

FINAL REPORT | JUNE 2026

WATER SHORTAGE CONTINGENCY PLAN UPDATE

PREPARED FOR

CITY OF DIXON



PREPARED BY



TABLE OF CONTENTS

1. Water Supply Reliability Analysis	3
2. Annual Water Supply and Demand Assessment Procedures	4
2.1. Decision-Making Process	4
2.2. Key Data Inputs	7
2.3. Assessment Methodology	7
3. Six Standard Water Shortage Levels	8
4. Shortage Response Actions	9
4.1. Supply Augmentation	10
4.2. Demand Reduction	11
4.3. Additional Mandatory Restrictions	13
4.4. Operational Changes	13
4.5. Emergency Response Plan	14
4.6. Seismic Risk Assessment and Mitigation Plan	14
5. Communication Protocols	14
5.1. Communication for Foreseeable Events	15
5.2. Communication for Unforeseeable Events	15
6. Compliance and Enforcement	16
7. Legal Authorities	16
8. Financial Consequences of WSCP	17
9. Monitoring and Reporting	18
10. WSCP Refinement Procedures	18
10.1. Systematic Monitoring	18
10.2. Feedback from City Staff and Customers	18
11. Special Water Feature Distinction	19
12. Plan Adoption, Submittal, and Availability	19

LIST OF TABLES

Table 1. Schedule of Annual Assessment Activities	5
Table 2. Schedule of Decision-Making Activities if Water Shortage Condition Exists	6
Table 3. Water Shortage Contingency Plan Shortage Levels (DWR Table 8-1) Water Code Section 10632(a)(3)(B)	8
Table 4. Water Shortage Contingency Plan Supply Augmentation and Other Actions (DWR Table 8-2) Water Code Section 10632(a)(4)(A),(C), and (E)	10
Table 6. City of Dixon Additional Mandatory Restrictions	13

TABLE OF CONTENTS

LIST OF ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
Ccf	Hundred Cubic Feet
MGD	Million Gallons Per Day
USGS	United States Geological Survey
WD	Water Division
WRE	Water Resources Engineering
WSM	Water System Manager
AB	Assembly Bill
AMI	Advanced Metering Infrastructure
AMR	Automated Meter Reading
Annual Assessment	Annual Water Supply and Demand Assessment
AWIA	America's Water Infrastructure Act
Cal Water	California Water Service
CalWARN	California Water/Wastewater Agency Response Network
City	City of Dixon
County	Solano County
CWC	California Water Code
Director DMC	Director of Utilities, Dixon Municipal Code
DMC	Dixon Municipal Code
DMC	Dixon Municipal Code
DOC	Department Operations Center
DWR	Department of Water Resources
EOC	Emergency Operations Center
ERP	Emergency Response Plan
FEMA	Federal Emergency Management Agency
Legislature	California State Legislature
MJHMP	Multi-Jurisdiction Hazard Mitigation Plan
PIO	Public Information Officer
RRA	Risk and Resilience Assessment
SB	Senate Bill
SGMA	
State Water Board	Sustainable Groundwater Management Act
State Water Resource Control Board	
UM	Utilities Manager
UWMP	Urban Water Management Plan
WSCP	Water Shortage Contingency Plan

This document presents the City of Dixon's (City) Water Shortage Contingency Plan (WSCP), which describes the strategic plan for preparing and responding to water shortages, including the water shortage stages and associated actions.

Water shortages occur whenever the available water supply cannot meet the normally expected customer water use. This can be due to several reasons, such as climate change, drought, and catastrophic events. Drought, regulatory action constraints, and natural and manmade disasters may occur at any time. As part of the WSCP, the City's legal authorities, communication protocols, compliance and enforcement, and monitoring and reporting protocols are described. Following the adoption of this WSCP, the City plans to update the City of Dixon Municipal Code (DMC) to support this WSCP.

In 2018, the California State Legislature (Legislature) enacted two policy bills, (Senate Bill (SB) 606 (Hertzberg) and Assembly Bill (AB) 1668 (Friedman)) (2018 Water Conservation Legislation), to establish a new foundation for long-term improvements in water conservation and drought planning to adapt to climate change and the resulting longer and more intense droughts in California. The 2018 Water Conservation Legislation set new requirements for water shortage contingency planning.

The City's WSCP provides a guide for the City to proactively prevent catastrophic service disruptions and has been prepared to be consistent with the 2018 Water Conservation Legislation requirements. The City intends for this WSCP to be an adaptive management plan so that it may assess response action effectiveness and adapt to emergencies and catastrophic events. Refinement procedures for this WSCP are provided to allow the City to modify this WSCP outside of the Urban Water Management Plan (UWMP) process.

1. WATER SUPPLY RELIABILITY ANALYSIS

Chapters 6 and 7 of the City's 2025 UWMP present the City's water supply sources and reliability, respectively. Findings show the City can reliably meet its projected demands through 2050 in normal and dry hydrologic conditions, including single dry years and five consecutive dry years.

A water shortage condition occurs when the available supply of potable water cannot meet ordinary water demands for human consumption, sanitation, fire protection, and other beneficial uses. In some cases, the City may foresee a water shortage, but the water shortage may also be caused by an unforeseen, sudden, or emergency event. In general, the City's water supply conditions may be affected by the following:

- Climatic variability and drought conditions (i.e., Solano Project supply reliability, snowpack, and snowmelt runoff timing)
- Water quality
- Water supply facility failures (loss of treatment facilities, pumps, tanks, or transmission pipes)
- Legislative restrictions or policies (i.e., reductions through voluntary settlements or other mandated instream flow requirements and/or diversion restrictions)
- State drinking water quality regulatory updates
- Unforeseen Sustainable Groundwater Management Act (SGMA) requirements for the available groundwater supply in the future

In general, the City's water supply is from the Solano Subbasin. Groundwater level data presented in the November 2021 Solano Subbasin Groundwater Sustainability Plan show that the subbasin is being managed sustainably. In 1959, the United States Bureau of Reclamation completed the Solano Project to store surface water in Lake Berryessa for potable and non-potable uses primarily in Solano County (County). One of the primary reasons behind the Solano Project was to correct the overdraft of groundwater, which was occurring in agricultural areas. Since then, the Solano Project has halted the overdraft of groundwater, and the groundwater levels have rebounded in most areas of the Solano Subbasin. The groundwater levels are not permanently impacted by multiple dry years, and data also show slight variations in response to climatic conditions. Since the 1980s, the groundwater levels have been stable with low levels in the dry season and high levels in the wet season of each year. The City's water supply is resilient.

Since the City prepared its 2020 UWMP in 2021, the City has prepared an annual water supply and demand assessment as described below in Section 2.0. The analysis associated with this WSCP was developed in the context of the City's water supply sources and reliability.

2. ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

Since July 1, 2022, California Water Code (CWC) §10632.1 required water suppliers to complete an Annual Water Supply and Demand Assessment (Annual Assessment) and submit an Annual Water Shortage Assessment Report to the DWR. This section provides the procedures for the City to conduct its Annual Assessment, which will inform the City's Annual Water Shortage Assessment Report and assist the City with planning for potential water supply shortages. The objective of the Annual Assessment is to determine actual forecasted near-term water supply conditions so that the City can prepare logistically and financially for any anticipated water supply constraints, as well as enact appropriate shortage response actions in a timely manner.

The Annual Assessment procedures below describe the steps the City may take to declare a water shortage emergency and associated water shortage stage (see Section 3.0) and implement water shortage response actions (see Section 4.0).

At the time of preparation of this WSCP, DWR is preparing guidance for the preparation of the Annual Water Supply and Demand Assessment Guidance, and associated reporting tables and worksheets. In April 2022, the DWR released the Annual Water Supply and Demand Assessment Guidance document. The City has completed its Annual Assessment in accordance with DWR guidance and using the associated reporting tables and worksheets.

2.1. Decision-Making Process

The City will use the decision-making process described below to consistently determine its water supply reliability on an annual basis. The City may adjust and improve this process as needed.

The City's Water Operations Division is responsible for preparing the City's Annual Assessment and Annual Water Shortage Assessment Report and for submitting the report to DWR by July 1st of each year, as of

2022. This team will gather key data inputs described in Section 2.2 and conduct the assessment in accordance with Section 2.3. In May of each year, the City will finalize the assessment by assessing projected water demand, previous groundwater data, and SGMA protocols for implementing sustainable groundwater supply. The Department of Engineering and Utilities will present the Annual Assessment and Annual Water Shortage Assessment Report to the City Engineer/Director of Utilities, or designee, for

review and approval. If the Annual Assessment finds that the available water supply will be sufficient to meet expected demands for the current year and one subsequent dry year, no further action will be required. The final approved documents will be submitted to DWR by July 1st of each year.

The City will follow the schedule of activities shown in Table 1 for conducting the Annual Assessment. Due to variations in climate and hydrologic conditions, the start and end dates shown in the table are approximate and may be adjusted as needed. The intent of the schedule is to allow shortage response actions to effectively address anticipated water shortage conditions in a timely manner while complying with the State's reporting requirements.

Table 1. Schedule of Annual Assessment Activities		
Schedule	Activities	Responsible Party
February to March	Determine water supply sources for the current year and one subsequent dry year. Describe sources and quantities, considering factors affecting supply as described in Section 2.2.	Water Operations Supervisor
February to March	Determine water demands for the current year and one subsequent dry year. Describe demand types and quantities considering factors affecting demand as described in Section 2.2.	Water Operations Supervisor
Early to Mid-April	Calculate the City's water supply reliability for the current year and one subsequent dry year using the methodology described in Section 2.3.	Water Operations Supervisor
Early to Mid-April	Complete assessment based on groundwater monitoring data and SGMA protocols for implementing a sustainable groundwater supply.	Water Operations Supervisor
Late April	Based on the determinations of the Annual Assessment, prepare the Annual Water Shortage Assessment Report with recommendations on water shortage condition determination and response actions. Submit to the Director of Utilities (Director) and Utilities Manager (UM), or designee(s), for review.	Water Operations Supervisor
Early May	Review the Annual Assessment and Annual Water Shortage Assessment Report and provide comments as needed.	Water Operations Supervisor
Mid-May to Early June	Finalize and approve the Annual Assessment and the Annual Water Shortage Assessment Report.	City Engineer/ Director of Utilities
Before July 1	Submit the Annual Assessment and the finalized Annual Water Shortage Assessment Report to DWR.	Water Operations Supervisor

Should the Annual Assessment find that available supply will not meet expected demands, the City will coordinate interdepartmentally, with the region's water service providers, and with the County for the

possible proclamation of a local emergency. The Department of Engineering and Utilities will present the finalized assessment to the City Council, along with recommendations on water shortage condition determination and actions. Recommended actions may include declaration of a water shortage emergency, declaration of a water shortage stage, and water shortage actions.

Based on the findings of the Annual Assessment, the City Council will determine if a water shortage condition exists and, if needed, adopt a resolution declaring a water shortage emergency and an associated water shortage stage and authorizing water shortage actions. The Water Operations Division will then prepare the City's Annual Water Shortage Assessment Report, incorporating City Council determinations and approved actions. The schedule of decision-making activities is provided in Table 2. The start and end dates and the activities shown in this table are approximate and may be adjusted as needed.

Table 2. Schedule of Decision-Making Activities if Water Shortage Condition Exists		
Schedule	Activities	Responsible Party
Early May	Based on finalized determinations of Annual Assessment regarding water shortage conditions and recommended actions, prepare recommendations on water shortage condition determination and actions.	Water Operations Supervisor and City Engineer/Director of Utilities
Early May	Prepare resolutions approving determinations and actions.	Water Operations Supervisor
Mid-May	Coordinate interdepartmentally and with the County for the possible proclamation of a local emergency.	City Engineer/Director of Utilities
Early May to Mid-May	Present finalized determinations and recommendations, along with resolutions approving determinations and actions.	City Engineer/Director of Utilities
Late May to Early June	Receive presentation of finalized determinations and recommendations. Make a determination of the degree of emergency and act on resolutions that declare a water shortage emergency condition. Authorize water shortage response actions for implementation.	City Council
Mid-June	If a water shortage emergency condition is declared, implement the WSCP and the water shortage response actions as approved by the City Council.	City Staff as Assigned
July 1	Finalize Annual Water Shortage Assessment Report (See Table 1) and submit to DWR.	Water Operations Supervisor

2.2. Key Data Inputs

The Annual Assessment requires evaluating supplies and demands for the current year and one subsequent dry year.

In reviewing planned water supplies, the Annual Assessment will consider the following key inputs:

- Hydrological conditions
- Regulatory conditions
- Water quality conditions
- Groundwater well production limitations (e.g., issues with physical assets or SGMA constraints)
- Infrastructure capacity constraints or changes
- Capital improvement project implementation

Planned water supply sources and quantities will be described and should be reasonably consistent with the supply projections in Chapter 6 of the City's most recent UWMP. If the Annual Assessment and UWMP supply sources and projections differ significantly, the City will explain the difference.

In reviewing planned unconstrained (i.e., without conservation) water demands, the Annual Assessment will consider the following key inputs:

- Weather conditions
- Water year type (e.g., dry year or wet year)
- Population changes (e.g., due to development projects)
- Anticipated new demands (e.g., changes to land use)
- Pending policy changes that may impact demands

Planned water demand types and quantities will be described and should be reasonably consistent with the demand projections in Chapter 4 of the City's most recent UWMP. If the Annual Assessment and UWMP demands differ significantly, the City will explain the difference.

2.3. Assessment Methodology

In preparing the Annual Assessment, the City will use the following assessment methodology and evaluation criteria to evaluate water supply reliability for the current year and one subsequent dry year.

The City uses a spreadsheet tool to plan for the current year and future year supply and demand. Planned supply and demand inputs described in Section 2.2 will be entered in the spreadsheet in annual increments or closer time intervals as necessary during water shortage conditions.

Supply and demand will be compared to determine the reliability of the City's water supply in the current year and one subsequent dry year. The City's water supply for the current year and the subsequent dry year will be deemed reliable if the projected water supply can meet the projected water demands.

If the projected water supply cannot meet the projected water demands in the current year or the subsequent dry year, the extent of the water shortage condition will be determined, and the City will prepare response actions in accordance with this WSCP. The Annual Assessment findings will be presented to the City Council, along with recommendations for action for City Council consideration.

3. SIX STANDARD WATER SHORTAGE LEVELS

To provide a consistent regional and statewide approach to conveying the relative severity of water supply shortage conditions, the 2018 Water Conservation Legislation mandates that water suppliers plan for six standard water shortage levels that correspond to progressive ranges of up to 10, 20, 30, 40, 50 percent, and greater than 50 percent shortages from the normal supply condition. Each shortage condition should correspond to additional actions water suppliers would implement to meet the severity of the impending shortages.

For each of the State's standard shortage levels (also called "stages"), Table 3 summarizes the water shortage range (i.e., percent shortage from normal supplies) and a brief narrative description of the corresponding water shortage condition and shortage response actions. These water shortage stages apply to both foreseeable and unforeseeable water supply shortage conditions. Table 3 presents the City's stages, which align with the State's standard stages.

**Table 3. Water Shortage Contingency Plan Shortage Levels
(DWR Table 8-1) Water Code Section 10632(a)(3)(B)**

Shortage Level	Percent Shortage Range	Suppliers Shortage Levels
1	Up to 10%	Shortage Response Actions listed in Table 4 (DWR Table 8-2) as Stage 1.
2	Up to 20%	Shortage Response Actions listed in Table 4 (DWR Table 8-2) as Stage 2.
3	Up to 30%	Shortage Response Actions listed in Table 4 (DWR Table 8-2) as Stage 3.
4	Up to 40%	Shortage Response Actions listed in Table 4 (DWR Table 8-2) as Stage 4.
5	Up to 50%	Shortage Response Actions listed in Table 4 (DWR Table 8-2) as Stage 5.
6	>50%	Shortage Response Actions listed in Table 4 (DWR Table 8-2) as Stage 6.
NOTES: The City anticipates updating the City of Dixon Municipal Code to incorporate the six shortage levels in the future. It should be noted that the actions at each stage are cumulative. For example, if Shortage Level 3 is declared, then the actions at Shortage Levels 1 and 2 shall still be implemented.		

As described in Section 2.0, the City conducts an Annual Assessment to determine its water supply condition for the current year and a subsequent dry year. Preparation of the Annual Assessment helps the City ascertain the need to declare a water shortage emergency and water shortage stage. In other cases, the City may need to declare a water shortage emergency due to unforeseen water supply interruptions. When the City anticipates or identifies that water supplies may not be adequate to meet the normal water supply needs of its customers, the City Council may determine that a water shortage exists and consider a resolution to declare a water shortage emergency and associated stage. The shortage stage provides direction on shortage response actions.

4. SHORTAGE RESPONSE ACTIONS

CWC §10632 (a)(4) requires shortage response actions that align with the defined shortage levels. The City's shortage response actions consist of a combination of use reduction, supply augmentation, and operational changes. The City's suite of response actions depends on the event that precipitates a water shortage stage, the time of the year the event occurs, the water supply sources available, and the condition of its water system infrastructure.

In general, the City plans to use a balanced approach, combining demand reduction, supply augmentation, and operational changes to respond to the event and the resulting water shortage stage. The City will adapt its response actions to close the gap between water supplies and water demand and meet the water use goals associated with the declared water shortage stage.

The City meters all of its water customers and is actively upgrading to automated meter reading (AMR). The ultimate goal for the City is to upgrade to advanced metering infrastructure (AMI) after the City has been fully upgraded to AMR. Systemwide water meters allow the City to compare water demands with demand reduction goals and adjust its shortage response actions accordingly. The City reads water meters monthly to track the extent of the effectiveness of the City's response actions. Once the City upgrades to AMI in the future, the City will have the ability to monitor its water consumption in a timely manner.

Water production and water use can be compared to previous periods by customer sector or individual customer, on a monthly basis, due to the City's current metering technology. The City meters its water production sources, which allows the City to monitor how much groundwater it uses daily and estimate water consumption patterns. This continuous monitoring allows the City to assess water system demands and compare them with water demand reduction goals. The City may then adjust its shortage response actions as needed to balance demands with available water supplies. For example, the City may intensify its public outreach or more vigorously enforce compliance with water use prohibitions if the needed water demand reduction goals are not met for any specific stage. Conversely, the City may reduce public outreach frequency or decrease compliance actions if demand reduction goals are exceeded.

The shortage response actions discussed below may be considered as tools that allow the City to respond to water shortage conditions. Shortage response actions are initiated at the shortage levels shown and continue to be implemented at higher shortage levels. Because the City may continuously monitor and adjust its response actions to reasonably balance demands with available supply, the extent to which implementation of each action reduces the gap between water supplies and water demand is difficult to

accurately quantify and can only be estimated. For example, certain response actions, such as public outreach and enforcement, support the effectiveness of other response actions and do not have a quantifiable effect on their own.

4.1. Supply Augmentation

The City's water supply portfolio consists of local groundwater, as described in Chapter 6 of the City's 2025 UWMP. At any water shortage stage and depending on the water shortage event, the City may adjust its groundwater pumping rate.

Supply augmentation options available to the City include increased groundwater pumping and a temporary arrangement with the California Water Service Dixon District (Cal Water), the other water service provider in the City, for additional groundwater supply. Since the City's groundwater pumping is already considered for reliability and dry conditions, it is included in determining the gap between supply and customer water use and should not be counted again as a potential shortage response. In a temporary arrangement, the City may have the opportunity to operate one or more of its emergency interties with Cal Water in accordance with Appendix A of this WSCP. Since this arrangement was not included in the supply reliability analysis described in Chapter 7 of the City's 2025 UWMP, it is presented here as a supply augmentation option.

The City is a participant in the California Water/Wastewater Agency Response Network (CalWARN). The mission of CalWARN is to support and promote statewide emergency preparedness, disaster response, and mutual assistance processes for public and private water and wastewater utilities. In the event of an emergency, the City may request assistance from regional CalWARN partners.

Table 4 lists the supply augmentation method the City can utilize during each shortage level. Supply augmentation response action initiated at the shortage level shown will be implemented at higher shortage levels.

Table 4. Water Shortage Contingency Plan Supply Augmentation and Other Actions (DWR Table 8-2) Water Code Section 10632(a)(4)(A),(C), and (E)

Shortage Level	Supply Augmentation Methods and Other Actions by the Water Supplier	How much is this going to reduce the shortage gap?	Additional Explanation or Reference <i>(optional)</i>
6	Other	Up to the shortage gap	The City of Dixon will coordinate with Cal Water - Dixon for emergency supplies through the interties, if needed. The City has a formal agreement with Cal Water.No.
6	Other	Up to the shortage gap	The City of Dixon will request assistance from regional CalWARN partners in case of an emergency.
NOTES: California Water/Wastewater Agency Response Network (CalWARN) mission is to support and promote statewide emergency preparedness, disaster response, and mutual assistance processes for public and private water and wastewater utilities.			

4.2. Demand Reduction

During water shortage conditions, the City plans to reduce demand by implementing the actions shown in Table 5. Demand reduction actions are organized by the triggering water shortage level (i.e., stage), and each action includes an estimate of how much its implementation will reduce the shortage gap. For each demand reduction action, Table 5 also indicates if the City uses compliance actions such as penalties, charges, or other enforcement. Demand reduction actions are initiated at the shortage levels shown and will continue to be implemented at higher shortage levels.

Table 5. Water Shortage Contingency Plan Demand Reduction Actions			
Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?	Additional Explanation or Reference
1	Expand Public Information Campaign	Studies have shown that a targeted public information campaign during a drought can reduce water use by 7 - 8%	No
1	Provide Rebates on Plumbing Fixtures and Devices	Up to 9,000 gallons/year/participating household, depending on the number and type of fixtures being replaced	No
1	Provide Rebates for Landscape Irrigation Efficiency	Boosts other methods. No statistically significant effect on water use rates	No
1	Offer Water Use Surveys	Boosts the effectiveness of other methods - not readily quantifiable	No
1	Other	Boosts the effectiveness of other methods - not readily quantifiable	No
1	Reduce System Water Loss	Depends on extent and magnitude of current system losses, but could reduce system loss by up to 25 - 35%	No
1	Decrease Line Flushing	Depends on extent and frequency of current flushing activities	No
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Boosts the effectiveness of other methods - not readily quantifiable	Yes
1	Landscape - Restrict or prohibit runoff from landscape irrigation	Many suppliers already prohibit runoff at all times	Yes
1	Other - Prohibit use of potable water for washing hard surfaces	Boosts other methods - not readily quantifiable	Yes
1	Other - Require automatic shut of hoses	Many suppliers already prohibit unrestricted hose use	Yes
1	Other	N/A	Prohibit application of potable water to outdoor landscapes within 48 hours of measurable rainfall.
2	Landscape - Limit landscape irrigation to specific days	Every third day - 22% reduction; twice a week - 33% reduction; once a week - 56% reduction	Limit landscape irrigation to 1 - 3 days per week.
2	CII - Restaurants may only serve water upon request	50 gallons/day/commercial connection	
2	CII - Lodging establishments must offer opt out of linen service	250-500 gallons/day/hotel	
2	Water Features - Restrict water use for decorative water features, such as fountains	Boosts other methods as a public display of drought conservation, difficult to quantify	Potable water use for decorative features is prohibited unless the decorative feature recirculates water.
2	Landscape - Prohibit certain types of landscape irrigation	Boosts the effectiveness of other methods - not readily quantifiable	Prohibit irrigation of ornamental turf on public street medians with potable water (where those medians include trees, watering shall take place to maintain tree health).
2	Other	10%	Customers shall reduce water use by 10%
3	Other	Boosts the effectiveness of other methods - not readily quantifiable	Increase water compliance actions
4	Implement or Modify Drought Rate Structure or Surcharge	Generally, the cost of water does not significantly effect water use. The cost increase needs to be significant to result in water use reduction.	
4	Other - Prohibit use of potable water for construction and dust control	3,000 gallons/acre/day for construction areas	
4	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	100-200 gallons/year/residential connection	
4	Other		Customers shall reduce water use by 20%
5	Moratorium or Net Zero Demand Increase on New Connections	Current average water use per connection times the number of planned new connections that do not occur or are required to comply with net zero demand provisions	Only net zero demand increase on new connections
5	Pools and Spas - Require covers for pools and spas	Evapotranspiration of approximate surface area of pools	
5	Pools - Allow filling of swimming pools only when an appropriate cover is in place.	Boosts other methods as a public display of drought conservation, difficult to quantify	
6	Moratorium or Net Zero Demand Increase on New Connections	Current average water use per connection times the number of planned new connections that do not occur or are required to comply with net zero demand provisions	Moratorium on new connection
6	Landscape - Prohibit all landscape irrigation	Nearly eliminates irrigation demand	Yes

NOTES: It should be noted that the demand reduction actions and shortage gap reduction estimations at each stage are cumulative. For example, if Shortage Level 3 is declared, then the actions at Shortage Level 1 and 2 shall still be implemented. The exact amount that each demand reduction action will reduce the shortage gap. Either a quantitative or qualitative estimation has been provided.

4.3. Additional Mandatory Restrictions

In addition to the above discussed demand reduction response actions, the City may implement mandatory water use restrictions. Table 6 lists the mandatory restrictions for each shortage level. These restrictions are in addition to State-mandated prohibitions and are cumulative, so restrictions associated with a given water shortage level also include any restrictions from lower levels.

Table 6. City of Dixon Additional Mandatory Restrictions	
Standard Shortage Level 1 (Up to 10 percent Shortage)	
Car washing is permitted with use of a positive shutoff nozzle and is allowed all hours of the approved watering days as cited above.	
Restaurants encouraged to serve water only upon request.	
Lodging establishments are encouraged to offer opt out linen services.	
Hosing concrete areas, building exteriors, etc., is prohibited except for health/safety concerns and only with the use of a positive shutoff nozzle.	
Water leaks, once identified by the homeowner, must be repaired within 48 hours.	
Standard Shortage Level 2 (Up to 20 percent Shortage)	
Outdoor water use is prohibited from 10:00 am to 7:00 pm. Odd-numbered addresses are watered on Wednesdays, Fridays, and Sundays. Even-numbered addresses are watered on Tuesdays, Thursdays, and Saturdays. No outdoor water use on Mondays.	
Standard Shortage Level 3 (Up to 30 percent Shortage)	
City to evaluate operations and make all possible conservation adjustments that do not affect public health.	
Standard Shortage Level 4 (Up to 40 percent Shortage)	
Car washing permitted at car wash facilities only (or with recycled/reclaimed water).	
Standard Shortage Level 5 (Up to 50 percent Shortage)	
Mandatory retrofit of toilets (in addition to low-flow showerheads) in homes when remodeling occurs.	
Standard Shortage Level 6 (More than 50 percent Shortage)	
Moratorium on all new landscaping. Only zero-scape allowed.	
No outdoor water uses except for trees, and vegetation is maintained through drip irrigation.	
Building a moratorium on all new connections, including new swimming pools.	

4.4. Operational Changes

Beginning in Stage 3, the City will adjust operations to minimize supply losses and more closely track customer water use. These adjustments may include decreasing line flushing, increasing meter reading, and increasing water waste patrols.

4.5. Emergency Response Plan

As stated in Section 3.0, the City's water shortage stages outlined in Table 3 apply to both foreseeable and unforeseeable water supply shortage conditions, including catastrophic water shortage conditions. Catastrophic water shortage conditions are addressed in the City's Emergency Response Plan (ERP). ERPs outline preparation, response, and recovery procedures associated with unforeseeable incidents such as water supply contamination, earthquake, infrastructure failure, and other events.

The City's 2021 ERP describes the equipment and resources available in an unforeseen water shortage, including backup generators (stationary and portable) and emergency water storage (i.e., groundwater and reservoirs). In the event of an emergency that impacts water delivery, if possible, the City will coordinate with Cal Water to organize and deliver alternate water supplies to their customers.

4.6. Seismic Risk Assessment and Mitigation Plan

CWC §10632.5(a) requires that UWMPs include a seismic risk assessment and mitigation plan to assess and mitigate a water system's seismic vulnerabilities. The Solano County Department of Resource Management and Office of Emergency Services prepared the 2022 Multi-Jurisdictional Hazard Mitigation Plan (MJHMP), which recognized earthquake events as a significant concern countywide. The County has been seismically active since it is situated on the boundary between two tectonic plates. The County is on the North American Plate. A number of active faults cross the County into the surrounding San Francisco Bay Area.¹

The City participated in the preparation of the 2022 MJHMP and developed a jurisdictional annex to address hazard mitigation planning elements specific to the City (Appendix B). Seismic risk assessment is included in Section 1.4, and the mitigation strategy is provided in Section 1.5 of the City's jurisdictional annex. The 2022 Solano County MJHMP and the City's jurisdictional annex are available at https://www.solanocounty.com/depts/oes/emergency_plans.asp, and incorporated herein by reference.

The City has implemented efforts to address its facilities' seismic vulnerabilities. In accordance with America's Water Infrastructure Act (AWIA), the City completed a Risk and Resilience Assessment (RRA) of its water system in November 2021. The RRA systematically evaluated the City's assets, threats, and risks, as well as countermeasures that might be implemented to minimize overall risk to the system. To ensure the security of the City's water system, the RRA is retained by the City as a confidential document.

5. COMMUNICATION PROTOCOLS

In the event of a water shortage, the City must inform its customers, the general public, interested parties, the County, and local, regional, and state entities. Communication protocols for foreseeable and unforeseeable events are provided in this section. In any event, timely and effective communication must occur for an appropriate response to the event. Cell phone numbers for City staff are shared internally, and City email accounts are available for internal and external communication. Office numbers, cell phone numbers, and email addresses for key City staff are provided on the City's website. The City also communicates with the public through social media accounts.

5.1. Communication for Foreseeable Events

Water shortage may be foreseeable when the City conducts its Annual Assessment as described in Section 2.0. When the City determines the potential of a water shortage event, the City Council may declare a water shortage emergency by resolution and authorize shortage response actions.

The City will follow the communication protocols and procedures detailed below. The City may trigger any of these protocols at any water shortage stage.

1. If a water shortage emergency is anticipated, the City will coordinate interdepartmentally, with the region's water service providers, and with the County for the possible proclamation of a local emergency.
2. The City will schedule a City Council meeting in which the Annual Assessment findings and recommendations for a water shortage emergency and shortage response actions are presented.
3. The City will communicate conditions to the general public using some or all of the following options, as needed at the various shortage levels: press releases, radio/television coverage, social media posts, bill inserts, newsletters, and postings on the City's website. Public entities, such as Solano County, State Water Board, and Cal Water, and officials are informed of water shortage information via email.

5.2. Communication for Unforeseeable Events

Water shortages may occur during unforeseeable events such as earthquakes, fires, infrastructure failures, civil unrest, and other catastrophic events. The City's ERP provides specific communication protocols and procedures to convey water shortage contingency planning actions during these events. The City may trigger any of these communication protocols at any water shortage stage, depending on the event.

In general, communications and notifications should proceed along the chain of command. As described in the City's ERP, events causing a water shortage are significant enough to activate the Department Operations Center (DOC) or the City's Emergency Operations Center (EOC), led by the Incident Commander. Notification decisions will be made under the direction of the Incident Commander, who must verify and approve all information before the Communications/Media Coordinator releases it to the media and the public. Internal and external communications will be managed by the Communications/Media Coordinator, a role typically assigned to the Public Information Officer (PIO).

All City staff are provided with their communication responsibilities. Depending on the event, the City may designate someone other than the Communications/Media Coordinator as a spokesperson to interact with the media. The ERP also provides a list of relevant contacts to notify at the local, regional, and state levels.

6. COMPLIANCE AND ENFORCEMENT

When a water shortage is anticipated, the City Council will adopt a resolution declaring a water shortage emergency condition and the regulations and restrictions that should be enforced in response to the declared water shortage level.

Customer water use can be quantified and compared to determine the extent of compliance with water reduction requirements. The City may also become aware of non-compliance through its water waste reporting outreach or through staff inspections. Non-compliance is deemed a code violation. Under DMC §14.02.905, violators of water use restrictions may receive an administrative citation, which may include penalties up to \$500 for each day in which the violation occurs.

Provisions for administrative citations are provided in Chapter 1.07 and Chapter 9.01 Article VI of the DMC. The City may issue a written warning for the first offense, which identifies the violation, the correction required, and a date by which the violation can be reasonably corrected. City Council may adopt a schedule of fines for violations associated with a water shortage condition. If one has not been established, the City may impose fines up to \$100 for the first violation, up to \$200 for the second violation of the same code section, and up to \$500 for each violation of the same code within one year.

Water users or property owners can appeal the violation by submitting a request for a hearing within 30 days from the date of issuance of the administrative citation. The appeal hearing shall be held before the hearing officer, and the appellant may present witnesses and evidence as desired. The decision of the hearing officer is final.

7. LEGAL AUTHORITIES

The City will be updating the DMC to support its water shortage contingency actions. DMC Chapter 14.02 provides general provisions for the City's water service. The Director of Utilities and the City Manager are authorized to administer, implement, and enforce provisions of the chapter. DMC §14.02.905 addresses water conservation and irrigation restrictions. DMC §14.02.910, Chapter 1.07, and Chapter 9.01 Article VI include provisions for compliance and enforcement of its water use regulations, restrictions, and prohibitions.

When a water shortage is determined, the City will coordinate interdepartmentally, with the region's water service providers (including Cal Water), and with Solano County for the possible proclamation of a local emergency in accordance with the California Government Code, California Emergency Services Act (Article 2, Section 8558).

In a duly noticed meeting, the City Council will determine whether a water shortage emergency condition exists and, if so, the degree of the emergency and what regulations and restrictions should be enforced in response to the shortage. The City shall declare a water shortage emergency in accordance with CWC Chapter 3 of Division 1.

California Water Code Division 1, Section 350

...The governing body of a distributor of a public water supply...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.

The water shortage emergency declaration triggers communication protocols described in Section 5.0 and compliance and enforcement actions described in Section 4.0.

8. FINANCIAL CONSEQUENCES OF WSCP

The City's water operations are organized as an Enterprise Fund in which the costs of providing goods or services to the general public on a continuing basis are financed or recovered primarily through user charges. The City completed a multi-year water rate study in 2018 and adopted and implemented updated water rates starting Fiscal Year 2019. However, the updated water rates were repealed by the general election on November 3, 2020. The repeal of these rates has created economic hardship for City water operations. Subsequently, the City completed a cost-of-service water rate study in 2024, which went into effect on August 1, 2024. Results of the assessment showed that the City was underfunded with an increasing deficit. The 2024 Water Rate Study maintained the single-family residential rate at a three-tiered structure, revised the multi-family residential rate from a uniform rate to a two-tier rate, and commercial/irrigation was maintained at a uniform rate. The financial plan will generate positive income above operating expenses, cover the City's critical and near-term needs, and exceed minimum reserve requirements.

During times of drought, when the City may implement its WSCP, water shortage actions may result in reduced water usage and, accordingly, reduced operating revenues. Operating expenses may be reduced due to lower customer water demands that result in decreased water production (i.e., pumping less groundwater). Implementation of Stage 4 or higher is expected to decrease operating revenues by up to 50 percent.

Expenditure impacts, resulting from implementation of the WSCP, may include additional costs to provide increased outreach to customers about water conservation, purchase more expensive water supplies, and conduct compliance inspections and enforcement associated with water use restrictions. The City may consider implementing drought rates to maintain financial stability. The goal of the drought rates is to recover the temporary loss of revenue due to the reduction of water sales during a period of drought and offset increased costs associated with enforcing compliance with water use restrictions. Drought rates also encourage water use conservation.

In addition to the rate adjustments, the City may need to defer projects from its capital improvement program to fund the water shortage actions in the WSCP. The City does not have a separate water shortage contingency fund in case a water shortage is declared.

9. MONITORING AND REPORTING

Meter readings are an important tool to help the City adjust public outreach, enforcement, and other water shortage response actions. The City has meters at its water sources (groundwater production wells) and meters all its water customers. Although customers' water meters can be read at any time, the City has this meter reading scheduled monthly to track the extent of customers' compliance with the City's water use restrictions. Water production information may be read daily.

At the time of preparation of this WSCP, the State Water Resources Control Board is preparing regulations for monthly reporting of water production and other uses, along with associated enforcement metrics. The City regularly records its water meter readings, ensuring that the City will be able to comply with upcoming reporting requirements.

10. WSCP REFINEMENT PROCEDURES

This WSCP is an adaptive management plan. It is subject to refinements as needed to ensure that the City's shortage response actions and mitigation strategies are effective and produce the desired results. Based on monitoring described in Section 9.0 and the need for compliance and enforcement actions described in Section 4.0, the City may adjust its response actions and modify its WSCP. The City may also modify its WSCP based on improvements identified through systematic monitoring or feedback from City staff and customers, as discussed below. When a revised WSCP is proposed, the revised WSCP will undergo the process described in Section 12.0 for adoption by the City Council and distribution to Solano County, local water purveyors, the City's customers, and the general public.

10.1. Systematic Monitoring

The City will monitor meters at its water sources to evaluate the overall effectiveness of its response actions in meeting the declared water shortage stage. Should overall demands fall short of the goals of the declared water shortage stage, the City can increase the intensity of public outreach for water conservation and the extent of enforcement of water use restrictions. Conversely, should overall demands meet or exceed the goals of the declared water shortage stage, the City can decrease the intensity of public outreach for water conservation and the extent of enforcement of water use restrictions.

The City may implement operational changes in combination with enforcement of its water use restrictions and prohibitions to meet the objectives of the water shortage stage while maintaining overall public health and safety.

10.2. Feedback from City Staff and Customers

Feedback from City staff and the public is important in refining or incorporating new actions. The City seeks input from staff who interface with customers to gauge the effectiveness of its response actions and solicit response action ideas.

Customer water meter data may be evaluated for each customer sector or each individual customer. The City tracks water use violations and may evaluate their frequency to determine restrictions that customers

may not be able to meet. This evaluation may also show water demand reduction actions that customers can implement effectively.

The City seeks input from its customers and the general public through its website, through public hearings, and through regularly scheduled City Council meetings.

11. SPECIAL WATER FEATURE DISTINCTION

The City distinguishes special water features, such as decorative fountains and ponds, from pools and spas. Special water features are regulated separately under DMC §14.02.905. The use of potable water for outdoor fountains or decorative water features is prohibited, except where water is recirculated.

12. PLAN ADOPTION, SUBMITTAL, AND AVAILABILITY

This WSCP is adopted concurrently with the City's 2025 UWMP, by separate resolution. Prior to adoption, a duly noticed public hearing was conducted. An electronic copy of this WSCP will be submitted to DWR within 30 days of adoption.

No later than 30 days after adoption, a copy of this WSCP will be available at the City's offices. A copy will also be provided to Solano County. An electronic copy of this WSCP will also be available for public review and download on the City's website, www.cityofdixon.us.

The City's WSCP is an adaptive management plan and is subject to refinements as needed to ensure that the City's shortage response actions and mitigation strategies are effective and produce the desired results. When a revised WSCP is proposed, the revised WSCP will undergo the process described above for adoption by the City Council and distribution to Solano County, the City's customers, and the general public.