City of Colton
Water Shortage Contingency Plan

JUNE 2021 | City of Colton

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CITY OF COLTON

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JUNE 2021

Prepared by Water Systems Consulting, Inc.

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ACRONYMS & ABBREVIATIONS

AWIA	American Water Infrastructure Association
BTAC	Basin Technical Advisory Committee
CWC	California Water Code
CII	Commercial, Industrial, and Institutional
DWR	California Department of Water Resources
DRA	Drought Risk Assessment
ERP	Emergency Response Plan
GW	Groundwater
IRUWMP	Integrated Regional Urban Water Management Plan
LHMP	Local Hazard Mitigation Plan
RRA	Risk and Resilience Assessment
SWP	State Water Project
UWWP	Urban Water Management Plan
WSCP	Water Shortage Contingency Plan

WATER SHORTAGE CONTINGENCY PLAN

City of Colton

This Water Shortage Contingency Plan is a strategic plan that the City of Colton (Colton) uses to prepare for and respond to water shortages.

A water shortage occurs when water supply available is insufficient to meet the normally expected customer water use at a given point in time. A shortage may occur due to a number of reasons, such as water supply quality changes, climate change, drought, regional power outage, and catastrophic events (e.g., earthquake). Additionally, the State may declare a statewide drought emergency and mandate that water suppliers reduce demands, as occurred in 2014. The WSCP serves as the operating manual that Colton will use to prevent catastrophic service disruptions through proactive, rather than reactive, mitigation of water shortages. This WSCP provides a process for an annual water supply and demand assessment and structured steps designed to respond to actual conditions. This level of detailed planning and preparation provide accountability and predictability and will help Colton maintain reliable supplies and reduce the impacts of any supply shortages and/or interruptions.

This WSCP was prepared in conjunction with Colton's 2020 UWMP, which is included in the 2020 Upper Santa Ana River Watershed Integrated Urban Water Management Plan (2020 IRUWMP) and is a standalone document that can be modified as needed. This document is compliant with the California Water Code (CWC) Section 10632 and incorporated guidance from the State of California Department of Water Resources (DWR) UWMP Guidebook.

IN THIS SECTION

The WSCP describes the following:

1. **Water Service Reliability Analysis:** Summarizes Colton's water supply analysis and reliability and identifies any key issues that may trigger a shortage condition.
2. **Annual Water Supply and Demand Assessment Procedures:** Describes the key data inputs, evaluation criteria, and methodology for assessing the system's reliability for the coming year and the steps to formally declare any water shortage stages and response actions.
3. **Water Shortage Stages:** Establishes water shortage stages to clearly identify and prepare for shortages.
4. **Shortage Response Actions:** Describes the response actions that may be implemented or considered for each stage to reduce gaps between supply and demand.
5. **Communication Protocols:** Describes communication protocols under each stage to ensure customers, the public, and government agencies are informed of shortage conditions and requirements.
6. **Compliance and Enforcement:** Defines compliance and enforcement actions available to administer demand reductions.
7. **Legal Authority:** Lists the legal documents that grant the City the authority to declare a water shortage and implement and enforce response actions.
8. **Financial Consequences of WSCP Implementation:** Describes the anticipated financial impact of implementing water shortage stages and identifies mitigation strategies to offset financial burdens.
9. **Monitoring and Reporting:** Summarizes the monitoring and reporting techniques to evaluate the effectiveness of shortage response actions and overall WSCP implementation. Results are used to determine if shortage response actions should be adjusted.
10. **WSCP Refinement Procedures:** Describes the factors that may trigger updates to the WSCP and outlines how to complete an update.
11. **Plan Adoption, Submittal, and Availability:** Describes the process for the WSCP adoption, submittal, and availability after each revision.

1.0 Water Service Reliability Analysis

As part of the 2020 IRUWMP, Colton completed a water supply reliability analysis for normal, single-dry, and five-year consecutive dry year periods from 2025-2045. A Drought Risk Assessment (DRA) was also performed to analyze supply reliability under five consecutive years of drought from 2021-2025. As described in **Chapter 3** of the 2020 IRUWMP, the effects of a local drought are not immediately recognized since the region uses the local groundwater basins to simulate a large reservoir for long term storage. Colton is able to pump additional groundwater to meet increased demands in dry years and participates in efforts to replenish the basins with imported and local water through regional recharge programs. Additionally, Colton implements several ongoing water conservation measures. Regional recharge programs and conservation help to optimize and enhance the use of regional water resources. **Based on the 2020 IRUWMP analysis, Colton's water supply is reliable and not expected to see impactful change under drought conditions.**

Even though localized drought conditions should not affect supply, other shortages may occur due to a number of reasons, such as water supply quality changes, regional power outage, State mandates for water use efficiency standards, and catastrophic events (e.g., earthquake). Therefore, Colton will use this WSCP as appropriate to address shortages and other supply emergencies.

2.0 Annual Water Supply and Demand Assessment

As an urban water supplier, Colton must prepare and submit an Annual Water Supply and Demand Assessment (Annual Assessment). Starting in 2022, the Annual Assessment will be due by July 1 of every year, as indicated by CWC Section 10632.1. The Annual Assessment is an evaluation of the near-term outlook for supplies and demands to determine whether the potential for a supply shortage exists and whether there is a need to trigger a WSCP shortage stage and response actions in the current calendar year to maintain supply reliability. This process will take place at the same time each year based on known circumstances and information available to Colton at the time of analysis and can be update or revised at any time if circumstances change.

Colton will establish and convene an internal WSCP Team to conduct the Annual Assessment each year. The WSCP may include the following staff:

- **Water & Wastewater Utilities Superintendent**
- **Environmental Conservation Supervisor**
- **Public Works, Water, Wastewater Admin Manager**
- **Finance**

The Annual Assessment procedure, including key data inputs and evaluation criteria, is summarized in **Table 1.** The Annual Assessment procedure and timeline, along with how it integrates with the annual assessment that will be conducted on a regional basis in parallel, is shown graphically in **Figure 1.**

Table 1. Annual Assessment Procedure

TIMING	ASSESSMENT ACTIVITIES	PROCEDURE, KEY DATA INPUTS, EVALUATION CRITERIA AND OTHER CONSIDERATIONS	STAFF RESPONSIBLE
JAN - FEB	Estimate unconstrained demands for coming year	Demands will be estimated based on water sales forecasts from annual budget or prior year demands plus any anticipated changes	Public Works, Water, Wastewater Admin Manager
JAN - FEB	Estimate available supplies for the year, considering the following year will be dry	Each May, the allowable pumping from the Rialto Decree area is established based on water level measurements in three key index wells. The value for the prior year may be used for the annual assessment. The BTAC evaluates groundwater in storage each year. The Bunker Hill, Rialto-Colton, and Riverside North basins are sustainably managed to provide storage for use in dry years. In the unlikely event that local supplies are reduced, Colton will coordinate with the BTAC to identify anticipated supplies.	Water & Wastewater Utilities Superintendent
JAN - FEB	Consider potential constraints that may impact supply delivery	Identify any known regional or Colton infrastructure issues that may pertain to near-term water supply reliability, including repairs, construction, and environmental mitigation measures that may temporarily constrain capabilities, as well as any new projects that may add to system capacity. Identify any facilities out of service due to water quality problems, equipment failure, etc. that may impact normal water deliveries. Identify any potential or emerging impacts to groundwater quality, such as emerging regulatory constraints that may limit use of available supplies for potable needs.	Water & Wastewater Utilities Superintendent
FEB	Convene WSCP Team to conduct Annual Assessment	Compare supplies and demands and discuss any constraints that may impact supply delivery. If the potential for a shortage exists, determine which shortage response stage and actions are recommended to reduce/eliminate the shortage. Additionally, if the State declares a drought state of emergency and requires demand reductions, the WSCP Team will determine which water shortage stage and response	WSCP Team

TIMING	ASSESSMENT ACTIVITIES	PROCEDURE, KEY DATA INPUTS, EVALUATION CRITERIA AND OTHER CONSIDERATIONS	STAFF RESPONSIBLE
		actions are needed to comply with the State mandate.	
JUNE	City Council	If the potential for a shortage exists or the State has mandated demand reductions, the results of the Annual Assessment will be presented to the Colton City Council, including the recommended shortage stage and response actions. The City Council may order the implementation of a shortage stage and will adopt a resolution declaring the applicable water shortage stage.	Department City Manager & Council
ON-GOING	Implement WSCP actions, if needed	Relevant members of Colton staff will implement shortage response actions associated with the declared water shortage stage.	WSCP Team
BY JULY 1	Submit Retail Annual Assessment	Send Final Retail Annual Assessment to DWR.	position of person(s) resp

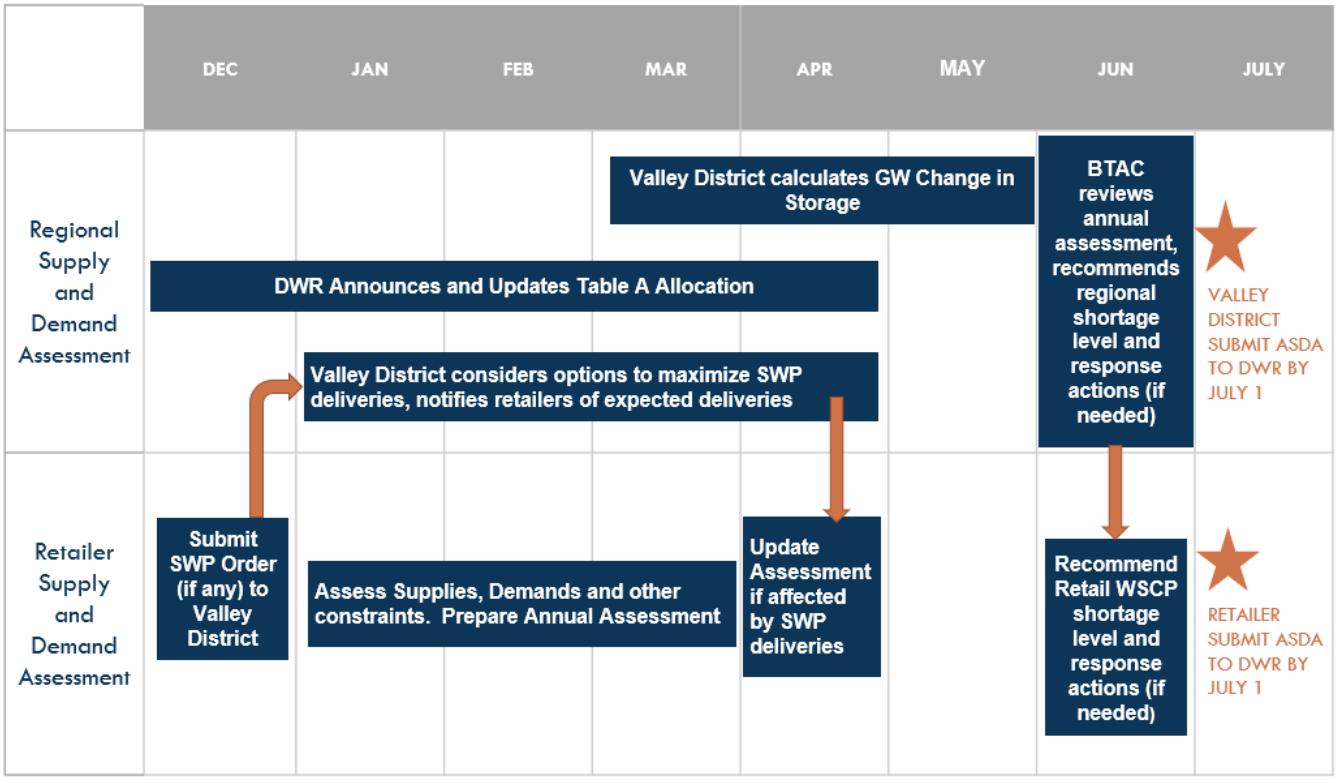

Figure 1. Regional and Retail Agency Annual Assessment Process and Timeline

3.0 Water Shortage Stages

With the exception of a catastrophic failure of infrastructure, Colton does not foresee imposing a water shortage stage except under the State's direction, as occurred in 2014. If a potential water supply shortage is identified in the Annual Assessment, this section provides information on the water shortage stages and response actions that Colton may implement.

Colton uses four (4) shortage stages to identify and respond to water shortage emergencies. At a minimum, Colton encourages baseline conservation efforts year-round, regardless of a shortage emergency.

Stage I: Normal Conditions

Water Conservation Stage I applies during periods when the City is able to meet all of the water demands of its customers. Water Conservation Stage I is in effect at all times unless the City Council otherwise declares that another water conservation stage is in effect pursuant to this chapter.

Stage II: Water Alert

Stage II applies during periods when the City will not be able to meet all of the water demands of its customers.

Stage III: Water Warning

Stage III applies during periods when the City will not be able to meet all of the water demands of its customers.

Stage IV: Water Emergency

Stage IV shall apply when the ordinary demands and requirements of City water customers cannot be satisfied without depleting the City water supply to the extent that there would be insufficient water for human consumption, sanitation and fire protection. A water shortage emergency includes both an immediate emergency, in which the City is unable to meet current water needs of persons within the City, as well as a threatened water shortage, in which the City determines that its supply cannot meet an increased future demand. The use of water shall be limited to essential household, commercial, manufacturing, or processing uses only, except where other uses may be allowed pursuant to a permit issued by the Department. Other restrictions may be necessary during a declared Water Shortage Emergency, to safeguard the adequacy of the water supply for domestic, sanitation, fire protection, and environmental requirements.

The CWC outlines six standard water shortage stages that correspond to a gap in supply compared to normal year availability. The six standard water shortage stages correspond to progressively increasing estimated shortage conditions (up to 10-, 20-, 30-, 40-, 50-percent, and greater than 50-percent shortage compared to the normal reliability condition) and align with the response actions that a water supplier would implement to meet the severity of the impending shortages.

The CWC allows suppliers with an existing WSCP plan that uses different water shortage stages to comply with the six standard stages by developing and including a cross-reference relating its existing shortage categories to the six standard water shortage stages. Colton is maintaining the current four shortage stages for this WSCP. A crosswalk defines how Colton's current water shortage stages will

align with the DWR's standardized 6 stages of shortage. A visual representation of this alignment is shown in Figure 2

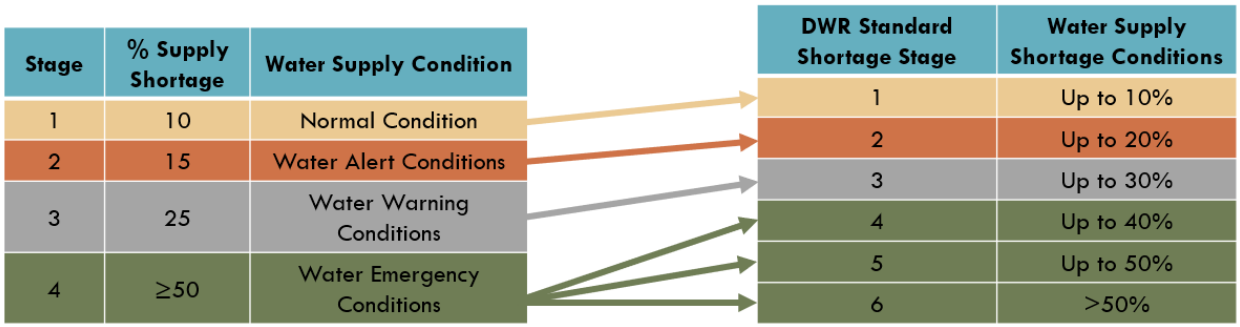

Figure 2. Crosswalk to DWR Six Standard Stages

Table 2: DWR 8-1 Water Shortage Contingency Plan Stages

SHORTAGE STAGE	PERCENT SHORTAGE RANGE1 (NUMERICAL VALUE AS A PERCENT)	WATER SHORTAGE CONDITION
1	Up to 10%	Normal Condition (Colton Stage 1)
2	Up to 20%	Water Alert Conditions (Colton Stage 2)
3	Up to 30%	Water Warning Conditions (Colton Stage 3)
4	Up to 40%	Water Emergency Conditions (Colton Stage 4)
5	Up to 50%	Water Emergency Conditions (Colton Stage 4)
6	>50%	Water Emergency Conditions (Colton Stage 4)

[1] One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.

4.0 Shortage Response Actions

This section was completed pursuant to CWC Section 10632(a)(4) and 10632.5(a) and describes the response actions that may be implemented for each stage to minimize social and economic impacts to the community.

In accordance with CWC 10632(b) Colton analyzes and defines water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.

4.1 Supply Augmentation

Table 3 identifies the supply augmentation actions Colton can take in the event of a water shortage condition. Colton has two emergency water system connections with the City of San Bernardino (1,000 GPM and 800 GPM); one with the City of Riverside (800 GPM); two with Riverside Highland Water Company (1,000 GPM and 800 GPM), and one with WVWD (1,500 GPM). During water shortage emergencies, Colton may be able to obtain supplemental water supply through these connections, if available.

Table 3: DWR 8-3R Supply Augmentation & Other Actions

SHORTAGE STAGE	SUPPLY AUGMENTATION METHODS AND OTHER ACTIONS BY WATER SUPPLIER	HOW MUCH IS THIS GOING TO REDUCE THE SHORTAGE GAP?	ADDITIONAL EXPLANATION OR REFERENCE
4	Other purchases	0-100%	Emergency water system connections with the City of Riverside
4	Other purchases	0-100%	Emergency water system connections with Riverside Highland Water Company
4	Other purchases	0-100%	Emergency water system connections with WVWD

4.2 Demand Reduction

In addition to prohibitions on end uses, Colton offers various rebates to encourage conservation (i.e. ultra-low flush toilet replacements, high efficiency washing machines, etc.). Colton has a water rate structure that promotes water efficiency. The reduction goal is to balance supply and demand. Table 4 summarizes these efforts and end use prohibitions.

Table 4: DWR 8-2 Demand Reduction Actions

SHORTAGE STAGE	DEMAND REDUCTION ACTIONS	HOW MUCH IS THIS GOING TO REDUCE THE SHORTAGE GAP?	ADDITIONAL EXPLANATION OR REFERENCE	PENALTY, CHARGE, OR OTHER ENFORCEMENT
	CII - Restaurants may only serve water upon request	0-1%	All restaurants are requested not to serve water to their customers unless specifically requested by the customer.	No
1	Landscape - Limit landscape irrigation to specific times	0-5%	Use of potable water for irrigating or watering turf, gardens, landscaped areas, trees, shrubs, or other plants utilizing individual sprinkler systems should only be done between the hours of 6:00 p.m. and 10:00 a.m. (agricultural accounts are excluded from the time of irrigation restrictions). Drip irrigation and hand watering with a handheld hose or faucet filled bucket are exempt from this recommendation	No
1	Landscape - Restrict or prohibit runoff from landscape irrigation	0-5%	Sprinklers and irrigation systems should be adjusted to avoid overspray, runoff in excess of five (5) minutes, or other waste.	No
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	0-1%	Permitting potable water to escape from leaks within the customer's plumbing system. All water leaks from a customer's plumbing system shall be repaired in a timely manner.	Yes

SHORTAGE STAGE	DEMAND REDUCTION ACTIONS	HOW MUCH IS THIS GOING TO REDUCE THE SHORTAGE GAP?	ADDITIONAL EXPLANATION OR REFERENCE	PENALTY, CHARGE, OR OTHER ENFORCEMENT
1	Other - Prohibit use of potable water for washing hard surfaces	0-1%	Use of potable water to clean sidewalks, walkways, driveways, parking areas, patios, porches, verandas, tennis courts, or other paved, concrete, or other hard surface areas, except where necessary for the benefit of public health or safety.	Yes
1	Other - Require automatic shut of hoses	0-1%	Washing of automobiles, boats, trailers, aircraft, or other vehicles by hose without a shutoff nozzle and bucket, except to wash such vehicles at commercial or fleet vehicle washing facilities. Provided, however, such washings are exempt from these regulations when health, safety, and welfare of the public is contingent upon frequent vehicle cleaning, such as garbage trucks and vehicles used to transport food or perishables.	Yes
1	Water Features - Restrict water use for decorative water features, such as fountains	0-1%	Use of potable water to clean, fill, or maintain decorative fountains, lakes, or ponds, unless such water is recycled.	Yes
2	CII - Other CII restriction or prohibition	0-1%	The use of potable water for compaction, dust control, and other types of construction shall be allowed only pursuant to a permit issued by the Department. Use of potable water for such purposes shall be limited to the conditions of the permit or may be prohibited as determined by the Director or his designee.	Yes
2	CII - Restaurants may only serve water upon request	0-1%	No restaurant, hotel, café, cafeteria, or other public place where food is sold, served, or offered for sale, shall serve drinking water to any customer unless expressly requested.	Yes
2	Landscape - Limit landscape irrigation to specific times	0-15%	Golf course customers and commercial nursery customers shall curtail all non-essential water use and shall irrigate or water turf, groundcover, gardens, landscaped areas, trees, shrubs, or other plants only between the hours of 10:00 p.m. and 6:00 a.m., where possible. These customers shall reduce their potable water consumption by 15% of their prior year's consumption for the comparable billing period.	Yes
2	Landscape - Limit landscape irrigation to specific times	0-5%	The use of potable water for irrigating or watering turf, groundcover, gardens, landscaped areas, trees, shrubs, or other	Yes

SHORTAGE STAGE	DEMAND REDUCTION ACTIONS	HOW MUCH IS THIS GOING TO REDUCE THE SHORTAGE GAP?	ADDITIONAL EXPLANATION OR REFERENCE	PENALTY, CHARGE, OR OTHER ENFORCEMENT
			plants utilizing individual sprinkler systems shall only be permitted between the hours of 6:00 p.m. and 8:00 a.m. Agricultural accounts are excluded from the time of irrigation restrictions. Drip irrigation and hand watering with a handheld hose with a positive shutoff nozzle or faucet filled bucket are exempt from these restrictions.	
2	Landscape - Limit landscape irrigation to specific times	0-15%	Outdoor irrigation and watering of turf, gardens, landscaped areas, trees, shrubs, or other plants utilizing individual sprinkler systems in parks, schools, publicly owned property, and the public rights-of-way shall be permitted only between the hours of 10:00 p.m. and 6:00 a.m. These customers shall reduce their potable water consumption by 15% of their prior year's consumption for the comparable billing period.	Yes
2	Other	0-5%	The use of potable water for compaction, dust control, and other types of construction shall be allowed only pursuant to a permit issued by the Department. Use of potable water for such purposes shall be limited to the conditions of the permit or may be prohibited as determined by the Director or his designee.	Yes
2	Other - Require automatic shut of hoses	0-1%	Washing of automobiles, boats, trailers, aircraft, and other types of mobile equipment shall be prohibited unless done with a hand-held bucket or hand-held hose equipped with a positive shutoff nozzle for quick rinses. This section does not apply to the washing of the above-listed vehicles or mobile equipment when conducted at a commercial car wash utilizing a recycling system. Provided, however, such washings are exempt from these regulations when the health, safety, and welfare of the public is contingent upon frequent vehicle cleaning, such as garbage trucks and vehicles used to transport food or perishables.	Yes
3	CII - Other CII restriction or prohibition	0-1%	Water used for compaction, dust control, and other types of construction shall only be authorized by a permit issued by the Department and shall be limited to the conditions of the permit or may be prohibited as determined by the Director or his designee.	Yes

SHORTAGE STAGE	DEMAND REDUCTION ACTIONS	HOW MUCH IS THIS GOING TO REDUCE THE SHORTAGE GAP?	ADDITIONAL EXPLANATION OR REFERENCE	PENALTY, CHARGE, OR OTHER ENFORCEMENT
3	Landscape - Limit landscape irrigation to specific days	0-25%	Outdoor irrigation or watering of turf, groundcover, gardens, landscaped areas, trees, shrubs, or other plants by all golf course customers shall be permitted only on odd numbered days, between the hours of 11:00 p.m. and 6:00 a.m., unless the applicable irrigation system is equipped with an electronic moisture sensor control system and/or drip irrigation system. Golf course customers shall reduce their potable water consumption by 25% of their prior year's comparable billing period.	Yes
3	Landscape - Limit landscape irrigation to specific days	0-25%	Outdoor irrigation or watering of turf, groundcover, gardens, landscaped areas, trees, shrubs, or other plants by commercial nursery customers shall be permitted only on even numbered days between the hours of 11:00 p.m. and 6:00 a.m., and only with a hand-held hose equipped with a positive shutoff nozzle or with drip irrigation. Commercial nursery customers shall reduce their potable water consumption by 25% of the customer's prior year's consumption for the comparable billing period.	Yes
3	Landscape - Limit landscape irrigation to specific days	0-25%	Outdoor irrigation or watering of turf, groundcover, gardens, landscaped areas, trees, shrubs, or other plants at all publicly owned property shall be permitted only on even numbered days, between the hours of 11:00 p.m. and 6:00 a.m., unless the applicable irrigation system is equipped with an electronic moisture sensor control system and/or drip irrigation system. Water consumption at all publicly owned property shall be reduced by 25% of the customer's prior year's comparable billing period unless they are using reclaimed water.	Yes
3	Landscape - Limit landscape irrigation to specific days	0-25%	Outdoor irrigation or watering of turf, groundcover, gardens, landscaped areas, trees, shrubs, or other plants at schools shall be permitted only on odd numbered days, between the hours of 11:00 p.m. and 6:00 a.m., unless the applicable irrigation system is equipped with an electronic moisture sensor control system and/or drip irrigation system. Water consumption at all school property shall be reduced by 25% of the customer's prior year's comparable billing period.	Yes

SHORTAGE STAGE	DEMAND REDUCTION ACTIONS	HOW MUCH IS THIS GOING TO REDUCE THE SHORTAGE GAP?	ADDITIONAL EXPLANATION OR REFERENCE	PENALTY, CHARGE, OR OTHER ENFORCEMENT
3	Landscape - Limit landscape irrigation to specific days	0-5%	Customers with addresses ending in an even number shall be permitted to irrigate or water on even numbered days only and customers with addresses ending in an odd number shall water on odd numbered days only. Such restrictions shall not apply to any customer whose property is equipped with an electronic moisture sensor control system and/or drip irrigation system. All watering shall be permitted only between the hours of 8:00 p.m. and 6:00 a.m.	Yes
3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	0-1%	Washing of automobiles, boats, trailers, aircraft, and other types of mobile equipment is prohibited. Washing of the above-listed vehicles or mobile equipment shall only be allowed at a commercial car wash utilizing recycling systems. Provided, however, such washings are exempt from these regulations when health, safety, and welfare of the public is contingent upon frequent vehicle cleaning, such as garbage trucks and vehicles used to transport food or perishables.	Yes
3	Other water feature or swimming pool restriction	0-1%	Swimming pools shall not be filled or refilled after being drained.	Yes
3	Other water feature or swimming pool restriction	0-1%	Ornamental pools, fountains, and artificial lakes shall not be filled or refilled after being drained.	Yes
4	CII - Other CII restriction or prohibition	0-1%	The issuance of new water service connections and meters shall be prohibited.	Yes
4	CII - Other CII restriction or prohibition	0-5%	No potable water shall be used for construction purposes. All construction meters shall be locked off or removed.	Yes
4	Landscape - Limit landscape irrigation to specific days	0-5%	Commercial nursery customers shall water only on designated irrigation days (based on property address number) between the hours of 11:00 p.m. and 6:00 a.m. and only with a handheld hose equipped with a positive shutoff nozzle or with a drip irrigation system.	Yes
4	Landscape - Prohibit certain types of landscape irrigation	0-5%	Outdoor irrigation or watering of turf, groundcover, gardens, landscaped areas, trees, shrubs, or other plants shall be prohibited for all other customers	Yes
4	Other	0-1%	Washing of vehicles or mobile equipment used for purposes such as garbage	Yes

SHORTAGE STAGE	DEMAND REDUCTION ACTIONS	HOW MUCH IS THIS GOING TO REDUCE THE SHORTAGE GAP?	ADDITIONAL EXPLANATION OR REFERENCE	PENALTY, CHARGE, OR OTHER ENFORCEMENT
			collection or transporting foods shall only be allowed when health, safety, and welfare of the public is contingent upon frequent vehicle cleaning and shall be authorized only pursuant to a permit issued by the Department.	
4	Other water feature or swimming pool restriction	0-1%	The filling, refilling, or adding of water to uncovered swimming or wading pools and spas shall be prohibited at all times.	Yes
4	Water Features - Restrict water use for decorative water features, such as fountains	0-1%	The operation of any ornamental fountain or similar structure shall be prohibited.	Yes

4.3 Operational Changes and Additional Mandatory Restrictions

During shortage conditions, operations may be affected by supply augmentation or demand reduction responses. Colton will consider their operational procedures when it completes its Annual Assessment. Any additional mandatory restrictions implemented in response to the declaration of a shortage response stage, beyond the actions listed in **Table 3** and **Table 4** are listed in Colton's Water Conservation Rules and Regulations Ordinance Number 08-15, provided in **Attachment 1.**

4.4 Emergency Response Plan

In 2021, Colton will complete a Risk and Resilience Assessment (RRA) and Emergency Response Plan (ERP) in accordance with America's Water Infrastructure Act (AWIA) of 2018. The purpose of the RRA and ERP is to meet the AWIA compliance requirements and plan for long-term resilience of Colton's infrastructure. The RRA will assess Colton's water system to identify critical assets and processes that may be vulnerable to human and natural hazards, and to identify measures that can be taken to reduce risk and enhance resilience from service disruption for the benefit of customers. The RRA identifies and characterizes both infrastructure-specific and system-wide vulnerabilities and threats and quantifies the consequences of disruption. The RRA also identifies various options (and constraints) in addressing and mitigating risk. The RRA, in conjunction with the Emergency Response Plan (ERP), charts a course for water system resilience. The RRA also provided various recommendations to increase reliability of Colton's system. Since critical pieces of infrastructure and specific vulnerabilities are detailed in the RRA and ERP, the contents of the document are confidential and for use by Colton's staff only. However, Colton can confirm that these plans meet the requirements set forth by AWIA and evaluate seismic risks and mitigation actions to Colton's infrastructure.

In the event of a water shortage emergency resulting from equipment failure, power outage, or other catastrophe, Colton is prepared to purchase emergency water supplies from nearby agencies while repairs or other remedial actions are underway. Colton may also implement its four-stage plan for conservation, as described above, with either voluntary or mandatory reductions depending on the severity of the shortage. For severe disasters (Stage 4), mandatory water use reductions are specified.

4.5 Seismic Risk Assessment and Mitigation Plan

Disasters, such as earthquakes, can and will occur without notice. In addition to the AWIA RRA and ERP, the City of Colton has a 2018 Local Hazard Mitigation Plan (LHMP) that includes an assessment of seismic risk and mitigation for water facilities. The LHMP is included as **Attachment 2**.

The seismic hazards evaluated include fault rupture, liquefaction and seismic shaking and assessed the threat to critical facilities, including the water system. The LHMP identified a set of hazard mitigation actions that are intended to reduce the impact of hazard, including:

- Conduct a seismic analysis of all City-owned key facilities and retrofit vulnerable facilities.
- Consider the use of flexible water pipes, particularly near Alquist-Priolo fault zones, to enhance seismic resiliency.

4.6 Shortage Response Action Effectiveness

Colton has estimated the effectiveness of shortage response actions in **Table 3** and **Table 4** when data pertaining to such actions is available. It is expected that response actions effectiveness is also a result of successful communication and outreach efforts.

5.0 Communication Protocols

Colton prioritizes effective communication, especially in times of a water shortage emergency. Colton routinely communicates to customers about details on when a stage is announced. Communication actions may include bill inserts, handouts, informative flyers, direct mail pieces, newspaper and bus shelter advertisements, news releases, social media outreach, and website content. Colton continues to provide reminders about shortage stages and encourages conservation at all times.

6.0 Compliance and Enforcement

Violations – In addition to the remedy of criminal prosecution available to the City as described in Subsection 13.28.100, a violation of any water use restrictions of this chapter 13.28 currently in effect may result in the imposition of fines, water use restrictions, and/or termination of water service as set forth below:

1. **First Violation – Notice of Non-compliance.** A written warning, accompanied by a copy of this Ordinance, will be delivered by U.S. Mail and/or hung on customer's door. Any such notice of violation shall specify a reasonable period to achieve compliance and shall be directed to the customer of record for the premises where the noncompliance was observed.
2. **Second Violation – Warning**. A written warning and notice of the future imposition of a fine to be collected on the customer's utility bill will be issued. Any such notice of violation shall require compliance within in three calendar days and shall be directed to the customer of record for the premises where the noncompliance was observed. Delivery will be made by Certified U.S. Mail and/or by personal delivery with a declaration of delivery returned to the City Manager.
3. **Third Violation (within one year).** A citation will be issued and a fine of $100.00 will be imposed and collected on the customer's next regular utility bill.
4. **Fourth Violation (within one year of the first violation).** A citation will be issued, a fine of $200.00 will be imposed and collected on the customer's next regular utility bill, and a flow restricting device will be installed on the meter serving the customer's property for a minimum of ninety-six (96) hours. The restricted flow shall meet minimum County Health Department

standards if any have been established. If the ninety-six-hour period ends on a weekend or holiday, full service will be restored during the next business day.

5. **Fifth Violation (within one year of the first violation).** A citation will be issued, a fine of $500.00 will be imposed, and service will be terminated for such period as the City Manager determines to be appropriate under the circumstances. Prior to termination of service, the customer may submit an appeal pursuant to the procedures set forth in Section 13.28.120. Written notice of a hearing to consider any appeal shall be mailed to the customer at least ten calendar days before the hearing.

Any person subject to a fine pursuant to this Section 13.28.100 may file an appeal pursuant to Section 13.28.120.

7.0 Legal Authorities

Ordinances of the City Council of the City of Colton Prohibiting the Wasteful Use of Water and Setting Forth Regulations and Restrictions on Water Use are included in the City of Colton's most recent Water Conservation Rules and Regulations Ordinance Number 08-15, included as **Attachment 1**. Said ordinances include prohibitions on various wasteful water uses such as lawn watering during mid-day hours, washing sidewalks and driveways with potable water, and allowing plumbing leaks to go uncorrected more than 24 hours after customer notification.

7.1 Water Shortage Emergency Declaration

In accordance with CWC Section Division 1, Section 350 – Colton 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.

7.2 Local/Regional Emergency Declaration

If a water shortage is approaching, Colton shall coordinate with any the cities and counties in its service area for the possible proclamation of a local emergency.

8.0 Financial Consequences of WSCP

To ensure Colton’s customers comply with Water Conservation Rules and Regulations Ordinance Number 08-15 and CWC Chapter 3.3 (Excessive Residential Water Use During Drought), additional costs may be incurred to monitor and enforce response actions. The incurred cost may vary depending on the shortage stage and duration of the water shortage emergency.

Surplus revenues are placed in Colton's reserve, which is used to fund emergency repairs and capital improvements for the water system. The financial reserve is adequate to address the costs of multiple plant repairs. The City projects that water shortages will have a minimal impact on water sales, and it is adequately funded to respond to emergencies. During a shortage, Colton anticipates increased staff costs, increased operation and maintenance costs, decreased water sales revenue, all of which will impact the reserve fund. Use of the existing reserve fund is the primary means to deal with revenue impacts due to shortage, but Colton will seek a rate adjustment in an extended shortage. If shortage is due to a natural disaster, Colton will seek funding assistance from the Federal Emergency Management Agency.

9.0 Monitoring and Reporting

The water savings from implementation of the WSCP will be determined based on monthly production reports which are reviewed and compared to production reports and pumping statistics from prior months and the same period of the prior year. Under shortage conditions, these production reports could be prepared as often as daily. At first, the cumulative consumption for the various sectors (e.g., residential, commercial, etc.) will be evaluated for reaching the target level. Then if needed, individual accounts will be monitored. Weather and other possible influences may be accounted for in the evaluation.

10.0 WSCP Refinement Procedures

The WSCP is best prepared and implemented as an adaptive management plan. Colton will use results obtained from their monitoring and reporting program to evaluate any needs for revisions. Potential changes to the WSCP that would warrant an update include, but are not limited to, any changes to trigger conditions, changes to the shortage stage structure, and/or changes to customer reduction actions.

Any prospective changes to the WSCP would need to be presented to Colton's Board for discretionary approval. Once discretionary approval has been granted, Colton will hold a public hearing, obtain any comments, and adopt the updated WSCP. Notices for refinement and the public hearing date will be published in the local newspaper in advance of any public meetings.

11.0 Plan Adoption, Submittal and Availability

Colton adopted this WSCP with the 2020 IRUWMP. The 2020 IRUWMP and WSCP were made available for public review in May/June 2021 and a public hearing was held on **June 15, 2021** to receive public input on the draft 2020 IRUWMP and the WSCP.

The Colton City Council adopted the 2020 IRUWMP and the WSCP at a public meeting on **June 15, 2021**. The resolution of adoption is included as an attachment.

This WSCP was submitted to DWR through the WUEData portal before the deadline of **July 1, 2021**.

This WSCP will be available to the public on the City of Colton web site.

If Colton identifies the need to amend this WSCP, it will follow the same procedures for notification to cities, counties and the public as used for the 2020 IRUWMP and for initial adoption of the WSCP.

The WSCP will be presented for adoption to Colton's Board at a public City Council meeting. The Council may submit any comments prior to approval and adoption. The WSCP will be submitted to DWR at the same time as the 2020 Urban Water Management Plan. The WSCP will be made available to all staff, customers, and any affected cities, counties, or other members of the public at the Colton office and online.

References

California Department of Water Resources. (2021). *Urban Water Management Plan Guidebook 2020.* Sacramento: California Department of Water Resources.

Texas Living Waters Project. (2018). *Water Conservation by the Yard: A Statewide Analysis of Outdoor Water Savings Potential.* Austin: Texas Living Waters Project, Sierra Club, National Wildlife Federation. Retrieved from Texas Living Waters Project.

United States Environmental Protection Agency, Office of Water. (2002). *Cases in Water Conservation: How Efficiency Programs Help Water Utilities Save Water and Avoid Costs.* United States Environmental Protection Agency.

Attachment 1: City of Colton Water Conservation Rules and Regulations Ordinance

ORDINANCE NO. O-08-15

AN ORDINANCE OF THE CITY OF COLTON PRESCRIBING TEMPORARY WATER CONSERVATION RULES AND REGULATIONS AND AMENDING TITLE 13, BY ADDING SUBSECTION 13.28.080C

WHEREAS, California Constitution article X, section 2 and California Water Code section 100 provide that because of conditions prevailing in the state of California (the "State"), it is the declared policy of the State that the general welfare requires that the water resources of the State shall be put to beneficial use to the fullest extent of which they are capable, the waste, unreasonable use, or unreasonable method of use of water shall be prevented, and the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and the public welfare, and;

WHEREAS, pursuant to California Water Code section 106, it is the declared policy of the State that the use of water for domestic use is the highest use of water and that the next highest use is for irrigation, and;

WHEREAS, pursuant to California Water Code section 375, the City of Colton (the "City") is authorized to adopt and enforce a water conservation program to reduce the quantity of water used by persons within its jurisdiction for the purpose of conserving the water supplies of the City, and;

WHEREAS, on April 25, 2014, the Governor signed an Executive Order directing the SWRCB to adopt emergency regulations as it deems necessary pursuant to Water Code section 1058.5, to ensure that water suppliers in California implement drought response plans to limit outdoor irrigation and other wasteful water practices, and;

WHEREAS, on April 1, 2015, the Governor signed an Executive Order that, in part, directs the SWRCB to impose restrictions on water suppliers to achieve a statewide 25 percent reduction in potable urban usage through February, 2016; require commercial, industrial, and institutional users to implement water efficiency measures; prohibit irrigation with potable water or ornamental turf in public street medians; and prohibit irrigation with potable water outside newly constructed homes and buildings that is not delivered by drip or microspray, and;

WHEREAS, on May 5, 2015, the SWRCB formally adopted Emergency Regulations for Statewide Urban Water Conservation ("Emergency Regulations") to enact emergency regulations for water suppliers effective June 1, 2015, and expiring February 28, 2016, unless the SWRCB determines that it is no longer necessary due to changed conditions, or unless the SWRCB renews the regulations due to continued drought conditions as described in Water Code section 1058.5, and;

WHEREAS, because of the prevailing conditions in the State, the continued current statewide drought, and the declared policy of the State, the City hereby finds and determines that it is necessary and appropriate for the City to adopt, implement, and enforce temporary water conservation regulations to reduce the quantity of water used by consumers within the City to ensure that there is sufficient water for human consumption, sanitation, and fire protection, and;

WHEREAS, pursuant to California Water Code section 350 the City Council is authorized to declare a water shortage emergency to prevail within its jurisdiction when it finds and determines that the City will not be able to or cannot satisfy the ordinary demands and requirements of water consumers without depleting the water supply of the City to the extent that there would be insufficient water for human consumption, sanitation, and fire

protection, and as more fully set forth in this chapter, and;

WHEREAS, in the event the City determines that it is necessary to declare that a water shortage emergency exists, the City will be authorized pursuant to this chapter to implement certain drought response measures and a water conservation and regulatory program to regulate water consumption activities within the City and ensure that the water delivered in the City is put to beneficial use for the greatest public benefit, with particular regard to domestic use, including human consumption, sanitation, and fire protection, and that the waste, unreasonable use, or unreasonable method of use of water is prevented, and;

WHEREAS, the City is authorized to prescribe and define by ordinance restrictions, prohibitions, and exclusions for the use of water during a threatened or existing water shortage and adopt and enforce a water conservation and regulatory program to: (i) prohibit the wastage of City water or the use of City water during such period; (ii) prohibit use of water during such periods for specific uses which the City may from time to time find nonessential; and (iii) reduce and restrict the quantity of water used by those persons within the City for the purpose of conserving the water supplies of the City, and;

WHEREAS, the City hereby finds and determines that pursuant to the provisions of Title 13, Chapter 13.28 of the City of Colton Municipal Code, as hereby amended, the City shall: (i) implement water conservation and water shortage response measures; (i) regulate the water consumption activities of persons within the City for the purposes of conserving and protecting the City's water supplies, reducing the quantity of water consumed, and deterring and preventing the waste or unreasonable use or unreasonable method of use of valuable water resources; and (ii) establish and collect regulatory fees and impose fines and penalties as set forth herein to accomplish these purposes and recover the costs of the City's water conservation and regulatory program, and;

WHEREAS, the City Council hereby finds and determines that it is desirable to codify the rules and regulations governing its actions, and the actions of persons using and consuming water within the City, particularly during declared water shortages and water shortage emergencies, to protect the general welfare and the City's water supplies, and to reduce water consumption in accordance with the declared policies and laws of the State.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF COLTON, CALIFORNIA DOES HEREBY ORDAIN AS FOLLOWS:

Section 1. The City hereby finds and determines that the above recitals are true and correct and incorporated herein.

Section 2. Title 13 of the City of Colton Municipal Code is hereby amended by updating Subsection 13.28.030C, entitled "Stage III, Water Warning", to read as follows:

C. Stage III, Water Warning. Stage III applies during periods when the City will not be able to meet all of the water demands of its customers. The following mandatory conservation measures shall apply during Stage III:

1. All measures listed under Stage I (Section 13.28.080A) and Stage II (Section 13.28.080B).

2. Washing of automobiles, boats, trailers, aircraft, and other types of mobile equipment is prohibited. Washing of the above-listed vehicles or mobile equipment shall only be allowed at a commercial car wash utilizing recycling

systems. Provided, however, such washings are exempt from these regulations when the health, safety, and welfare of the public is contingent upon frequent vehicle cleaning, such as garbage trucks and vehicles used to transport food or perishables.

3. New water service connections may be permitted, but the use of potable water for any new service connection before occupancy of any premises shall be permitted only for essential construction and testing of landscape irrigation systems. The installation of new landscaping for any new development and/or project must be approved by the Department.

4. Outdoor irrigation or watering of turf, groundcover, gardens, landscaped areas, trees, shrubs, or other plants by commercial nursery customers shall be permitted only on even numbered days between the hours of 11:00 p.m. and 6:00 a.m., and only with a hand-held hose equipped with a positive shutoff nozzle or with drip irrigation. Commercial nursery customers shall reduce their potable water consumption by 25% of the customer's prior year's consumption for the comparable billing period.

5. Outdoor irrigation or watering of turf, groundcover, gardens, landscaped areas, trees, shrubs, or other plants by all golf course customers shall be permitted only on odd numbered days, between the hours of 11:00 p.m. and 6:00 a.m., unless the applicable irrigation system is equipped with an electronic moisture sensor control system, a weather based irrigation controller and/or drip irrigation system. Irrigation shall be allowed to run for no more than 15 minutes per station per occurrence. Golf course customers shall reduce their potable water consumption by 25% of their prior year's comparable billing period.

6. Outdoor irrigation or watering of turf, groundcover, gardens, landscaped areas, trees, shrubs, or other plants at schools shall be permitted only on odd numbered days, between the hours of 11:00 p.m. and 6:00 a.m., unless the applicable irrigation system is equipped with an electronic moisture sensor control system, a weather based irrigation controller and/or drip irrigation system. Irrigation shall be allowed to run for no more than 15 minutes per station per occurrence. Water consumption at all school property shall be reduced by 25% of the customer's prior year's comparable billing period.

7. Outdoor irrigation or watering of turf, groundcover, gardens, landscaped areas, trees, shrubs, or other plants at all publicly-owned property shall be permitted only on even numbered days, between the hours of 11:00 p.m. and 6:00 a.m., unless the applicable irrigation system is equipped with an electronic moisture sensor control system, a weather based irrigation controller and/or drip irrigation system. Irrigation shall be allowed to run for no more than 15 minutes per station per occurrence. Water consumption at all publicly-owned property shall be reduced by 25% of the customer's prior year's comparable billing period unless they are using reclaimed water.

8. Outdoor irrigation or watering of turf, groundcover, gardens, landscaped areas, trees, shrubs, or other plants for all other customers shall only be permitted as follows:

   i. Customers with addresses ending in an even number shall be permitted to irrigate or water on Mondays, Wednesdays and Saturdays only, customers with addresses ending in an odd number shall water on Tuesdays, Thursdays and Saturdays only. Such restrictions shall not apply to any customer whose property is equipped with an electronic moisture sensor control system, a weather based irrigation controller and/or drip irrigation system.

   ii. All watering shall be permitted only between the hours of 8:00 p.m. and 6:00 a.m.

   iii. Irrigation shall be allowed to run for no more than 10 minutes per station per occurrence.

9. The application of potable water, by any customer type, to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited, unless the property is equipped with an electronic moisture sensor control system and/or a weather based irrigation controller.

10. Water being used during repair or maintenance of a customer's watering system shall be exempt from this section.

10. Swimming pools, ornamental pools, fountain and artificial lakes shall not be filled or refilled after being drained, unless prior approval is obtained from the Department.

11. Water used for compaction, dust control, and other types of construction shall only be authorized by a permit issued by the Department and shall be limited to the conditions of the permit or may be prohibited as determined by the Director or his designee.

12. All agricultural customers shall irrigate or water only at times approved by the Department.

13. Operators of hotels and 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.

Section 3. This Ordinance shall be effective immediately upon its adoption. Introduced at a regular meeting of the City Council of the City of Colton, California, held on June 2, 2015;

Enacted at a regular meeting of the City Council of the City of Colton, California, held on June 16, 2015.

_____
Richard A. DeLaRosa, Mayor

ATTEST:

_____
Carolina R. Padilla, City Clerk

ORDINANCE NO. _O-09-14__

AN ORDINANCE OF THE CITY OF COLTON PRESCRIBING WATER CONSERVATION RULES AND REGULATIONS AND AMENDING TITLE 13, BY ADDING CHAPTER 13.28

WHEREAS, California Constitution article X, section 2 and California Water Code section 100 provide that because of conditions prevailing in the state of California (the "State"), it is the declared policy of the State that the general welfare requires that the water resources of the State shall be put to beneficial use to the fullest extent of which they are capable, the waste or unreasonable use of water shall be prevented, and the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and the public welfare; and

WHEREAS, pursuant to California Water Code section 106, it is the declared policy of the State that the use of water for domestic use is the highest use of water and that the next highest use is for irrigation; and

WHEREAS, pursuant to California Water Code section 375, the City of Colton (the "City") is authorized to adopt and enforce a water conservation program to reduce the quantity of water used by persons within its jurisdiction for the purpose of conserving the water supplies of the City; and

WHEREAS, on April 25, 2014, the Governor signed an Executive Order directing the State Water Resource Control Board (SWRCB) to adopt emergency regulations as it deems necessary pursuant to Water Code section 1058.5, to ensure that water suppliers in California implement drought response plans to limit outdoor irrigation and other wasteful water practices; and

WHEREAS, on July 15, 2014, the SWRCB formally adopted Emergency Regulations for Statewide Urban Water Conservation ("Emergency Regulations") to enact emergency regulations for water suppliers effective July 28, 2014, and expiring 270 days thereafter, unless the SWRCB determines that it is no longer necessary due to changed conditions, or unless the SWRCB renews the regulations due to continued drought conditions as described in Water Code section 1058.5; and

WHEREAS, the SWRCB Emergency Regulations prohibit certain types of water use; and

WHEREAS, the SWRCB Emergency Regulations urban water suppliers (as set forth in Water Code section 10617) to take action to either: (1) implement all requirements and actions of its water shortage contingency plan that imposes mandatory restrictions on outdoor irrigation of ornamental landscapes or turf with potable water; or (2) submit an alternate plan that includes allocation-based water rate structures that satisfy the requirements of chapter 3.4 (commencing with section 370) of division 1 of the Water Code; and

WHEREAS, because of the prevailing conditions in the State, the current statewide drought, and the declared policy of the State, the City hereby finds and determines that it is necessary and appropriate for the City to adopt, implement, and enforce a water conservation program to reduce the quantity of water used by consumers within the City to ensure that there is sufficient water for human consumption, sanitation, and fire protection; and

WHEREAS, pursuant to California Water Code section 350 the City Council is authorized to declare a water shortage emergency to prevail within its jurisdiction when it finds and determines that the City will not be able to or cannot satisfy the ordinary demands and requirements of water consumers without depleting the water supply of the City to the extent that there would be insufficient water for human consumption, sanitation, and fire protection, and as more fully set forth in this chapter; and

WHEREAS, in the event the City determines that it is necessary to declare that a water shortage emergency exists, the City will be authorized pursuant to this chapter to implement certain drought response measures and a water conservation and regulatory program to regulate water consumption activities within the City and ensure that the water delivered in the City is put to beneficial use for the greatest public benefit, with particular regard to domestic use, including human consumption, sanitation, and fire protection, and that the waste or unreasonable use of water is prevented; and

WHEREAS, the City is authorized to prescribe and define by ordinance restrictions, prohibitions, and exclusions for the use of water during a threatened or existing water shortage and adopt and enforce a water conservation and regulatory program to: (i) prohibit the wastage of City water or the use of City water during such period; (ii) prohibit use of water during such periods for specific uses which the City may from time to time find nonessential; and (iii) reduce and restrict the quantity of water used by those persons within the City for the purpose of conserving the water supplies of the City; and

WHEREAS, the City hereby finds and determines that pursuant to the provisions of Title 13, Chapter 13.28 of the City of Colton Municipal Code, as hereby amended, the City shall: (i) implement water conservation and water shortage response measures; (i) regulate the water consumption activities of persons within the City for the purposes of conserving and protecting the City's water supplies, reducing the quantity of water consumed, and deterring and preventing the waste or unreasonable use or unreasonable method of use of valuable water resources; and (ii) establish and collect regulatory fees and impose fines and penalties as set forth herein to accomplish these purposes and recover the costs of the City's water conservation and regulatory program; and

WHEREAS, the City Council hereby finds and determines that it is desirable to codify the rules and regulations governing its actions, and the actions of persons using and consuming water within the City, particularly during declared water shortages and water shortage emergencies, to protect the general welfare and the City's water supplies, and to reduce water consumption in accordance with the declared policies and laws of the State.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF COLTON, CALIFORNIA DOES HEREBY ORDAIN AS FOLLOWS:

Section 1. The City hereby finds and determines that the above recitals are true and correct and incorporated herein.

Section 2. Title 13 of the City of Colton Municipal Code is hereby amended by adding Chapter 13.28, entitled "Water Conservation Plan," to read as follows:

13.28.010 INTENT.

Pursuant to Article X, section 2 of the California Constitution, the City Council declares that the waters of the State are to be put to maximum beneficial use, that the waste or unreasonable use, or unreasonable method of use of water be prevented, and that the conservation of such water must occur to protect the people and property of the State. This chapter establishes the City of Colton Water Conservation Plan.

13.28.020 PURPOSE.

The purpose of this chapter is to adopt a water conservation plan that establishes water conservation measures that conserve City water supplies for the greatest public benefit and reduce the quantity of water used by the City's water customers. The Water Conservation Plan is hereby established to extend and preserve the available water resources required for the basic needs of human consumption, sanitation and fire protection.

13.28.030 DEFINITIONS.

For the purposes of this chapter 13.28, the following words, terms, and phrases shall have the following meanings:

"City" means the City of Colton.

"City Manager" means the City Manager of the city or his authorized designee.

"Customer" means a person who, according to the city's records, receives water service to a parcel of property.

"Department" means the City's Water/Wastewater Department.

"Director" means the Director of the City Water/Wastewater Department or his authorized designee.

"Enforcement Officer" means any individual employed or otherwise charged by the City to inspect or enforce codes, ordinances, mandates, regulations, resolutions, rules or other laws adopted by the City Council or other regulatory bodies.

"Notice of Violation" means a notice provided by the City to any person who as violated any provisions of this Chapter 13.28.

"Person" means any natural person, firm, joint venture, joint stock company, partnership, public or private association, club, company, corporation, business trust, organization, public or private agency, government agency or institution, school district, college, university, any other user of water provided by the City, or the manager, lessee, agent, servant, officer or employee of any of them or any other entity which is recognized by law as the subject of rights or duties.

"Water Conservation Plan" means the water conservation plan established pursuant to this chapter.

"Water shortage emergency" means a condition existing within the city in which the ordinary water demands and requirements of persons within the city cannot be satisfied without depleting the water supply of the city to the extent that there would be insufficient water for human consumption, sanitation, and fire protection. A water shortage emergency includes both an immediate emergency, in which the city is unable to meet current water needs of persons within the city, as well as a threatened water shortage, in which the city determines that its supply cannot meet an increased future demand.

13.28.040 APPLICATION.

The provisions of this chapter shall apply to all persons, customers, and property served water by the City, and shall also apply to all property and facilities owned, maintained, operated, or otherwise under the jurisdiction of the City.

13.28.050 GENERAL PROHIBITION.

No water user shall make, cause, use, or permit the use of water supplied by the City for residential, commercial, industrial, agricultural, governmental or any other use in the manner contrary to this chapter. Waste or the unreasonable or non-beneficial use of water is prohibited in the City. Service may be terminated to any customer who knowingly and willfully violates any provision of this Chapter.

13.28.060 STAGE CRITERIA.

The Director shall recommend guidelines for adoption by the City Council setting forth the criteria to determine when water supply conditions in the City require the implementation or termination of each water conservation stage. Such guidelines shall be updated when the Director determines availability of water so requires.

13.28.070 DETERMINATION OF WATER CONSERVATION STAGES.

A. The Department shall monitor the projected supply and demand for water by its customers on a daily basis during the months of June, July, August, September, and October and shall recommend to the City Manager the extent of conservation required through the implementation and/or termination of particular conservation stages to allow the Department to prudently plan for and supply water to its customers. Thereafter, the City Manager may recommend to the City Council the implementation or termination of the appropriate stage of water conservation in accordance with the applicable provisions of this chapter.

B. The City Council may implement or terminate the appropriate conservation stage pursuant to Section 13.28.070 of this chapter. Notice of the implementation of successive stages of water conservation shall be given to water users immediately both by publication at least once in a newspaper of general circulation within ten (10) days after adoption, and by notice enclosed with the next regular city invoice for water utility service or delivered by U.S. Mail.

C. If the City Council cannot meet in time to act to protect the public interest pursuant to this chapter, the City Manager or his designee is hereby authorized and directed to implement such provisions of this chapter upon his or her written determination that the City cannot supply adequate water to meet the ordinary demands of water consumers, and that such implementation is necessary to protect the public health or safety. Such written determination shall be presented to the City Council at its next meeting for review, revocation, or ratification. Such meeting shall be held as soon as possible.

13.28.080 WATER CONSERVATION STAGES AND IMPLEMENTATION.

A. Stage I, Normal Conditions. Water Conservation Stage I applies during periods when the City is able to meet all of the water demands of its customers. Water Conservation Stage I is in effect at all times unless the City Council otherwise declares that another water conservation stage is in effect pursuant to this chapter. The following water conservation measures apply during Stage I:

1. The following water uses are recommended:

   i. Water conservation should be practiced within homes and business at all times.

   ii. Sprinklers and irrigation systems should be adjusted to avoid overspray, runoff in excess of five (5) minutes, or other waste.

   iii. Use of potable water for irrigating or watering turf, gardens, landscaped areas, trees, shrubs, or other plants utilizing individual sprinkler systems should only be done between the hours of 6:00 p.m. and 10:00 a.m. (agricultural accounts are excluded from the time of irrigation restrictions). Drip irrigation and hand watering with a handheld hose or faucet filled bucket are exempt from this recommendation.

   iv. All restaurants are requested not to serve water to their customers unless specifically requested by the customer.

2. The following uses of water are hereafter considered non-essential to the public health, safety and welfare, constitute the waste of water, and are hereby prohibited at all times:

   i. Use of potable water to clean sidewalks, walkways, driveways, parking areas, patios, porches, verandas, tennis courts, or other paved, concrete, or other hard surface areas, except where necessary for the benefit of public health or safety.

   ii. Use of potable water to clean, fill, or maintain decorative fountains, lakes, or ponds, unless such water is recycled.

   iii. Permitting potable water to escape from leaks within the customer's plumbing system. All water leaks from a customer's plumbing system shall be repaired in a timely manner.

   iv. Washing of automobiles, boats, trailers, aircraft, or other vehicles by hose without a shutoff nozzle and bucket, except to wash such vehicles at commercial or fleet vehicle washing facilities. Provided, however, such washings are exempt from these regulations when health, safety, and welfare of the public is contingent upon frequent vehicle cleaning, such as garbage trucks and vehicles used to transport food or perishables.

B. Stage II, Water Alert. Stage II applies during periods when the City will not be able to meet all of the water demands of its customers. The following mandatory conservation measures shall apply during Stage II:

1. All measures listed under Stage I, Subsection 13.28.080A.

   The use of potable water for irrigating or watering turf, groundcover, gardens, landscaped areas, trees, shrubs, or other plants utilizing individual sprinkler systems shall only be permitted between the hours of 6:00 p.m. and 8:00 a.m. Agricultural accounts are excluded from the time of irrigation restrictions. Drip irrigation and hand watering with a handheld hose with a positive shutoff nozzle or faucet filled bucket are exempt from these restrictions.

2. No restaurant, hotel, café, cafeteria or other public place where food is sold, served, or offered for sale, shall serve drinking water to any customer unless expressly requested.

3. Washing of automobiles, boats, trailers, aircraft, and other types of mobile equipment shall be prohibited unless done with a hand-held bucket or hand-held hose equipped with a positive shutoff nozzle for quick rinses. This section does not apply to the washing of the above-listed vehicles or mobile equipment when conducted at a commercial car wash utilizing a recycling system. Provided, however, such washings are exempt from these regulations when the health, safety, and welfare of the public is contingent upon frequent vehicle cleaning, such as garbage trucks and vehicles used to transport food or perishables.

4. Golf course customers and commercial nursery customers shall curtail all non-essential water use and shall irrigate or water turf, groundcover, gardens, landscaped areas, trees, shrubs, or other plants only between the hours of 10:00 p.m. and 6:00 a.m., where possible. These customers shall reduce their potable water consumption by 15% of their prior year's consumption for the comparable billing period.

5. Outdoor irrigation and watering of turf, gardens, landscaped areas, trees, shrubs, or other plants utilizing individual sprinkler systems in parks, schools, publicly-owned property, and the public rights-of-way shall be permitted only between the hours of 10:00 p.m. and 6:00 a.m. These customers shall reduce their potable water consumption by 15% of their prior year's consumption for the comparable billing period.

6. The use of potable water for compaction, dust control, and other types of construction shall be allowed only pursuant to a permit issued by the Department. Use of potable water for such purposes shall be limited to the conditions of the permit or may be prohibited as determined by the Director or his designee.

C. Stage III, Water Warning. Stage III applies during periods when the City will not be able to meet all of the water demands of its customers. The following mandatory conservation measures shall apply during Stage III:

1. All measures listed under Stage I (Section 13.28.080A) and Stage II (Section 13.28.080B).

2. Washing of automobiles, boats, trailers, aircraft, and other types of mobile equipment is prohibited. Washing of the above-listed vehicles or mobile equipment shall only be allowed at a commercial car wash utilizing recycling systems. Provided, however, such washings are exempt from these regulations when health, safety, and welfare of the public is contingent

upon frequent vehicle cleaning, such as garbage trucks and vehicles used to transport food or perishables.

3. New water service connections shall be permitted, but the use of potable water for any new service connection before occupancy of any premises shall be permitted only for essential construction and testing of landscape irrigation systems. The installation of new landscaping for any new development and/or project must be approved by the Department.

4. Outdoor irrigation or watering of turf, groundcover, gardens, landscaped areas, trees, shrubs, or other plants by commercial nursery customers shall be permitted only on even numbered days between the hours of 11:00 p.m. and 6:00 a.m., and only with a hand-held hose equipped with a positive shutoff nozzle or with drip irrigation. Commercial nursery customers shall reduce their potable water consumption by 25% of the customer's prior year's consumption for the comparable billing period.

5. Outdoor irrigation or watering of turf, groundcover, gardens, landscaped areas, trees, shrubs, or other plants by all golf course customers shall be permitted only on odd numbered days, between the hours of 11:00 p.m. and 6:00 a.m., unless the applicable irrigation system is equipped with an electronic moisture sensor control system and/or drip irrigation system. Golf course customers shall reduce their potable water consumption by 25% of their prior year's comparable billing period.

6. Outdoor irrigation or watering of turf, groundcover, gardens, landscaped areas, trees, shrubs, or other plants at schools shall be permitted only on odd numbered days, between the hours of 11:00 p.m. and 6:00 a.m., unless the applicable irrigation system is equipped with an electronic moisture sensor control system and/or drip irrigation system. Water consumption at all school property shall be reduced by 25% of the customer's prior year's comparable billing period.

7. Outdoor irrigation or watering of turf, groundcover, gardens, landscaped areas, trees, shrubs, or other plants at all publicly-owned property shall be permitted only on even numbered days, between the hours of 11:00 p.m. and 6:00 a.m., unless the applicable irrigation system is equipped with an electronic moisture sensor control system and/or drip irrigation system. Water consumption at all publicly-owned property shall be reduced by 25% of the customer's prior year's comparable billing period unless they are using reclaimed water.

8. Outdoor irrigation or watering of turf, groundcover, gardens, landscaped areas, trees, shrubs, or other plants for all other customers shall only be permitted as follows:

    i. Customers with addresses ending in an even number shall be permitted to irrigate or water on even numbered days only and customers with addresses ending in an odd number shall water on odd numbered days only. Such restrictions shall not apply to any customer whose property is equipped with an electronic moisture sensor control system and/or drip irrigation system.

    ii. All watering shall be permitted only between the hours of 8:00 p.m. and 6:00 a.m.

9. Water being used during repair or maintenance of a customer's watering system shall be exempt from this section.

10. Swimming pools, ornamental pools, fountain and artificial lakes shall not be filled or refilled after being drained.

11. Water used for compaction, dust control, and other types of construction shall only be authorized by a permit issued by the Department and shall be limited to the conditions of the permit or may be prohibited as determined by the Director or his designee.

12. All agricultural customers shall irrigate or water only at times approved by the Department.

D. Stage IV, Water Emergency. Stage IV shall apply when the ordinary demands and requirements of City water customers cannot be satisfied without depleting the City water supply to the extent that there would be insufficient water for human consumption, sanitation and fire protection. A water shortage emergency includes both an immediate emergency, in which the City is unable to meet current water needs of persons within the City, as well as a threatened water shortage, in which the City determines that its supply cannot meet an increased future demand. The following mandatory conservation measures shall apply during Stage IV:

1. All measures listed under Stage I (Section 13.28.080A), Stage II (Section 13.28.080B), and Stage III (Section 13.28.080C).

2. No potable water shall be used for construction purposes. All construction meters shall be locked off or removed.

3. Commercial nursery customers shall water only on designated irrigation days (based on property address number) between the hours of 11:00 p.m. and 6:00 a.m. and only with a hand-held hose equipped with a positive shutoff nozzle or with a drip irrigation system.

4. Outdoor irrigation or watering of turf, groundcover, gardens, landscaped areas, trees, shrubs, or other plants shall be prohibited for all other customers.

5. The filling, refilling, or adding of water to uncovered swimming or wading pools and spas shall be prohibited at all times.

6. The operation of any ornamental fountain or similar structure shall be prohibited.

7. The issuance of new water service connections and meters shall be prohibited.

8. Washing of vehicles or mobile equipment used for purposes such as garbage collection or transporting foods shall only be allowed when health, safety, and welfare of the public is contingent upon frequent vehicle cleaning, and shall be authorized only pursuant to a permit issued by the Department.

9. The use of water shall be limited to essential household, commercial, manufacturing, or processing uses only, except where other uses may be allowed pursuant to a permit issued by the Department.

10. Other restrictions may be necessary during a declared Water Shortage Emergency, to safeguard the adequacy of the water supply for domestic, sanitation, fire protection, and environmental requirements.

13.28.090 EXEMPTIONS.

A. No exemption shall be granted to any person for any reason in the absence of a showing that the restrictions herein would:

1. Cause an unnecessary and undue hardship to the person or the public; or

2. Cause an emergency condition affecting the health, sanitation, fire protection or safety of the person or of the public.

B. The City Manager may grant exemptions for uses of water otherwise prohibited by the regulations set forth in Chapter 13.28. Any person requesting an exemption from the provisions of Chapter 13.28 shall submit to the Department an application for an exemption stating the justified circumstances. The application shall be in a form prescribed by the Department. If the exemption is not granted, the person may submit an appeal in writing pursuant to Section 13.28.120.

C. Inconvenience or the potential for damage to landscaping shall not be considered for exemption from any section of this Ordinance.

D. When a Stage II or III has been declared and is in effect, a thirty-day exemption will be granted for the installation of drought tolerant landscaping, new construction or re-landscaping of property, only by a permit issued by the Department. No exemption shall be granted or permit issued when a Stage IV has been declared and is in effect.

13.28.100 ENFORCEMENT.

A. Violations – In addition to the remedy of criminal prosecution available to the City as described in Subsection 13.28.100, a violation of any water use restrictions of this chapter 13.28 currently in effect may result in the imposition of fines, water use restrictions, and/or termination of water service as set forth below:

1. First Violation – Notice of Non-compliance. A written warning, accompanied by a copy of this Ordinance, will be delivered by U.S. Mail and/or hung on customer's door. Any such notice of violation shall specify a reasonable period to achieve compliance, and shall be directed to the customer of record for the premises where the noncompliance was observed.

2. Second Violation – Warning. A written warning and notice of the future imposition of a fine to be collected on the customer's utility bill will be issued. Any such notice of violation shall require compliance within in three calendar days, and shall be directed to the customer of record for the premises where the noncompliance was observed. Delivery will be made by Certified U.S. Mail and/or by personal delivery with a declaration of delivery returned to the City Manager.

3. Third Violation (within one year). A citation will be issued and a fine of $100.00 will be imposed and collected on the customer's next regular utility bill.

4. Fourth Violation (within one year of the first violation). A citation will be issued, a fine of $200.00 will be imposed and collected on the customer's next regular utility bill, and a flow restricting device will be installed on the meter serving the customer's property for a

minimum of ninety-six (96) hours. The restricted flow shall meet minimum County Health Department standards, if any have been established. If the ninety-six hour period ends on a weekend or holiday, full service will be restored during the next business day.

5. Fifth Violation (within one year of the first violation). A citation will be issued, a fine of $500.00 will be imposed, and service will be terminated for such period as the City Manager determines to be appropriate under the circumstances. Prior to termination of service, the customer may submit an appeal pursuant to the procedures set forth in Section 13.28.120. Written notice of a hearing to consider any appeal shall be mailed to the customer at least ten calendar days before the hearing.

6. Any person subject to a fine pursuant to this Section 13.28.100 may file an appeal pursuant to Section 13.28.120.

B. Fines, Additional Charges. Any fine imposed pursuant to Chapter 13.28 shall be in addition to the basic water rates and other charges of the Department for the account and shall appear on and be payable with the billing statement for the period during which the violation occurred; non-payment shall be subject to the same remedies available to the Department as for non-payment of basic water rates.

In addition to any surcharge, a customer violating this Ordinance shall be responsible for payment of the Department's charges for installing and/or removing any flow restricting device and for disconnecting and/or reconnecting service per the Department's Water Rules and Rate Schedule then in effect. Such charges shall be paid prior to the removal of the flow restrictor or reconnection of service, whichever the case may be.

C. Non-liability for Damage. The customer or resident who violates this chapter assumes responsibility for injury to the customer and/or other residents/occupants receiving service, including emotional distress and/or damage to the customer's private water system and/or to other real or personal property owned by the customer or by a third party resulting from the installation and operation of a flow restricting device or from termination of service; said customer shall thereby be deemed to have:

1. Waived any claim for injury or for damage to the customer's property which the customer may have otherwise have against the City; and

2. Agreed to indemnify, defend, and hold the City harmless from claims by third parties for injury or property damage arising or claimed to arise out of the City's installation and/or operation of a flow restricting device or termination of water service.

13.28.110 AUTHORITY – MISDEMEANOR.

This Chapter is adopted pursuant to Section 375 of the California Water Code. Any second or subsequent violation of this Chapter 13.28 after notice is provided as specified in Section 13.280.100 may be prosecuted as a misdemeanor.

13.28.120 APPEALS.

A. The City Manager, or his designated Enforcement Officer, shall determine when any violation of this Chapter 13.28 has occurred and shall issue a Notice of Violation. Any person receiving notice of a second or subsequent violation pursuant to Section 13.28.100 of this chapter shall have a right to a hearing by the City Manager. The customer's written request for a hearing must be received within ten calendar days of mailing or other delivery of the notice of violation. Any Notice of Violation not timely appealed shall be final. Upon receipt of a timely appeal, a hearing shall be scheduled within fifteen calendar days. Written notice of the hearing shall be mailed at least eight calendar days before the date of said hearing.

B. The customer's written request for a hearing within the ten calendar day period shall automatically stay the imposition of monetary fines on the customer's utility bill until the City Manager renders his or her decision. The decision of the City Manager shall be final and not subject to further appeal pursuant to this code.

C. Pending receipt of a written appeal or pending a hearing pursuant to an appeal, the City Manager or the Enforcement Officer may take appropriate steps to prevent the unauthorized use of water as appropriate to the nature and extent of the violation and the current declared water condition.

13.28.130 CITY MANAGER DELEGATION.

The City Manager may delegate all duties and responsibilities hereunder.

13.28.140 SEVERABILITY.

If any provision, section, subsection, sentence, clause or phrase of this chapter, or the application of same to any person or set of circumstances is held to be unconstitutional, void, or invalid, such decision shall not affect the remaining portions of this chapter which shall remain in full force and effect, and all provisions of this chapter are declared to be severable for that purpose.

13.28.150 INCOMPATIBLE PROVISIONS.

To the extent any provision of this chapter is incompatible with or at variance with any prior adopted ordinance or resolution, the provisions of this chapter shall take precedence, and all prior ordinances and resolutions shall be interpreted to harmonize with and not change the provisions of this chapter.

13.28.160 EXEMPTION FROM CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA).

The City Council determines that the adoption of this chapter and implementation of the measures set forth herein are exempt from review under the California Environmental Quality Act of 1970 because they constitute a project undertaken as immediate action necessary to prevent or mitigate a water shortage emergency, and to protect natural resources.

Section 3.

Upon adoption by the City Council, the provisions of this chapter shall become effective immediately. Notice of the implementation of successive stages of water conservation shall be

given to water users immediately both by publication at least once in a newspaper of general circulation within ten calendar days after adoption, and by notice enclosed with the next regular city invoice for water utility service or delivered by U.S. Mail.

Section 4.

Introduced at a regular meeting of the City Council of the City of Colton, California, held on September 2, 2014;

Enacted at a regular meeting of the City Council of the City of Colton, California, held on _____, 2014, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Mayor

Attest:_____
City Clerk

Attachment 2: Local Hazard Mitigation Plan

Local Hazard Mitigation Plan
City of Colton
Water Wastewater Department
Colton, California

CalOES Approval Date: XX-XX-XXXX
Approved by FEMA: XX-XX-XXXX
City Council Adoption Date: XX-XX-XXXX

PRIMARY POINT OF CONTACT
FOR PUBLIC COMMENTS AND
CALOES AND FEMA

GARY STURDIVAN
GSTURDIVAN@ME.COM

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Section 1: Purpose of the Plan

Emergencies and disasters can leave people injured or displaced, cause significant damage to our communities, businesses, public infrastructure and environment, result in response and recovery dollars and economic loss, and may even cause or contribute to fatalities. Hazard mitigation attempts to reduce the risk of personal damages, loss of life, and property damages caused by emergencies and disasters.

Repairs and reconstruction after disasters are often completed to simply restore infrastructure to pre-disaster conditions. Such efforts expedite a return to normalcy; however, merely replicating pre-disaster conditions often results in a cycle of damage, reconstruction, and repeated damage. Hazard mitigation attempts to break this cycle by reducing hazard vulnerability.

While we cannot prevent disasters from happening, their effects can be reduced or minimized through preparedness and mitigation. For those hazards that cannot be fully mitigated, the community must be prepared to provide efficient and effective response and recovery to emergencies. This can be accomplished through well-organized public education and awareness efforts.

The purpose of this Local Hazard Mitigation Plan (LHMP) is to identify potential hazards to the City of Colton Water/Wastewater Department (Utility Department) and formulate mitigation measures for the future protection of the Utility Department's critical infrastructure and the community's safety with respect to the Utility Department's facilities and services. Approval of this LHMP by the State of California Office of Emergency Services (CalOES) will also allow the Department to become eligible to receive federal funding assistance under the Local Hazard Mitigation Grant Program or the Pre-Disaster Mitigation Program as administered by the Federal Emergency Management Agency (FEMA).

1.1 Authority

The City of Colton Water/Wastewater Department under Colton utility authority operating pursuant to California Water Code Section 3000 et. Seq. and under the State of California Department of Water Resources, Drinking Water Division. The Utility Department is governed by a seven-member authority elected from within the City boundaries.

The City Council employs department directors and managers to manage and operate the water and wastewater utilities. The managers administer the day-to-day operations of the Utility Department in accordance with policies and procedures established by the City Council. There are 35 full-time employees at the Utility Department. There are 14 employees in the water section and 21 employees in the wastewater and waste collections department

As required by FEMA, LHMPs must be updated, adopted, and approved every five years. This is the Utility Department's first LHMP. The City of Colton, however, has a CalOES approved LHMP for the City, but the does not include the Utility Department.

1.2 Community Profile

The City of Colton Water/Wastewater Department serves most of the incorporated area of Colton, and serves some areas located immediately adjacent to the City limits that are situated within unincorporated areas of San Bernardino County. The north west section of Colton is served by the West Valley Water District.

The Utility Department pumps water from underground aquifers and purchases State Water Project water from the area wholesaler, the San Bernardino Valley Municipal Water District. The Utility Department distributes potable water to their customers. The available water supply from both sources is local groundwater. There is a system intertie with West Valley Water District.

The Department serves a population of approximately 54,741 residents within a 48.8-square-mile area and maintains approximately 10,300 metered water services, 1.3 million feet of water pipeline, and 114,829 feet of sewer collection pipelines

1.3 Physical Setting

The City of Colton is located approximately 55 miles east of downtown Los Angeles in the San Bernardino Valley in southwestern San Bernardino County, to the south of the San Bernardino Mountains. It is bordered by the City of San Bernardino to the north, the city of Loma Linda to the east, the cities of Riverside and Grand Terrace (as well as the unincorporated community of Highgrove) to the south, and the city of Rialto to the west. Colton is part of the wider Inland Empire region of California.

The Santa Ana River runs through Colton dividing the city into two parts (northwest and southeast of the river). The land topography is predominately flat, with an average elevation of 1,000 feet above sea level. The La Loma Hills in southwest Colton rise to a height of over 1,400 feet. The Box Springs Mountains, in southeast Colton, reach a height of over 2,400 feet.

The planning area for this LHMP is the City limits of Colton and unincorporated areas that are considered part of Colton's Utility Department's sphere of influence (SOI). These unincorporated areas are:

- Slover Mountain and the Cypress Avenue area north of Interstate 10.
- An unincorporated area between Colton and Grand Terrace, near Washington Street and Bluff Road.
- The unincorporated area surrounded by Colton on all sides, roughly bordered by Fern Lane, Dark Canyon Road, and Reche Canyon Road.
- The unincorporated area along Reche Canyon Road bordered mostly by Colton, roughly between Placid Lane and Malibu Court.

1.4 County of San Bernardino

The County of San Bernardino has a population of more than 2,000,000 people as of the 2010 census, which is up from the reported 1,709,434 in the 2000 census. With an area of 20,105 square miles, San Bernardino County is the largest county in the United States by area. The County is larger than nine States, including New Jersey, Massachusetts, and Maryland.

Located in southeast California, thinly populated deserts and mountains cover most of this vast county. The bulk of the County's population resides in two Census County Divisions, where approximately 1,400,000 people live as of the 2010 census. San Bernardino County is bordered by the Colorado River on the east, Riverside County on the south, Los Angeles, Orange and Kern Counties on the west, and Inyo County on the north.

1.5 Demographics

The Utility Department service area community is considered a disadvantaged community by the State of California. Per the 2010 United States census, the people living within the service area had a Median Household Income (MHI) of $35,777 with 20% of the population living below the federal poverty line. The MHI of California is $63,783.

1.6 Existing Land Use

The existing land use is housing, commercial, and light industry with most areas fully developed. There is one hospital in the City of Colton. The City of Colton Planning Department and the City Council regulate land use in the city. San Bernardino County regulates the land use in the county areas within the jurisdictional boundaries of the Utility Department's service area.

1.7 Development Trends

Development in the Utility Department service area was reduced during the housing industry crash of 2008. Currently, there are some large housing developments under construction within the city and there are some infill residential properties under development in the city. Home prices in the area are increasing at a lower rate than other communities in the San Bernardino Valley Basin, and recent developments are not expected to change current demographics.

Section 2: PLAN ADOPTION

2.1 Adoption by Local Governing Body

The completed Utility Department's LHMP will be presented to the City Council for adoption after CalOES and FEMA have approved the document. Upon adoption by Resolution of the City of Colton's City Council, the LHMP will be sent to CalOES and FEMA for their records.

The completed and adopted plan will be forwarded to the County of San Bernardino County Fire Office of Emergency Management for their use.

2.2 Promulgation Authority

The following elected members of the City Council have the authority to approve and adopt the LHMP:

Mr. Frank J. Navarro
Mayor
Description of Involvement: Mayor, City of Colton, City Council

Mr. David J. Toro
Council Member
Description of Involvement: Mayor Pro Tempore, City of Colton, City Council

Mr. Ernest R. Cisneros
Mayor Pro-Tem
Description of Involvement: City of Colton, City Council member

Mr. Kenneth Koperski
Council Member
Description of Involvement: City of Colton, City Council Member

Dr. Luis S Gonzalez
Council Member
Description of Involvement: City of Colton, City Council Member

Mr. Jack R. Woods
Mayor Pro Tem
Description of Involvement: City of Colton, Mayor Pro Tem

Mr. Isaac T. Suchil
Council Member
Description of Involvement: City of Colton, City Council Member

2.3 Primary Point of Contact

The Point of Contact for information regarding this plan prior to approval by FEMA is:

Gary Sturdivan
Sturdivan Emergency Management Consulting, LLC.
gsturdivan@me.com

Section 3: PLANNING PROCESS

This section documents the planning process used to review and compile information that leads to an effective LHMP. A comprehensive description of the planning process informs citizens and other readers how the plan was developed and provides a permanent record of how decisions were reached. These decisions can be understood, reconsidered, replicated, or modified in future updates. An integral part of the planning process is documentation of how the public was engaged throughout the process.

This LHMP was completed with the coordination and involvement of the Utility Department staff and representatives from the local community. These team members have a vested interest in the performance and resiliency of the Utility Department. Team members from the local community are residents and form the Citizens Advisor Committee (CAC). This team of City staff and local residents developed and implemented the planning process. In addition, the San Bernardino County Office of Emergency Services reviewed the plan for items that should be included from the County's Hazard Mitigation Plan.

This section includes a list of the planning team members, a summary of the meetings held, coordination efforts with the surrounding communities/groups, and public outreach efforts.

3.1 Preparing for the Plan

The planning team reviewed FEMA's "Hazard Mitigation Plan Review Tool", and San Bernardino County OES supplied information on past events that affected the service area. The team also reviewed the City of Colton's newly adopted Hazard Mitigation Plan (LHMP). The City of Colton's LHMP team did not include the utility departments and, therefore, the Utility Department has prepared their own LHMP.

The San Bernardino County OES completed a FEMA Hazard Profile of the area and provided maps to the Utility Department for use in this LHMP. The Hazard Profile maps were used in the planning meetings to show past flood areas, earthquakes, flash floods and other disasters that have affected the area. The team discussed the different emergency events that have happened in the community such as flash flooding, earthquakes, windstorms, power outages, and freezing events. Members of the planning team have been longtime residents of the community and have lived through many of these emergency events.

The planning process consisted of:

- Documenting past events
- Incorporating data
- Engaging the planning team
- Posting the meeting agendas, meeting minutes, and draft LHMP onto the Department's website and asking for public input and comments on the planning process
- Sharing information at the monthly Board of Directors' meetings
- Conducting public outreach

During the process the planning team used the following plans to gain information on the hazards that face the service area and the mitigation goals of the City of Colton and the County of San Bernardino:

- City of San Bernardino Municipal Water Department LHMP
- City of Colton's LHMP
- San Bernardino County LHMP
- USGS Golden Guardian Shake Out 2008
- City of Colton Water/Wastewater Department's Water Master Plan
- California LHMP 2013
- San Bernardino County Flood Control
- FEMA Flood Insurance Study for San Bernardino County

Table 1. Plans Reviewed

Study Plan	**Key Information**
San Bernardino Municipal WD LMHP	Layout of an LHMP for water agencies
City of Colton LHMP	Hazard identification, mitigation measures
San Bernardino County LHMP	Hazards, mitigation goals and measures
USGS Golden Guardian Shake Out 2008	Earthquakes, effects, planning
City of Colton Water/Wastewater Department's Water Master Plan	Land use for area, future projects
California LHMP 2013	Goals for the State of California
San Bernardino County Flood Control	Future flood control projects
FEMA Flood Insurance Study for San Bernardino County	Flood history

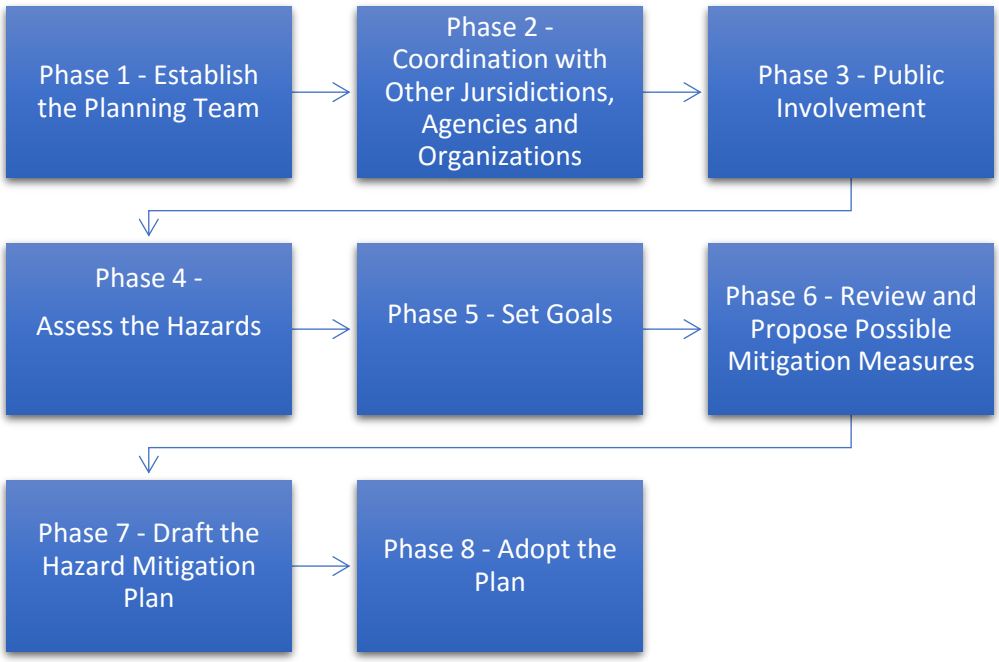

Figure 1. Flow Chart for Developing a Hazard Mitigation Plan.

Table 2. Financial Resources for Future Mitigation Projects

Local	Revenues	Amount
The Department's Budgets and Financial Planning Documents	Water sales, new construction Wastewater fees and Treatment fees	Varies from year to year
FEMA Grants	None	None
State Revolving Funds Draft Application	None	None
Prop. 84 Funding	None	None
FEMA Mitigation Grants	Department has not applied for FEMA funding in the past	As funding and approvals are obtained
Future Budget Funds Considerations	Water sales, Treatment sales	Varies as funding is available each year
Prop. One Grants	Department has not applied for this grant in the past	None

3.2 Planning Team

The Planning Team compiled information and reviewed this LHMP under the authorization of the Department's Board of Directors. The Planning Team members include:

Mr. David Kolk
City of Colton Water/Wastewater Department, Utilities Director
Description of Involvement: Internal Planning Team Member

Dr. Kolk received his Ph.D. in Economics from the University of California, Riverside. He has overseen utility operations for the past 25 years as manager of two municipal utilities and president of a consulting firm. He joined the Colton Electric Department in 2012. Under his direction, the Department has seen its cash reserves rise, greenhouse gas emissions fall by over 80%, the percentage of renewable resources increase from 3% to over 35% with a target of 65% by 2022, reliability increase and completion of a new substation and switching yard. In 2016 Dr. Kolk assumed responsibility for the Water and Wastewater Department and began an infrastructure upgrade program beginning with the construction of a new transmission line and rehabilitation of a decommissioned reservoir.

Mr. Michael Cory
City of Colton Water/Wastewater Utilities Superintendent
Description of Involvement: Internal Planning Team Member

Michael Cory has been in the Water Industry for 38 years. He has been employed by the City of Colton for 8 years. In the City of Colton, he started in the Water Division as the Water Utility Manager and was promoted to the Public Works & Water/Wastewater Utilities Superintendent in December of 2013. In May of 2017, the City of Colton reorganized, and his title was changed to Water & Wastewater Utilities Superintendent. He currently holds a Water Treatment Operator Certification Grade V, and Water Distribution Operator Certification Grade IV from the State Water Resource Control Board, Division of Drinking Water. He currently holds a California Commercial Class A Driver's License with endorsements. Mr. Cory is responsible for the daily activity for all operations and maintenance of the City of Colton Water, Wastewater and Sewer Divisions.

Mr. Mario Arredondo
City of Colton Wastewater Collections Supervisor
Description of Involvement: Internal Planning Team Member

Mr. Mario Arredondo has been employed by the City of Colton for 10 years. He started in the Water Distribution Department and was promoted to Collections Supervisor in January of 2016. He currently holds a CWEA Grade III, a California Water Distribution Grade II and a California Commercial Class B Driver's License. Mr. Arredondo is responsible for Maintenance and Overseeing the City of Colton Sewer Collections Infrastructure.

Mr. Jess Soto P.E.
City of Colton Utilities Engineer
Description of Involvement: Internal Planning Team Member

Mr. Soto has more than 24 years extensive experience in Public Works, Engineering and Civil construction field. Highly equipped in directing all phases of Public Works activities including road maintenance, construction, water & wastewater utilities maintenance and direction of engineering support. Possess strong expertise in planning, designing and delivery of multi-disciplinary capital improvement program for municipal facilities, transportation, utility and other infrastructure systems. Able to manage and coordinate all construction activities and ensure that all project deliverables are achieved with regards to safety, quality, program and cost. Mr. Soto has a broad experience in site supervision and construction management of several engineering projects such as roadway and bridge construction, storm drainage, wastewater facilities, water supply and distribution system.

CERTIFICATION: Registered Professional Civil Engineer (No. 83381) – California
EDUCATION: B.S. Civil Engineering (1991-1996) – Mapua University, Philippines

Mr. Isaac Mora
City of Colton Water Utility Supervisor
Description of Involvement: Internal Planning Team Member

21 Years with the City of Colton.
SWRCB, State Certified, Water Distribution Certification Grade IV.
SWRCB, State Certified, Water Treatment Certification Grade II.
SWRCB, State Certified, Wastewater Operator in Training Certification Grade I (OIT).

Mr. Ovidiu Bostan
City of Colton Wastewater Collections Supervisor
Description of Involvement: Internal Planning Team Member

Mr. Bostan is the Wastewater Utility Supervisor with over 10-year wastewater experience. Mr. Bostan has been with the city of Colton since 2011 and currently holds a State Water Recourses Control Board Grade V Wastewater Treatment Plant Operator certification.

Mr. Gary Sturdivan
LHMP Consultant
Description of Involvement: Planning Team Lead

Mr. Sturdivan, as a consultant to the Department, is the team leader for the LHMP. Mr. Sturdivan develops the agendas for each LHMP meeting, leads the discussions, compiles the meeting minutes and other information for public comment, and prepares draft text for the LHMP. Mr. Sturdivan provides informational updates to the Utility Department's City Council and incorporates the Board's comments into the planning process and LHMP. Mr. Sturdivan has a vast knowledge of mitigation planning, grant funding, and emergency management. Mr. Sturdivan worked in the water industry for 25 years, with 8 years as the Director of Safety/Regulatory Affairs/Emergency Management and Grants for East Valley Water Department prior to becoming a consultant in 2011.

3.3 Coordination with Other Jurisdictions, Agencies, and Organizations

The County of San Bernardino OES was invited to be on the Planning Team but were unable to attend. However, the County OES provided guidance in the planning of this document. In addition, San Bernardino County OES LHMP Officer, Miles Wagner, has reviewed and commented on the draft LHMP, and his comments have been incorporated into the final LHMP. Mr. Sturdivan contacted Mr. Wagner by phone. Mr. Sturdivan also contacted by phone and in person, Mr. Frank Salazar, San Bernardino Municipal Water Department. Mr. John Wrobel of Yucaipa Valley Water District. Mr. Wrobel and Mr. Salazar reviewed the Colton's Utility Department's draft LHMP and their comments have been incorporated.

3.4 Public Involvement/Outreach

The Planning Team participated in monthly meetings to coordinate efforts, provide input, and receive support for the LHMP. The draft LHMP was provided to the public during a 30-day review for comments period, as required by FEMA. In addition, the draft LHMP was given to the City of Colton's Utilities Commissioners (governing board for the water, sewer, and electrical system) in the City Colton, for review during the same 30-day review for comments period.

The Planning Team received support from internal and external technical expertise, resource materials, and tools. The Utility Department facilitated the LHMP process and provided sufficient information to follow FEMA requirements for the program. The 2018 City Council meeting agendas, meeting minutes, and sections of the LHMP were posted on the Utility Department's website (www.Colton.ca.us) as the LHMP was written. Requests were made on the website for public comments, and the website included notification that comments could be made by e-mailing Mr. Sturdivan at gsturdivan@me.com or by calling Mr. Sturdivan at 909-658-5974.

No public comments were received by Mr. Sturdivan or by the Utility Department staff.

The Appendices provide details of the public involvement process such as the meetings dates, purpose, agendas, sign-in sheets, minutes and public comments, as well as a screen shot of the webpage showing requests for public participation.

3.5 Assess the Hazards

A critical component of the LHMP process is to assess the likely hazards that may impact the Department's facilities and operations. It is important to have a thorough understanding of these hazards without over-analyzing remote or highly unlikely hazards.

This LHMP has been developed through an extensive review of available information on hazards the Department has faced in the past, and most likely will face in the future. The Planning Team reviewed and discussed items that have happened in the State of California as well as disasters that have happened in other desert areas of the United States. The Planning Team reviewed documents such as engineering drawings, photographs, and available geotechnical and geologic data both

from the Internet and other sources such as FEMA Hazard Maps, San Bernardino County Hazard Map, as well as documents from the Department on past events.

The Planning Team completed the assessment of the various hazards in a group setting. The team members have many years of personal experience working in the local area and many working with a water utility. Team members know the history of past hazardous or emergency events, such as the 1992 Landers Earthquake, a 7.3 magnitude earthquake that severely impacted the region. This earthquake's epicenter was 55 miles northwest of City of Colton Water/Wastewater Department in Landers and Flamingo Heights, California.

3.6 Set Mitigation Goals

The Planning Team set the goals for the 2019 LHMP. The team members understand the issues facing the Department with respect to the Department's Mission Statement:

Our mission is to provide a high standard of water quality and customer service at responsible cost; to protect the water resources of City of Colton Water/Wastewater Department; to promote cooperation and respect with customers, employees, neighboring communities and public – private agencies.

The process of identifying mitigation goals began with a review and validation of damages caused by specific hazards at similar agencies in the surrounding area. Damages to other agencies outside the area were also considered. In addition, the Planning Team estimated damages using engineering budget estimates for anticipated response and replacement costs. The Planning Team completed an assessment of the likelihood and damages for each identified hazard and discussed whether each of the mitigation goals were valid. This discussion led to the opportunity to identify new goals and objectives for mitigation in the LHMP. From this, the Planning Team determined the best mitigation goals to reduce or avoid long-term vulnerabilities.

3.7 Review and Propose Mitigation Measures

Meetings were held with the Planning Team to review the identified hazards and solicit input on appropriate mitigation measures for each critical piece of infrastructure. Each meeting focused on specific hazards, risk assessment, and mitigation strategy. Three meetings were held each month, one for the internal team, one for the external team, and one public meeting at the beginning of the monthly City Council meetings. The process required seven months from the kick-off meeting to the completion of the review and adoption by the Board.

3.8 Draft Local Hazard Mitigation Plan

The Department's consultant led the Planning Team and prepared the draft LHMP with input from the Planning Team, Board of Directors, and the public. The Planning Team reviewed and commented on the draft LHMP, and subsequent changes were made before the LHMP was finalized and adopted by the City Council. All meeting agendas, meeting minutes, and draft documents were posted on the Department's website. Notices were sent to all water customers in the service area stating that all LHMP documents were posted on the website asking for comments.

Each board meeting was opened with a public comment period. The consultant, Gary Sturdivan, addressed all comments and concerns.

The LHMP was reviewed in comparison to the FEMA-designed Crosswalk. The Crosswalk links the federal requirements and identifies the sections in the LHMP where the information can be found and provides a rating as to the level of compliance with the federal regulations.

3.9 Adoption of the Plan

The draft LHMP was posted on the Utility Department's website for 30 days, inviting comments from the public. The public could comment by e-mail, telephone, as Mr. Sturdivan's email address and phone number are on the cover of the document. The Department submitted the LHMP to the City Council for adoption after incorporating final comments from the public, State of California and FEMA

The City's 2018 LHMP was adopted at the Department's regularly scheduled City Council Meeting on June 20, 2018. However, the City's LHMP did not cover the water and wastewater hazards or infrastructure, critical to the water and wastewater services the Department provides.

Section 4: RISK ASSESSMENT

The goal of mitigation is to reduce the future impacts of a hazard, including property damage, disruption to local and regional economies, and the amount of public and private funds spent for recovery. Mitigation decisions are based on risk assessments where the probability of an event is evaluated with respect to the anticipated damages caused by such an event.

The purpose of this section is to understand the hazards and their risks in the Department's service area. There are generally four steps in this process: 1) hazard identification 2) vulnerability analysis 3) risk analysis and 4) vulnerability assessment, including an estimation of potential losses. Technically, these are four different items, but the terms are sometimes used interchangeably.

4.1 Hazard Identification

The Planning Team discussed potential hazards and evaluated their probability of occurrence. The following subsections describe this process and the results. The American Water Works J-100 RAMCAP to help identify the hazards and rank the hazards.

4.2 Hazard Screening Criteria

The intent of screening the hazards is to help prioritize which hazards create the greatest concern to the Department. A list of the natural hazards to consider was obtained from Federal Emergency Management Agency's State and Local Mitigation Planning How-to Guide: Understanding Your Risks (FEMA 386-1). The Planning Team used the Stafford Act and the California Emergency Service Act and guidance from the American Water Works Association standards, G-440 and J-100 RAMCAP. Each risk was ranked with a 1 – 4: with (1) being a "Highly Likely" event, (2) being "Likely" (3) being "Somewhat Likely" event, and (4) being "Least Likely" event. The Planning Team reviewed each hazard on the list using their experience and historical data pertaining to each hazard and developed the following ranked list.

Hazards:

- Earthquake = 1
- Flood Exposure = 1
- Wildfire = 2
- Climate Change = 2
- Drought = 2
- Dam Inundation = 2
- Windstorms = 2
- Landslide Hazard = 3
- Storms/Lightning/Power Loss = 3

The following natural hazards were considered not to affect or not to be a risk to the utility Department and were given a ranking of 4 or not applicable to the Utility Department's location.

- Volcanoes
- Tsunami
- Liquidation

4.3 Hazard Assessment Matrix

The Department used a qualitative ranking system for the hazard screening process consisting of generating a high/medium/low style of rating for the probability and impact of each screened hazard.

- For **Probability**, the ratings are: Highly Likely, Likely, or Somewhat Likely
- For **Impac**t, the ratings are: Catastrophic, Critical, or Limited

The screening assessment matrix was used for the Department's hazards. The hazards have been placed in the appropriate/corresponding box/cell of the corresponding "Screening Assessment Matrix" based on the Planning Team's collective experience as shown in Table 3 below. Prioritization of the hazards is discussed in the following section.

Table 3: Screening Assessment Matrix

The screening assessment matrix is used for the District's hazards. The hazards have been placed in the appropriate/corresponding box/cell of the corresponding "Hazard Matrix" based on the Planning Team's collective experience. A subset of this group of hazards is used for the prioritization of the hazards in the following section.

Table 3. Screening Assessment Matrix

		Impact		
		Catastrophic	**Critical**	**Limited**
Probability	**Highly Likely (1) (75 – 100%)**	Earthquake Wildfires		
	Likely (2) (50-75%)		Flooding	
	Somewhat Likely (3) (50 – 75%)		Climate Change/Drought	Dam Inundation Windstorms

4.4 Hazard Profiles

This section looks at all the hazards identified by the Planning Team. This section gives an overview of each hazard, the definition of each hazard, and a description of how each hazard is expected to affect the Utility Department's service and/or service area using past examples and the hazards identified on the FEMA Website and the FEMA computer program known as HAZUS, which contains models of natural disasters, and the effects the disasters can have on a region.

4.5 Earthquake

Probability: **Highly Likely**

Impact: **Catastrophic**

General Definition: An earthquake is a sudden, rapid shaking of the earth caused by the breaking and shifting of rock beneath the earth's surface. For hundreds of millions of years, the forces of plate tectonics have shaped the earth as the huge plates that form the earth's surface move slowly over, under, and past each other. Sometimes the movement is gradual. Increased movement occurs when the plates become locked together, unable to release the accumulating energy. When the accumulated energy grows strong enough, the plates break free causing the ground to shake. Most earthquakes occur at the boundaries where the plates meet. However, some earthquakes occur in the middle of plates.

Ground shaking from earthquakes can collapse buildings and bridges; disrupt gas, electric, water utilities, and phone service; and trigger landslides, avalanches, fires, and destructive ocean waves, including tsunamis. Buildings with foundations resting on unconsolidated fill material and other unstable soil, as well as homes not tied to their foundations, are at risk because they can be shaken off their mountings even during a mild earthquake. When an earthquake occurs in a populated area, it may cause deaths, injuries, and/or extensive property damage.

Earthquakes strike suddenly and without warning. Earthquakes can occur at any time of the year and at any time of the day or night. On a yearly basis, 70 to 75 damaging earthquakes occur throughout the world. Estimates of losses from a 7.8 magnitude earthquake in the southern section of the San Andreas Fault System, located in the regional area near Colton, is approaching $200 billion.

There are 45 states and territories in the United States at moderate to very high risk from earthquakes, and they are in every region of the country. California experiences the most frequent damaging earthquakes in the United States; however, Alaska experiences the greatest number of large earthquakes, most located in uninhabited areas. The nearby southern section of the San Andreas Fault is ranked in the top five (5) most likely faults to cause major damage in the United States by United States Geological Survey (USGS).

The source for the earthquake profile is a report that describes a new earthquake rupture forecast for California developed by the 2007 Working Group on California Earthquake Probabilities (WGCEP 2007). The Earthquake Working Group was organized in September 2005 by the USGS, the California Geological Survey (CGS), and the Southern California Earthquake Center (SCEC)

to better understand the locations of faults in California. The group produced a revised, time-independent forecast for California for the National Seismic Hazard Map. The last two earthquakes that damaged the infrastructure of Colton were the 1992 Landers Earthquake and the 1992 Big Bear Earthquake; during both of these earthquakes, only minor damage was sustained. The Hector Mine, Northridge and Corona earthquakes were felt in the service boundaries, but did no damage to the infrastructure

Description: There are several earthquake faults located within the Colton's service area. While there have been many earthquakes in and around the Colton's service area, there has not been a major earthquake in Colton in many years. The two major earthquake faults in San Bernardino Valley are the southern section of the San Andreas Fault and the San Jacinto Fault. These two faults and their many sub-faults cover the northern and southern sections of the City of Colton's service area. Historical earthquake information is listed in a table below.

Mitigation: Projects to help mitigate damage from earthquakes are installing seismic shut-off valves on all water reservoirs and flexible pipe joints at reservoirs, wells, and booster pumps. Flexible pipe joints can also be installed in sections of the water pipelines to allow the pipelines more flexibility during earth movement. Block walls can be installed around facilities to help control water that may escape from water storage tanks, and also provide the added benefit of increased security of critical facilities.

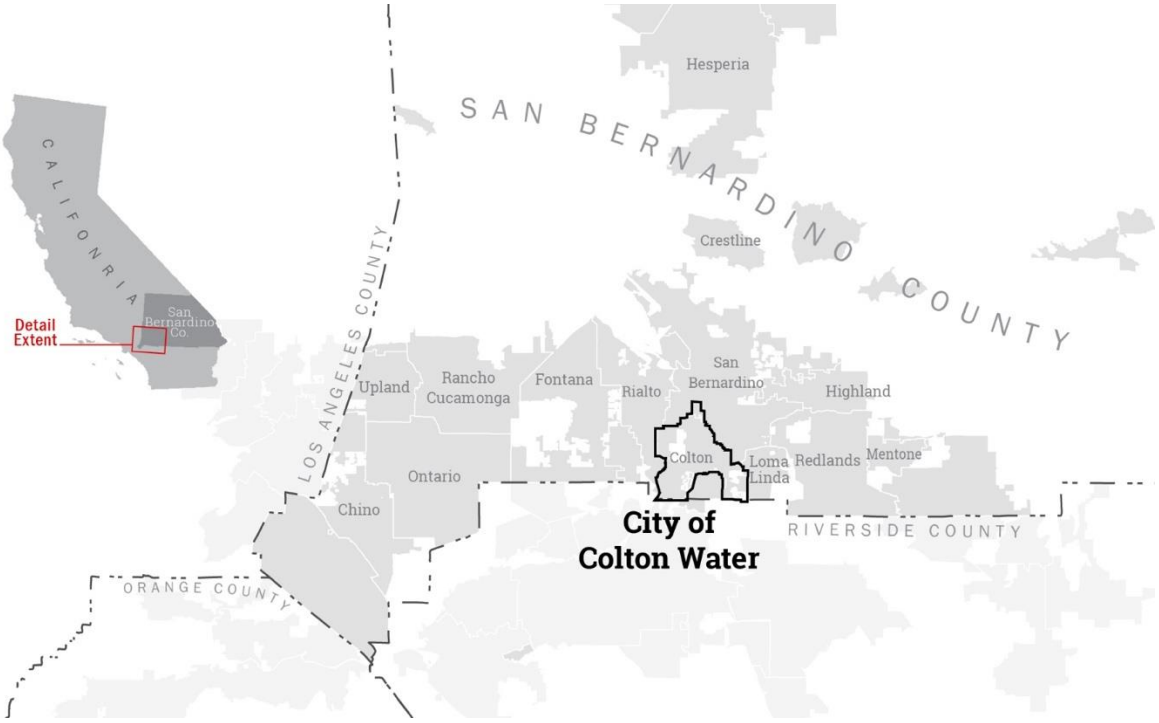

Figure 2. City of Colton Water/Wastewater Department Service Area.

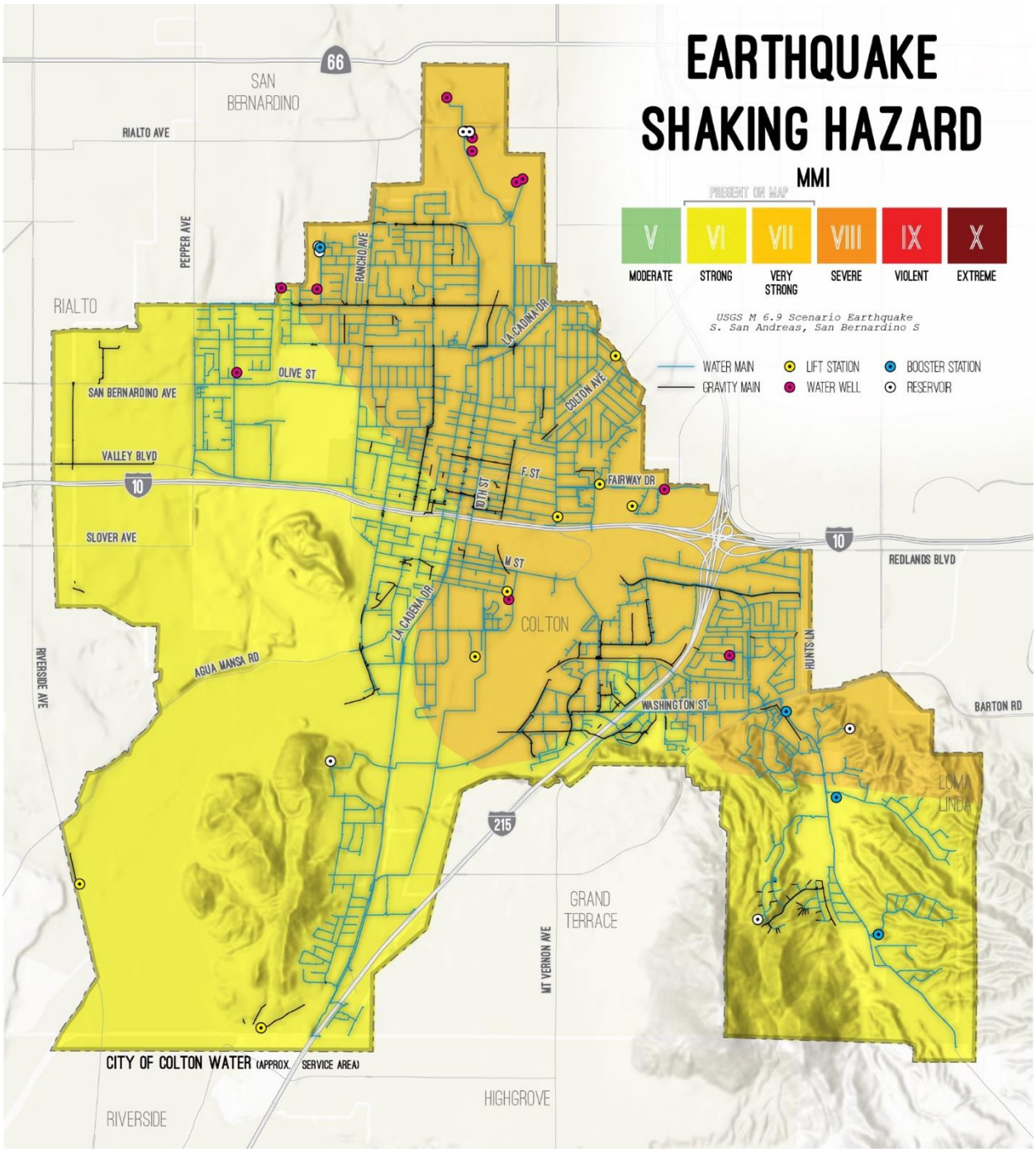

Figure 3. Southern California (East) Shake Out Area, Probability of Shaking 7.8

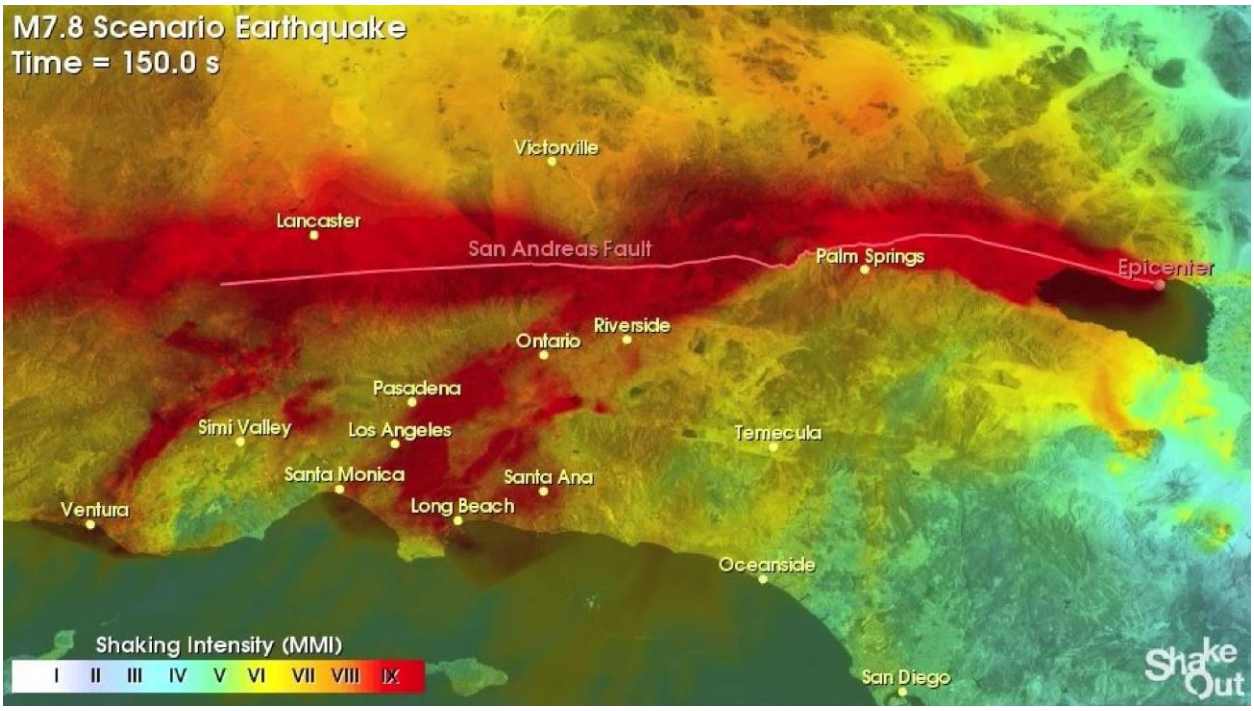

Figure 3A. The Great Shakeout.

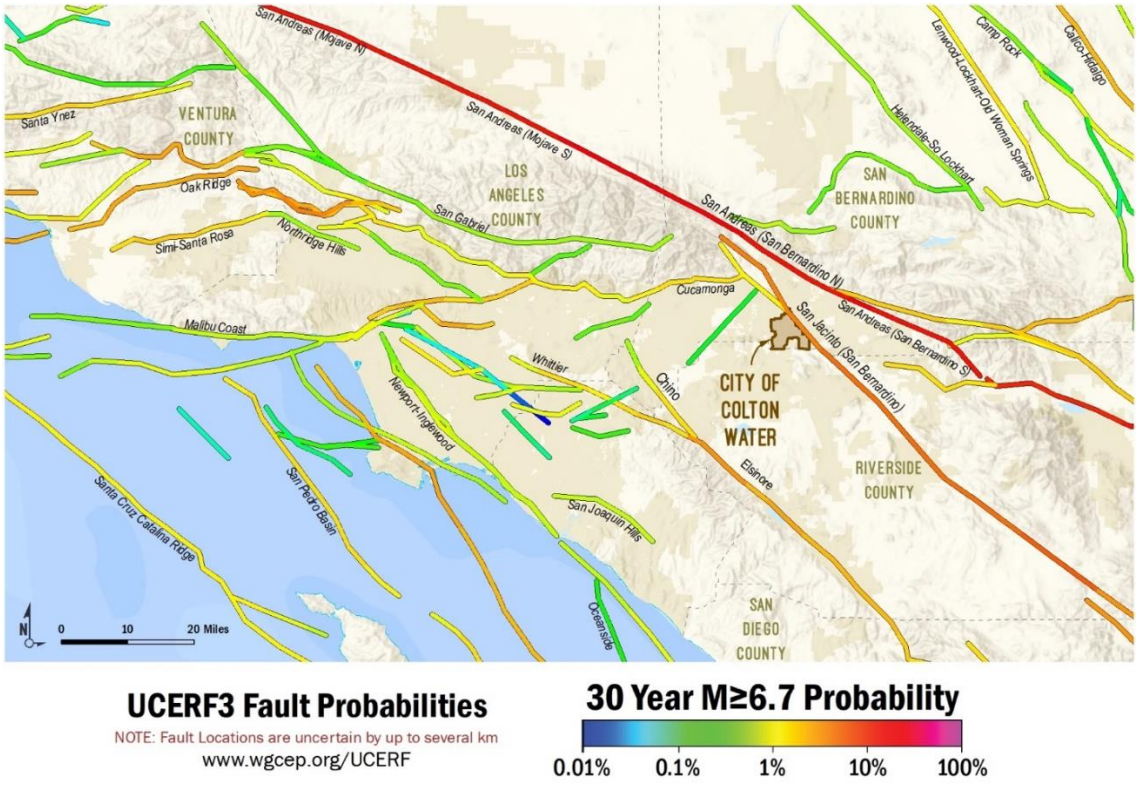

Figure 3B. Fault Lines in Southern California

Table 4. Historic Southern California Earthquakes

Date	Area	Location	Mag	MI	Total damage / notes
4/5/2019	Kern/SB	Ridgecrest/Trona	7.1 M_w	VI	Unknown
7/4/2019	Kern/SB	Ridgecrest	6.72M_w	VIII	Limited
7/29/2008	Los Angeles Area	Chino Hills Earthquake	5.5 M_w	VI	Limited
10/16/1999	Eastern	Hector Mine Earthquake	7.1 M_w	VII	Limited
1/17/1994	Los Angeles Area	Northridge Earthquake	6.7 M_w	IX	$13–$40 billion
6/28/1992	Inland Empire	Big Bear Earthquake	6.5 M_w	VIII	Moderate/Triggered
6/28/1992	Inland Empire	Landers Earthquake	7.3 M_w	IX	$92 million
4/22/1992	Inland Empire		6.3 M_s	VII	Light–moderate
6/28/1991	Los Angeles Area	Sierra Madre Earthquake	5.6 M_w	VII	$33.5–40 million
2/28/1990	Los Angeles Area	Upland Earthquake	5.7 M_w	VII	$12.7 million
11/24/1987	Imperial Valley		6.5 M_w	VII	Triggered
11/23/1987	Imperial Valley		6.1 M_w	VI	$3 million
10/1/1987	Los Angeles Area	Whittier Narrows Earthquake	5.9 M_w	VIII	$213–358 million
7/21/1986	Eastern	Chalfant Valley Earthquake	6.2 M_w	VI	$2.7 million / sequence
7/13/1986	South Coast		5.8 M_w	VI	$700,000
7/8/1986	Inland Empire	North Palm Springs Earthquake	6.0 M_w	VII	$4.5–6 million
4/26/1981	Imperial Valley	Calexico	5.9 M_w	VII	$1–3 million
5/25/1980	Eastern	Salton Sea	6.2 M_w	VII	$1.5 million/Swarm
10/15/1979	Imperial Valley	Imperial Valley Earthquake	6.4 M_w	IX	$30 million
2/21/1973	South Coast	Point Magu Earthquake	5.8 M_w	VII	$1 million
2/9/1971	Los Angeles Area	San Fernando Earthquake	6.5–6.7 M_w	XI	$505–553 million
4/8/1968	Imperial Valley		6.5 M_w	VII	Damage / rockslides
12/4/1948	Inland Empire	Desert Hot Springs Earthquake	6.4 M_w	VII	Minor
11/14/1941	Los Angeles Area		5.4 M_s	VIII	$1.1 million
6/30/1941	Central Coast		5.9 M_w	VIII	$100,000
5/18/1940	Imperial Valley	El Centro Earthquake	6.9 M_w	X	$6 million

3/10/1933	South Coast	Long Beach Earthquake	6.4 M_w	VIII	$40 million
6/21/1920	Los Angeles Area		4.9 M_L	VIII	More than $100,000
4/21/1918	Inland Empire	San Jacinto Earthquake	6.7 M_w	IX	$200,000
6/22/1915	Imperial Valley		5.5 M_w	VIII	Additional damage / doublet
6/22/1915	Imperial Valley		5.5 M_w	VIII	$900,000 / doublet
4/18/1906	Imperial Valley		6.3 M_w	VIII	Damage / triggered

Figure 4. Examples of Earthquake Damage to Water Facilities in the 1992 Landers Earthquake.
* Pictures above are from Hi-Desert WD and Bighorn Desert View Water Agencies.

4.6 Flooding

Probability: **Likely**
Impact: **Critical**

General Definition: An unusually heavy rain in a concentrated area, over a short or long period of time that collects on the ground in low areas of the land. Flooding occurs when there are large amounts of rainfall in areas where the water runs off to lower elevations. Typically, flooding happens in the San Bernardino Valley when there are large tropical storms in the local mountains. Recent wildfires can exacerbate flooding conditions, when infiltration is affected and limited vegetation is in place. The last major wildfire was in October 2003 (the "Old Fire") which, contributed to major flooding in December 2003 and again in January of 2004.

Description: Flooding can occur in the summer as well as the winter. Monsoon season is typically in June and July of each year. During monsoons, heavy rainstorms that form in the Gulf of Mexico move into Arizona, New Mexico, Texas, and the California deserts. These storms bring powerful winds and heavy rains within a short period of time and can produce two to five inches of rain within a half-hour period.

FEMA Flooding and or Flood Inundation Mapping:

The FEMA 500-year flood map is included below in Figure 5. A 500-year flood is only in a small portion of the service area along the river bottom area, (light and dark purple area) where most of the Utility Department's water supply wells are located. The motors for groundwater well pumps are installed on elevated concrete pads that raise the motor to a height above the 500-year high water elevation.

Flooding only happens when water can collect in valleys or lower lying areas. Colton is in the valley with some small hills in the south-eastern section of the city, water has been known to pool in the City of Colton. The last time the City experienced large scale flooding was in the great flood of 1938 where water runs off from higher mountainous areas entered the Santa Ana River. There was rainfall in Southern California for over 30-days, which lead to massive flooding in Colton and the surrounding communities and cities. Flood waters can be very dangerous because the accumulated flow can come from many miles away at very fast speeds following heavy rains. These waters can rage through the jurisdiction from the west to the east collecting in the wash area noted on Figure 5. These washes run north to south through the Colton's service area.

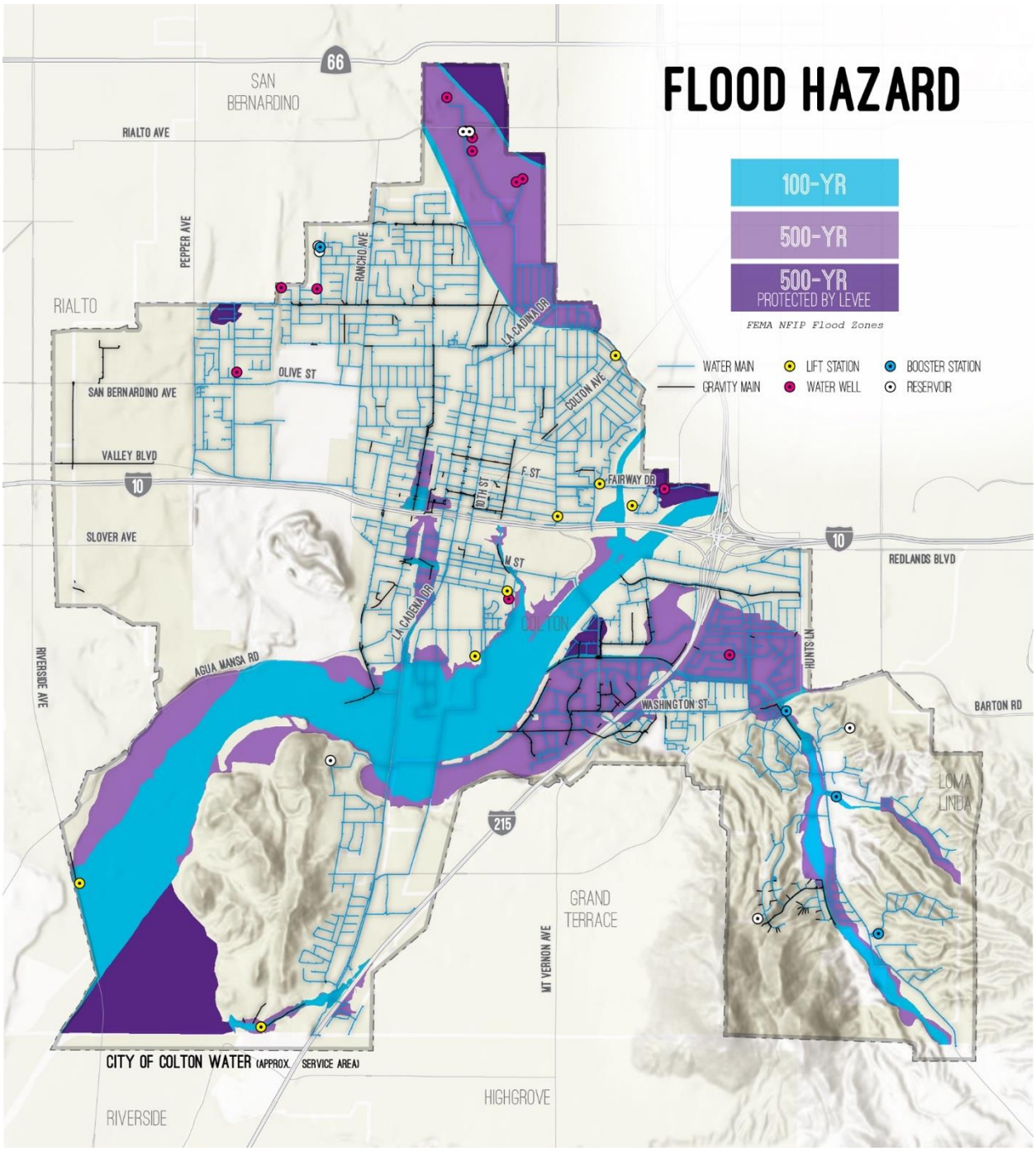

Figure 5. FEMA 500-Year Flood Map Showing Service Area.

Table 5. USGS Flooding History

Date of event	Type of Damage	Amount of Damage	Statewide or Local
Dec-55	74 deaths	$200 M	Statewide
Apr-58	13 deaths, several injuries	$20 M, plus $4 M agricultural	Statewide
Fall 1965	Abnormally heavy and continuous rainfall.	Public- $5.8 M; private $16.0 M; Total $21.8 M	Riverside, San Bernardino, Ventura, San Diego Counties
Winter 1966	Abnormally heavy and continuous rainfall.	Public- $14.6 M; private $14 M; Total $28.7 M	Various
Winter 1969	Storms, flooding, 47 dead, 161 injured. An alluvial flood and debris flow on Deer Creek in San Bernardino County killed 11 people.	Public $185 M, Private - $115 M; Total $300 M	Various
Sep-1976	High winds, heavy rains, and flooding	Public$65.7 M; private- $54.3 M; Total $120 M	Imperial, Riverside, San Bernardino, San Diego Counties
Winter 1978	14 dead, at least 21 injured	Public $73 M; private-$44 M; Total $117 M; 2,538 homes destroyed	Various
Jul-1979	No Deaths	Public $3.0 M; private- $22.9 M; Total $25.9 M	Riverside
Feb-1980	Rain, wind, mud slides, and flooding	18M to 20M	Various
Winter 1982-1983	Heavy rains, high winds, flooding, levee breaks	Public $151 M; private $159 M; agricultural $214 M; Total $524 M	Various
Aug-1983	High winds, storms, and flooding; 3 deaths	Public $10 M, private $15 M, agricultural $10 M; TOTAL $35 M	Inyo, Riverside, San Bernardino Counties
Feb-1992	Flash Flooding, rainstorms, mud slides; 5 deaths	Public-$95 M; private- $18.5 M; business $8.5 M, agricultural $1.5 M; TOTAL $123 M	Los Angeles, Ventura, Kern, Orange, San Bernardino Counties
Dec-1992	Snow, rain, and high winds, 20 deaths, 10 injuries	Total - $600 M	Various
Jan-1995	11 deaths	Public $299.6 M; individual $128.4 M; businesses $58.4 M; highways $158 M; ag- $97 M; TOTAL $741.4 M; damage to homes: major- 1,883; minor 4, 179; destroyed-370.	Various

Date of event	Type of Damage	Amount of Damage	Statewide or Local
Feb-1995	17 deaths	Public property $190.6 M; individual $122.4 M; business $46.9 M; highways $79 M; ag $651.6 M; TOTAL approximately $1.1 billion; damage to homes: major-1,322; minor-2,299; destroyed 267	57 counties (all except Del Norte)
Feb-1998	17 deaths	$550 M	Various
Dec. - 2003	15 deaths	$30 M	San Bernardino, Waterman Canyon, Lytle Creek
Jan. 2004	None	$20,000 public property	San Bernardino County High Desert
October 2010	None	$2.5 M	Flash flooding San Bernardino County High Desert
Dec. 2010 Jan. 2011	None	$18 M San Bernardino/Highland, High Desert, San Bernardino Mountains, Forest Falls	Various location in San Bernardino County
May 2012 March 2014	None	$50,000	S.B. County High Desert Various

Tropical Storms Cited in FEMA HAZUS (extracted without references and links)

Tropical Storm Norman, August – September 1978

A flash flood watch was issued for the mountainous terrain and the desert region from Kern County to the California-Mexico border by the US National Weather Service.

A large amount of rain was produced, with over 7.01 in. (178 mm) of rain occurred in the Sierra Nevada range at Lodgepole in Sequoia National Park. Rainfall was most intense on September 5 and September 6, with amounts exceeding 3 in (76 mm) in the mountains of Southern California. In addition, Norman produced waves up to 15 feet (4.6 m) high in the Pacific Ocean.

The extra tropical remains of Hurricane Norman also moved into Nevada and produced very significant amounts of rainfall in the extreme central to northern portion of the state. Power lines were knocked down and caused a brief power failure from Santa Barbara to San Diego, reported by the Colton of Water and Power, Southern California Edison, and San Diego Gas and Electric. The high winds tossed about ships in local harbors and damaged agricultural crops in Southern California, such as raisin crops, and damage to raisins were extensive throughout Kern, Tulare, and Stanislaus Counties. The rainfall also damaged grapes.1,500 people had to be rescued due to high waves. A 25-foot US Navy cruiser was smashed and destroyed when surf washed it ashore with an approximately 150 feet wave near Dana Point.

The storm also produced surging tides at the Los Angeles Harbor, and swept a 10,000-ton tanker from its moorings. The tropical cyclone caused the US $300 million (1978 USD) in damages.

Tropical Storm 1939 Long Beach tropical storm, El Cordonazo, The Lash of St. Francis, September 1939

The storm dropped heavy rain on California, with 5.66 inches (144 mm) falling in Los Angeles (5.24 inches in 24 hours) and 11.60 inches (295 mm) recorded at Mount Wilson in the San Gabriel Mountains, both September records. Over three hours, one thunderstorm dropped 7 inches (180 mm) of rain on Indio, 9.65 inches fell on Raywood Flat, and 1.51 inches (38 mm) on Palm Springs. In Pasadena 4.83 inches of rain was measured, a September record at the time. At the Citrus Belt near Anaheim, at least 4.63 inches of rain fell. The 11.60 inches (295 mm) at Mount Wilson is one of California's highest rainfall amounts from a tropical cyclone, although at least one system has a higher point maximum. The rains caused flooding 2 to 4 feet (1.2 m) deep in the Coachella Valley, although some of this may be attributable to a rainstorm dropping 6.45 inches (164 mm) the day before the storm hit. The Los Angeles River, which is usually low during September, became a raging torrent.

The flooding killed 45 people in Southern California, although some of these may be attributable to the rain immediately before the tropical storm. At sea, 48 were killed. The National Hurricane Center only attributes 45 deaths to this system. Six people caught on beaches drowned during the storm. Most other deaths were at sea. 24 people died aboard a vessel called the Spray as it attempted to dock at Point Mugu in Ventura County. The two survivors, a man and a woman, swam ashore and then walked five miles (8 km) to Oxnard. Fifteen people from Ventura drowned aboard a fishing boat called the *Lur*. Many other vessels were sunk, capsized, or blown ashore.

Many low-lying areas were flooded. The Hamilton Bowl overflowed, flooding the Signal Hill area. Along the shore from Malibu to Huntington Beach houses were flooded. Throughout the area thousands of people were stranded in their homes. Streets in Los Angeles proper were covered with water, flooding buildings and stalling cars. Flooding in Inglewood and Los Angeles reached a depth of 2 to 3 feet. The flooding stopped construction on a flood control project in the Los Angeles River's channel by the Army Corps of Engineers. In Long Beach windows throughout the city were smashed by the wind. At Belmont Shore waves undermined ten homes before washing them away. Debris was scattered throughout the coast. Agriculture was disrupted in the Coachella Valley, where crop damage reached 75%.

Rains washed away a 150-foot (46 m) section of the Southern Pacific Railroad near Indio, and a stretch of the Santa Fe main line near Needles. Waters backing up from a storm drain under construction in the Santa Monica Valley blocked U.S. Route 66 California. The pier at Point Mugu was washed away. In Pasadena, 5,000 people were left without electricity and 2,000 telephones lost service. Communications throughout the affected area was disrupted or rendered impossible. The total amount of damage was $2 million (1939 USD, 26.2 million 2005 USD).

The tropical storm was credited with at least one beneficial effect: It ended a vicious heat wave that had lasted for over a week and killed at least 90 people.

People were caught unprepared by the storm, which was described as "sudden." Some people were still on the beach at Long Beach when the wind reached 40 miles per hour, at which time lifeguards closed the beach. Schools were also closed. At sea, the Coast Guard and Navy conducted rescue operations, saving dozens of people. In response to Californians' unpreparedness, the Weather Bureau established a forecast office for Southern California, which began operations in February 1940.

Mitigation: Install flood control walls to direct floodwaters away from facilities. Lower pipelines where needed. Install better drainage structures to remove floodwaters out of the facilities and improve drainage from facilities.

4.7 Dam Inundation Zone

Probability: Somewhat likely
Impact: Critical

Definition: A failure of the 7-Oaks Dam would inundate the Santa Ana Riverbed and could case major flooding in the service area, routinely the Dam does not hold a lot of water. the

Description: The 7-Oaks Dam is located approximately 18 miles to the east the City. The Dam is at the mouth of the Santa Ana and the Santa Ana River is a major riverbed that carries water to the Pacific Ocean approximately 75 miles away. The 7-Oaks Dam was not constructed to hold large amounts water behind the Dam. The Corps of Engineers and the Orange County Flood Control operates the Dam and is charged with the release of water from behind the dam to control flooding.

The Dam inundation area and the infrastructure affected by a failure of the Dam is minimal, however, the wastewater treatment plant in in the inundation zone. There are also, concerns over the water and wastewater pipelines flowing across the bridges in the service area. This would result in major environmental issues and operational issues with sewage and getting water to the residents on the south of the Santa Ana River.

Mitigation: Rebuild the wastewater treatment plant on higher ground. Install flexible couplings on pipelines both wastewater and potable pipelines that are attached to bridges that cross the Santa Ana River.

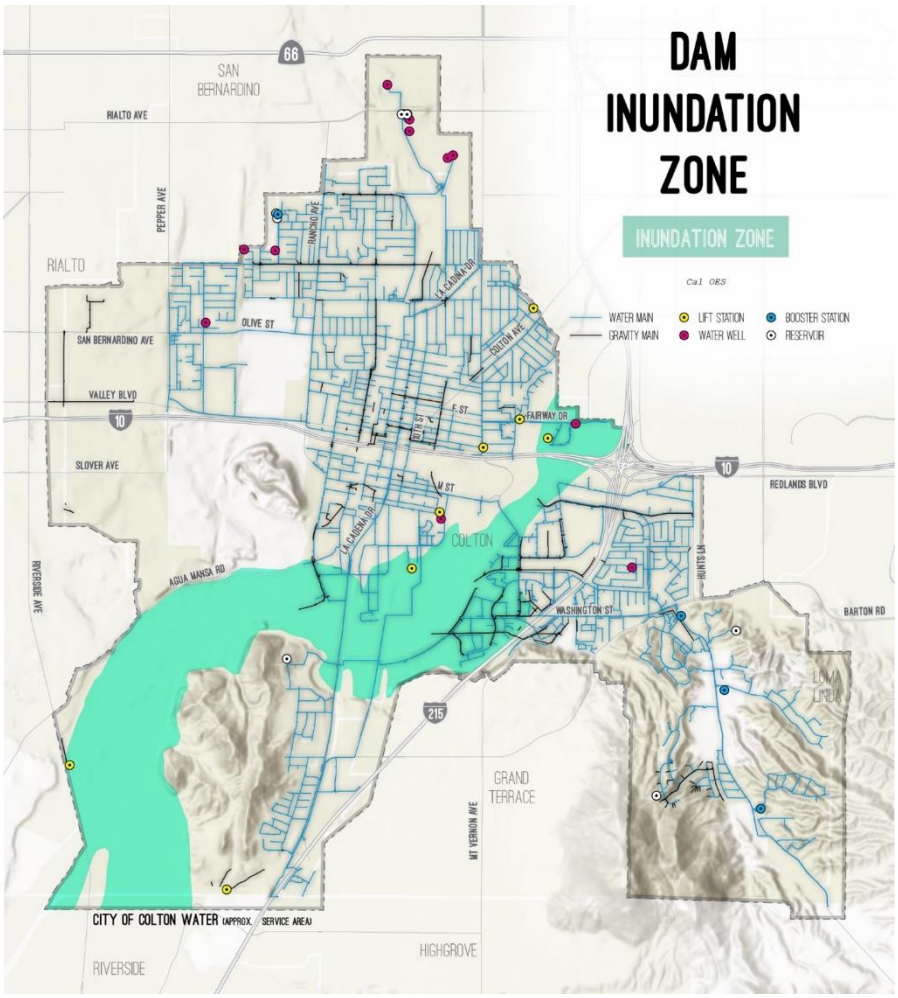

Figure 6. Dam Inundation Map (Seven Oaks Dam Failure)**.**

4.8 Wildfire

Probability: **Highly Likely**

Impact: **Catastrophic**

General Definition: California is very susceptible to wildfires, especially during the fall and summer months. Southern California experiences the Santa Ana winds that develop mostly in the late summer and fall. These winds are known for their high speeds and drying effect, which turn the natural grasses brown and dry. These winds are also capable of blowing down power lines that are known to start fires in the mountains and hills. The fires are driven by the high winds and the fires become large events that destroy large areas within cities and towns and cause loss of life and millions of dollars in damage to property. The last major wildfire in the region surrounding Colton was the “Old Fire ", which occurred in the San Bernardino Mountains in October 2003.

Description: Local facility fires are a significant concern. The Colton's office facilities, computer systems, Supervisory Control and Data Acquisition (SCADA) system, and operating pump stations are susceptible to fire damage. The consequences include loss of life, buildings, equipment, and property damage.

Wildfires are not expected to directly affect the water infrastructure system because most of the infrastructure is underground and constructed of non-flammable materials. In addition, the sparse local vegetation is such that wildfires are not expected to occur within the Colton boundaries. But there is some 'high fire' areas in the south-west and southeast sections of the jurisdictional area known as Richie Canyon and in the west side of I-215 freeway. However, the brush in these areas are low and will only cause little to no damage to the water reservoirs in this area.

During large wildfires, firefighting personnel may draw large amounts of water and strain the water supply system. The fires also burn though electrical power lines and the Utility Department can lose power in critical areas. Without power the Utility Department cannot pump groundwater from the aquifer or pump additional water to needed areas. The 2003 "Old Fire" caused major damage to reservoir (Tank) sites, well sites, booster pump stations and pipeline failures in the Utility Department's service area.

Mitigation: Install backup generators. Improve communication between the Utility Department and the public, firefighting personnel, the City of Colton, and San Bernardino County Offices of Emergency Services. Purchase water booster pumps to move water from one zone to another zone in the system. Set up a dedicated Emergency Operations Center in the City of Colton. Train staff in emergency operations and conduct emergency exercises. Install more tanks and booster stations on both sides of the 215 freeway to booster water into the foothills for firefighting abilities.

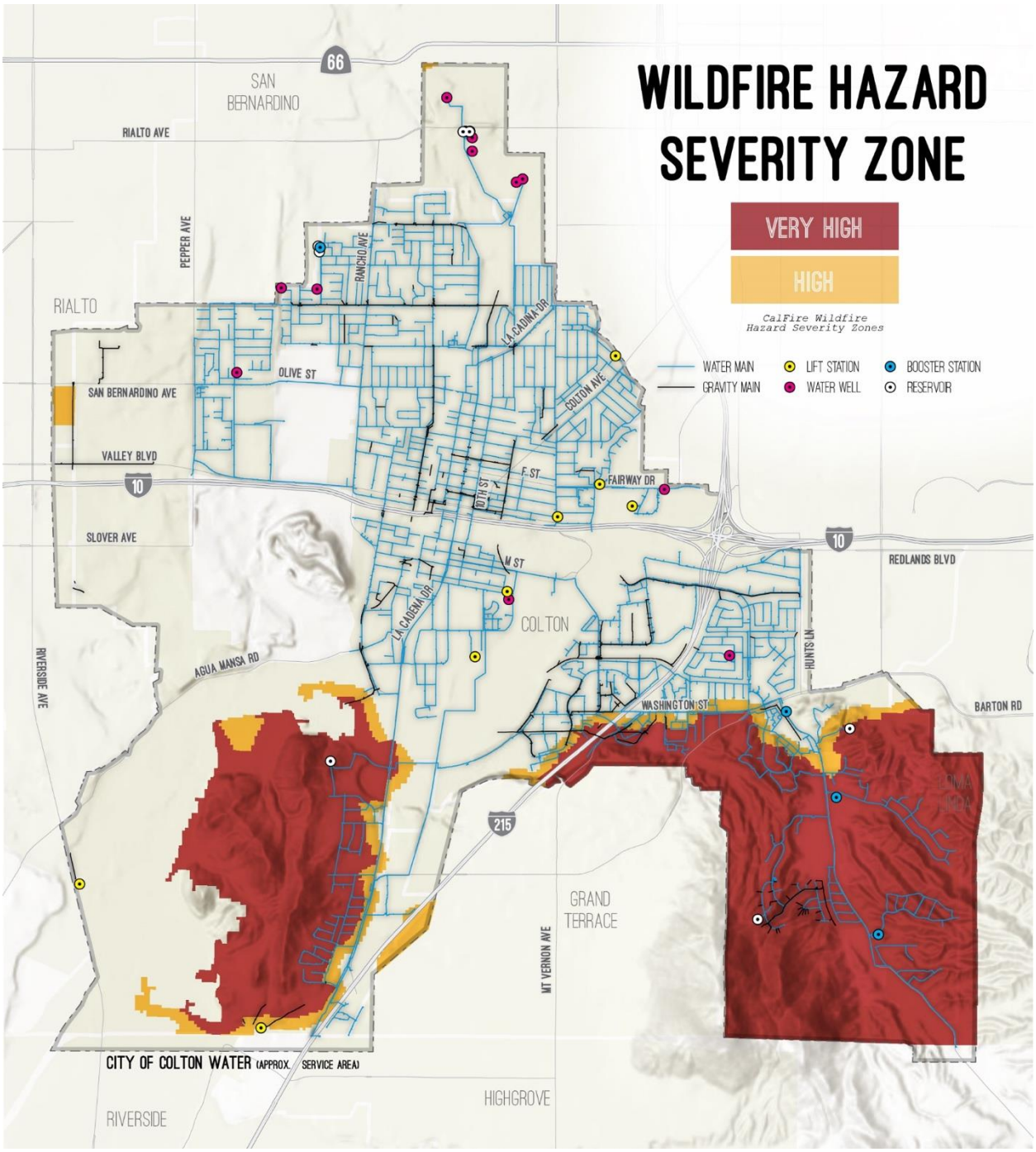

Figure 7. Fire Hazard Severity Zone Map Showing San Bernardino MWD Outline.

4.9 Climate Change/Drought

Probability: **Somewhat Likely**
Impact: **Limited**

Climate Change

General Definition: Climate Change is a change in the statistical distribution of weather patterns when that change lasts for an extended period of time (i.e., decades to millions of years). Climate change may refer to a change in average weather conditions, or in the time variation of weather around longer-term average conditions (i.e., more or fewer extreme weather events). Climate change is caused by factors such as biotic processes, variations in solar radiation received by the earth, plate tectonics, and volcanic eruptions. Certain human activities have also been identified as significant causes of recent climate change, often referred to as global warming.

Description: Climate change could increase water demands while lowering the groundwater table. This will result in increased pumping costs and may require installing deeper water supply wells. Extreme weather events will increase runoff and flash flooding while reducing the groundwater recharge.

Mitigation: Monitor groundwater levels and evaluate long-term trends. Study the long-term viability of the groundwater aquifer. Evaluate and possibly implement groundwater recharge projects, such as flood flow diversions to percolation basins.

Drought

General Definition: A drought is a period of below-average precipitation in, a given region resulting in prolonged shortages in its water supply, surface water, or ground water. Droughts occur when there are long periods of inadequate rainfall. The cycle of droughts and wet periods are often part of El Nino and La Nina weather cycles. This is a growing concern in California, as the state has been in a drought for the last eight years. Northern California experienced some relief in the winter of 2016, although the El Nino effect that was expected to relieve the drought statewide did not materialize in Southern California. The lack of rain and most importantly the lack of snowfall in the Sierra Nevada mountain range severely impacted the residents of large parts of California.

Description: The desert communities in San Bernardino County are not as affected by drought as other areas of the state because these communities, including the City of Colton, receive most of their water supply from underground aquifer(s). The Utility Department also purchases water though the State Water provider (San Bernardino Valley Municipal Water District). The purchased water is used in percolation ponds that recharge the underground aquifers. The underground aquifers are not in overdraft. It is understood that another 8 to 10 consecutive years of little or no rain, and no purchased water for recharging, will be needed to make a significant impact to the Utility Department's water supply.

The National Integrated Drought Information System (NIDIS) is a tool that measures the drought-related risks in certain areas of the country. Figure 8 below shows that the San Bernardino area was in a moderate drought event in 2018 and was moving to a severe drought until rains of 2019 provided relief.

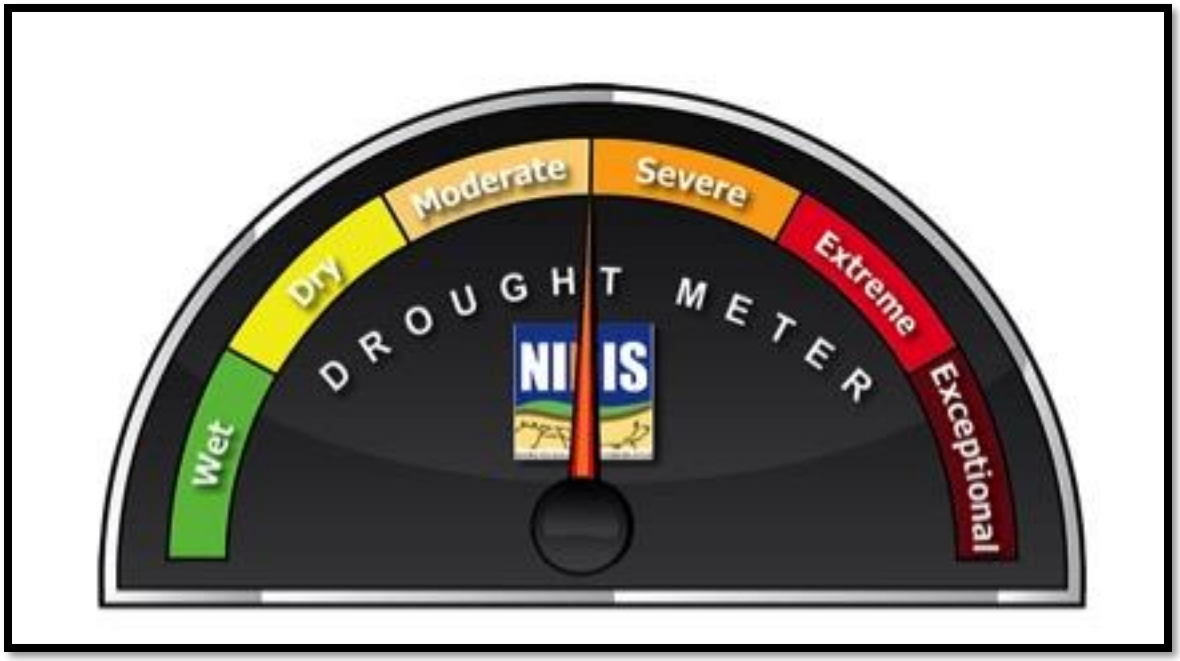

Figure 8. Current Drought Conditions in San Bernardino as of May 2018.

Table 6. California Drought History *(extracted from USGS, California Drought History).*

1841	The drought was so bad that "a dry Sonoma was declared entirely unsuitable for agriculture"
1864	This drought was preceded by the torrential floods of 1861-1862, showing the fluctuation in climate back in the 1800s.
1924	This drought encouraged farmers to start using irrigation more regularly because of the fluctuation in California weather the need for consistent water availability was crucial for farmers.
1929–1934	This drought was during the infamous Dust Bowl period that ripped across the plains of the United States in the 1920s and 1930s. The Central Valley Project was started in the 1930s in response to drought.
1950s	The 1950s drought contributed to the creation of the State Water Project.
1976–1977	1977 had been the driest year in state history to date. According to the *Los Angeles Times*, "Drought in the 1970s spurred efforts at urban conservation and the state's Drought Emergency Water Bank came out of drought in the 1980s."
1986–1992	California endured one of its longest droughts ever observed from late 1986 through early 1992. Drought worsened in 1988 as much of the United States also suffered from severe drought. In California, the six-year drought ended in late 1992 as a significant El Niño event in the Pacific Ocean (and the eruption of Mount Pinatubo in June 1991) most likely caused unusual persistent heavy rains.
2007–2009	2007–2009 saw three years of drought conditions, the 12th worst drought period in the state's history, and the first drought for which a statewide proclamation of emergency was issued. The drought of 2007–2009 also saw greatly reduced water diversions from the State Water Project. The summer of 2007 saw some of the worst wildfires in Southern California history.
2011-2017	From December 2011 to March 2017, the state of California experienced one of the worst droughts to occur in the region on record. The period between late 2011 and 2014 was the driest in California history since record keeping began.

Progression of the drought from December 2013 to July 2014

(extracted from USGS, California Drought History)

The period between late 2011 and 2014 was the driest in California history since record keeping began. In May 2015, a state resident poll conducted by Field Poll found that two out of three respondents agreed that it should be mandated for water agencies to reduce water consumption by 25%.

The 2015 prediction of El Niño to bring rains to California raised hopes of ending the drought. In the spring of 2015, the National Oceanic and Atmospheric Administration named the probability of the presence of El Niño conditions until the end of 2015 at 80%. Historically, sixteen winters between 1951 and 2015 had created El Niño. Six of those had below-average rainfall, five had average rainfall, and five had above-average rainfall. However, as of May 2015, drought conditions had worsened, and above average ocean temperatures had not resulted in large storms. The drought led to Governor Jerry Brown's instituting mandatory 25% water restrictions in June

2015.

Many millions of California trees died from the drought - approximately 102 million, including 62 million in 2016 alone. By the end of 2016, 30% of California had emerged from the drought, mainly in the northern half of the state, while 40% of the state remained in the extreme or exceptional drought levels. Heavy rains in January 2017 were expected to have a significant benefit to the state's northern water reserves, despite widespread power outages and erosional damage in the wake of the deluge. Among the casualties of the rain was 1,000-year-old Pioneer Cabin Tree in Calaveras Big Trees State Park, which toppled on January 8, 2017.

The winter of 2016–17 turned out to be the wettest on record in Northern California, surpassing the previous record set in 1982–83. Floodwaters caused severe damage to Oroville Dam on the Feather River in early February, prompting the temporary evacuation of nearly 200,000 people north of Sacramento in response to the heavy precipitation, which flooded multiple rivers and filled most of the state's major reservoirs. Governor Brown declared an official end to the drought on April 7, 2017.

Mitigation: Construct more water storage capacity. Develop ways to capture rainwater from the higher mountains during flash flooding events and divert those waters to the percolation ponds to recharge the underground aquifer.

4.10 Windstorms

Probability: **Somewhat Likely**

Impact: **Limited**

General Definition: Santa Ana windstorms are common during the fall and winter months in Southern California. Winds are caused by a low-pressure system over the southern coastline and a high pressure over the Great Basin in Nevada. When the high-pressure turns counterclockwise the warm, dry air is pulled to the low-pressure zone and out to the Pacific Ocean. The hot dry air must be funneled through the mountain passes and canyons.

Description: Wind speeds can reach 100 mph during these events. A yearly event occurring during the fall and winter months drives the wildfires in California, causing electrical outages, downed power lines, fallen trees, fires, and risk to life and safety of the residents as well as catastrophic destruction to property as seen during the “Old-Fire” of 2003. The damages from high windstorms include loss of power, downed power lines, and roof damage on water storage structures.

Mitigation: Projects to help mitigate damage from windstorms are to purchase potable water booster pumps, purchase more generators, and install generator switching panel and equipment at all sites. Replace roof materials that can stand up to high winds and are retardant to fire. Currently this is not a priority for the Department and there are no mitigation action at this time. However, this may be a priority in the update in the next LHMP and may include mitigation actions.

4.11 Inventory Assets

This section provides an overview of the assets in the Colton and the hazards to which these facilities are susceptible.

4.12 Facilities Overview

As of June 2019, the Utility Department operates and maintains the following facilities:

- 8 pressure zones
- 7 existing water storage tanks with a total storage capacity of 13.1 million gallons
- 13 existing wells with a total pumping maximum capacity of 2.25 MGD
- Two water treatment facilities
- Approximately 169.22 miles of distribution mains 21.5 miles of gravity mains
- 733 miles of sewer collection pipes
- 8 sewer lift stations

All the hazard maps show how the facilities are arranged to provide potable drinking water and wastewater service to the residents and businesses of the service area. Water demand in the service area vary throughout the year with sales estimated at 8 million gallons per year. We don't show the location by address or street as this is a safety and security issue for the City Utilities Department.

Critical Facilities List

This section provides a table of the Utility Department's facilities as developed by the Planning Team. This list **is not** in order of most critical to least critical.

Table 7. Critical Facilities

Facility Name	Site Information
Wells	
Well Number 22	
Well Number 23	
Well Number 30	
Well Number 15	
Well Number 17	
Well Number 24	
Well Number 13	
Well Number 16	
Well Number 19	
Well Number 21	
Well Number 28	
Well Number 26	
Well Number 27	
Reservoirs	
Rialto Reservoirs 1 & 2	
La Loma Reservoir	
Montecito Reservoir	
Wild Canyon Reservoir	
Booster Station	
Reche Canyon Booster Station	
Water Mains crossing the Santa Ana River	Size of pipeline 6 in, 8 inch
Sewer Infrastructure	
Sewer Reclamation Plant	
Sewer mains crossing the Santa Ana River	Size of the pipe 6- inch, 8-inch?

4.13 Vulnerability Assessment

The team reviewed pictures of each of the Utility Department's facilities. The pictures were presented with a map of the area to convey the location within the system as well as the site-specific characteristics of the facility. The Planning Team has a long history in the area and knowledge of the potential disasters and emergencies that can occur in and around the community. The Planning Team has the knowledge to assess the system and give valuable input into the assessment and vulnerabilities to the system.

4.14 Methodology

The Planning Team reviewed the Utility Department's facilities and applied their local and operational knowledge to evaluate how vulnerable each facility is to a potential hazard. The team ranked the facilities by their importance to the Utility Department's production and delivery of drinking water. The team then used this ranking to develop an estimate of potential economic impacts that could be caused by the high priority hazards. A percentage based on ranking was applied to the Utility Department's projected 2019-2020 annual water revenue ($7.8 million) to assess the annual economic impact for each facility.

4.15 Earthquake Vulnerability Analysis

Population: Approximately 100% of Colton's population is vulnerable.

Critical Facilities: Approximately 100% of Colton's critical facilities are vulnerable.

All facilities are vulnerable in the event of a major earthquake within the Utility Department's service area boundaries. There are many nearby faults that could affect the Utility Department's facilities: Loma Linda, Middle Fork, Cleghorn, Arrowhead, Mill Creek, Grass Valley, Crafton Glen Helen, Big Bear, Southern San Andreas, and the San Jacinto. If any of these faults experience a rupture of 6.5 magnitude or more, it will have a negative effect on the Colton's facilities and pipelines.

Estimated Losses: The economic loss resulting from this hazard is approximately $5 billion. The loss from damage to structures and pipelines from this hazard is approximately $6.5 billion.

Losses are estimated assuming:

1. Lost revenue from water sales for 12 months based on the 2017-2018 projected City of Colton utilities (Utility Department's) revenue
2. The Utility Department's critical facilities are at risk, including 80% of the pipelines
3. Without the critical facilities, no revenue can be generated for the Utility Department.

4.16 Flooding Vulnerability Analysis

Population: Approximately 40% of the City of Colton's population is vulnerable.

Critical Facilities: Approximately 40% of the Utility Department's critical facilities are vulnerable.

Flash flooding predominately happens when heavy and concentrated rains occur in steep basin areas where runoff is channeled through limited areas. Colton is located in the foothills of the San Bernardino Mountains where water runs off from higher mountainous areas on its way to the dry lake areas on the desert floor. These waters can be very dangerous because they can originate many miles away and travel at fast speeds. Flash flood waters rage through the service area from the west to east and collect in the wash area.

Colton Water Wastewater Department is not a member of the National Flood Insurance Program (NFIP), as utilities are not eligible to participate in the NFIP. There is a dry riverbed known as the Santa Ana River that runs throughout the southern section of the City and the Utility Department's service area. The Santa Ana River has caused massive flooding in the past. Colton has infrastructure that crosses the Santa Ana River, which has been the source of major flooding in the past, before the City and the County installed flood control systems. This river, however, could be the source of flooding in the future.

Estimated Losses: The economic loss resulting from this hazard is approximately $4 million. The loss from damage to structures from this hazard is approximately $3 million.

4.17 Wildfire Vulnerability Analysis

Population: Approximately 25% of the Colton's population is vulnerable.

Critical Facilities: Approximately 5% of the Utility Department's critical facilities are vulnerable.

Wildfires are a major concern in California. However, most of the service area is not in a high fire risk zone. The areas that are in a high fire zone are not a major concern to the Utility Department, as there is not a lot of critical infrastructure in the two areas The critical infrastructure that is in the high fire zone are water storage tanks and booster stations and the Department keeps the trees and brush cleared in these areas.

Estimated Losses: The economic loss resulting from this hazard is approximately $3 Million. The loss from damage to structures from this hazard is approximately $8 million.

4.18 Climate Change/Drought Vulnerability Analysis

Population: 100% of the Colton's population is vulnerable to climate change.

Critical Facilities: The groundwater aquifer is the most vulnerable component of the Utility Department's critical facilities (or resources). Without the aquifer, there is no water supply.

Climate change is an immediately sensitive issue in coastal communities, with increasing ocean waters, sea surges, tidal issues, and surging waves. Northern California and, in turn, the Central Valley are being affected by recent changes in weather patterns including seasonal snow pack and drought cycles. In the inland desert regions of California, climate change is a long-term concern. As the weather becomes hotter and dryer in a changing climate, water may need to be captured during the rainy periods to recharge the underground aquifers. Other water conservation measures will be needed in the long-term.

As climate change results in more extreme weather patterns, the Utility Department will need to become more resilient in the management of groundwater resources. Planning for lower groundwater tables may include monitoring and studying the aquifer in greater detail, as well as installing deeper water supply wells. Enhanced groundwater recharge opportunities should also be explored and implemented.

Estimated Losses: The economic loss resulting from this hazard is approximately $5 million. The loss from damage to structures from this hazard is approximately $6.5 million.

Long Term Drought

Population: Approximately 100% of the Colton's population is vulnerable.

Critical Facilities: Approximately 100% of Utility Department's critical facilities are vulnerable.

The specific critical facilities vulnerable in the Colton are:

The wells, as the primary water supply, are critical/vulnerable because during a long-term drought, the groundwater levels could decline. During droughts, however, the decrease in groundwater level has not been significant, although pumping costs increased slightly due to the greater lift required. It is also possible that wells and pumps may be too shallow if the groundwater level drops significantly. In this instance, the pump shaft and bowls may need to be lowered deeper into the well. In extreme cases a new and deeper well may be required.

Of the critical facilities listed, 5 are wells. Currently all, of these wells were operating without significant hardship during the recent drought. Water storage tanks are not considered at risk for damage in a drought; however, pipelines can collapse if the system is left with no water.

California Governor Jerry Brown declared a Water State of Emergency for the entire state in 2015, mandating water conservation by all residents and reduction of water consumption by 25%. The Utility Department adopted Stage IIA water conservation regulations due to the drought conditions

that were required by the State Water Resources. The conservation regulations were lifted in 2017, and the Utility Department lifted the restrictions in January of 2018.

Estimated Losses: The economic loss resulting from this hazard is approximately $60,000 a month.

4.19 Windstorm Vulnerability Analysis

Population: Approximately 75% of Colton's population is vulnerable.

Critical Facilities: Approximately 100% of Utility Department's critical facilities are vulnerable.

Above grade facilities are vulnerable in the event of a Santa Ana wind event within the Utility Department's boundaries. These events can blow roofs off water storage tanks, down power lines, and cause long-term power outages. When a potable water utility loses power during a long-term power outage and cannot maintain a system pressure of 25 psi, the water in the system is no longer potable. Wind can affect the entire service area. In 2017 wind took the roof off a water storage tank in the north part of the service area.

Estimated Losses: The economic loss resulting from this hazard is approximately $5 million. The loss from damage to structures from this hazard is approximately $6.5 million.

4.20 Potential Loss Estimation

Replacement costs listed in this section were arrived by utilizing the City of Colton's insurance documentation. The Joint Powers Insurance Authority (JPIA) has listed the replacement cost value for each facility. The team has communicated with the JPIA on the values listed below and was assured that the estimated costs are accurate. Table 8 summarizes the economic impacts on the Utility Department's critical facilities.

Table 8. Economic Impacts on Critical Facilities

Facility Name	Economic Value
Well 23	
Well 22	
Well 30	
La Loma Reservoir	
Wild Canyon Reservoir	
Reche Canyon Reservoir	
Well 17	
Well 15	
Well 24	
Well 13	
Well 16	
Well 19	
Well 21	
Well 28	
Rialto Reservoir 1 and 2	
Well 26	
Well 27	
Sewer lift stations	
Sewer Treatment Plant yard and offices	
Corporate Yard and offices	

Section 5: COMMUNITY CAPABILITY ASSESSMENT

5.1 Agencies and People

The Utility is in the Southwestern section of Los Angeles County. The Utility serves the unincorporated area of Whittier a small section of the Cities of La Mirada and Santa Fe Springs. The Utility serves approximately 8,000 service connections and a population of approximately 18,000 customers.

The Utility employs 8 full time staff members and one part time person. With the capabilities of CalWARN, the Utility has the potential of having hundreds of mutual aid workers at its disposal within hours of an emergency.

5.2 Existing Plans

The following emergency related plans apply as appropriate:

- CalWARN Emergency Operations Plan
- The District's Illness Injury Prevention Plan (IIPP)
- The District's Urban Water Master Plan
- Emergency Response Plan

The Utility has a mutual aid agreement with CalWARN, that covers most water wastewater agencies in California. As a government entity (Special District, within California Law), the Utility can access the Emergency Managers Mutual Aid (EMMA) and the Emergency Management Assistance Compact (EMAC) for national mutual aid and the National WARN System though the American Water Works Association. The District Urban Water Master Plan also is a very useful tool for water wastewater agencies. This plan focus is growth water resources, people hazard delivery of water and other resources needed. The LHMP and the UWMP will work nicely together to help the agency look forward to the future. The maps in the LHMP have educated the Department on where the natural hazards are in the boundaries, this has informed the agency of the dangers to the infrastructure locations and how to protect the infrastructure from failure in the future.

CalWARN holds workshops twice a year for the members and the water agencies. CalWARN plans to start sending invitations to the public, so the public has a better understanding of hazard mitigation planning in their communities. These workshops promote mitigation and how to prevent the impacts of hazards on the utility’s infrastructure. CalWARN has shown from past experiences from utilities leaders, what they experience were during emergencies and what they should have done differently to mitigate this hazard from happening in the past, or in the future.

When the next Urban Water Master Plan is updated the LHMP will be incorporated into the UWMP.

5.3 Regulations, Codes, Policies, and Ordinances

The Urban Water Management and Planning Act was passed in 2010 and requires water suppliers to estimate water demands and available water supplies. The District's updated Urban Water Management Plan (UWMP) was completed in January 2017. UWMPs are required to evaluate the adequacy of water supplies including projections of 5, 10, and 20 years. These plans are also required to include water shortage contingency planning for dealing with water shortages, including a catastrophic supply interruption.

UWMPs are intended to be integrated with other urban planning requirements and management plans. Some of these plans include city and county General Plans, Water Master Plans, Recycled Water Master Plans, Integrated Resource Plans, Integrated Regional Water Management Plans, Groundwater Management Plans, Emergency Response Plans, and others.

The Utility has an Emergency Response Plan that details how the Utility will respond to various emergencies and disasters. The Utility must be prepared to respond to a variety of threats that require emergency actions, including:

- Operational incidents, such as power failure or bacteriological contamination of water associated with the District's facilities.
- Outside or inside malevolent acts, such as threatened or intentional contamination of water, intentional damage/destruction of facilities, detection of an intruder or intruder alarm, bomb threat, or suspicious mail.
- Natural disasters, such as earthquakes or floods and power failures.
- Water Conservation Regulations

The Utility is also required to follow Standard Emergency Management System (SEMS) and the National Incident Management System (NIMS) and the Incident Command System (ICS) when responding to emergencies.

5.4 Mitigation Programs

The Utility has completed some mitigation programs. The California Department of Water Resources required the Utility to raise well pump motors and other wellhead assemblies above the 500-year flood plain elevation. This was accomplished by installing the motors and wellheads on elevated concrete foundations.

5.5 Fiscal Resources

Fiscal resources for the Utility include the following:

- Revenue from water sales
- Monthly Service Charge fee
- Water Availability Assessment (On Property Taxes)
- Meter Installation Fee
- If necessary, local bond measures and property taxes

Through the California Department of Water Resources, local grants and/or loans are available for water conservation, groundwater management, studies, and activities to enhance local water supply quality and reliability. Project eligibility depends on the type of organization(s) applying and participating in the project, and the specific type of project. More than one grant or loan may be appropriate for a proposed activity. Completing the LHMP will facilitate and obtain grant funding in the future.

5.6 Capabilities Assessment

The Department must educate and work closely with the City staff to form a plan to continually educate the residents of the City and the City staff on the natural hazards in the City and how these hazard effect the water and wastewater system in the City. The development of this plan is key to obtaining buy-in from the resident and City council to better understand the importance of mitigating the hazards to better protect the residents of the city in the future. To help mitigate the potential impacts of disasters.

This will be a new plan and should start with educating the Elementary Schools in the City and move to presentations at community Centers, City Council Meetings, and other public events. There will also be an education link on the Cities Web Site.

Section 6: MITIGATION STRATEGIES

6.1 Overview

The purpose of this analysis is to identify projects (actions) that help the Utility meet the goals and objectives for each priority hazard. The Utility has identified hazards in the community, assessed those hazards that pose the most significant risk, and identified projects to help reduce and/or eliminate those risks. The team used the FEMA STAPLEE tool to prioritize the mitigation actions below.

6.2 Mitigation Goals, Objectives, and Projects

As discussed in Section 3.5, the process of identifying goals began with a review and validation of the goals and objectives in the and the San Bernardino County's 2015 Operational Area LHMP. Using the County's 2015 LHMP, the District's Planning Team completed an assessment/discussion of whether each of the goals was valid.

Overall, the primary objective is to protect lives and prevent damages to infrastructure that disrupts water services. Global measures that apply across all hazards include:

- Continually improve the community's understanding of potential impacts due to hazards and the measures needed to protect lives and critical infrastructure.
- The District's Communications/Conservation Officer, should provide public outreach to inform the public of the hazards identified to the drinking water system in emergencies, - how to conserve water in the event of a disaster and how to obtain drinking water when water may not be available.
- Continually provide State and Local Agencies with updated information about hazards, vulnerabilities, and mitigation measures at the District.
- Review local codes and standards to verify that they protect human life and the District's facilities.
- Review and verify that the District's owned and operated infrastructure meet minimum standards for safety.
- Review the Utility facilities and developments in high-risk areas to verify that these areas are appropriately protected for potential hazards.
- Identify and mitigate imminent threats to life safety and facility damage.

The five high profile hazards for the Utility are earthquake, power failure, Fire and flooding and Climate Change Drought. While other hazards were profiled in previous sections, the District's priority and focus for the mitigation projects will be for the five high profile hazards.

6.3 Earthquake, Impact Rating (1) from Table 3, Page 20

Description: *Goal is to avoid injury, loss of life, and damages to property*. The Utility agrees that strengthening of buildings and fire codes are critical to the protection of property, life and the reduction of seismic-caused damages. These codes help water utilities design and construct reservoirs, pump stations, groundwater wells, and pipelines to resist the forces of nature.

Objectives:

- Design new facilities and upgrade existing facilities to withstand an 8.0 earthquake. The Utility is in a high-risk earthquake area with many geologic fault zones.
- Encourage property protection measures for structures located in the area.
- Adopt cost-effective codes and standards to protect life properties and critical infrastructure.
- Establish partnerships with other levels of government and the business community to improve and implement methods to protect property.

Mitigation Projects:

- Flexible pipe joints at wellheads, pump stations, and reservoirs
- Seismic shut-off valves
- Bolt down reservoirs
- Tie down equipment
- Generator hook-up
- Update the 1930's Rialto Reservoir number 1

6.4 Climate Change and Long-Term Drought, Impact rating (1) from Table 3, Page 20

Description: Due to Global Warming, there are more extremes in the weather, which mean the summers can be hotter, the winters colder, periods of rain can become less wet or more wet causing flooding. Address expected greater fluctuations in weather patterns, including prolonged dry periods and the drought hazard, through mitigation over the long-term. The objectives listed below have been taken from the declaration of a Drought, State of Emergency for California, signed by Governor Jerry Brown in May of 2015. The California Drought has not affected the Utility at this point, since the area is always in a drought.

Objectives:

- Increase water supply - creating innovative ways to generate new supplies
- Improve operational efficiency
- Reduce water demand - water conservation has become a viable long-term supply option because it saves considerable capital and operating cost for the District

Mitigation Projects:

- Increase public awareness of water conservation
- Monitor groundwater elevations and evaluate trends
- Increase water pumping capabilities
- Increase groundwater supplies
- Study system interties with other water systems in the area
- Generator hook-ups
- Replace the 1930's Rialto Reservoir number 1

-

6.5 Flooding, Impact Rating (2) from Table 3, Page 20

Description: A sudden, localized flood of great volume and short duration, typically caused by unusually heavy rain in a semiarid area. floods can reach its peak volume in a matter of a few minutes and often carry large loads of mud and rock fragments. Flash flooding is common in the arid desert areas of California, Arizona, Nevada, and New Mexico.

Objective:

- Prevent damage to water distribution facilities
- Protect loss of critical facilities
- Mitigate cost of damages during and after flooding

Mitigation Projects:

- Install block or concrete diversion walls
- Deepen pipelines
- Install concrete protection of pipelines at critical locations
- Update the 1930's Rialto Reservoir number 1 outside of the flood plane
- Move the wastewater treatment plant and offices to high ground

6.6 Mitigation Priorities

Mitigation measures are identified for District's critical facilities. Each measure is presented with an estimated budget. This list is in the order of priority.

Main Office/ Maintenance Yard Move the Wastewater Treatment Plant

- **Mitigation to Earthquake:**

1. Block Wall around facility
2. Estimated Mitigation Budget: $300,000 (2 2ears)
3. Redundant SCADA system Budget: $40,000 (2 years)
4. Redundant Two-Way Radio System: $10,000 (1 year)
6. Generator hook-up: Budget $40,000 (1 year)
7. Generator Budget: $200,000 (2 years)
8. Replace the 1930's Rialto Reservoir $ 6.0 million (4 years)
9. Install flex couplings on water and wastewater pipelines $400,000 (3 years)
10. Install Seismic auto shut off vales on all reservoirs $300,000 (3 years)

- **Mitigation to Flooding:**

1. Block Wall Around Facility Budget: $300,000 (3 years)
2. Block Diversion Wall at Front West side $175,000 (2 years)
3. Redundant SCADA Estimated Mitigation Budget: $40,000 (1 year)
4. Redundant Two-Way Radio System Budget: $10,000 (1 year)
5. Replace the 1930's Rialto Reservoir $6.0 Million (4 years)
6. Move the wastewater treatment plant $120 Million (5 years)
7. Build block floodwalls around wastewater treatment plant 1.5 Million (5 years)
8. Reinforce both water and wastewater pipelines crossing the Santa Ana River $1.2 Mil (4 years)
9. Move Wastewater Plant to higher ground 8 million (5 years)

6.7 Fire Mitigation Priorities

Mitigation Projects

1. Install four booster stations in the west and east side of the 215 freeway $100,000 each (2 year all four)
2. Construct one water storage tank on the east side of the 215 freeway for more fire flow. 3.0 million. (1 year)

6.8 Implementation Strategy

The implementation strategy is intended to successfully mitigate the hazards identified in this plan within a reasonable amount of time. The Utility is currently operating within its annual budget and has been fortunate that the recession of the past 10 years didn't cause major issues with the budget or revenue. The District's revenues have remained strong throughout the recession. Capital improvement projects have remained a priority. The Utility Staff will review the Mitigation Plan each year before obtaining the next years Fiscal Budget. The plan will also be reviewed by the Board of Directors for items to be included in the new fiscal budget. Utility staff will also look for ways to obtain Hazard Mitigation Grants each year to off-set the impacts to the fiscal budget and to show some relief for the residents of a disadvantaged community.

$$B/C = \left[\frac{B_0}{(1+i)^0} + \ldots + \frac{B_T}{(1+i)^T}\right] \div \left[\frac{C_0}{(1+i)^0} + \ldots + \frac{C_T}{(1+i)^T}\right]$$

Mitigation Projects Funding Source

There is currently no mitigation money in the District's budget. The Utility will include mitigation into the budgeting process when funding becomes available and look at what mitigation projects could be funded in future budget cycles.

Timeframe

Over the next five years, the Utility will incorporate mitigation into all capital improvement projects that the Utility undertakes. The Utility has a Capital Improvement Program. When money is available for CIP, the Utility replaces outdated pipelines, reservoirs, wells, and buildings.

The Utility will apply for mitigation grants as the opportunities become available in the State of California, County of San Bernardino each year. The Utility will consider all mitigation items during the annual budget workshops, conducted each spring.

Section 7: PLAN MAINTENANCE

7.1 Monitoring, Evaluating, and Updating the Plan

The LHMP will be reviewed as part of the Annual Budget workshop in the spring of each year. The Utility Manager or his/her designee will ensure the LHMP is reviewed yearly, and any items that have been mitigated, will be removed from the plan. At that time, staff and elected Board of Directors will review funding and Capital Improvement projects to be included into the next fiscal year's budget. The District's budget is a public document and is reviewed by the public before the Board of Directors adopt the LMHP. A full review of the plan will be performed on 5-year intervals. At this time, the public will be asked to participate on the LHMP update committee. As the plan reaches 4 years old are new committee will be formed with external and internal partners to review and update this LHMP. The Utility Manager has assigned the Water Wastewater Operations Manager with this task and responsibility. The Utility will start the update process at the three and a half years, before the expiration date on this document. The Operations Manager will monitor the system for new threats and hazards to the system within the next 5 years to ensure the hazards or threat are identified in the next LHMP.

- Evaluate the number of items mitigated in the last year
- Any leadership changes in the last year, how to get them involved in the LHMP
- Changing Goal and Objectives
- What events have happened in the last year
- What damages have occurred in the last year

7.2 Implementation through Existing Programs

Once the State of California OES and FEMA approve the LHMP, the Utility will incorporate the LHMP into capital improvement projects, capital replacement program, building design and any updates or repairs to the water distribution system. The Utility will submit Notice of Intents to the State of California to help facilitate funding opportunities in obtaining FEMA and State funding to mitigate hazards within the service area. The Utility Manager or his/her appointee will be responsible for the implementation of the LHMP and ensuring the LHMP recommended goals and objectives are met. The Utility Manager or his/her appointee will be responsible to place the LHMP on District's website and incorporate the LHMP into the annual budget workshops. The Utility Manager or his/her appointee will verify that the LHMP is updated and rewritten on a 5-year cycle. The Operations Manager will ensure the mitigation plan is present and reviewed at all engineering planning meetings, to ensure the focus for building new infrastructure is to build it with mitigation in mind. Improve public awareness to natural hazard in the community as it relates to the water and wastewater systems.

7.3 Continued Public Involvement

The approved LHMP will be posted on the District's website with contact information. In the spring of each year at the agency's Board of Commissioners budget workshop, public comments will be taken regarding the LHMP and projects will be considered that could possibly be included in the next year's budget. As new facilities are incorporated into the District, the LHMP will be updated to include new facilities, as well as new hazards, if warranted. When the LHMP is rewritten and updated, a public committee, will be utilized to review and concur on the changes in the document. Conduct a public poll once or twice a year, asking the public for comments on how they see natural disasters affecting their water and wastewater systems and how they think this can affects can be mitigated.

Appendix A
Internal/External Meeting Agendas, Meeting Minutes and sign-in sheets

Attachment 3: Adoption Resolution

RESOLUTION NO. R-72-21

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COLTON TO ADOPT A WATER SHORTAGE CONTINGENCY PLAN.

WHEREAS, The California Urban Water Management Planning Act, Water Code Section 10610 et seq. (the UWMP Act), mandates that every urban supplier of water providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, prepare and adopt, in accordance with prescribed requirements, a water shortage contingency plan (WSCP); and

WHEREAS, The City of Colton Water Department (CWD) meets the definition of an urban water supplier for purposes of the UWMP Act; and

WHEREAS, the UWMP Act specifies the requirements and procedures for adopting such Water Shortage Contingency Plans; and

WHEREAS, pursuant to recent amendments to the UWMP Act, urban water suppliers are required to adopt and electronically submit their WSCPs to the California Department of Water Resources by July 1, 2021; and

WHEREAS, CWD has prepared a WSCP in accordance with the UWMP Act and SB X7-7, and in accordance with applicable legal requirements, has undertaken certain coordination, notice, public involvement, public comment, and other procedures in relation to its WSCP; and

WHERAS, the WSCP references and incorporates the provisions of the City of Colton Water Ordinance No. O-09-14, § 2, adopted on 9-16-2014; and

WHEREAS, in accordance with the UWMP Act, CWD has prepared its WSCP with its own staff, with the assistance of consulting professionals, and in cooperation with other governmental agencies, and has utilized and relied upon industry standards and the expertise of industry professionals in preparing its WSCP, and has also utilized the California Department of Water Resources Guidebook for Urban Water Suppliers to Prepare 2020 Urban Water Management Plans, in preparing its WSCP; and

WHEREAS, in accordance with applicable law, including Water Code sections 10608.26 and 10642, and Government Code section 6066, a Notice of a Public Hearing regarding the CWD's WSCP was published within the jurisdiction of the CWD on June1, 2021 and June 15, 2021; and

WHEREAS, in accordance with applicable law, including but not limited to Water Code sections 10608.26 and 10642, a public hearing was held on June 15, 2021 at 6pm, or soon thereafter, virtually meeting in order to provide members of the public and other interested entities with the opportunity to be heard in connection with proposed adoption of the WSCP and issues related thereto; and

WHEREAS, pursuant to said public hearing on the WSCP, CWD, among other things, encouraged the active involvement of diverse social, cultural, and economic members of the

community within CWD's service area with regard to the preparation of the WSCP, encouraged community input regarding CWD's WSCP; and

WHEREAS, the Colton City Council and Colton Utility Authority has reviewed and considered the purposes and requirements of the UWMP Act, the contents of the WSCP, and the documentation contained in the administrative record in support of the WSCP, and has determined that the factual analyses and conclusions set forth in the WSCP are legally sufficient; and

WHEREAS, the Colton City Council and Colton Utility Authority desires to adopt the WSCP in order to comply with the UWMP Act.

NOW THEREFORE BE IT RESOLVED, the Colton City Council and Colton Utility Authority of the CWD hereby resolve as follows:

1. The Water Shortage Contingency Plan is hereby adopted as amended by changes incorporated by the Colton City Council and Colton Utility Authority as a result of input received (if any) at the public hearing and ordered filed with the Secretary of the Colton City Council and Colton Utility Authority ;
2. The Public Works and Utility Services Director is hereby authorized and directed to include a copy of this Resolution in CWD's WSCP;
3. The Public Works and Utility Services Director is hereby authorized and directed, in accordance with Water Code sections 10621(d) and 10644(a)(1)-(2), to electronically submit a copy of the WSCP to the California Department of Water Resources no later than July 1, 2021;
4. The Public Works and Utility Services Director is hereby authorized and directed, in accordance with Water Code section 10644(a), to submit a copy of the WSCP to the California State Library, and any city of county within which the CWD provides water supplies no later than thirty (30) days after this adoption date;
5. The Public Works and Utility Services Director is hereby authorized and directed, in accordance with Water Code section 10645, to make the WSCP available for public review at The CWD's offices during normal business hours and on The CWD's website no later than thirty (30) days after filing a copy of the WSCP with the California Department of Water Resources;
6. The Public Works and Utility Services Director is hereby authorized and directed, in accordance with Water Code Section 10635(b), to provide that portion of the WSCP prepared pursuant to Water Code Section 10635(a) to any city or county within which The CWD provides water supplies no later than sixty (60) days after submitting a copy of the WSCP with the California Department of Water Resources;
7. The Public Works and Utility Services Director is hereby authorized and directed to implement the WSCP in accordance with the UWMP Act and to provide recommendations to the Colton City Council and Colton Utility Authority regarding the necessary budgets, procedures, rules, regulations or further actions to carry out the effective and equitable implementation of the WSCP.

PASSED, APPROVED AND ADOPTED this 15th day of June, 2021.

FRANK J. NAVARRO, Mayor

ATTEST:

CAROLINA R. PADILLA, City Clerk

STATE OF CALIFORNIA)
COUNTY OF SAN BERNARDINO) **ss.**
CITY OF COLTON)

CERTIFICATION

I, **CAROLINA R. PADILLA**, City Clerk for the City of Colton, California, do hereby certify that the foregoing is a full, true and correct copy of **RESOLUTION NO. R-72-21**, duly adopted by the City Council of said City, and approved by the Mayor of said City, at its Regular Meeting of said City Council held on the **15th day of June 2021**, and that it was adopted by the following vote, to wit:

AYES:	COUNCILMEMBER	Toro, Cisneros, Koperski, Echevarria, González, Suchil, Mayor Navarro
NOES:	COUNCILMEMBER	None
ABSTAIN:	COUNCILMEMBER	None
ABSENT:	COUNCILMEMBER	None

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the City of Colton, California, this ___ day of _____, ____.

_____
CAROLINA R. PADILLA
City Clerk
City of Colton

(SEAL)