Power Agency

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INTRODUCTION

South Feather Water and Power Agency has developed this Water Shortage Contingency Plan (WSCP) as required by California Water Code Section 10632.3. This locally developed plan will be the first point of reference and implementation during 1) an Agency declared water shortage (CWC Division 1, Section 350), 2) a City or County proclamation of a local water supply emergency (CESA Article 2, Section 8558), or 3) a declared statewide drought emergency (CWC Section 367). This plan outlines Agency specific implementation of the following required elements:

1. Water Supply Reliability Analysis
2. Annual Water Supply and Demand Assessment Procedures
3. Six Standard Water Shortage Stages
4. Shortage Response Actions
5. Communication Protocols
6. Compliance and Enforcement
7. Legal Authorities
8. Financial Consequences of WSCP Activation
9. Monitoring and Reporting
10. WSCP Refinement Procedures
11. Special Water Feature Distinction
12. Plan Adoption, Submittal, and Availability

The primary objective of the WSCP is to ensure that the Agency has in place the necessary resources and management responses needed to protect health and human safety, minimize economic disruption, and preserve environmental and community assets during water supply shortages and interruptions.

1 WATER SUPPLY RELIABILITY ANALYSIS

CWC 10632(a)(1) *The analysis of water supply reliability conducted pursuant to Section 10635.*

The Agency enjoys a pristine watershed that provides for a high-quality raw water supply. Source water for SFWPA all comes from exceptional quality sources via the South Fork Feather River, Lost Creek (a tributary of the South Fork Feather River), and Slate Creek (a tributary of the Nork Fork Yuba River). Based on the supply and demand assessments conducted by the Agency (See UWMP Chapter 7), SFWPA believes that its sources of developed water supply will continue to more than adequately meet the current and the foreseeable demand through 2045.

2 ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

- CWC** 10632(a)(2) *The procedures used in conducting an annual water supply and demand assessment that include, at a minimum, both of the following:*
- (A) The written decision-making process that an urban water supplier will use each year to determine its water supply reliability.*
 - (B) The key data inputs and assessment methodology used to evaluate the urban water supplier's water supply reliability for the current year and one dry year, including all of the following:*
 - (i) Current year unconstrained demand, considering weather, growth, and other influencing factors, such as policies to manage current supplies to meet demand objectives in future years, as applicable.*
 - (ii) Current year available supply, considering hydrological and regulatory conditions in the current year and one dry year. The annual supply and demand assessment may consider more than one dry year solely at the discretion of the urban water supplier.*
 - (iii) Existing infrastructure capabilities and plausible constraints.*
 - (iv) A defined set of locally applicable evaluation criteria that are consistently relied upon for each annual water supply and demand assessment.*
 - (v) A description and quantification of each source of water supply.*

- CWC** 10632.1. *An urban water supplier shall conduct an annual water supply and demand assessment pursuant to subdivision (a) of Section 10632 and, on or before July 1 of each year, submit an annual water shortage assessment report to the department with information for anticipated shortage, triggered shortage response actions, compliance and enforcement actions, and communication actions consistent with the supplier's water shortage contingency plan.*

If the available water supply continues to remain greater than customer demand, then no further action will be required. However, if in any given year, the typical customer demand appears to be great than available supply, the SFWPA Board of Directors may enact any stage of the Water Shortage Contingency Plan by adopting a resolution in response to local or regional water supply conditions. Several data sources will be consulted, including but not limited to internal and external hydrologic data, as well as all customer consumption records. The WSCP may be enacted based on a number of conditions, including:

- An actual or potential local water supply restriction or emergency affecting the SFWPA system;
- A collective recommendation from Butte County Water and Resource Conservation and the City of Oroville;
- A formal water supply shortage notification by the Governor;

The Conservation Stages will normally be implemented in a progressive manner; however it may be necessary for the Agency to skip Stages in the use reduction plan in response to catastrophic supply reductions. In general, conservation/use reduction levels will be set according to the anticipated reduction in available water supplies.

The Agency takes seriously the charge to protect the resource for all available beneficial uses, and will continue to advance internal abilities to accurately conduct Annual Water Supply and Demand Assessments (Annual Assessment) over the course of the next five years. At such time

that the Department of Water Resources publishes its stand-alone guidance document the Agency will follow that framework, in the meantime, this WSCP outlines Agency specific procedures for conducting the Annual Assessment.

2.1 Decision Making Process

Staff will present the Annual Assessment to the Board of Directors annually during the May Board meeting of each year. This report will outline comprehensive hydrologic conditions for the historical period of record, as well as the current water year conditions based on the last snow surveys conducted by SFWPA and DWR staff. Consumption data is routinely presented to the Board of Directors, however the consumption use will also be summarized in of this Annual Assessment in order for the Board to be fully informed as to whether or not any specific shortage response actions are necessary.

Key data sets to be presented to the Board include:

- SFWPA hydrologic data for reservoirs and streams in the Hydropower Project system
- Annual customer demand for both domestic and raw water
- Previous water year and to date water year supply availability
- Conveyance, treatment and distribution conditions
- Any other locally applicable factors

3 SIX STANDARD WATER SHORTAGE STAGES

Each of the below listed water shortage responses is intended to involve Agency customers in the process of reducing consumer demand during years of diminished supply due to reduced precipitation or any other event that could significantly reduce supply.

4 SHORTAGE RESPONSE ACTIONS

CWC 10632 (a)(4) Shortage response actions that align with the defined shortage levels and include, at a minimum, all of the following:

(A) Locally appropriate supply augmentation actions.

(B) Locally appropriate demand reduction actions to adequately respond to shortages.

(C) Locally appropriate operational changes.

(D) Additional, mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions and appropriate to the local conditions.

(E) For each action, an estimate of the extent to which the gap between supplies and demand will be reduced by implementation of the action.

4.1 Demand Reduction

The Demand Reduction Actions outlined in Table 8-2 below correspond to the six water shortage levels outlined in the above section.

4.2 Supply Augmentation

The Agency has completed multiple demand and supply assessment scenarios, and at this time, none of those scenarios would require supply augmentation.

4.3 Operational Enhancements

The Agency continues to implement water conservation and water loss improvements. Improved monitoring, analysis and tracking of system operations and customer usage will continually improve the quality of annual water supply reliability assessments. During times of supply shortage, the Agency will reduce system flushing, increase hydrant and filling station security, and intensify the meter calibration program.

4.4 Mandatory Restrictions

Once the Agency has adopted a current Water Shortage Contingency Plan Resolution, there will be mandatory restrictions set in place as needed. This typically will not occur until the emergency shortage reaches the 40-50 percent level.

4.5 Emergency Response Plan

The Agency has operated the Miners Ranch Treatment Plant since 1981, and the BTP since 1989. Over the years, there have been numerous versions of Vulnerability Assessments, Emergency Response Plans, and Action Plans. The Agency has compiled an Emergency Response Plan (ERP) for the Miners Ranch Treatment Plant in conformance with the America's Water Infrastructure Act of 2018 Section 2013(b), obtained approval and adoption by the Board of Directors, and submitted to the Environmental Protection Agency as required. The current ERP is an internal document containing critical infrastructure information. The Board of Directors have approved the ERP contents by way of the Policy and Contracts Committee, and the Agency has self-certified the contents with the Environmental Protection Agency.

4.6 Seismic Risk Assessment and Mitigation Plan

CWC 10632.5.(a) *In addition to the requirements of paragraph (3) of subdivision (a) of Section 10632, beginning January 1, 2020, the plan shall include a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities.*

(b) An urban water supplier shall update the seismic risk assessment and mitigation plan when updating its urban water management plan as required by Section 10621.

(c) An urban water supplier may comply with this section by submitting, pursuant to Section 10644, a copy of the most recent adopted local hazard mitigation plan or multihazard mitigation plan under the federal Disaster Mitigation Act of 2000 (Public Law 106-390) if the local hazard mitigation plan or multihazard mitigation plan addresses seismic risk.

An Agency specific seismic survey was completed during the expansion project at the Miners Ranch Treatment Plant. Although that report found no corrective actions needed, impacts to the Agency would vary significantly based on the location of the epicenter and magnitude of a seismic event, and for this reason, the Agency participated in the Butte County Office of Emergency Management led effort to produce a 2019 Local Hazard Mitigation Plan (LHMP) covering Butte County. The LHMP exists to demonstrate the community's commitment to reducing risks from hazards, and serves as a tool to help decision makers direct mitigation activities and resources.

Annex N to the plan x details the hazard mitigation planning elements specific to South Feather Water and Power Agency. The only known active fault in Butte County is the Cleveland Hills fault, the site of the August 1975 Oroville earthquake. Due to the proximity of the Agency to the Cleveland Hills Fault, the Agency is at risk to an earthquake occurring on this fault. These earthquakes can also cause liquefaction within the Agency's service area. Since earthquakes are regional events, the whole of the Agency is at risk to earthquake. The Butte County LHMP plan can be found via this link: <http://www.buttecounty.net/oem/mitigationplans>

The ERP that addresses a variety of potential emergency situations specifically addresses earthquake. The associated Action Plan 3C outlines the following response procedures:

Assess the Problem:

- Inspect all structures for obvious cracks and damage.
- Assess condition of all electrical power feeds and switchgear.
- If SCADA is working, immediately review system for all types of malfunctions, including telemetry, pressure in the distribution system, and operation of pumps and other equipment.
- If buildings have any sign of damage, such as cracked walls, broken windows, downed power lines, do not enter but wait for trained personnel.
- If buildings appear safe, cautiously inspect condition of interiors for damaged equipment, leaks, chemical spills, etc.
- Communicate all findings to EOC or ERM, as appropriate.
- Activate personnel accountability network to check for injury of staff.

Recovery and Return to Safety:

- Contact outside emergency assistance as necessary to respond to staff injuries.
- Activate Emergency Operations Center.
- Notify customers, media, and state and local authorities if service is disrupted or if significant demand management is necessary.
- Inspect facilities for structural damage, including: buildings, storage tanks, and process equipment.
- Prioritize and repair water main leaks.
- Contact neighboring utilities for mutual aid arrangements and open connections as needed.
- Respond to side effects (e.g., loss of power, fire, chemical spills, etc.).

5 COMMUNICATION PROTOCOLS

CWC 10632 (a)(5) Communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments, regarding, at a minimum, all of the following:
(A) Any current or predicted shortages as determined by the annual water supply and demand assessment described pursuant to Section 10632.1.

(B) Any shortage response actions triggered or anticipated to be triggered by the annual water supply and demand assessment described pursuant to Section 10632.1.

(C) Any other relevant communications

This section lists a number of strategies that the Agency will employ to communicate with customers, land use and planning entities for the City of Oroville and County of Butte, as well as community partners.

- Supply clear, consistent and understandable messaging to encourage increased voluntary conservation via billing inserts and on the website.
- Collaborate with City and County partners to development effective communications regarding current conditions and specifically the Agency’s WSCP.
- Regularly communicate with local, state and other elected officials in the region about the importance of achieving voluntary water conservation and encourage them to publicly promote such efforts.

6 COMPLIANCE AND ENFORCEMENT

CWC 10632 (a)(6) *For an urban retail water supplier, customer compliance, enforcement, appeal, and exemption procedures for triggered shortage response actions as determined pursuant to Section 10632.2.*

Pursuant to CWC Sections 376 and 10632, a water supplier is required to penalize or charge end users for excessive water use. In accordance with the Water Shortage Contingency Plan Resolution (which may be adopted as needed by the Board of Directors) it is a misdemeanor punishable by up to 30 days in county jail and/or a fine of up to \$1,000 for any person to violate a requirement of the water conservation program.

7 LEGAL AUTHORITIES

CWC 10632 (a)(7) (A) *A description of the legal authorities that empower the urban water supplier to implement and enforce its shortage response actions specified in paragraph (4) that may include, but are not limited to, statutory authorities, ordinances, resolutions, and contract provisions.*

(B) A statement that an urban water supplier shall declare a water shortage emergency in accordance with Chapter 3 (commencing with Section 350) of Division 1. [see below]

(C) A statement that an urban water supplier shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code.

CWC Chapter 3 Sections 350-359 outlines that *“The governing body of a distributor of a public water supply, whether publicly or privately owned and including a mutual water company, shall declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.”*

8 FINANCIAL CONSEQUENCES OF WSCP ACTIVATION

- CWC** 10632(a)(8) *A description of the financial consequences of, and responses for, drought conditions, including, but not limited to, all of the following:*
- (A) *A description of potential revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).*
 - (B) *A description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).*
 - (C) *A description of the cost of compliance with Chapter 3.3 (commencing with Section 365) of Division 1. [retail urban suppliers only]*

SFWPA is working to establish a rate structure that would be implemented by the Board during a declared water shortage emergency. Further analysis is needed to determine what financial impacts to hydropower operations and water distributions would be during times of an emergency.

9 MONITORING AND REPORTING

- CWC** 10632(a)(9) *For an urban retail water supplier, monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance and to meet state reporting requirements.*

SFWPA will continue to track monthly production and consumption data, along with monitoring hydrologic conditions throughout the watershed and Sacramento Valley. Staff will present the annual Water Supply Reliability Analysis to the Board of Directors at their publicly held meeting each May.

10 WSCP REFINEMENT PROCEDURES

- CWC** 10632 (a)(10) *Reevaluation and improvement procedures for systematically monitoring and evaluating the functionality of the water shortage contingency plan in order to ensure shortage risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented as needed.*

SFWPA will continually make refinements to the WSCP based on real-time hydrologic conditions. As the current and historical conditions can only be used as a predictive tool, it will be necessary to make adjustments as more data is accumulated. Any updates to the WSCP will be presented to the Board of Directors and approved and adopted as required.

11 SPECIAL WATER FEATURE DISTINCTION

- CWC** 10632 (b) *For purposes of developing the water shortage contingency plan pursuant to subdivision (a), an urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately*

from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

SFWPA will analyze water features separately from pools and spas in the WSCP. Non-pool or non-spa water features such as “decorative water features” and “recreational water features” may use or be able to use recycled water, whereas pools and spas must use potable water for health and safety considerations. Limitations to pools and spas may require different considerations compared to non-pool or non-spa water features.

12 PLAN ADOPTION, SUBMITTAL, AND AVAILABILITY

CWC 10632 (c) *The urban water supplier shall make available the water shortage contingency plan prepared pursuant to this article to its customers and any city or county within which it provides water supplies no later than 30 days after adoption of the water shortage contingency plan.*

SFWPA will follow these steps prior to the adoption of the WSCP:

- The Agency will provide notification to customers, City and County officials and the public at large by publishing the notice of a public hearing in a local newspaper for two consecutive weeks prior to the hearing.
- The Agency will hold a public hearing to gather public feedback.
- Following the hearing, or at a subsequent Board meeting, the Board of Directors shall adopt the WSCP.
- The Agency will make the WSCP publicly available on the Agency website no later than 30 days after it is adopted.
- Each time the Agency makes amendments to the WSCP, the above process shall be followed.

13 SUBMITTAL AND SB X7-7 TABLES

Submittal Table 8-1 Water Shortage Contingency Plan Levels		
Shortage Level	Percent Shortage Range	Shortage Response Actions <i>(Narrative description)</i>
1	Up to 10%	The Agency will continually provide public information on basic water conservation measure and promote water wise Best Management Practices for residential, commercial and irrigation use.
2	Up to 20%	The Agency will provide specific information regarding current hydrologic conditions to the Board of Directors and the public. The public will be requested to eliminate all water wasting activities.
3	Up to 30%	The Agency will provide information to the Board and the public regarding current and/or upcoming hydrologic conditions which could impact the current and foreseeable future water supplies. The Board will adopt the Water Shortage Contingency Plan Resolution.
4	Up to 40%	The Agency will assess the effectiveness of Shortage Level 1-3 Response Actions. If the cumulative efforts are not deemed sufficient, the Agency will work with the Board to implement targeted outreach.
5	Up to 50%	Although supplies may be sufficient to meet current water year demands, the Agency will work with the Board to implement mandatory reduction measures to ensure future water deliveries and continued operability of the hydropower project.
6	>50%	The Agency will provide information to the Board and the public regarding the current water emergency. The Board will formally require customers to immediately discontinue any non-essential water usage.
NOTES:		

Submittal Table 8-2: Demand Reduction Actions			
Shortage Level	Demand Reduction Actions Drop down list <i>These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.</i>	How much is this going to reduce the shortage gap?	Penalty, Charge, or Other Enforcement?
1	Expand Public Information Campaign	1-3%	No
1	Improve Customer Billing	1-3%	No
2	Other - Require automatic shut of hoses	5%	No
3	Reduce System Water Loss	5%	No
4	Landscape - Restrict or prohibit runoff from landscape irrigation	5%	Yes
4	Landscape - Limit landscape irrigation to specific days	5%	Yes
5	Decrease Line Flushing	6%	No
5	CII - Restaurants may only serve water upon request	5%	Yes
6	Water Features - Restrict water use for decorative water features, such as fountains	5%	Yes
6	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	5%	Yes
NOTES:			

Submittal Table 8-3: Supply Augmentation and Other Actions			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier Drop down list <i>These are the only categories that will be accepted by the WUEdata online submittal tool</i>	How much is this going to reduce the shortage gap? <i>Include units used (volume type or percentage)</i>	Additional Explanation or Reference <i>(optional)</i>
NOTES: N/A. This Agency will not utilize supply augmentation, as allocated supplies are sufficient even during a five year drought scenario.			