## **Summary of Water Shortage Action Plan Updates**

	UPDATE	REASON
1.	Created guiding principles within the Plan that consider water restrictions beyond demand reduction	<ul> <li>Developed water use priorities, based on hundreds of customer responses and included other best practices to create a framework to review and evaluate water response strategies - primarily restrictions</li> </ul>
2.	Created voluntary level (reflects Level I or best practice for water efficiency)	<ul> <li>May provide mitigation and avoid a potential water shortage</li> <li>Allows for non-regulatory action first</li> <li>Opportunity for public communication prior to mandatory restrictions</li> </ul>
3.	Created alternative level – Level IV	<ul> <li>Addresses need for customized response to unanticipated, off-season, extreme, and/or infrastructure-based shortages, such as Horsetooth Outlet Project</li> <li>Gap in previous action plan doesn't address extreme shortage greater than 35% (annual outdoor water use) or non-irrigation months, when the plan's outdoor water use restrictions won't be an effective response to a water shortage</li> </ul>
4.	Created voluntary indoor reductions across all levels	<ul> <li>Promotes comprehensive conservation and efficiency without enacting indoor restrictions for most levels</li> </ul>
5.	Consolidated what was previously 4 action levels into 3, by eliminating what was previously Level II and renumbering the action levels.	<ul> <li>Minimizes the number of levels, which minimizes confusion and communication challenges when moving in between action levels</li> <li>From a water consumption standpoint, previous Level II was very similar to Level III (one day of watering a week) and unlikely to result in significantly different water savings from Level III</li> </ul>
6.	Remove 2-hour watering window restriction	<ul> <li>Not adequate to reach roots in clay soils on most properties, unless only watering 2-3 zones at a time</li> <li>If water isn't reaching roots, then the applied water is wasted</li> <li>Currently difficult to enforce</li> </ul>
7.	Added outdoor lawn watering target for each level and cycle soak method	<ul> <li>Provided as guidance to minimize all night watering 1-2 days per week. Not intended to be regulated or enforced</li> <li>Sets the stage for future approaches to restrictions</li> </ul>
8.	Changed "other landscape" and "tree" watering restrictions to reflect "lawn" restrictions associated with spray irrigation –daily watering with sprays are no longer allowed on any landscapes	<ul> <li>Aligns watering restrictions for "tree" and "other landscape" with "lawns," which sprays typically are also watering on the same zone (i.e. trees and lawn)</li> <li>"Trees" and "other landscaping" (shrubs, bushes, etc.) need less water than "lawns" anyway, so allowing daily "tree" and "other landscape" watering is excessive</li> <li>"Other landscape" includes annuals, which typically need daily watering, but annuals are temporary plantings anyway and can always be hand watered or watered through a drip system</li> </ul>
9.	Added shutoff nozzle and spigot timer requirements to landscape	<ul> <li>Code and best practices that reduce water waste on hand watering and drip methods</li> </ul>

	watering that utilize alternative methods to sprays	
10.	Aligned dust suppression with City's Dust Control and Prevention Manual	<ul> <li>Includes input from Environmental Services, Streets and Utilities Environmental Regulatory Affairs</li> <li>Requires dry cleanup methods first, when feasible</li> <li>Addresses dust suppression beyond construction sites and ball fields</li> <li>Balances air quality and public health concerns with water conservation</li> <li>Allows for dust suppression to continue, but requires alternative, non-water, methods where feasible</li> </ul>
11.	Added street sweeping to restrictions	<ul> <li>Developed with Streets staff – Senior Supervisor and Transportation Operations Manager</li> <li>Sweeping doesn't use much water, but cleaning equipment after each sweep does</li> <li>Prioritization of street sweeping at various action levels ensures essential needs are met, without excessive sweeping and associated water use</li> </ul>
12.	Changed splash park water use to unrestricted until greatest action level – Level III, which is similar to previous action level IV (previously restricted at levels III and IV)	<ul> <li>Reflects desire to prioritize community water uses, such as public splash parks</li> <li>Splash parks do not use much water as they are recirculating systems with some additional water use to compensate for evaporation and splash loss</li> <li>On hot, dry days this community asset is a beneficial use and is preferred to private recreation uses, because it's less wasteful and benefits a greater number of people</li> </ul>
13.	Added recreational water toys and individual pools and misting device restrictions – restricted at Level II	<ul> <li>Reflects community water use priority – personal/private uses are a lesser priority</li> <li>Generally, a small amount of water, but public perception issues at Level II and III</li> <li>Restricting these non-essential uses helps with the overall conservation message</li> </ul>
14.	Changed new sod and seed permits to address regionally adaptive grasses	<ul> <li>Regionally adaptive grasses have a longer establishment period and will receive watering exception timeframes specific to the species – no longer blanket 2-3 week permits for all lawn installations</li> </ul>
15.	Added gallons per sq. ft. equivalent for active and inactive parks and lawns	<ul> <li>Allows compliance information to be provided in multiple formats</li> <li>Some water managers prefer to use inches per week, but others would prefer gallons per sq. ft. per week</li> </ul>
16.	Specified difference in permit exceptions for inactive vs. active areas	<ul> <li>Active playing field areas should be allowed to water more than inactive areas for safety purposes</li> <li>Recognize some properties have both active and inactive areas and each of these areas can be watered differently, based on the safety need</li> <li>Treats public and private playing field areas equally</li> </ul>

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17.	Require raw water to register – previously just recommended  Changed water shortage rates to only affect volumetric charges and not impact IQAP-specific rates (base and Tier 1) - Level II – 20% and Level III – 30%.	<ul> <li>Minimizes staff time spent contacting raw water users that are flagged as violating restrictions</li> <li>Creates helpful database for Utilities for future water shortages too</li> <li>Worked with Utilities Finance Staff to analyze and develop new rates</li> <li>Address new Income Qualified Assistance Program (IQAP) rate, which didn't exist when initial water shortage rate</li> </ul>
	III — 3070.	<ul> <li>approach was developed in 2013</li> <li>Reduces financial impacts associated with indoor use and those who already conserve and use water efficiently</li> <li>Rate increase changes will continue to collect lost revenue associated with reduced water consumption</li> <li>Modeling proposed water rate increase shows no cost increase estimated for customers who reduced their use by 20% during Level II.</li> </ul>
19.	Removed excess water use (EWU) surcharge increases	<ul> <li>Intent of the short-term water shortage rate increases (#18, above) is to recover lost revenue due to a decrease in consumption and is not related to the EWU surcharge, which is intended to secure additional long-term supplies</li> <li>The intent of EWU surcharge is to help cover costs to acquire more water supply. Utilities doesn't currently have short-term supply agreements in place that we can estimate costs for and tie to EWU surcharge increases during a water shortage. This may be developed in the future and necessitate adding back the increase to EWU surcharges during a water shortage</li> </ul>
20.	Added volumetric water rate increase to hydrant and water fill stations	<ul> <li>Water can be purchased for construction or otherwise and filled from a fire hydrant or fill station. There is a cost per 1,000 gallons used</li> <li>More comprehensive application of volumetric rate increases, when added to these additional uses</li> </ul>