Appendix J:

Urban Water Shortage Contingency Plan

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City of Vacaville

2020 Urban Water Shortage Contingency Plan

June 2021

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1 Introduction and Overview

The Urban Water Shortage Contingency Plan (UWSCP) outlines progressive steps to be taken by the City to ensure adequate water supply during drought years or other water shortage emergencies.

The City prepared and submitted its first UWSCP in January 1991 as part of the City's 1991 UWMP. The UWSCP was updated in August 2014 in response to the Emergency Drought Regulations issued on July 15, 2014 by the State Water Resources Control Board and amended in June 2015 to address additional water conservation measures in response to the drought. The City's UWSCP has been updated in accordance with the Urban Water Management Planning Act and California Water Code Sections 10610 and 10632 (Appendix A).

The UWSCP is also presented as Chapter 8 of the UWMP. However, the UWSCP is a stand-alone document that can be enacted or revised at any time separately from the UWMP.

1.1 Water Supply Reliability Analysis

This section evaluates the City's water supply reliability under various conditions as presented in Chapter 7 of the UWMP. Chapter 7 contains an assessment on the water supply reliability for the City's four primary water supply sources: the Solano Project, the State Water Project, Settlement Water, and groundwater pumped from a basin underlying the City by eleven wells. Based on 2020 demand and supply data, projected supply is sufficient to meet projected demand for the next five years even if those years are consecutive dry years.

The water supply sources were analyzed for their availability during a normal year, a single dry year, and a five-consecutive-year drought.

1.1.1 Solano Project

The Solano Project differs from other reservoir projects in California based on the reservoir storage relative to the watershed yield. While it takes a relatively long time to fill the reservoir, in turn, it takes a relatively long time to deplete the reservoir. In addition to this water, a long-term agreement with Solano Irrigation District (SID) provides increasing water rights through 2040. Due to the amount of reservoir storage as a function of its yield, as well as the SID agreement, the long-term reliability for the Solano project was determined to be excellent.

According to the assessment, the City anticipates receiving 99% of its Solano Project entitlement and SID agreement water during an average year, 98% of the entitlement during a single-dry year, and 93% during multiple-dry years. This data is summarized in Table 7-1 in the UWMP.

1.1.2 State Water Project and Settlement Water

In 2014, State Water Project allocation to the City was a historically low 5%. For Settlement Water, single dry year supply reliability was based on a worst-case scenario in 2015 when no water was delivered. For dry and multiple dry years the reliability ranged from 0% to 77% as a percent of average supply. This data is summarized in Table 7-2 and Table 7-3 in the UWMP.

1.1.3 Groundwater

Increased pumping during dry years will cause groundwater levels to decrease, but groundwater levels are expected to return to normal levels once pumping decreases to normal year rates. Consequently, reliability of groundwater was also determined to be excellent. This data is summarized in Table 7-4 in the UWMP.

1.1.4 Drought Risk Assessment

The drought risk assessment in Chapter 7 of the UWMP presents a potential scenario for five consecutive drought years beginning in 2021. Projected water use is compared to available supplies, identifying potential water shortfalls or surpluses under drought conditions and considers actions identified in this UWSCP that the City may take to reduce demand which are then accounted for to determine any demand reduction measures that may be taken.

In summary, the UWMP concluded that based on 2020 demand and supply data, projected supply is sufficient to meet projected demand for the next five (5) years even if those years are consecutive dry years

1.2 Supply and Demand Assessment Procedures

Beginning in 2022, the Utilities Department will conduct an Annual Water Supply and Demand Assessment in order to 1) submit an annual report to Department of Water Resources (DWR) on July 1, 2022 and each July 1 thereafter, and 2) to determine if a water shortage condition exists requiring an appropriate water shortage response action.

1.2.1 Supply and Demand Assessment Procedures

The procedures for the supply and demand assessment that will be conducted each year will include the following elements:

- The Utilities Department will evaluate the water supply reliability for the current year and one dry year.
- A report on the water supply reliability for the current and projected water supply reliability for the next year will be prepared and submitted to the City Council.
- The report will include a determination as to whether or not a water shortage condition exists and if a water shortage response action is recommended.

- If a water shortage response action is recommended City Council may vote to activate, not activate, or amend the recommended action in accordance with the provisions of this UWSCP.
- The annual Supply and Demand Assessment report will be prepared and submitted to DWR by July 1. The format for the report is expected to be finalized in 2021.

1.2.2 Supply and Demand Assessment Key Data Inputs

The evaluation of the City's water supply reliability for the current year and one dry year will include the following key data inputs:

- Current year unrestrained demand (no conservation measures) considering weather/climate impacts, population growth projections, and any policies which may impact the ability to meet future or projected demands.
- Current year available supply, considering any hydrological and/or regulatory conditions in the current year and at least one dry year.
- Existing water system infrastructure and if there are any potential constraints
- Description and quantification of each water supply source included in the UWMP

1.2.3 Evaluation Criteria and Methodology

The following criteria shall be utilized when conducting the annual Supply and Demand assessment:

- The water reliability evaluation will generally commence in January each year. However, nothing in this plan will prohibit the assessment to start sooner if conditions warrant it.
- Data used in the evaluation will be captured via spreadsheet, computer model, or other available tool
- Any local conditions or uncertainties that impact supply or demand conditions will be taken into consideration

1.3 Water Shortage Conditions and Stages

This section discusses the establishment of the City's Water Shortage conditions and identifies the City's Water Shortage Stages.

1.3.1 Establishment of Water Shortage Conditions

The Vacaville Municipal Code (VMC) defines three water conservation conditions (Appendix B). The UWSCP addresses water conservation during normal, drought, and emergency conditions as defined below.

1.3.1.1 Normal Conditions (VMC Section 13.20.040)

The normal conservation condition is in effect any time when drought or emergency conditions are not in effect. Normal conditions will prevail when there is not a water shortage. Conservation practices are voluntary; however, compliance with the *City of Vacaville Water Efficient Landscape Ordinance* (Appendix D) and the Water Waste Prohibitions are required during normal conditions in accordance with the VMC.

1.3.1.2 Drought Conditions (VMC Section 13.20.050)

Drought conditions will be in effect when there is a water shortage necessitating a reduction in water use, either citywide or in a sub-area or land-use category within the City. Compliance with water conservation measures will range from voluntary to mandatory in accordance with the level of water shortage.

1.3.1.3 Emergency Conditions (VMC Section 13.20.060)

Emergency conditions will be in effect whenever there is a water shortage necessitating a reduction in water use of 50% or greater from the normal condition, either citywide or in a sub-area or land-use category within the City.

1.3.2 Water Shortage Stages

Water shortage stages may be declared by the City Council in response to one or more water supply conditions or events. A significant shortage in one water supply source or moderate shortages in a combination of water supply sources may trigger the declaration of a water shortage stage.

Each stage of water shortage corresponds with a water conservation response to a specified reduction in water supply. Each stage requires either a voluntary or mandatory reduction in water use by all customers which may include, mandatory limitations or prohibitions on specific types of water use

These stages have been updated to comply with the six Standard Water Shortage Stages established by DWR in 2019. The criteria for triggering the City's water shortage stages based on water supply is shown in Table 1-1.

Table 1-1. Water shortage contingency plan levels (DWR Table 8-1)

Shortage Stage	Percent Shortage Range	Water Shortage Response Action
Normal	0%	Voluntary conservation
1	0% - 10%	Conservation measures including outreach, education, and incentives
2	11% - 20%	Promotion of incentives, water use surveys; water waste monitoring and reporting; improved billing and tracking of usage; suspend hydrant flushing; accelerate system leak detection
3	21% - 30%	Restrictions on outdoor irrigation; water usage patrols; high water

		use reporting; cease operation of non-recirculating water features
4	31% - 40%	Restrictions on outdoor irrigation; Restrict/cease outdoor water use; residential and commercial water use allocations; excessive use penalties; restrictions on development and landscaping; curtail business use;
5	41% - 50%	Require covers and other restrictions on pools; decrease water use allocations; restrict installation of turf grass; supply augmentation
6	50%+	Decrease water use allocation

Normal Conditions: At this stage there is no identified reduction in available water supply sources. Water customers are encouraged through multiple outreach sources to use water efficiently in order to achieve voluntary water conservation.

Stage 1 (voluntary): This stage may be declared when a reduction in total available water supply sources of 10% occurs. At this stage water customers shall be asked to conserve water through a voluntary reduction in water use of up to 10%.

Stage 2 (voluntary to mandatory): This stage may be declared when a reduction in total available water supply sources of 11% up to 20% occurs. At this stage water customers shall be asked to conserve water by up to 20% through employment of both voluntary and mandatory conservation measures including incentives, water use surveys, improved billing, and suspension of hydrant flushing.

Stage 3 (mandatory): This stage may be declared when a reduction in total available water supply sources of 21% up to 30% occurs. At this stage water customers shall be required to conserve water through a mandatory reduction in water use of up to 30%. In addition to the measures taken in Stage 2, customer usage may be monitored and communications made to customers to reduce their water use. Limitations may be placed on outdoor irrigation. Residents and businesses may be directed to cut back on non-essential use of water. Shortage Response Actions listed in Section 1.4 may be applied as needed to achieve the desired water use target.

Stage 4 (mandatory to emergency): This stage may be declared when a reduction in total available water supply sources of 31% up to 40% occurs. At this stage water customers shall be required to conserve water through a mandatory reduction in water use of up to 40%. Additional limitations and/or restrictions to outdoor irrigation may be implemented. In addition to the measures taken in Stage 3, residential and commercial water use allocations may be implemented and penalties for use of in excess of those allocations may be levied. Shortage Response Actions listed in Section 1.4 may be applied as needed to achieve the desired water use target.

Stage 5 (mandatory, emergency): This stage may be declared when a reduction in total available water supply sources of 41% up to 50% occurs. Residents and businesses will be required to cease all non-essential use of water. In addition to the measures taken in Stage 4, residential and commercial water use allocations may be adjusted to achieve the desired

water use target. The City may enact measures to augment the available water supply sources.

Stage 6 (mandatory, emergency): This stage may be declared when a reduction in total water supply sources exceeds 50%. In addition to the steps taken at Stage 5, residential and commercial water use allocations will be adjusted to achieve the desired water use target.

Water Emergency: A water supply emergency may be declared at any time when there is a reduction in total available water supply sources resulting from an emergency drought condition, catastrophic interruption such as a natural disaster, power outage or bio-terrorism attack on the City's water treatment and distribution system occurs. At this stage water use may be restricted based on the impact to the available water supply.

Water conservation action stages may also be triggered by local, state, or federal action impacting the management of the City's water supply sources. The City Manager or his/her Designee, which will typically be the Director of Utilities, shall use multiple sources of information to make a recommendation to the City Council on the implementation of one or more specific water shortage stages.

1.4 Water Shortage Response Actions

This section identifies existing and available response actions the City may enact in response to a water shortage.

1.4.1 Water Demand Reduction Measures

1.4.1.1 Water Waste Prohibitions

VMC Chapter 13.20 includes specific water use restrictions. Accordingly, no user of the City's water system may knowingly make, cause, use, or permit the use of water from the system in a manner that violates the VMC as cited below:

- Excessive water runoff due to landscape irrigation activities.
- Washing of sidewalks, driveways, walkways, parking lots, and all other hard-surfaced areas by direct hosing except for removal of hazardous materials for protection of public health and safety.
- Washing of vehicles, equipment, structures, and other items without the use of a shutoff nozzle.
- The escape of water through breaks or leaks within the water users' plumbing or system that is not repaired within twenty-four hours of discovery.
- Fire hydrants used for purposes other than firefighting, water quality, maintenance, sanitation, and construction.

1.4.1.2 Water Conservation Measures

The City has an established Water Conservation program in partnership with SCWA which promotes the efficient use of water through public outreach, education, rebates, and incentives, and effective management of its water supply and distribution system. The program is consistent with industry best practices and includes the following measures:

- Water Efficiency Use information and education through the City's website, utility billing, local media, and public events
- Distribution of water efficient fixtures and resources
- Rebates for turf replacement, high efficiency clothes washers, irrigation controllers, pool covers, laundry to landscape applications, rain barrels, rain sensors, and hot water recirculating systems
- Water Wise residential surveys
- Commercial indoor/outdoor rebate programs
- School education programs

In the event a water shortage stage is declared, in addition to the ongoing water conservation measures employed by the City, the additional measures below may be taken:

- Expansion of public information campaign
- Directed promotion of water use surveys
- Enhanced water conservation information on billing
- Enhanced water efficiency education
- Encourage customers to identify and repair leaks in a timely manner

1.4.1.3 Water Use Restrictions

During Drought stages, the City Council can implement additional water use restrictions as appropriate to achieve the desired level of conservation. Potential and additional restrictions include:

- Defer construction of new City parks unless specific factors determined by the City Council authorize such construction.
- Prohibit the installation of landscaping, other than turf, unless irrigated with a drip irrigation system or a similar system with the equivalent savings in water usage.
- Prohibit new setback landscaping at commercial and industrial sites. Deferred installation agreements may be required to ensure construction of the setback landscaping when the water drought or emergency is over.
- Decrease or stop hydrant flushing

- Expand system leak detection program
- Require hotels, motels and all public establishments offering lodging to post drought notices including the option to opt out of linen service.
- Require restaurants to serve water to customers only upon request of their patrons.
- Prohibit operation of fountains and water using ornamental structures unless equipped with a recirculating pump. Depending upon the severity of the shortage, the City may prohibit the operation of ornamental water using structures.
- Limit watering and irrigation of plants, trees, and landscaping to specified days and/or hours of the day, pursuant to regulations set by the Director of Utilities. Depending upon the severity of the water shortage, this may include limiting water utilization only for trees and plants watered by drip irrigation or hand-held buckets/hoses, or prohibition of all irrigation completely.
- Depending upon the severity of the water shortage, limit other outdoor water use such as, but not limited to, the washing of equipment or vehicles to specified times during the day, on specified days only, at commercial washes only where recycling of water is maintained, or prohibit all outdoor uses of water altogether.
- Prohibit the installation of turf grass.
- Depending upon the severity of the water shortage, require all swimming pools and spas to have a cover, limit refilling of pools and spas to only those with covers, or prohibit the issuance of any new building permits for a pool or spa.
- Depending upon the severity of the water shortage, prohibit the construction of new golf courses and reduce or prohibit new residential construction.

The above demand reduction actions and their estimated percent shortage gap reduction impacts are summarized in Table 1-2.

Table 1-2. Demand Reduction Actions (DWR Table 8-2)

Shortage Level	Demand Reduction Actions	Estimated percent reduction of shortage gap	Additional explanation	Penalty, charge, or other enforcement
0-6	Other - require automatic shut off of hoses	1%		Yes
0-6	Other - prohibit use of potable water for washing hard surfaces	3%		Yes
0-6	Landscape - restrict or prohibit runoff from landscape irrigation	5%	Includes prohibition of irrigation during/after rain	Yes

Shortage Level	Demand Reduction Actions	Estimated percent reduction of shortage gap	Additional explanation	Penalty, charge, or other enforcement
1, 2	Expand public information campaign	0%	Informational	No
1, 2	Expand public information campaign	0%	Water Education	No
1, 2	Provide rebates for turf replacement	5%		No
1, 2	Provide rebates for landscape irrigation efficiency	1%	Irrigation controller rebates	No
1, 2	Provide rebates on plumbing fixtures and devices	1%	High efficiency washer rebates	No
1, 2	Provide rebates on plumbing fixtures and devices	1%	Rain barrel, rain sensor, hot water system, pool cover rebates	No
1, 2	Other	**1%**	Distribution of water efficient fixtures	No
1, 2	Offer water use surveys	**1%**		No
1, 2	Landscape – other landscape restriction or prohibition	**1%**	Landscape efficiency regulations	Yes
1, 2	Other – customers must repair leaks, breaks, and malfunctions in timely manner	**2%**		Yes
2	Reduce system water loss	**2%**	Enhance leak detection	No
2	Decrease line flushing	**.5%**	Suspend hydrant flushing	No
3	Increase water waste patrols	**5%**	Code enforcement staff	Yes
3	Landscape – prohibit certain types of landscape irrigation	**5%**	Limit outdoor irrigation	Yes
4	CII – other CII restriction or prohibition	**.5%**	Curtail business use of water	Yes
4	Water features – restrict water use for decorative water features	**.5%**	Cease operation of non-circulating water features	Yes
4	Landscape – prohibit all landscape irrigation	**10%**	Additional Restriction of/cease outdoor irrigation	Yes

Shortage Level	Demand Reduction Actions	Estimated percent reduction of shortage gap	Additional explanation	Penalty, charge, or other enforcement
4	Other - prohibit vehicle washing except at facilities using recycled or recirculating water	**1%**		Yes
4–6	Other	**7.5%**	Residential/commercial water use allocations	Yes
4–6	Implement or modify drought rate structure or surcharge	**2.5%**	Excessive use penalties	Yes
5	Landscape – other landscape restriction or prohibition	**1%**	Restrictions on turf installation, landscaping	
5	Moratorium or net zero demand increase on new connections	**0%**	Restrictions on additional use	Yes
5	Pools and spas - require covers for pools and spas	**.5%**		Yes
5	Pools – allow filling of swimming pools only when appropriate cover is in place	**.5%**		Yes

1.4.2 Water Supply Augmentation Actions

Chapter 6 of the UWMP discusses the City's conjunctive management of groundwater and surface water sources to use both effectively and sustainably and avoid overuse of either resource.

Chapter 6 further details the City's efforts started in 2017 to evaluate the use of tertiary treatment from the Easterly Wastewater Treatment Plant for potential recycled water use for a variety of purposes. Although recycled water is not currently being used within the City, recycled pipeline have been installed in anticipation of future use and availability.

The City works through SCWA to purchase water for short-term and long-term needs. One additional entitlement available through SCWA is State Water Project water purchased from the Kern County Water Agency.

Table 1-3. Supply Augmentation Actions (DWR Table 8-3)

Shortage Level	Supply Augmentation Actions	Estimated percent reduction of shortage gap	Comments
0-6	Transfers	Dependent upon availability	Kern County Water Agency

1.4.3 Operational Changes

The City will continue to evaluate operational and maintenance procedures in order to identify opportunities for improved efficiency in water delivery and reducing system water loss.

1.4.4 Emergency Response Plan

The City of Vacaville developed a Utilities Department Emergency Response Plan in August 1991and has maintained and updated the plan on a regular basis, with the most recent update occurring in April 2014. The City continues to maintain a comprehensive plan which outlines the water system response plan in the event of a natural disaster, a Citywide power outage, or a bio-terrorism attack on the City's water treatment and distribution system.

The Utilities Department emergency operations center, when activated, coordinates damage surveys, gathers information, and conducts responses to the damaged processes and system. The Emergency Response Plan includes the following elements:

- List of water system components (wells, distribution system, storage tanks)
- Measures to be taken prior to and following an emergency event
- List of City emergency operation personnel
- Information regarding coordination with police and fire department personnel
- List of water testing laboratories, water system contractors, and pipe repair and installation contractors
- Utility service numbers for traffic signal repairs, gas and electrical repairs, and water works suppliers

In the event of a catastrophic interruption or other emergency, the City Council can direct the implementation of the Emergency stage of water conservation action.

In accordance with the America's Water Infrastructure Act of 2018, the City has completed a risk and resilience assessment for multiple catastrophic events that could result in a disruption of the water supply including, but not limited to, earthquakes (seismic), fires, hazardous chemical release, flood, and pandemic (West Yost Associates, 2020). The assessment process includes the development of a Water Emergency Response Plan that will be adopted in June of 2021. The Water Emergency Response Plan outlines emergency response actions and mitigation measures for these and other catastrophic events.

1.5 Communication Protocols

The City will communicate any significant changes to, or shortages in, available water supply sources, as well as any disruption of service, to its water customers; the general public; and local, regional, and state government agencies as required and necessary.

Communications and/or updates may be made through the City's website, social media posts, utility billing inserts or supplements, and press releases in local newspapers, radio or television stations.

1.6 Compliance and Enforcement

The City will endeavor to achieve water use reduction targets when possible through voluntary compliance measures which will include existing and enhanced water conservation communication, education, outreach, and incentive programs.

1.6.1 Compliance and Enforcement Protocols

In the event that water target reductions are not met and/or water shortages occur that cannot be met simply through voluntary measures, the City may enact compliance and enforcement protocols to ensure compliance. These measures may include:

- Water waste and/or water enforcement patrols
- Warning and citation protocols
- Fines for water waste of up to $500 per incident
- Penalties/surcharges for excessive water use in the event of a declaration of water shortage and implementation of water use restrictions or allocations.

1.6.2 Penalties for Excessive Use

Under the Normal condition, water rates shall be established and modified from time to time with the objective of fully compensating for the acquisition, treatment, and distribution of water through revenues collected from customers, and promoting beneficial use of the water. There are no penalties for high water use under the Normal condition.

In Drought and Emergency conditions in which a water conservation stage is declared and conservation goals set, penalties, in the form of surcharges on the water bill, may be assessed for water use in excess of the conservation goal and/or water use allocation. For any instance in which the customer's use exceeds the conservation goal and/or the water use allocation, that customer will be assessed a surcharge of 25% of the variable water charges for that billing period as a penalty for excessive water use.

The procedures for the administration, implementation, enforcement, and appeal of fines and penalties are contained in VMC Section 13.20.030. The Water Conservation Program exception and appeal process is contained in Appendix C.

1.7 Legal Authority

The UWSCP complies with VMC Chapter 13.20 titled "Water Conservation in Normal, Drought and Emergency Conditions." The VMC is referenced or quoted throughout the UWSCP where appropriate. The ordinance establishes the application of the UWSCP to all

water users and authorizes the appropriate City officers to administer and enforce the provisions of the plan.

1.7.1 Authority

The Utilities Department, through the Director of Utilities, shall be responsible for administration and enforcement of the provisions of the UWSCP. The Department will monitor and determine when a water shortage exists or is projected to exist, and make a recommendation to the City Manager.

1.7.2 Declaration of Water Shortage Condition or Emergency and implementation of Water Shortage Response Actions

Upon determination of a water shortage or emergency, the City Manager shall notify the City Council of the determination of the condition along with recommendations for enactment of water shortage response actions outlined in Section 1.4.

The Utilities Department shall coordinate with any City, County, or agency within which it provides water supply services for the possible proclamation of a local emergency.

Before implementation of water shortage response actions, City Council shall schedule and hold a public hearing which shall be noticed in compliance with City protocols. The public shall be notified of 1) the City's intent to implement a water shortage response action, and 2) the measures included in the proposed response action.

Following the public hearing, the Council may, by resolution, determine that a water shortage condition or emergency exists and what water shortage response action outlined in Section 1.4 shall be put into effect during the water shortage or emergency condition. This action may include the imposition of fines, penalties, and surcharges to be applied during the condition.

1.7.3 Withdrawal of Water Shortage Condition and Water Shortage Response Actions

Water shortage response actions will continue to be in effect until the Utilities Department has determined that water shortage conditions have improved. Upon recommendation from the Department and City Manager, the City Council may, by resolution, declare a reduction or elimination of the water shortage response action.

1.8 Financial Consequences of UWSCP

The City of Vacaville manages the Water Utility with the intent of maintaining revenue neutrality. The City's goal is to bill its customers only for the costs to operate and maintain an efficient water system that meets the public health requirements of its customers and promotes a high quality of life and vibrant economy.

Reductions in water use due to water conservation measures will typically result in a corresponding decrease in revenues to the Water Utility. Potential revenue reduction

projections under several drought stage scenarios are shown in Table 1-4. For purposes of this table, figures are based on fiscal year 2019/2020 revenues and expenses.

Table 1-4. Revenue Reduction Projections

Water Shortage	Normal	10%	20%	30%	40%	50%
Water Volume Revenues	$12,170,800	$10,953,700	$9,736,600	$8,519,500	$7,302,500	$6,085,400
Reduced Revenues	-	$1,217,000	$2,434,200	$3,651,200	$4,868,300	$6,085,400
Additional Water Conservation Expenses	-	$10,000	$25,000	$185,000	$200,000	$200,000

Once the City's water conservation reduction goal is established, the corresponding budget impact will be calculated. If revenue reductions become significant, the City Council may be asked to consider adjusting water rates and/or implementing a water conservation surcharge in order to offset reduced revenues and increased expenses. Any water rate adjustments considered by the City Council would be administered in accordance with the requirements of Proposition 218.

In the event additional water purchases were to become necessary, the cost for these purchases will be included as an expense and recovered through the net increase.

1.9 Monitoring and Reporting

1.9.1 Normal Conditions

In Normal stage water supply conditions, production figures are recorded daily and reviewed by the Water Operations Section. Totals are reported monthly and incorporated into the water supply report.

1.9.2 Drought Conditions

During Drought stage water supply conditions, daily production figures are provided to the Water Operations Section of the Utility Department. The Water Operations Section provides the weekly production figures to the Water Conservation Coordinator. The Water Conservation Coordinator compares the weekly production to the 2013 base year data to verify reduction goals are being met. Weekly and monthly reports are generated and provided to the Director of Utilities. The Director of Utilities will notify the City Manager and City Council if water reduction goals are not met, so corrective action can be taken.

1.9.3 Emergency Water Shortage Conditions

During an Emergency conditions shortage or interruption of service, Drought stage procedures will be followed, with the addition of a daily production report to the Director of Utilities. During a disaster shortage the Emergency stage applies.

1.10 UWSCP Refinement Procedures

The UWSCP is meant to be an adaptive management plan that is subject to evaluation and refinement as needed to ensure that the provisions and measures contained in the plan are effective and achieving the desired results of effectively managing the City's water supply during water shortage conditions. Water shortage response actions will include the appropriate level of water shortage risk tolerance and be periodically evaluated to ensure the strategies employed are appropriate for the water shortage level.

Data collected from the normal, drought, and emergency water shortage conditions will be evaluated and considered in determining whether to implement, maintain, extend, amend, or terminate a water shortage response action and/or to amend one or more elements of the UWSCP.

1.11 Special Water Feature Distinction

For the purposes of this UWSCP, decorative or recreational water features that are artificially supplied with water or use recycled water, such as fountains, ponds, lakes, and waterfalls shall be categorized separately from swimming pools and spas. Water shortage response actions for each category are listed and shall be applied as shown in Section 1.4.

Appendix A:

California Water Code Sections 10630 and 10632

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10630.
It is the intention of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied, while accounting for impacts from climate change.
(Amended by Stats. 2018, Ch. 14, Sec. 26. (SB 606) Effective January 1, 2019.)

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

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

(2) The procedures used in conducting an annual water supply and demand assessment that include, at a minimum, both of the following:

(A) The written decision-making process that an urban water supplier will use each year to determine its water supply reliability.

(B) The key data inputs and assessment methodology used to evaluate the urban water supplier's water supply reliability for the current year and one dry year, including all of the following:

(i) Current year unconstrained demand, considering weather, growth, and other influencing factors, such as policies to manage current supplies to meet demand objectives in future years, as applicable.

(ii) Current year available supply, considering hydrological and regulatory conditions in the current year and one dry year. The annual supply and demand assessment may consider more than one dry year solely at the discretion of the urban water supplier.

(iii) Existing infrastructure capabilities and plausible constraints.

(iv) A defined set of locally applicable evaluation criteria that are consistently relied upon for each annual water supply and demand assessment.

(v) A description and quantification of each source of water supply.

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

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

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

(A) Locally appropriate supply augmentation actions.

(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.

(5) Communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments, regarding, at a minimum, all of the following:

(A) Any current or predicted shortages as determined by the annual water supply and demand assessment described pursuant to Section 10632.1.

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

(C) Any other relevant communications.

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

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

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

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

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

(A) A description of potential revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).

(B) A description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).

(C) A description of the cost of compliance with Chapter 3.3 (commencing with Section 365) of Division 1.

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

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

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

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

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

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Appendix B:

City of Vacaville Municipal Code 13.20

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Chapter 13.20
WATER CONSERVATION IN NORMAL, DROUGHT AND EMERGENCY CONDITIONS

Sections:

13.20.010 Definitions.

As used in this chapter:

A. “City of Vacaville landscape water efficient requirements” means City requirements establishing standards and procedures for landscape designs and installations in order to reduce water consumption.

B. “City water system” means the infrastructure necessary to treat and convey potable water to the City’s customers, including treatment plants, storage reservoirs, wells and pipelines.

C. “Customer or account holder” means the person, corporation, agency, or other entity that possesses a water meter connected to the City’s water system, and is responsible for making payment for service.

D. “Drought condition” means a condition where there is a water shortage necessitating a reduction in water use, either City-wide or in a sub-area or land-use category within the City, but that is not to the level of an emergency condition.

E. “Emergency condition” means a condition where there is a water shortage necessitating a reduction in water use, either City-wide or in a sub-area or land-use category within the City, of 50 percent or greater from the normal condition.

F. “Flow restrictor” means any device which limits the pressure or flow rate at the water service connection.

G. “General use” means all commercial, industrial, office and business water users, customers, and accounts including those condominium, apartment, multifamily, and mobile home park uses where several habitations are served by a single water meter.

H. “Irrigated metered use” means all water users, customers and accounts which either serve an agricultural use or water used for temporary construction purposes.

I. “Landscape irrigation schedule” means a schedule established which limits landscape irrigation activities to specified times of day. Specified irrigation days may also be established and irrigation times may be rotated among various users throughout the water system service area to equalize demands on the water system.

J. “Normal condition” means a condition where there are adequate water supplies to meet all of the City’s normal water demands without a need for special water conservation measures as defined in the current City of Vacaville Urban Water Shortage Contingency Plan.

K. “Rate blocks” means ranges of water units supplied by the City water system that define a rate tier for billing purposes (i.e., the Tier 1 residential block is defined as one to 12 units of water, with one unit equal to 100 cubic feet of water).

L. “Residential use” means all water users, customers and accounts except for those classified general use and metered irrigation use.

M. “Spray irrigation” means the act of applying water to landscape by sprinklers or spray nozzles.

N. “Urban Water Shortage Contingency Plan” means that section of the City of Vacaville’s Urban Water Management Plan that specifies the City’s response to varying reductions in precipitation and water supplies. References to “Urban Water Shortage Contingency Plan” shall mean the most current plan adopted by the City Council by resolution.

O. “Water waste restrictions” refer to prohibition of the following activities under drought and emergency conditions, and except for Subsection (O)(4) of this section, apply whether by a water customer of the City of Vacaville or by any other water user within the City:

1. The watering of grass, lawns, ground-cover, shrubbery, open ground, crops and trees in a manner or to an extent which allows excess water to run off of the landscaped area being watered or which results in overspray by spray irrigating facilities;

2. The washing of sidewalks, walkways, driveways, parking lots and all other hard surfaced areas by direct hosing, except as may be necessary to remove hazardous materials for protection of the public health and safety;

3. The washing of vehicles, equipment, structures and other items by direct hosing without the use of a shutoff nozzle;

4. The escape of water through breaks or leaks within the plumbing or distribution system of a user or customer of City water for any substantial period of time within which such break or leak should reasonably have been discovered and corrected. It will be presumed that up to 24 hours is a reasonable period after discovery of a break or leak to correct the problem;

5. The use of fire hydrants for purposes other than firefighting, water quality, maintenance, sanitation, and construction.

P. “Water shortage” means any condition in which water supply is less than actual or projected water demand. Water shortages can be short-term such as those caused by failure of water system infrastructure or long-term such as those caused by insufficient raw water supplies.

Q. “Water user or consumer” means any person, corporation, agency, or other entity that uses water from the City water system for any reason whatsoever regardless of whether the person, corporation, etc., is a customer or account holder.

(Ord. 1877, Added, 11/18/2014)

13.20.020 Application and administration of chapter.

A. Applicability. The provisions of this chapter shall apply to all water users served by the City of Vacaville water system. No water user of the City of Vacaville water system shall knowingly make, cause, use, or permit the use of water from the City water system for residential, commercial, industrial, agricultural, institutional, or any other purpose in a manner contrary to any provisions of this chapter.

B. Authority. The Utilities Department, through the Director of Utilities, shall be responsible for administration and enforcement of the provisions of this chapter. Wherever the term “Director of Utilities” is used in this chapter, it shall include the designee of the Director of Utilities.

C. Monitoring. The Utilities Department shall monitor water supply and demand and shall determine whether a water shortage exists, or is projected to exist, and will determine the magnitude of such shortage (drought condition or emergency condition).

D. Recommendation to City Council. Upon determination of a water shortage, the City Manager or his/her designee shall notify the City Council of the determination of the condition along with recommendations for enactment of drought or emergency conservation measures beyond those set forth in this chapter. The City Council will review recommendations by the City Manager or his/her designee and will authorize implementation of such drought or emergency conservation measures determined necessary by the City Council to address the drought or emergency condition.

E. Public Notification and Public Hearing. Before implementation of drought or emergency conservation measures, a public hearing shall be scheduled and held by the City Council. The hearing shall be advertised in a newspaper of general circulation within the City at least seven days in advance of the hearing. The public shall be notified of (1) the City's intent to implement drought or emergency conservation measures, (2) a list of proposed conservation measures or means of access thereto, and (3) the date, time and place of the public hearing.

F. Declaration of Drought or Emergency Conditions and Conservation Measures. Following the public hearing, the City Council will, by resolution, determine whether a drought or emergency condition exists. This will in turn determine which water conservation measures identified in the City's Urban Water Shortage Contingency Plan, in addition to those set forth in this chapter, are to be put into effect by the Utilities Department during the drought or emergency condition, and the water surcharges and/or changes in water rates to be charged to water customers and users, if any, during the drought or emergency condition.

G. Withdrawal of Drought and Emergency Conservation Measures. Drought or emergency conservation measures will continue to be in effect until the Utilities Department has determined that water shortage conditions have improved, justifying a less restrictive conservation level, and a resolution of the City Council is adopted declaring a reduction or elimination of conservation measures.

H. Right of Inspection and Access to Meters. Any duly authorized representative of the City shall have the right to inspect existing and new construction for compliance with this chapter and to access the customer's water meter for inspection and for shutting off and turning on water service for installing or removing flow restrictors.

I. Place of Use. Water received from or through a meter may be used only on and for the property served by that meter.

J. Resale of Water. Resale of water supplied by the City is prohibited, except where specifically allowed by agreement approved by the City Council.

K. Use of Reclaimed Wastewater. Use of reclaimed wastewater is exempt from the provisions of this chapter and is encouraged in place of potable water supplied by the City water system where it is feasible and within state reclamation guidelines.

(Ord. 1877, Added, 11/18/2014)

13.20.030 Violations, enforcement, remedies.

A. Violations. It shall be a violation of this chapter for any water customer or account holder to violate any of the provisions of this chapter or of the administrative rules and regulations promulgated hereunder or to waste any water obtained from or through the City water system, or for any person to engage in wasting water as defined herein. The violation of each specific provision of this chapter, and each separate violation thereof, and each day the violation is allowed to continue, shall be deemed a separate offense, and shall be enforced accordingly.

B. Administrative Fines.

1. For the first violation within the preceding 12 calendar months, the Director of Utilities shall issue a courtesy written notice of the fact of such violation.

2. For the second violation within the preceding 12 calendar months, the Director of Utilities shall issue a written notice of violation and impose an administrative fine of fifty dollars against the account holder for the property where the violation occurred.

3. For each subsequent violation within the preceding 12 calendar months, the Director of Utilities shall issue a written notice of violation and the administrative fine shall increase by an additional fifty dollars from the immediately previous administrative fine against the account holder for the property where the violation occurred.

4. The maximum administrative fine per violation shall be five hundred dollars against the account holder for the property where the violation occurred.

5. As an additional remedy, the Director of Utilities may:

a. Install a flow restrictor on the property where the violation occurred or is occurring, for a length of time to be determined by the Director of Utilities, but in no event for more than one year; or

b. Disconnect service on the property where the violation occurred or is occurring, for a length of time not to exceed 60 days in length.

6. As an additional remedy, the violation of any provision of this chapter by any person who has received more than one written warning pursuant to Subsection (B)(1) of this section or against whom the Director of Utilities has imposed a second violation in one consecutive 12-month period is deemed to be and is hereby declared a public nuisance and may be subject to abatement by restraining order, injunction or other order issued by a court of competent jurisdiction.

7. In addition to any and all other fines, costs, fees, penalties and expenses which may be assessed or imposed as a result of a violation of this chapter, the account holder for the property who violates any provision of this chapter shall be liable and responsible for, and shall pay to the City, all costs incurred by City to enforce and/or abate any violation of this chapter.

C. Penalties. In addition to administrative fines, costs, fees and expenses which may be assessed or imposed as a result of a violation of this chapter, the City Council by resolution may implement penalties in the form of surcharges for water use in excess of water conservation goals in drought and emergency conditions in which a water conservation action stage is declared as defined in the Urban Water Shortage Contingency Plan.

D. Time Period for Accruing Violations. Accrued violations will be based on acts of noncompliance occurring within a consecutive 12-month period. Each successive 24-hour period of any violation or failure to comply shall be a separate and distinct violation.

E. Notice of Violation. For each violation, the Director of Utilities shall give notice as follows:

1. Written notice of violation will be sent through the U.S. mail, first-class prepaid, to the address of the account holder as shown on current water billing records or personally served on the account holder. The notice will be considered to have been served upon the account holder either upon depositing the notice in the U.S. mail or when personally served, whichever methodology is utilized.

2. Written notice of violation shall include the date, time, and location of the violation; a description of the violation; provisions of the ordinance violated; a statement of the assessed surcharge or other enforcement action; and the appeal procedures.

F. Right of Appeal. Any account holder provided a notice of violation in accordance with the provisions of this chapter shall have the right of appeal. A request for hearing must be made in writing and must be received by the Director of Utilities within 10 calendar days from the date of personal or mailed service of the notice of violation. Upon receipt of an appeal and request for hearing, all applicable surcharges and enforcement actions will be suspended until such hearing has been completed and a final determination made.

G. Determination of Appeal. The appeal will be heard and determined by the City Manager or the Designee of the City Manager. The City Manager shall consider whether the account holder knew or should have known of the violation at the time it occurred and whether the account holder took reasonable action to correct the violation upon notification of said violation. The determination of the City Manager will be final and conclusive.

H. Payment of Penalties and Charges. Any surcharge imposed pursuant to this section, or reimbursement of City expenses, shall be added to the account of the account holder for the property where the violation occurred and shall be due and payable on the same terms and subject to the same conditions as any other charge for regular water service.

I. Reimbursement of City Expenses. If violations result in either installation of a flow restrictor, discontinuation of water service, or injunctive relief sought and obtained by the City pursuant to this chapter, the account holder whose service is affected shall reimburse the City for all costs incurred, including attorney's fees.

J. Reimbursement from Tenants. Nothing in this chapter shall limit or be construed to limit the right of an account holder to seek reimbursement of a surcharge or other costs from a tenant or other consumer.

(Ord. 1877, Added, 11/18/2014)

13.20.040 Normal conditions.

A. Water Conservation Goal. During normal conditions the City's goal is to maximize beneficial use of water through specific provisions of this chapter, public education, voluntary water conservation, and the City of Vacaville water efficient landscape requirements.

B. Implementation Methods.

1. Water Pricing. Under normal conditions, water prices shall be established and modified from time to time with the objective of fully compensating for the acquisition, treatment and distribution of water through revenues collected from customers, and promoting beneficial use of the water. Water blocks and the water rates applicable to such blocks will be established by resolution of the City Council.

2. Water Conservation. The City of Vacaville water efficient landscape requirements for water conservation, as well as ongoing state mandated water conservation measures, shall be applicable under normal conditions.

3. Irrigated Metered Use. No water may be supplied for temporary construction purposes without a permit from the Department of Public Works and payment of the costs of such water as determined by the City Council by resolution. Other than water released by the City itself for public purposes, no water may be taken from a fire hydrant without a permit from the City, payment of water charges as required, and the use of metering and backflow prevention devices.

(Ord. 1877, Added, 11/18/2014)

13.20.050 Drought conditions.

A. Water Conservation Goal. During drought conditions the City's water conservation goal is to achieve between a 20 percent to 50 percent reduction in water consumption compared with normal conditions.

B. Implementation Methods.

1. Water Pricing. Under drought conditions, water prices may be adjusted by any combination of (a) increases in the unit prices of water for established rate blocks, (b) modification of the unit amounts which define rate blocks, and (c) addition of new rate blocks. Under drought conditions, it may be necessary to increase prices to generate additional revenue to offset lost revenue due to lower water use, to acquire additional or supplemental supplies of water, or to promote water conservation. Changes in water pricing for drought conditions shall be made by City Council resolution in accordance with Section 6 of Article XIIID of the California Constitution and Section 53755 of the California Government Code, as such sections may be amended, renumbered, or redesignated from time to time.

2. Water Conservation. In addition to normal water conservation measures in this chapter, water waste restrictions, as defined in Section 13.20.010 of this chapter, shall be implemented under drought conditions. The watering and irrigation of plants, trees and landscaping will be restricted to a maximum number of days per week as designated in the Urban Water Shortage Contingency Plan. In addition, the following water use restrictions may be implemented by City Council resolution under drought conditions:

a. The watering and irrigation of plants, trees and landscaping may be allowed only during specified hours of the day, pursuant to regulations promulgated by the Director of Utilities.

b. Fountains and water-using ornamental structures may be prohibited from using water unless equipped with a recirculating pump.

c. Drought notices may be posted in hotels, motels and all public establishments offering lodging.

d. Restaurants may serve water to customers only upon request of their patrons.

e. No landscaping which requires irrigation, other than turf, may be installed unless irrigated with a drip irrigation system or a similar system with the equivalent savings in water usage.

f. Defer construction of new City parks unless the City Council specifically authorizes such construction in light of the drought conditions.

g. Prohibit new setback landscaping at commercial and industrial sites. Deferred installation agreements may be required to ensure construction of the setback landscaping when the water drought or emergency is over.

h. The City Council may direct, by resolution, additional water use restrictions to be implemented during a drought condition.

(Ord. 1877, Added, 11/18/2014)

13.20.060 Emergency condition.

A. Water Conservation Goal. During emergency conditions the goal is to achieve a 50 percent or greater reduction in water consumption compared with normal conditions.

B. Implementation Methods.

1. Water Pricing. Under emergency conditions, water prices and/or rate blocks may be further adjusted as set forth in Section 13.20.050.B.1.

2. Water Conservation. In addition to normal and drought water conservation measures, the following additional water use restrictions and conservation measures may be implemented by City Council resolution during emergency conditions:

a. Depending upon the severity of the water shortage, prohibit landscape watering to specified days only, or limit to only utilization of water for trees and plants watered by drip irrigation or handheld buckets/hoses, or prohibit all irrigation completely;

b. Depending upon the severity of the water shortage, prohibit other outdoor water use such as, but not limited to, the washing of equipment or vehicles, or limit such uses or activities to

specific times during the day, on specified days only, at commercial washes only where recycling of water is maintained, or to prohibit all outdoor use of water altogether;

c. Depending upon the severity of the water shortage, require all swimming pools and spas to have a cover, limit refilling of pools and spas to certain days, or prohibit the issuance of any new building permits for a pool or spa;

d. Prohibit the operation of fountains or ornamental water-using structures;

e. Prohibit the installation of turf grass;

f. Depending upon the severity of the water shortage, prohibit the construction of new golf courses and reduce or prohibit new residential construction.

g. The City Council may direct, by resolution, other water use restrictions to be implemented during an emergency condition.

(Ord. 1877, Added, 11/18/2014)

13.20.070 Coordination with other municipal code chapters.

The provisions of this chapter shall prevail over conflicting sections of the Vacaville Municipal Code, if any, unless a later-enacted provision of the municipal code provides otherwise.

(Ord. 1877, Added, 11/18/2014)

Appendix C:

Water Conservation Program Exception and Appeal Process

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Water Conservation Program Exception and Appeal Process

During drought and emergency water conditions as adopted by Resolution of the City Council of Vacaville, water use goals are established. Water customers in the City of Vacaville may apply for additional water above that goal based upon a) having more than five (5) residents per household in which case up to an additional two (2) units per person may be granted to such household up to a maximum of six (6) additional units per household or b) due to medical and/or health requirements.

Policy

3.1 Additional water units (allowances) may be granted based on the following guidelines:

3.1.1 More than five (5) residents per household. Up to two (2) additional units per person may be granted to such household up to a maximum of six (6) additional units per household.

3.1.2 Medical and/or health requirements determined on a case-by-case basis based on customer description of water usage for medical and/or health needs. Up to two (2) additional units per person may be granted to such household of five (5) residents or more.

3.2 Right of Appeal – any customer provided a denial of an application for an allowance shall have the right of appeal.

A request for appeal must be made in writing and received by the Director of Utilities, or his designee within ten (10) days of notification of denial. The appeal shall consider the circumstances of the appealing customer, the status of the City's water supply, and whether reasonable action is being taken on the part of the customer to conserve water. A written response will be forwarded to the account holder upon determination.

3.3 All efforts will be made to insure strict confidentiality of Water Conservation Allowance Applications.

4.0 Procedure

Water Conservation applications are available online at the City's Water Conservation webpage www.cityofvacaville.com/savingwater or through the Water Conservation Office and can be submitted anytime throughout the duration of drought and emergency conditions.

All efforts will be made to process the Allowance applications in a timely manner.

Approved applications will be submitted to the Finance Department for implementation and will be applied to the next billing cycle after the approved application was received.

Customers will be notified of approval or denial of allowance applications.

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Appendix D:

Water Efficient Landscape Ordinance

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ORDINANCE NO. 1891

ORDINANCE ADOPTING THE STATE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE AND REPEALING THE CURRENT WATER EFFICIENT LANDSCAPE REQUIREMENTS

WHEREAS, having a reliable water supply is essential to the vitality of Vacaville; and

WHEREAS, water resources are of a limited supply and are subject to increasing demands; and

WHEREAS, the recent drought has emphasized the need to be prudent in the use and conservation of water; and

WHEREAS, in 1998 the City of Vacaville adopted Ordinance 1591, adopting the Vacaville Water Efficient Landscape Requirements; and

WHEREAS, pursuant Governor Brown's Drought Executive Order of April 1, 2015 (EO B-29-15), the California Water Commission approved an update the state's Model Water Efficient Landscape Ordinance; and

WHEREAS, the state requires the City to adopt the model ordinance or an ordinance that is at least as effective in conserving water; and

WHEREAS, to comply with state requirements, to provide consistency with other jurisdictions, and to ease use for applicants, the City desires to adopt the updated state Model Water Efficient Landscape Ordinance; and

WHEREAS, this project is exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15307 of the State CEQA Guidelines (Actions by Regulatory Agencies for Protection of Natural Resources).

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF VACAVILLE DOES ORDAIN AS FOLLOWS:

Section 1. Repeal of Water Efficient Landscape Requirements.

The City of Vacaville Water Efficient Landscape Requirements, adopted by Ordinance 1591 and added to Title 14 of the Vacaville Municipal Code as an appendix, is hereby repealed.

Section 2. Adoption of Division 14.27, Water Efficient Landscaping.

The following shall be added as Division 14.27 under Title 14 of the Vacaville Municipal Code.

DIVISION 14.27
WATER EFFICIENT LANDSCAPING

Chapters

Chapter 14.27.010
Title, Purpose, Applicability

14.27.010.010 Title

This division shall be known as the "Vacaville Water Efficient Landscape Ordinance," and may be so cited.

14.27.010.020 Purpose

A. The State Legislature has found:

1. that the waters of the state are of limited supply and are subject to ever increasing demands;

2. that the continuation of California's economic prosperity is dependent on the availability of adequate supplies of water for future uses;

3. that it is the policy of the State to promote the conservation and efficient use of water and to prevent the waste of this valuable resource;

4. that landscapes are essential to the quality of life in California by providing areas for active and passive recreation and as an enhancement to the environment by cleaning air and water, preventing erosion, offering fire protection, and replacing ecosystems lost to development;

5. that landscape design, installation, maintenance and management can and should be water efficient; and

6. that section 2 of Article X of the California Constitution specifies that the right to use water is limited to the amount reasonably required for the beneficial use to be served and the right does not and shall not extend to waste or unreasonable method of use.

B. Consistent with these legislative findings, the purpose of this ordinance is to:

1. promote the values and benefits of landscaping practices that integrate and go beyond the conservation and efficient use of water;

2. establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes in new construction and rehabilitated projects by encouraging the use of a watershed approach that requires cross-sector collaboration of industry, government and property owners to achieve the many benefits possible;

3. establish provisions for water management practices and water waste prevention for existing landscapes;

4. use water efficiently without waste by setting a Maximum Applied Water Allowance as an upper limit for water use and reduce water use to the lowest practical amount; and

5. promote the benefits of consistent landscape ordinances with neighboring local and regional agencies.

C. Landscapes that are planned, designed, installed, managed and maintained with the watershed based approach can improve California's environmental conditions and provide benefits and realize sustainability goals. Such landscapes will make the urban environment resilient in the face of climatic extremes. Consistent with the legislative findings and purpose of the Ordinance, conditions in the urban setting will be improved by:

1. Creating the conditions to support life in the soil by reducing compaction, incorporating organic matter that increases water retention, and promoting productive plant growth that leads to more carbon storage, oxygen production, shade, habitat and esthetic benefits.

2. Minimizing energy use by reducing irrigation water requirements, reducing reliance on petroleum based fertilizers and pesticides, and planting climate appropriate shade trees in urban areas.

3. Conserving water by capturing and reusing rainwater and graywater wherever possible and selecting climate appropriate plants that need minimal supplemental water after establishment.

4. Protecting air and water quality by reducing power equipment use and landfill disposal trips, selecting recycled and locally sourced materials, and using compost, mulch and efficient irrigation equipment to prevent erosion.

5. Protecting existing habitat and creating new habitat by choosing local native plants, climate adapted non-natives and avoiding invasive plants. Utilizing integrated pest management with least toxic methods as the first course of action.

14.27.010.030 Applicability

A. After December 1, 2015, and consistent with Governor's Executive Order No. B-29-15, this ordinance shall apply to all of the following landscape projects:

1. new development projects with an aggregate landscape area equal to or greater than 500 square feet requiring a building or landscape permit, plan check or design review;

2. rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check, or design review;

3. existing landscapes limited to Chapter 14.27.040 and

4. cemeteries. Recognizing the special landscape management needs of cemeteries, new and rehabilitated cemeteries are limited to sections 14.27.030.050, 14.27.030.100, 14.27.030.110, and existing cemeteries are limited to Chapter 14.27.040.

C. Any project with an aggregate landscape area of 2,500 square feet or less may comply with the performance requirements of this ordinance or conform to the prescriptive measures contained in chapter 14.27.070.

D. For projects using treated or untreated graywater or rainwater captured on site, any lot or parcel within the project that has less than 2500 sq. ft of landscape and meets the lot or parcel's landscape water requirement (Estimated Total Water Use) entirely with treated or untreated graywater or through stored rainwater captured on site is subject only to section 14.27.070(B)(5).

E. This ordinance does not apply to:

1. registered local, state or federal historical sites;

2. ecological restoration projects that do not require a permanent irrigation system;

3. mined-land reclamation projects that do not require a permanent irrigation system; or

4. existing plant collections, as part of botanical gardens and arboretums open to the public.

14.27.010.040 Alternate methods and exceptions

The Director may approve an alternate method or exception to this ordinance where it can be demonstrated that the exception or alternate is at least as effective in conserving water as adherence to the provisions of this ordinance.

Chapter 14.27.020
Definitions

14.27.020.010 Definitions

The terms used in this ordinance have the meaning set forth below:

"Applied water" means the portion of water supplied by the irrigation system to the landscape.

"Automatic irrigation controller" means a timing device used to remotely control valves that operate an irrigation system. Automatic irrigation controllers are able to self-adjust and schedule irrigation events using either evapotranspiration (weather-based) or soil moisture data.

"Backflow prevention device" means a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

"Certificate of Completion" means the document required under section 14.27.030.080.

"Certified irrigation designer" means a person certified to design irrigation systems by an accredited academic institution, a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation designer certification program and Irrigation Association's Certified Irrigation Designer program.

"Certified landscape irrigation auditor" means a person certified to perform landscape irrigation audits by an accredited academic institution, a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation auditor certification program and Irrigation Association's Certified Landscape Irrigation Auditor program.

"Check valve" or "anti-drain valve" means a valve located under a sprinkler head, or other location in the irrigation system, to hold water in the system to prevent drainage from sprinkler heads when the sprinkler is off.

"Common interest developments" means community apartment projects, condominium projects, planned developments, and stock cooperatives per California Civil Code section 1351.

"Compost" means the safe and stable product of controlled biologic decomposition of organic materials that is beneficial to plant growth.

"Conversion factor (0.62)" means the number that converts acre-inches per acre per year to gallons per square foot per year.

"Director" means the Director of Community Development of the City of Vacaville or a person designated by the Director to assume some or all of the Director's duties.

"Distribution uniformity" means the measure of the uniformity of irrigation water over a defined area.

"Drip irrigation" means any non-spray low volume irrigation system utilizing emission devices with a flow rate measured in gallons per hour. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

"Ecological restoration project" means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

"Effective precipitation" or "usable rainfall" (Eppt) means the portion of total precipitation which becomes available for plant growth.

"Emitter" means a drip irrigation emission device that delivers water slowly from the system to the soil.

"Established landscape" means the point at which plants in the landscape have developed significant root growth into the soil. Typically, most plants are established after one or two years of growth.

"Establishment period of the plants" means the first year after installing the plant in the landscape or the first two years if irrigation will be terminated after establishment. Typically, most plants are established after one or two years of growth. Native habitat mitigation areas and trees may need three to five years for establishment.

"Estimated Total Water Use" (ETWU) means the total water used for the landscape as described in section 14.27.030.050.

"ET adjustment factor" (ETAF) means a factor of 0.55 for residential areas and 0.45 for non-residential areas, that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape. The ETAF for new and existing (non-rehabilitated) Special Landscape Areas shall not exceed 1.0. The ETAF for existing non-rehabilitated landscapes is 0.8.

"Evapotranspiration rate" means the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time.

"Flow rate" means the rate at which water flows through pipes, valves and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.

"Flow sensor" means an inline device installed at the supply point of the irrigation system that produces a repeatable signal proportional to flow rate. Flow sensors must be connected to an automatic irrigation controller, or flow monitor capable of receiving flow signals and operating master valves. This combination flow sensor/controller may also function as a landscape water meter or submeter.

"Friable" means a soil condition that is easily crumbled or loosely compacted down to a minimum depth per planting material requirements, whereby the root structure of newly planted material will be allowed to spread unimpeded.

"Fuel Modification Plan Guideline" means guidelines from a local fire authority to assist residents and businesses that are developing land or building structures in a fire hazard severity zone.

"Graywater" means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. "Graywater" includes, but is not limited to, wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines, and laundry tubs, but does not include wastewater from kitchen sinks or dishwashers. See California Health and Safety Code section 17922.12.

"Hardscapes" means any durable material (pervious and non-pervious).

"Hydrozone" means a portion of the landscaped area having plants with similar water needs and rooting depth. A hydrozone may be irrigated or non-irrigated.

"Infiltration rate" means the rate of water entry into the soil expressed as a depth of water per unit of time (e.g., inches per hour).

"Invasive plant species" means species of plants not historically found in California that spread outside cultivated areas and can damage environmental or economic resources. Invasive species may be regulated by county agricultural agencies as noxious species. Lists of invasive plants are maintained at the California Invasive Plant Inventory and USDA invasive and noxious weeds database.

"Irrigation audit" means an in-depth evaluation of the performance of an irrigation system conducted by a Certified Landscape Irrigation Auditor. An irrigation audit includes, but is not limited to: inspection, system tune-up, system test with distribution uniformity or emission uniformity, reporting overspray or runoff that causes overland flow, and preparation of an irrigation schedule. The audit must be conducted in a manner consistent with the Irrigation Association's Landscape Irrigation Auditor Certification program or other U.S. Environmental Protection Agency "Watersense" labeled auditing program.

"Irrigation efficiency" (IE) means the measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The irrigation efficiencies for purposes of this ordinance are 0.75 for overhead spray devices and 0.81 for drip systems.

"Irrigation survey" means an evaluation of an irrigation system that is less detailed than an irrigation audit. An irrigation survey includes, but is not limited to: inspection, system test, and written recommendations to improve performance of the irrigation system.

"Irrigation water use analysis" means a review of water use data based on meter readings and billing data.

"Landscape architect" means a person who holds a license to practice landscape architecture in the California Business and Professions Code, section 5615.

"Landscape area" (LA) means all the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance calculation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).

"Landscape contractor" means a person licensed by the state of California to construct, maintain, repair, install, or subcontract the development of landscape systems.

"Landscape Documentation Package" means the documents required under section 14.27.030.040.

"Landscape project" means total area of landscape in a project as defined in "landscape area" for the purposes of this ordinance, meeting requirements under section 14.27.010.030.

"Landscape water meter" means an inline device installed at the irrigation supply point that measures the flow of water into the irrigation system and is connected to a totalizer to record water use.

"Lateral line" means the water delivery pipeline that supplies water to the emitters or sprinklers from the valve.

"Local water purveyor" means any entity, including a public agency, city, county, or private water company that provides retail water service.

"Low volume irrigation" means the application of irrigation water at low pressure through a system of tubing or lateral lines and low-volume emitters such as drip, drip lines, and bubblers. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

"Main line" means the pressurized pipeline that delivers water from the water source to the valve or outlet.

"Master shut-off valve" is an automatic valve installed at the irrigation supply point which controls water flow into the irrigation system. When this valve is closed water will not be supplied to the irrigation system. A master valve will greatly reduce any water loss due to a leaky station valve.

"Maximum Applied Water Allowance" (MAWA) means the upper limit of annual applied water for the established landscaped area as specified in section 14.127.030.040. It is based upon the area's reference evapotranspiration, the ET Adjustment Factor, and the size of the landscape area. The Estimated Total Water Use shall not exceed the Maximum Applied Water Allowance. Special Landscape Areas, including recreation areas, areas permanently and solely dedicated to edible plants such as orchards and vegetable gardens, and areas irrigated with recycled water are subject to the MAWA with an ETAF not to exceed 1.0. MAWA = (ETo) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)].

"Median" is an area between opposing lanes of traffic that may be unplanted or planted with trees, shrubs, perennials, and ornamental grasses.

"Microclimate" means the climate of a small, specific area that may contrast with the climate of the overall landscape area due to factors such as wind, sun exposure, plant density, or proximity to reflective surfaces.

"Mined-land reclamation projects" means any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975.

"Mulch" means any organic material such as leaves, bark, straw, compost, or inorganic mineral materials such as rocks, gravel, and or decomposed granite left loose and applied to the soil surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion.

"New construction" means, for the purposes of this ordinance, a new building with a landscape or other new landscape, such as a park, playground, or greenbelt without an associated building.

"Non-residential landscape" means landscapes in commercial, institutional, industrial and public settings that may have areas designated for recreation or public assembly. It also includes portions of common areas of common interest developments with designated recreational areas.

"Operating pressure" means the pressure at which the parts of an irrigation system are designed by the manufacturer to operate.

"Overhead sprinkler irrigation systems" means systems that deliver water through the air (e.g., spray heads and rotors).

"Overspray" means the irrigation water which is delivered beyond the target area.

"Permit" means an authorizing document issued by local agencies for new construction or rehabilitated landscapes.

"Pervious" means any surface or material that allows the passage of water through the material and into the underlying soil.

"Plant factor" or "plant water use factor" is a factor, when multiplied by ETo, estimates the amount of water needed by plants. For purposes of this ordinance, the plant factor range for very low water use plants is 0 to 0.1, the plant factor range for low water use plants is 00.1 to 0.3, the plant factor range for moderate water use plants is 0.4 to 0.6, and the plant factor range for high water use plants is 0.7 to 1.0. Plant factors cited in this ordinance are derived from the Department of Water Resources 2000 publication "Water Use Classification of Landscape Species." Plant factors may also be obtained from horticultural researchers from academic institutions or professional associations as approved by the California Department of Water Resources (DWR).

"Project applicant" means the individual or entity submitting a Landscape Documentation Package required under section 14.27.030.040 to request a permit, plan check, or design review from the City of Vacaville. A project applicant may be the property owner or his or her designee.

"Rain sensor" or "rain sensing shutoff device" means a component which automatically suspends an irrigation event when it rains.

"Record drawing" or "as-builts" means a set of reproducible drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the contractor.

"Recreational area" means areas, excluding private single family residential areas designated for active play, recreation or public assembly, in parks, sports fields, picnic grounds, amphitheaters and or golf course tees, fairways, roughs, surrounds and greens.

"Recycled water," "reclaimed water," or "treated sewage effluent water" means treated or recycled waste water of a quality suitable for non-potable uses such as landscape irrigation and water features. This water is not intended for human consumption.

"Reference evapotranspiration" or "ETo" means a standard measurement of environmental parameters which affect the water use of plants. ETo is expressed in inches per day, month, or year as represented in Table 14.27.030.01, and is an estimate of the evapotranspiration of a large field of four-to seven-inch tall, cool-season grass that is well

watered. Reference evapotranspiration is used as the basis of determining the Maximum Applied Water Allowance so that regional differences in climate can be accommodated.

"Rehabilitated landscape" means any re-landscaping project that requires a permit, plan check, or design review, meets the requirements of section 14.27.010.030, and the modified landscape area is equal to or greater than 2,500 square feet.

"Residential landscape" means landscapes surrounding single or multifamily homes.

"Runoff" means water which is not absorbed by the soil or landscape to which it is applied and flows from the landscape area. For example, runoff may result from water that is applied at too great a rate (application rate exceeds infiltration rate) or when there is a slope.

"Soil moisture sensing device" or "soil moisture sensor" means a device that measures the amount of water in the soil. The device may also suspend or initiate an irrigation event.

"Soil texture" means the classification of soil based on its percentage of sand, silt, and clay.

"Special Landscape Area" (SLA) means an area of the landscape dedicated solely to edible plants, recreational areas, areas irrigated with recycled water, or water features using recycled water.

"Sprinkler head" means a device which delivers water through a nozzle.

"Static water pressure" means the pipeline or municipal water supply pressure when water is not flowing.

"Station" means an area served by one valve or by a set of valves that operate simultaneously.

"Swing joint" means an irrigation component that provides a flexible, leak-free connection between the emission device and lateral pipeline to allow movement in any direction and to prevent equipment damage.

"Submeter" means a metering device to measure water applied to the landscape that is installed after the primary utility water meter.

"Turf" means a ground cover surface of mowed grass. Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses. Bermudagrass, Kikuyugrass, Seashore Paspalum, St. Augustinegrass, Zoysiagrass, and Buffalo grass are warm-season grasses.

"Valve" means a device used to control the flow of water in the irrigation system.

"Water conserving plant species" means a plant species identified as having a very low or low plant factor.

"Water feature" means a design element where open water performs an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied). The surface area of water

features is included in the high water use hydrozone of the landscape area. Constructed wetlands used for on-site wastewater treatment or stormwater best management practices that are not irrigated and used solely for water treatment or stormwater retention are not water features and, therefore, are not subject to the water budget calculation.

"Watering window" means the time of day irrigation is allowed.

"WUCOLS" means the Water Use Classification of Landscape Species published by the University of California Cooperative Extension and the Department of Water Resources 2014.

Chapter 14.27.030
Provisions for New Construction or Rehabilitated Landscapes

14.27.030.010 Designation of Implementation Agency.

The City of Vacaville may designate by mutual agreement, another agency, such as a water purveyor, to implement some or all of the requirements contained in this ordinance.

14.27.030.020 Compliance with Landscape Documentation Package.

A. Prior to construction, the Director of Community Development shall:

1. provide the project applicant with the ordinance and procedures for permits, plan checks, or design reviews;

2. review the Landscape Documentation Package submitted by the project applicant;

3. approve or deny the Landscape Documentation Package;

4. issue a permit or approve the plan check or design review for the project applicant; and

5. upon approval of the Landscape Documentation Package, submit a copy of the Water Efficient Landscape Worksheet to the local water purveyor if other than the City of Vacaville.

B. Prior to construction, the project applicant shall submit a Landscape Documentation Package to the Director

C. Upon approval of the Landscape Documentation Package by the Director, the project applicant shall:

1. receive a permit or approval of the plan check or design review and record the date of the permit in the Certificate of Completion;

2. submit a copy of the approved Landscape Documentation Package along with the record drawings, and any other information to the property owner or his/her designee; and

3. submit a copy of the Water Efficient Landscape Worksheet to the local water purveyor if other than the City of Vacaville.

14.27.030.030 Penalties

Violation of any provision of this division is subject to penalties as described in chapter 1.16 of the Vacaville Municipal Code and any other penalty or remedy to the extent permitted by law..

14.27.030.040 Elements of the Landscape Documentation Package.

A. The Landscape Documentation Package shall include the following six elements:

1. project information;

a. date

b. project applicant

c. project address (if available, parcel and/or lot number(s))

d. total landscape area (square feet)

e. project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed)

f. water supply type (e.g., potable, recycled, well) and identify the local retail water purveyor if the applicant is not served by a private well

g. checklist of all documents in Landscape Documentation Package

h. project contacts to include contact information for the project applicant and property owner

2. Water Efficient Landscape Worksheet with water budget calculations, including Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use (ETWU);

3. soil management report;

4. landscape design plan; and

5. irrigation design plan.

14.27.030.050 Water Efficient Landscape Worksheet.

A. A project applicant shall complete the Water Efficient Landscape Worksheet in Figure 27.030-1, or other worksheet that demonstrates compliance, which contains information on the plant factor, irrigation method, irrigation efficiency, and area associated with each hydrozone. Calculations are then made to show that the evapotranspiration adjustment factor (ETAF) for the landscape project does not exceed a factor of 0.55 for residential areas and 0.45 for non-residential areas, exclusive of Special Landscape Areas. The ETAF for a landscape project is based on the plant factors and irrigation methods selected. The Maximum Applied Water Allowance is calculated based on the maximum ETAF allowed (0.55 for residential areas and

0.45 for non-residential areas) and expressed as annual gallons required. The Estimated Total Water Use (ETWU) is calculated based on the plants used and irrigation method selected for the landscape design. ETWU must be below the MAWA. In calculating the Maximum Applied Water Allowance and Estimated Total Water Use, a project applicant shall use the ETo values from the Reference Evapotranspiration Table 14.27.030.01.

B. Water budget calculations shall adhere to the following requirements:

1. The plant factor used shall be from WUCOLS or from horticultural researchers with academic institutions or professional associations as approved by the California Department of Water Resources (DWR). The plant factor ranges from 0 to 0.1 for very low water using plants, 0.1 to 0.3 for low water use plants, from 0.4 to 0.6 for moderate water use plants, and from 0.7 to 1.0 for high water use plants.

2. All water features shall be included in the high water use hydrozone, and temporarily irrigated areas shall be included in the low water use hydrozone.

3. All Special Landscape Areas shall be identified and their water use calculated as shown in Figure 14.27.030-1.

4. ETAF for new and existing (non-rehabilitated) Special Landscape Areas shall not exceed 1.0.

TABLE 14.27.030.01
Reference Evapotranspiration (ETo)Table

	Month (Inches/month)												Total (Inches/ year)
Area	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**
Vacaville except Lagoon Valley	0.7	1.4	3.2	5.2	6.3	7.6	8.2	7.2	5.5	4.3	1.6	1.1	52.1
Lagoon Valley	1.1	1.7	2.8	4.0	5.5	6.1	7.8	6.0	4.8	3.1	1.4	0.9	45.2

Figure 14.27.030-1
Water Efficient Landscape Worksheet

This worksheet is filled out by the project applicant and it is a required element of the Landscape Documentation Package.

Reference Evapotranspiration (ETo) _____

Hydrozone # /Planting Description[a]	Plant Factor (PF)	Irrigation Method[b]	Irrigation Efficiency (IE)[c]	ETAF (PF/IE)	Landscape Area (sq, ft,)	ETAF x Area	Estimated Total Water Use (ETWU)[e]
Regular Landscape Areas							
				Totals	(A)	(B)	
Special Landscape Areas							
				1			
				1			
				1			
				Totals	(C)	(D)	
						ETWU Total	
						Maximum Allowed Water Allowance (MAWA)[e]	

[a] ***Hydrozone #/Planting Description***
E.g
1.) front lawn
2.) low water use plantings
3.) medium water use planting

[b] ***Irrigation Method***
overhead spray
or drip

[c] ***Irrigation Efficiency***
0.75 for spray head
0.81 for drip

[d] ***ETWU*** **(Annual Gallons Required) =**
Eto x 0.62 x ETAF x Area
where 0.62 is a conversion factor that acre-inches per acre per year to gallons per square foot per year.

[e] ***MAWA (Annual Gallons Allowed) =*** *(Eto) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)]*
where 0.62 is a conversion factor that acre-inches per acre per year to gallons per square foot per year, LA is the total landscape area in square feet, SLA is the total special landscape area in square feet,
and ETAF is .55 for residential areas and 0.45 for non-residential areas.

ETAF Calculations

Regular Landscape Areas

Total ETAF x Area	(B)
Total Area	(A)
Average ETAF	**B ÷ A**

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for non-residential areas.

All Landscape Areas

Total ETAF x Area	(B+D)
Total Area	(A+C)
Sitewide ETAF	**(B+D) ÷ (A+C)**

14.27.030.060 Landscape Design Plan

A. For the efficient use of water, a landscape shall be carefully designed and planned for the intended function of the project. A landscape design plan meeting the following design criteria shall be submitted as part of the Landscape Documentation Package.

1. Plant Material

a. Any plant may be selected for the landscape providing the Estimated Total Water Use in the landscape area does not exceed the Maximum Applied Water Allowance and the selection complies with any other adopted landscaping requirements.

b. Each hydrozone shall have plant materials with similar water use, with the exception of hydrozones with plants of mixed water use, as specified in section 14.27.030.070(A)(2)(d).

c. Plants shall be selected and planted appropriately based upon their adaptability to the climatic, geologic, and topographical conditions of the project site. Methods to achieve water efficiency shall include one or more of the following:

i. use the Sunset Western Climate Zone System which takes into account temperature, humidity, elevation, terrain, latitude, and varying degrees of continental and marine influence on local climate;

ii. recognize the horticultural attributes of plants (i.e., mature plant size, invasive surface roots) to minimize damage to property or infrastructure [e.g., buildings, sidewalks, power lines]; allow for adequate soil volume for healthy root growth; and

iii. consider the solar orientation for plant placement to maximize summer shade and winter solar gain.

d. Turf is not allowed on slopes greater than 25% where the toe of the slope is adjacent to an impermeable hardscape and where 25% means 1 foot of vertical elevation change for every 4 feet of horizontal length (rise divided by run x 100 = slope percent).

e. High water use plants, characterized by a plant factor of 0.7 to 1.0, are prohibited in street medians.

f. A landscape design plan for projects in fire-prone areas shall address fire safety and prevention. A defensible space or zone around a building or structure is required per California Public Resources Code section 4291(a) and (b). Avoid fire-prone plant materials and highly flammable mulches. Refer to the local Fuel Modification Plan guidelines.

g. The use of invasive plant species, such as those listed by the California Invasive Plant Council, is strongly discouraged.

h. The architectural guidelines of a common interest development, which include community apartment projects, condominiums, planned developments, and stock

cooperatives, shall not prohibit or include conditions that have the effect of prohibiting the use of low-water use plants as a group.

2. Water Features

a. Recirculating water systems shall be used for water features.

b. Where available, recycled water shall be used as a source for decorative water features.

c. Surface area of a water feature shall be included in the high water use hydrozone area of the water budget calculation.

d. Pool and spa covers are highly recommended.

3. Soil Preparation, Mulch and Amendments

a. Prior to the planting of any materials, compacted soils shall be transformed to a friable condition. On engineered slopes, only amended planting holes need meet this requirement.

b. Soil amendments shall be incorporated according to recommendations of any soil report prepared and what is appropriate for the plants selected.

c. For landscape installations, compost at a rate of a minimum of four cubic yards per 1,000 square feet of permeable area shall be incorporated to a depth of six inches into the soil. Soils with greater than 6% organic matter in the top 6 inches of soil are exempt from adding compost and tilling.

d. A minimum three inch layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated. To provide habitat for beneficial insects and other wildlife, up to 5 % of the landscape area may be left without mulch. Designated insect habitat must be included in the landscape design plan as such.

e. Stabilizing mulching products shall be used on slopes that meet current engineering standards.

f. The mulching portion of the seed/mulch slurry in hydro-seeded applications shall meet the mulching requirement.

B. The landscape design plan, at a minimum, shall:

1. delineate and label each hydrozone by number, letter, or other method;

2. identify each hydrozone as low, moderate, high water, or mixed water use. Temporarily irrigated areas of the landscape shall be included in the low water use hydrozone for the water budget calculation;

3. identify recreational areas (for uses other than single family residential, if any);

4. identify areas permanently and solely dedicated to edible plants (if any);

5. identify areas irrigated with recycled water (if any);

6. identify type of mulch and application depth;

7. identify soil amendments, type, and quantity;

8. identify type and surface area of water features (if any);

9. identify hardscapes (pervious and non-pervious, if any);

10. bear the signature of a licensed landscape architect, licensed landscape contractor, or any other person authorized to design a landscape. (See sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5641.4, 5641.5, 5641.6, 6701, 7027.5 of the California Business and Professions Code, section 832.27 of Title16 of the California Code of Regulations, and section 6721 of the California Food and Agriculture Code.)

14.27.030.070 Irrigation Design Plan.

A. This section applies to landscaped areas requiring permanent irrigation, not areas that require temporary irrigation solely for the plant establishment period. For the efficient use of water, an irrigation system shall meet all the requirements listed in this section and the manufacturers' recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance. An irrigation design plan meeting the following design criteria shall be submitted as part of the Landscape Documentation Package.

1. System

a. Landscape water meters, defined as either a dedicated water service meter or private submeter, shall be installed for all non-residential irrigated landscapes of 1,000 sq. ft. but not more than 5,000 sq.ft. (the level at which California Water Code section 535 applies) and residential irrigated landscapes of 5,000 sq. ft. or greater. A landscape water meter may be either:

i. a customer service meter dedicated to landscape use provided by the local water purveyor; or

ii. a privately owned meter or submeter.

b. Automatic irrigation controllers utilizing either evapotranspiration or soil moisture sensor data utilizing non-volatile memory shall be required for irrigation scheduling in all irrigation systems.

c. Sensors (rain, freeze, wind, etc.), either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather conditions shall be required on all

irrigation systems, as appropriate for local climatic conditions. Irrigation should be avoided during windy or freezing weather or during rain. d. Flow sensors that detect high flow conditions created by system damage or malfunction are required for all on non-residential landscapes and residential landscapes of 5000 sq. ft. or larger.

e. Master shut-off valves are required on all projects except landscapes that make use of technologies that allow for the individual control of sprinklers that are individually pressurized in a system equipped with low pressure shut down features.

f. The irrigation system shall be designed to prevent runoff, low head drainage, overspray, or other similar conditions where irrigation water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes, roadways, or structures.

g. Relevant information from the soil management plan, such as soil type and infiltration rate, shall be utilized when designing irrigation systems.

h. The design of the irrigation system shall conform to the hydrozones of the landscape design plan.

i. The irrigation system must be designed and installed to meet, at a minimum, the irrigation efficiency criteria as described in section 14.127.030.040 regarding the Maximum Applied Water Allowance.

j.All irrigation emission devices must meet the requirements set in the American National Standards Institute (ANSI) standard, American Society of Agricultural and Biological Engineers'/International Code Council's (ASABE/ICC) 802-2014 "Landscape Irrigation Sprinkler and Emitter Standard." All sprinkler heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.

k. It is highly recommended that the project applicant or City of Vacaville inquire with the local water purveyor about peak water operating demands (on the water supply system) or water restrictions that may impact the effectiveness of the irrigation system.

l. In mulched planting areas, the use of low volume irrigation is required to maximize water infiltration into the root zone.

m. Sprinkler heads and other emission devices shall have matched precipitation rates, unless otherwise directed by the manufacturer's recommendations.

n. Head to head coverage is recommended. However, sprinkler spacing shall be designed to achieve the highest possible distribution uniformity using the manufacturer's recommendations.

o. Swing joints or other riser-protection components are required on all risers subject to damage that are adjacent to hardscapes or in high traffic areas of turfgrass.

p. Check valves or anti-drain valves are required on all sprinkler heads where low point drainage could occur.

q. Areas less than ten(10) feet in width in any direction shall be irrigated with subsurface irrigation or other means that produces no runoff or overspray.

r. Overhead irrigation shall not be permitted within 24 inches of any non-permeable surface. Allowable irrigation within the setback from non-permeable surfaces may include drip, drip line, or other low flow non-spray technology. The setback area may be planted or unplanted. The surfacing of the setback may be mulch, gravel, or other porous material. These restrictions may be modified if:

i. the landscape area is adjacent to permeable surfacing and no runoff occurs; or

ii. the adjacent non-permeable surfaces are designed and constructed to drain entirely to landscaping; or

iii. the irrigation designer specifies an alternative design or technology, as part of the Landscape Documentation Package and clearly demonstrates strict adherence to irrigation system design criteria in section 14.27.030.070 (A)(1)(f). Prevention of overspray and runoff must be confirmed during the irrigation audit.

s. Slopes greater than 25% shall not be irrigated with an irrigation system with a application rate exceeding 0.75 inches per hour. This restriction may be modified if the landscape designer specifies an alternative design or technology, as part of the Landscape Documentation Package, and clearly demonstrates no runoff or erosion will occur. Prevention of runoff and erosion must be confirmed during the irrigation audit.

2. Hydrozone

a. Each valve shall irrigate a hydrozone with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use.

b. Sprinkler heads and other emission devices shall be selected based on what is appropriate for the plant type within that hydrozone.

c. Where feasible, trees shall be placed on separate valves from shrubs, groundcovers, and turf to facilitate the appropriate irrigation of trees. The mature size and extent of the root zone shall be considered when designing irrigation for the tree.

d. Individual hydrozones that mix plants of moderate and low water use, or moderate and high water use, may be allowed if:

i. plant factor calculation is based on the proportions of the respective plant water uses and their plant factor; or

ii. the plant factor of the higher water using plant is used for calculations.

e. Individual hydrozones that mix high and low water use plants shall not be permitted.

f. On the landscape design plan and irrigation design plan, hydrozone areas shall be designated by number, letter, or other designation. On the irrigation design plan, designate the areas irrigated by each valve, and assign a number to each valve. Use this valve number in the Hydrozone Information Table (see Figure 14.27.030-1). This table can also assist with the irrigation audit and programming the controller.

B. The irrigation design plan, at a minimum, shall contain:

1. location and size of separate water meters for landscape;

2. location, type and size of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, pressure regulators, and backflow prevention devices;

3. static water pressure at the point of connection to the public water supply;

4. flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (pressure per square inch) for each station;

5. recycled water irrigation systems as specified in section 14.27.030.130; and

6. the signature of a licensed landscape architect, certified irrigation designer, licensed landscape contractor, or any other person authorized to design an irrigation system. (See sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5641.4, 5641.5, 5641.6, 6701, 7027.5 of the California Business and Professions Code, section 832.27 of Title 16 of the California Code of Regulations, and section 6721 of the California Food and Agricultural Code.)

14.27.030.080 Certificate of Completion.

A. The Certificate of Completion (see Figure 14.27.030-2 for a sample certificate) shall include the following six (6) elements:

1. project information sheet that contains:

a. date;

b. project name;

c. project applicant name, telephone, and mailing address;

d. project address and location; and

e. property owner name, telephone, and mailing address.

2. certification by either the signer of the landscape design plan, the signer of the irrigation design plan, or the licensed landscape contractor that the landscape project has been installed per the approved Landscape Documentation Package;

a. where there have been significant changes made in the field during construction, these "as-built" or record drawings shall be included with the certification;

b. A diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes.

3. irrigation scheduling parameters used to set the controller (see section 14.27.030.090);

4. landscape and irrigation maintenance schedule (see section 14.27.030.100); and

5. irrigation audit report (see section 14.27.030.110).

B. The project applicant shall:

1. submit the signed Certificate of Completion to the Director for review;

2. ensure that copies of the approved Certificate of Completion are submitted to the local water purveyor if other than the City of Vacaville and property owner or his or her designee.

C. The Director shall:

1. receive the signed Certificate of Completion from the project applicant;

2. approve or deny the Certificate of Completion. If the Certificate of Completion is denied, the Director shall provide information to the project applicant regarding reapplication, appeal, or other assistance.

Figure 14.27.030-2
Sample Certificate of Completion

CERTIFICATE OF COMPLETION

This certificate is filled out by the project applicant upon completion of the landscape project.

PART 1. PROJECT INFORMATION SHEET

Date		
Project Name		
Name of Project Applicant	Telephone No.	
	Fax No.	
Title	Email Address	
Company	Street Address	
City	State	Zip Code

Project Address and Location:

Street Address		Parcel, tract or lot number, if available.
City		Latitude/Longitude (optional)
State	Zip Code	

Property Owner or his/her designee:

Name	Telephone No.	
	Fax No.	
Title	Email Address	
Company	Street Address	
City	State	Zip Code

Property Owner

"I/we certify that I/we have received copies of all the documents within the Landscape Documentation Package and the Certificate of Completion and that it is our responsibility to see that the project is maintained in accordance with the Landscape and Irrigation Maintenance Schedule."

Property Owner Signature Date

Please answer the questions below:

1 Date the Landscape Documentation Package was submitted to the City of Vacaville _____
2 Date the Landscape Documentation Package was approved by the City of Vacaville _____
3 Date that a copy of the Water Efficient Landscape Worksheet (including the Water Budget Calculation) was submitted to the City of Vacaville_____

PART 2. CERTIFICATION OF INSTALLATION ACCORDING TO THE LANDSCAPE DOCUMENTATION PACKAGE

"I/we certify that based upon periodic site observations, the work has been completed in accordance with the Vacaville Water Efficient Landscape Ordinance and that the landscape planting and irrigation installation conform to the criteria and specifications of the approved Landscape Documentation Package."

Signature*	Date	
Name (print)	Telephone No.	
	Fax No.	
Title	Email Address	
License No. or Certification No		
Company	Street Address	
City	State	Zip Code

*Signer of the landscape design plan, signer of the irrigation plan, or a licensed landscape contractor.

PART 3. IRRIGATION SCHEDULING

Attach parameters for setting the irrigation schedule on controller per Vacaville Code 14.27.030.100.

PART 4. SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE

Attach schedule of Landscape and Irrigation Maintenance per Vacaville Code 14.27.030.110.

PART 5. LANDSCAPE IRRIGATION AUDIT REPORT

Attach Landscape Irrigation Audit Report per Vacaville Code 14.27.030.120.

14.27.030.090 Irrigation Scheduling.

For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria:

A. Irrigation scheduling shall be regulated by automatic irrigation controllers.

B. Overhead irrigation shall be scheduled between 8:00 p.m. and 10:00 a.m. unless weather conditions prevent it. If allowable hours of irrigation differ from the local water purveyor, the stricter of the two shall apply. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.

C. For implementation of the irrigation schedule, particular attention must be paid to irrigation run times, emission device, flow rate, and current reference evapotranspiration, so that applied water meets the Estimated Total Water Use. Total annual applied water shall be less than or equal to Maximum Applied Water Allowance (MAWA). Actual irrigation schedules shall be regulated by automatic irrigation controllers using current reference evapotranspiration data (e.g., CIMIS) or soil moisture sensor data.

D. Parameters used to set the automatic controller shall be developed and submitted for each of the following:

1. the plant establishment period;

2. the established landscape; and

3. temporarily irrigated areas.

E. Each irrigation schedule shall consider for each station all of the following that apply:

1. irrigation interval (days between irrigation);

2. irrigation run times (hours or minutes per irrigation event to avoid runoff);

3. number of cycle starts required for each irrigation event to avoid runoff;

4. amount of applied water scheduled to be applied on a monthly basis;

5. application rate setting;

6. root depth setting;

7. plant type setting;

8. soil type;

9. slope factor setting;

10. shade factor setting; and

11. irrigation uniformity or efficiency setting.

14.27.030.100 Landscape and Irrigation Maintenance Schedule.

A. Landscapes shall be maintained to ensure water use efficiency. A regular maintenance schedule shall be submitted with the Certificate of Completion.

B. A regular maintenance schedule shall include, but not be limited to, routine inspection; auditing, adjustment and repair of the irrigation system and its components; aerating and dethatching turf areas; topdressing with compost, replenishing mulch; fertilizing; pruning; weeding in all landscape areas, and removing obstructions to emission devices. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.

C. Repair of all irrigation equipment shall be done with the originally installed components or their equivalents or with components with greater efficiency.

D. A project applicant is encouraged to implement established landscape industry sustainable Best Practices for all landscape maintenance activities.

14.27.030.110 Irrigation Audit, Irrigation Survey, and Irrigation Water Use Analysis.

A. All landscape irrigation audits shall be conducted by a third party certified landscape irrigation auditor. Landscape audits shall not be conducted by the person who designed the landscape or installed the landscape

B. In large projects or projects with multiple landscape installations (i.e. production home developments) an auditing rate of 1 in 7 lots or approximately 15% will satisfy this requirement.

C. For new construction and rehabilitated landscape projects installed after December 1, 2015, as described in section 14.27.010.030:

1. the project applicant shall submit an irrigation audit report with the Certificate of Completion to the local agency that may include, but is not limited to: inspection, system tune-up, system test with distribution uniformity, reporting overspray or run off that causes overland flow, and preparation of an irrigation schedule, including configuring irrigation controllers with application rate, soil types, plant factors, slope, exposure and any other factors necessary for accurate programming;

2. the City of Vacaville shall administer programs that may include, but not be limited to, irrigation water use analysis, irrigation audits, and irrigation surveys for compliance with the Maximum Applied Water Allowance.

14.27.030.120 Irrigation Efficiency.

For the purpose of determining Estimated Total Water Use, average irrigation efficiency is assumed to be 0.75 for overhead spray devices and 0.81 for drip system devices.

14.27.030.130 Recycled Water.

A. The installation of recycled water irrigation systems shall allow for the current and future use of recycled water.

B. All recycled water irrigation systems shall be designed and operated in accordance with all applicable local and State laws.

C. Landscapes using recycled water are considered Special Landscape Areas. The ET Adjustment Factor for new and existing (non-rehabilitated) Special Landscape Areas shall not exceed 1.0.

14.27.030.140 Graywater Systems.

Graywater systems promote the efficient use of water and are encouraged to assist in on-site landscape irrigation. All graywater systems shall conform to the California Plumbing Code (Title 24, Part 5, Chapter 16) and any standards adopted by the City of Vacaville. Refer to section 14.27.010.030 (d) for the applicability of this ordinance to landscape areas less than 2,500 square feet with the Estimated Total Water Use met entirely by graywater.

14.27.030.150 Stormwater Management and Rainwater Retention.

A. Stormwater management practices minimize runoff and increase infiltration which recharges groundwater and improves water quality. Implementing stormwater best management practices into the landscape and grading design plans to minimize runoff and to increase on-site rainwater retention and infiltration are encouraged.

B. Project applicants shall refer to the local agency or Regional Water Quality Control Board for information on any applicable stormwater technical requirements.

C. All planted landscape areas are required to have friable soil to maximize water retention and infiltration. Refer to section 14.27.030.060 (A)(3).

D. It is strongly recommended that landscape areas be designed for capture and infiltration capacity that is sufficient to prevent runoff from impervious surfaces (i.e. roof and paved areas) from either: the one inch, 24-hour rain event or (2) the 85th percentile, 24-hour rain event, and/or additional capacity as required by any applicable local, regional, state or federal regulation.

E. It is recommended that storm water projects incorporate any of the following elements to improve on-site storm water and dry weather runoff capture and use:

1. Grade impervious surfaces, such as driveways, during construction to drain to vegetated areas.

2. Minimize the area of impervious surfaces such as paved areas, roof and concrete driveways.

3. Incorporate pervious or porous surfaces (e.g., gravel, permeable pavers or blocks, pervious or porous concrete) that minimize runoff.

4. Direct runoff from paved surfaces and roof areas into planting beds or landscaped areas to maximize site water capture and reuse.

5. Incorporate rain gardens, cisterns, and other rain harvesting or catchment systems.

6. Incorporate infiltration beds, swales, basins and drywells to capture storm water and dry weather runoff and increase percolation into the soil.

7. Consider constructed wetlands and ponds that retain water, equalize excess flow, and filter pollutants.

14.27.030.160 Public Education.

A. Publications. Education is a critical component to promote the efficient use of water in landscapes. The use of appropriate principles of design, installation, management and maintenance that save water is encouraged in the community. The City of Vacaville shall provide information to owners of permitted renovations and new single-family residential homes regarding the design, installation, management, and maintenance of water efficient landscapes based on a water budget.

B. Model Homes. All model homes shall be landscaped and use signs and written information to demonstrate the principles of water efficient landscapes described in this ordinance.

1. Signs shall be used to identify the model as an example of a water efficient landscape featuring elements such as hydrozones, irrigation equipment, and others that contribute to the overall water efficient theme. Signage shall include information about the site water use; specify who designed and installed the water efficient landscape; and demonstrate low water use approaches to landscaping such as using native plants, graywater systems, and rainwater catchment systems.

2. Information shall be provided about designing, installing, managing, and maintaining water efficient landscapes

14.27.030.170 Environmental Review.

The City of Vacaville must comply with the California Environmental Quality Act (CEQA), as appropriate.

Chapter 14.27.040
Provisions for Existing Landscapes

14.27.040.010 Designation of Implementation Agency.

The City of Vacaville may by mutual agreement, designate another agency such as a water purveyor, to implement some or all of the requirements contained in this ordinance. Local agencies may collaborate with water purveyors to define each entity's specific responsibilities relating to this ordinance.

14.27.040.020 Irrigation Audit, Irrigation Survey, and Irrigation Water Use Analysis.

A. This section,14.27.040.020, shall apply to all existing landscapes that were installed before December 1, 2015 and are over one acre in size.

1. For all landscapes in 14.27.040.020(A) that have a water meter, the City of Vacaville shall administer programs that may include, but not be limited to, irrigation water use analyses, irrigation surveys, and irrigation audits to evaluate water use and provide recommendations as necessary to reduce landscape water use to a level that does not exceed the Maximum Applied Water Allowance for existing landscapes. The Maximum Applied Water Allowance for existing landscapes shall be calculated as: MAWA = (0.8) (ETo)(LA)(0.62).

2. For all landscapes in 14.040.020(A) that do not have a meter, the City of Vacaville shall administer programs that may include, but not be limited to, irrigation surveys and irrigation audits to evaluate water use and provide recommendations as necessary in order to prevent water waste.

B. All landscape irrigation audits shall be conducted by a certified landscape irrigation auditor.

14.27.040.030 Water Waste Prevention.

Refer to Chapter 13.20 for required water conservation measures..

Chapter 14.27.050
Effective Precipitation

14.27.050.010 Effective Precipitation.

The City of Vacaville may consider Effective Precipitation (25% of annual precipitation) in tracking water use and may use the following equation to calculate Maximum Applied Water Allowance: MAWA= (ETo -Eppt) (0.62) [(0.55 x LA) + (0.45 x SLA)] for residential areas, MAWA= (ETo -Eppt) (0.62) [(0.45 x LA) + (0.55 x SLA)] for non-residential areas.

Chapter 14.27.060
Reporting

14.27.060.010 Reporting.

The Director shall report to the California Department of Water Resources by January 31st of each year following the requirements of California Code of Regulations Title 23, Division 2, Chapter 2.7, section 495.

Chapter 14.27.070
Prescriptive Compliance Option

14.27.070.010 Prescriptive Compliance Option

A. This chapter contains prescriptive requirements which may be used as a compliance option to the Model Water Efficient Landscape Ordinance.

B. Compliance with the following items is mandatory and must be documented on a landscape plan in order to use the prescriptive compliance option:

1. Submit a Landscape Documentation Package which includes the following elements:

a. date

b. project applicant

c. project address (if available, parcel and/or lot number(s))

d. total landscape area (square feet), including a breakdown of turf and plant material

e. project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed)

f. water supply type (e.g., potable, recycled, well) and identify the local retail water purveyor if the applicant is not served by a private well

g. contact information for the project applicant and property owner

h. applicant signature and date.

2. Incorporate compost at a rate of at least four cubic yards per 1,000 square feet to a depth of six inches into landscape area (unless contra-indicated by a soil test);

3. Plant material shall comply with all of the following;

a. For residential areas, install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 75% of the plant area excluding

edibles and areas using recycled water; For non-residential areas, install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 100% of the plant area excluding edibles and areas using recycled water;

b. A minimum three inch (3″) layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated.

4. Turf shall comply with all of the following:

a. Turf shall not exceed 25% of the landscape area in residential areas, and there shall be no turf in non-residential areas;

b. Turf shall not be planted on sloped areas which exceed 25%;

c. Turf is prohibited in parkways less than 10 feet wide, unless the parkway is adjacent to a parking strip and used to enter and exit vehicles. Any turf in parkways must be irrigated by subsurface irrigation or by other technology that creates no overspray or runoff.

5. Irrigation systems shall comply with the following:

a. Automatic irrigation controllers are required and must use evapotranspiration or soil moisture sensor data.

b. Irrigation controllers shall be of a type which does not lose programming date in the event the primary power source is interrupted.

c. Pressure regulators shall be installed on the irrigation system to ensure the dynamic pressure of the system is within the manufacturers recommended pressure range.

d. Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be installed as close as possible to the point of connection of the water supply.

e. All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC 802-2014. "Landscape Irrigation Sprinkler and Emitter Standard," All sprinkler heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.

C. At the time of final inspection, the permit applicant must provide the owner of the property with a certificate of completion, certificate of installation, irrigation schedule and a schedule of landscape and irrigation maintenance.

Section 3. Severability.

If any section, subsection, phrase or clause of this ordinance is for any reason held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council hereby declares that it would have passed this ordinance and each section, subsection, phrase, or clause thereof irrespective of the fact that any one or more sections, subsections, phrases, or clauses be declared unconstitutional.

Section 4. Effective Date.

This ordinance shall take effect December 1, 2015.

Section 5. Publication.

This ordinance shall be published in accordance with the provisions of Government Code section 36933.

I HEREBY CERTIFY that this ordinance was introduced at a regular meeting of the City Council of the City of Vacaville, held on the 13th day of October, 2015, and **ADOPTED AND PASSED** at a regular meeting of the City Council of the City of Vacaville held on the 27th day of October, 2015 by the following vote:

AYES: Council members Mashburn and Rowlett, and Mayor Augustine

NOES: None

ABSENT: Councilmember Harris, Vice-Mayor Hunt

ATTEST:

Michelle Thornbrugh, City Clerk

Dated: Oct. 29, 2015

APPROVED:

Leonard J. Augustine, Mayor

Appendix E:

Resolution Adopting 2020 Urban Water Shortage Contingency Plan Update

RESOLUTION NO. 2021-049

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF VACAVILLE ADOPTING THE CITY OF VACAVILLE 2020 URBAN WATER SHORTAGE CONTINGENCY PLAN UPDATE

WHEREAS, the California Legislature enacted Assembly Bill 11 during the 1991-1992 First Extraordinary Session of the California Legislature (Water Code Section 10632) requiring all urban water suppliers to prepare, adopt, and submit an Urban Water Shortage Contingency Plan (UWSCP) as an amendment to its Urban Water Management Plan (UWMP) outlining progressive steps to be taken to insure adequate water supply during drought years;

WHEREAS, the City adopted an UWSCP in January 1991, and amended the plan in August 2014 in response to emergency regulations adopted by the State Water Resources Control Board (SWRCB) deemed necessary to reduce water use statewide; and

WHEREAS, Senate Bill 606 was enacted into law in January 2019 updating the required elements of the UWSCP including the establishment of six standard water shortage levels corresponding to progressive ranges of 10% to over 50% thereby replacing the four water shortage levels in the existing plan and requiring the preparation and submittal of an annual water demand and supply assessment; and

WHEREAS, Senate Bill 606 establishes the UWSCP as both a stand-alone document as well as a chapter of the Urban Water Management Plan; and

WHEREAS, the City of Vacaville has updated the UWSCP to meet the new requirements outlined in Water Code Section 10632; and

WHEREAS, a draft of the 2020 USWCP along with the UWMP, was prepared and circulated for public review and that a public hearing regarding the UWSCP and UWMP was properly noticed.

NOW THEREFORE BE IT RESOLVED by the Council of the City of Vacaville as follows:

Section 1. The 2020 Urban Water Shortage Contingency Plan Update (UWSCP) is hereby adopted and ordered filed with the City Clerk.

Section 2. The Director of Utilities is hereby authorized to recommend to the City Council the water shortage response actions as detailed in the adopted 2020 UWSCP Update, including conservation programs, enforcement of water conservation and water waste prohibition ordinances, usage restrictions, and implementation of fines and penalties to meet the target water demand reductions and/or supply augmentations as detailed in the UWSCP.

I HEREBY CERTIFY that the forgoing resolution was introduced and passed at a regular meeting of the City Council of the City of Vacaville, held on the 8th day of June 2021 by the following vote:

AYES: Councilmembers Ritchie, Roberts, Silva, Stockton, Wylie, Vice Mayor Sullivan, and Mayor Rowlett

NOES: None

ABSENT: None

ATTEST:

Michelle Thornbrugh, City Clerk

Exhibit A – City of Vacaville 2020 Urban Water Shortage Contingency Plan

Appendix K:

Vacaville Water Conservation Ordinance

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ORDINANCE NO. 1877

ORDINANCE OF THE CITY COUNCIL OF THE CITY OF VACAVILLE RESCINDING ORDINANCE NO. 1431 AND AMENDING CHAPTER 13.20 OF THE VACAVILLE MUNICIPAL CODE RELATING TO WATER CONSERVATION IN NORMAL, DROUGHT AND EMERGENCY CONDITIONS

WHEREAS, on January 17, 2014, Governor Brown declared a Drought State of Emergency throughout California after three consecutive years of extremely low precipitation; and

WHEREAS, on July 15, 2014, the State Water Resources Control Board adopted emergency regulations requiring urban water suppliers to implement their Urban Water Shortage Contingency Plans to the stage requiring mandatory outdoor watering restrictions to reduce urban water use; and

WHEREAS, on August 12, 2014, the City Council adopted the August 2014 update to the Urban Water Shortage Contingency Plan to include all of the required elements to meet the new regulations adopted by the State Water Resources Control Board; and

WHEREAS, on August 26, 2014 the City Council declared a drought condition in the City of Vacaville; and

WHEREAS, the City Council further directed City staff on August 26, 2014, to implement the Stage 2 Water Conservation response of the Urban Water Shortage Contingency Plan with a mandatory twenty (20%) reduction in water use and limitation of outdoor irrigation to four (4) days per week with the establishment of surcharges and/or penalties for water waste violations; and

WHEREAS, the Municipal Code establishes the legal authority for the City of Vacaville to implement water conservation measures in normal, drought and emergency conditions, including penalties and surcharges for water waste violations; and

WHEREAS, the proposed amendments to Chapter 13.20 will update the Municipal Code to be consistent with the updates to the Urban Water Shortage Contingency Plan adopted by the City Council in August 2014.

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF VACAVILLE DOES ORDAIN AS FOLLOWS:

Section 1: Ordinance No. 1431, currently codified in Vacaville Municipal Code Chapter 13.20, is hereby repealed.

Section 2: Chapter 13.20 is added to the Vacaville Municipal Code to read in full as follows:

13.20.010 Definitions.

As used in this chapter:

A. "City of Vacaville Landscape Water Efficient Requirements" means City requirements establishing standards and procedures for landscape designs and installations in order to reduce water consumption.

B. "City water system" means the infrastructure necessary to treat and convey potable water to the City's customers, including treatment plants, storage reservoirs, wells and pipelines.

C. "Customer or account holder" means the person, corporation, agency, or other entity that possesses a water meter connected to the City's water system, and is responsible for making payment for service.

D. "Drought condition" means a condition where there is a water shortage necessitating a reduction in water use, either city-wide or in a sub-area or land-use category within the City, but that is not to the level of an emergency condition.

E. "Emergency condition" means a condition where there is a water shortage necessitating a reduction in water use, either city-wide or in a sub-area or land-use category within the City, of fifty percent (50%) or greater from the normal condition.

F. "Flow restrictor" means any device which limits the pressure or flow rate at the water service connection.

G. "General use" means all commercial, industrial, office and business water users, customers, and accounts including those condominium, apartment, multifamily, and mobile home park uses where several habitations are served by a single water meter.

H. "Irrigated metered use" means all water users, customers and accounts which either serve an agricultural use or water used for temporary construction purposes.

I. "Landscape irrigation schedule" means a schedule established which limits landscape irrigation activities to specified times of day. Specified irrigation days may also be established and irrigation times may be rotated among various users throughout the water system service area to equalize demands on the water system.

J. "Normal condition" means a condition where there are adequate water supplies to meet all of the City's normal water demands without a need for special water conservation measures as defined in the current City of Vacaville Urban Water Shortage Contingency Plan.

K. "Rate blocks" means ranges of water units supplied by the City water system that define a rate tier for billing purposes (i.e., the Tier 1 Residential block is defined as 1 – 12 units of water, with one unit equal to 100 cubic feet of water).

L. "Residential use" means all water users, customers and accounts except for those classified general use and metered irrigation use.

M. "Spray irrigation" means the act of applying water to landscape by sprinklers or spray nozzles.

N. "Urban Water Shortage Contingency Plan" means that section of the City of Vacaville's Urban Water Management Plan that specifies the City's response to varying reductions in precipitation and water supplies. References to Urban Water Shortage Contingency Plan shall mean the most current plan adopted by the City Council by Resolution.

O. "Water waste restrictions" refer to prohibition of the following activities under drought and emergency conditions, and except for subsection (4) below, apply whether by a water customer of the City of Vacaville or by any other water user within the City:

1. The watering of grass, lawns, ground-cover, shrubbery, open ground, crops and trees in a manner or to an extent which allows excess water to run off of the landscaped area being watered or which results in overspray by spray irrigating facilities;

2. The washing of sidewalks, walkways, driveways, parking lots and all other hard surfaced areas by direct hosing, except as may be necessary to remove hazardous materials for protection of the public health and safety;

3. The washing of vehicles, equipment, structures and other items by direct hosing without the use of a shutoff nozzle;

4. The escape of water through breaks or leaks within the plumbing or distribution system of a user or customer of City water for any substantial period of time within which such break or leak should reasonably have been discovered and corrected. It will be presumed that up to twenty-four (24) hours is a reasonable period after discovery of a break or leak to correct the problem.

5. The use of fire hydrants for purposes other than firefighting, water quality, maintenance, sanitation, and construction.

P. "Water shortage" means any condition in which water supply is less than actual or projected water demand. Water shortages can be short term such as those caused by failure of water system infrastructure or long term such as those caused by insufficient raw water supplies.

Q. "Water user or consumer" means any person, corporation, agency, or other entity that uses water from the City water system for any reason whatsoever regardless of whether the person, corporation, etc., is a customer or account holder.

3.20.020 Application and Administration of ordinance.

A. Applicability. The provisions of this chapter shall apply to all water users served by the City of Vacaville water system. No water user of the City of Vacaville water system shall knowingly make, cause, use, or permit the use of water from the City water system for residential, commercial, industrial, agricultural, institutional, or any other purpose in a manner contrary to any provisions of this Ordinance.

B. Authority. The Utilities Department, through the Director of Utilities, shall be responsible for administration and enforcement of the provisions of this chapter. Wherever the term "Director of Utilities" is used in this chapter it shall include the designee of the Director of Utilities.

C. Monitoring. The Utilities Department shall monitor water supply and demand and shall determine whether a water shortage exists, or is projected to exist, and will determine the magnitude of such shortage (drought condition or emergency condition).

D. Recommendation to City Council. Upon determination of a water shortage, the City Manager or his/her designee, shall notify the City Council of the determination of the condition along with recommendations for enactment of drought or emergency conservation measures beyond those set forth in this chapter. The City Council will review recommendations by the City Manager or his/her designee and will authorize implementation of such drought or emergency conservation measures determined necessary by the City Council to address the drought or emergency condition.

E. Public Notification and Public Hearing. Before implementation of drought or emergency conservation measures, a public hearing shall be scheduled and held by the City Council. The hearing shall be advertised in a newspaper of general circulation within the City at least seven (7) days in advance of the hearing. The public shall be notified of (1) the City's intent to implement drought or emergency conservation measures, (2) a list of proposed conservation measures or means of access thereto, and (3) the date, time and place of the public hearing.

F. Declaration of Drought or Emergency Conditions and Conservation Measures. Following the public hearing, the City Council will, by resolution, determine whether a drought or emergency condition exists. This will in turn determine which water conservation measures identified in the City's Urban Water Shortage Contingency Plan, in addition to those set forth in this chapter, are to be put into effect by the Utilities Department during the drought or emergency condition, and the water surcharges and/or changes in water rates to be charged to water customers and users, if any, during the drought or emergency condition.

G. Withdrawal of Drought and Emergency Conservation Measures. Drought or emergency conservation measures will continue to be in effect until the Utilities Department has determined that water shortage conditions have improved, justifying a less restrictive conservation level, and a resolution of the City Council is adopted declaring a reduction or elimination of conservation measures.

H. Right of Inspection and Access to Meters. Any duly authorized representative of the City shall have the right to inspect existing and new construction for compliance with this chapter and to access the customer's water meter for inspection and for shutting off and turning on water service for installing or removing flow restrictors.

I. Place of Use. Water received from or through a meter may be used only on and for the property served by that meter.

J. Resale of Water. Resale of water supplied by the City is prohibited, except where specifically allowed by agreement approved by the City Council.

K. Use of Reclaimed Wastewater. Use of reclaimed wastewater is exempt from the provisions of this chapter and is encouraged in place of potable water supplied by the City water system where it is feasible and within state reclamation guidelines.

13.20.030 Violations, Enforcement, Remedies.

A. Violations. It shall be a violation of this chapter for any water customer or account holder to violate any of the provisions of this chapter or of the administrative rules and regulations promulgated hereunder or to waste any water obtained from or through the City water system, or for any person to engage in wasting water as defined herein. The violation of each specific provision of this chapter, and each separate violation thereof, and each day the violation is allowed to continue, shall be deemed a separate offense, and shall be enforced accordingly.

B. Administrative Fines.

1. For the first violation within the preceding twelve (12) calendar months, the Director of Utilities shall issue a courtesy written notice of the fact of such violation.

2. For the second violation within the preceding twelve (12) calendar months, the Director of Utilities shall issue a written notice of violation and impose an administrative fine of fifty dollars ($50) against the account holder for the property where the violation occurred.

3. For each subsequent violation within the preceding twelve (12) calendar months, the Director of Utilities shall issue a written notice of violation and the administrative fine shall increase by an additional fifty dollars ($50) from the immediately previous administrative fine against the account holder for the property where the violation occurred.

4. The maximum administrative fine per violation shall be five hundred dollars ($500) against the account holder for the property where the violation occurred.

5. As an additional remedy, the Director of Utilities may:

a. Install a flow restrictor on the property where the violation occurred or is occurring, for a length of time to be determined by the Director of Utilities, but in no event for more than one year; or

b. Disconnect service on the property where the violation occurred or is occurring, for a length of time not to exceed sixty (60) days in length.

6. As an additional remedy, the violation of any provision of this chapter by any person who has received more than one written warning pursuant to subsection (A)(1) above or against whom the Director of Utilities has imposed a second violation in one consecutive twelve-month period is deemed to be and is hereby declared a public nuisance and may be subject to abatement by restraining order, injunction or other order issued by a court of competent jurisdiction.

7. In addition to any and all other fines, costs, fees, penalties and expenses which may be assessed or imposed as a result of a violation of this chapter, the account holder for the property who violates any provision of this chapter shall be liable and responsible for, and shall pay to the City, all costs incurred by City to enforce and/or abate any violation of this chapter.

C. Penalties. In addition to administrative fines, costs, fees and expenses which may be assessed or imposed as a result of a violation of this chapter, the City Council by resolution may implement penalties in the form of surcharges for water use in excess of water conservation goals in drought and emergency conditions in which a water conservation action stage is declared as defined in the Urban Water Shortage Contingency Plan.

D. Time Period for Accruing Violations. Accrued violations will be based on acts of noncompliance occurring within a consecutive twelve (12)-month period. Each successive twenty-four (24)-hour period of any violation or failure to comply shall be a separate and distinct violation.

E. Notice of Violation. For each violation, the Director of Utilities shall give notice as follows:

1. Written notice of violation will be sent through the U.S. mail, first-class prepaid, to the address of the account holder as shown on current water billing records or personally served on the account holder. The notice will be considered to have been served upon the account holder either upon depositing the notice in the U.S. mail or when personally served, whichever methodology is utilized.

2. Written notice of violation shall include the date, time, and location of the violation; a description of the violation; provisions of the ordinance violated; a statement of the assessed surcharge or other enforcement action; and the appeal procedures.

F. Right of Appeal. Any account holder provided a notice of violation in accordance with the provisions of this chapter shall have the right of appeal. A request for hearing must be made in writing and must be received by the Director of Utilities within ten (10) calendar days from the date of personal or mailed service of the notice of violation. Upon receipt of an appeal and request for hearing, all applicable surcharges and enforcement actions will be suspended until such hearing has been completed and a final determination made.

G. Determination of Appeal. The appeal will be heard and determined by the City Manager or the Designee of the City Manager. The City Manager shall consider whether the account holder knew or should have known of the violation at the time it occurred and whether the account holder took reasonable action to correct the violation upon notification of said violation. The determination of the City Manager will be final and conclusive.

H. Payment of Penalties and Charges. Any surcharge imposed pursuant to this section, or reimbursement of City expenses, shall be added to the account of the account holder for the property where the violation occurred and shall be due and payable on the same terms and subject to the same conditions as any other charge for regular water service.

I. Reimbursement of City Expenses. If violations result in either installation of a flow restrictor, discontinuation of water service, or injunctive relief sought and obtained by the City pursuant to this chapter, the account holder whose service is affected shall reimburse the City for all costs incurred, including attorney's fees.

J. Reimbursement from Tenants. Nothing in this chapter shall limit or be construed to limit the right of an account holder to seek reimbursement of a surcharge or other costs from a tenant or other consumer.

13.20.040 Normal Conditions.

A. Water Conservation Goal. During normal conditions the City's goal is to maximize beneficial use of water through specific provisions of this chapter, public education, voluntary water conservation, and the City of Vacaville Water Efficient Landscape Requirements.

B. Implementation Methods.

1. Water Pricing. Under normal conditions, water prices shall be established and modified from time to time with the objective of fully compensating for the acquisition, treatment and distribution of water through revenues collected from customers, and promoting beneficial use of the water. Water blocks and the water rates applicable to such blocks will be established by resolution of the City Council.

2. Water Conservation. The City of Vacaville Water Efficient Landscape Requirements for Water Conservation, as well as ongoing state mandated water conservation measures shall be applicable under normal conditions.

3. Irrigated Metered Use. No water may be supplied for temporary construction purposes without a permit from the Department of Public Works and payment of the costs of such water as determined by the City Council by resolution. Other than water released by the City itself for public purposes, no water may be taken from a fire hydrant without a permit from the City, payment of water charges as required, and the use of metering and backflow prevention devices.

13.20.050 Drought conditions.

A. Water Conservation Goal. During drought conditions the City's water conservation goal is to achieve between a twenty percent (20%) to fifty percent (50%) reduction in water consumption compared with normal conditions.

B. Implementation Methods.

1. Water Pricing. Under drought conditions, water prices may be adjusted by any combination of (a) increases in the unit prices of water for established rate blocks, (b) modification of the unit amounts which define rate blocks, and (c) addition of new rate blocks. Under drought conditions, it may be necessary to increase prices to generate additional revenue to offset lost revenue due to lower water use, to acquire additional or supplemental supplies of water, or to promote water conservation. Changes in water pricing for drought conditions shall be made by City Council resolution in accordance with section 6 of Article XIIID of the California Constitution and section 53755 of the California Government Code, as such sections may be amended, renumbered, or redesignated from time to time.

2. Water Conservation. In addition to normal water conservation measures in this chapter, water waste restrictions, as defined in Section 13.20.010 of this chapter, shall be implemented under drought conditions. The watering and irrigation of plants, trees and landscaping will be restricted to a maximum number of days per week as designated in the Urban Water Shortage Contingency Plan. In addition, the following water use restrictions may be implemented by City Council resolution under drought conditions:

a. The watering and irrigation of plants, trees and landscaping may be allowed only during specified hours of the day, pursuant to regulations promulgated by the Director of Utilities.

b. Fountains and water-using ornamental structures may be prohibited from using water unless equipped with a recirculating pump.

c. Drought notices may be posted in hotels, motels and all public establishments offering lodging.

d. Restaurants may serve water to customers only upon request of their patrons.

e. No landscaping which requires irrigation, other than turf, may be installed unless irrigated with a drip irrigation system or a similar system with the equivalent savings in water usage.

f. Defer construction of new City parks unless the City Council specifically authorizes such construction in light of the drought conditions.

g. Prohibit new set-back landscaping at commercial and industrial sites. Deferred installation agreements may be required to ensure construction of the setback landscaping when the water drought or emergency is over.

h. The City Council may direct, by resolution, additional water use restrictions to be implemented during a drought condition.

13.20.060 Emergency Condition.

A. Water Conservation Goal. During emergency conditions the goal is to achieve a fifty percent (50%) or greater reduction in water consumption compared with normal conditions.

B. Implementation Methods.

1. Water Pricing. Under emergency conditions, water prices and/or rate blocks may be further adjusted as set forth in Section 13.20.050B.1. herein.

2. Water Conservation. In addition to normal and drought water conservation measures, the following additional water use restrictions and conservation measures may be implemented by City Council resolution during emergency conditions:

a. Depending upon the severity of the water shortage, prohibit landscape watering to specified days only, or limit to only utilization of water for trees and plants watered by drip irrigation or hand-held buckets/hoses, or prohibit all irrigation completely;

b. Depending upon the severity of the water shortage, prohibit other outdoor water use such as, but not limited to, the washing of equipment or vehicles, or limit such uses or activities to specific times during the day, on specified days only, at commercial washes only where recycling of water is maintained, or to prohibit all outdoor use of water altogether;

c. Depending upon the severity of the water shortage, require all swimming pools and spas to have a cover, limit refilling of pools and spas to certain days, or prohibit the issuance of any new building permits for a pool or spa;

d. Prohibit the operation of fountains or ornamental water using structures;

e. Prohibit the installation of turf grass;

f. Depending upon the severity of the water shortage, prohibit the construction of new golf courses and reduce or prohibit new residential construction.

g. The City Council may direct, by resolution, other water use restrictions to be implemented during an emergency condition.

13.20.070 Coordination with Other Municipal Code Chapters

The provisions of this Chapter 13.20 shall prevail over conflicting sections of the Vacaville Municipal Code, if any, unless a later-enacted provision of the Municipal Code provides otherwise.

Section 3: Applicability

The provisions of this Ordinance shall apply to all Water Users served by the City of Vacaville water system. No Water User of the City of Vacaville water system shall knowingly make, cause, use, or permit the use of water from the City water system for residential, commercial, industrial, agricultural, institutional, or any other purpose in a manner contrary to any provisions of this Ordinance.

Section 4: Severability

If any section, subsection, sentence, phrase or clause of this Ordinance is for any reason held to be unenforceable or invalid, such decision shall not affect the validity of the remaining portions of this Ordinance.

The City Council hereby declares that it would have passed this Ordinance and each section, subsection, sentence, phrase, or clause thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared unenforceable or invalid.

Section 5: Effective Date

This ordinance shall take effect thirty (30) days after passage thereof.

Section 6: Publication

This ordinance shall be published in accordance with the provisions of Government Code Section 36933.

I HEREBY CERTIFY that this ordinance was **INTRODUCED** at a regular meeting of the City Council of the City of Vacaville held on the 28th day of October, 2014, and **ADOPTED** and **PASSED** at a special meeting of the City Council of the City of Vacaville held on the 18th day of November, 2014 by the following vote:

AYES:	Council members Harris, Hunt, Rowlett, Vice-Mayor Mashburn and Mayor Hardy
NOES:	None
ABSENT:	None

ATTEST:

Michelle A. Thornbrugh, City Clerk

APPROVED:

Stephen M. Hardy, Mayor

Dated: Dec. 1, 2014