FINAL REPORT | APRIL 2022

City of Dixon
2020 Urban Water Management Plan
Appendices

JOINTLY PREPARED BY

DIXON CALIFORNIA

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Appendix A

Legislative Requirements

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WATER CODE - WAT

DIVISION 6. CONSERVATION, DEVELOPMENT, AND UTILIZATION OF STATE WATER RESOURCES [10000 - 12999]
(Heading of Division 6 amended by Stats. 1957, Ch. 1932.)

PART 2.55. SUSTAINABLE WATER USE AND DEMAND REDUCTION [10608 - 10609.42] *(Part 2.55 added by Stats.2009, 7th Ex. Sess., Ch. 4, Sec. 1.)*

CHAPTER 1. General Declarations and Policy [10608 - 10608.8] *(Chapter 1 added by Stats. 2009, 7th Ex. Sess., Ch. 4, Sec. 1.)*

10608.

The Legislature finds and declares all of the following:

(a) Water is a public resource that the California Constitution protects against waste and unreasonable use.

(b) Growing population, climate change, and the need to protect and grow California's economy while protecting and restoring our fish and wildlife habitats make it essential that the state manage its water resources as efficiently as possible.

(c) Diverse regional water supply portfolios will increase water supply reliability and reduce dependence on the Delta.

(d) Reduced water use through conservation provides significant energy and environmental benefits, and can help protect water quality, improve stream flows, and reduce greenhouse gas emissions.

(e) The success of state and local water conservation programs to increase efficiency of water use is best determined on the basis of measurable outcomes related to water use or efficiency.

(f) Improvements in technology and management practices offer the potential for increasing water efficiency in California over time, providing an essential water management tool to meet the need for water for urban, agricultural, and environmental uses.

(g) The Governor has called for a 20 percent per capita reduction in urban water use statewide by 2020.

(h) The factors used to formulate water use efficiency targets can vary significantly from location to location based on factors including weather, patterns of urban and suburban development, and past efforts to enhance water use efficiency.

(i) Per capita water use is a valid measure of a water provider's efforts to reduce urban water use within its service area. However, per capita water use is less useful for measuring relative water use efficiency between different water providers. Differences in weather, historical patterns of urban and suburban development, and density of housing in a particular location need to be considered when assessing per capita water use as a measure of efficiency.

(*Added* by Stats. 2009, 7th Ex. Sess., Ch. 4, Sec. 1. (SB 7 7x) Effective February 3, 2010.)

10608.4

It is the intent of the Legislature, by the enactment of this part, to do all of the following:

(a) Require all water suppliers to increase the efficiency of use of this essential resource.

(b) Establish a framework to meet the state targets for urban water conservation identified in this part and called for by the Governor.

(c) Measure increased efficiency of urban water use on a per capita basis.

(d) Establish a method or methods for urban retail water suppliers to determine targets for achieving increased water use efficiency by the year 2020, in accordance with the Governor's goal of a 20-percent reduction.

(e) Establish consistent water use efficiency planning and implementation standards for urban water suppliers and agricultural water suppliers.

(f) Promote urban water conservation standards that are consistent with the California Urban Water Conservation Council's adopted best management practices and the requirements for demand management in Section 10631.

(g) Establish standards that recognize and provide credit to water suppliers that made substantial capital investments in urban water conservation since the drought of the early 1990s.

(h) Recognize and account for the investment of urban retail water suppliers in providing recycled water for beneficial uses.

(i) Require implementation of specified efficient water management practices for agricultural water suppliers.

(j) Support the economic productivity of California's agricultural, commercial, and industrial sectors.

(k) Advance regional water resources management.

(Added by Stats. 2009, 7th Ex. Sess., Ch. 4, Sec. 1. (SB 7 7x) Effective February 3, 2010.)

10608.8

(a) (1) Water use efficiency measures adopted and implemented pursuant to this part or Part 2.8 (commencing with Section 10800) are water conservation measures subject to the protections provided under Section 1011.

(2) Because an urban agency is not required to meet its urban water use target until 2020 pursuant to subdivision (a) of Section 10608.24, an urban retail water supplier's failure to meet those targets shall not establish a violation of law for purposes of any state administrative or judicial proceeding prior to January 1, 2021. Nothing in this paragraph limits the use of data reported to the department or the board in litigation or an administrative proceeding. This paragraph shall become inoperative on January 1, 2021.

(3) To the extent feasible, the department and the board shall provide for the use of water conservation reports required under this part to meet the requirements of Section 1011 for water conservation reporting.

(b) This part does not limit or otherwise affect the application of Chapter 3.5 (commencing with Section 11340), Chapter 4 (commencing with Section 11370), Chapter 4.5 (commencing with Section 11400), and Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the Government Code.

(c) This part does not require a reduction in the total water used in the agricultural or urban sectors, because other factors, including, but not limited to, changes in agricultural economics or population growth may have greater effects on water use. This part does not limit the economic productivity of California's agricultural, commercial, or industrial sectors.

(d) The requirements of this part do not apply to an agricultural water supplier that is a party to the Quantification Settlement Agreement, as defined in subdivision (a) of Section 1 of Chapter 617 of the Statutes of 2002, during the period within which the Quantification Settlement Agreement remains in effect. After the expiration of the Quantification Settlement Agreement, to the extent conservation water projects implemented as part of the Quantification Settlement Agreement remain in effect, the conserved water created as part of those projects shall be credited against the obligations of the agricultural water supplier pursuant to this part.

(Added by Stats. 2009, 7th Ex. Sess., Ch. 4, Sec. 1. (SB 7 7x) Effective February 3, 2010.)

WATER CODE - WAT

DIVISION 6. CONSERVATION, DEVELOPMENT, AND UTILIZATION OF STATE WATER RESOURCES [10000 - 12999] *(Heading of Division 6 amended by Stats. 1957, Ch. 1932.)*

PART 2.55. SUSTAINABLE WATER USE AND DEMAND REDUCTION [10608 - 10609.42] *(Part 2.55 added by Stats. 2009, 7th Ex. Sess., Ch. 4, Sec. 1.)*

CHAPTER 9. Urban Water Use Objectives and Water Use Reporting [10609 - 10609.38] *(Chapter 9 added by Stats. 2018, Ch. 15, Sec. 7.)*

10609. (a) The Legislature finds and declares that this chapter establishes a method to estimate the aggregate amount of water that would have been delivered the previous year by an urban retail water supplier if all that water had been used efficiently. This estimated aggregate water use is the urban retail water supplier's urban water use objective. The method is based on water use efficiency standards and local service area characteristics for that year. By comparing the amount of water actually used in the previous year with the urban water use objective, local urban water suppliers will be in a better position to help eliminate unnecessary use of water; that is, water used in excess of that needed to accomplish the intended beneficial use.

(b) The Legislature further finds and declares all of the following:

(1) This chapter establishes standards and practices for the following water uses:

(A) Indoor residential use.

(B) Outdoor residential use.

(C) CII water use.

(D) Water losses.

(E) Other unique local uses and situations that can have a material effect on an urban water supplier's total water use.

(2) This chapter further does all of the following:

(A) Establishes a method to calculate each urban water use objective.

(B) Considers recycled water quality in establishing efficient irrigation standards.

(C) Requires the department to provide or otherwise identify data regarding the unique local conditions to support the calculation of an urban water use objective.

(D) Provides for the use of alternative sources of data if alternative sources are shown to be as accurate as, or more accurate than, the data provided by the department.

(E) Requires annual reporting of the previous year's water use with the urban water use objective.

(F) Provides a bonus incentive for the amount of potable recycled water used the previous year when comparing the previous year's water use with the urban water use objective, of up to 10 percent of the urban water use objective.

(3) This chapter requires the department and the board to solicit broad public participation from stakeholders and other interested persons in the development of the standards and the adoption of regulations pursuant to this chapter.

(4) This chapter preserves the Legislature's authority over long-term water use efficiency target setting and ensures appropriate legislative oversight of the implementation of this chapter by doing all of the following:

(A) Requiring the Legislative Analyst to conduct a review of the implementation of this chapter, including compliance with the adopted standards and regulations, accuracy of the data, use of alternate data, and other

issues the Legislative Analyst deems appropriate.

(B) Stating legislative intent that the director of the department and the chairperson of the board appear before the appropriate Senate and Assembly policy committees to report on progress in implementing this chapter.

(C) Providing one-time-only authority to the department and board to adopt water use efficiency standards, except as explicitly provided in this chapter. Authorization to update the standards shall require separate legislation.

(c) It is the intent of the Legislature that the following principles apply to the development and implementation of long-term standards and urban water use objectives:

(1) Local urban retail water suppliers should have primary responsibility for meeting standards-based water use targets, and they shall retain the flexibility to develop their water supply portfolios, design and implement water conservation strategies, educate their customers, and enforce their rules.

(2) Long-term standards and urban water use objectives should advance the state's goals to mitigate and adapt to climate change.

(3) Long-term standards and urban water use objectives should acknowledge the shade, air quality, and heat-island reduction benefits provided to communities by trees through the support of water-efficient irrigation practices that keep trees healthy.

(4) The state should identify opportunities for streamlined reporting, eliminate redundant data submissions, and incentivize open access to data collected by urban and agricultural water suppliers.

(Amended by Stats. 2019, Ch. 497, Sec. 287. (AB 991) Effective January 1, 2020.)

10609.2. (a) The board, in coordination with the department, shall adopt long-term standards for the efficient use of water pursuant to this chapter on or before June 30, 2022.

(b) Standards shall be adopted for all of the following:

(1) Outdoor residential water use.

(2) Outdoor irrigation of landscape areas with dedicated irrigation meters in connection with CII water use.

(3) A volume for water loss.

(c) When adopting the standards under this section, the board shall consider the policies of this chapter and the proposed efficiency standards' effects on local wastewater management, developed and natural parklands, and urban tree health. The standards and potential effects shall be identified by May 30, 2022. The board shall allow for public comment on potential effects identified by the board under this subdivision.

(d) The long-term standards shall be set at a level designed so that the water use objectives, together with other demands excluded from the long-term standards such as CII indoor water use and CII outdoor water use not connected to a dedicated landscape meter, would exceed the statewide conservation targets required pursuant to Chapter 3 (commencing with Section 10608.16).

(e) The board, in coordination with the department, shall adopt by regulation variances recommended by the department pursuant to Section 10609.14 and guidelines and methodologies pertaining to the calculation of an urban retail water supplier's urban water use objective recommended by the department pursuant to Section 10609.16.

(Added by Stats. 2018, Ch. 15, Sec. 7. (AB 1668) Effective January 1, 2019.)

10609.4. (a) (1) Until January 1, 2025, the standard for indoor residential water use shall be 55 gallons per capita daily.

(2) Beginning January 1, 2025, and until January 1, 2030, the standard for indoor residential water use shall be the greater of 52.5 gallons per capita daily or a standard recommended pursuant to subdivision (b).

(3) Beginning January 1, 2030, the standard for indoor residential water use shall be the greater of 50 gallons per capita daily or a standard recommended pursuant to subdivision (b).

(b) (1) The department, in coordination with the board, shall conduct necessary studies and investigations and may jointly recommend to the Legislature a standard for indoor residential water use that more appropriately reflects best practices for indoor residential water use than the standard described in subdivision (a). A report on the results of the studies and investigations shall be made to the chairpersons of the relevant policy committees of each house of the Legislature by January 1, 2021, and shall include information necessary to support the recommended standard, if there is one. The studies and investigations shall also include an analysis of the benefits and impacts of how the changing standard for indoor residential water use will impact water and wastewater

management, including potable water usage, wastewater, recycling and reuse systems, infrastructure, operations, and supplies.

(2) The studies, investigations, and report described in paragraph (1) shall include collaboration with, and input from, a broad group of stakeholders, including, but not limited to, environmental groups, experts in indoor plumbing, and water, wastewater, and recycled water agencies.

(Added by Stats. 2018, Ch. 15, Sec. 7. (AB 1668) Effective January 1, 2019.)

10609.6. (a) (1) The department, in coordination with the board, shall conduct necessary studies and investigations and recommend, no later than October 1, 2021, standards for outdoor residential use for adoption by the board in accordance with this chapter.

(2) (A) The standards shall incorporate the principles of the model water efficient landscape ordinance adopted by the department pursuant to the Water Conservation in Landscaping Act (Article 10.8 (commencing with Section 65591) of Chapter 3 of Division 1 of Title 7 of the Government Code).

(B) The standards shall apply to irrigable lands.

(C) The standards shall include provisions for swimming pools, spas, and other water features. Ornamental water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, shall be analyzed separately from swimming pools and spas.

(b) The department shall, by January 1, 2021, provide each urban retail water supplier with data regarding the area of residential irrigable lands in a manner that can reasonably be applied to the standards adopted pursuant to this section.

(c) The department shall not recommend standards pursuant to this section until it has conducted pilot projects or studies, or some combination of the two, to ensure that the data provided to local agencies are reasonably accurate for the data's intended uses, taking into consideration California's diverse landscapes and community characteristics.

(Added by Stats. 2018, Ch. 15, Sec. 7. (AB 1668) Effective January 1, 2019.)

10609.8. (a) The department, in coordination with the board, shall conduct necessary studies and investigations and recommend, no later than October 1, 2021, standards for outdoor irrigation of landscape areas with dedicated irrigation meters or other means of calculating outdoor irrigation use in connection with CII water use for adoption by the board in accordance with this chapter.

(b) The standards shall incorporate the principles of the model water efficient landscape ordinance adopted by the department pursuant to the Water Conservation in Landscaping Act (Article 10.8 (commencing with Section 65591) of Chapter 3 of Division 1 of Title 7 of the Government Code).

(c) The standards shall include an exclusion for water for commercial agricultural use meeting the definition of subdivision (b) of Section 51201 of the Government Code.

(Added by Stats. 2018, Ch. 15, Sec. 7. (AB 1668) Effective January 1, 2019.)

10609.9. For purposes of Sections 10609.6 and 10609.8, "principles of the model water efficient landscape ordinance" means those provisions of the model water efficient landscape ordinance applicable to the establishment or determination of the amount of water necessary to efficiently irrigate both new and existing landscapes. These provisions include, but are not limited to, all of the following:

(a) Evapotranspiration adjustment factors, as applicable.

(b) Landscape area.

(c) Maximum applied water allowance.

(d) Reference evapotranspiration.

(e) Special landscape areas, including provisions governing evapotranspiration adjustment factors for different types of water used for irrigating the landscape.

(Added by Stats. 2018, Ch. 15, Sec. 7. (AB 1668) Effective January 1, 2019.)

10609.10. (a) The department, in coordination with the board, shall conduct necessary studies and investigations and recommend, no later than October 1, 2021, performance measures for CII water use for adoption by the board in accordance with this chapter.

(b) Prior to recommending performance measures for CII water use, the department shall solicit broad public participation from stakeholders and other interested persons relating to all of the following:

(1) Recommendations for a CII water use classification system for California that address significant uses of water.

(2) Recommendations for setting minimum size thresholds for converting mixed CII meters to dedicated irrigation meters, and evaluation of, and recommendations for, technologies that could be used in lieu of requiring dedicated irrigation meters.

(3) Recommendations for CII water use best management practices, which may include, but are not limited to, water audits and water management plans for those CII customers that exceed a recommended size, volume of water use, or other threshold.

(c) Recommendations of appropriate performance measures for CII water use shall be consistent with the October 21, 2013, report to the Legislature by the Commercial, Industrial, and Institutional Task Force entitled "Water Use Best Management Practices," including the technical and financial feasibility recommendations provided in that report, and shall support the economic productivity of California's commercial, industrial, and institutional sectors.

(d) (1) The board, in coordination with the department, shall adopt performance measures for CII water use on or before June 30, 2022.

(2) Each urban retail water supplier shall implement the performance measures adopted by the board pursuant to paragraph (1).

(Added by Stats. 2018, Ch. 15, Sec. 7. (AB 1668) Effective January 1, 2019.)

10609.12. The standards for water loss for urban retail water suppliers shall be the standards adopted by the board pursuant to subdivision (i) of Section 10608.34.

(Added by Stats. 2018, Ch. 15, Sec. 7. (AB 1668) Effective January 1, 2019.)

10609.14. (a) The department, in coordination with the board, shall conduct necessary studies and investigations and, no later than October 1, 2021, recommend for adoption by the board in accordance with this chapter appropriate variances for unique uses that can have a material effect on an urban retail water supplier's urban water use objective.

(b) Appropriate variances may include, but are not limited to, allowances for the following:

(1) Significant use of evaporative coolers.

(2) Significant populations of horses and other livestock.

(3) Significant fluctuations in seasonal populations.

(4) Significant landscaped areas irrigated with recycled water having high levels of total dissolved solids.

(5) Significant use of water for soil compaction and dust control.

(6) Significant use of water to supplement ponds and lakes to sustain wildlife.

(7) Significant use of water to irrigate vegetation for fire protection.

(8) Significant use of water for commercial or noncommercial agricultural use.

(c) The department, in recommending variances for adoption by the board, shall also recommend a threshold of significance for each recommended variance.

(d) Before including any specific variance in calculating an urban retail water supplier's water use objective, the urban retail water supplier shall request and receive approval by the board for the inclusion of that variance.

(e) The board shall post on its Internet Web site all of the following:

(1) A list of all urban retail water suppliers with approved variances.

(2) The specific variance or variances approved for each urban retail water supplier.

(3) The data supporting approval of each variance.

(Added by Stats. 2018, Ch. 15, Sec. 7. (AB 1668) Effective January 1, 2019.)

10609.15. To help streamline water data reporting, the department and the board shall do all of the following:

(a) Identify urban water reporting requirements shared by both agencies, and post on each agency's Internet Web site how the data is used for planning, regulatory, or other purposes.

(b) Analyze opportunities for more efficient publication of urban water reporting requirements within each agency, and analyze how each agency can integrate various data sets in a publicly accessible location, identify priority actions, and implement priority actions identified in the analysis.

(c) Make appropriate data pertaining to the urban water reporting requirements that are collected by either agency available to the public according to the principles and requirements of the Open and Transparent Water Data Act (Part 4.9 (commencing with Section 12400)).

(Added by Stats. 2018, Ch. 15, Sec. 7. (AB 1668) Effective January 1, 2019.)

10609.16. The department, in coordination with the board, shall conduct necessary studies and investigations and recommend, no later than October 1, 2021, guidelines and methodologies for the board to adopt that identify how an urban retail water supplier calculates its urban water use objective. The guidelines and methodologies shall address, as necessary, all of the following:

(a) Determining the irrigable lands within the urban retail water supplier's service area.

(b) Updating and revising methodologies described pursuant to subparagraph (A) of paragraph (1) of subdivision (h) of Section 10608.20, as appropriate, including methodologies for calculating the population in an urban retail water supplier's service area.

(c) Using landscape area data provided by the department or alternative data.

(d) Incorporating precipitation data and climate data into estimates of a urban retail water supplier's outdoor irrigation budget for its urban water use objective.

(e) Estimating changes in outdoor landscape area and population, and calculating the urban water use objective, for years when updated landscape imagery is not available from the department.

(f) Determining acceptable levels of accuracy for the supporting data, the urban water use objective, and compliance with the urban water use objective.

(Added by Stats. 2018, Ch. 15, Sec. 7. (AB 1668) Effective January 1, 2019.)

10609.18. The department and the board shall solicit broad public participation from stakeholders and other interested persons in the development of the standards and the adoption of regulations pursuant to this chapter. The board shall hold at least one public meeting before taking any action on any standard or variance recommended by the department.

(Added by Stats. 2018, Ch. 15, Sec. 7. (AB 1668) Effective January 1, 2019.)

10609.20. (a) Each urban retail water supplier shall calculate its urban water use objective no later than January 1, 2024, and by January 1 every year thereafter.

(b) The calculation shall be based on the urban retail water supplier's water use conditions for the previous calendar or fiscal year.

(c) Each urban water supplier's urban water use objective shall be composed of the sum of the following:

(1) Aggregate estimated efficient indoor residential water use.

(2) Aggregate estimated efficient outdoor residential water use.

(3) Aggregate estimated efficient outdoor irrigation of landscape areas with dedicated irrigation meters or equivalent technology in connection with CII water use.

(4) Aggregate estimated efficient water losses.

(5) Aggregate estimated water use in accordance with variances, as appropriate.

(d) (1) An urban retail water supplier that delivers water from a groundwater basin, reservoir, or other source that is augmented by potable reuse water may adjust its urban water use objective by a bonus incentive calculated pursuant to this subdivision.

(2) The water use objective bonus incentive shall be the volume of its potable reuse delivered to residential water users and to landscape areas with dedicated irrigation meters in connection with CII water use, on an acre-foot basis.

(3) The bonus incentive pursuant to paragraph (1) shall be limited in accordance with one of the following:

(A) The bonus incentive shall not exceed 15 percent of the urban water supplier's water use objective for any potable reuse water produced at an existing facility.

(B) The bonus incentive shall not exceed 10 percent of the urban water supplier's water use objective for any potable reuse water produced at any facility that is not an existing facility.

(4) For purposes of this subdivision, "existing facility" means a facility that meets all of the following:

(A) The facility has a certified environmental impact report, mitigated negative declaration, or negative declaration on or before January 1, 2019.

(B) The facility begins producing and delivering potable reuse water on or before January 1, 2022.

(C) The facility uses microfiltration and reverse osmosis technologies to produce the potable reuse water.

(e) (1) The calculation of the urban water use objective shall be made using landscape area and other data provided by the department and pursuant to the standards, guidelines, and methodologies adopted by the board. The department shall provide data to the urban water supplier at a level of detail sufficient to allow the urban water supplier to verify its accuracy at the parcel level.

(2) Notwithstanding paragraph (1), an urban retail water supplier may use alternative data in calculating the urban water use objective if the supplier demonstrates to the department that the alternative data are equivalent, or superior, in quality and accuracy to the data provided by the department. The department may provide technical assistance to an urban retail water supplier in evaluating whether the alternative data are appropriate for use in calculating the supplier's urban water use objective.

(Amended by Stats. 2019, Ch. 239, Sec. 2. (AB 1414) Effective January 1, 2020.)

10609.21. (a) For purposes of Section 10609.20, and notwithstanding paragraph (4) of subdivision (d) of Section 10609.20, "existing facility" also includes the North City Project, phase one of the Pure Water San Diego Program, for which an environmental impact report was certified on April 10, 2018.

(b) This section shall become operative on January 1, 2019.

(Added by Stats. 2018, Ch. 453, Sec. 4. (SB 875) Effective September 17, 2018. Section operative January 1, 2019, by its own provisions.)

10609.22. (a) An urban retail water supplier shall calculate its actual urban water use no later than January 1, 2024, and by January 1 every year thereafter.

(b) The calculation shall be based on the urban retail water supplier's water use for the previous calendar or fiscal year.

(c) Each urban water supplier's urban water use shall be composed of the sum of the following:

(1) Aggregate residential water use.

(2) Aggregate outdoor irrigation of landscape areas with dedicated irrigation meters in connection with CII water use.

(3) Aggregate water losses.

(Amended by Stats. 2019, Ch. 239, Sec. 3. (AB 1414) Effective January 1, 2020.)

10609.24. (a) An urban retail water supplier shall submit a report to the department no later than January 1, 2024, and by January 1 every year thereafter. The report shall include all of the following:

(1) The urban water use objective calculated pursuant to Section 10609.20 along with relevant supporting data.

(2) The actual urban water use calculated pursuant to Section 10609.22 along with relevant supporting data.

(3) Documentation of the implementation of the performance measures for CII water use.

(4) A description of the progress made towards meeting the urban water use objective.

(5) The validated water loss audit report conducted pursuant to Section 10608.34.

(b) The department shall post the reports and information on its internet website.

(c) The board may issue an information order or conservation order to, or impose civil liability on, an entity or individual for failure to submit a report required by this section.

(Amended by Stats. 2019, Ch. 239, Sec. 4. (AB 1414) Effective January 1, 2020.)

10609.25. As part of the first report submitted to the department by an urban retail water supplier no later than January 1, 2024, pursuant to subdivision (a) of Section 10609.24, each urban retail water supplier shall provide a

narrative that describes the water demand management measures that the supplier plans to implement to achieve its urban water use objective by January 1, 2027.

(Added by Stats. 2019, Ch. 239, Sec. 5. (AB 1414) Effective January 1, 2020.)

10609.26. (a) (1) On and after January 1, 2024, the board may issue informational orders pertaining to water production, water use, and water conservation to an urban retail water supplier that does not meet its urban water use objective required by this chapter. Informational orders are intended to obtain information on supplier activities, water production, and conservation efforts in order to identify technical assistance needs and assist urban water suppliers in meeting their urban water use objectives.

(2) In determining whether to issue an informational order, the board shall consider the degree to which the urban retail water supplier is not meeting its urban water use objective, information provided in the report required by Section 10609.24, and actions the urban retail water supplier has implemented or will implement in order to help meet the urban water use objective.

(3) The board shall share information received pursuant to this subdivision with the department.

(4) An urban water supplier may request technical assistance from the department. The technical assistance may, to the extent available, include guidance documents, tools, and data.

(b) On and after January 1, 2025, the board may issue a written notice to an urban retail water supplier that does not meet its urban water use objective required by this chapter. The written notice may warn the urban retail water supplier that it is not meeting its urban water use objective described in Section 10609.20 and is not making adequate progress in meeting the urban water use objective, and may request that the urban retail water supplier address areas of concern in its next annual report required by Section 10609.24. In deciding whether to issue a written notice, the board may consider whether the urban retail water supplier has received an informational order, the degree to which the urban retail water supplier is not meeting its urban water use objective, information provided in the report required by Section 10609.24, and actions the urban retail water supplier has implemented or will implement in order to help meet its urban water use objective.

(c) (1) On and after January 1, 2026, the board may issue a conservation order to an urban retail water supplier that does not meet its urban water use objective. A conservation order may consist of, but is not limited to, referral to the department for technical assistance, requirements for education and outreach, requirements for local enforcement, and other efforts to assist urban retail water suppliers in meeting their urban water use objective.

(2) In issuing a conservation order, the board shall identify specific deficiencies in an urban retail water supplier's progress towards meeting its urban water use objective, and identify specific actions to address the deficiencies.

(3) The board may request that the department provide an urban retail water supplier with technical assistance to support the urban retail water supplier's actions to remedy the deficiencies.

(d) A conservation order issued in accordance with this chapter may include requiring actions intended to increase water-use efficiency, but shall not curtail or otherwise limit the exercise of a water right, nor shall it require the imposition of civil liability pursuant to Section 377.

(Amended by Stats. 2019, Ch. 239, Sec. 6. (AB 1414) Effective January 1, 2020.)

10609.27. Notwithstanding Section 10609.26, the board shall not issue an information order, written notice, or conservation order pursuant to Section 10609.26 if both of the following conditions are met:

(a) The board determines that the urban retail water supplier is not meeting its urban water use objective solely because the volume of water loss exceeds the urban retail water supplier's standard for water loss.

(b) Pursuant to Section 10608.34, the board is taking enforcement action against the urban retail water supplier for not meeting the performance standards for the volume of water losses.

(Added by Stats. 2019, Ch. 203, Sec. 1. (SB 134) Effective January 1, 2020.)

10609.28. The board may issue a regulation or informational order requiring a wholesale water supplier, an urban retail water supplier, or a distributor of a public water supply, as that term is used in Section 350, to provide a monthly report relating to water production, water use, or water conservation.

(Added by Stats. 2018, Ch. 14, Sec. 12. (SB 606) Effective January 1, 2019.)

10609.30. On or before January 10, 2024, the Legislative Analyst shall provide to the appropriate policy committees of both houses of the Legislature and the public a report evaluating the implementation of the water use efficiency

standards and water use reporting pursuant to this chapter. The board and the department shall provide the Legislative Analyst with the available data to complete this report.

(a) The report shall describe all of the following:

(1) The rate at which urban retail water users are complying with the standards, and factors that might facilitate or impede their compliance.

(2) The accuracy of the data and estimates being used to calculate urban water use objectives.

(3) Indications of the economic impacts, if any, of the implementation of this chapter on urban water suppliers and urban water users, including CII water users.

(4) The frequency of use of the bonus incentive, the volume of water associated with the bonus incentive, value to urban water suppliers of the bonus incentive, and any implications of the use of the bonus incentive on water use efficiency.

(5) The early indications of how implementing this chapter might impact the efficiency of statewide urban water use.

(6) Recommendations, if any, for improving statewide urban water use efficiency and the standards and practices described in this chapter.

(7) Any other issues the Legislative Analyst deems appropriate.

(Added by Stats. 2018, Ch. 14, Sec. 13. (SB 606) Effective January 1, 2019.)

10609.32. It is the intent of the Legislature that the chairperson of the board and the director of the department appear before the appropriate policy committees of both houses of the Legislature on or around January 1, 2026, and report on the implementation of the water use efficiency standards and water use reporting pursuant to this chapter. It is the intent of the Legislature that the topics to be covered include all of the following:

(a) The rate at which urban retail water suppliers are complying with the standards, and factors that might facilitate or impede their compliance.

(b) What enforcement actions have been taken, if any.

(c) The accuracy of the data and estimates being used to calculate urban water use objectives.

(d) Indications of the economic impacts, if any, of the implementation of this chapter on urban water suppliers and urban water users, including CII water users.

(e) The frequency of use of the bonus incentive, the volume of water associated with the bonus incentive, value to urban water suppliers of the bonus incentive, and any implications of the use of the bonus incentive on water use efficiency.

(f) An assessment of how implementing this chapter is affecting the efficiency of statewide urban water use.

(Added by Stats. 2018, Ch. 14, Sec. 14. (SB 606) Effective January 1, 2019.)

10609.34. Notwithstanding Section 15300.2 of Title 14 of the California Code of Regulations, an action of the board taken under this chapter shall be deemed to be a Class 8 action, within the meaning of Section 15308 of Title 14 of the California Code of Regulations, provided that the action does not involve relaxation of existing water conservation or water use standards.

(Added by Stats. 2018, Ch. 14, Sec. 15. (SB 606) Effective January 1, 2019.)

10609.36. (a) Nothing in this chapter shall be construed to determine or alter water rights. Sections 1010 and 1011 apply to water conserved through implementation of this chapter.

(b) Nothing in this chapter shall be construed to authorize the board to update or revise water use efficiency standards authorized by this chapter except as explicitly provided in this chapter. Authorization to update the standards beyond that explicitly provided in this chapter shall require separate legislation.

(c) Nothing in this chapter shall be construed to limit or otherwise affect the use of recycled water as seawater barriers for groundwater salinity management.

(Added by Stats. 2018, Ch. 14, Sec. 16. (SB 606) Effective January 1, 2019.)

10609.38. The board may waive the requirements of this chapter for a period of up to five years for any urban retail water supplier whose water deliveries are significantly affected by changes in water use as a result of damage from a disaster such as an earthquake or fire. In establishing the period of a waiver, the board shall take into

consideration the breadth of the damage and the time necessary for the damaged areas to recover from the disaster.

(Added by Stats. 2018, Ch. 14, Sec. 17. (SB 606) Effective January 1, 2019.)

DIVISION 6. CONSERVATION, DEVELOPMENT, AND UTILIZATION OF STATE WATER RESOURCES [10000 - 12999]
(Heading of Division 6 amended by Stats. 1957, Ch. 1932.)

PART 2.6. URBAN WATER MANAGEMENT PLANNING [10610 - 10657] *(Part 2.6 added by Stats. 1983, Ch. 1009, Sec..)*

CHAPTER 1. General Declaration and Policy [10610 - 10610.4] ***(Chapter 1 added by Stats. 1983, Ch. 1009, Alec. 1.)***

10610 This part shall be known and may be cited as the "Urban Water Management Planning Act."
(Added by Stats. 1983, Ch. 1009, Sec. 1.)

10610.2. (a) The Legislature finds and declares all of the following:

(1) The waters of the state are a limited and renewable resource subject to ever-increasing demands.

(2) The conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level.

(3) A long-term, reliable supply of water is essential to protect the productivity of California's businesses and economic climate, and increasing long-term water conservation among Californians, improving water use efficiency within the state's communities and agricultural production, and strengthening local and regional drought planning are critical to California's resilience to drought and climate change.

(4) As part of its long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years now and into the foreseeable future, and every urban water supplier should collaborate closely with local land-use authorities to ensure water demand forecasts are consistent with current land-use planning.

(5) Public health issues have been raised over a number of contaminants that have been identified in certain local and imported water supplies.

(6) Implementing effective water management strategies, including groundwater storage projects and recycled water projects, may require specific water quality and salinity targets for meeting groundwater basins water quality objectives and promoting beneficial use of recycled water.

(7) Water quality regulations are becoming an increasingly important factor in water agencies' selection of raw water sources, treatment alternatives, and modifications to existing treatment facilities.

(8) Changes in drinking water quality standards may also impact the usefulness of water supplies and may ultimately impact supply reliability.

(9) The quality of source supplies can have a significant impact on water management strategies and supply reliability.

(b) This part is intended to provide assistance to water agencies in carrying out their long-term resource planning responsibilities to ensure adequate water supplies to meet existing and future demands for water.

(Amended by Stats. 201B, Ch. 14, Sec. 18. (SB 606) Effective January 1, 201 9.)

10610.4 The Legislature finds and declares that it is the policy of the state as follows:

(a) The management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources.

CHAPTER 2. Definitions [10611 - 1 0618] ***(Chapter 2 added by Stats. 1983, Ch. 1009, iec. 1.)***

10611. Unless the context otherwise requires, the definitions of this chapter govern the construction of this part.

(Added by Stats. 1983, Ch. 1009, Sec. 1.)

10611.3 "Customer" means a purchaser of water from a water supplier who uses the water for municipal purposes, including residential, commercial, governmental, and industrial uses.

Added by renumbering Section 10612 by Stats. 2018, Ch. 14, Sec. 20. (SB 606) Effective January 1, 2019.)

10611.5 "Demand management" means those water conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable and efficient use and reuse of available supplies.

(Amended by Stats. 1995, Ch. 854, Sec. 3. Effective January 1, 1996.)

10612 "Drought risk assessment" means a method that examines water shortage risks based on the driest five- year historic sequence for the agency's water supply, as described in subdivision (b) of Section 10635.

(Added by Stats. 2018, Ch. 14, Sec. 21. (SB 606) Effective January 1, 201 9.)

10613. "Efficient use" means those management measures that result in the most effective use of water so as to prevent its waste or unreasonable use or unreasonable method of use.

(Added by :3tats. 1983, Ch. 1009, Exec. 1.)

10614. "Person" means any individual, firm, association, organization, partnership, business, trust, corporation, company, public agency, or any agency of such an entity.

(Added by Stats. 1983, Ch. 1009, Sec. 1.)

10615. "Plan" means an urban water management plan prepared pursuant to this part. A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities. The components of the plan may vary according to an individual community or area's characteristics and its capabilities to efficiently use and conserve water. The plan shall address measures for residential, commercial, governmental, and industrial water demand management as set forth in Article 2 (commencing with Section 10630) of Chapter 3. In addition, a strategy and time schedule for implementation shall be included in the plan.

(Amended by Stats. 1995, *Ch. 854, Sec. 4. Effective January 1, 1996.)*

10616. "Public agency" means any board, commission, county, city and county, city, regional agency, district, or other public entity.

(Added by Stats. 1983, Ch. 1009, Sec. 1.)

10616.5 "Recycled water" means the reclamation and reuse of wastewater for beneficial use.

(Added by Stats. 1995, Ch. 854, Sec. 5. Effective January 1, 1996)

10617. "Urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water

supplied from public water systems subject to Chapter 4 (commencing with Section 116275) of Part 12 of Division 104 of the Health and Safety Code.

(Amended by Stats. 1996, *Ch. 1023, Sec. 428. Effective January 29, 1996.)*

10617.5. "Water shortage contingency plan" means a document that incorporates the provisions detailed in subdivision (a) of Section 10632 and is subsequently adopted by an urban water supplier pursuant to this article.

(Added by Stats. 2018, Ch. 14, Sec. 22. (SB 606) Effective January 1, 2019)

10618 "Water supply and demand assessment" means a method that looks at current year and one or more dry year supplies and demands for determining water shortage risks, as described in Section 10632.1.

(Added by Stats. 2018, Ch. 14, Sec. 23 (SB 606). Effective January 1, 2019)

CHAPTER 3. Urban Water Management Plans [10620 - 10645] *(Chapter 3 added by* Stabs. *1983, Ch. 1009, Sec. 1.)*

ARTICLE 1. General Provisions [10620 - 1 0621] *(Article 1 added by Stats. 1 983, Ch. 1009, Sec. 1.)*

10620. (a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).

(b) Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.

(c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.

(d) (I) An urban water supplier may satisfy the requirements of this part by participation in areawide, regional, watershed, or basinwide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation, efficient water use, and improved local drought resilience.

(2) Notwithstanding paragraph (1), each urban water supplier shall develop its own water shortage contingency plan, but an urban water supplier may incorporate, collaborate, and otherwise share information with other urban water suppliers or other governing entities participating in an areawide, regional, watershed, or basinwide urban water management plan, an agricultural management plan, or groundwater sustainability plan development.

(3) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.

(e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.

(f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

(Amended by Stats. 2018, Ch. 14, Sec. 24. (SB 606) Effective January 1, 2019.)

10621 (a) Each urban water supplier shall update its plan at least once every five years on or before July 1, in years ending in six and one, incorporating updated and new information from the five years preceding each update.

(b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days before the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.

(c) An urban water supplier regulated by the Public Utilities Commission shall include its most recent plan and water shortage contingency plan as part of the supplier's general rate case filings.

(d) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640)

(e) Each urban water supplier shall update and submit its 2015 plan to the department by July1, 2016

(f) Each urban water supplier shall update and submit its 2020 plan to the department by July 1,2021

(Amended by Stats. 2019, Ch. 239, Sec. 7. (AB 1414) Effective January 1, 2020.)

CHAPTER 3. Urban Water Management Plans [10620 - 10645] ***(Chapter 3 added by Stats. 1983, Ch. 1009, Sec. 1.)***

ARTICLE 2. Contents of Plans [10630 - 1 0634] ***(Article 2 added by Stats. 1 983, Ch. 1009, Sec. 1.)***

10630 It is the intention of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied, while accounting for impacts from climate change.

(Amended by Stats. 2018, Ch. 14, Sec. 26. (SB 606) Effective January 1, 201 9.)

10630.5 Each plan shall include a simple lay description of how much water the agency has on a reliable basis, how much it needs for the foreseeable future, what the agency's strategy is for meeting its water needs, the challenges facing the agency, and any other information necessary to provide a general understanding of the agency's plan.

(Added by Stats. 2018, Ch. 14, Sec. 27. (SB 606) Effective January 1, 2019.)

10631 A plan shall be adopted in accordance with this chapter that shall do all of the following:

(a) Describe the service area of the supplier, including current and projected population, climate, and other social, economic, and demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available. The description shall include the current and projected land uses within the existing or anticipated service area affecting the supplier's water management planning. Urban water suppliers shall coordinate with local or regional land use authorities to determine the most appropriate land use information, including, where appropriate, land use information obtained from local or regional land use authorities, as developed pursuant to Article 5 (commencing with Section 65300) of Chapter 3 of Division 1 of Title 7 of the Government Code.

(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a), providing supporting and related information, including all of the following:

(1) A detailed discussion of anticipated supply availability under a normal water year, single dry year, and droughts lasting at least five years, as well as more frequent and severe periods of drought, as described in the drought risk assessment. For each source of water supply, consider any information pertinent to the reliability analysis conducted pursuant to Section 10635, including changes in supply due to climate change.

(2) When multiple sources of water supply are identified, a description of the management of each supply in correlation with the other identified supplies.

(3) For any planned sources of water supply, a description of the measures that are being undertaken to acquire and develop those water supplies.

(4) If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information:

The current version of any groundwater sustainability plan or alternative adopted pursuant to Part 2.74 (commencing with Section 10720), any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management for basins underlying the urban water supplier's service area.

(A) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For basins that a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For a basin that has not been adjudicated, information as to whether the department has identified the basin as a high- or medium-priority basin in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to coordinate with groundwater sustainability agencies or groundwater management agencies listed in subdivision (c) of Section 10723 to maintain or achieve sustainable groundwater conditions in accordance with a groundwater sustainability plan or alternative adopted pursuant to Part 2.74 (commencing with Section 10720).

(B) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(C) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(c) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

(d) (I) For an urban retail water supplier, quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, based upon information developed pursuant to subdivision (a), identifying the uses among water use sectors, including, but not necessarily limited to, all of the following:

(A) Single-family residential.

(B) Multifamily.

(C) Commercial.

(D) Industrial.

(E) Institutional and governmental.

(F) Landscape.

(G) Sales to other agencies.

(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.

(I) Agricultural.

(J) Distribution system water loss.

(2) The water use projections shall be in the same five-year increments described in subdivision (a).

(3) (A) The distribution system water loss shall be quantified for each of the five years preceding the plan update, in accordance with rules adopted pursuant to Section 10608.34.

(B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.

(C) In the plan due July 1, 2021, and in each update thereafter, data shall be included to show whether the urban retail water supplier met the distribution loss standards enacted by the board pursuant to Section 10608.34.

(4) (A) Water use projections, where available, shall display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use

plans identified by the urban water supplier, as applicable to the service area.

(B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following:

(i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections.

(ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.

(e) Provide a description of the supplier's water demand management measures. This description shall include all of the following:

(1) (A) For an urban retail water supplier, as defined in Section 10608.12, a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years. The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.

(B) For the supplement required of urban retail water suppliers by paragraph (2) of subdivision (f) of Section 10621, a narrative that describes the water demand management measures that the supplier plans to implement to achieve its urban water use objective by January 1, 2027, pursuant to Chapter 9 (commencing with Section 10609) of Part 2.55.

(C) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:

(i) Water waste prevention ordinances.

(ii) Metering.

(iii) Conservation pricing.

(iv) Public education and outreach.

(v) Programs to assess and manage distribution system real loss.

(vi) Water conservation program coordination and staffing support.

(vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.

(2) For an urban wholesale water supplier, as defined in Section 10608.12, a narrative description of the items in clauses (ii), (iv), (vi), and (vii) of subparagraph (C) of paragraph (1), and a narrative description of its distribution system asset management and wholesale supplier assistance programs.

(f) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use, as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in normal and single-dry water years and for a period of drought lasting five consecutive water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

(g) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

(h) An urban water supplier that relies upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (f). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (f).

(Amended by Stats. 2018, Ch. 14, Sec. 28. (SB 606) Effective January 1, 2019.)

10631 1 (a) The water use projections required by Section 10631 shall include projected water use for single- family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.

(b) It is the intent of the Legislature that the identification of projected water use for single-family and multifamily residential housing for lower income households will assist a supplier in complying with the requirement under Section 65589.7 of the Government Code to grant a priority for the provision of service to housing units affordable to lower income households.

(Added by Stats. 2005, Ch. 727, Sec. 2. Effective January 1, 2006.)

10631.2. (a) In addition to the requirements of Section 10631, an urban water management plan shall include any of the following information that the urban water supplier can readily obtain:

(1) An estimate of the amount of energy used to extract or divert water supplies.

(2) An estimate of the amount of energy used to convey water supplies to the water treatment plants or distribution systems.

(3) An estimate of the amount of energy used to treat water supplies.

(4) An estimate of the amount of energy used to distribute water supplies through its distribution systems.

(5) An estimate of the amount of energy used for treated water supplies in comparison to the amount used for nontreated water supplies.

(6) An estimate of the amount of energy used to place water into or withdraw from storage.

(7) Any other energy-related information the urban water supplier deems appropriate.

(b) The department shall include in its guidance for the preparation of urban water management plans a methodology for the voluntary calculation or estimation of the energy intensity of urban water systems. The department may consider studies and calculations conducted by the Public Utilities Commission in developing the methodology.

(c) The Legislature finds and declares that energy use is only one factor in water supply planning and shall not be considered independently of other factors.

(Amended by Stats. 2018, Ch. 14, Sec. 29. *(SB* 606a *Effective January 1, 2019.)*

10632 (a) Every urban water supplier shall prepare and adopt a water shortage contingency plan as part of its urban water management plan that consists of each of the following elements:

(1) The analysis of water supply reliability conducted pursuant to Section 10635.

(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.

(3) (A) Six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, and 50 percent shortages and greater than 50 percent shortage. Urban water suppliers shall define these shortage levels based on the suppliers' water supply conditions, including percentage reductions in water supply, changes in groundwater levels, changes in surface elevation or level of subsidence, or other changes in hydrological or other local conditions indicative of the water supply available for use. Shortage levels shall also apply to catastrophic interruption of water supplies, including, but not limited to, a regional power outage, an earthquake, and other potential emergency events.

(B) An urban water supplier with an existing water shortage contingency plan that uses different water shortage levels may comply with the requirement in subparagraph (A) by developing and including a cross-reference relating its existing categories to the six standard water shortage levels.

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

(B) Locally appropriate operational changes.

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

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

(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.

(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.

(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.

(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.

(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.

(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.

(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.

(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.

(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.

(Repealed and added by Stats. 2018, Ch. 14, Sec. 32. (SB 606) Effective January 1, 2019.)

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 June 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. An urban water supplier that relies on imported water from the State Water Project or the Bureau of Reclamation shall submit its annual water supply and demand assessment within 14 days of receiving its final allocations, or by June 1 of each year, whichever is later.

(Added by Stats. 2018, Ch. 14, Sec. 33. (SB 606) Effective January 1, 2019.)

10632.2. An urban water supplier shall follow, where feasible and appropriate, the prescribed procedures and implement determined shortage response actions in its water shortage contingency plan, as identified in subdivision

(a) of Section 10632, or reasonable alternative actions, provided that descriptions of the alternative actions are submitted with the annual water shortage assessment report pursuant to Section

10632.1. Nothing in this section prohibits an urban water supplier from taking actions not specified in its water shortage contingency plan, if needed, without having to formally amend its urban water management plan or water shortage contingency plan.

(Added by Stats. 2018, Ch. 14, Sec. 34. (SB 606) Effective January 1, 2019.)

10632.3 It is the intent of the Legislature that, upon proclamation by the 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 drought conditions, the board defer to implementation of locally adopted water shortage contingency plans to the extent practicable.

(Added by Stats. 2018, Ch. 14, Sec. 35. (SB 606) Effective January 1, 2019.)

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.

(Added by Stats. 2015, Ch. 681, Sec. 1. (SB 664a *Effective January 1, 2OJ* 6.g

10633 The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area, and shall include all of the following:

(a) A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.

(b) A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.

(c) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.

(d) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.

(e) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.

(f) A description of actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.

(g) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

(Amended by Stats. 2009, Ch. 534, Sec. 2. (AB 1465) Effective January 1, 2010.)

10634 The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

(Added by Stats. 2001, Ch. 644, Sec. 3. Effective January 1, 2002.)

CHAPTER 3. Urban Water Management Plans [10620 - 10645] ***(Chapter 3 added by* Stabs. *1983, Ch. 1009, Sec. 1.)***

ARTICLE 2.5. Water Service Reliability [10635- 10635.] ***(Article 2.5 added by Stats. 1995, Ch. 854, Sec. 11.)***

10635. (a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.

(b) Every urban water supplier shall include, as part of its urban water management plan, a drought risk assessment for its water service to its customers as part of information considered in developing the demand management measures and water supply projects and programs to be included in the urban water management plan. The urban water supplier may conduct an interim update or updates to this drought risk assessment within the five-year cycle of its urban water management plan update. The drought risk assessment shall include each of the following:

(1) A description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts five consecutive water years, starting from the year following when the assessment is conducted.

(2) A determination of the reliability of each source of supply under a variety of water shortage conditions. This may include a determination that a particular source of water supply is fully reliable under most, if not all, conditions.

(3) A comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.

(4) Considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.

(c) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.

(d) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.

(e) Nothing in this article is intended to change existing law concerning an urban water supplier's obligation to provide water service to its existing customers or to any potential future customers

(Amended by Stats. 2018, Ch. 14, Sec. 36. (SB 606) Effective January 1, 2019.)

CHAPTER 3. Urban Water Management Plans [10620 - 10645] ***(Chapter 3 added by* Stabs. *1983, Ch. 1009, Sec. 1.)***

ARTICLE 3. Adoption and Implementation of Plans [1 0640 - 10645] ***Article 3 added by Stats. 1983, Ch. 1009, Sec. 1.)***

10640. (a) Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630). The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

(b) Every urban water supplier required to prepare a water shortage contingency plan shall prepare a water shortage contingency plan pursuant to Section 10632. The supplier shall likewise periodically review the water shortage contingency plan as required by paragraph (10) of subdivision (a) of Section 10632 and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

(Amended by Stats. 2018, Ch. 14, Sec. 37. (SB 606a *Effective January 1, 2OJ* 9.g

10641 An urban water supplier required to prepare a plan or a water shortage contingency plan may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water demand management methods and techniques.

(Amended by Stats. 2018, Ch. 14, Sec. 38. (SB 606a *Effective January 1, 20J* 9.g

10642. Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of both the plan and the water shortage contingency plan. Prior to adopting either, the urban water supplier shall make both the plan and the water shortage contingency plan available for public inspection and shall hold a public hearing or hearings thereon. Prior to any of these hearings, notice of the time and place of the hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of a hearing to any city or county within which the supplier provides water supplies. Notices by a local public agency pursuant to this section shall be provided pursuant to Chapter 17.5 (commencing with Section 7290) of Division 7 of Title 1 of the Government Code. A privately owned water supplier shall provide an equivalent notice within its service area. After the hearing or hearings, the plan or water shortage contingency plan shall be adopted as prepared or as modified after the hearing or hearings.

(Amended by Stats. 2018, Ch. 14, Sec. 39. (SB 606$ *Effective January 1, 70J* 9.g

10643 An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.

(Added by Stats. 1983, Ch. 1009, Sec. 1.)

10644 (a) (1) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption.Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.

(2) The plan, or amendments to the plan, submitted to the department pursuant to paragraph (1)

shall be submitted electronically and shall include any standardized forms, tables, or displays specified by the department.

(b) If an urban water supplier revises its water shortage contingency plan, the supplier shall submit to the department a copy of its water shortage contingency plan prepared pursuant to subdivision (a) of Section 10632 no later than 30 days after adoption, in accordance with protocols for submission and using electronic reporting tools developed by the department.

(c) (1) (A) Notwithstanding Section 10231.5 of the Government Code, the department shall prepare and submit to the Legislature, on or before July 1, in the years ending in seven and two, a report summarizing the status of the plans and water shortage contingency plans adopted pursuant to this part. The report prepared by the department shall identify the exemplary elements of the individual plans and water shortage contingency plans. The department shall provide a copy of the report to each urban water supplier that has submitted its plan and water shortage contingency plan to the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans and water shortage contingency plans submitted pursuant to this part.

(B) The department shall prepare and submit to the board, on or before September 30 of each year, a report summarizing the submitted water supply and demand assessment results along with appropriate reported water shortage conditions and the regional and statewide analysis of water supply conditions developed by the department. As part of the report, the department shall provide a summary and, as appropriate, urban water supplier specific information regarding various shortage response actions implemented as a result of annual supplier-specific water supply and demand assessments performed pursuant to Section 10632.1.

(C) The department shall submit the report to the Legislature for the 2015 plans by July 1, 2017, and the report to the Legislature for the 2020 plans and water shortage contingency plans by July 1, 2022.

(2) A report to be submitted pursuant to subparagraph (A) of paragraph (1) shall be submitted in compliance with Section 9795 of the Government Code.

(d) The department shall make available to the public the standard the department will use to identify exemplary water demand management measures.

(Amended by Stats. 2018, Ch. 14, Sec. 40. (SB 606) Effective January 1, 2019.)

10645. (a) Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

(b) Not later than 30 days after filing a copy of its water shortage contingency plan with the department, the urban

water supplier and the department shall make the plan available for public review during normal business hours.

(Amended by Stats. 2018, Ch. 14, Sec. 41. (SB 606) Effective January 1, 201 9.)

CHAPTER 4. Miscellaneous Provisions [1 0650 - 10657] ***(Chapter 4 added by :itats. 1 983, Ch. 1009, iec. 1.)***

10650 Any actions or proceedings, other than actions by the board, to attack, review, set aside, void, or annul the acts or decisions of an urban water supplier on the grounds of noncompliance with this part shall be commenced as follows:

(a) An action or proceeding alleging failure to adopt a plan or a water shortage contingency plan shall be commenced within 18 months after that adoption is required by this part.

(b) Any action or proceeding alleging that a plan or water shortage contingency plan, or action taken pursuant to either, does not comply with this part shall be commenced within 90 days after filing of the plan or water shortage contingency plan or an amendment to either pursuant to Section 10644 or the taking of that action.

(Amended by Stats. 2018, Ch. 14, Sec. 42. (SB 606) Effective January 1, 2019.)

10651 In any action or proceeding to attack, review, set aside, void, or annul a plan or a water shortage contingency plan, or an action taken pursuant to either by an urban water supplier on the grounds of noncompliance with this part, the inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the supplier has not proceeded in a manner required by law or if the action by the water supplier is not supported by substantial evidence.

(Amended by Stats. 2018, Ch. 14, Sec. 43. (SB 606) *Effective January 1, 2019*

10652 The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the preparation and adoption of plans pursuant to this part or to the implementation of actions taken pursuant to Section 10632. Nothing in this part shall be interpreted as exempting from the California Environmental Quality Act any project that would significantly affect water supplies for fish and wildlife, or any project for implementation of the plan, other than projects implementing Section 10632, or any project for expanded or additional water supplies.

(Amended by Stats. 1995, Ch. 854, Sec. 6. *Effective January 1, 1996.)*

10653 The adoption of a plan shall satisfy any requirements of state law, regulation, or order, including those of the board and the Public Utilities Commission, for the preparation of water management plans, water shortage contingency plans, or conservation plans; provided, that if the board or the Public Utilities Commission requires additional information concerning water conservation, drought response measures, or financial conditions to implement its existing authority, nothing in this part shall be deemed to limit the board or the commission in obtaining that information. The requirements of this part shall be satisfied by any urban water demand management plan that complies with analogous federal laws or regulations after the effective date of this part, and which substantially meets the requirements of this part, or by any existing urban water management plan which includes the contents of a plan required under this part.

(Amended by Stats. 2018, Ch. 14, Sec. 45. (SB 606) *Effective January 1, 2019)*

10654 An urban water supplier may recover in its rates the costs incurred in preparing its urban water management plan, its drought risk assessment, its water supply and demand assessment, and its water shortage contingency plan and implementing the reasonable water conservation measures included in either of the plans.

(Amended by Stats. 2018, Ch. 14, Sec. 44. (SB 606) *Effective January 1, 2019)*

10655 If any provision of this part or the application thereof to any person or circumstances is held invalid, that invalidity shall not affect other provisions or applications of this part which can be given effect without the invalid provision or application thereof, and to this end the provisions of this part are severable.

(Amended by Stats. 1983, Ch. 1009, Sec. 1)

10656 An urban water supplier is not eligible for a water grant or loan awarded or administered by the state unless the urban water supplier complies with this part.

(Amended by Stats. 2018, Ch. 14, Sec. 46. (SB 606) *Effective January 1, 2019)*

10657 The department may adopt regulations regarding the definitions of water, water use, and reporting periods, and may adopt any other regulations deemed necessary or desirable to implement this part. In developing regulations pursuant to this section, the department shall solicit broad public participation from stakeholders and other interested persons.

(Amended by Stats. 2018, Ch. 14, Sec. 47. (SB 606) *Effective January 1, 2019)*

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Appendix B

DWR 2020 Urban Water Management Plan Tables

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Submittal Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2020[(b)]	Volume of Water Supplied 2020[(a,*)]
Add additional rows as needed			
CA4810009	City of Dixon	2,930	702
	TOTAL	2,930	702
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES: (a) Volumes are in MG. (b) The City became an urban water supplier in 2021 with a total of 3,148 customer connections.			

Submittal Table 2-2: Plan Identification			
Select Only One	**Type of Plan**		**Name of RUWMP or Regional Alliance** *if applicable* (select from drop down list)
☑	**Individual UWMP**		
	☐	Water Supplier is also a member of a RUWMP	
	☐	Water Supplier is also a member of a Regional Alliance	
☐	**Regional Urban Water Management Plan (RUWMP)**		
NOTES:			

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
☐	Supplier is a wholesaler
☑	Supplier is a retailer
Fiscal or Calendar Year (select one)	
☑	UWMP Tables are in calendar years
☐	UWMP Tables are in fiscal years
If using fiscal years provide month and date that the fiscal year begins (mm/dd)	
Units of measure used in UWMP * (select from drop down)	
Unit	MG
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*	
NOTES:	

Submittal Table 2-4 Retail: Water Supplier Information Exchange
The retail Supplier has informed the following wholesale supplier(s) of projected water use in accordance with Water Code Section 10631.
Wholesale Water Supplier Name[(a)]
NOTES: (a) The City does not rely on a wholesale supplier. Table is left intentionally blank.

Submittal Table 3-1 Retail: Population - Current and Projected						
Population Served	2020[a]	2025[b]	2030[c]	2035[c]	2040[a]	2045[d] *(opt)*
	9,037	15,949	16,396	16,843	17,290	17,737

NOTES:
(a) The City's 2020 service area population was taken from the City's 2020 Electronic Annual Report (EAR) to the State Water Board and the 2040 projection was taken from the City's 2040 GP.
(b) The City's total population projections for 2025 was linearly interpolated and the Cal Water 2025 service area population was then subtracted from the City's total 2025 population projections to obtain the City's 2025 service area populations. The 2025 population includes the addition of the population of the Southwest development area projected to be built out by 2025.
(c) The City's service area population for 2030 and 2035 were linearly interpolated between the City's service area population for 2025 and 2040.
(d) The 2045 projected population was extrapolated based on the growth between 2025 and 2040.

Submittal Table 4-1 Retail: Demands for Potable and Non-Potable[1] Water - Actual			
Use Type	2020 Actual		
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	Level of Treatment When Delivered Drop down list	Volume[(a,2)]
Add additional rows as needed			
Single Family		Drinking Water	335
Multi-Family		Drinking Water	37
Commercial	See Note (b)	Drinking Water	60
Industrial		Drinking Water	54
Institutional/Governmental		Drinking Water	2
Landscape		Drinking Water	119
Other	See Note (c)	Drinking Water	3
Losses		Drinking Water	92
		TOTAL	702

[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.*

[2] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:
(a) Volumes are in MG.
(b) Church water use is classified as "Commercial" for this UWMP to remain consistent with the City's customer classification system.
(c) "Other" includes treated water delivered to the WWTF for treatment process, landscaping, and domestic use.

Submittal Table 4-2 Retail: Use for Potable and Non-Potable[1] Water - Projected						
Use Type	Additional Description (as needed)	Projected Water Use[(a,2)] *Report To the Extent that Records are Available*				
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool		2025	2030	2035	2040	2045 (opt)
Add additional rows as needed						
Single Family		649	637	625	613	883
Multi-Family		120	221	322	423	423
Industrial		95	148	202	255	255
Commercial	See Note (b)	233	268	302	337	383
Institutional/Governmental		5	9	13	17	17
Landscape		232	172	113	53	53
Other	See Note (c) and (d)	5	6	8	9	11
Losses		120	159	198	238	282
	TOTAL	1,458	1,620	1,782	1,945	2,307

[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.*

[2] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:
(a) Volumes are in MG.
(b) Church water use is classified as "Commercial" for this UWMP to remain consistent with the City's customer classification system.
(c) "Other" includes treated water delivered to the WWTF for treatment process, landscaping, and domestic use.
(d) WWTF demands were projected to increase in proportion with the projected demand increases.

Submittal Table 4-3 Retail: Total Water Use (Potable and Non-Potable)						
	2020	2025	2030	2035	2040	2045 (opt)
Potable Water, Raw, Other Non-potable[(a)] *From Tables 4-1 and 4-2*	702	1,458	1,620	1,782	1,945	2,307
Recycled Water Demand[(b,1)] *From Table 6-4*	0	0	0	0	0	0
Optional Deduction of Recycled Water Put Into Long-Term Storage[2]						
TOTAL WATER USE	702	1,458	1,620	1,782	1,945	2,307

[1] Recycled water demand fields will be blank until Table 6-4 is complete

*[2] Long term storage means water placed into groundwater or surface storage that is not removed from storage in the same year. Supplier **may** deduct recycled water placed in long-term storage from their reported demand. This value is manually entered into Table 4-3.*

NOTES:
(a) Volumes are in MG.
(b) The City does not produce or deliver recycled water.

Submittal Table 4-4 Retail: Last Five Years of Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss [(a,b,1,2)]
01/2019	28
01/2020	92
01/2021	88

[1] Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.

*[2] **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:
(a) Volumes are in MG.
(b) The volumes of water loss provided have not been audited or validated because the City was not classified as an urban water supplier until 2021.

Submittal Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) *Drop down list (y/n)*	No
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found.	N/A
Are Lower Income Residential Demands Included In Projections? *Drop down list (y/n)*	Yes

Submittal Table 5-1 Baselines and Targets Summary From SB X7-7 Verification Form
Retail Supplier or Regional Alliance Only

Baseline Period[a,b]	Start Year *	End Year *	Average Baseline GPCD*	Confirmed 2020 Target*
10-15 year				
5 Year				

**All cells in this table should be populated manually from the supplier's SBX7-7 Verification Form and reported in Gallons per Capita per Day (GPCD)*

NOTES:
(a) The City is not subject to SB X7-7 requirements since the City officially became an urban water supplier in 2021.
(b) This table is left intentionally blank.

Submittal Table 5-2: 2020 Compliance From SB X7-7 2020 Compliance Form *Retail Supplier or Regional Alliance Only*				
2020 GPCD			2020 Confirmed Target GPCD*	Did Supplier Achieve Targeted Reduction for 2020? Y/N
Actual 2020 GPCD*	2020 TOTAL Adjustments*	Adjusted 2020 GPCD* *(Adjusted if applicable)*		
**All cells in this table should be populated manually from the supplier's SBX7-7 2020 Compliance Form and reported in Gallons per Capita per Day (GPCD)*				
NOTES: (a) The City is not subject to SB X7-7 requirements since the City officially became an urban water supplier in 2021. (b) This table is left intentionally blank.				

Submittal Table 6-1 Retail: Groundwater Volume Pumped [(a)]						
☐	Supplier does not pump groundwater. The supplier will not complete the table below.					
☐	All or part of the groundwater described below is desalinated.					
Groundwater Type ***Drop Down List*** *May use each category multiple times*	Location or Basin Name	2016*	2017*	2018*	2019*	2020*
Add additional rows as needed						
Alluvial Basin	Solano Basin[(a)]	564	601	640	642	702
	TOTAL	564	601	640	642	702
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES: (a) Volumes are in MG.						

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area in 2020	
☑	There is no wastewater collection system. The supplier will not complete the table below.
100	Percentage of 2020 service area covered by wastewater collection system *(optional)*
100	Percentage of 2020 service area population covered by wastewater collection system *(optional)*

Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? *Drop Down List*	Volume of Wastewater Collected from UWMP Service Area 2020[a,b] *	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTF Located Within UWMP Area? *Drop Down List*	Is WWTF Operation Contracted to a Third Party? *(optional)* *Drop Down List*
City of Dixon	Estimated	135	City of Dixon	Wastewater Treatment Facility	No	No
Total Wastewater Collected from Service Area in 2020:		135				

**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3* **.**

NOTES:
(a) Volumes are in MG.
(b) The City's wastewater service area is larger than its water service area, as it includes the Cal Water water service area. The City collected 410 MG in 2020. According to Cal Water's 2020 UWMP, 67 percent of wastewater influent into the WWTF is from its service area. The remaining 33 percent of wastewater influent is assumed to come from the City's water service area.

Submittal Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2020

☐ **No wastewater is treated or disposed of within the UWMP service area.** The supplier will not complete the table below.

Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number *(optional)* [2]	Method of Disposal *Drop down list*	Does This Plant Treat Wastewater Generated Outside the Service Area? *Drop down list*	Treatment Level *Drop down list*	2020 volumes [1, a]				
							Wastewater Treated[(c)]	Discharged Treated Wastewater[(c)]	Recycled Within Service Area	Recycled Outside of Service Area	Instream Flow Permit Requirement
Dixon WWTF[(b)]	Land Percolation and Evaporation	Percolation Ponds	R5-2014-0098	Percolation ponds	Yes	Secondary, Undisinfected	410	399	0	0	-
						Total	410	399	0	0	0

[1] **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.

[2] If the **Wastewater Discharge ID Number** is not available to the UWMP preparer, access the SWRCB CIWQS regulated facility website at https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/CiwqsReportServlet?inCommand=reset&reportName=RegulatedFacility

NOTES:

(a) Volumes are in MG.

(b) The City's wastewater service area is larger than its water service area, as it includes the Cal Water water service area. The Dixon WWTF is located to the south of the City and is outside both the City water service area and Cal Water water service area.

(c) The difference between the wastewater treated and the discharged treated wastewater is approximately 11 MG is effluent waste activated sludge and was sent back to the sludge stabilization basins for further treatment under aerobic digestion.

Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area

☑	Recycled water is not used and is not planned for use within the service area of the supplier[(a)]. The supplier will not complete the table below.

Name of Supplier Producing (Treating) the Recycled Water:	
Name of Supplier Operating the Recycled Water Distribution System:	
Supplemental Water Added in 2020 (volume) *Include units*	
Source of 2020 Supplemental Water	

Beneficial Use Type *Insert additional rows if needed.*	**Potential** Beneficial Uses of Recycled Water (Describe)	Amount of **Potential** Uses of Recycled Water (Quantity) *Include volume units* [1]	General Description of 2020 Uses	Level of Treatment *Drop down list*	2020 [1]	2025 [1]	2030[1]	2035[1]	2040[1]	2045[1] (opt)
Agricultural irrigation										
Landscape irrigation (exc golf courses)										
Golf course irrigation										
Commercial use										
Industrial use										
Geothermal and other energy production										
Seawater intrusion barrier										
Recreational impoundment										
Wetlands or wildlife habitat										
Groundwater recharge (IPR)										
Reservoir water augmentation (IPR)										
Direct potable reuse										
Other (Description Required)										
				Total:	0	0	0	0	0	0
				2020 Internal Reuse						

[1] ***Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:
(a) The City does not currently or plan to use recycled water for beneficial use. This table left intentionally blank.

Submittal Table 6-5 Retail: 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual		
☑	Recycled water was not used in 2015 nor projected for use in 2020[(a)]. The supplier will not complete the table below. If recycled water was not used in 2020, and was not predicted to be in 2015, then check the box and do not complete the table.	
Beneficial Use Type	**2015 Projection for 2020 [1]**	**2020 Actual Use[1]**
Insert additional rows as needed.		
Agricultural irrigation		
Landscape irrigation (exc golf courses)		
Golf course irrigation		
Commercial use		
Industrial use		
Geothermal and other energy production		
Seawater intrusion barrier		
Recreational impoundment		
Wetlands or wildlife habitat		
Groundwater recharge (IPR)		
Reservoir water augmentation (IPR)		
Direct potable reuse		
Other (Description Required)		
Total	0	0
[1] **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.		
NOTES: (a) The City does not currently or plan to use recycled water for beneficial use. This table left intentionally blank.		

Submittal Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
☑	Supplier does not plan to expand recycled water use in the future[(a)]. Supplier will not complete the table below but will provide narrative explanation.		
6-9	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use *
		Total	0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES: (a) The City does not currently or plan to use recycled water for beneficial use. This table left intentionally blank.			

Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
☐	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
☐	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
6-12	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other suppliers?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type *Drop Down List*	Expected Increase in Water Supply to Supplier[(a)]* *This may be a range*
	Drop Down List (y/n)	*If Yes, Supplier Name*				
Add additional rows as needed						
Near-Term New Wells[(b)]	No		Construct 3 additional wells	By 2040	All Year Types	2,365
Buildout Improvements to Existing Wells[(b)]	No		Improvements to existing School Well	By 2050	All Year Types	210
Buildout New Wells[(b)]	No		Construct 2 additional wells	By 2050	All Year Types	1,577
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*						

NOTES:
(a) Volumes are in MG.
(b) Water supply projects are recommended groundwater projects per the City's 2021 WSMP Update (see Table 10) to meet projected water demands and replace lost supply capacity from the Industrial Well. The Industrial Well is now on standby due to excessive sanding issues and other water quality concerns. The recommended projects may be implemented by the City as the need arises and as funding is available.

Submittal Table 6-8 Retail: Water Supplies — Actual				
Water Supply	Additional Detail on Water Supply	2020		
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool		Actual Volume[(a)]*	Water Quality Drop Down List	Total Right or Safe Yield[(b)]* (optional)
Add additional rows as needed				
Groundwater (not desalinated)	City owned and operated wells	702	Drinking Water	
	Total	702		0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*				

NOTES:
(a) Volumes are in MG.
(b) The total right or safe yield is intentionally left blank. The Solano Subbasin is not adjudicated and the City does not have a contract that limits its groundwater use. The City uses as much groundwater as is necessary to meet demands.

Submittal Table 6-9 Retail: Water Supplies — Projected

Water Supply	Additional Detail on Water Supply	Projected Water Supply[a, b] * Report To the Extent Practicable									
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool		**2025**		**2030**		**2035**		**2040**		**2045** (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
Add additional rows as needed											
Groundwater (not desalinated)	City owned and operated wells	1,458		1,620		1,782		1,945		2,307	
	Total	1,458	0	1,620	0	1,782	0	1,945	0	2,307	0

***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:
(a) Volumes are in MG.
(b) The Solano Subbasin is not adjudicated and is not in overdraft or expected to be in overdraft. The City does not have a contract that limits its groundwater use and uses as much groundwater as is necessary to meet demands. The volumes shown are equal to the projected demands and are not intended to represent the City's maximum pumping volume.

Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)			
Year Type	**Base Year** If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2019-2020, use 2020	**Available Supplies if Year Type Repeats**	
		☐	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____
		☑	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available[a, b] *	**% of Average Supply**
Average Year	2006	742	100%
Single-Dry Year	2013	519	100%
Consecutive Dry Years 1st Year	2011	694	100%
Consecutive Dry Years 2nd Year	2012	730	100%
Consecutive Dry Years 3rd Year	2013	777	100%
Consecutive Dry Years 4th Year	2014	578	100%
Consecutive Dry Years 5th Year	2015	519	100%
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*			

NOTES:
(a) Volumes are in MG.
(b) The volumes shown is the actual water volume supplied during the respective year and not the water supply available during each base year. The City uses as much groundwater as is necessary to meet demands and therefore, the volumes shown indicate that the groundwater supply is sufficient to meet demands as needed.

Submittal Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045 *(Opt)*
Supply totals[a, b] *(autofill from Table 6-9)*	1,458	1,620	1,782	1,945	2,307
Demand totals[a, b] *(autofill from Table 4-3)*	1,458	1,620	1,782	1,945	2,307
Difference	0	0	0	0	0

NOTES:
(a) Volumes are in MG.
(b) The Solano Subbasin is not adjudicated and is not in overdraft or expected to be in overdraft. The City uses as much groundwater as is necessary to meet demands and therefore, the volumes shown are equal to the projected demands. This indicates that the groundwater supply is sufficient to meet demands as needed.

Submittal Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045 (Opt)
Supply totals[(a, b)]*	1,458	1,620	1,782	1,945	2,307
Demand totals[(a, b)]*	1,458	1,620	1,782	1,945	2,307
Difference	0	0	0	0	0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*					

NOTES:
(a) Volumes are in MG.
(b) The Solano Subbasin is not adjudicated and is not in overdraft or expected to be in overdraft. The City uses as much groundwater as is necessary to meet demands and therefore, the volumes shown are equal to the projected demands. This indicates that the groundwater supply is sufficient to meet demands as needed.

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2025*	2030*	2035*	2040*	2045* (Opt)
First year	Supply totals[a, b]	1,458	1,620	1,782	1,945	2,307
	Demand totals[a, b]	1,458	1,620	1,782	1,945	2,307
	Difference	0	0	0	0	0
Second year	Supply totals[a, b]	1,490	1,653	1,815	2,017	2,369
	Demand totals[a, b]	1,490	1,653	1,815	2,017	2,369
	Difference	0	0	0	0	0
Third year	Supply totals[a, b]	1,523	1,685	1,847	2,090	2,441
	Demand totals[a, b]	1,523	1,685	1,847	2,090	2,441
	Difference	0	0	0	0	0
Fourth year	Supply totals[a, b]	1,555	1,717	1,880	2,162	2,513
	Demand totals[a, b]	1,555	1,717	1,880	2,162	2,513
	Difference	0	0	0	0	0
Fifth year	Supply totals[a, b]	1,588	1,750	1,912	2,235	2,586
	Demand totals[a, b]	1,588	1,750	1,912	2,235	2,586
	Difference	0	0	0	0	0

***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:
(a) Volumes are in MG.
(b) The Solano Subbasin is not adjudicated and is not in overdraft or expected to be in overdraft. The City uses as much groundwater as is necessary to meet demands and therefore, the volumes shown are equal to the projected demands. This indicates that the groundwater supply is sufficient to meet demands as needed.

Submittal Table 7-5: Five-Year Drought Risk Assessment Tables to address Water Code Section 10635(b)	
2021	**Total[a, b]**
Total Water Use	704
Total Supplies	704
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0%
2022	**Total[a]**
Total Water Use	769
Total Supplies	769
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0%
2023	**Total[a]**
Total Water Use	835
Total Supplies	835
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0%
2024	**Total[a]**
Total Water Use	900
Total Supplies	900
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0%
2025	**Total[a]**
Total Water Use	1,458
Total Supplies	1,458
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0%
NOTES: (a) Volumes are in MG. (b) The total water use of 704 MG for 2021 is the actual water use. Total water use for 2022 through 2025 is projected.	

Submittal Table 8-1 Water Shortage Contingency Plan Levels		
Shortage Level	**Percent Shortage Range**	**Shortage Response Actions** **(*Narrative description)***
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 Level 1 and 2 shall still be implemented.		

Table 4. Water Shortage Contingency Plan Demand Reduction Actions

(DWR) Table 8-2

Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** *Drop Down List*
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	Water Bill Inserts	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%	City to maintain water repairs as a high priority	No
1	Decrease Line Flushing	Depends on extent and frequency of current flushing activities	Flushing to be performed as needed to maintain public health and safety	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.	Yes
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.	Yes
2	CII - Restaurants may only serve water upon request	50 gallons/day/commercial connection		Yes
2	CII - Lodging establishment must offer opt out of linen service	250-500 gallons/day/hotel		Yes
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.	Yes
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).	Yes
2	Other	10%	Customers shall reduce water use by 10%	Yes
3	Other	Boosts the effectiveness of other methods - not readily quantifiable	Increase water compliance actions	No
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.		Yes
4	Other - Prohibit use of potable water for construction and dust control	3,000 gallons/acre/day for construction areas		Yes
4	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	100-200 gallons/year/residential connection		Yes
4	Other	20%	Customers shall reduce water use by 20%	Yes
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	Yes
5	Pools and Spas - Require covers for pools and spas	Evapotranspiration of approximate surface area of pools		Yes
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		Yes
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	Yes
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 1and 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.

Submittal Table 8-3: Supply Augmentation and Other Actions			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*
6	Transfers	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.
6	Other Actions (describe)	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.			

Submittal Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
City of Dixon	Yes	Yes
County Name *Drop Down List*	60 Day Notice	Notice of Public Hearing
Solano County	Yes	Yes
NOTES:		

Table O-1B: Recommended Energy Reporting - Total Utility Approach				
Enter Start Date for Reporting Period	1/1/2020	**Urban Water Supplier Operational Control**		
End Date	12/30/2020			
Is upstream embedded in the values reported?	☐	**Sum of All Water Management Processes**	**Non-Consequential Hydropower**	
Water Volume Units Used	*MG*	Total Utility	Hydropower	Net Utility
Volume of Water Entering Process (volume unit)		*702*	*0*	*702*
Energy Consumed (kWh)		*1,390,960*	*0*	*1390960*
Energy Intensity (kWh/volume)		*1,981.4*	*0.0*	*1,981.4*

Quantity of Self-Generated Renewable Energy

0 kWh

Data Quality *(Estimate, Metered Data, Combination of Estimates and Metered Data)*

Metered Data

Data Quality Narrative:

Monthly electrical energy data was provided for groundwater wells and storage tank pump stations.

Narrative:

The City's water service area is supplied by groundwater from City-owned wells. Refer to Section 6.2 for an in-depth explanation of the City's groundwater supply. The energy data provided summarized the monthly energy consumption for operating the groundwater wells and storage tanks.

Urban Water Supplier: *City of Dixon*

Table O-2: Recommended Energy Reporting - Wastewater & Recycled Water					
Enter Start Date for Reporting Period	1/1/2020	**Urban Water Supplier Operational Control**			
End Date	12/30/2020	**Water Management Process**			
Is upstream embedded in the values reported?	☑	Collection / Conveyance	Treatment	Discharge / Distribution	Total
Volume of Water Units Used	MG				
Volume of Wastewater Entering Process (volume units selected above)		*410*	*410*	*399*	*410*
Wastewater Energy Consumed (kWh)		*13,048*	*1,076,312*	*0*	*1089360*
Wastewater Energy Intensity (kWh/volume)		*31.8*	*2,625.2*	*0.0*	*2,657.0*
Volume of Recycled Water Entering Process (volume units selected above)		*0*	*0*	*0*	*0*
Recycled Water Energy Consumed (kWh)		*0*	*0*	*0*	*0*
Recycled Water Energy Intensity (kWh/volume)		*0.0*	*0.0*	*0.0*	*0.0*

Quantity of Self-Generated Renewable Energy related to recycled water and wastewater operations

N/A kWh

Data Quality *(Estimate, Metered Data, Combination of Estimates and Metered Data)*

Metered Data

Data Quality Narrative:

City of Dixon provided the energy consumed for the collection/conveyance process and the wastewater treatment process at the City's wastewater treatment facility (WWTF) for the 2020 calendar year. The total energy consumed for the collection/conveyance process is for the City's one lift station, Lincoln Street lift station. The energy data is missing data for February 2020 and May 2020. The energy for these months was estimated based on historical energy data.

Narrative:

The City is responsible for the collection, treatment, and disposal of wastewater for the City, including its water service area and Cal Water's service area. The WWTF uses an activated sludge process and the treated wastewater discharged from the facility is used to recharge the local aquifer through percolation ponds located at the WWTF. The difference between the wastewater treated and the discharged treated wastewater of approximately 11 MG is effluent waste activated sludge, which is sent back to the sludge stabilization basins for further treatment under aerobic digestion. The City does not produce or distribute recycled water.

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Appendix C

DWR 2020 Urban Water Management Plan Checklist

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Appendix C
UWMP Checklist

Retail	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (For Agency Review Use)
X	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and Overview	Executive Summary
X	Chapter 1	10630.5	Each plan shall include a simple description of the supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a supplier may also choose to include a simple description at the beginning of each chapter.	Summary	Executive Summary
X	Section 2.2	10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 2.1
X	Section 2.6	10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 2.5 Appendix D
X	Section 2.6.2	10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan Preparation	Section 2.5.2 Appendix D
X	Section 2.6, Section 6.1	10631(h)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) - if any - with water use projections from that source.	System Supplies	Section 2.5.1
	Section 2.6	10631(h)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	N/A; City is not a Wholesale Supplier
X	Section 3.1	10631(a)	Describe the water supplier service area.	System Description	Section 3.2
X	Section 3.3	10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.4
X	Section 3.4	10631(a)	Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045.	System Description	Section 3.5.1
X	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	System Description	Section 3.5.2
X	Sections 3.4 and 5.4	10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Section 3.5.1
X	Section 3.5	10631(a)	Describe the land uses within the service area.	System Description	Section 3.6
X	Section 4.2	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.2
X	Section 4.2.4	10631(d)(3)(C)	Retail suppliers shall provide data to show the distribution loss standards were met.	System Water Use	Section 4.3
X	Section 4.2.6	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	System Water Use	Section 4.4

Retail	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (For Agency Review Use)
X	Section 4.2.6	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System Water Use	Section 4.2.3
X	Section 4.3.2.4	10631(d)(3)(A)	Report the distribution system water loss for each of the 5 years preceding the plan update. Note: The City did not have 5 years of data available.	System Water Use	Section 4.3
X	Section 4.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 4.5
X	Section 4.5	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	Section 4.2.3.2 Section 4.6
X					
X	Chapter 5	10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Sections 5.5 and 5.6
X	Chapter 5	10608.24(a)	Retail suppliers shall meet their water use target by December 31, 2020.	Baselines and Targets	Section 5.6
	Section 5.1	10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	N/A; City is not a Wholesale Supplier
X	Section 5.2	10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Section 5.6
X	Section 5.5	10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5-year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 5.6
X	Section 5.5 and Appendix E	10608.4	Retail suppliers shall report on their compliance in meeting their water use targets. The data shall be reported using a standardized form in the SBX7-7 2020 Compliance Form.	Baselines and Targets	Section 5.6
X	Sections 6.1 and6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought.	System Supplies	Section 6.1 and Section 7.1.3
X	Sections 6.1	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, *including changes in supply due to climate change.*	System Supplies	Sections 6.1, 6.2.10.1, 7.1.3
X	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System Supplies	Section 6.2
X	Section 6.1.1	10631(b)(3)	Describe measures taken to acquire and develop planned sources of water.	System Supplies	Sections 6.2.2, 6.2.8, 6.2.9

Retail	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (For Agency Review Use)
X	Section 6.2.8	10631(b)	Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030, 2035, 2040 and optionally 2045.	System Supplies	Section 6.2.9
X	Section 6.2	10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.2.2
X	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 6.2.2.1
X	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	Section 6.2.2
X	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 6.2.2.1
X	Section 6.2.2.1	10631(b)(4)(B)	For unadjudicated basins, indicate whether or not the department has identified the basin as a high or medium priority. Describe efforts by the supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	System Supplies	Section 6.2.2.1
X	Section 6.2.2.4	10631(b)(4)(C)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	Section 6.2.2.2
X	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Section 6.2.2.3
X	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long- term basis.	System Supplies	Section 6.2.7
X	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 6.2.5.2
X	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Sections 6.2.5.1 and 6.2.5.3
X	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 6.2.5.4
X	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	Section 6.2.5.4
X	Section 6.2.5	10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Section 6.2.5.4
X	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 6.2.5.4

Retail	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (For Agency Review Use)
X	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.2.6
X	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area with quantified amount of collection and treatment and the disposal methods.	System Supplies (Recycled Water)	Section 6.2.5.2
X	Section 6.2.8, Section 6.3.7	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and for a period of drought lasting 5 consecutive water years.	System Supplies	Section 6.2.8
X	Section 6.4 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a supplier can readily obtain.	System Suppliers, Energy Intensity	Section 6.3
X	Section 7.2	10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 7.1.1
X	Section 7.2.4	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 7.2
X	Section 7.3	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next20 years.	Water Supply Reliability Assessment	Section 7.1
X	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water Supply Reliability Assessment	Section 7.3
X	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts 5 consecutive years.	Water Supply Reliability Assessment	Section 7.3.1
X	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water Supply Reliability Assessment	Sections 7.1.3 and 7.3.2
X	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.	Water Supply Reliability Assessment	Section 7.3.3
X	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water Supply Reliability Assessment	Section 7.3.3
X	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	Sections 8.2 and Appendix F

Retail	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (For Agency Review Use)
X	Chapter 8	10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP	Water Shortage Contingency Planning	Appendix F: Section 1.0
X	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	Appendix F: Section 2.0 and Section 10
X	Section 8.2	10632(a)(2)(A)	Provide the written decision- making process and other methods that the supplier will use each year to determine its water reliability.	Water Shortage Contingency Planning	Appendix F: Section 2.1
X	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water Shortage Contingency Planning	Appendix F: Sections 2.2 and 2.3
X	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water Shortage Contingency Planning	Appendix F: Section 3.0
X	Section 8.3	10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	Water Shortage Contingency Planning	Appendix F: Section 3.0
X	Section 8.4	10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	Appendix F: Section 4.3
X	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	Appendix F: Section 4.1
X	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	Appendix F: Section 4.4
X	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions are appropriate to local conditions.	Water Shortage Contingency Planning	Appendix F: Section 4.2
X	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water Shortage Contingency Planning	Appendix F: Section 4.1
X	Section 8.4.6	10632.5	The plan shall include a seismic risk assessment and mitigation plan.	Water Shortage Contingency Plan	Section 8.3
X	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water Shortage Contingency Planning	Appendix F: Section 5.0

Retail	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (For Agency Review Use)
X	Section 8.5 and 8.6	10632(a)(5)(B) 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water Shortage Contingency Planning	Appendix F: Section 5.0
X	Section 8.6	10632(a)(6)	Retail supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water Shortage Contingency Planning	Appendix F: Section 6.0
X	Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Water Shortage Contingency Planning	Appendix F: Section 7.0
X	Section 8.7	10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency Water Code Chapter 3.	Water Shortage Contingency Planning	Appendix H: Section 7.0
X	Section 8.7	10632(a)(7)(C)	Provide a statement that the supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water Shortage Contingency Planning	Appendix F: Section 4.5 and 7.0
X	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	Appendix F: Section 8.0
X	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	Appendix F: Section 8.0
X	Section 8.8	10632(a)(8)(C)	Retail suppliers must describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought	Water Shortage Contingency Planning	Appendix F: Section 8.0
X	Section 8.9	10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	Appendix F: Sections 9.0 and 10.1
X	Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water Shortage Contingency Planning	Appendix F: Section 11.0
X	Sections 8.12 and 10.4	10635(c)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 30 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	Appendix F: Section 12.0
X	Section 8.14	10632(c)	Make available the Water Shortage Contingency Plan to customers and any city or county where it provides water within 30 (days) after adopted the plan.	Water Shortage Contingency Planning	Appendix F: Section 12.0
	Sections 9.1 and9.3	10631(e)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	N/A; City is not a Wholesale supplier
X	Sections 9.2 and 9.3	10631(e)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past	Demand Management Measures	Section 9.1

Retail	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (For Agency Review Use)
			five years. The description will address specific measures listed in code.		
X	Chapter 10	10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan Adoption, Submittal, and Implementation	Section 10.3
X	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Reported in Table 10-1.	Plan Adoption, Submittal, and Implementation	Section 10.2 and Appendix D
X	Section 10.4	10621(f)	Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021. Note: The City was not required to submit an UWMP by the July 1, 2021 deadline, because it was not an urban water supplier in 2020.	Plan Adoption, Submittal, and Implementation	Section 10.4
X	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the urban water supplier made the plan and contingency plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan and contingency plan.	Plan Adoption, Submittal, and Implementation	Section 10.3 and Appendix D
X	Section 10.2.2	10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Section 10.3
X	Section 10.3.2	10642	Provide supporting documentation that the plan and contingency plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.3.2 and Appendix H
X	Section 10.4	10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 10.4
X	Section 10.4	10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 10.4
X	Sections 10.4.1 and 10.4.2	10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Section 10.4
X	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.5
X	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its water shortage contingency plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.5

Retail	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (For Agency Review Use)
X	Section 10.6	10621(c)	If supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan Adoption, Submittal, and Implementation	N/A
X	Section 10.7.2	10644(b)	If revised, submit a copy of the water shortage contingency plan to DWR within 30 days of adoption.	Plan Adoption, Submittal, and Implementation	Section 10.6

Appendix D

Agency and Public Notices

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Rhodora Biagtan

From: Josh Hudson <JHudson@cityofdixon.us>
Sent: Friday, November 19, 2021 10:56 AM
To: All Staff Security
Cc: Deborah Barr; Rhodora Biagtan; Megan McWilliams
Subject: Urban Water Management Plan Notice
Attachments: UWMP Preperation Notice.docx

Good Morning City Staff,

The City of Dixon is in the process of preparing an Urban Water Management Plan (UWMP) for our Public Water System CA4810009. Preparation of the UWMP requires the City to coordinate with water management agencies, relevant public agencies, and other water suppliers in the area. This includes internal departments that may have input, thoughts, or concerns as we develop this plan. Please see the attached notice and reach out if you would like to participate in the preparation process.

Thank you, have a great day ahead,
Josh

CITY OF DIXON CALIFORNIA

FIXINDIXON

Josh Hudson

Operations Supervisor - Water Distribution Division

Phone: 530-682-3265
E-Mail: jhudson@cityofdixon.us

November 19, 2021

City of Dixon Public Water System CA4810009

SUBJECT: Preparation of 2020 Urban Water Management Plan and Water Shortage Contingency Plan

Dear City of Dixon Staff,

The City of Dixon is currently in the process of preparing its Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan (WSCP). The Urban Water Management Planning Act (Act), Water Code Section 10610 et seq., requires every urban water supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to prepare and adopt an UWMP and periodically update that plan at least every five years. The Act also requires the City to prepare a (WSCP). The City's 2020 UWMP is required to be submitted to the California Department of Water Resources by April 2022.

The UWMP is a planning document and a source document which reports, describes and evaluates water deliveries and uses, water supply sources and conservation efforts. The WSCP provides a plan for response to various water supply shortage conditions. As an urban water supplier, the City coordinates with water management agencies, relevant public agencies and other water suppliers on the preparation of the UWMP and WSCP updates.

If you wish to contact the City about its preparation process, you may do so by writing to the undersigned or by email to jhudson@cityofdixon.us.

Sincerely,

City of Dixon

Josh Hudson
Operations Supervisor – Water Distribution Division

cc: Deborah Barr P.E. – City Engineer/Utilities Director

November 19, 2021

Benjamin Voight
Operations Manager
California Water Service, Dixon District
201 South First Street
Dixon CA, 95620

SUBJECT: Preparation of 2020 Urban Water Management Plan and Water Shortage Contingency Plan

Dear Benjamin,

The City of Dixon is currently in the process of preparing its Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan (WSCP). The Urban Water Management Planning Act (Act), Water Code Section 10610 et seq., requires every urban water supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to prepare and adopt an UWMP and periodically update that plan at least every five years. The Act also requires the City to prepare a (WSCP). The City's 2020 UWMP is required to be submitted to the California Department of Water Resources by April 2022.

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If you wish to contact the City about its preparation process, you may do so by writing to the undersigned or by email to jhudson@cityofdixon.us.

Sincerely,

City of Dixon

Josh Hudson
Operations Supervisor – Water Distribution Division

cc: Deborah Barr P.E. – City Engineer/Utilities Director

November 19, 2021

Chris Lee
Assistant General Manager
Solano County Water Agency
810 Vaca Valley Parkway, Suite 203
Vacaville, CA 95688

SUBJECT: Preparation of 2020 Urban Water Management Plan and Water Shortage Contingency Plan

Dear Chris,

The City of Dixon is currently in the process of preparing its Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan (WSCP). The Urban Water Management Planning Act (Act), Water Code Section 10610 et seq., requires every urban water supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to prepare and adopt an UWMP and periodically update that plan at least every five years. The Act also requires the City to prepare a (WSCP). The City's 2020 UWMP is required to be submitted to the California Department of Water Resources by April 2022.

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Sincerely,

City of Dixon

Josh Hudson
Operations Supervisor – Water Distribution Division

cc: Deborah Barr P.E. – City Engineer/Utilities Director

November 19, 2021

Solano Groundwater Sustainability Agency
810 Vaca Valley Parkway, Suite 203
Vacaville, CA 95688

SUBJECT: Preparation of 2020 Urban Water Management Plan and Water Shortage Contingency Plan

Dear Solano Groundwater Sustainability Agency,

The City of Dixon is currently in the process of preparing its Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan (WSCP). The Urban Water Management Planning Act (Act), Water Code Section 10610 et seq., requires every urban water supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to prepare and adopt an UWMP and periodically update that plan at least every five years. The Act also requires the City to prepare a (WSCP). The City's 2020 UWMP is required to be submitted to the California Department of Water Resources by April 2022.

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If you wish to contact the City about its preparation process, you may do so by writing to the undersigned or by email to jhudson@cityofdixon.us.

Sincerely,

City of Dixon

Josh Hudson
Operations Supervisor – Water Distribution Division

cc: Deborah Barr P.E. – City Engineer/Utilities Director

November 19, 2021

Cary Keaten
General Manager
Solano Irrigation District
810 Vaca Valley Parkway, Suite 201
Vacaville, CA 95688

SUBJECT: Preparation of 2020 Urban Water Management Plan and Water Shortage Contingency Plan

Dear Cary,

The City of Dixon is currently in the process of preparing its Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan (WSCP). The Urban Water Management Planning Act (Act), Water Code Section 10610 et seq., requires every urban water supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to prepare and adopt an UWMP and periodically update that plan at least every five years. The Act also requires the City to prepare a (WSCP). The City's 2020 UWMP is required to be submitted to the California Department of Water Resources by April 2022.

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Sincerely,

City of Dixon

Josh Hudson
Operations Supervisor – Water Distribution Division

cc: Deborah Barr P.E. – City Engineer/Utilities Director

November 19, 2021

Birgitta E. Corsello
County Administrator
Solano County
675 Texas St. Suite 6500
Fairfield, CA 94533

SUBJECT: Preparation of 2020 Urban Water Management Plan and Water Shortage Contingency Plan

Dear Birgitta,

The City of Dixon is currently in the process of preparing its Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan (WSCP). The Urban Water Management Planning Act (Act), Water Code Section 10610 et seq., requires every urban water supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to prepare and adopt an UWMP and periodically update that plan at least every five years. The Act also requires the City to prepare a (WSCP). The City's 2020 UWMP is required to be submitted to the California Department of Water Resources by April 2022.

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If you wish to contact the City about its preparation process, you may do so by writing to the undersigned or by email to jhudson@cityofdixon.us.

Sincerely,

City of Dixon

Josh Hudson
Operations Supervisor – Water Distribution Division

cc: Deborah Barr P.E. – City Engineer/Utilities Director

November 19, 2021

City of Dixon Public Water System CA4810009

SUBJECT: Preparation of 2020 Urban Water Management Plan and Water Shortage Contingency Plan

Dear City of Dixon Water Customers,

The City of Dixon is currently in the process of preparing its Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan (WSCP). The Urban Water Management Planning Act (Act), Water Code Section 10610 et seq., requires every urban water supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to prepare and adopt an UWMP and periodically update that plan at least every five years. The Act also requires the City to prepare a (WSCP). The City's 2020 UWMP is required to be submitted to the California Department of Water Resources by April 2022.

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Sincerely,

City of Dixon

Josh Hudson
Operations Supervisor – Water Distribution Division

cc: Deborah Barr P.E. – City Engineer/Utilities Director

PROOF OF PUBLICATION
STATE OF CALIFORNIA
County of Solano

I am a citizen of the United States and a resident of the County afore-said, I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the Dixon Independent Voice, newspaper of general circulation printed and published in the County of Solano, State of California, under date of November 24, 2008, by Superior Court Order Number FCS030046, that the notice, of which the annexed is printed copy (set in type not smaller than nonpareil) has been published in each regular and entire issues of said newspapers and not in any supplement therefore on the following dates, to wit:

April 1, and 8, 2022

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Natalie Miller

Natalie Miller

DATED: April 8, 2022

DIXON INDEPENDENT VOICE
7144 FAIR OAKS BLVD., SUITE 5
CARMICHAEL, CA 95608

PROOF OF PUBLICATION OF:

NOTICE OF PUBLIC HEARING

By: THE CITY OF DIXON

NOTICE OF AVAILABILITY & NOTICE OF PUBLIC HEARING
2022 Urban Water Management Plan and Water Shortage Contingency Plan

April 1, 2022

In April 2021, the City of Dixon (City) surpassed the 3,000-customer connection threshold for classification as an urban water supplier and is therefore required to prepare and adopt an Urban Water Management Plan (UWMP) in accordance with the Urban Water Management Planning Act (California Water Code Section 10610 et seq.). The UWMP is a planning document, which reports, describes, and evaluates water deliveries and uses, water supply sources, and conservation efforts. The UWMP also includes the City's Water Shortage Contingency Plan (WSCP). The WSCP includes a discussion of the City's management and planned actions to respond to actual water shortage conditions.

Materials: The City's Draft 2022 UWMP and WSCP are now available for public review and comment. A copy of the draft plans and update are available for review on the City's website at **www.cityofdixon.us.**

Public Hearing: City Council will hold a Public Hearing at their regularly scheduled meeting on April 19, 2022, at 7:00 p.m. to take public comment on the Draft 2022 UWMP and WSCP. The City Council is anticipated to consider adoption of the City's 2022 UWMP and WSCP at their following meeting on May 3, 2022, at 7:00 p.m. Meeting details will be posted on the City's website at least 72 hours prior to the meeting.

Public Comments: We welcome public comments, either written or spoken. You may send questions or comments regarding the Draft 2022 UWMP and WSCP to Josh Hudson, Water Operations Supervisor for the City of Dixon, at **jhudson@cityofdixon.us** or call 530.682.3265. All comments must be received by the City by the close of the Public Hearing on April 19, 2022.

Dixon Independent Voice 4-1 and 4-8-2022

PROOF OF PUBLICATION
STATE OF CALIFORNIA
County of Solano

I am a citizen of the United States and a resident of the County afore-said, I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the Dixon Independent Voice, newspaper of general circulation printed and published in the County of Solano, State of California, under date of November 24. 2008, by Superior Court Order Number FCS030046, that the notice, of which the annexed is printed copy (set in type not smaller than nonpareil) has been published in each regular and entire issues of said newspapers and not in any supplement therefore on the following dates, to wit:

April 1, and 8, 2022

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Natalie Miller

Natalie Miller

DATED: April 8, 2022

DIXON INDEPENDENT VOICE
7144 FAIR OAKS BLVD., SUITE 5
CARMICHAEL, CA 95608

PROOF OF PUBLICATION OF:

NOTICE OF PUBLIC HEARING

By: THE CITY OF DIXON

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Dixon Independent Voice 4-1 and 4-8-2022

PROOF OF PUBLICATION
(2015.5 C.C.P.)

STATE OF CALIFORNIA,
COUNTY OF SOLANO, ss.

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the DIXON TRIBUNE, a newspaper of general circulation, printed and published weekly in the City of Dixon, County of Solano, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Solano, State of California, under the date of April 21, 1952, Case Number 25594; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil) has been published in each regular and entire issue of said newspaper and not in any supplement thereof

on the following dates, to wit: April 1, 8

all the year 2022

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at DIXON, California, this 8 day of April 2022

(Signature)
Sarah L Vellen

(This space is for the County Clerk's Filing Stamp)

Proof of Publication of

CITY OF DIXON
NOTICE OF PUBLIC HEARING

Ad # 22-016

NOTICE OF AVAILABILITY & NOTICE OF PUBLIC HEARING

2022 Urban Water Management Plan and Water Shortage Contingency Plan
April 1, 2022

In April 2021, the City of Dixon (City) surpassed the 3,000-customer connection threshold for classification as an urban water supplier and is therefore required to prepare and adopt an Urban Water Management Plan (UWMP) in accordance with the Urban Water Management Planning Act (California Water Code Section 10610 et seq.). The UWMP is a planning document, which reports, describes, and evaluates water deliveries and uses, water supply sources, and conservation efforts. The UWMP also includes the City's Water Shortage Contingency Plan (WSCP). The WSCP includes a discussion of the City's management and planned actions to respond to actual water shortage conditions.

Materials: The City's Draft 2022 UWMP and WSCP are now available for public review and comment. A copy of the draft plans and update are available for review on the City's website at www.cityofdixon.us.

Public Hearing: City Council will hold a Public Hearing at their regularly scheduled meeting on April 19, 2022, at 7:00 p.m. to take public comment on the Draft 2022 UWMP and WSCP. The City Council is anticipated to consider adoption of the City's 2022 UWMP and WSCP at their following meeting on May 3, 2022, at 7:00 p.m. Meeting details will be posted on the City's website at least 72 hours prior to the meeting.

Public Comments: We welcome public comments, either written or spoken. You may send questions or comments regarding the Draft 2022 UWMP and WSCP to Josh Hudson, Water Operations Supervisor for the City of Dixon, at jhudson@cityofdixon.us or call 530.682.3265. All comments must be received by the City by the close of the Public Hearing on April 19, 2022.

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Appendix E

SB X7-7 Compliance Tables

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SB X7-7 Table 0: Units of Measure Used in 2020 UWMP* *(select one from the drop down list)*
**The unit of measure must be consistent throughout the UWMP, as reported in Submittal Table 2-3.*
NOTES: (a) The City is not subject to SB X7-7 requirements since the City officially became an urban water supplier in 2021. (b) This table is left intentionally blank.

SB X7-7 Table 2: Method for 2020 Population Estimate	
Method Used to Determine 2020 Population (may check more than one)	
☐	**1. Department of Finance** (DOF) or **American Community Survey** (ACS)
☐	**2. Persons-per-Connection Method**
☐	**3. DWR Population Tool**
☐	**4. Other** DWR recommends pre-review
NOTES: (a) The City is not subject to SB X7-7 requirements since the City officially became an urban water supplier in 2021. (b) This table is left intentionally blank.	

SB X7-7 Table 3: 2020 Service Area Population	
2020 Compliance Year Population	
2020	

NOTES:
(a) The City is not subject to SB X7-7 requirements since the City officially became an urban water supplier in 2021.
(b) This table is left intentionally blank.

SB X7-7 Table 4: 2020 Gross Water Use

Compliance Year 2020	2020 Volume Into Distribution System *This column will remain blank until SB X7-7 Table 4-A is completed.*	2020 Deductions					2020 Gross Water Use
		Exported Water *	Change in Dist. System Storage* (+/-)	Indirect Recycled Water *This column will remain blank until SB X7-7 Table 4-B is completed.*	Water Delivered for Agricultural Use*	Process Water *This column will remain blank until SB X7-7 Table 4-D is completed.*	
	-			-		-	-

*** Units of measure (AF, MG , or CCF)** must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.

NOTES:
(a) The City is not subject to SB X7-7 requirements since the City officially became an urban water supplier in 2021.
(b) This table is left intentionally blank.

SB X7-7 Table 5: 2020 Gallons Per Capita Per Day (GPCD)		
2020 Gross Water *Fm SB X7-7 Table 4*	**2020 Population** *Fm SB X7-7 Table 3*	**2020 GPCD**
-	-	

NOTES:
(a) The City is not subject to SB X7-7 requirements since the City officially became an urban water supplier in 2021.
(b) This table is left intentionally blank.

SB X7-7 Table 9: 2020 Compliance

Actual 2020 GPCD[1]	Optional Adjustments to 2020 GPCD (Enter "0" if Adjustment Not Used)			TOTAL Adjustments[1]	Adjusted 2020 GPCD [1] *(Adjusted if applicable)*	2020 Confirmed Target GPCD [1, 2]	**Did Supplier Achieve Targeted Reduction for 2020?**
	Extraordinary Events[1]	Weather Normalization[1]	Economic Adjustment[1]				
	-	-	-	-	-		-

[1] *All values are reported in GPCD*

[2] ***2020 Confirmed Target GPCD*** *is taken from the Supplier's SB X7-7 Verification Form Table SB X7-7, 7-F.*

NOTES:
(a) The City is not subject to SB X7-7 requirements since the City officially became an urban water supplier in 2021.
(b) This table is left intentionally blank.

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Appendix F

Water Shortage Contingency Plan

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FINAL PLAN | APRIL 2022

City of Dixon
Water Shortage Contingency Plan

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Table of Contents

LIST OF TABLES

Table of Contents

LIST OF APPENDICES

LIST OF ACRONYMS AND ABBREVIATIONS

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	Director of Utilities
DMC	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

Table of Contents

SGMA	Sustainable Groundwater Management Act
State Water Board	State Water Resource Control Board
UM	Utilities Manager
UWMP	Urban Water Management Plan
WSCP	Water Shortage Contingency Plan

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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 to this WSCP are provided to allow the City to modify this WSCP outside of the Urban Water Management Plan (UWMP) process.

1.0 WATER SUPPLY RELIABILITY ANALYSIS

Chapters 6 and 7 of the City's 2020 UWMP, present the City's water supply sources and reliability, respectively. Findings show the City can reliably meet its projected demands through 2045 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 to available groundwater supply in the future

In general, the City's water supply is from the Solano Subbasin. Groundwater level data presented in the North Central Solano County Groundwater Resources Report and additional data published by Department of Water Resources (DWR) show that the subbasin is in a state of equilibrium. 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 shows 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.

In future years, the City will conduct 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.

2.0 ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

Beginning July 1, 2022, California Water Code (CWC) §10632.1 requires 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 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. The City will complete 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 (starting in 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 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 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 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 determinations of Annual Assessment, prepare the Annual Water Shortage Assessment Report with recommendations on water shortage condition determination and response actions. Submit to Director of Utilities (Director) and Utilities Manager (UM), or designee(s), for review.	Water Operations Supervisor
Early May	Review Annual Assessment and Annual Water Shortage Assessment Report and provide comments as needed.	Water Operations Supervisor
Mid-May to Early June	Finalize and approve Annual Assessment and Annual Water Shortage Assessment Report.	City Engineer/ Director of Utilities
Before July 1	Submit Annual Assessment and 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 condition 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 determination of 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 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 demand 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 current year and future year supply and demands. 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 projected water supply can meet 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.

3.0 SIX STANDARD WATER SHORTAGE STAGES

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 Levels
(DWR Table 8-1)

Shortage Level	Percent Shortage Range	Shortage Response Actions (*Narrative description*)
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 Level 1 and 2 shall still be implemented.		

As described in Section 2.0, the City will conduct an Annual Assessment to determine its water supply condition for the current year and a subsequent dry year. Preparing 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.

4.0 SHORTAGE RESPONSE ACTIONS AND EFFECTIVENESS

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 demand 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 has upgraded 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 monthly 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 it 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 to water use prohibitions if 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 Demand Reduction

During water shortage conditions, the City plans to reduce demand by implementing the actions shown in Table 4. 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 4 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 4. Water Shortage Contingency Plan Demand Reduction Actions

(DWR) Table 8-2

Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** *Drop Down List*
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	Water Bill Inserts	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%	City to maintain water repairs as a high priority	No
1	Decrease Line Flushing	Depends on extent and frequency of current flushing activities	Flushing to be performed as needed to maintain public health and safety	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.	Yes
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.	Yes
2	CII - Restaurants may only serve water upon request	50 gallons/day/commercial connection		Yes
2	CII - Lodging establishment must offer opt out of linen service	250-500 gallons/day/hotel		Yes
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.	Yes
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 incluse trees, watering shall take place to maintain tree health).	Yes
2	Other	10%	Customers shall reduce water use by 10%	Yes
3	Other	Boosts the effectiveness of other methods - not readily quantifiable	Increase water compliance actions	No
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.		Yes
4	Other - Prohibit use of potable water for construction and dust control	3,000 gallons/acre/day for construction areas		Yes
4	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	100-200 gallons/year/residential connection		Yes
4	Other	20%	Customers shall reduce water use by 20%	Yes
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	Yes
5	Pools and Spas - Require covers for pools and spas	Evapotranspiration of approximate surface area of pools		Yes
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		Yes
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	Yes
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.

The City may request that its customers reduce their water demands in response to any water shortage stage through the DMC, including imposing additional mandatory restrictions as discussed in Section 4.2. After adoption of this WSCP, the City will be updating the DMC to support water shortage actions. The City will monitor water production, water consumption, and changing conditions to determine the intensity of its public outreach, the extent of its enforcement actions, and the need to adjust its water shortage stage declaration as discussed in Section 9.0.

4.2 Additional Mandatory Restrictions

In addition to the above discussed demand reduction response actions, the City may implement mandatory water use restrictions. Table 5 lists the mandatory restrictions for each shortage stage. These restrictions are in addition to State-mandated prohibitions and are cumulative, so restrictions associated with a given water shortage stage also include any restrictions from lower stages.

Table 5. City of Dixon Additional Mandatory Restrictions

Consumption Reduction Measures
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 use of a positive shutoff nozzle.
Water leaks, once identified by homeowner, must be repaired within 48 hours.
Standard Shortage Level 2 (Up to 20 percent Shortage)
Outdoor water use prohibited from 10:00 am to 7:00 pm. Odd-numbered addresses water on Wednesdays, Fridays, and Sundays. Even-numbered addresses water 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 does 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 maintained through drip irrigation.
Building moratorium on all new connections and including new swimming pools.

4.3 Supply Augmentation and Other Actions

The City's water supply portfolio consists of local groundwater, as described in Chapter 6 of the City's 2020 UWMP. At any water shortage stage and depending on the water shortage event, the City's 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 to this WSCP. Since this arrangement was not included in the supply reliability analysis described in Chapter 7 of the City's 2020 UWMP, it is presented here as a supply augmentation option.

The City is a participant of 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 6 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 6. Water Shortage Contingency Plan Supply Augmentation and Other Actions (DWR Table 8-3)

Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*
6	Transfers	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.
6	Other Actions (describe)	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.			

4.4 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 2012 Multi-Hazard Mitigation Plan, which recognized earthquake events as a significant concern countywide. The County is 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 County has since updated the 2012 Multi-Hazard Mitigation Plan and completed the 2021 Solano County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP). At time of preparation of this UWMP, the 2021 MJHMP is pending approval by the Federal Emergency Management Agency (FEMA) pending jurisdictional adoption of the participating agencies. The City participated in the preparation of the 2021 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 mitigation strategy is provided in Section 1.5 of the City's jurisdictional annex. The 2021 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 in addressing 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.

[1] Section 5.4, Solano County Multi-Hazard Mitigation Plan, March 2012. Accessed October 8, 2021, https://www.solanocounty.com/documents/Depts/OES/SolanoCountyMHMP-March2012-FINAL.pdf.

5.0 COMMUNICATION PROTOCOLS

In the event of a water shortage, the City must inform their customers, the general public and 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 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 level.

6.0 COMPLIANCE AND ENFORCEMENT

When a water shortage is anticipated, 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 their extent of compliance to 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 with the first offense, which identifies the violation, 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 hearing within 30 days from the date of issuance of 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.

7.0 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 includes 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 under 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 6.0.

8.0 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 general election on November 3, 2020. The repeal of these rates has created economic hardship for City water operations. The City is considering options for resolving the imbalance of revenues and expenditures. The City is currently conducting a water rate assessment. Results from the assessment show that the City is underfunded at a global level. Examples of how the City is underfunded is for actions such as providing public safety, providing clean water, mitigating the consequences of drought or fighting fires. The City's water rates consist of fixed charge and volumetric charge. The water rate structure for the volumetric charge consists of three tiers for single-family residential customers and uniform rates for all other customers. The financial stability of the City will be vulnerable with the implementation of the WSCP.

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 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 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 was declared.

9.0 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.

10.0 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 6.0, 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.

11.0 SPECIAL WATER FEATURE DISTINCTION

The City distinguishes special water features, such as decorative fountains and ponds, differently 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 feature is prohibited, except where water is recirculated.

12.0 PLAN ADOPTION, SUBMITTAL, AND AVAILABILITY

This WSCP is adopted concurrently with the City's 2020 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 City Council and distribution to Solano County, the City's customers, and the general public.

WSCP - Appendix A

Emergency Intertie Agreement with Cal Water

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COPY

AGREEMENT FOR INTERCONNECTION FOR EMERGENCY WATER SUPPLY

THIS AGREEMENT entered into this 27th day of August 2014, by and between the **CITY OF DIXON,** a Municipal Corporation of the State of California, hereinafter referred to as "CITY", and **CALIFORNIA WATER SERVICE COMPANY,** a California Corporation, hereinafter referred to as "CWS", who, for valuable consideration, receipt of which is hereby acknowledged, do agree as follows:

WITNESSETH:

WHEREAS, both parties hereto are each engaged in the supply of water in the City of Dixon, County of Solano, State of California;

WHEREAS, CITY serves potable water to a portion of the City of Dixon, as said service area is shown on Exhibit "A", which is attached hereto and incorporated herein by reference;

WHEREAS, CWS serves potable water to a portion of the City of Dixon, as said service area is shown on said Exhibit "A";

WHEREAS, in anticipation of possible emergency or disaster situations, the parties believe it is a wise precaution to provide for interconnection of the water system of CITY with the water system of CWS, with the objective that water can be supplied by either party to the other party upon a limited and emergency basis;

WHEREAS, a similar agreement was originally entered into between Dixon-Solano Municipal Water Service and/or Dixon-Solano Water Authority in November 1994 with a second agreement in October 2004, a modification to the October 2004 agreement in May 2005 and a superseding modification in March 2006;

NOW, THEREFORE, the parties, for and in consideration of the mutual agreements and covenants contained in this Agreement, do agree as follows:

A. Term:

This Agreement shall become effective on the date above entered and shall

AGREEMENT NO. 14-033

continue in full force and effect until terminated by either party with sixty (60) days written notice.

B. Duties and Obligations:

1. The water system of CITY shall be connected to the water system of CWS at the following three (3) locations:

    a. The west side of North First Street, between Regency Parkway and Stratford Avenue, at the southeast corner of Assessor's Parcel Number 113-112-11, as shown on Exhibit "B", which is attached hereto and incorporated herein by reference.

    b. The north side of Rehrmann Drive, east of Lynd Way at the southwest corner of Assessor's Parcel Number 113-260-12, as shown on Exhibit "C", which is attached hereto and incorporated herein by reference.

    c. The east side of South First Street (AKA: Highway 113), approximately 690 feet south of Country Faire Drive at the southernmost service area boundary of CWS, as shown on attached drawing and incorporated herein as reference Exhibit "E".

2. CWS constructed said interconnections as per the details shown on Exhibits "B", "C" and "D", which is attached hereto and incorporated herein by reference. The intertie on South First Street, shown on Exhibit "E" was received via a main extension agreement with Pulte Homes.

3. All costs associated with the original installation of the interconnections were subject to the conditions established under a prior agreement between CWS and Dixon-Solano Municipal Water Service, a Joint Exercise of Powers Agreement between CITY and Solano Irrigation District.

4. CITY will own, operate, and maintain the connection from the CITY water main up to the point shown on Exhibit "D", and CWS will own, operate, and maintain the connection from the CWS water main up to the point shown on attached Exhibit "D" and Exhibit "E".

AGREEMENT NO. 14-033

5. The parties shall maintain the interconnection located on South First Street, south of Country Faire Drive, in the closed position consistent with the terms of this Agreement. In the event either party shall require supplemental water for a limited period of time, due to emergency or disaster, failure of water supply, power failure for an extended period of time, mechanical failure of pumps and/or a major pipeline break, that party shall have the right to obtain water from the other party, on a two hour notification and, to the extent the supplying party is able to provide such water in view of its circumstances and demands at the time of the request. However, nothing shall prevent either party from activating the connection in less than two hours if the other party has been properly notified and has declared that it is ready to start delivery.

6. Nothing herein shall be deemed to constitute a dedication of the water supply of either party to service the territory of the other party or to constitute a commitment to supply water to the other party as a regular customer. The obligation to supply water hereunder is limited to surplus water above and beyond that required to service the needs of the supplying party's regular customers and to a reasonable period of time to permit the party being supplied to effect repairs to its own facilities.

7. To compensate the party supplying water hereunder for its costs of operation, any party receiving water shall pay to the supplying party for all water delivered, as registered on the bi-directional meter at each interconnection, in accordance with the supplying party's then effective regular tariff schedule. Charges are to be made only for months in which water is actually delivered. Payment for said usage is to be made within thirty (30) days after receipt of bill. In the event conditions do not permit water usage to be metered, the amount of water delivered shall be estimated by the supplier.

C. <u>Unauthorized Water Use:</u>

Any water usage, during a period in which the receiving party has not received the

AGREEMENT NO. 14-033

prior authorization of the supplying party, shall be discontinued and the supplying party shall have the option of unilaterally terminating this Agreement. This option shall expire thirty (30) days after the supplying party discovers the unauthorized use.

D. Water Entitlements:

This Agreement shall not affect, alter, or modify the water entitlements of either party under any other agreement or arrangement now existing.

E. Indemnification:

1. It is agreed that CITY shall defend, hold harmless, and indemnify CWS, its officers, employees, agents and consultants from any and all claims for injuries or physical and financial damage to persons and/or property, which arise out of the terms and conditions of this Agreement and which result from the negligent acts or omissions of CITY, its officers, employees, agents and consultants.
2. It is agreed that CWS shall defend, hold harmless, and indemnify CITY, its officers, employees, agents and consultants from any and all claims for injuries or physical or financial damage to persons and/or property, which arise out of the terms and conditions of this Agreement and which result from the negligent acts or omissions of CWS, its officers, employees, agents and consultants.
3. In the event of concurrent negligence of CITY, its officers and/or employees, and CWS, its officers, and/or employees, the liability for any and all claims for injuries or damages to persons and/or property which arise out of such concurrent negligence shall be apportioned according to the California theory of comparative negligence.
4. It is agreed that since the pressures in each water system are sufficiently close to allow direct meter connection, pressure reducing or regulating equipment is not needed to protect each system from variations in pressure between and within the other system. Therefore it is agreed as follows:

AGREEMENT NO. 14-033

a. CITY shall defend, hold harmless, and indemnify CWS, its officers, employees, agents and consultants from any and all claims for injuries or damage to persons and/or property which arise out of the pressure of water served by CWS to CITY under the terms of this Agreement.

b. CWS shall defend, hold harmless, and indemnify CITY, its officers, employees, agents and consultants from any and all claims for injuries or damage to persons and/or property which arise out of the pressure of water served by CITY to CWS under the terms of this Agreement.

F. Severability:

Should any part, term, or provision of this Agreement be decided by the courts to be illegal or in conflict with any law of the State of California, or otherwise rendered unenforceable or ineffectual, this Agreement shall be null and void.

G. Amendment of Agreement:

1. This Agreement may be amended by a written supplemental Agreement executed by both parties.

2. This agreement as to CWS, shall be subject to such changes or modifications as the Public Utilities Commission of the State of California may, from time to time direct, in the exercise of its jurisdiction. CWS shall notify CITY of such changes that are mandated by the California Public Utilities Commission. If CITY believes that such change unreasonably, adversely, or significantly affects its rights, duties and obligations under this Agreement, then CITY may terminate this Agreement upon ten (10) days written notice.

H. Successors and Assignment:

This Agreement shall be binding upon and shall inure to the benefit of the successors of each party. Either party may assign any right or obligation under this Agreement with the approval of the other party.

AGREEMENT NO. 14-033

I. **Time:**

Time is of the essence in the performance of this Agreement and of every term and provision thereof.

J. **Notification:**

Any notice, which it is herein provided may or shall be given by either party to the other, shall be delivered to the party to whom such notice is given at the following respective addresses:

CITY:
City of Dixon
600 East A Street
Dixon, CA 95620
Attn: Jim Lindley, City Manager

Churchwell White, LLP
1204 K Street, Suite 710
Sacramento, CA 95814
Attn: Douglas White, Esq.

CWS:
California Water Service Company
1720 North First Street San Jose, CA 95112
Attn: _____

Either party may change the address or addressee to which notice shall thereafter be delivered, by notice given as provided herein.

K. **Entire Agreement:**

There are no other terms, conditions, promises, or warranties, either implied or explicit, or promises other than are contained within the written terms of this Agreement. This Agreement is whole and entire and may not be altered except by a writing executed by each party hereto.

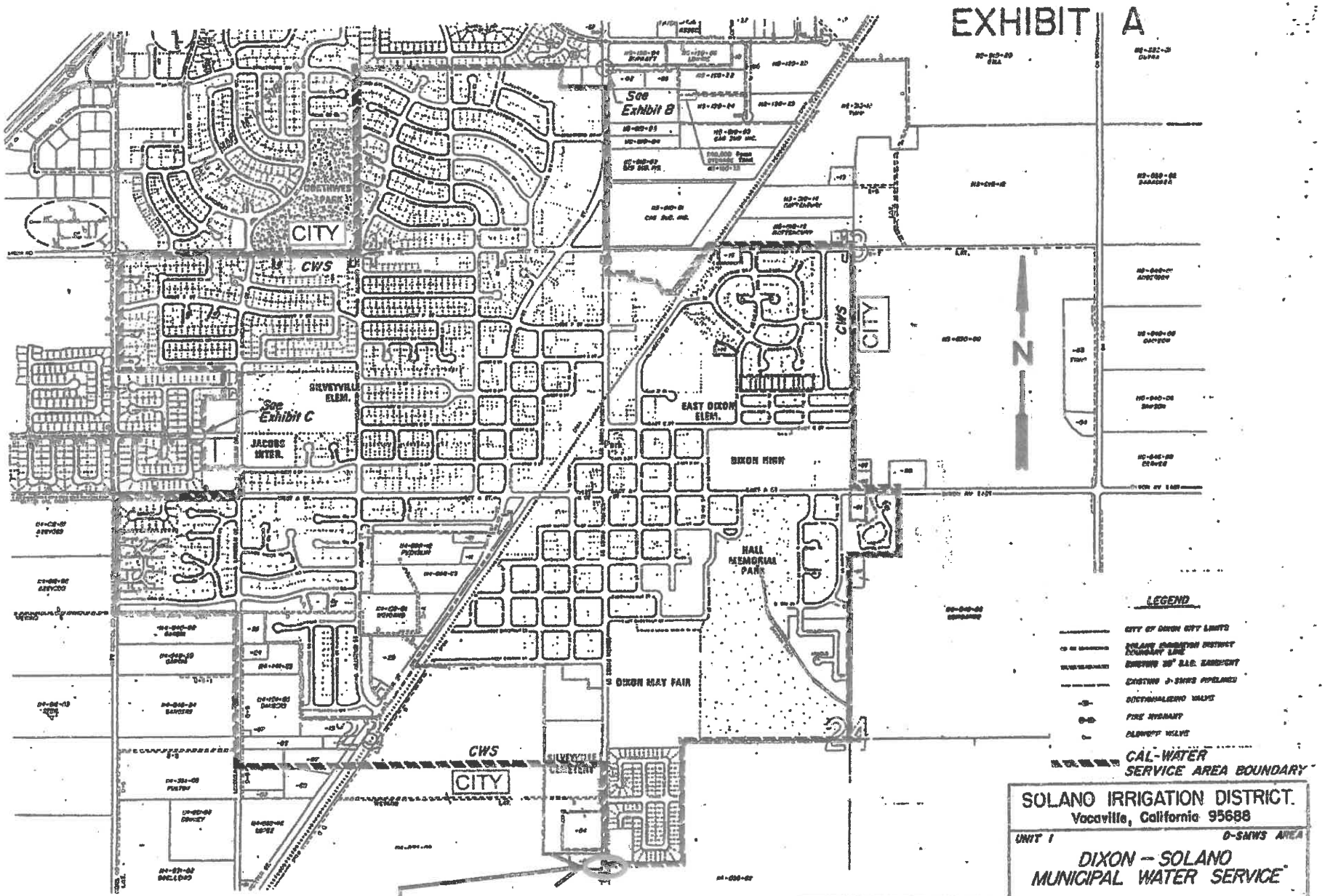
AGREEMENT NO. 14-033

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date above entered:

CITY OF DIXON:	**CALIFORNIA WATER SERVICE COMPANY**
By:	By: .....
Title: CITY MANAGER	Title: VICE PRESIDENT OPERATIONS

AGREEMENT NO. 14-033

EXHIBIT A



SOLANO IRRIGATION DISTRICT.
Vacaville, California 95688

UNIT I — D-SMWS AREA

DIXON – SOLANO MUNICIPAL WATER SERVICE

Date AUG. 8, 1994
Drawn By TD
Checked By JD

Original Base Map prepared by City of Dixon Planning Dept.
Drawing No. M-1, Supp. D

UPDATED: AUGUST 2014

AGREEMENT NO. 14-033

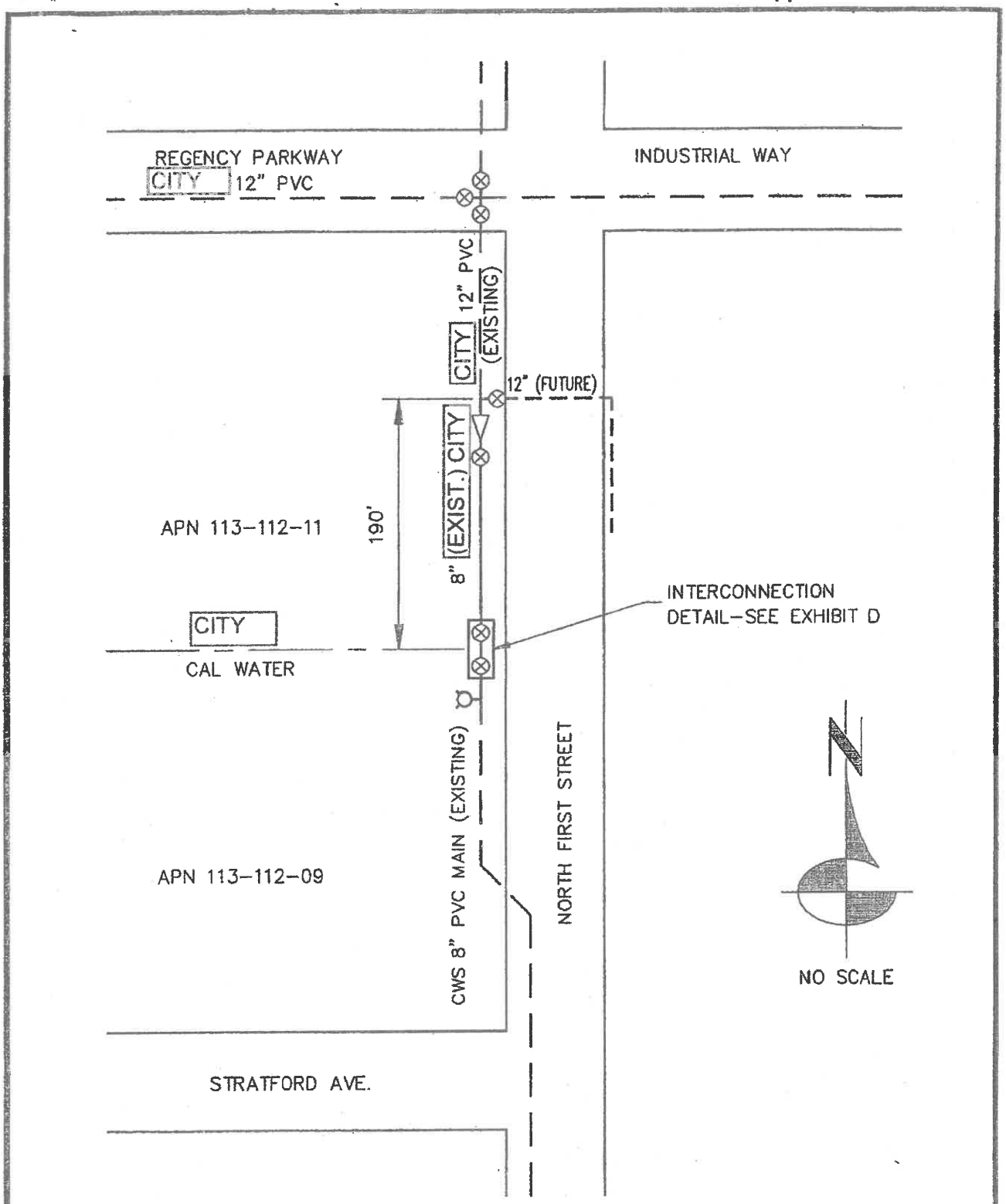


EXHIBIT B

EMERGENCY INTERCONNECTION OF CITY AND CWS WATER SYSTEMS IN NORTH FIRST STREET

DATE: 10-18-94

UPDATED: AUGUST 2014

AGREEMENT NO. 14-033

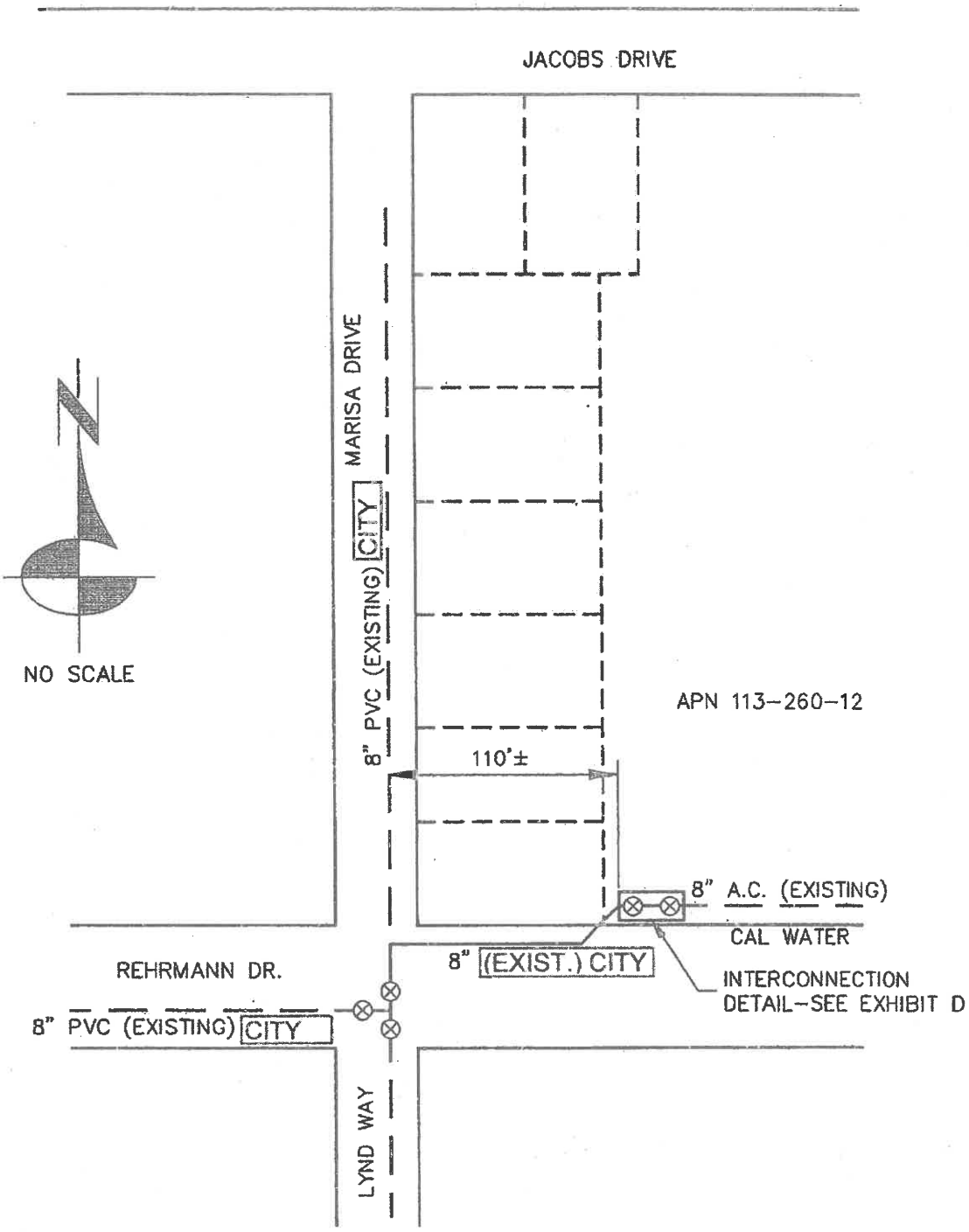


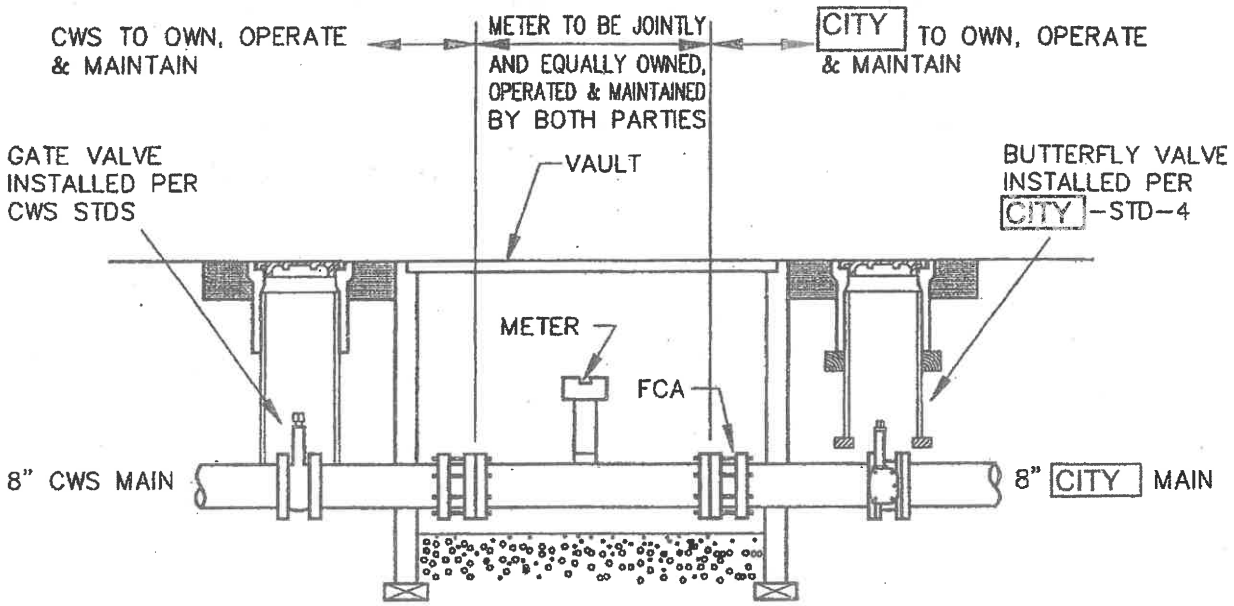
EXHIBIT C

EMERGENCY INTERCONNECTION OF CITY AND CWS WATER SYSTEMS IN REHRMANN DRIVE

DATE: 10-18-94

UPDATED: AUGUST 2014

AGREEMENT NO. 14-033



Extend mains to connect to new facilities.

Meter: Water Specialities Model ML-04 standard construction with CN-02 head extension, CN-04 flowrate indicator and totalizer. Use 6" meter at both locations.

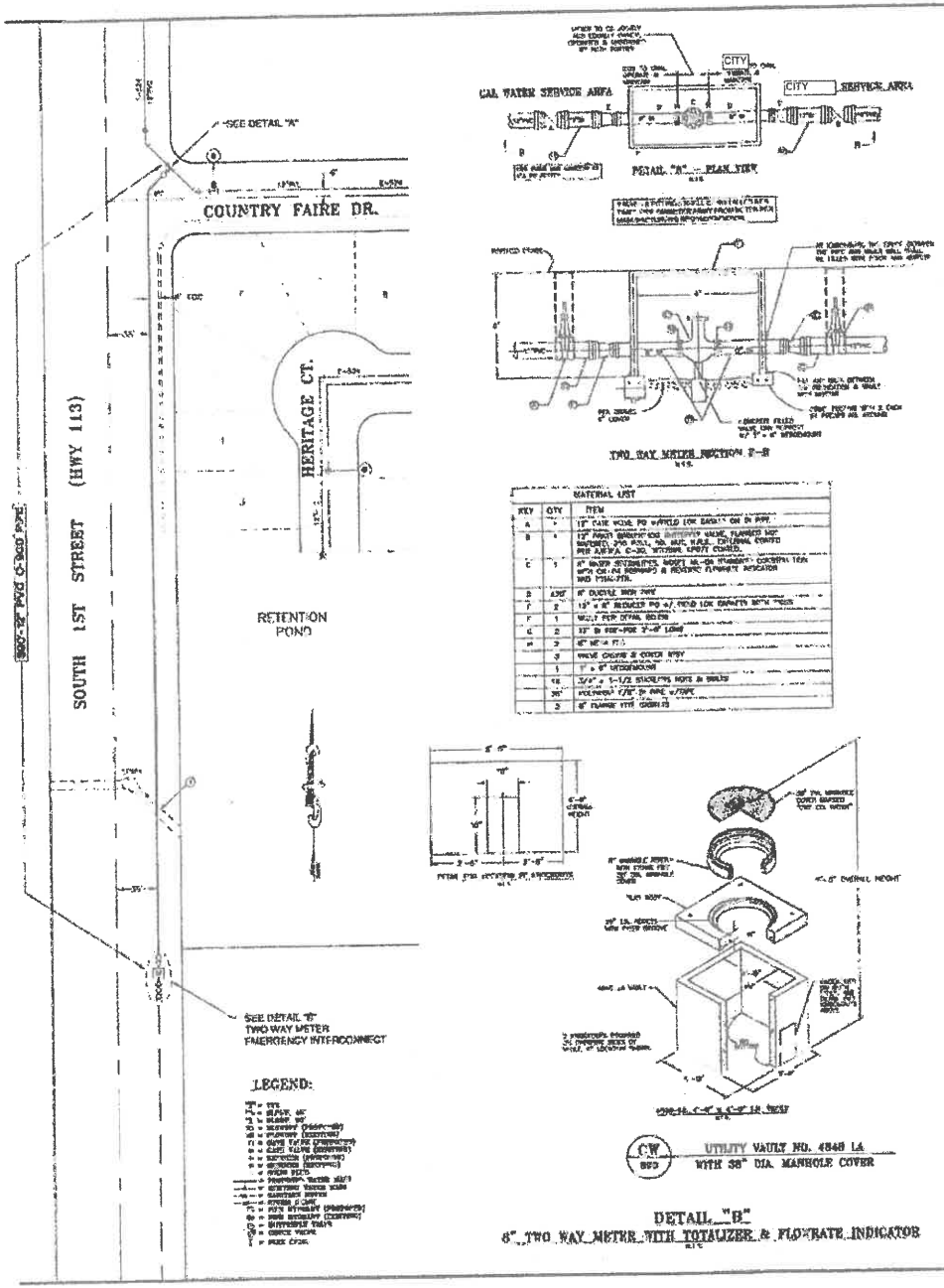
EXHIBIT D

PROPOSED INTERCONNECTION DETAIL

DATE: 10-18-94

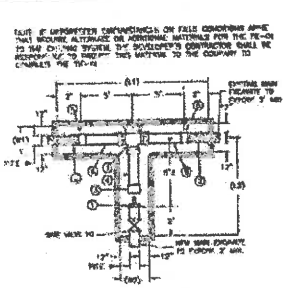
UPDATED: AUGUST 2014

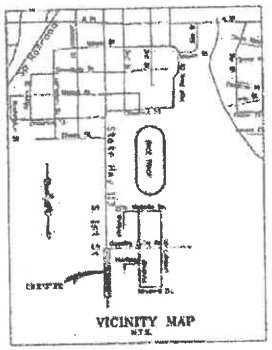
AGREEMENT NO. 14-033



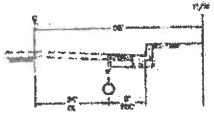
KEY	QTY	ITEM
A	1	12" CAST IRON, PD W/FIELD LOK GASKET ON B PIPE
B	1	12" MUELLER CLOW, OR EQUAL, RESILIENT SEATED GATE VALVE, FLANGED END, MOUNTED, WITH HOLES ON MAT, WHEEL, EXTERNAL COATED PER AWWA C-550, WITHOUT STATE COATED.
C	1	6" WATER INTEGRATOR, MODEL M-70 TOTALIZER, CONCEPTUAL TEAL WITH DIGITAL READOUT & MECHANICAL FLOWRATE INDICATOR AND PITOT-TUBE.
D	4.50'	6" DUCTILE IRON PIPE
E	2	12" x 6" REDUCER PD w/ FIELD LOK GASKETS BOTH ENDS
F	1	VAULT PER DETAIL BELOW
G	2	12" D FOR-FOR 2'-0" LONG
H	3	45° M.J.
I	3	VALVE CROWN & COVER ASSY
J	1	6" x 6" MEGAFLANGE
K	16	3/4" x 3-1/2 STAINLESS NUTS & BOLTS
L	30'	POLYWRAP 7.75" BY PIPE w/TAPE
M	2	6" FLANGE TYPE GASKETS

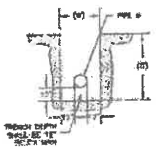
DETAIL "B"
6" TWO WAY METER WITH TOTALIZER & FLOWRATE INDICATOR

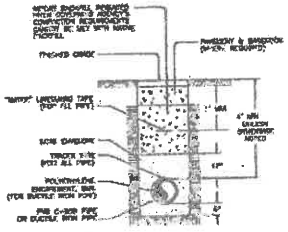




TYPICAL STREET CROSS SECTION







TRENCH NOTES FOR TIE-IN:

TRENCH WIDTH (W1) & (W2) SHALL BE ONE PIPE DIAMETER PLUS 12" ON EACH SIDE OF THE PIPE O.D. A 8" OR 8" MAIN REQUIRES A 20" TRENCH.

TRENCH LENGTH (L1) SHALL BE 10' (MIN), (10' FOR 8" W PLUS 2' CLEARANCE OF EXISTING AND NEW MAIN).

TRENCH LENGTH (L2) SHALL BE 2' (MIN) OR FOR TIE-IN PLUS 2' CLEARANCE OF NEW MAIN.

TRENCH DEPTH (D) SHALL BE 12" (MIN) BELOW BOTTOM OF MAIN.

DEVELOPER'S CONTRACTOR SHALL PROVIDE TRENCH SHORING PER OSHA STANDARDS.

DEVELOPER'S CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATION, BACKFILL, TRENCH COMPACTION TO REQUIREMENTS, AND FINAL PAVEMENT RESTORATION.

PIPELINE CROSSING INFORMATION

AT WATER MAIN CROSSINGS IN CONFLICT WITH OTHER FACILITIES: Where the water main is in conflict with existing facilities or proposed facilities that require more than a 2 foot adjustment from the nominal 4 feet of cover, a fabricated elbow, cement mortar lined and cement mortar coated offset, will be installed at the crossing per CWS Co. standard.

(1) 24" STORM DRAIN — FINISHED GRADE ELEV. = Verify; PAVEMENT ELEV. = 18" COVER; PROPOSE 12" PVC UNDER 30" RCP w/5' COVER

NOTE: THESE WATER PLANS WERE PREPARED FROM INCOMPLETE IMPROVEMENT PLANS. FIELD VERIFY ALL UTILITIES PRIOR TO EXCAVATION.

BILL OF MATERIALS

12" MAIN
690'-12" PVC C-900 PIPE
760'-UNDERGROUND TAPE
760'-WARNING TAPE @12INCH STRANDED COPPER THERM INSULATED
1-12" GATE VALVE PD
1-12" DI ADAPTER
1-12" DI MJ PD
4-12" KINGS F/PD PIPEFIT
10'-POLYWRAP F/DI FITTINGS
1-12" CAP SIMP 2" W
1-2" BLOWOFF ASSY
19'-DR WATERLINE PER DETAIL "A"

METER
1 6" TWO WAY METER W/FLOWRATE INDICATOR AND TOTALIZER & VAULT MATERIALS PER DETAIL "B"

NOTE: WHEN ABANDONING A PVC C-900 PIPE TO AN DCM FITTING (Ductile Iron OR MECHANICAL JOINT), REMOVE ALL BUT 1/4 INCH OF THE FACTORY MADE BEVEL FROM THE SPIGOT END OF THE PIPE PRIOR TO INSTALLATION.

NOTES:

1. Inspection of all materials and installation for pipeline, hydrants and services shall be made by California Water Service Company, Telephone (707) 678-3926 at least 48 hours before starting work on water facilities.
2. Any easements and rights-of-way which may be necessary or reasonably appropriate for the extension will be furnished or obtained by the applicant.
3. Contact Underground Service Alert at 800-642-2444 at least 48 hours prior to the commencement of this project.
4. Place a continuous wire and strip of detectable tape over all pipe and extend up into all valve boxes. Tracer wire is required on all PVC.
5. For details of typical thrust block installation, see drawing CW 430-44.
6. Protect underground facilities encircling, and place sand around them, and all bolts (including fasteners which) as follows:
   1. The entire area of the trench shall be dry and free of sand, dirt, and other foreign matter. Pipe or other foreign material must be removed by sprinkling or with blowing. Wiping rags or dry clean cloth may be necessary to remove the particles from brush coating. Any oil or grease must be removed with a suitable modern, volatile petroleum solvent before application of grease and wrapping.
   2. The exposed area should be coated with a heavy coating of Handguard 351 grease by the glove method to a thickness of at least 1/4".
   3. Firmly wrap the entire greased area with one layer of 4 mil thick, 4" wide, glove formed tape (No. 4 or 51 thick, 4" wide).
   4. Apply a second layer of Handguard 351 grease on top of the first. Thereafter the tape should be in a thickness of at least 1/4".
   5. Firmly wrap the entire greased area with a second layer, full repeat of the second glove-formed tape.
   6. Cover the entire area wrapped area of the fittings with a thick and final coating at least 1/4" thick of Handguard 351 grease by the glove method.
   7. Firmly apply 2 layers of polyethylene half lapped over at least of the repaired and wrapped fitting (excluding any bolts immediately after the wrapping).
7. Water mains must be installed at least 10 ft. horizontally from any and that higher than sewer and sanitary sewers located parallel to the main if parallel. Crown to 70 feet length at all points and sanitary sewer crossings, but where conditions prevent this, water and water mains shall be laid that unless otherwise indicated.
8. No valve covers or meter boxes are to be in sidewalks, crown gutter, curb or otherwise. Care services should also be located to provide protection to the water box from curb grade and street.
9. The exact location of each service to be determined at the time of installation to avoid conflicts with other utilities. Therefore, the number of long, short and split services may vary. Preferred CWS locations to be staked and indicated by Developer's engineer. Any relocations after installation will be at developer's expense.
10. Location of blow-off in new street area or locations where street improvement exist
11. Finished surfaced streets street area 12" adult impact basin requirements inventory, the compaction requirements cannot be met with native backfill
12. It is the responsibility of the contractor to verify the exact location and depth of all existing and proposed facilities prior to water main installation.
13. The list of materials for this project is for the CWS Co. outstanding and reference purposes only and is intended as a 2-8 hour list of proposed material
14. The water supply for this development is from local underground sources. Additional wells for replacement and provisions will be required in the future
15. Developer shall obtain all permits necessary for the installation of the materials.
16. This water plan design is based on information and underground improvement plans. Therefore, pipeline design and street grading can vary many ways.
17. ⓕ Indicates Fire Hydrant (Typ)
    Limits of CWS Co. ownership for each hydrant:
    1 - 8 inch Outlet tee PD
    1 - 8 inch Gate Valve PD
    1 - 6" Type Iron Cylinder
    1 - Valve Cassion and Cover Assembly
    w/- DI Pipe of 6 inch Diameter Iron Pipe
    1 - 6x6 Inch Fire Hydrant Body F/6x6
    1 - 6x6 Inch Fire Hydrant Extension
    1 - Set Bolts, Nuts & Gasket F/ Hydrant
    1 - Set Bolts, Nuts & Gasket F/ Hyd. Nut
    Polywrap Tube, PVC 3064, Use Guide and other sealing part.
    IF FIELD INSPECTION OF FIRE PROTECTION AGENCY REQUIRE AN ALTERNATIVE INSTALLATION, THE OUTLET TEE AND GATE VALVE MAY BE REPLACED WITH:
    1 - 8 Inch Outlet Tee F/6x6 C.I. CL
    1 - 8 Inch Gate Valve F/6x6 MJ to PD RS
    1 - 8 Inch Flanged Tyte Coupling
    8 - 5/8x3-1/2 Inch Flange Bolts W/Hex Nuts, 18-8 Stainless Steel 304
    ITEMS REMOVED:
    1 - CLS" 690 (0) 2-1/2 & 4-1/2
    (The fire valve will remain the final choice of the hydrant based with CWS Co. approval)

SUMMARY
690'-12" PVC C-900 PIPE
1-8" TWO WAY METER & VAULT

ENGINEERING
CALIFORNIA WATER SERVICE CO.
DEPARTMENT

REVISIONS	BY	APP'D

PLAN SHEET NO.: K12
SCALE: 1"=50'
DRAWN BY: PERALTA
CHECKED BY: TING HE
CHECKED BY: 10/14/05
APPROVED BY: DATE
REGISTERED PROFESSIONAL ENGINEER TING HE HUI No. 45990 EXP. 06-30-05 CIVIL STATE OF CALIFORNIA

TITLE: CWS — CITY — SOUTH EMERGENCY INTERCONNECT
DISTRICT: DIXON
DATE: 12/18/02
PROJECT NO.: 8454
DRAWING NO.: DIX-506
SHT 1 OF 1

UPDATED AUGUST 2014 EXHIBIT E

AGREEMENT NO. 14-033

WSCP - Appendix B

Solano County MJHMP - Jurisdictional Annex: City of Dixon

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SECTION 2

JURISDICTIONAL ANNEX:

City of Dixon

SOLANO COUNTY
MULTI-JURISDICTIONAL
HAZARD MITIGATION PLAN

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Solano County

Multi-Jurisdiction Hazard Mitigation Plan

CITY OF DIXON (DX.)

Municipal Annex

List of Figures

List of Tables

Adoption Resolution

To comply with DMA 2000, the City of Dixon has officially adopted this Solano County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP), Volume 1, and its jurisdictional annex. The adoption of the MJHMP recognizes the City's commitment to reducing the impacts of natural hazards. See included adoption resolution.

ADOPTION RECORD TO BE INSERTED UPON COMPLETION.

Section 2. City of Dixon

2.1 Purpose

This Annex details the hazard mitigation planning elements specific to the City of Dixon. This Annex is not intended to be a standalone document but appends to and supplements the information contained in the umbrella plan document. As such, all sections of the umbrella plan, including the planning process and other procedural requirements apply to and were met by the City of Dixon. This Annex provides additional information specific to the City of Dixon, with a focus on providing additional details on the planning process, risk assessment, and mitigation strategy for this community.

Hazard Mitigation Plan Points of Contact

Primary Point of Contact

Todd McNeal, Fire Chief
City of Dixon
205 Ford Way
Dixon, CA 95620
Telephone: (707) 678-1489
e-mail: tmcneal@cityofdixon.us

Alternate Point of Contact

Jim Lindley, City Manager
City of Dixon
600 East A St.
Dixon, CA 95620
(707) 678-7000 ext. 1101
e-mail: jlindley@ci.dixon.ca.us

2.2 Planning Methodology

The City of Dixon followed the planning process detailed in Volume 1, Section 3, including participating in the County Hazard Mitigation Planning Committee (HMPC) and Steering Committee and formulating their own internal planning team to support the broader planning process. Internal planning participants, their positions, and how they participated in the planning process are shown in Table 2-1.

Table 2-1: Planning Committee Members

Planning Committee Members	Department
Todd McNeal	Fire Chief
Dave Horigan	Parks & Maintenance Supervisor
Jim Lindley	City Manager
Joe Leach	Public Works Director & City Engineer
Joel Engrahm	Building Inspector II
Rachel Ancheta	Human Resources & Risk Manager
Sandy Soriano	Public Information Officer
Scott Greeley	Associate Planner

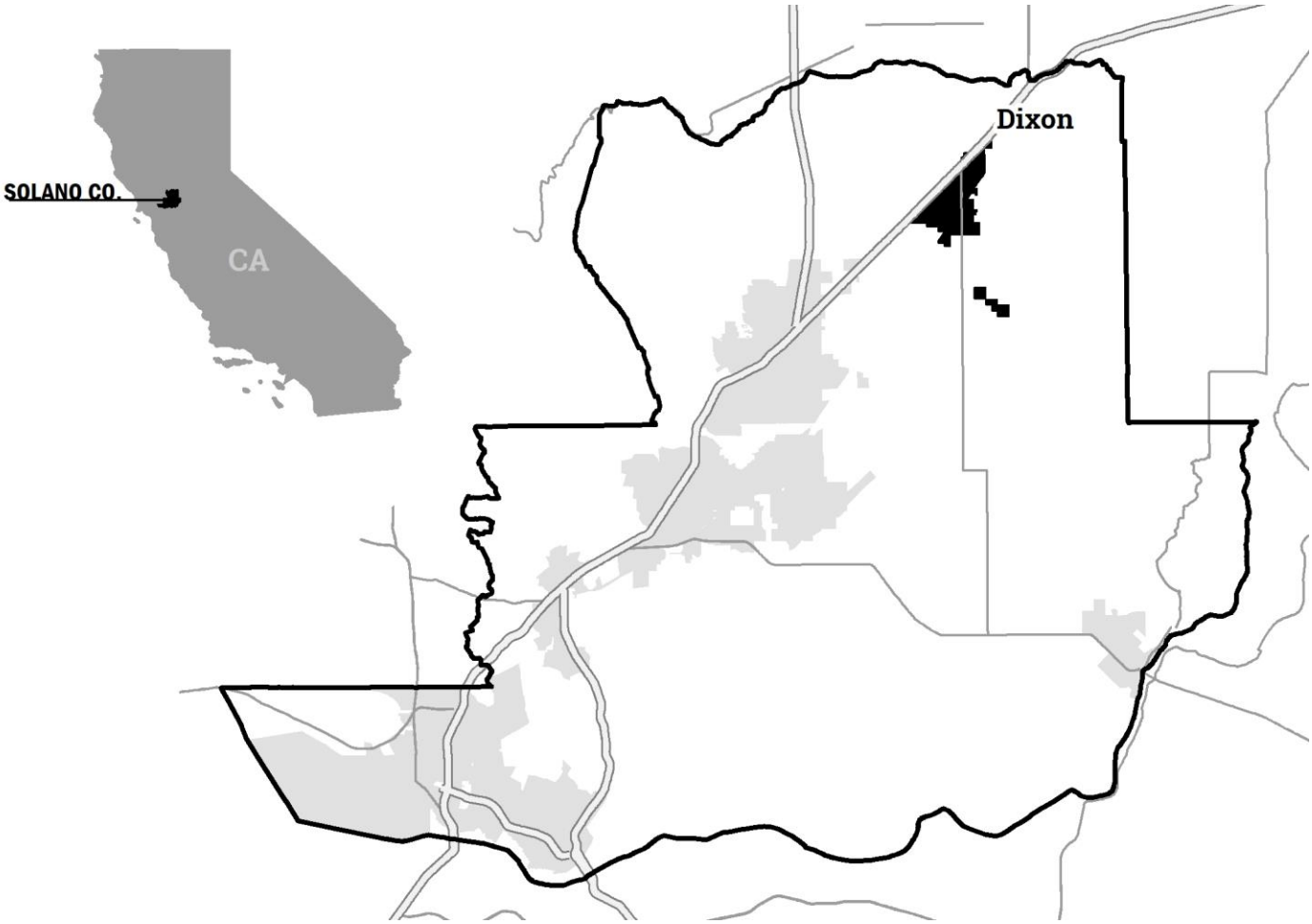


Figure 2-1: City of Dixon Location

2.3 What's New

The City of Dixon has not had a hazard mitigation plan since participating in the 2006 Association of Bay Area Governments MJHMP. Because the City's annex to the ABAG Plan is so old, the Planning Committee elected to not include any of the mitigation actions from the earlier plan in this MJHMP. Starting fresh will ensure that the City's mitigation strategy addresses its most pressing current vulnerabilities. The City's efforts to incorporate hazard mitigation into other planning mechanisms are documented in Section 2.5.1, the Capabilities Assessment.

2.3.1 Success Stories

Artificial Turf Fields: In effort to respond to drought conditions, the City recently installing artificial turf in many City-owned fields through the city.

Subsidized Desalination Station: The City of Dixon has also instituted subsidized desalination stations which reduce the need for salt filters to make water softer. The water softening company now removes cartridges which aids in regional salinity, putting less salt back into the system.

Dam Emergency Action Plan: Lastly, the City of Dixon has also developed a dam emergency action plan, which has been submitted to CalOES, to address the City-owned dam "Pond A."

2.4 Risk Assessment

The intent of this section is to profile the City of Dixon's hazards and assess the City's vulnerabilities, distinct from that of the County wide planning area. The hazard profiles in Volume 1 discuss overall impacts to the planning area and describes the hazard problem description, hazard extent, magnitude/severity, previous occurrences of hazard events and the likelihood of future occurrences. For more information on Risk Assessment Methodologies, see Vol. 1 and Appendix A.

2.4.1 Hazard Screening Criteria

Planning Team members from each participating jurisdiction collectively discussed which hazards should be profiled in the Plan and which should not. The results of that discussion can be found in Table 2-2. Detailed hazard profiles of the most significant County wide hazards are described in Section 4 of Volume 1. The Planning Team reviewed previously prepared hazard mitigation plans and other relevant documents to determine the realm of natural hazards that have the potential to affect the City of Dixon. Table 2-3 provides a crosswalk of hazards identified in Vol. 1 of this plan, the City of Dixon General Plan, and 2018 California State Hazard Mitigation Plan. The crosswalk was used to develop a preliminary hazards list, providing a framework for the Planning Team members to evaluate which hazards were truly relevant to the City of Dixon and which ones were not. Section 2.4.2 below describes the hazard risk ranking process that was performed by the planning team which prioritized hazards that are specifically relevant to the City of Dixon.

Table 2-2: County-Wide Hazard Prioritization

Hazard Type	Explanation
Climate Change	**High priority county-wide, profiled hazard.**
Dam/ Levee failure	Dam failure is possible in Solano County but is best addressed in other plans, specifically Emergency Action Plans for high hazard dams affecting Solano County.
Drought	**High priority county-wide, profiled hazard.**
Earthquake/ Geologic Hazards	**High priority county-wide, profiled hazard.**
Flood	**High priority county-wide, profiled hazard.**
Hazardous Material	While hazardous materials can release and impact the County, there are better avenues to address this hazard outside this plan.
High Winds/ Straight Line Winds	**High priority county-wide, profiled as part of Extreme Weather.**
Insect Hazards	While hazardous insects exist in Solano County, this was not considered a priority and is not profiled in this plan.
Pandemic Disease	While pandemic disease can impact the County, there are better avenues to address this hazard outside this plan.
Extreme Weather, including:	**High priority county-wide for high wind, heavy rain, and high heat.**
Extreme Heat	**Profiled as part of Extreme Weather.**
Hail	Hail events are rare and not considered a priority.
High Wind	**Profiled as part of Extreme Weather.**
Heavy Rain	**Profiled as part of Extreme Weather.**
Fog	Fog events are rare and are not considered a priority.
Lightning	Not a priority as an extreme weather event; discussed as source of wildfire.
Severe Thunderstorm	Severe thunderstorms were not identified as a priority in this plan.
Winter Storm / Extreme Cold/ Freeze Events	Winter storms are rare in Solano County and not identified as a priority for this plan.
Slope Failure	**High priority county-wide, profiled hazard.**
Soil Hazards	While limited soil hazards exist in Solano County (erosion and shifting soils), these are not prioritized in this plan. Erosion discussed under flood hazard.
Terrorism/Human Caused Threats	While terrorism is certainly a threat to the County and participating jurisdictions, it is best addressed in other plans as this HMP does not address human-caused threats.
Tornado	Impacts to the County from tornados are extremely unlikely, if any.
Volcanic Activity	Due to distance from volcanoes and the limited chance of an eruption, this hazard was not identified as a priority.
Wildfire	**High priority county-wide, profiled hazard.**

Table 2-3: City Document Review Crosswalk

Hazards	2020 Dixon General Plan	2014 Solano County HMP	2018 California State HMP
Agricultural Pests			■
Climate Change	■	■	■
Dam Failure	■	■	■
Drought	■	■	■
Earthquake	■	■	■
Flood	■	■	■
Landslide		■	■
Levee Failure			■
Manmade Hazards	■		■
Pandemic Disease			■
Sea Level Rise		■	■
Extreme Weather		■	■
Soil Hazards			■
Terrorism & Tech Hazards	■		■
Tsunami			■
Volcano			■
Wildfire	■	■	■

2.4.2 Hazard Risk Ranking

The City of Dixon's Planning Team used the same hazard prioritization process as the Solano County Hazard Mitigation Planning Committee. This process is described in detail in Section 4.3.1 of Vol. 1. Figure 2-2 displays the results of the hazard risk ranking exercise that was performed by the Planning Team. The Planning Team chose to assess the City of Dixon's vulnerability to the following hazards:

- Flood
- Extreme Weather (High heat, Heavy rain, High wind)
- Climate Change
- Earthquake
- Drought

All of these hazards have been profiled in Vol. 1 of this document. The purpose of this annex to specifically address the City of Dixon's vulnerability to these specifically-identified hazards.

2.4.3 Vulnerability Assessment

Assessing vulnerabilities exposes the unique characteristics of individual hazards and begins the process of narrowing down which areas within the City of Dixon are vulnerable to specific hazard events. The vulnerability assessment considered unique local knowledge of hazards and impacts and a GIS overlaying

method for examining such vulnerabilities more in depth. Using these methods, participating jurisdictions estimated vulnerable populations, infrastructure, and potential losses from hazards.

2.4.3.1 Risk Assessment

Each participating jurisdiction developed a risk matrix that assessed the probability and impact of various hazards within the jurisdiction. Figure 2-2 is the jurisdiction's risk assessment, which was completed in part using the web based and interactive Risk Assessment Mapping Platform (RAMP), accessed via the project website at www.mitigatehazards.com. RAMP allows interactive discovery of robust risk, vulnerability, and exposure data developed especially for Solano County. RAMP is a mapping platform built specifically for mitigation planning. It displays County/jurisdiction facilities and buildings overlaid with natural hazards layers to bring interactivity and individual discovery to the GIS analysis performed for the MJHMP. See Vol. 1 for a detailed description of RAMP. The Planning Team used RAMP in meetings and as needed to understand vulnerabilities to the City of Dixon. Users interactively filter facilities and buildings by natural hazard zones and/or construction characteristics. The City of Dixon also conducted a more detailed climate vulnerability assessment, included as Appendix A to this annex. The climate vulnerability assessment analyzed climate-related vulnerabilities by considering the impact from the climate vulnerability and the community's adaptive capacity to respond to the vulnerability.

2.4.3.2 Exposure Maps and Damage Estimation Tables

The included snapshot maps and damage estimation tables illustrate the City of Dixon's vulnerability to specific hazards. Based on the risk assessment, the snapshot maps focus on those hazards prioritized by the jurisdiction. These maps helped the Planning Team understand the exposure of population, parcels, and critical infrastructure to specific hazards. Each map contains an exposure summary that displays the percent of the population, the improvement and content value of parcels, and the amount of critical infrastructure that is exposed to each respective hazard. For flood and earthquake, detailed damage estimations were conducted through FEMA's Hazus software and are shown in tabular form. Additional mapping is also included. Figures and tables include:

- Figure 2-3: Dixon - FEMA Flood Risk Exposure
- Table 2-4: Dixon - Damage Estimate Summaries, 100 YR Flood
- Figure 2-4: Dixon - BAM 200-YR Flooding and Awareness Zones
- Figure 2-5: Dixon - Hayward Rodger's Creek EQ Scenario (M7.1)
- Table 2-5: Dixon - Hayward Roger's Creek Damage Estimation Summaries
- Figure 2-6: Dixon - Concord Green Valley EQ Scenario (M6.8)
- Table 2-6: Dixon - Concord Green Valley Damage Estimate Summaries
- Figure 2-7: Dixon – Areas with Potential for Liquefaction
- Figure 2-8: Dixon - 30-YR Normal Maximum Temperature for July
- Figure 2-9: Dixon - Average Annual Precipitation (1981-2010)
- Figure 2-10: Dixon - Average Annual Wind Speed (Power Class)
- Figure 2-11: Drought Severity Timeline - Suisun Bay
- Figure 2-12: Dixon - RCP Comparison

Risk Assessment Matrix Definitions

PROBABILITY RATING

The likelihood of a hazard event occurring within a time period?

PROBABILITY

- **Highly Likely** - **Highly likely** - 100% annual probability. Or likely to occur every year in your lifetime.
- **Likely** - **Likely** - Between 10 and 100% annual probability. Or will occur several times in your lifetime.
- **Possible** - **Possible** - Between 1 and 10% annual probability. Or likely to occur some time in your lifetime.
- **Unlikely** - **Unlikely** - Less than 1% annual probability. Or unlikely but possible to occur in your lifetime.

IMPACT RATING

In terms of injuries, damage, or death, would you anticipate impacts to be minor, limited, critical, or catastrophic when a significant hazard event occurs? The impact could be in terms of one hazard event (flooding from a culvert failure) or a large-scale event (multiple rivers flooding) in the same jurisdictional boundary.

IMPACT

Minor	Limited	Critical	Catastrophic

Minor - Very few injuries, if any. Only minor property damage and minimal disruption on quality of life. Temporary shutdown of critical facilities.

Limited - Minor injuries only. Approx. 10% or less of property in disaster footprint damaged or destroyed. Complete shutdown of critical facilities for more than one day.

Critical - Multiple deaths/injuries possible. Between 25% and 50% of property in disaster footprint is damaged or destroyed. Complete shutdown of critical facilities for more than one week.

Catastrophic - High number of deaths/injuries possible. More than 50% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for 30 days or more.

To concentrate resources on highest priority hazards, the jurisdictional planning team will focus on "High" and "Extreme" risk hazards in this annex. These hazards have higher probability and greater impact as it relates to the jurisdiction's planning area.

Hazard definitions are included in Vol. 1 of this plan.

Hazard Information / Legend:

Climate Change is prioritized for all jurisdictions.

Sea-Level Rise is a subhazard of climate change for some jurisdictions (County, Vallejo, Benicia, Suisun City, Fairfield).

Extreme Weather in Solano County includes high heat, high wind, and heavy rain.

If a hazard symbol is grey, the planning team did not develop hazard vulnerability information due to lower perceived probability and impact.

City Of Dixon Risk Matrix

IMPACT

PROBABILITY	Minor	Limited	Critical	Catastrophic
Highly Likely	Medium	DROUGHT	Extreme	Extreme
Likely	Medium	FLOOD, EXTREME WEATHER	High	Extreme
Possible	Low	WILDFIRE	EARTHQUAKE	High
Unlikely	SLOPE FAILURE	Low	Medium	Medium

Figure 2-2: City of Dixon Risk Assessment

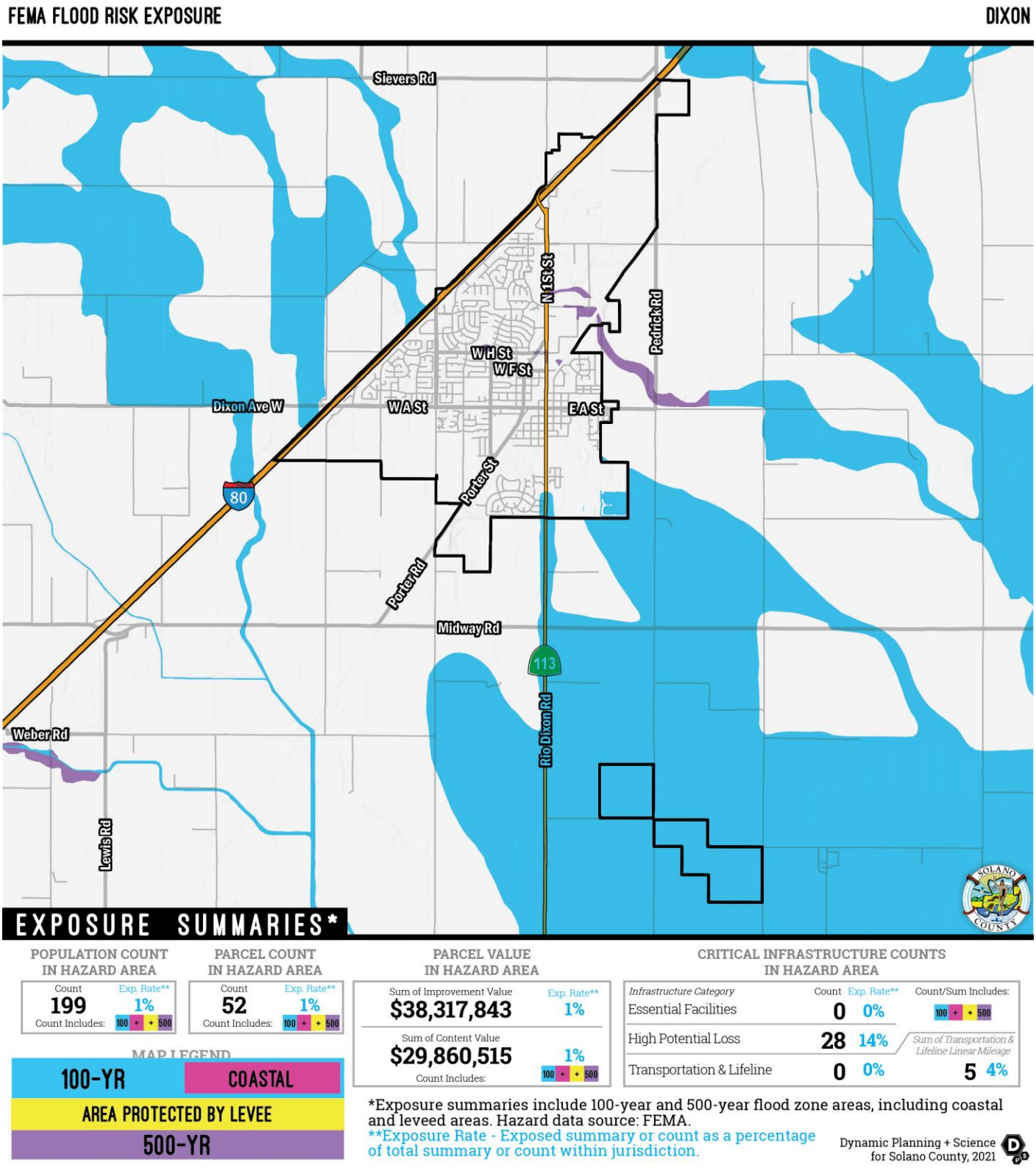
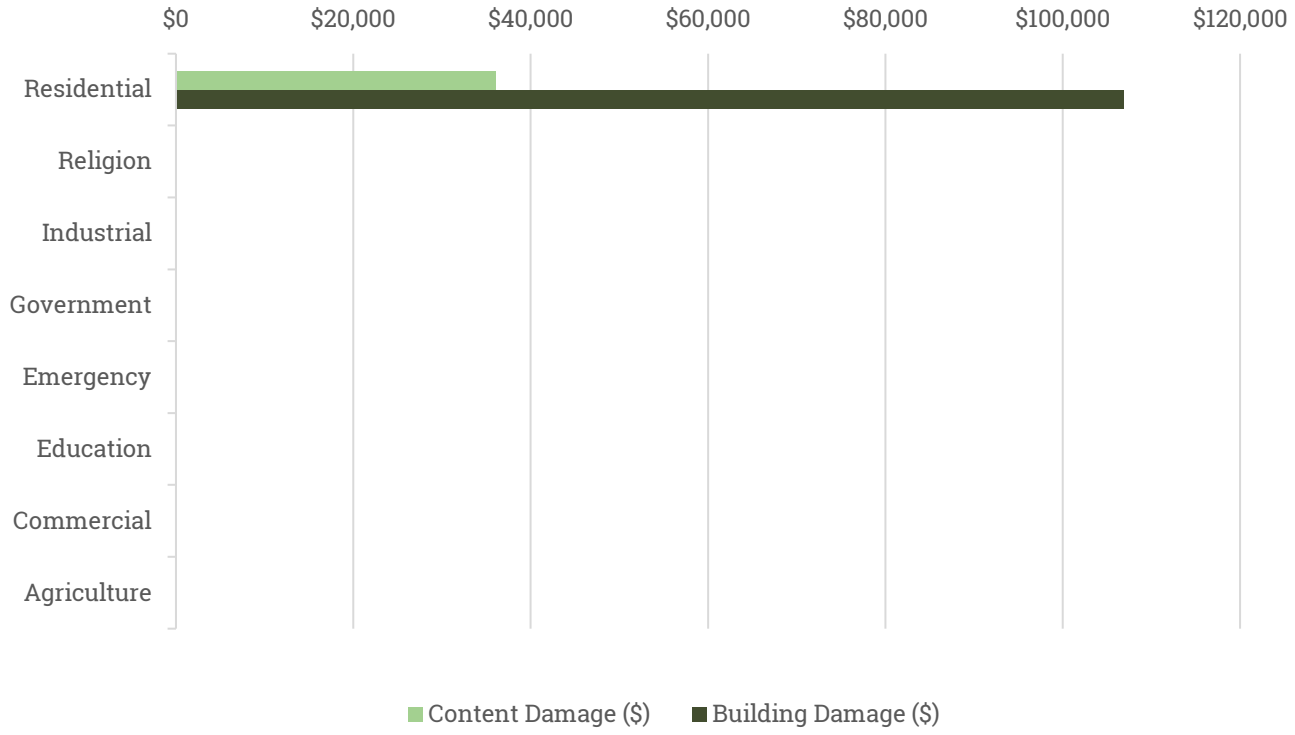


Figure 2-3: Dixon - FEMA Flood Risk Exposure

Table 2-4: Dixon - Damage Estimate Summaries, 100 YR Flood

Building Type	Building Damage ($)	Building Damage (% of total loss)	Content Damage ($)	Content Damage (% of total loss)	Total Damage ($)	Proportion of Loss (%)
Agriculture	$0	0.0%	$0	0.0%	$0	0%
Commercial	$0	0.0%	$0	0.0%	$0	0%
Education*	$0	0.0%	$0	0.0%	$0	0%
Emergency	$0	0.0%	$0	0.0%	$0	0%
Government	$0	0.0%	$0	0.0%	$0	0%
Industrial	$0	0.0%	$0	0.0%	$0	0%
Religion	$0	0.0%	$0	0.0%	$0	0%
Residential	$106,811	74.8%	$36,057	25.2%	$142,868	100%
Total	**$106,811**	**75%**	**$36,057**	**25%**	**$142,868**	

**School district asset information not available during time of Hazus analysis.*
Note: Total Inventory Values
1 - Building Replacement Costs = $3,773,922,295
2 - Content Replacement Costs = $2,667,166,517
3 - Total Value = $6,441,088,812



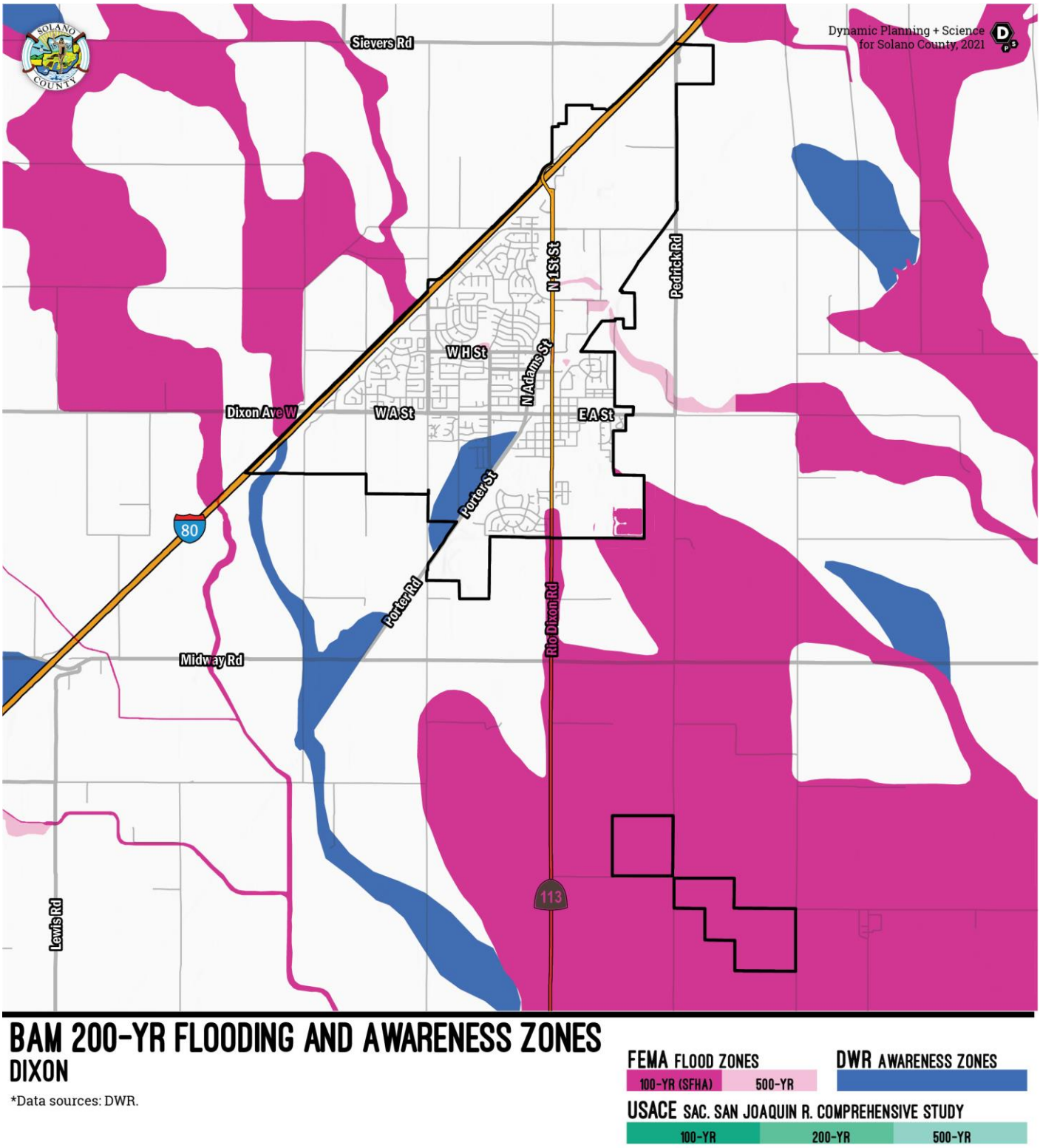


Figure 2-4: Dixon - BAM 200-YR Flooding and Awareness Zones

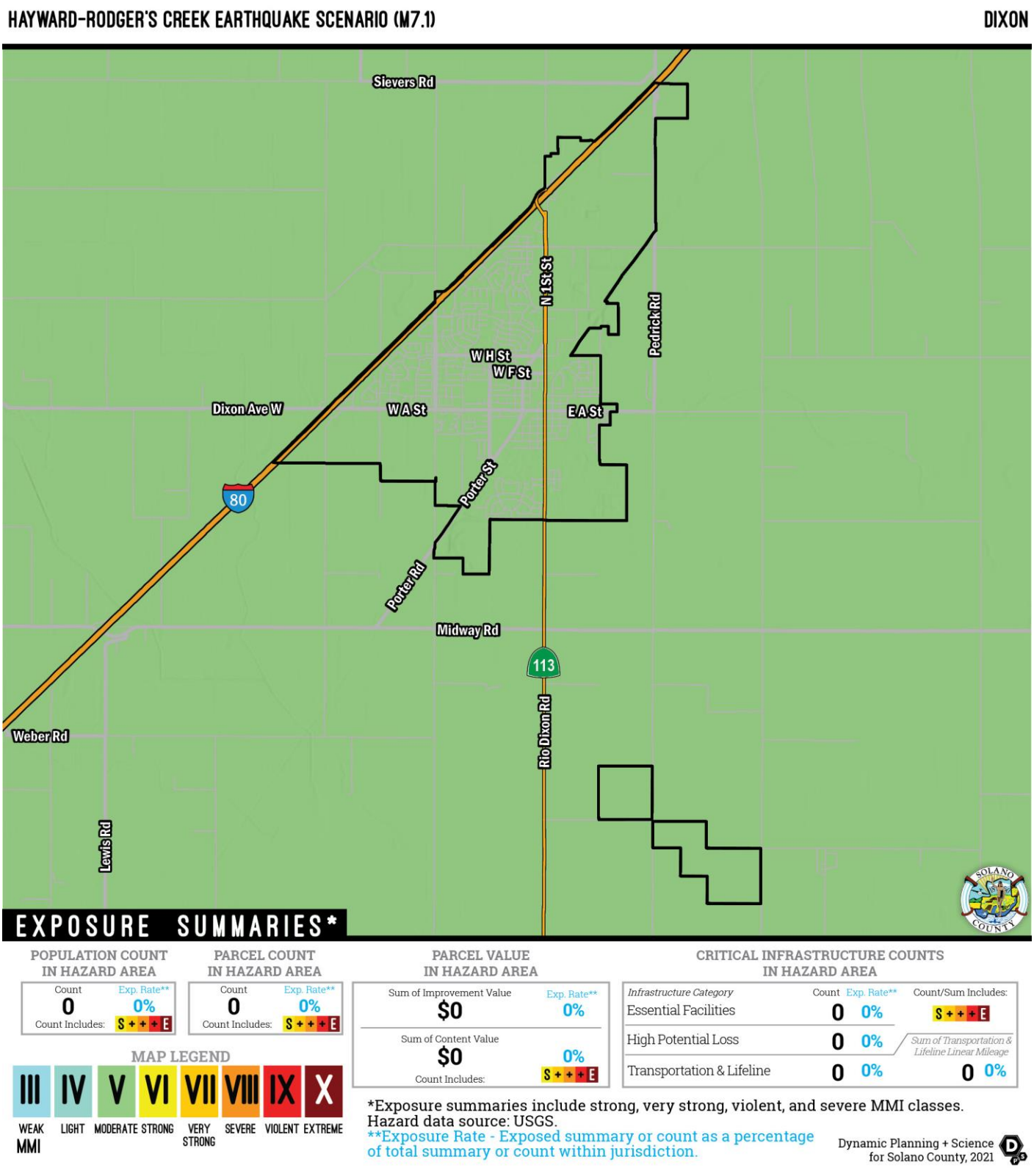
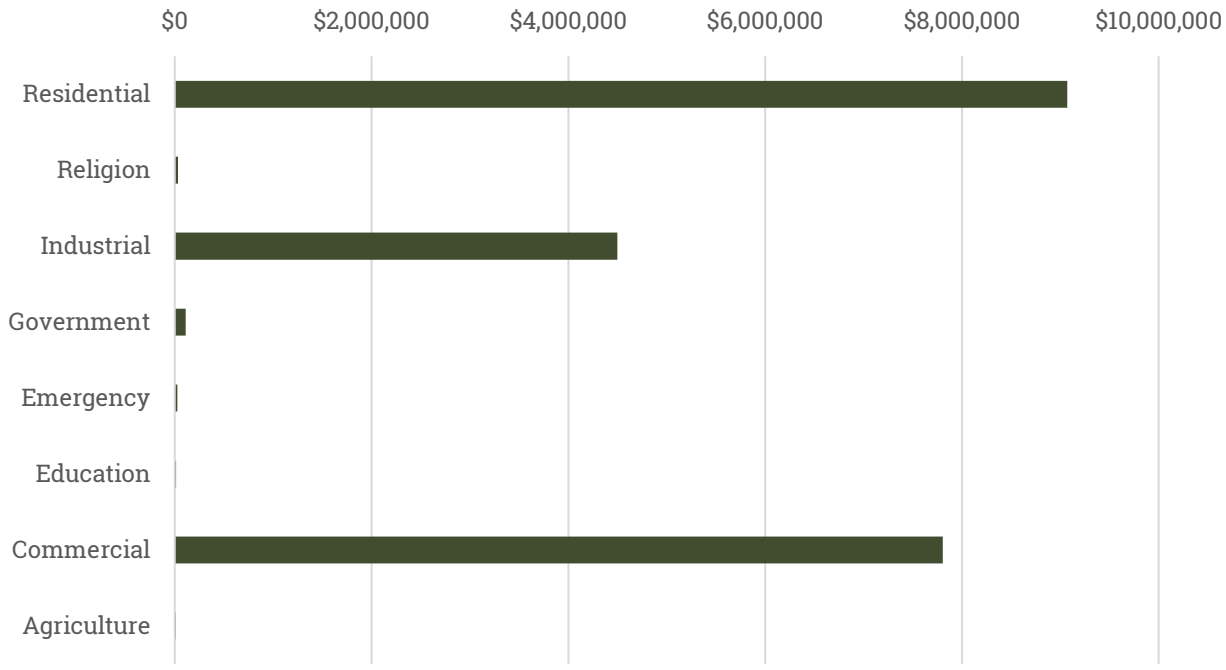


Figure 2-5: Dixon - Hayward Rodger's Creek EQ Scenario (M7.1)

Table 2-5: Dixon - Hayward Roger's Creek Damage Estimation Summaries

Building Type	Average of Potential Damage to Exceed "Slight"	Average of Potential Damage to Exceed "Moderate"	Average of Potential Damage to Exceed "Extensive"	Average Economic Loss for Each Building Category	Sum of Economic Loss	Proportion of Loss (%)
Agriculture	12%	4%	0%	$5,291	$10,583	0%
Commercial	5%	1%	0%	$45,923	$7,806,889	36%
Education*	12%	4%	0%	$13,291	$13,291	0%
Emergency	2%	0%	0%	$8,466	$25,397	0%
Government	4%	1%	0%	$1,966	$112,039	1%
Industrial	12%	4%	0%	$71,411	$4,498,869	21%
Religion	4%	0%	0%	$3,208	$32,085	0%
Residential	3%	0%	0%	$1,695	$9,071,995	42%
Total					**$21,571,146**	

**School district asset information not available during time of Hazus analysis.*
Note: Total Inventory Values
1 - Building Replacement Costs = $3,773,922,295
2 - Content Replacement Costs = $2,667,166,517
3 - Total Value = $6,441,088,812



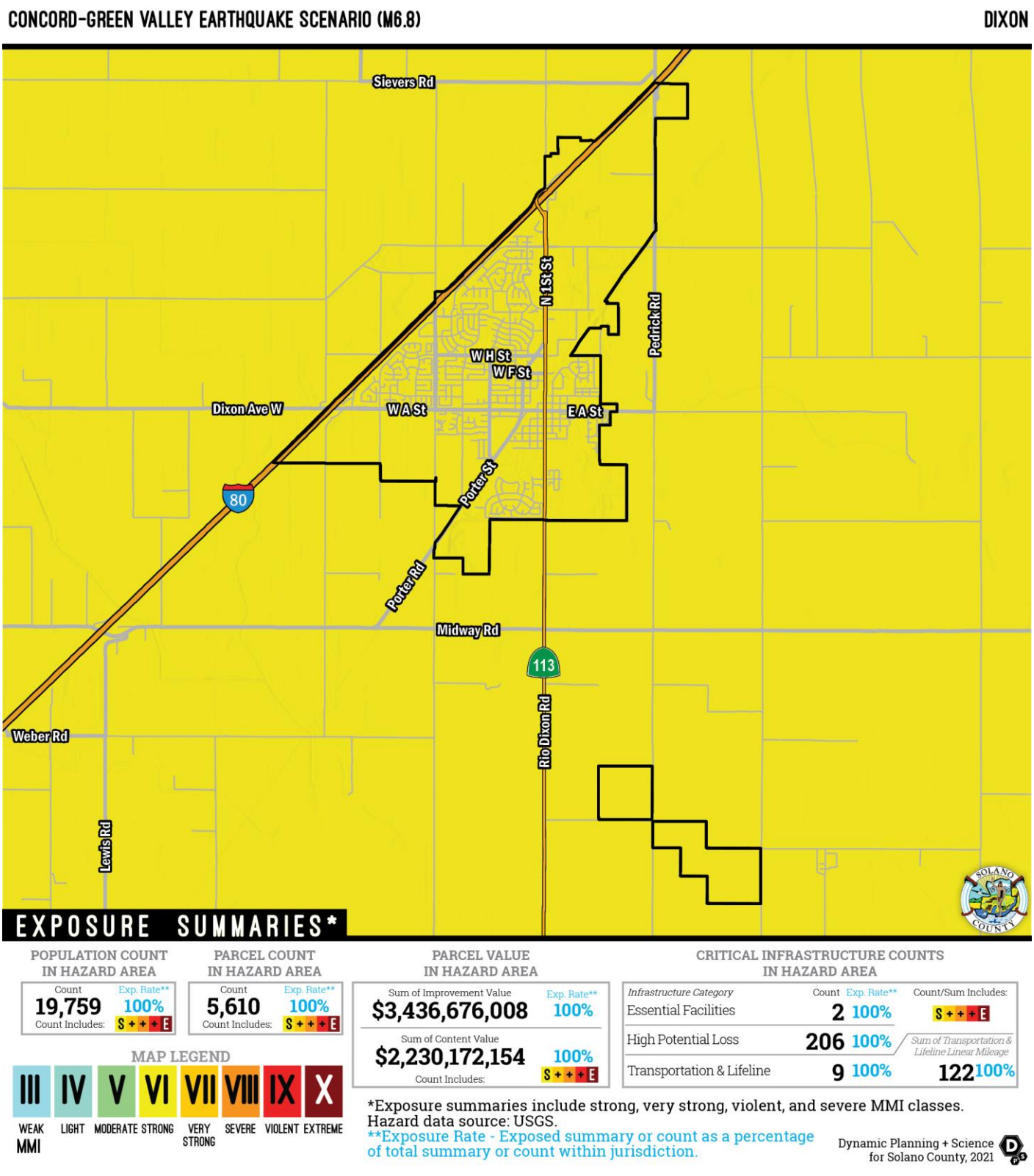
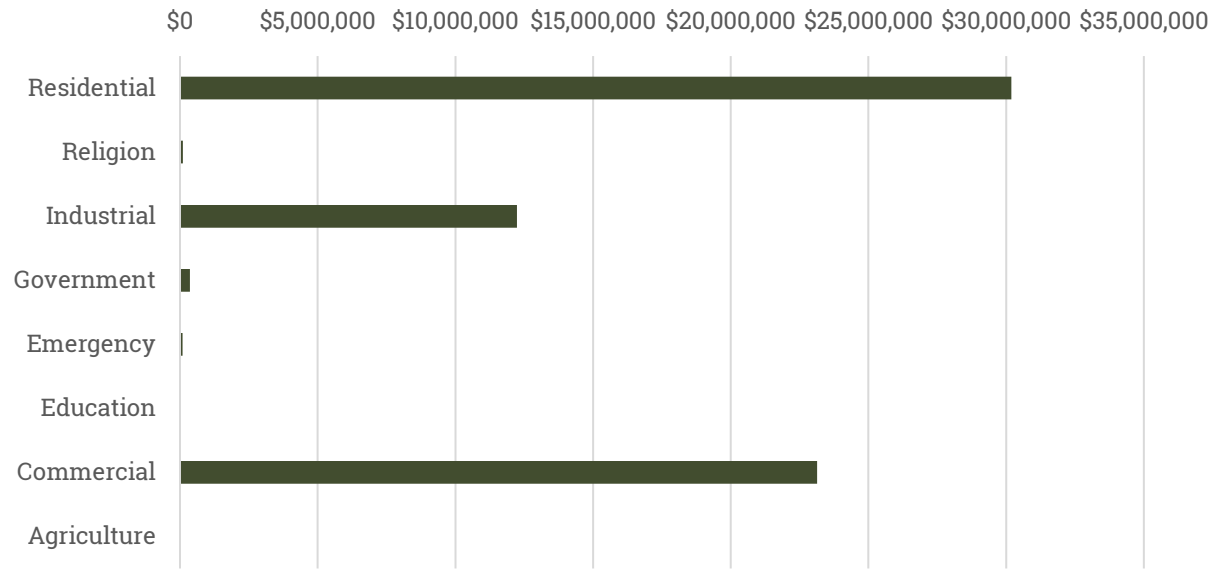


Figure 2-6: Dixon - Concord Green Valley EQ Scenario (M6.8)

Table 2-6: Dixon - Concord Green Valley Damage Estimate Summaries

Building Type	Average of Potential Damage to Exceed "Slight"	Average of Potential Damage to Exceed "Moderate"	Average of Potential Damage to Exceed "Extensive"	Average Economic Loss for Each Building Category	Sum of Economic Loss	Proportion of Loss (%)
Agriculture	27%	12%	2%	$13,309	$26,617	0%
Commercial	15%	4%	1%	$136,066	$23,131,297	35%
Education*	26%	11%	1%	$33,656	$33,656	0%
Emergency	6%	1%	0%	$32,038	$96,113	0%
Government	12%	2%	0%	$6,354	$362,185	1%
Industrial	29%	12%	2%	$194,249	$12,237,657	18%
Religion	11%	2%	0%	$10,559	$105,595	0%
Residential	10%	1%	0%	$5,641	$30,191,928	46%
Total					**$66,185,048**	

**School district asset information not available during time of Hazus analysis.*
Note: Total Inventory Values
1 - Building Replacement Costs = $3,773,922,295
2 - Content Replacement Costs = $2,667,166,517
3 - Total Value = $6,441,088,812



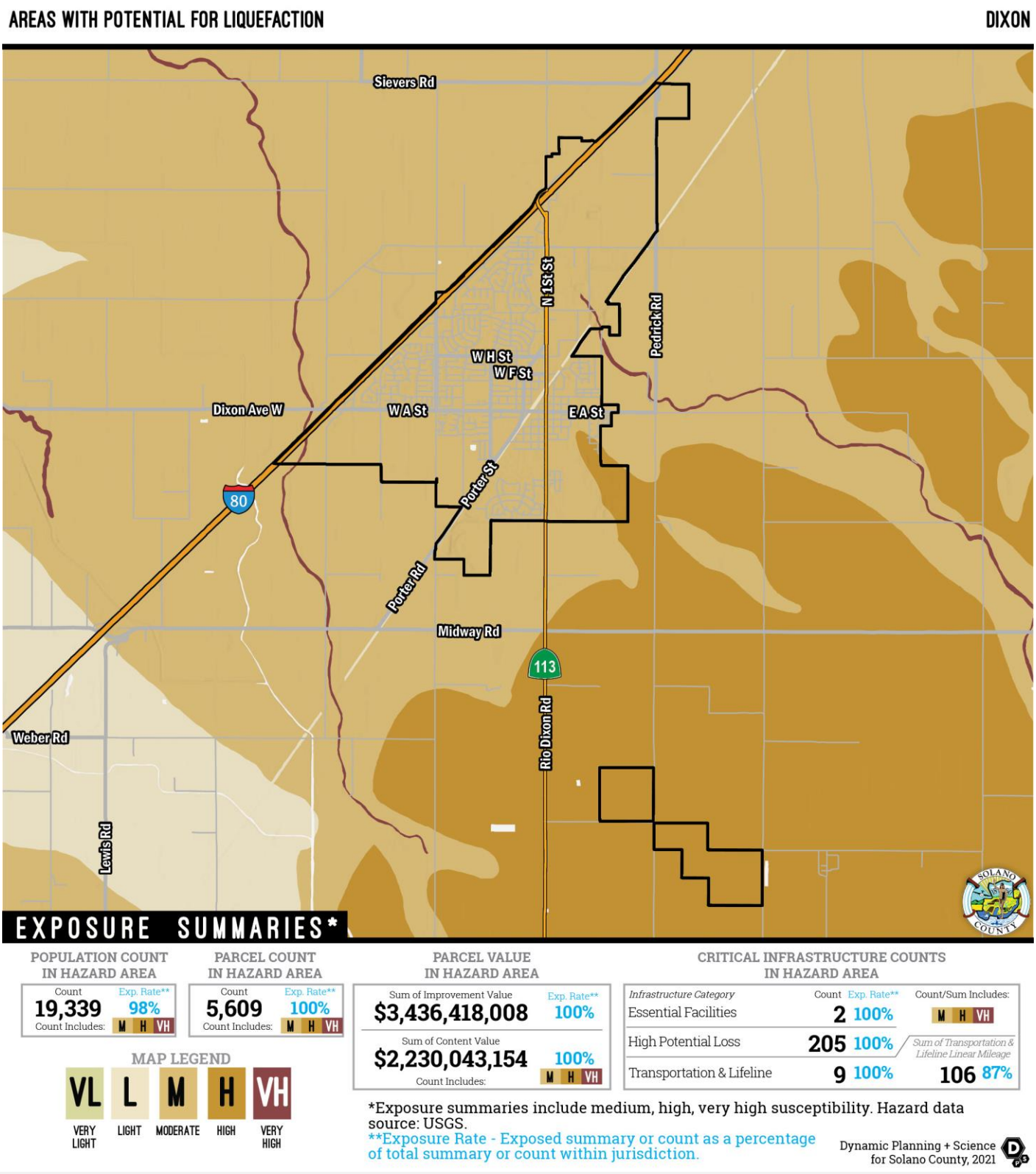


Figure 2-7: Dixon – Areas with Potential for Liquefaction

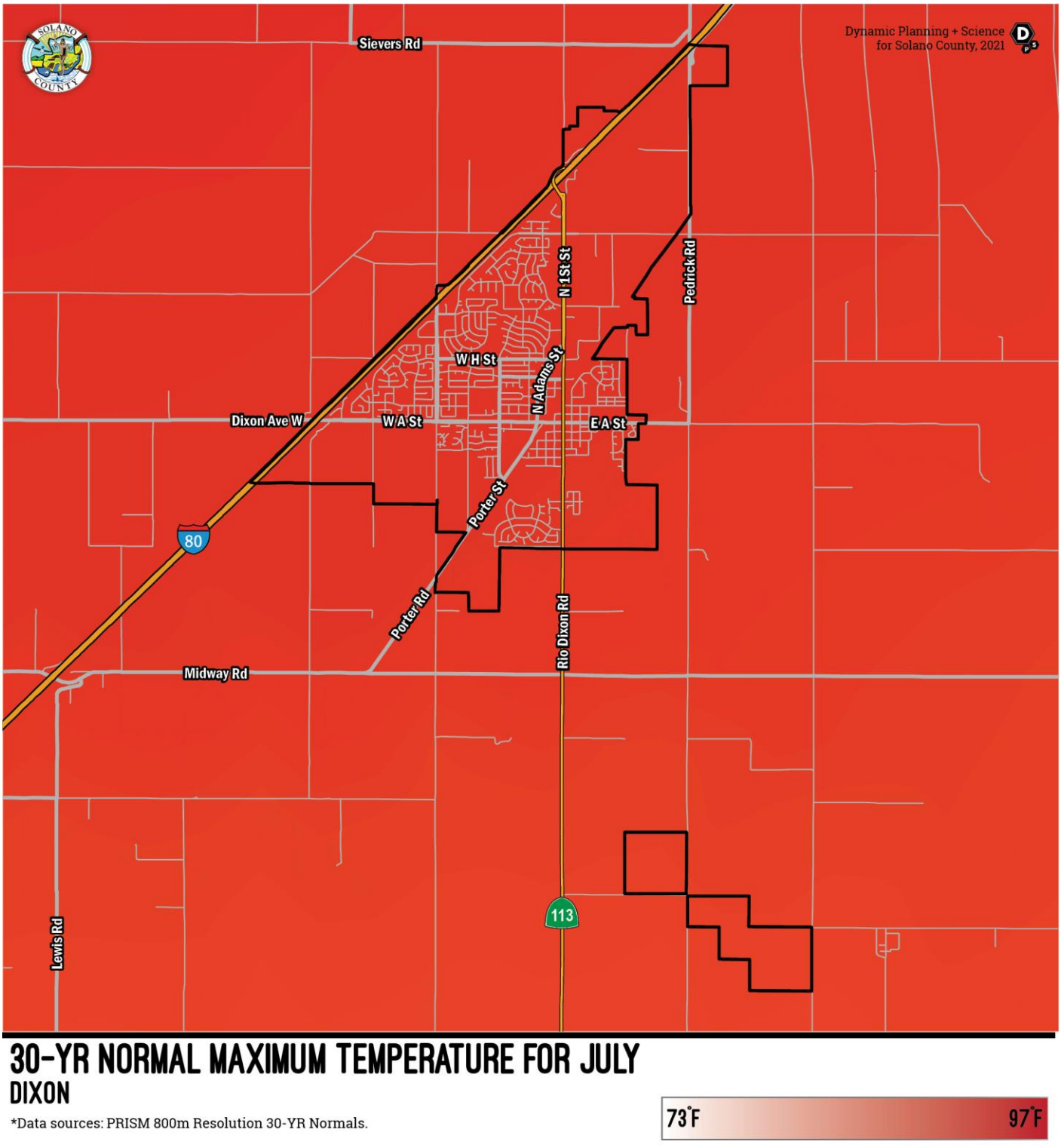


Figure 2-8: Dixon - 30-YR Normal Maximum Temperature for July

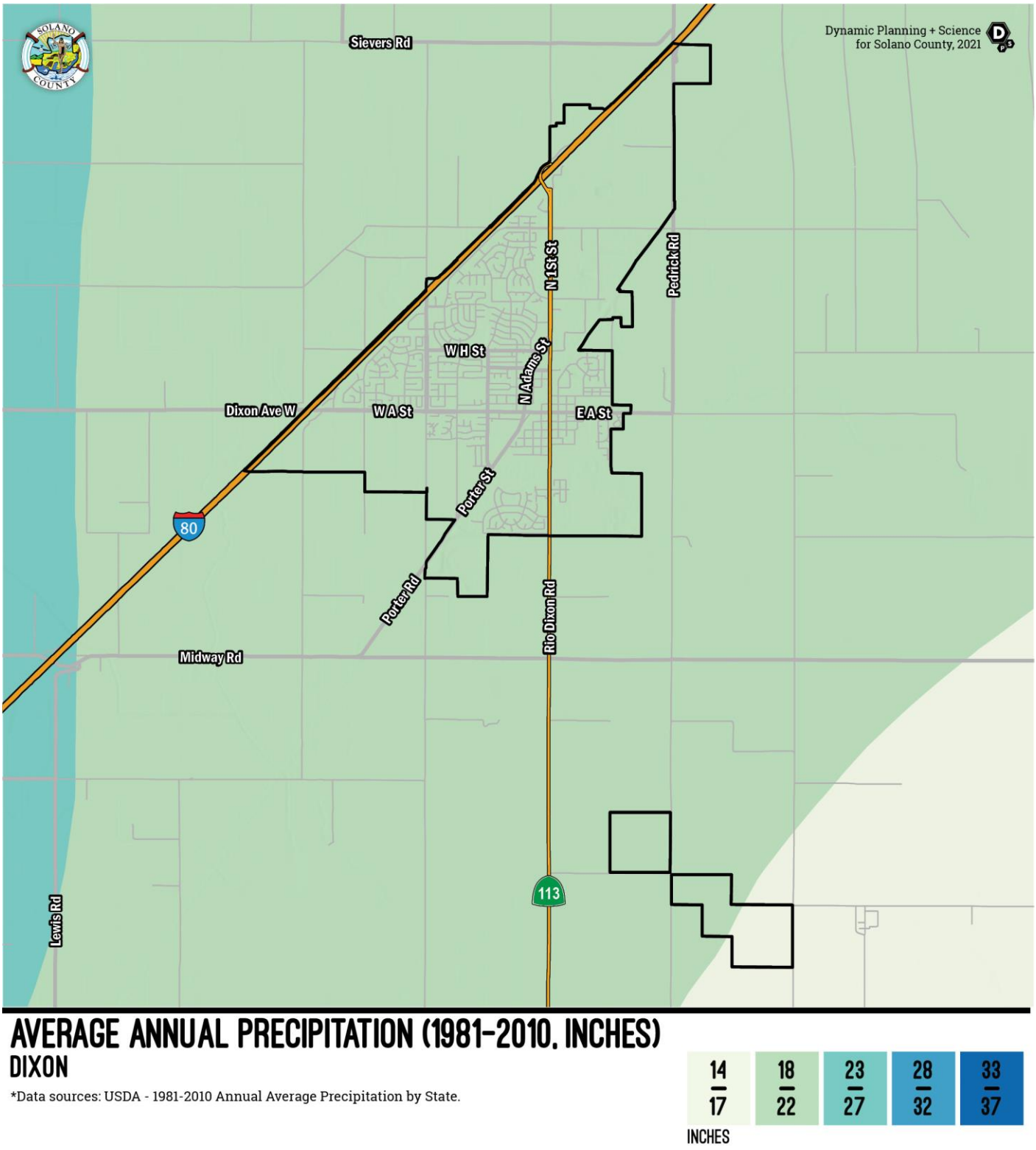


Figure 2-9: Dixon - Average Annual Precipitation (1981-2010)

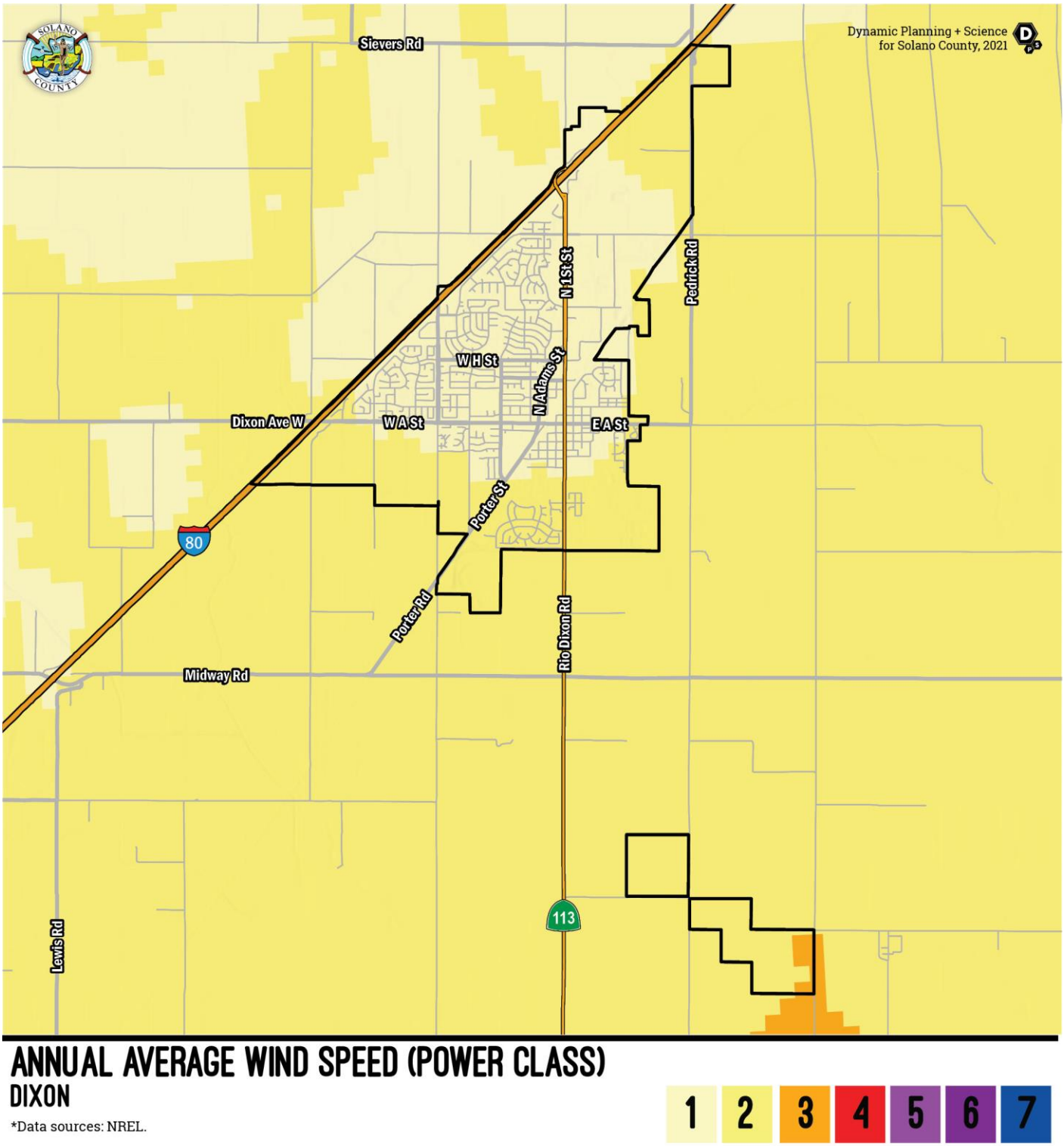


Figure 2-10: Dixon - Average Annual Wind Speed (Power Class)

Table 2-7: Dixon Drought Classifications and Impacts

Category	Description	Possible Impacts
D0	Abnormally Dry	▪ Active fire season begins. ▪ Going into drought, short term dryness, slowing planting, growth of crops or pastures. ▪ Coming out of drought, some lingering water deficits and pasture or crops not fully recovered
D1	Moderate Drought	▪ Some damage to crops, pastures. ▪ Streams, reservoirs, or wells low, some water shortages developing or imminent. ▪ Voluntary water-use restrictions requested
D2	Severe Drought	▪ Crop or pasture losses likely ▪ Water shortages common ▪ Water restrictions imposed
D3	Extreme Drought	▪ Major crop/ pasture losses ▪ Widespread water shortages or restrictions
D4	Exceptional Drought	▪ Exceptional and widespread crop/ pasture losses ▪ Shortages of water in reservoirs, streams, and wells creating water

Adapted from U.S. Drought Monitor Drought Classifications and Impacts

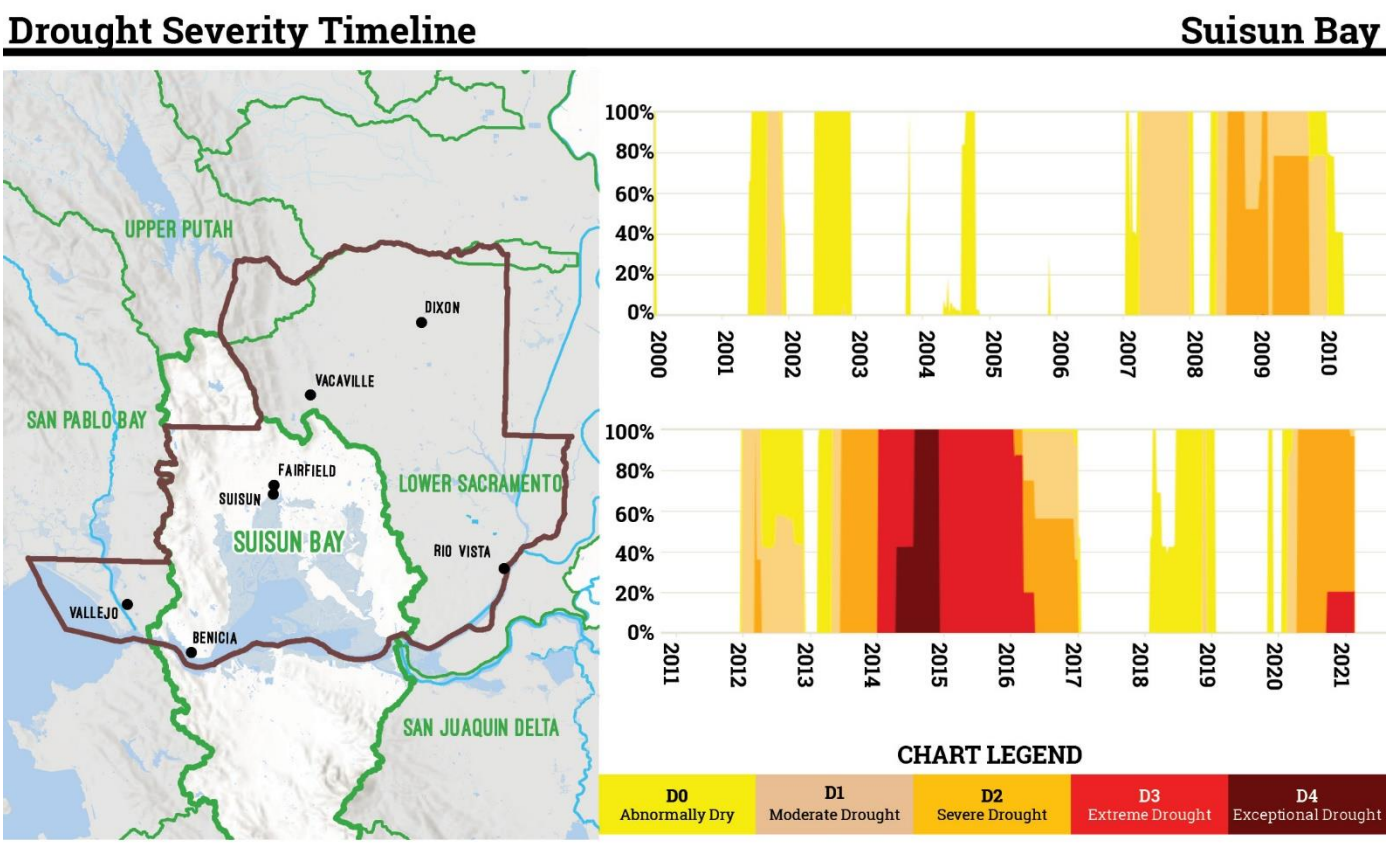


Figure 2-11: Drought Severity Timeline - Suisun Bay

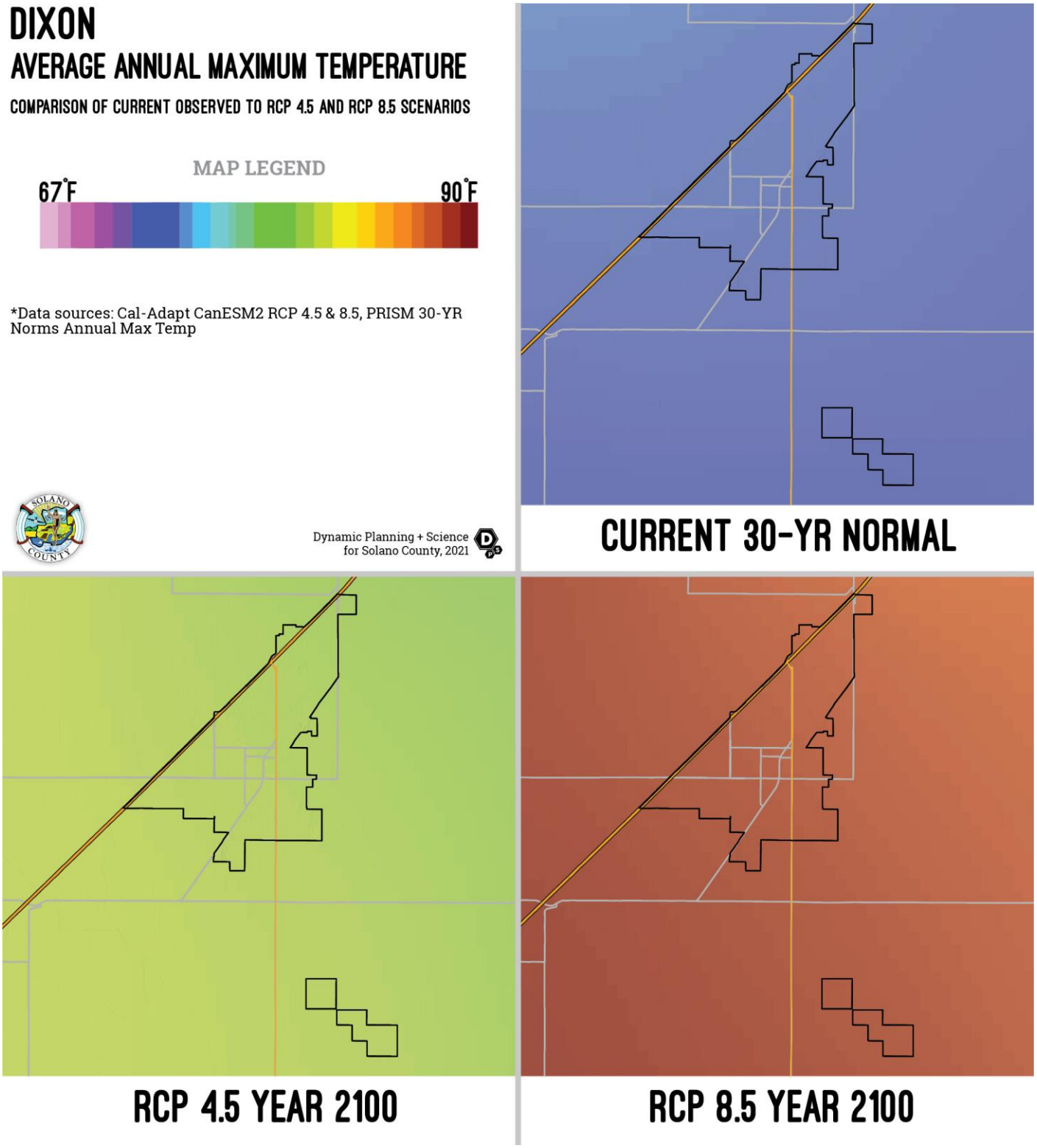


Figure 2-12: Dixon - RCP Comparison

2.4.3.3 Past and Future Development

The City of Dixon is a general law city that crafts its own development regulations and is subject to State law. Future development is subject to compliance with state and local planning, zoning, subdivision, and architecture laws.

The City of Dixon's General Plan (GP) establishes long-range development policies. The GP is designed to help the City address issues related to land use, circulation (traffic), housing, open space, conservation, noise, and safety. The Land Use portion of the plan helps guide the City in determining the location of future development(s), including possible future annexation. In addition to the GP, the City has other plans that guide development in specific areas, including specific plans, policy plans, and master plans. These plans help to shape future development and dictate the City's Sphere of Influence (SOI). One of the central functions in these planning documents is to decrease risk of impact from natural hazards.

Development since Previous HMP

The City considered its growth since the last HMP and determined it had completed several significant mitigation activities and substantially decreased its vulnerability to hazards. In effort to respond to drought conditions, the City recently installed artificial turf fields and instituted subsidized desalination stations which reduce the need for salt filters to make water softer. The City of Dixon has also developed a dam emergency action plan for City-owned dam "Pond A," which has been submitted to CalOES. This HMP Annex reflects these substantial changes and focuses on avenues to better mitigate impacts from problematic past development.

Future Development

City of Dixon is required to update building codes to meet the minimum standards to those required in the California Building Code last updated in 2019. California Building Codes provide some of the safest construction standards in the world and are meant to reduce risk to occupants from high wind, seismic activity, landslides, flood, wildfire, and other natural hazards. In addition to California minimum develop standards, all jurisdictions belong to the NFIP, and all development must meet minimum flood protection standards set forth by FEMA. See Section 4.3.5 of Volume 1 for more information about past and future development in Solano County.

As the General Plan is updated and incorporates information from this HMP, City of Dixon staff are continually improving hazard information through these hazard mitigation plan updates. With this 2020 update, improved online mapping about natural hazards available on RAMP will inform those responsible for future development to make better decisions where and how future development occurs.

City of Dixon reviewed its general plans under the capability assessments undertaken for this hazard mitigation plan. See Section 2.5.1. Deficiencies revealed by these reviews are identified as mitigation actions to decrease risks to move beyond past trends.

The City's municipal codes includes regulations to mitigate the impact of hazards on new and existing development, including:

- Drainage and stormwater retention requirements,
- Steep slope restrictions for new development,
- Waterbody buffer requirements,
- Floodplain management regulations,
- Zoning that prevents development in hazardous areas of the community such as floodplains, landslide areas, the wildland-urban interface (WUI), or other known hazard areas, and
- Building codes that include the most up-to-date California Fire Code, seismic standards, and many other provisions crafted to protect new construction from hazard events.

The City of Dixon is currently growing at a fast pace, specifically within two previously approved subdivisions at the south and southwest portions of the city. Future residential growth will continue in the southwest as well as vacant lands on the southwest and eastern parts of the city. Future industrial and commercial growth will focus on the northeast portions of the city and along the interstate, along with infill and redevelopment within developed parts of the city.

With the recent adoption of the general plan 2040 on May 18, 2021, the City will next embark on two major planning initiatives. The first will include updating the Housing Element for the next housing cycle of 2023-2031. This is due to be completed by 2023. Additionally, the City will update the outdated Zoning Ordinance and Zoning Map, Funds were requested as part of the 2021-22 budget and recently approved. The updated Zoning Ordinance will review and modernize the City's zoning and development standards

Even in the event that limited development did occur within a hazard area, the municipal code should ensure impacts from a hazard event are mitigated and losses are minimal. If development does occur in hazard areas, evacuation and emergency planning should take into consideration the anticipated local impacts of the hazard event, including potential interrupted services or the elimination of access.

The anticipated growth in the City will not cause significant change in vulnerability to the City for identified priority hazards.

National Flood Insurance Program (NFIP)

The NFIP makes federally backed flood insurance available to homeowners, renters, and business owners in participating communities. FEMA has prepared a detailed Flood Insurance Study (FIS) for Solano County and municipalities. The study presents water surface elevations for floods of various magnitudes, including the 1-percent annual chance flood and the 0.2-percent annual chance flood (the 500-YR flood). Base flood elevations and the boundaries of the 100- and 500-YR floodplains are shown on Flood Insurance Rate Maps (FIRMs), which are the principal tools for identifying the extent and location of the flood hazard. FIRMs are the most detailed and consistent data source available, and for many communities they represent the minimum area of oversight under their floodplain management program. See Section 4 of Volume 1 for general information on the NFIP.

The City of Dixon has participated in the NFIP since 1981 The City of Dixon is currently in good standing with the provisions of the NFIP. Compliance is monitored by FEMA regional staff and by the California Department of Water Resources under a contract with FEMA. Maintaining compliance under the NFIP is an important component of flood risk reduction. See Table 2-8 for more information on the City's policies and historic flood insurance claims.

Table 2-8: NFIP Status Table

NFIP and CRS Status & Information	
City of Dixon	
NFIP Status	05/19/81
CRS Class	-
Policies in Force	20
Policies in SFHA	2
Policies in non-SFHA	18
Total Claims Paid	$3,342
Paid Losses	7
Repetitive Loss Properties	1
Severe Repetitive Loss Properties	-
Repetitive Loss Payment by NFIP on Building	$10,488
Repetitive Loss Payment by NFIP on Contents	$0

Source: FEMA CIS 2021, OpenFEMA Data, FIMA RUL Solano County

Note: Policies and claims provided directly from FEMA Region IX CIS Report (8/2021). Repetitive loss tabulations by jurisdiction derived via GIS-based intersect of data available at OpenFEMA Data (https://www.fema.gov/about/openfema/data-sets). Countywide data reported for entire county area including municipalities.The Privacy Act of 1974 (5 U.S.C. 522a) restricts the release of certain types of data to the public. Flood insurance policy and claims data are included in the list of restricted information. FEMA can only release such data to state and local governments, and only if the data are used for floodplain management, mitigation, or research purposes. Therefore, this plan does not identify the repetitive loss properties or include claims data for any individual property.

See Volume 1, Section 4.5 for more information on the NFIP

2.4.3.4 Identify Hazard Problem Statements

As part of the mitigation action identification process, the Planning Committee for each jurisdiction identified areas of concern (aka problem statements) for their respective facilities based on the risk assessment and vulnerability analysis, utilizing the RAMP mapping and static snapshot maps. Problem statements focused on the impact, victim, or threat that the hazard could create in the jurisdiction, as described in Figure 2-13. Identifying common issues and weaknesses through these problem statements assisted the Planning Committee in understanding the realm of resources needed for mitigation. Jurisdiction problem statements are listed in Table 2-9.

The goal is to have at least one mitigation action for every problem statement. Projects or actions have been developed to mitigate each problem identified. See Table 2-14 for a full list of mitigation actions and corresponding problem statements that they address. Each problem statement is coded with a problem number for cross-referencing between Table 2-9 and Table 2-14.

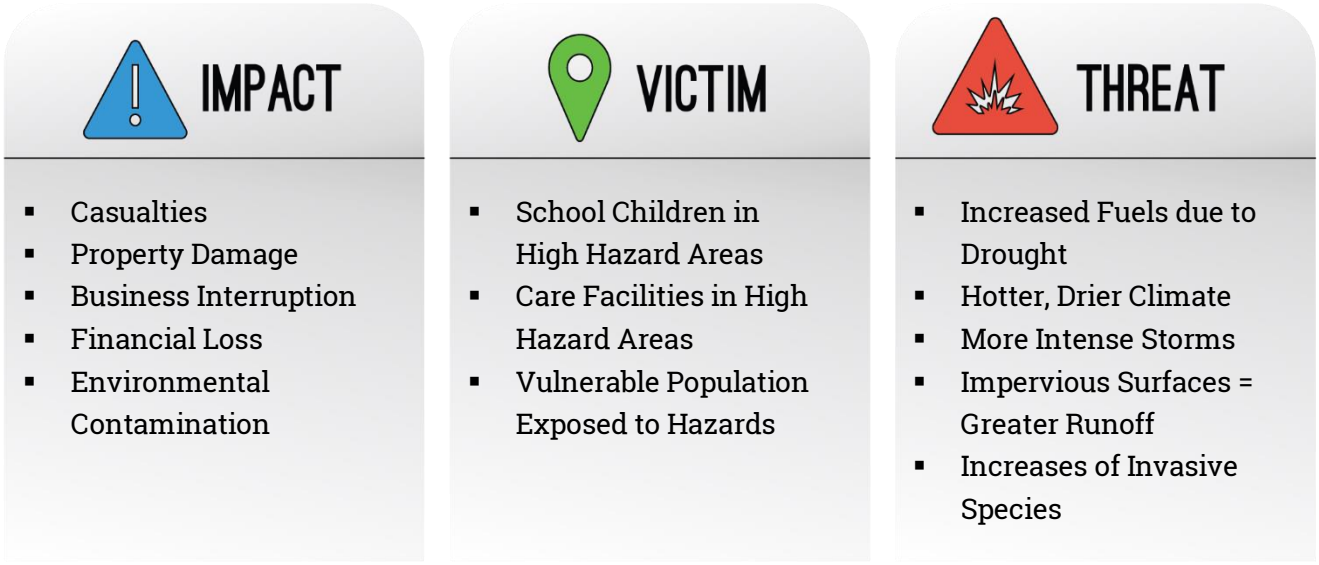


Figure 2-13: Guidance for Problem Statements

Table 2-9: Problem Statements

Problem No.	Hazard Type	Area of Concern	Mitigation Alternatives	Primary Agency	Problem Description	Related MA
ps-AH-DX-149	All Hazard	Impact	PRV - Prevention, PE&A - Public Education & Awareness, ES - Emergency Services	**City of Dixon**	If the jurisdiction's railway were damaged, the city would not have access to the interstate.	ma-AH-DX-116
ps-AH-DX-150	All Hazard	Victim	PE&A - Public Education & Awareness, ES - Emergency Services	**City of Dixon**	Dixon needs a secondary alerting system to notify community of impending incidents.	ma-AH-DX-117
ps-EQ-DX-151	Earthquake	Impact	PPRO - Property Protection, PE&A - Public Education & Awareness, NRP - Natural Resource Protection, SP - Structural Projects	**City of Dixon**	Earthquakes can cause major damage to the jurisdiction causing liquefaction throughout the city.	ma-EQ-DX-119
ps-EQ-DX-152	Earthquake	Impact	PRV - Prevention, PPRO - Property Protection, SP - Structural Projects	**City of Dixon**	Many city facilities, constructed in 1978 including city administration buildings, need retrofits.	ma-EQ-DX-120
ps-EQ-DX-153	Earthquake	Impact	PRV - Prevention, PPRO - Property Protection, SP - Structural Projects	**City of Dixon**	Most of the City's water is produced from wells, however if pumps are damaged during an earthquake, this may cause major water supply issues.	ma-EQ-DX-121
ps-EQ-DX-154	Earthquake	Impact	PRV - Prevention, PE&A - Public Education & Awareness	**City of Dixon**	Dixon has several petroleum transmission (PGE) lines running through jurisdiction, mostly natural gas, which presents the potential for gas leaks throughout the town.	ma-EQ-DX-122
ps-EQ-DX-155	Earthquake	Impact	PRV - Prevention, SP - Structural Projects	**City of Dixon**	Sewer lines are vitrified clay pipes, there is potential for failure when shaking.	ma-EQ-DX-123
ps-FL-DX-156	Flood	Impact	PRV - Prevention, PE&A - Public Education & Awareness	**City of Dixon**	Sandbagging is required annually to address flooding.	ma-FL-DX-126, ma-FL-DX-186
ps-DR-DX-157	Drought	Impact	PE&A - Public Education & Awareness	**City of Dixon**	There is not enough public outreach to educate the community about drought and drought impacts.	ma-DR-DX-118
ps-EW-DX-158	Extreme Weather	Impact	PRV - Prevention, PPRO - Property Protection, PE&A - Public Education & Awareness, ES - Emergency Services	**City of Dixon**	70 mile per hour wind gusts have become more frequent presenting potential damage opportunity to infrastructure and increased susceptibility to damaging wildland fires.	ma-EW-DX-124

Problem No.	Hazard Type	Area of Concern	Mitigation Alternatives	Primary Agency	Problem Description	Related MA
ps-EW-DX-159	Extreme Weather	Impact	PE&A - Public Education & Awareness, ES - Emergency Services	**City of Dixon**	The city lacks a documentation system and additional resources to document recurring heavy rain events, causing flooding.	ma-EW-DX-179
ps-EW-DX-160	Extreme Weather	Impact	PE&A - Public Education & Awareness, ES - Emergency Services	**City of Dixon**	Need for more generators throughout the jurisdiction for cooling centers.	ma-EW-DX-125
ps-CC-DX-180	Climate Change	Impact	PRV - Prevention, PPRO - Property Protection, SP - Structural Projects	**City of Dixon**	Climate change is predicted to increase the intensity of storms, drought, flooding, and wildfire.	ma-FL-DX-126; ma-CC-DX-215

2.4.4 Mitigation Action Support Tool (MAST)

As a living document, hazard problem statements and mitigation activities will be updated through a web interface application developed specifically for participating jurisdictions. The Mitigation Action Support Tool (MAST) is accessible through mitigatehazards.com/SolanoHMP/.

MAST is a web-based interactive tool that enables multiple users to search, view, enter, and update mitigation actions, ideas or projects, and other information. MAST provides participating jurisdictions and plan reviewers (Cal OES/FEMA) access to valuable mitigation information that can be leveraged by future planning or other risk reduction efforts within the County. Participating jurisdictions can update the status of their mitigation projects throughout the planning lifecycle, and this web-based tool will improve participating jurisdiction's ability to apply for FEMA's Hazard Mitigation Assistance (HMA) grant programs including initial grant application processes through Cal OES.

2.5 Mitigation Strategy

The mitigation strategy is the guidebook to future hazard mitigation administration, capturing the key outcomes of the MJHMP planning process. The mitigation strategy is intended to reduce vulnerabilities outlined in the previous section (a.k.a. problem statements) with a prescription of policies and physical projects. These mitigation actions should be compatible with existing planning mechanisms and should outline specific roles and resources for implementation success.

2.5.1 Capabilities & Adaptive Capacity Assessment

This section examines the planning and regulatory, administrative, technical, financial, educational, and outreach capabilities to augment known issues and weaknesses from identified natural hazards.

Capabilities assessments in this Volume 1 and in Volume 2 include considerations of a community's adaptive capacity for climate change, as outlined in Cal OES' 2020 California Adaptation Planning Guide. Adaptive capacity is a community or region's existing ability to moderate climate change impacts. Assessing adaptive capacity includes analysis of policies, plans, programs, funding, and staffing capacity.

The tables in this section explore various local planning mechanisms, administrative capacity, financial capabilities, and education and outreach initiatives. The columns in each table represent deeper dives into the following questions:

- Is the existing planning or regulatory mechanism used currently? (Column 1, Status)
- Has the HMP been integrated into the planning mechanism currently so that the named mechanism is currently used in HMP planning? (Column 2, Current Mitigation Use)
- Is there a future opportunity to expand, improve upon, and incorporate this 2020 HMP Update into the planning or regulatory mechanism? (Column 3, Future Opportunity)

The capabilities assessment is easily digestible and based on color coding to indicate which policies and plans are adequate, need improvement or in which the HMP could be integrated. Each table includes a legend that explain how each one of these questions are being answered according to the color indicated: green, yellow, and orange.

For more information on the regulatory environment surrounding each hazard, see hazard-specific sections of Volume 1. Volume 1, Section 5.3.5 includes an extensive list of federal and state funding opportunities as well.

2.5.1.1 Planning and Regulatory Capabilities

Table 2-10: Planning and Regulatory Capabilities

CAPABILITY ASSESSMENT LEGEND

Status	Current Mitigation Use	Future Opportunity
Currently in use or present.	Used widely for mitigation.	Opportunity to expand and integrate.
(Sort of) Seldomly used or limited presence.	Limited use in mitigation planning.	Limited opportunity to expand and integrate.
(No) Not present or available.	Not used in mitigation planning.	No opportunity to expand or integrate.

Resource	HMP Integration: Status	HMP Integration: Current Mitigation Use	HMP Integration: Future Opportunity	Notes / Additional Detail
Planning and Regulatory Capabilities				
Construction and Future Development Regulations				
Building Codes				2019 California Building Code
Building Code Effectiveness Grading Schedule (BCEGS) Rating	N/A	N/A	N/A	Unknown
Public Protection (ISO Class)				3
Hazard Related Development Standards				Flood Damage Prevention (9.04)
Hazard-Specific Ordinance				Flood Damage Prevention (9.04); Fire Code, Means of Egress (Chapter 10); Water efficient landscaping (14.02.275)
Zoning Ordinance				
Growth Management Ordinance				Measure B Residential Growth Implementation Plan (18.48).
Hazard Reduction Programs (Annually Conducted)				
Capital Improvements Program (CIP) or Plan				2017/18-2021/22.Capital Improvement Plan
Erosion/Sediment Control Program				
Hazard-Related Public Outreach Program				See Education & Outreach Capabilities for more specifics.
Stormwater Management Program (Annual Inspections)				.
Seismic Safety Program (Non-structural Inspections)				
Earthquake Modernization Program (Building Safety Inspections)				
Hazard Plans				
General Plan Safety Element				1993, currently being updated
Noteworthy Area/ Specific Plan with Hazard Focus	N/A	N/A	N/A	

Resource	HMP Integration: Status	HMP Integration: Current Mitigation Use	HMP Integration: Future Opportunity	Notes / Additional Detail
Planning and Regulatory Capabilities				
Community Wildfire Protection Plan (CWPP)		N/A	N/A	
Wildfire Vulnerability Assessment	N/A	N/A	N/A	
Urban or Integrated Regional Water Management Plan				Cal Water Service, Dixon Area, 2015
Floodplain Management Plan				See UWMP
Stormwater Management Plan				Stormwater Management Plan fiscal years 2003/4-2007/8
Ground Water Management Plan(s)				Solano County Groundwater Sustainability Plan in development
Open Space and Land Management Plan(s)				
Emergency Operations Plan				2014 City of Dixon Emergency Operations Plan
Climate Action Plan, Vulnerability Ass'mt, or Adaptation Plan				2011 County of Solano Climate Action Plan
Sustainable Community Plan (SB 375)				ABAG Plan Bay Area 2040 (2017)
Local Delta/ Wetlands Program(s)	N/A	N/A	N/A	
Downtown Plan with hazard focus	N/A	N/A	N/A	
Community Health Assessment(s)	N/A	N/A	N/A	Solano County Health Assessment
National Flood Protection Program (NFIP)				
Floodplain Management Regulations				Methods of Reducing Flood Losses (9.04.040)
Flood Insurance Education and Technical Assist.				2013 Flood Insurance Study
Flood Hazard Mapping / Re-Mapping				FEMA Flood Insurance Rate Map 2009
Community Rating System (CRS)				

2.5.1.2 Administrative and Technical Capabilities

Table 2-11: Administrative and Technical Capabilities

CAPABILITY ASSESSMENT LEGEND

Status	Current Mitigation Use	Future Opportunity
Currently in use or present.	Used widely for mitigation.	Opportunity to expand and integrate.
(Sort of) Seldomly used or limited presence.	Limited use in mitigation planning.	Limited opportunity to expand and integrate.
(No) Not present or available.	Not used in mitigation planning.	No opportunity to expand or integrate.

Resource	HMP Integration: Status	HMP Integration: Current Mitigation Use	HMP Integration: Future Opportunity	Notes / Additional Detail
Administrative and Technical				
Community Planning and Development Services				
Community Planner				Associate Planner, Scott Greeley
Civil Engineer				Public Works Director/City Engineer Joe Leach
Building Code Official				Building inspector II, Joel Engrahm
Floodplain Administrator				Deputy Public Works Director, Louren Kotow
Fire Marshall				Fire Chief, Greg Lewis
Dedicated Public Outreach Personnel				
GIS Specialist and Capability				
Emergency Manager				
Grant Manager, Writer, or Specialist				
Other				
Warning Systems/Services				
General				AlertSolano
Flood				AlertSolano: Flood Risk: California Department of Water Resources Flood Risk Notification Program Flood Control: Solano County Water Agency
Wildfire				AlertSolano
Geological Hazards				AlertSolano ShakeAlert.org (nation-wide)

2.5.1.3 Financial Capabilities

Table 2-12: Financial Capabilities

CAPABILITY ASSESSMENT LEGEND

Status	Current Mitigation Use	Future Opportunity
Currently in use or present.	Used widely for mitigation.	Opportunity to expand and integrate.
(Sort of) Seldomly used or limited presence.	Limited use in mitigation planning.	Limited opportunity to expand and integrate.
(No) Not present or available.	Not used in mitigation planning.	No opportunity to expand or integrate.

Resource	HMP Integration: Status	HMP Integration: Current Mitigation Use	HMP Integration: Future Opportunity	Notes / Additional Detail
Fiscal Capabilities				
Financial Resources for Hazard Mitigation				
Levy for Specific Purposes with Voter Approval				While the City has employed these various financial capabilities to varying degrees, there are no examples of employing them for hazard mitigation projects or planning. However, it's not anticipated that many of these would be used to fund hazard mitigation projects in the future, either, unless paired with other grant funding.
Utilities Fees				
Benefit assessments				
System Development Fee				
Various Bonds to Incur Debt				
Withheld Spending in Hazard-Prone Areas	N/A	N/A	N/A	
Stormwater Service Fees				
Capital Improvement Project Funding				

2.5.1.4 Education and Outreach

Table 2-13: Education and Outreach Capabilities

CAPABILITY ASSESSMENT LEGEND

Status	Current Mitigation Use	Future Opportunity
Currently in use or present.	Used widely for mitigation.	Opportunity to expand and integrate.
(Sort of) Seldomly used or limited presence.	Limited use in mitigation planning.	Limited opportunity to expand and integrate.
(No) Not present or available.	Not used in mitigation planning.	No opportunity to expand or integrate.

Resource	HMP Integration			Notes / Additional Detail
	Status	Current Mitigation Use	Future Opportunity	
Education / Outreach Capabilities				
Education/Outreach Resources				
Website Dedicated to Hazard Topics				"Disaster Resources" webpage
Dedicated Social Media				Yes, City and Police FB, Instagram, Twitter
Hazard Info. Avail. at Library/ Planning Desk				
Annual Public Safety Events				not currently during COVID-19 pandemic
Ability to Field Public Tech. Assistance Requests				
Public Safety Newsletters or Printed Outreach				
Fire Safe Councils	N/A	N/A	N/A	
Resource Conservation Districts				Solano Resource Conservation District
Other				

2.5.1.5 Capability and Adaptive Capacity Opportunities

The City of Dixon identified many opportunities for strengthening community capabilities and adaptive capacity. The City considered this assessment in developing its Mitigation Strategy in Section 2.5.2. Volume 1, Section 5.3.5 includes an extensive list of federal and state funding opportunities to leverage to improve community capabilities. The City's General Plan is almost twenty years old and currently being updated Like many small cities, Dixon could increase staffing capacity, especially with emergency response and grant writing assistance, and could look to increase fiscal capabilities to improve. This City could also review its inspection programs for stormwater and earthquake safety. The City also has good capacity under its current codes and current education and outreach capacity.

2.5.2 Mitigation Actions

Mitigation actions were developed based upon the jurisdiction's priorities, risk assessment results, and mitigation alternatives. The mitigation action prioritization method used by all participating jurisdictions is described in Section 5.5.1 of Volume 1. Table 2-14 lists each priority mitigation action, responsible party, time frame, potential funding source, implementation steps, and resources need to implement based upon the Planning Committee consensus.

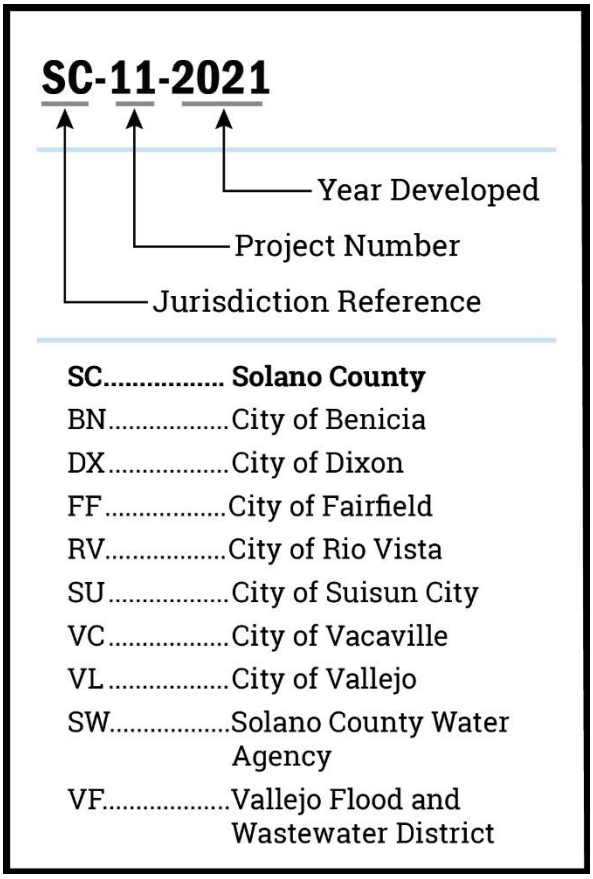


Figure 2-14: Mitigation Action Key

Each participating jurisdiction, including the City of Dixon, considered ongoing relevancy of mitigation actions from the existing MJHMP and retained or removed such actions while adding new relevant actions as well. Mitigation actions were examined for relevancy and the potential for future implementation and then evaluated for potential follow-up. Some mitigation actions developed during the previous HMP effort were not included because they were an inherent part of the HMP update process or were not detailed enough for implementation at a local Jurisdiction level. the City of Dixon has made significant changes to other mitigation actions because of the updated risk assessment and implementation strategy, to include more detail, or to update based on current mitigation practices. Volume 1, Section 5.5.2 provides a record of County wide mitigation actions, the status, and additional notes for each action.

Table 2-14 lists each mitigation action for the City of Dixon. Each participating jurisdiction developed unique mitigation actions, targeted at their own unique priorities and vulnerabilities. Each mitigation action identifies the responsible party, time frame, potential funding source, implementation steps and resources needed to implement these priority mitigation actions. As a living document, hazard problem statements and mitigation activities will be updated through MAST. The detail in Table 2-14 meets the regulatory requirements of FEMA and DMA 2000.

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Table 2-14: City of Dixon Mitigation Actions

Mitigation No.	Hazard Type	Mitigation Type	Status	Year	Primary Agency	Title/Description	Responsible Party	Estimated Cost	Estimated Benefit	Time Frame	HMA Activity Type	Potential Grant Source	Priority	Goal	Related Problem Statements
ma-AH-DX-116	All Hazard	ES - Emergency Services	Pending	2021	City of Dixon	Develop an assessment plan to determine railway points of vulnerability to more accurately predict areas of which would be impacted most during railway damage events. The plan can include preparedness plans to quickly initiate detours to maintain a secondary access point to the interstate and operations to activate.	City Public Works in coordination with the railroad entity.	Medium - The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.	Medium - Project will have a long-term impact on the reduction of risk exposure for life and property, or project will not provide an immediate reduction in the risk exposure for property.	3-5 Years	N/A	EMPG , Internal Funding	High	Goal 2: Infrastructure	ps-AH-DX-149
ma-AH-DX-117	All Hazard	ES - Emergency Services	Pending	2021	City of Dixon	Assess alert systems in Dixon. Include in the plan researched funding opportunities to procure the alert system and continued coordination with County.	Fire Department	Medium - The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.	Medium - Project will have a long-term impact on the reduction of risk exposure for life and property, or project will not provide an immediate reduction in the risk exposure for property.	1-3 Years	N/A	EMPG , Internal Funding	High	Goal 1: People , Goal 4: Resilience	ps-AH-DX-150
ma-CC-DX-215	Climate Change	PE&A - Public Education & Awareness	Ongoing	2021	City of Dixon	Participate in regional climate change vulnerability and adaptation efforts	Planning, all staff	Low - The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.	High - Project will provide an immediate reduction of risk exposure for life and property.	Ongoing	Planning	HMGP / BRIC , Internal Funding	Medium	Goal 3: Environment , Goal 4: Resilience	ps-CC-DX-180
ma-DR-DX-118	Drought	PE&A - Public Education & Awareness	Pending	2021	City of Dixon	Develop a public education campaign to encourage water conservation during drought. The intent is to avoid issuance of water restriction emergency declarations.	City Public Works; California Water Service	Low - The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.	Medium - Project will have a long-term impact on the reduction of risk exposure for life and property, or project will not provide an immediate reduction in the risk exposure for property.	1-3 Years	5%	HMGP / BRIC , Internal Funding	Medium	Goal 4: Resilience	ps-DR-DX-157
ma-EQ-DX-119	Earthquake	PRV - Prevention	Pending	2021	City of Dixon	Conduct public education campaign(s) on earthquake preparedness and liquefaction.	City of Dixon	Low - The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.	Medium - Project will have a long-term impact on the reduction of risk exposure for life and property, or project will not provide an immediate reduction in the risk exposure for property.	1-3 Years	5%	EMPG , Internal Funding	High	Goal 1: People , Goal 4: Resilience	ps-EQ-DX-151
ma-EQ-DX-120	Earthquake	SP - Structural Projects	Pending	2021	City of Dixon	Retrofit City-owned critical facilities and buildings.	City Public Works & Engineering	High - Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).	High - Project will provide an immediate reduction of risk exposure for life and property.	3-5 Years	Project	HMGP / BRIC	High	Goal 2: Infrastructure	ps-EQ-DX-152

Mitigation No.	Hazard Type	Mitigation Type	Status	Year	Primary Agency	Title/Description	Responsible Party	Estimated Cost	Estimated Benefit	Time Frame	HMA Activity Type	Potential Grant Source	Priority	Goal	Related Problem Statements
ma-EQ-DX-121	Earthquake	SP - Structural Projects	Pending	2021	City of Dixon	Reinforce the city's well systems including the well pumps to enhance the survivability of the systems during earthquake events, decreasing the chances of experiencing water supply issues or water loss.	City Public Works & Engineering	Medium - The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.	High - Project will provide an immediate reduction of risk exposure for life and property.	3-5 Years	Project	HMGP / BRIC , Internal Funding	High	Goal 2: Infrastructure , Goal 4: Resilience	ps-EQ-DX-153
ma-EQ-DX-122	Earthquake	ES - Emergency Services	Pending	2021	City of Dixon	Conduct public outreach to enhance awareness of PGE lines throughout the city and the associated hazards with gas leaks and/or line ruptures.	Fire Department	Low - The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.	Medium - Project will have a long-term impact on the reduction of risk exposure for life and property, or project will not provide an immediate reduction in the risk exposure for property.	1-3 Years	5%	EMPG , Internal Funding	High	Goal 1: People , Goal 4: Resilience	ps-EQ-DX-154
ma-EQ-DX-123	Earthquake	SP - Structural Projects	Pending	2021	City of Dixon	Seismic Retrofit of vitrified clay pipes for sewer lines throughout the municipality, to enhance the sewer line's ability to withstand seismic shaking. Enhancements may include complete replacement dependent upon the clay pipe condition.	City Public Works & Engineering	High - Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).	High - Project will provide an immediate reduction of risk exposure for life and property.	3-5 Years	Project	HMGP / BRIC , Internal Funding	High	Goal 2: Infrastructure	ps-EQ-DX-155
ma-EW-DX-124	Extreme Weather	PRV - Prevention	Pending	2021	City of Dixon	Clear right-of-way for utilities that provide power and communication to critical facilities and are at-risk to fire susceptibility.	Fire Department	Medium - The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.	High - Project will provide an immediate reduction of risk exposure for life and property.	1-3 Years	N/A	FP&S , Internal Funding	High	Goal 2: Infrastructure	ps-EW-DX-158
ma-EW-DX-125	Extreme Weather	ES - Emergency Services	Pending	2021	City of Dixon	Install backup power generators to support operation of critical facilities during loss of power, such as from heavy rain and high wind events, including water and wastewater systems, emergency services, and cooling and heating centers	Fire Department	Medium - The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.	Medium - Project will have a long-term impact on the reduction of risk exposure for life and property, or project will not provide an immediate reduction in the risk exposure for property.	1-3 Years	Project	HMGP / BRIC , EMPG , Internal Funding	High	Goal 1: People , Goal 4: Resilience	ps-EW-DX-160
ma-EW-DX-179	Extreme Weather	PRV - Prevention	Pending	2021	City of Dixon	Develop an annual drainage maintenance plan including assessing high water marks to assess water depth and settling locations. Including in the plan the clearing of inlets annually (or more often as necessary) prior to the monsoon season.	City Public Works & Engineering	Medium - The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.	Medium - Project will have a long-term impact on the reduction of risk exposure for life and property, or project will not provide an immediate reduction in the risk exposure for property.	1-3 Years	N/A	Internal Funding	High	Goal 2: Infrastructure , Goal 4: Resilience	ps-EW-DX-159

Mitigation No.	Hazard Type	Mitigation Type	Status	Year	Primary Agency	Title/Description	Responsible Party	Estimated Cost	Estimated Benefit	Time Frame	HMA Activity Type	Potential Grant Source	Priority	Goal	Related Problem Statements
ma-FL-DX-126	Flood	PE&A - Public Education & Awareness	Pending	2021	City of Dixon	Develop a public outreach program that informs property owners located in areas of concern for flood about voluntary flood insurance and preparation tools to help with mitigation of flood events.	Fire Department	Low - The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.	Medium - Project will have a long-term impact on the reduction of risk exposure for life and property, or project will not provide an immediate reduction in the risk exposure for property.	1-3 Years	5%	EMPG , Internal Funding	Medium	Goal 4: Resilience	ps-FL-DX-156, ps-CC-DX-180
ma-FL-DX-186	Flood	PRV - Prevention , PPRO - Property Protection	Pending	2021	City of Dixon	Assess areas subject to repeated flooding and increased flooding due to climate change; implement elevations and retrofits for bridges and culverts to allow proper storm water / 100-YR flows.	City Public Works & Engineering	High - Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).	High - Project will provide an immediate reduction of risk exposure for life and property.	3-5 Years	Planning	HMGP / BRIC , FMA	High	Goal 2: Infrastructure , Goal 4: Resilience	ps-FL-DX-156, ps-CC-DX-180

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U.S. Department of Homeland Security
FEMA Region 9
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

December 16, 2021

Don Ryan
Director
Solano County Office of Emergency Services
530 Clay St.
Fairfield, CA 94533

Dear Mr. Ryan:

The Federal Emergency Management Agency (FEMA) has completed its review of the *Solano County 2021 Multi-Jurisdictional Hazard Mitigation Plan* and has determined that this plan is eligible for final approval pending its adoption by Solano County and all participating jurisdictions. Please see the enclosed list of approvable pending adoption jurisdictions.

Formal adoption documentation must be submitted to FEMA Region 9 by at least one participating jurisdiction within one calendar year of the date of this letter, or the entire plan must be updated and resubmitted for review. FEMA will approve the plan upon receipt of the documentation of formal adoption.

Once the plan is approved, each participating jurisdiction must adopt the plan within five calendar years of the date of the approval. The adoption of the plan by each jurisdiction ensures that jurisdiction's continued eligibility for funding under FEMA's Hazard Mitigation Assistance (HMA) programs. All requests for funding, however, will be evaluated individually according to the specific eligibility, and other requirements of the particular program under which applications are submitted.

If you have any questions regarding the planning or review processes, please contact the FEMA Region 9 Hazard Mitigation Planning Team at fema-r9-mitigation-planning@fema.dhs.gov.

Sincerely,

for Alison Kearns
Risk Analysis Branch Chief
Mitigation Division
FEMA Region 9

Enclosure (2)
Solano County Plan Review Tool, dated December 16, 2021
Status of Participating Jurisdictions, dated December 16, 2021

cc: Mark Shugart, Acting Risk Analysis Branch Chief, FEMA
Victoria LaMar-Haas, Hazard Mitigation Planning Chief, California Governor's Office of Emergency Services
Jennifer Hogan, State Hazard Mitigation Officer, California Governor's Office of Emergency Services

Status of Participating Jurisdictions as of December 16, 2021

Jurisdictions – Adopted and Approved

#	Jurisdiction	Date of Adoption

Jurisdictions – Approvable Pending Adoption

#	Jurisdiction
1	Solano County
2	Benicia, City of
3	Dixon, City of
4	Fairfield, City of
5	Rio Vista, City of
6	Suisun City, City of
7	Vacaville, City of
8	Vallejo, City of
9	Vallejo Flood and Wastewater District

Concord

1001 Galaxy Way, Suite 310
Concord CA 94520
925-949-5800

Davis

2020 Research Park Drive, Suite 100
Davis CA 95618
530-756-5905

Eugene

1650 W 11th Avenue, Suite 1-A
Eugene OR 97402
541-431-1280

Lake Forest

23692 Birtcher Drive
Lake Forest CA 92630
949-420-3030

Lake Oswego

5 Centerpointe Drive, Suite 130
Lake Oswego OR 97035
503-451-4500

Oceanside

804 Pier View Way, Suite 100
Oceanside CA 92054
760-795-0365

Olympia

825 Legion Way SE, Suite A6
Olympia WA 98501
360-350-4523

Phoenix

4505 E Chandler Boulevard, Suite 230
Phoenix AZ 85048
602-337-6110

Pleasanton

6800 Koll Center Parkway, Suite 150
Pleasanton CA 94566
925-426-2580

Sacramento

8950 Cal Center Drive, Bldg. 1, Suite 363
Sacramento CA 95826
916-306-2250

San Diego

11939 Rancho Bernardo Road, Suite 100
San Diego CA 92128
858-505-0075

Santa Rosa

2235 Mercury Way, Suite 105
Santa Rosa CA 95407
707-543-8506

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Appendix G

Water Conservation Ordinance

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14.02.900 Requirements.

The City's water efficiency and conservation measures are provided in Chapter 16.17 DMC, Green Building Code, which adopts by reference the 2010 California Green Building Code and its water efficiency and conservation measures. [Ord. 14-008 § 1.]

14.02.905 Water conservation and irrigation restrictions.

To prevent waste and unreasonable use of water and to promote water conservation, the following water use restrictions shall be enforced in accordance with Cal. Code Regs. tit. 23, §§ 863, 864, 864.5, 865, and 866:

A. Each of the following actions is prohibited, except where necessary to address an immediate health and safety need or to comply with a term or condition in a permit issued by a State or Federal agency:

1. The application of potable water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, nonirrigated areas, private and public walkways, roadways, parking lots, or structures; and

2. The use of a hose that dispenses potable water to wash a motor vehicle, except where the hose is fitted with a shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use; and

3. The application of potable water to driveways and sidewalks; and

4. The use of potable water in a fountain or other decorative water feature, except where the water is part of a recirculation system; and

5. The use of potable water to irrigate outdoor landscapes within forty-eight (48) hours of a measurable rainfall; and

6. Serving drinking water at any eating or drinking establishment, unless it is requested.

B. To promote water conservation, operators of hotels or motels shall provide guests with the option of choosing not to have towels and linens laundered daily. The hotel or motel shall prominently display notice of this option in each guestroom using clear and easily understood language.

C. Turf areas located on public right-of-way medians shall no longer be watered to sustain the turf. Where those medians include trees or other outdoor landscape, watering shall take place to maintain the trees or other outdoor landscape.

D. The taking of any action prohibited by this chapter or the failure to take any action required by this chapter may be cited as a code violation. The Community Development Director, Building Official, code enforcement personnel and other personnel as designated by the City Council may issue administrative citation to any

person, firm or corporation for violations of this section. This may include penalties of up to five hundred dollars ($500.00) for each day in which the violation occurs, pursuant to Article VI of Chapter 9.01 DMC.

E. The City Council may, by resolution or ordinance, adjust the restrictions under this section as needed to comply with regulations adopted by the State Water Resources Control Board.

F. As required under Cal. Code Regs. tit. 23, § 865, the City Engineer/Public Works Director or designee shall submit a report to the State Water Resources Control Board annually, on a form provided by the State Water Resources Control Board. [Ord. 16-008 § 1.]

14.02.910 Enforcement.

The taking of any action prohibited by this chapter or the failure to take any action required by this chapter may be cited as a code violation. The Community Development Director, Building Official, code enforcement personnel and other personnel as designated by the City Council may issue administrative citation to any person, firm or corporation for violations of this section, which may include penalties of up to five hundred dollars ($500.00) for each day in which the violation occurs, pursuant to Article VI of Chapter 9.01 DMC. [Ord. 16-008 § 1.]

14.02.915 Enforcement.

Repealed by Ord. 16-008. [Ord. 15-009 § 1.]

Article X. Enforcement

Appendix H

UWMP Adoption Resolution

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RESOLUTION NO. 22-086

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF DIXON ADOPTING THE 2020 URBAN WATER MANGEMENT PLAN

WHEREAS, the California Legislature enacted Assembly Bill 797 (Water Code Section 10610 et seq., known as the Urban Water Management Planning Act [Act]) during the 1983-1984 Regular Session, and amended subsequently, which mandates that every supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, prepare an Urban Water Management Plan, the primary objective of which is to plan for the conservation and efficient use of water; and

WHEREAS, the Plan shall be periodically reviewed at least once every five years, and that the City shall make any amendments or changes to its plan which are indicated by the review; and

WHEREAS, in 2021, the City of Dixon became an urban water purveyor, serving more than 3,000 connections, and is therefore required to prepare and adopt an Urban Water Management Plan within one year after it has become an urban water purveyor; and

WHEREAS, in accordance with the Urban Water Management Planning Act (California Water Code Section 10610 et seq.), the City of Dixon prepared an Urban Water Management Plan; and,

WHEREAS, the City properly notified Solano County, along with interested parties, of the preparation of its Urban Water Management Plan, and coordinated with those agencies for its preparation; and

WHEREAS, the City properly noticed the availability, public hearing and adoption of its Urban Water Management Plan, for the purpose of allowing public comment.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DIXON AS FOLLOWS:

1. The City of Dixon 2020 Urban Water Management Plan is hereby adopted and ordered filed with the City Clerk;
2. The City Manager is authorized to make non-substantive changes and finalize the 2020 Urban Water Management Plan;
3. The City Manager is hereby authorized and directed to file the 2020 Urban Water Management Plan with the California Department of Water Resources within 30 days after this date.

PASSED AND ADOPTED AT THE REGULAR MEETING OF THE CITY COUNCIL OF THE CITY OF DIXON ON THE 19th DAY OF APRIL 2022, BY THE FOLLOWING VOTE:

AYES:	Ernest, Hendershot, Johnson, Pederson, Bird
NOES:	None
ABSTAIN:	None
ABSENT:	None

ATTEST:

Kristin M Janisch

Kristin M. Janisch
Elected City Clerk

Steven C. Bird
Mayor

RESOLUTION NO.: 22-086

DATE: APR 19 2022

RESOLUTION NO. 22-087

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF DIXON ADOPTING A WATER SHORTAGE CONTINGENCY PLAN

WHEREAS, the California Legislature enacted Assembly Bill 797 (Water Code Section 10610 et seq., known as the Urban Water Management Planning Act [Act]) during the 1983-1984 Regular Session, and amended subsequently, which mandates that every supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, prepare an Urban Water Management Plan and Water Shortage Contingency Plan; and

WHEREAS, in 2021, the City of Dixon (City) became an urban water purveyor, serving more than 3,000 connections, and is therefore required to prepare a Water Shortage Contingency Plan;

WHEREAS, the City is required to submit an adopted a Water Shortage Contingency Plan and submit it to the State within 1-year of becoming an urban water purveyor; and

WHEREAS, the City prepared a Water Shortage Contingency Plan in accordance with Water Code Section 10632; and

WHEREAS, the City properly notified Solano County, along with interested parties, of the preparation of its Water Shortage Contingency Plan, and coordinated with those agencies for its preparation; and

WHEREAS, the City properly noticed the availability, public hearing and adoption of its Water Shortage Contingency Plan, for the purpose of allowing public comment.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DIXON AS FOLLOWS:

1. The City of Dixon Water Shortage Contingency Plan, dated March 2022, is hereby adopted and ordered filed with the City Clerk;
2. The City Manager is authorized to make non-substantive changes and finalize the Water Shortage Contingency Plan;
3. In an imminent water shortage, the City Manager and the City Engineer/Director of Utilities is hereby authorized to declare a water shortage emergency according to the water shortage stages and triggers indicated in the Water Shortage Contingency Plan, and implement necessary elements of the Plan;

4. In a water shortage, the City Manager shall notify the City Council as soon as practical and schedule a meeting of the City Council. The City Council and the City Engineer/Director of Utilities shall recommend additional actions and regulations to carry out effective and equitable management and allocation of water resources;

5. The City Manager is hereby authorized and directed to file the 2020 Water Shortage Contingency Plan with the California Department of Water Resources within 30 days after this date.

PASSED AND ADOPTED AT THE REGULAR MEETING OF THE CITY COUNCIL OF THE CITY OF DIXON ON THE 19th DAY OF APRIL 2022, BY THE FOLLOWING VOTE:

AYES: Ernest, Hendershot, Johnson, Pederson, Bird
NOES: None
ABSTAIN: None
ABSENT: None

ATTEST:

Kristin M. Janisch

Kristin M. Janisch
Elected City Clerk

Steven C. Bird
Mayor

RESOLUTION NO.: 22-087
DATE: APR 19 2022