



Greenfield
California

2020

Water Shortage

Contingency Plan



Public Draft
August
2021

City of Greenfield

2020 Water Shortage Contingency Plan

Section 1 INTRODUCTION	3
Section 2 WATER SUPPLY RELIABILITY ANALYSIS	4
Section 3 ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES.	6
3.1 Decision Making Process	7
3.2 Data and Methodologies	7
3.2.1 Evaluation Criteria	7
3.2.2 Water Supply.....	7
3.2.3 Current Year Unconstrained Customer Demand	8
3.2.4 Current Year Available Supply	8
3.2.5 Infrastructure Considerations	8
Section 4 SIX STANDARD WATER SHORTAGE LEVELS	9
Section 5 SHORTAGE RESPONSE ACTIONS	11
5.1 Demand Reduction	11
5.2 Supply Augmentation	11
5.3 Operation Changes	11
5.4 Additional Mandatory Restrictions	19
5.5 Emergency Response Plan	19
5.6 Seismic Risk Assessment and Mitigation Plan	19
Section 6 COMMUNICATION PROTOCOLS	19
Section 7 COMPLIANCE AND ENFORCEMENT	20
Section 8 LEGAL AUTHORITIES	20
Section 9 FINANCIAL CONSEQUENCES OF WSCP ACTIVATION.....	21
Section 10 MONITORING AND REPORTING	21
Section 11 WSCP REFINEMENT PROCEDURES	22
Section 12 SPECIAL WATER FEATURE DISTINCTION	22
Section 13 PLAN ADOPTION, SUBMITTAL, AND AVAILABILITY	22

Introduction:

This report documents the City of Greenfield's Water Shortage Contingency Plan (WSCP). This 2020 Water Shortage Contingency Plan (WSCP) document builds upon previous water shortage contingency planning efforts completed by the City and documented in the 2015 Urban Water Management Plans (UWMP). This WSCP reflects updates to the City's water shortage Plan as adopted in 2018, in levels and water conservation measures for consistency with statewide requirements provided by the Department of Water Resources (DWR). As part of the 2020 UWMP update the Department of Water Resources requires urban water suppliers to prepare a stand-alone 2020 WSCP, that is separate from the 2020 UWMP, and intended to manage a water shortage. As the City continues to monitor the effectiveness of the WSCP this document can be updated and adopted separately from the UWMP.

Although this 2020 WSCP it is a stand-alone document, it is still considered one of the elements of the 2020 UWMP, as required by the State Law. Based on DWR requirements, and consistent with previous planning efforts, this WSCP includes the following sections:

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

Section 1 - Water Supply Reliability Analysis

Water Code Section 10632 (a)(1)

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

The City relies exclusively on ground water to meet the city water supply. Three (3) ground water wells varying in depth between 800 and 900 feet below ground surface, and two (2) water tanks. These 3 wells supply all City customers with potable water for personal and commercial use. Historically these wells have met customers demand through times of drought. Conditions could arise such as unforeseen impacts to the groundwater supply, mechanicals failures to city infrastructure and natural disasters that could require the activation of the WSCP

The City maintains (3) potable well and 2 associated water storage tanks and booster stations. The City of Greenfield obtains its municipal potable water supply from the Central Salinas Valley Groundwater Basin (SVGB) – Fore bay Aquifer Sub basin occupies the central portion of the Salinas Valley and extends from the City of Gonzales to the north to approximately three miles south of Greenfield (see Figure 1) (*per Salinas Valley Groundwater Basin, 180/400 Foot Aquifer Subbasin Bulletin 118.*).

This requirement is oriented toward water supply systems that are primarily supplied via surface waters and therefore can be directly affected by short-term fluctuations in hydrology i.e., drought conditions. The City of Greenfield’s total current water supply is produced through groundwater pumping from the large SVGB. City of Greenfield water supply availability from this basin has not historically varied due to short-term hydrological conditions. The minimum water supply available within the driest three-year sequence is expected to match demands as discussed in the Urban Water Management Plan.

The SVGB is currently the most important source of water for the City of Greenfield. In 2020, the City groundwater withdrawals of 64,618,2000 gallons of water (1921.7 ac-ft.) accounted for less than one percent (1%) of the estimated basin-wide annual extractions of roughly 550,000 + acre-feet, given this relatively small percentage, the City of Greenfield’s conservation and contingency management activities can play only a small part within the SVGB. The foremost concern in developing appropriate triggers is achieving the maximum practical protection of an adequate long-term water supply of acceptable quality for City of Greenfield customers. To that end, triggering mechanisms should be tied to factors that, directly or indirectly, have the greatest potential effect on the quality and quantity of available ground water.

The four general types of threats could cause the City of Greenfield to experience water shortages:

1. Unanticipated catastrophic system failure due to earthquake, terrorist attack or sudden contamination of the water supply, or
2. Chronic system shortage due to lack of maintenance on the water supply wells such that those wells would have to be removed from service.
3. Water table dropping below the pumping level due to a severe drought condition, production dropping below a certain percentage of normal use.
4. The nitrate Maximum Contaminate Level being exceeded.

In case of a catastrophic failure, the City of Greenfield would assess the nature and extent of the failure, and the Public Works Director and /or City Manager would identify the appropriate Conservation Stage in accordance with the City's Emergency Response Plan, including enacting emergency ordinances as may be required by the City Council of Greenfield.

The chronic system threat to the City's present water supplies is Nitrate Contamination, which has occurred along the Salinas Valley in response to historic agriculture activities of fertilization of fields. Contamination in the upper aquifer from volatile organic compounds (VOCs) has also affected the City of Greenfield wells and could pose additional problems.

Although nitrate contamination has not yet affected City of Greenfield deep zones of the SVGB (which is the source of supply for Greenfield's Wells #1, #6, #7), it is possible that continued extractions in the deeper aquifers could ultimately lead to contamination of these water supplies by nitrates. Greenfield monitors the level of nitrate levels and plans to construct and develop alternative or treatment of water sources that would need to be protected from high nitrate levels.

Consequently, the City of Greenfield has structured this Water Shortage Contingency Plan along with the city's Mandatory Water Conservation Regulations, Chapter 13.09 with the primary goal of reducing water supply demands to allow time for alternative water supply measures, including treatment or drilling of alternate wells in areas unaffected by contamination or falling water level. A specific triggering mechanism for various levels of conservation is tied to concentrations of nitrates or water levels in the City of Greenfield wells.

The City has conducted a Community Water System Risk and Resilience Assessment (RRA) per The American Water Infrastructure Act of 2018. This RRA was submitted to the EPA on June 30, 2021.

Section 2 - Annual Water Supply and Demand Assessment Procedures

Water Code Section 10632 (a)(2)

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

Water Code Section 10632.1

An urban water supplier shall conduct an annual water supply and demand assessment pursuant to subdivision (A) of Section 10632 and, on or before July 1 of each year, submit an annual water shortage assessment report to the department with information for anticipated shortage, triggered shortage response actions, compliance and enforcement actions, and communication actions consistent with the supplier's water shortage contingency plan. An urban water supplier that relies on imported water from the State Water Project or the Bureau of Reclamation shall submit its annual water supply and demand assessment within 14 days of receiving its final allocations, or by July 1 of each year, whichever is later.

Beginning by July 1, 2022, each Supplier shall prepare their annual water supply and demand assessment (referred as an Annual Assessment) and submit an Annual Water Shortage Assessment Report to DWR. The Annual Water Shortage Assessment Report will be due by July 1 of every year, as required by Water Code Section 10632.1. The Annual Assessment and associated reporting are to be conducted based on the Supplier's procedures detailed in the WSCP.

DWR is developing a stand-alone guidance document that will recommend practical procedures and analytical methods that may be used, at the Supplier's discretion, to comply with the Annual Assessment requirement effectively and efficiently.

As required by Water Code Section 10632(a), the Supplier's WSCP shall include its specific procedures—akin to an instruction manual—that describe annual steps and timing to complete the Annual Assessment, such that it can be consistently followed year-after-year, regardless of changing Supplier staff undertaking the steps. Water Code requires that the following shall be described by the Supplier in its WSCP for this element

2.1 Decision Making Process

This section describes the decision-making process to prepare and approve the Annual Assessment each year. It should be noted that the Annual Assessment and decision-making process will rely on the findings of the Greenfield Utilities Division Annual Assessment, which will include documentation of available water supply information and any County-wide required water shortage actions to be implemented. The reporting timeline is shown on Table 1.

Table 1. Annual Assessment Reporting Timeline										
Current year				Following Year						
Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July
On-going monitoring and review										
		Indicial annual assessment								
				Evaluate Supply						
		Council review of annual assessment								
				Finalized annual assessment						
							Submit annual report			

The Annual Assessment will be compiled by the City each year and brought to the City Council by June 1st. At the City Council meeting, the Annual Assessment will be presented with any recommendations for specific shortage response actions. In turn, the City Council will vote to approve the findings of the Annual Assessment.

The Public Works Director will implement the water shortage contingency plan response stage as per the assessment.

2.2 Data and Methodologies

A description of key data inputs and Annual Assessment methodologies used to evaluate the water service reliability for the current year and one dry year. The City considers conditions to be dry when there is 10 percent or greater shortage in water supply. The following data and methodologies are used to prepare the annual assessment.

- Current year available supply, considering hydrological and regulatory conditions. in the current
- Existing infrastructure capabilities and plausible constraints.
- A description and quantification of each source of water supply.

2.2.1 Evaluation Criteria

The primary criteria used in preparing the City’s Annual Assessment are the projected water demand and available supply. The Annual Assessment will be conducted based on water supplies, unconstrained water demand, planned water use, and planned infrastructure considerations.

2.2.2 Water Supply

Available water supplies for the City shall be quantified each year by summing the capacity of each operational groundwater well. Since the City has not historically been impacted by drought, water shortage conditions, or had any impacts on the safe yield of the groundwater subbasin, the available supply for the subsequent dry year shall be the same as the current year.

2.2.3 Current Year Unconstrained Customer Demand

Billed water consumption is reported on a monthly basis and will be used to characterize the current water consumption requirements for the City. The monthly records will be analyzed with the previous year to address any changes in water consumption. In addition to these records, an update from Building Department on current and future projects. This will enable City staff to estimate changes to water demand in the upcoming year.

2.2.4 Current Year Available Supply

As mentioned above, the City has not historically been impacted by drought or water shortage conditions thus planned water use for the current year shall not be impacted by an anticipated subsequent dry year conditions unless they impact the safe yield of the subbasin.

2.2.5 Infrastructure Considerations

The annual assessment will include a review of any ongoing capital projects that are expected to affect the demands and supply projections. Examples of such capital projects include water loss reductions, distribution expansion to serve growth, or new groundwater wells.

The City adopted 2021 Potable Water Distribution System Master Plan Update on June 6, 2021.

Section 3 - Six Standard Water Shortage Levels

Water Code Section 10632 (a)(1)

Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply and an outline of specific water supply conditions which are applicable to each stage.

Water Code Section 10632 (a)(3) (A)

Six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, and 50 percent shortages and greater than 50 percent shortage. Urban water suppliers shall define these shortage levels based on the suppliers’ water supply conditions, including groundwater levels, changes in surface elevation or level of subsidence, or other changes in hydrological or other local conditions indicative of the water supply available for use. Shortage levels shall also apply to catastrophic interruption of water supplies, including but not limited to, a regional power outage, an earthquake, and other potential emergency events. (B) An urban water supplier with an existing water shortage contingency plan that uses different water shortage levels may comply with the requirement in subparagraph (A) by developing and including a cross-reference relating its existing categories to the six standard water shortage levels.

Per California Water Code Section 10632(a)(3), updated 2020, a WSCP must include at least six stages and cover a possible reduction in supply of more than 50 percent. The 2020 WSCP updates the City’s previous 2014 WSCP and Water Conservation Ordinance which included five stages. The stages are determined and declared by the Public Works Director who assess severity and anticipated duration of the water supply shortage. The 2014 Greenfield Water Contingency 5 stages will be readdressed as six stages as required with the update. Table 2 is a cross walk from the 2014 plan to New DWR six stages. The new stages determined by the percent water supply shortage are summarized in Table 3.

Table 2: Cross walk from the 2014 plan to New DWR six stages

2014 WSCP Stages			New WDR stages	
Stage	% Supply Reduction	Water Supply Condition	DWR Standard Shortage Stage	water Supply Conditions
1	0%-10%	reduction voluntary	1	Up 10%
2	10%-25%	reduction voluntary	2	Up to 20%
3	25%-35%	reduction mandatory	3	Up to 30%
4	35%-50%	reduction mandatory	4	Up to 40 %
5	>50%	reduction mandatory	5	Up to 50%
			6	> 50%

Table 3: Stages of Water Shortage Contingency Plan			
Stage	Percentage supply shortage	Severity	Water supply condition
I	<10%	Potential Shortage	<ol style="list-style-type: none"> 1. System Malfunction or water production resulting in up to a 10% reduction. 2. Increase in Nitrates and/or VOC which do not exceed drinking water quality standards. 3. Static well drop of up 5%
II	10-20%	Minor Shortage	<ol style="list-style-type: none"> 1. System Malfunction or water production resulting in up to a 15% reduction. 2. Increase in Nitrates and/or VOC which do not exceed drinking water quality standards. 3. Static well level drop of up 10%
III	20-30%	Moderate Shortage	<ol style="list-style-type: none"> 1. System Malfunction or water production resulting in up to a 25% shortage. 2. Increase in Nitrates and/or VOC which expected to exceed drinking water quality standards. 3. Static well level drop of up 20%
IV	30-40%	Severe Shortage	<ol style="list-style-type: none"> 1. System Malfunction or water production resulting in up to 35% reduction. 2. Increased in Nitrates and/or VOC which expected to exceed drinking water standards by one well. 3. Static well level Drop up to 25%
V	40-50%	Critical Shortage	<ol style="list-style-type: none"> 1. System Malfunction or water production reduced by up to 45% 2. Increased in Nitrates and/VOC which expected to exceed standards by one well. 3. Static well level drops by to 35%
V1	>50 %	Extreme Shortage	<ol style="list-style-type: none"> 1. System malfunction or water production resulting in up 50% reduction. 2. Increased in Nitrate and VOC which expected to exceed standards by one or more wells. 3. Static well level drop by more than 35%

Section 4 – Shortage Response Actions

Water Code Section 10632 (a)(4)

Shortage response actions that align with the defined shortage levels and include, at a minimum, all the following: (A) Locally appropriate supply augmentation actions. (B) Locally appropriate demand reduction actions to adequately respond to shortages. (C) Locally appropriate operational changes (D) Additional, mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions and appropriate to the local conditions. (E) For each action, an estimate of the extent to which the gap between supplies and demand will be reduced by implementation of the action.

4.1 Supply Augmentation

The City currently relies on groundwater to meet demand requirements within the service area and there are no known opportunities for water supply augmentation through actions such as exchanges, transfers, or purchase programs. Therefore, supply augmentation actions are excluded from the City's Water Shortage Contingency Plan at this time. The city's current storage tanks could supply water for a few days of demand in the event of a catastrophic event.

4.2 Demand Reduction

The City would migrate from voluntary water use reduction methods utilized in stages 1 and 2, to more mandatory actions during a stage 3 and 4 level water use reduction targets. The City has few water supply augmentation options available. The City could attempt to increase pumping capacity from operational wells or attempt to purchase emergency supplies from neighboring agriculture wells which would be very expensive to the City and likely be non-potable water sources with limited uses in the City service area. The following list of shortage response actions indicate that as water shortage severity increases corresponding response measures become more mandatory and severe to ensure percent shortage cutback targets are met during a given water shortage event. Response actions can be added or modified as needed to achieve percent reduction targets with least impact on customers and the economy.

Consumption reduction actions are methods taken by a water supplier to reduce demand within the service area, whereas prohibitions are specific limitations on water use, the City's restrictions and prohibitions on water use are summarized in the next page.

4.3 Operation Changes

During a water shortage, changes to water system operations may be considered. These operational changes may include improving water usage consumption and tracking, changes to fire hydrant testing frequencies, reducing or halting line flushing during water shortage conditions, alteration in maintenance cycles, and expedited water leak repairs. In addition, the City would allow park grasses to die during times of more severe water shortage.

Stage 1: Up to 10% - Potential – Volunteer Conservation

- Voluntary water conservation requested of all customers Adhere to Chapter 13.09 Mandatory Water Conservation Regulations Appendix A
- Recommending Landscape irrigation to early morning and evening
- Encourage non-essential water uses (cleaning of structures and or surfaces)
- Shutoff nozzles on all hoses used for any purpose
- Encourage conversion to drip, low volume irrigation
- Notify all customers of the water shortage
- Provide technical information to customers on ways to improve water use efficiency
- Campaign to remind consumers of the need to save water are to restrict all landscape irrigation to certain hours of the day and to prohibit various uses deemed to be non-essential.

Stage	Type of use	Restrictions	Reduce shortage gap	Penalty, Charge, or Other Enforcement?
1	Encourage shutoff nozzles on all hoses used.		1%	No
1	Landscape - Other landscape restriction or prohibition	The application of potable water to outdoor landscapes during and up to within 48 hours after measurable rainfall.	1%	No
1	Landscape - Limit landscape irrigation to specific times	Irrigation between 11 am and 6 pm is discouraged	2%	No

Stage 2: 10% to 20% - Minor – Water Shortage (Mandatory Rationing)

- **All requirements of Stage I remain in effect. Additional requirements include:**
- Involves expanding mandatory water restrictions and limiting landscape irrigation to specified days and times.
- Intensify public information campaign
- Send direct notices to all customers
- Prohibit exterior washing of structures
- Dining establishments are not to serve water unless requested.

Stage	Type of use	Restrictions	Reduce shortage gap	Penalty, Charge, or Other Enforcement?
2	Landscape - Limit landscape irrigation to specific times	Irrigation between 11 am and 6 pm is recommend	2%	No
2	Prohibit exterior washing of structures	except for health and safety program	1%	No

Stage III. Moderate Shortage (Mandatory Rationing)

Conservation measures may be called for as a result of malfunction of all or portions of the water system that reduces supplies by greater than 20% on a daily, peak seasonal or annual basis. It also may be called due to prolonged drought conditions and a need to focus public attention on water conservation methods. All requirements of Stages I and II remain in effect.

Enforcement procedures and penalties for water wasting continues as described in the Greenfield Water Conservation Ordinance Sections 13.09.

Stage	Type of use	Restrictions	Reduce shortage gap	Penalty, Charge, or Other Enforcement?
3	Landscaping Irrigation for Existing Landscapes, including Public Parks	<p>Landscape watering with recycled water may continue without restriction.</p> <p>Landscape watering with potable water shall be subject to the following limits:</p> <ol style="list-style-type: none"> 1) Landscape watering using sprinkler or irrigation systems is permitted only two days per week. Address ending in even numbers (0, 2, 4, 6, 8,) may water on Mondays and Thursdays. 2) Addresses ending in odd numbers (1, 3, 5, 7, and 9) may water on Tuesdays and Fridays. If there is no street address, or if more than one street address is associated with a contiguous property, the irrigation days are Wednesday and Saturday. 3) Manual landscape watering with a soaker hose, handheld hose or watering can/bucket is allowed on any day. 	0-5%	Yes
3	Landscape Irrigation for New Landscapes, including Public Parks	<p>Landscape watering with recycled water may continue without restriction.</p> <p>Landscape watering with potable water shall be subject to the following limits:</p> <ol style="list-style-type: none"> 1) Landscape watering is permitted to maintain adequate growth on newly installed landscapes, for a period generally up to five (5) weeks. Property owners must notify the Utilities Division of the address where new landscape is installed and the date of installation. 	0-5%	Yes

		2) Following the initial establishment period, landscape watering using a sprinkler or irrigation system is permitted only on days associated with the current conservation stage in effect.		
3	Hotels, motels and bed and breakfasts	Hotels, motels and B&B's must offer and clearly notify guests of a "limited linen/towel exchange" program.	0-1%	Yes
3	Swimming pools, hot tubs	Initially filling new and existing swimming pools prohibited. Draining and refilling existing swimming pools permitted only if repairing a pool leak or repairing, maintaining or replacing a pool component that has become hazardous. All pools and tubs shall be covered when not in use to reduce evaporation	0-1%	Yes
3	Industrial and Commercial	Reduction of water use by any means is encouraged. Compliance with mandatory demand reduction measures is required for outdoor water uses including landscape irrigation, swimming pools, and vehicle washing. Use of water from fire Hydrants is prohibited, except by city and/or fire personnel.	0-1%	Yes
3	Vehicle and Equipment Washing	Non-commercial washing of vehicles and mobile equipment (e.g., washing a vehicle at a residence) is permitted only on assigned landscape watering days during landscape watering hours (before 10:00 a.m. or after 5:00 p.m.). Fleet managers are encouraged to only wash those vehicles as is necessary for health and safety.	0-1%	Yes
3	Heavy Construction	The use of potable water for dust control shall be reduced to the greatest extent possible.	0-2%	Yes

Stage IV. Severe Shortage (Mandatory Rationing)

Stage 4 conservation measures may be called for as a result of malfunction of all or portions of the water system that reduces supplies by greater than 35% on a daily, peak seasonal or annual basis. It also may be called due to prolonged drought conditions and a need to focus public attention on water conservation.

Enforcement procedures and penalties for water wasting continues as described in the Greenfield Water Conservation Ordinance Sections 13.09.

Stage	Type of use	Restrictions	Reduce shortage gap	Penalty, Charge, or Other Enforcement?
4	Landscape Irrigation for Existing Landscapes, including Public Parks	<p>Landscape watering with recycled water may continue without restriction.</p> <p>Landscape watering using sprinkler or irrigation systems is permitted only one day per week.</p> <ol style="list-style-type: none"> 1) Addresses ending in numbers 0 or 1 may water on Mondays. 2) Addresses ending in numbers 2 or 3 may water on Tuesdays. 3) Addresses ending in numbers 4 or 5 may water on Wednesdays. Addresses ending in numbers 6 or 7 may water on Thursdays. 4) Addresses ending in numbers 8 or 9 may water on Fridays. 5) If there is no street address, or if more than one street address is associated with a contiguous property, the irrigation day is Wednesday. <p>Manual landscape watering with a soaker hose, handheld hose or watering can/bucket is allowed on any day.</p>	10%	Yes
4	Landscape Irrigation for New Landscapes, including Public Parks	<p>Landscape watering with recycled water may continue without restriction.</p> <p>Landscape watering with potable water shall be subject to the following limits:</p> <ol style="list-style-type: none"> 1) Landscape watering is permitted three (3) days a week to maintain adequate growth on newly installed landscapes, for a period generally up to five (5) weeks. Watering days for new landscapes are 	10%	Yes

		<p>Tuesday, Thursday and Saturday. Property owners must notify the Utilities Division of the address where new landscape is installed and the date of installation.</p> <p>2) Following the initial establishment period, landscape watering using a sprinkler or irrigation system is permitted only on days associated with the current conservation stage in effect.</p>		
4	Hotels, motels and bed and breakfasts	Hotels, motels and B&B's must limit linen/towel exchange to once every two (2) nights or for the entire stay, whichever is shorter, except for health and safety program	2%	Yes
4	Swimming pools, hot tubs	Initially filling new and existing swimming pools prohibited. Draining and refilling existing swimming pools permitted only if repairing a pool leak or repairing, maintaining or replacing a pool component that has become hazardous. All pools and tubs shall be covered when not in use to reduce evaporation	2%	Yes
4	Vehicle and Equipment Washing	.	2%	Yes
4	Industrial and Commercial	<p>Reduction of water use by any means is encouraged. The City Council may establish mandatory use reduction targets, if needed.</p> <p>Compliance with mandatory demand reduction measures is required for outdoor water uses including landscape irrigation, swimming pools, and vehicle washing.</p> <p>Use of water from fire Hydrants is prohibited, except by city and/or fire personnel.</p>	2%	Yes
4	Heavy Construction	The use of potable water for dust control shall be reduced to the greatest extent possible. The City may establish mandatory construction water budgets, if needed.	4%	Yes

Stage V. Critical Shortage (Mandatory Rationing)

Appropriate 50% water shortage allotments shall be calculated and notice to customers. Appropriate administration and enforcement of this stringent program shall be the highest priority of the Utilities Division activity. All resources of the City of Greenfield Utilities Division will be directed toward improvement and increase of water supply to the system. Water rates may be further increased by the City Council.

Enforcement procedures and penalties for water wasting continues as described in the Greenfield Water Conservation Ordinance Sections 13.09.

Stage	Type of use	Restrictions	Reduce shortage gap	Penalty, Charge, or Other Enforcement?
5	Landscaping Irrigation for Existing Landscapes, including Public Parks	Landscape watering with recycled water may continue without restriction. Landscape watering with potable water is prohibited	10%	Yes
5	Landscape Irrigation for New Landscapes, including Public Parks	Landscape watering with recycled water may continue without restriction. The installation of new landscapes irrigated with potable water is prohibited during Conservation stage 5. New landscapes installed prior to declaration of Conservation Stage 5 may water two (2) days a week to maintain adequate growth on newly installed landscapes, for the remainder of the initial five (5) week establishment period. Watering days for new landscapes are Tuesday and Friday. Property owners must notify the City of the address where new landscape is installed and the date of installation.	10%	Yes
5	Hotels, motels and bed and breakfasts	Hotels, motels and B&B's must limit linen/towel exchange to once every three (3) nights or for the entire stay, whichever is shorter, except for health and safety program.	2%	Yes
5	Swimming pools, hot tubs	Filling new and existing swimming pools and/or draining and refilling existing swimming pools is prohibited. All pools and	2%	Yes

		tubs shall be covered when not in use to reduce evaporation. Contact Utilities Division staff if an existing swimming pool must be repaired and refilled during Conservation Stage 5.		
5	Vehicle and Equipment Washing	Non-commercial washing of vehicles and mobile equipment is prohibited. Only commercial facilities with water recycling systems may be used.	2%	Yes
5	Industrial and Commercial	Reduction of water use by any means is encouraged. The City Council may establish mandatory use reduction targets, if needed. Compliance with mandatory demand reduction measures is required for outdoor water uses including landscape irrigation, swimming pools, and vehicle washing. Use of water from fire Hydrants is prohibited, except by city and/or fire personnel	2%	Yes
5	Heavy Construction	The use of potable water for dust control shall be reduced to the greatest extent possible. The City may establish mandatory construction water budgets, if needed.	5%	Yes

Stage VI. Extreme Shortage (Mandatory Rationing)

During Stage VI, the water supply shortage is over 50 percent and a 60 percent or greater reduction in water usage is required for the City to meet the immediate needs of its customers. The City continues its public information and education programs and asks customers for a 60 percent or greater mandatory water use reduction. A special City Council meeting may be called to determine if Mandatory Rationing are necessary to further reduce water used.

All previous requirements of Stages I, II, III, IV, and V remain in effect. Additional requirements may include:

Enforcement procedures and penalties for water wasting continue as described in the Lodi Water Conservation Ordinance Sections 13.09.040

Stage	Type of use	Restrictions	Reduce shortage gap	Penalty, Charge, or Other Enforcement?
6	Other	Nonessential use of water prohibited.	20%	Yes
6	Other	Per Capita Allotment by customer type		

5.4 Additional Mandatory Restrictions

Additional mandatory restrictions have been reported in a previous section.

5.5 Emergency Response Plan

The Water Code Section 10632(c) requires development of an Emergency Response Plan documenting actions to be undertaken by the water supplier to prepare for and implement during a catastrophic interruption of water supplies. The City is currently in the process of updating its an Emergency Operations Plan (EOP), most recently updated in -----, that provides a framework for the City to address a catastrophic supply interruption due to various hazards, including seismic, geological, wildfire, and flooding hazards. This plan is intended to define the actions required of the City before, during, and after an emergency. The City will develop an ERP, which includes appropriate personnel listings, resource inventories, locations for emergency operations centers, response procedures, and the steps necessary to resume normal operations. It also guides the City’s response to major emergencies and disasters.

The City maintains a preventative maintenance program for its distribution system. Auxiliary generators are available at each water facilities to minimize loss of these facilities during an earthquake or any disaster causing an electric power outage.

5.6 Seismic Risk Assessment and Mitigation Plan

Seismic Risk was assessed in the City’s America’s Water Infrastructure Act Risk and Resilience Assessment (Wallace Group, 2021). The Risk and Resilience Assessment states the City is located within the Central Coast which is a relatively moderate to high seismically active area. The City is located within the Rinconada Fault Zone. Therefore, seismic hazards are dependent on the distance to the fault and the intensity and magnitude of the seismic event. Based on the City’s location, seismic

activity is a major threat to the water system. While it is expected that the City will experience some seismic activity, the risk of catastrophic damage to the water system (including the City's wells and storage tanks) is moderate. Therefore, seismic risk does appear to be a high consequence risk or high likelihood event.

Section 6 – Communication Protocols

Water Code Section 10632 (a)(5)

Communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments, regarding, at a minimum, and of the following: (A) Any current or predicted shortages as determined by the annual water supply and demand assessment described pursuant to Section 10632.1. (B) Any shortage response actions triggered or anticipated to be triggered by the annual water supply and demand assessment described pursuant to Section 10632.1. (C) Any other relevant communications.

When the City plans for short-term water use reduction as directed by the Water Shortage Contingency Plan or Annual Assessment, clear and effective communication will be critical to achieve the necessary demand reductions. Methods of public notification include newspaper publications, bill inserts, City website announcements, social media posts, and press releases or informational campaigns. These public notification methods would be implemented in the event of a Level 2 Water Shortage and would increase in frequency in the event of a Level 3 and higher Water Shortage.

Section 7 – Compliance and Enforcement

Water Code Section 10632 (a) (6)

For an urban retail water supplier, customer compliance, enforcement, appeal, and exemption procedures for triggered shortage response actions as determined pursuant to Section 10632.2.

Customers who violate the provisions noted in the water code for water shortage conditions shall receive the following penalties. Chapter 13.09.060 of the Municipal Code provides for a system violations and warnings. Violation of provisions of this Water Shortage Contingency Plan shall be enforced under Chapter 13.09.060 of the Greenfield Municipal Code:

- A. Each violation of this chapter is an infraction.
- B. Any violation that occurs or continues from one day to the next shall be deemed a separate violation, for each day during which such violation occurs or continues to occur.
- C. The fine for a first violation of this chapter shall be fifty dollars (\$50.00). The fine for a second violation and each subsequent violation of this chapter within a period of twelve (12) months, regardless of the specific section or subsection violated, shall be one hundred dollars (\$100.00).

Section 8 – Legal Authorities

Water Code Section 10632 (a) (7) (A)

A description of the legal authorities that empower the urban water supplier to implement and enforce its shortage response actions specified in paragraph (4) that may include, but are not limited to, statutory authorities, ordinances, resolutions, and contract provisions. (B) A statement that an urban water supplier shall declare a water shortage emergency in accordance with Chapter 3 (commencing with Section 350) of Division 1. [see below] (C) A statement that an urban water supplier shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code. Water Code Section Division 1, Section 350 Declaration of water shortage emergency condition. The governing body of a distributor of a public water supply, whether publicly or privately owned and including a mutual water company, shall declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.

Mandatory Water Conservation Regulation Chapter 13.09.040.U Regulatory Compliance:

“The public works director shall develop and implement any programs, plans, directives, and regulations necessary for such compliance, including, but not limited to, any water shortage contingency plan or other plan or program adopted by the city pursuant to any federal, state, or county agency or regulatory authority requirement.”

Implementation of the Water Shortage Contingency Plan and its stages shall be determined by the Public Works Department Director. Shortage response actions that are implemented shall be enforced and violations imposed by the City staff. In accordance with Water Code Division 1, Section 350, the City shall declare a water shortage emergency when water supply conditions reach a supply reduction of 10 percent or greater. The City does not provide water supply to any other city. The City shall coordinate with Monterey County for the possible proclamation of a local water supply emergency per California Government Code, California Emergency Services Act, Article 2, Section 8558.

Section 9 – Financial Consequences of WSCP Activation

Water Code Section 10632 (a) (8)

A description of the financial consequences of, and responses for, drought conditions, including, but not limited to, all the following:

- A. A description of potential revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).
- B. A description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).
- C. A description of the cost of compliance with Chapter 3.3 (commencing with Section 365) of Division 1. [retail urban suppliers only]

The City has established an accounting system for tracking expenses and revenue shortfalls associated with voluntary and mandatory water use reductions implemented through WSCP implementation actions. The City maintains reserve funds that can be used to offset expenditure impacts during times of emergency. Further the City could implement a water surcharge upon triggering of a Stage 3 WSCP declaration to recover unmitigated revenue shortfalls resulting from the costs of additional water shortage response measures and actions. The water surcharge would only be in effect during the declared water shortage condition. Any water related surcharges would be approved by the City Council, validating the need for the surcharges and identifying appropriate costs to be covered through any approved surcharges to support WSCP implementation.

Section 10 - Monitoring and Reporting

Water Code Section 10632 (a) (9)

For an urban retail water supplier, monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance and to meet state reporting requirements.

The City records daily water usage during normal condition. Production figures are reported monthly to the State Water Resources Control Board (Water Board) Office of Research, Planning, and Performance (dwpdist05@waterboards.ca.gov) and in the Annual Report to the Drinking Water Program, which is submitted to the Water Board Water Division each year.

The City will track water meter data—both production and usage to determine the actual water savings made during each stage and use this information to estimate unmetered water savings. By monitoring the water savings, the City can adjust its response to the water shortage for each water user class.

Section 11 - WSCP Refinement Procedure

Water Code Section 10632 (a) (10)

Reevaluation and improvement procedures for systematically monitoring and evaluating the functionality of the water shortage contingency plan in order to ensure shortage risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented as needed

The City refine the WSCP based on monitoring and reporting of data collected. The City's WSCP can be refined or updated at any time, independent of when UWMPs are updated every five years. Based on analysis of the data collected, the City may choose to modify or add consumption reduction methods to more accurately meet water level targets. Any updates to the WSCP will be approved by the City Council as needed to maintain an effective water shortage response plan for the community. Any WSCP updates will allow for stakeholder review and be publicly noticed before any City Council action is considered at a planned City Council meeting. The WSCP documents and any updated information will be available on the City's website

Section 12: Special Water Feature Distinction

Water Code Section 10632 (b)

For purposes of developing the water shortage contingency plan pursuant to subdivision (a), an urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

The City does not have any special water features of distinction that would be involved in a WSCP response effort.

Section 13 – Plan and Adoption, Submittal and Availability

Water Code Section 10632 (c)

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

The WSCP adoption and submittal process, as well as the public availability, are the same as those for the City's UWMP. However, the WSCP may be periodically amended independently from the City's UWMP. Should an amendment to the WSCP be implemented, stakeholder and public notification methods consistent with the UWMP will be performed prior to adoption of the amended plan.