



RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES – WATER COMMITTEE

DATE: JULY 14, 2021

SUBJECT: CITY OF RIVERSIDE’S WATER CONSERVATION ORDINANCE

ISSUE:

Review and discuss the City of Riverside’s 2021 Water Conservation Ordinance update.

RECOMMENDATION

That the Board of Public Utilities Water Committee review and provide input on the City of Riverside’s 2021 Water Conservation Ordinance update.

LEGISLATIVE HISTORY:

The City of Riverside’s Water Conservation Ordinance was first adopted by the City Council on July 26, 2011, as Chapter 14.22 of the Riverside Municipal Code (RMC), in response to a statewide drought emergency issued by the Governor of California in 2009.

Since it was first adopted, the Water Conservation Ordinance has been periodically updated as legislation has required urban water suppliers to increase water use efficiency and conservation efforts. Riverside most recently updated the Ordinance in 2015, in response to the latest statewide drought emergency declared by Governor Brown in 2014. The Governor’s executive order directed the State Water Resources Control Board (SWRCB) to adopt emergency regulations. Subsequently, the City Council took action at its June 16, 2015 meeting by adding new restrictions to the Water Conservation Ordinance. Among these were limiting outdoor irrigation to a maximum of three days per week during April through September and to a maximum of two days per week during October through March and restricting irrigation to 6:00 p.m. to 10:00 a.m. watering window.

To better align the Ordinance with new regulations that emerged from California’s 2012-2016 historic drought, staff presented the Board of Public Utilities (Board) with an update to the Water Conservation Ordinance on April 26, 2021.

BACKGROUND:

On April 26, 2021, the Board of Public Utilities (Board) voted to recommend the City Council adopt the amendments to the Water Conservation Ordinance and expressed an interest in

further reviewing the Ordinance at a Water Committee meeting. This memorandum hopes to provide a more in-depth review of the Water Conservation Ordinance as directed by Board.

DISCUSSION:

Water conservation ordinances assist water providers in meeting water use reduction requirements mandated by legislation that addresses California's cyclical droughts and climate change. One prominent method of addressing demand is to enact an ordinance prohibiting certain uses of water.

Riverside's Water Conservation Ordinance is typical of other water conservation ordinances enacted by municipalities across the State. It is comprised of three sections.

The first part, Section 14.22.010 – Unreasonable Uses of Water, is a detailed description of unreasonable uses of water. The second part, Section 14.22.929 – Water Conservation Program, establishes five stages detailing water shortage levels of increasing severity and demand reduction actions under each stage to address conditions and needs. The third section, Section 14.22.080 - Enforcement and Severability, references Chapter 1.17 of the Riverside Municipal Code which provides more information on enforcement and citations for any violations.

Unreasonable Uses of Water

While the State prohibited certain uses of water in 2014 and 2015, these prohibitions were rescinded in November 2017. There are currently no statewide mandates on prohibited uses of water. The State has left local governments to enact and enforce their own water waste ordinances. Riverside's existing prohibitions on water waste are aligned with mandates by the State in 2014 and 2015. Water waste prohibitions are in place regardless of water supply conditions. These prohibitions include:

- Irrigation runoff
- Use of hose to wash a motor vehicle, unless fitted with a shut-off nozzle
- Use of potable water on driveways and sidewalks
- Use of potable water in a fountain or decorative water feature, except where water is a part of a recirculating system
- Watering landscapes during and within 48 hours after measurable rainfall
- Serving of drinking water other than upon request in eating or drinking establishments
- Irrigation with potable water of ornamental turf on public street medians
- Irrigation with potable water of landscapes outside newly constructed homes and buildings in a manner inconsistent with California regulations
- Hotels and motels must provide guests with the option of choosing not to have towels and linens laundered daily

Riverside's mandatory prohibitions on water use focus on outdoor landscape irrigation, as do most other municipalities and water providers. Other providers, however, also have detailed requirements for indoor water usage by requiring homeowners to replace plumbing fixtures that do not meet efficiency standards. These typically apply only to newly developed structures or

existing structures that are sold or substantially remodeled. Some municipalities require all homes to retrofit plumbing fixtures regardless of sale or remodel and ensure their indoor plumbing is free of leaks. Riverside does not impose restrictions on leaks until Water Shortage Stage 2 has been triggered.

On the commercial side, other municipalities have technical requirements for sinks at commercial kitchens, washing machines in coin-operated laundries, or water reuse at car wash facilities.

The following outlines examples of indoor water use prohibitions:

Indoor Water Use Prohibitions	
Beverly Hills	Retrofit all existing plumbing fixtures prior to change of ownership
Los Angeles	-Allowing leaks from any pipe or fixture to go unrepaired -When building permit issued, retrofit measures required to improve water conservation of buildings.
Santa Clarita	Indoor and outdoor leaks must be repaired as soon as is reasonably practicable
Fountain Valley	-Leaks must be repaired within 72 hours of discovery by user or notification by City -New commercial/industrial laundry facilities shall be equipped with water reclamation system for reuse of rinse water

Water Conservation Program

The second section of Riverside's Water Conservation Ordinance is called the Water Conservation Program. As previously stated, this section establishes five stages detailing water shortage levels of increasing severity and demand reduction actions under each stage to address conditions and needs. Most water waste ordinances, including Riverside's, operate in conjunction with water shortage ordinances. As seen in other municipalities' water conservation ordinances, Riverside recommends voluntary conservation measures, but will implement mandatory restrictions once a water supply shortage is declared. These water shortage ordinances describe multiple water shortage stages and the actions that customers must follow under each stage. Below is a summary of Riverside's Water Shortage Stages and the restrictions and prohibited uses of water pertaining to each stage. The restrictions and prohibitions build upon the previous stage. For brevity, only new restrictions activated by entering a new shortage stage were included in the list below.

Stage	Supply Reduction	Restrictions and Prohibitions
1	0%	Non-ag irrigation limited to 6:00 pm to 10:00 am
1		Graywater and recycled water for irrigation is permitted any day and time
2	15%	Stage 1 measures are in effect, but become mandatory
2		Landscape irrigation limited to three days per week
2		Automatic timers shall be adjusted to irrigation time restrictions and eliminate runoff
2		Water appurtenances requiring repair or adjustment shall be corrected within 72 hours of notification by City

3	15-20%	All Stage 1 and 2 measures remain in effect, but Stage 1 is mandatory
3		Landscape irrigation limited to three times per week during April-October and two times per week during November-March
4	20-50%	All Stage 1, 2, and 3 conservation measures apply. Stage 1 is mandatory.
4		Watering of lawns is prohibited
4		Irrigation limited to designated hours and days and only allowed for supporting survival of trees and shrubs
4		Washing motor vehicles is prohibited except at a commercial car wash
4		Replenishing or filling pools, spas, ponds, and streams is prohibited
4		Operation of any ornamental fountain, pond, or similar structure is prohibited
4		Water used for commercial or processing purposes shall be reduced as determined by City Council
5	>50%	No new construction meters will be issued
		No construction water may be used for earth work such as road construction purposes, dust control, compaction, or trench jetting
		No new building permit(s) shall be issued with a few exceptions.

Below is a list of the amendments to the Water Conservation Ordinance presented to the Board at the April 26th meeting. Only the Water Conservation Program section of the Water Conservation Ordinance was modified. The unreasonable uses of water section and enforcement procedures were left the same.

Modification	Additional Explanation
Added clarifying language regarding the supply reduction percentage of each stage and its correlation to the State's standard shortage level	Ex) Stage 2 - "...RPU faces an actual supply shortage of up to 15%, corresponding to CA Water Code section 10632 shortage levels 1 and 2"
Added a fifth water shortage level	Any supply shortage greater than 50% would be considered a catastrophic water shortage or Water Shortage Emergency and align with Stage 6 of State's six standard shortage levels
Removed 15-30 minute irrigation run-time limit in consideration of deep-watering required by trees	US Dept of Agriculture's Natural Resources Conservation Services states homeowners "irrigate too often and for too short a period to meet lawn and landscaping (tree and shrub) needs...Turf studies show most lawns only require irrigation once every 4-8 days to stay healthy. Shallow rooted plants result from irrigating every day. <u>Irrigating less often</u> and <u>applying more water per irrigation</u> results in deeper rooted plants and a healthier turf"
Stage Two Shortage Level reduced number of watering days from four to three	<u>Reflects irrigation best management practices.</u> Landscape experts including the Irrigation Association, the UC Davis California Center for Horticulture, the US Department of Agriculture's Natural Resources Conservation Services, and the UC Center for Landscape and Urban Horticulture recommend most established landscapes (i.e. lawns, trees, and shrubs) only

	<p>require irrigation 0-3 times per week depending on the season.</p> <p>The University of California's Center for Landscape and Urban Horticulture states "no established lawn or landscape plants require irrigation on a daily basis. Established cool-season lawns (tall fescue, Kentucky bluegrass) require irrigation about 2-3 times per week in summer, while warm-season grasses (Bermuda, St. Augustine) only require watering every 4-10 days in summer."</p> <p><u>Mildly constraining restriction that can stave off more severe shortage level</u></p> <p>The Alliance for Water Efficiency's "Use and Effectiveness of Municipal Irrigation Restrictions During Drought" study found that municipalities' mandatory restrictions did yield significant savings. "The tighter the level of irrigation restrictions, the greater the savings, especially during summer months when irrigation is typically at its highest level. From pre-drought to worse year of the drought, case study participants successfully reduced annual demand by 18-30% and peak monthly demands by 20-42%. This was done while operating in Stage 2 or 3 of their Water Shortage Contingency Plans."</p>
Removed prohibition of the use of water for cooling mists under Stage Four	Cooling mists are not widespread, nor are a significant concern in the amount of water these devices use. Removing restrictions on their use offers customers the ability to use less resource-intensive strategies to achieve thermal comfort during hot summer months.

Approaches for Implementing Mandatory Conservation Measures

The following table presents a variety of approaches to implementing water conservation measures enacted by other water providers and municipalities.

Conservation Measure	Water Provider	Notes
Stringent restriction on watering days	Carmichael Water District	Restricts 2x/week - Stage 2
	Eastern Municipal WD	Reduce watering by one day/week - Stage 2
Drought surcharge	City of Del mar	10% surcharge for all users on top of increasing block rate structure
	Irvine Ranch WD	Discretion to reduce outdoor base allocation and adjust pricing tier thresholds – Stage 2
Budget-based rates	Western Municipal WD	Approach to managing customer demands during all supply conditions and minimizing revenue impacts during water shortages
	Monte Vista WD	
	Irvine Ranch WD	
	Eastern Municipal WD	

Other water providers implement more stringent water conservation measures early in their water shortage stages. This has been shown to curb demand quickly. A 2020 study conducted by the Alliance for Water Efficiency titled the “Use and Effectiveness of Municipal Irrigation Restrictions During Drought” found that during recent droughts, suppliers were able to achieve desired demand reductions when Stage 2 or 3 of their WSCPs were enacted and enforced. Voluntary conservation resulted in no water savings, while increasingly stringent irrigation and water waste restrictions were found to be successful drought management tools in combination with outreach, education, and enforcement.

The Board has the opportunity to weigh in on the City’s Water Conservation Ordinance based on the information presented in this memorandum and lessons learned from the previous drought.

FISCAL IMPACT:

There is no fiscal impact associated with this report.

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Attachments:

1. Presentation
2. Revised Redline Ordinance
3. Revised Exhibit A