

DROUGHT

Response Plan

2016



Drought Response Plan

May 2016

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INTRODUCTION

The goal of drought response is to maintain the health, safety and economic vitality of the community to the extent possible in the face of water shortage. This Drought Response Plan is designed to maximize available water supplies and reduce water use.

The Drought Response Plan outlines guidelines Denver Water will use to manage water supply and water use during drought. The guidelines are designed to maintain the health, safety and economic vitality of the community; to avoid adverse impacts to public activity and quality of life for the community; and to consider individual customer needs as much as possible.

Because each drought is different, it is not practical to develop a set of hard-and-fast rules to apply to all droughts. Rather, these guidelines are intended to provide a framework for timely drought response while maintaining flexibility to respond to unique drought conditions. These guidelines are intended to assist the Denver Board of Water Commissioners (the Board) in making decisions throughout the course of a drought. The Board may adjust or refine the response based on actual drought conditions.

This plan is a product of lessons learned from past droughts in Denver Water’s service area and will be updated regularly to ensure that it addresses current conditions.

Drought Response Plan Components

The Drought Response Plan consists of:

- **Drought Severity Indicators** – A variety of factors that should be considered in choosing an appropriate drought response.
- **Drought Response Actions** – Guidelines for augmenting water supplies and reducing water use during times of drought.
- **Drought Response Program Elements** – Guidelines for water uses during different levels of drought.

Defining Drought

Drought occurs in virtually all climatic zones and is a normal, recurring aspect of climate. For Denver Water, a drought is a condition of insufficient water supplies caused by a deficit in precipitation. When the amount of water flowing in streams and into reservoirs is less than average, Denver Water will more closely monitor its water supply outlook. If continued low streamflows stress water supplies, Denver Water will implement this Drought Response Plan. Unfortunately, no one can predict how long drought conditions will continue once they begin.

Figure 1 depicts the variability of natural streamflows in Denver Water’s raw water collection system. Troughs in the plot indicate that droughts are a recurring, natural phenomenon.

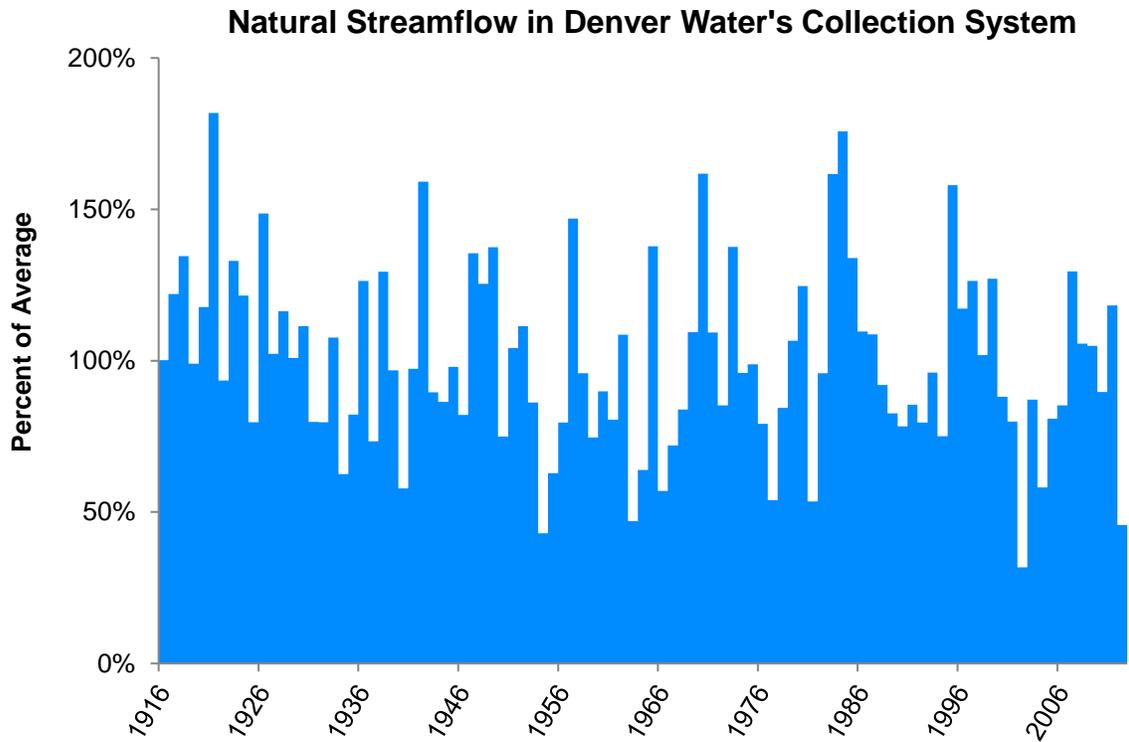


Figure 1. Natural streamflow in Denver Water's collection system

Supply

Denver Water's collection system is designed to dependably meet the needs of customers during hydrologic conditions similar to those of the past 383 years (1634–2016). Denver Water's supply is the estimated amount of water available from its collection system to meet customer demand. A strategic water reserve has been set aside in Denver Water's reservoirs to provide protection against circumstances such as an infrastructure failure, a water quality crisis, climate change, or drought conditions worse than have been seen since the early 1600s.

To determine supply, the water system capabilities are modeled using streamflow estimates back to the year 1634. Figure 2 shows how Denver Water's reservoirs would be stressed if the hydrologic period were to repeat itself with average annual demand levels at future full use of the existing system and water restrictions imposed according to the recommendations in this plan. Shifts in weather patterns can be substantial from year-to-year and decade-to-decade, affecting both water supply and water use.

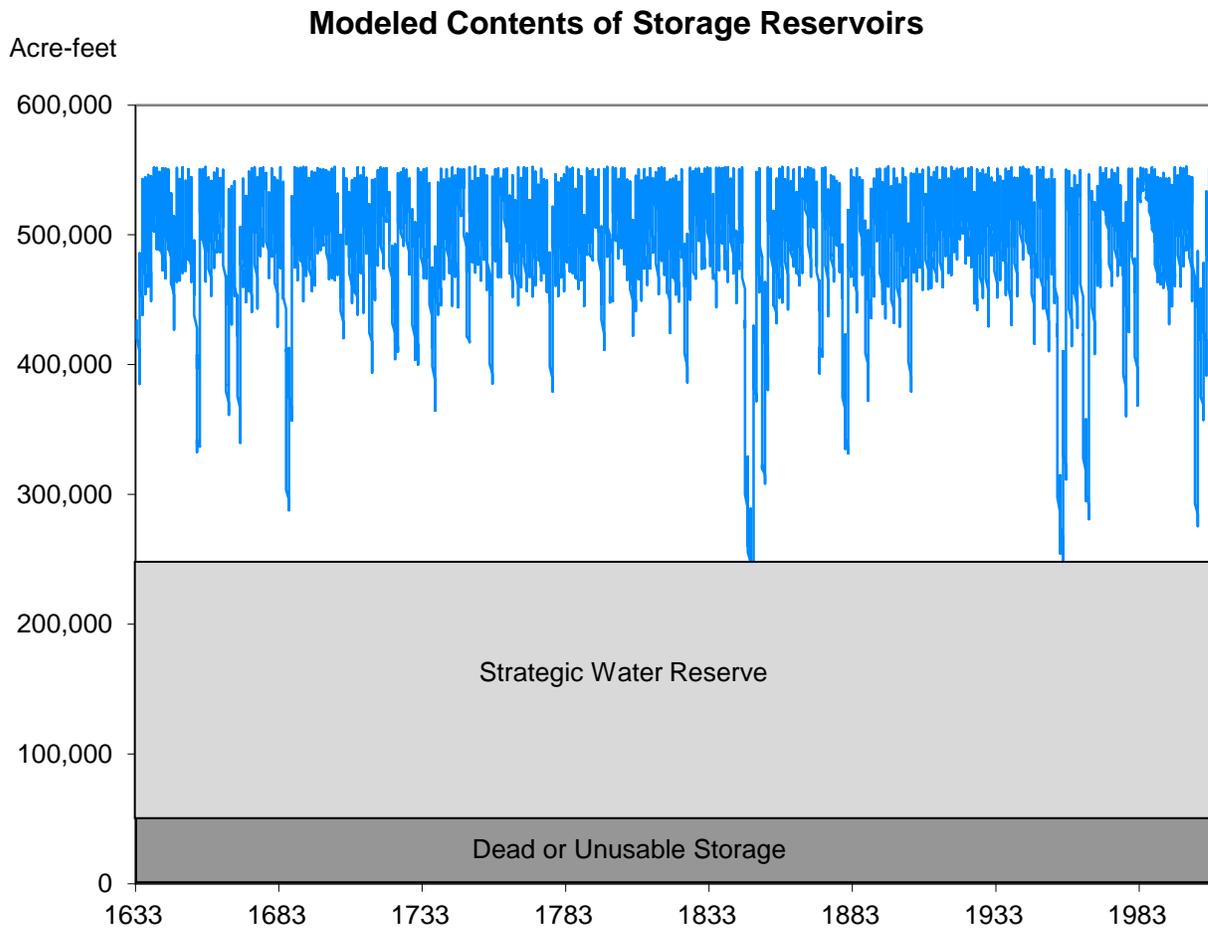


Figure 2. Modeled contents of Denver Water’s storage reservoirs assuming a repeat of historic streamflows.

Long-term Conservation Efforts

Drought restrictions should not be confused with ongoing water conservation efforts. Water efficiency is a way of life in Denver’s dry climate. Denver Water has a nationally recognized conservation program and is committed to water efficiency and customer outreach. Denver Water has a separate water conservation plan and water conservation savings goal.

Since the 2001–2007 drought, customer water use has stayed approximately 20 percent lower than water use levels prior to the drought. In 2007, Denver Water launched an aggressive conservation program to permanently reduce average customer water use 22 percent from 1993–2001 levels by the end of 2016. Some restrictions used in the 2001–2007 drought are now permanent water waste rules:

- Water no more than three days per week.
- Do not water lawns between 10 a.m. and 6 p.m.
- Do not waste water by allowing it to pool in gutters, streets and alleys.
- Do not waste water by letting it spray on concrete and asphalt.
- Repair leaking sprinkler systems within 10 days.
- Do not water while it is raining or during high winds.

Because of drought, there will be times when further water use reductions are needed in addition to standard water conservation efforts. Drought restrictions indicate urgency and are not intended for long-term application.

Because customers are already making conservation a permanent way of life, it likely will be harder to further reduce their water use during a future drought. Reduction targets in each drought stage have been set to reflect this principle.

DROUGHT SEVERITY INDICATORS

Drought severity indicators can generally be divided into two categories: (1) water supply indicators and (2) political, social and economic indicators.

During a drought, the Board will consider drought severity indicators in choosing the appropriate drought response actions. The Drought Response Actions chapter shows how the drought severity indicators align with the suggested drought response framework.

Water Supply Indicators

Water supply indicators include snowpack, precipitation, temperature, wind, predicted reservoir storage, evaporation, streamflow, soil moisture and weather forecasts. Drought indices such as the Surface Water Supply Index, the Standardized Precipitation Index and the Palmer Drought Severity Index integrate multiple measurements and can also be used as drought severity indicators. The U.S. Drought Monitor provides a visual drought index and can also be used as a drought severity indicator.

Because most of the water supply during drought comes from storage reservoirs, reservoir contents are an accurate indicator of a drought's impact on supplies. Reservoir contents are the bottom line result of the factors affecting supply, including weather, snowpack, soil moisture, runoff, water rights, bypass requirements, collection system limitations and water use.

Aggregate reservoir contents in Denver Water's system usually peak in June or July following spring snowmelt. For this reason, July 1 reservoir contents are a logical indicator for drought response.

July 1 reservoir contents are forecasted during the first weeks of February, March, April, May and June. Predictions are based on measurements of snowpack, streamflows, bypass requirements, water usage and the amount of water already in storage on the forecast date. The ability to predict July 1 reservoir contents improves as that date approaches. Since forecasts of July 1 reservoir contents prior to April are not very reliable, Denver Water may be reluctant to declare or alter a drought response before then.

Regardless of the water supply situation, Denver Water staff routinely monitors hydrologic conditions, and this monitoring intensifies during dry periods. If conditions change after a drought response has been declared, the declaration can be lifted or the level of drought response can be adjusted.

Response Guidelines

Figure 3 illustrates the relationship between useable reservoir contents on July 1 and recommended drought response. Useable reservoir content is the water Denver Water can legally and physically deliver to customers' taps.

The recommended responses in the chart overlap each other because there are no hard-and-fast relationships between reservoir contents and appropriate drought response. This figure is a guideline, as the Board will evaluate many factors in addition to reservoir contents when making its drought response decisions.

July 1
Projected
Useable
Contents
(KAF)

General Guide for Drought Response

July 1 Projected
Useable
Contents
(% Full)

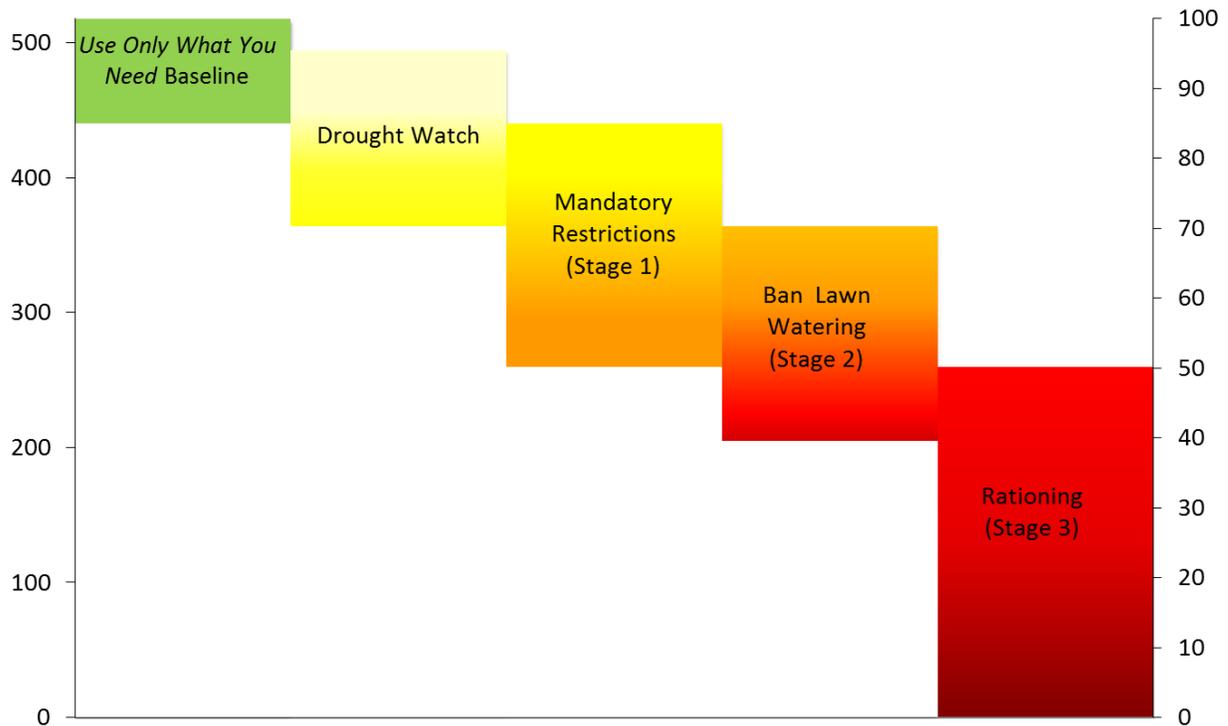


Figure 3. General guide for drought response using July 1 projected useable reservoir contents.

Political, Social and Economic Indicators

Customer response to Denver Water’s calls to save water will be influenced by public perceptions about the drought, the drought response activities of other water providers in the metro area, as well as news media and political responses. Although political, social and economic indicators may not always be quantitative, they can be monitored and described for consideration in the Board’s decisions about drought response.

Response of Other Water Suppliers

Droughts affect the supplies of metro-area water providers in different ways. For example, northern suburbs that rely on single watersheds may be better or worse off during a drought, depending on the localized effects of a drought. Moreover, other systems that have junior water rights could be affected earlier or more severely than Denver Water’s system.

The Board will weigh the importance of developing a unified metro-area response against potentially restricting our customers’ water use in a manner different than other utilities, either in timing or level of restrictions. It is also important to understand that, because of Denver Water’s size and media influence, Denver Water’s drought response decisions can influence the drought response decisions of other local water utilities.

Denver Water should also be mindful of drought conditions across Colorado.

Media Response

Much of the information customers receive about drought comes from traditional and social media outlets. Members of the news media can be very helpful in conveying factual information to customers, and they also play a key role in shaping public perception of drought.

Political Response

Political response to the drought can take many forms and can depend on the constituents affected. For example, the Board might be asked to save some of its water supply for providers with less reliable systems, or mountain communities near Denver Water's collection system might pressure the East Slope to conserve as they watch the levels of nearby reservoirs decrease throughout the drought.

Economic Impacts

One of the principles guiding Denver Water's drought response is to maintain economic vitality of the community to the best extent possible. Water restrictions imposed in response to drought can affect businesses in different ways. As part of its public outreach efforts, Denver Water will continue to carefully coordinate restriction programs with water-reliant industries so that individual customer needs are considered as much as possible.

Environmental Effects

Reduced streamflows and lower reservoir levels caused by drought can affect the environment, recreation, fisheries and economic activity of surrounding communities. Denver Water will monitor stream and reservoir levels so that environmental effects are taken into account in drought-response decisions.

Uncertainty Associated with Forecasts

Just like other weather phenomena, forecasting a drought and knowing with certainty if one exists can be difficult. When a dry year occurs, for example, it is unknown whether it is the first year of a three-, five- or 10-year drought, or if it is merely a dry year somewhere in a series of average-to-wet years. Even though droughts cannot always be predicted, Denver Water will continue to advise customers of the latest water supply information so they can consider it in their own planning.

DROUGHT RESPONSE ACTIONS

As reservoir contents decrease, efforts to add water supplies and reduce water use increase.

Denver Water's Drought Response Plan consists of two components – the *indicators* that help the Board decide an appropriate drought response, and the corresponding *actions* recommended for that response. This plan delineates a drought watch and three stages of drought severity. Each stage is based on water supply indicators, as well as various political, social and economic indicators discussed in the Drought Severity Indicators chapter of this document.

For each stage, progressively more stringent responses are recommended. Some drought response measures, particularly those designated for mild episodes of drought, require minimal customer effort. However, measures can become mandatory, more costly and sometimes intrusive as a drought intensifies.

In short, the recommended responses are as follows: a Drought Watch asks for increased communication on dry conditions; a Stage 1 drought implements mandatory watering restrictions; a Stage 2 drought prohibits lawn watering; and a Stage 3 drought rations water supplies for essential uses.

To activate a particular drought stage, the Board declares a drought stage and adopts an effective date for imposing applicable restrictions. Because Stage 1, Stage 2 and Stage 3 droughts involve mandatory restrictions, they are incorporated into Denver Water's operating rules and become enforceable pursuant to the Denver City Charter, the Denver Revised Municipal Code and provisions in Denver Water's water service agreements and water leases. Chapter 15 of the operating rules contains the restrictions that apply during a Stage 1, Stage 2 or Stage 3 drought, as declared by the Board.

At the onset of drought, an existing, interdivisional Denver Water Drought Response Committee will initiate its drought monitoring procedures. This committee will monitor drought conditions and evaluate the effectiveness of the drought response. Recommendations for adjusting the response will be submitted to the Board. Because every drought is different, the Board will refine drought response actions based on actual conditions.

Increasing Water Supply

In addition to managing water use during a drought, Denver Water will try to increase its supplies by gaining access to other water sources. Each augmentation option presents unique intergovernmental, legal and technical issues, and each will depend on the current conditions.

Reducing Water Use

Denver Water's primary response to drought is to reduce water uses so that supplies will be available for the most essential uses for the duration of the drought. A variety of actions, rather than one single approach, is generally more effective at creating an overall atmosphere that promotes water use reductions. The actions discussed in the sections that follow include restrictions, drought pricing, water use education and enforcement, and monitoring and evaluation.

Generally speaking, restricting the number of days and times allowed for watering landscapes or providing a water allocation, can be effective methods for reducing water use. Other methods, such as drought pricing and public information efforts, complement those watering restrictions. Other

restrictions may not substantially reduce water use but may eliminate discretionary uses of water or heighten public awareness of drought severity.

Restrictions

Once the Board has declared a drought, Denver Water will activate the corresponding set of recommended responses. Denver Water's goal for drought response is to maintain the health, safety and economic vitality of the community to the extent possible in the face of water shortage. Denver Water follows the principles below as much as possible when restricting water use during a drought.

Avoid irretrievable loss of natural resources.

- Allow for watering of trees if possible.
- Avoid damaging perennial landscaping if possible.
- Tailor watering restrictions to known landscape needs as much as possible.

Restrict less essential uses before essential uses.

- Curtail outdoor water use (except for trees and shrubs and potentially urban gardens) before restricting domestic indoor use.
- Eliminate water waste.

Affect individuals or small groups before affecting large groups or the public as a whole, allowing as much public activity as possible to be unaffected.

- Have a water budget program for public spaces to allow those customers to prioritize water use for heavily-used landscapes.
- Preserve community pools before residential pools.

Minimize adverse financial effects.

- Be respectful of water-based businesses that will be financially affected by restrictions.
- Engage in ongoing dialogue with the landscaping industry to obtain input and to allow these businesses to plan for future months.

Implement extensive public information and media relations programs.

- Inform customers about conditions and actions they can take to reduce water use.
- Have open, clear and consistent messaging and communication.
- Maintain the trust of customers and stakeholders.

Drought Pricing

Drought pricing may be implemented as part of a drought response or declaration by the Board. Drought pricing is designed to increase awareness of the drought's severity, assist in meeting water-use reduction targets through pricing signals and/or maintain the financial health of the utility. Drought pricing is different from the regular rate structures for water service in that it is temporary in nature. The drought declaration will define the criteria for implementing and removing drought pricing.

Denver Water will consider several guiding principles in developing drought pricing:

- There is a relationship between price and demand.
- Drought pricing should not be used alone, but should be incorporated into an overall program to increase customer awareness of the drought's severity and importance of saving water.

- Drought pricing may apply to current water demands, new taps or other demands on the water supply.
- Drought pricing should match the severity of the drought and drought response philosophies.
- Drought pricing must be feasible for Denver Water computer systems and Master Meter distributors to handle.
- Public information is important in helping customers understand drought pricing.

Water Use Education and Enforcement

Denver Water has a water use education and enforcement program to educate customers about efficient water use, to enforce water waste rules and drought restrictions, and to save water. During a drought, monitors will patrol Denver Water's service area looking for customers who are not complying with drought response. The goal of the program is to educate and inform customers, not to merely penalize violators.

Drought monitors will distribute educational materials, help customers reduce their water use and answer questions about the drought. Customers are also able to report water waste through a Denver Water hotline and Web page. Violators may receive written warnings and may be fined for repeat violations. Flow restrictors may be installed at properties with repeat violations. The customer (owner or occupant of the property) is responsible for complying with drought restrictions and exemption terms.

Denver Water has been enforcing its water waste rules since 2008 and may use full-time and seasonal employees to enforce drought restrictions. Depending on drought severity, it may be necessary to employ additional staff from the Customer Relations division for the water use education and enforcement program.

Drought Response within Master Meter Districts

Master Meter districts receiving water from Denver Water are governed by Denver Water's operating rules, including the drought response rules. Master Meter districts can make and enforce their own rules as long as the rules are not inconsistent with Denver Water's rules. Master Meter districts should also assist Denver Water in enforcing the operating rules.

As such, it is recommended that Master Meter districts have a water use education and enforcement program during drought response to ensure customers comply with operating rules. Master Meter districts can choose to opt in to Denver Water's water use education and enforcement program or create their own program. If opting in to Denver Water's program, Denver Water will patrol the Master Meter district and work closely with the district to facilitate proper communication with customers.

If a Master Meter district chooses to create its own water use education and enforcement program, the following program elements are recommended to be considered for inclusion:

- Creating a mechanism to educate customers about drought restrictions, such as online or printed materials and personal customer interaction.
- Creating a reporting tool, such as a phone number or email, that allows customers to report violations of water waste rules.
- Patrolling for violations of water waste rules.
- Tracking customer violations by account.

Monitoring and Evaluation

When drought conditions emerge, staff will intensify its monitoring and evaluation activities. The monitoring and evaluation program will track information such as snowpack, soil moisture, streamflow, precipitation, water rights, reservoir levels and weather forecasts. In addition, water usage and its corresponding revenue will be compared to normal use and weather-adjusted expected use. If water-reduction goals are not being met, the Board may increase public outreach and/or the level of drought response.

Recycled Water

Denver Water has the right to reuse a major portion of its water imported from the West Slope, as well as a small portion of its East Slope supplies. Denver Water has a recycled water plant that treats wastewater and delivers nonpotable water to customers for irrigation and industrial purposes.

Recycled water has different characteristics than potable water. In periods of drought, reusable water may be more or less abundant than other water supplies. In recognition of these potential differing circumstances, the Board may adopt specific drought restrictions for recycled water customers depending on conditions.

Use of Water Not Provided by Denver Water

Some customers in Denver Water's service area have access to water sources that are not owned, controlled, or provided by Denver Water. Though the use of such water is not under the direct control of Denver Water, those customers will be subject to restrictions in the operating rules related to signage, avoidance of contamination of the potable water system and prevention of water waste.

Drought Watch: Customer Outreach

Abnormally Dry

Description:

A Drought Watch will increase communication to customers to alert them that water supplies are below average, conditions are dry and continued dry weather could lead to mandatory watering restrictions. A Drought Watch will not require a formal declaration from the Board.

Indicators:

1. Projected useable reservoir contents between 70 percent and 95 percent full on July 1. See Figure 3.
2. Watershed characteristics such as precipitation, snowpack, streamflow, wind and soil moisture indicate abnormal and prolonged dryness.
3. Service-area precipitation indicates abnormal and prolonged dryness.
4. Other metro-area water suppliers are preparing to respond to the dryness.
5. News media are sending messages that imply drought may be pending.
6. Customers believe a Drought Watch and its corresponding actions are appropriate.
7. Elected officials are suggesting Denver Water adopt a Drought Watch or similar response.

Recommended Responses:

- Increase communication and outreach to customers and stakeholders to explain we are beginning to see indicators of drought.
- Encourage customers to continue to use water efficiently and provide suggestions for reducing water use in order to reduce the risk of progression to mandatory restrictions.
- Warn of and prepare for the possibility of mandatory watering restrictions.
- Enhance the water use education and enforcement program.

Fixed-Amount Water Contracts:

Customers who receive nonpotable or potable water under fixed-amount contracts will be encouraged to reduce usage.

Stage 1 Drought Response: Mandatory Watering Restrictions

Severely Dry

Description:

A Stage 1 drought imposes mandatory watering restrictions and requires effort on the part of customers. Stage 1 watering restrictions will appear in Denver Water's operating rules.

Indicators:

1. Projected useable reservoir contents between 50 percent and 85 percent full on July 1. See Figure 3.
2. Watershed characteristics such as precipitation, snowpack, streamflow, wind and soil moisture indicate severe and prolonged dryness.
3. Other metro-area water suppliers are planning to enact mandatory watering restrictions.
4. Customers believe that mandatory watering restrictions are appropriate.
5. State water officials are engaged in drought response activities.
6. Circumstances warrant possible adverse impacts on water-dependent businesses involved in outdoor water use.

Use Reduction Target: 20 percent reduction of current use. This is a system-wide target, and individual or customer group-specific targets should be implemented.

Restrictions: Below is a recommended watering schedule for a Stage 1 drought response.

- Single-family residential properties with odd-numbered addresses: Saturday, Wednesday
- Single-family residential properties with even-numbered addresses: Sunday, Thursday
- All others (multi-family, HOAs, commercial, industrial, government): Tuesday, Friday unless in the water budget program.

Drought Pricing:

A drought pricing program may be used to increase awareness of the drought's severity, assist in meeting water-use reduction targets through pricing signals and/or maintain the financial health of the utility.

Strategic Water Reserve:

The Board may make water from the strategic water reserve available for use during a Stage 1 drought. Such action could reduce the severity of Stage 1 restrictions, or it could be used to delay or eliminate a Stage 2 drought response.

Fixed-Amount Water Contracts:

Water deliveries to customers who receive nonpotable or potable water under fixed-amount contracts will be restricted as follows:

- For agreements with provisions allowing Denver Water to reduce deliveries under drought conditions, deliveries will be reduced by 20 percent from normal use.
- For agreements with provisions requiring the lessee to adopt the same or similar water-use restrictions as Denver Water, the lessee must implement the water use restrictions adopted by the Board.
- For agreements without these provisions, the Board may adopt drought pricing or other methods to reduce water consumption outside Denver as necessary to provide an adequate water supply to the people of Denver.

Stage 2 Drought Response: Ban on Lawn Watering

Extremely Dry

Description:

A Stage 2 drought imposes mandatory watering restrictions on Denver Water's customers. Stage 2 drought restrictions are severe and will likely result in damage to or loss of landscapes.

Indicators:

1. Projected useable reservoir contents between 40 percent and 70 percent full on July 1. (See Figure 3.)
2. Watershed characteristics such as precipitation, snowpack, streamflow, wind and soil moisture indicate extreme dryness.
3. Other metro-area water suppliers have enacted or are considering severe restrictions on outdoor water use.
4. Customers believe that severe water-use restrictions are appropriate.
5. State water officials have declared a drought emergency.
6. Bans on most lawn watering justify prohibitions on some water-dependent businesses.

Use Reduction Target: 35 percent of over-all use. This is a system-wide target, and individual or customer group-specific targets should be implemented.

Drought Pricing:

A drought pricing program is likely to be used to increase awareness of the drought's severity, assist in meeting water-use reduction targets through pricing signals and/or maintain the financial health of the utility.

Strategic Water Reserve:

The Board may make water from the strategic water reserve available for use during a Stage 2 drought. Such action could reduce the severity of Stage 2 restrictions, or it could be used to delay or eliminate a Stage 3 drought response.

Fixed-Amount Water Contracts:

Water deliveries to customers who receive untreated water, nonpotable water or potable water under fixed-amount contracts will be restricted as follows:

- For agreements with provisions allowing reduced deliveries under drought conditions, the amount delivered shall be reduced by 35 percent from normal use.
- For agreements with provisions requiring the lessee to adopt the same or similar water use restrictions as Denver Water, the lessee must implement the water use restrictions adopted by the Board.
- For agreements without these provisions, the Board may adopt drought pricing or other methods to reduce water consumption outside Denver as necessary to provide an adequate supply of water to the people of Denver.

Stage 3 Drought Response: Rationing

Exceptionally Dry

Description:

A Stage 3 drought activates a rationing program for Denver Water's customers. *Conditions that would lead to a Stage 3 drought are highly unlikely.* However, if conditions warrant, Denver Water may implement a rationing program for an indefinite period of time to ensure, to the extent possible, that there is adequate water for essential uses. No outdoor watering will be allowed and indoor water use will be restricted. Stage 3 drought restrictions will damage the quality of life in Denver Water's service area, including the long-term loss of landscapes.

Indicators:

1. Projected useable reservoir contents less than 50 percent full on July 1. See Figure 3.
2. Watershed characteristics such as precipitation, snowpack, streamflow, wind and soil moisture indicate exceptional and prolonged dryness.
3. Other water suppliers are rationing water.
4. News media are sending message that we are in a crisis situation.
5. Customers believe we are in a crisis situation.
6. Elected officials are saying that water rationing is appropriate.
7. The situation suggests that severe impacts to water-dependent businesses are unavoidable.

Use Reduction Target: 50 percent of over-all use. This is a system-wide target, and individual or customer group-specific targets should be implemented.

Drought Pricing:

A drought pricing program is likely to be used to increase awareness of the drought's severity, assist in meeting water-use reduction targets through pricing signals and/or maintain the financial health of the utility.

Strategic Water Reserve:

Because of the severity of the situation, the Board will likely make any water remaining in the strategic water reserve available for essential uses during a Stage 3 drought.

DROUGHT RESPONSE PROGRAM ELEMENTS

The program elements table below is meant to be a guide to water uses under various levels of drought restrictions. Denver Water reserves the right to modify these program elements as needed to meet changing water supply conditions.

Element	Normal	Drought Watch	Stage 1	Stage 2	Stage 3
		(Customer Outreach)	(Mandatory Restrictions)	(Ban on Lawn Watering)	(Rationing)
<i>Outdoor watering and irrigation</i>					
Turf grass	Maximum of three days/week of customer's choice.	Maximum of three days/week of customer's choice.	Two days/week per mandatory schedule based on customer class and address, unless in water budget program and within budget.	No watering allowed.	No watering allowed.
New seed and sod	Allowed with exemption sign for establishment.	Allowed with exemption sign for establishment.	Allowed with exemption sign for establishment.	No watering allowed.	No watering allowed.
New plantings	Allowed	Allowed	Allowed	Not allowed	Not allowed
Denver Water sod replacement program	Allowed	Allowed	No installations from June through August	Not allowed	Not allowed
Trees, shrubs and perennials	May be watered by hand-held hose or low-volume non-spray on any day, not between 10 a.m. and 6 p.m.	May be watered by hand-held hose or low-volume non-spray on any day, not between 10 a.m. and 6 p.m.	May be watered by hand-held hose or low-volume non-spray on any day, not between 10 a.m. and 6 p.m.	Existing trees and shrubs may be watered by means of a hand-held hose or low-volume non-spray irrigation no more than once per week on scheduled day.	Not allowed, or use of hand-held hose or low-volume spray may be limited to no more than one assigned day per month.

Element	Normal	Drought Watch (Customer Outreach)	Stage 1 (Mandatory Restrictions)	Stage 2 (Ban on Lawn Watering)	Stage 3 (Rationing)
Flowers, vegetables, and community gardens	May be watered by automatic system on any day, not between 10 a.m. and 6 p.m., and by hand-held hose or low-volume spray at any time.	May be watered by automatic system on any day, not between 10 a.m. and 6 p.m., and by hand-held hose or low-volume spray at any time.	May be watered by means of a hand-held hose or low-volume non-spray irrigation on the assigned watering days, not between 10 a.m. and 6 p.m.	Existing plants may be watered any day except Monday by means of a hand-held hose or low-volume non-spray irrigation.	No watering allowed.
Athletic and playing fields	No waste of water.	No waste of water.	Irrigated via mandatory schedule or water budget.	Irrigated via mandatory schedule or water budget.	No watering allowed.
Golf courses	No waste of water.	No waste of water.	Irrigated via mandatory schedule or water budget.	Tees and greens irrigated by water budget.	No watering allowed.
Daytime irrigation of high-traffic areas (parks, golf courses)	Syringe irrigation when necessitated by weather conditions.	Syringe irrigation when necessitated by weather conditions.	Syringe irrigation when necessitated by weather conditions, with notification to Denver Water prior to application.	No watering allowed.	No watering allowed.
Irrigation taps not covered by other rules	No waste of water.	No waste of water.	Irrigated via mandatory schedule or water budget.	Irrigated via mandatory schedule or water budget, following the same outdoor watering restrictions (trees, shrubs and perennials only).	Same as outdoor watering restrictions.

Element	Normal	Drought Watch (Customer Outreach)	Stage 1 (Mandatory Restrictions)	Stage 2 (Ban on Lawn Watering)	Stage 3 (Rationing)
Water budgets	Voluntary opt-in.	Voluntary opt-in.	Properties over 1 acre may opt in; required reductions off of established efficient baseline and stage percent reductions. Property exceeding water budget will be placed back on two-days-per-week mandatory schedule.	Properties over 1 acre may opt in; required reductions off of established efficient baseline and stage percent reductions. Property exceeding water budget will be placed back on one-day-per-week mandatory schedule.	Same as outdoor watering restrictions.
Water Features					
Unlined ponds	Filled using approved backflow.	Filled using approved backflow.	No filling allowed unless used for irrigation.	Not allowed.	Not allowed.
Swimming pools	N/A	N/A	No waste of water.	Single-family residential pools shall not be filled or refilled. Operation of other pools will be permitted.	No filling of pools.
Other water features (fountains, waterfalls etc.)	N/A	N/A	Customers are highly encouraged to not operate any existing outdoor fountain or waterfall that sprays water into the air.	Customers are prohibited from operating any existing outdoor fountain or waterfall that sprays water into the air. No new features allowed.	No filling of water features.
Misting devices	N/A	N/A	Not allowed.	Not allowed.	Not allowed.

Element	Normal	Drought Watch (Customer Outreach)	Stage 1 (Mandatory Restrictions)	Stage 2 (Ban on Lawn Watering)	Stage 3 (Rationing)
Washing / Events					
Cars – washing at home	With bucket or hand-held hose with shut-off nozzle.	With bucket or hand-held hose with shut-off nozzle.	With bucket or hand-held hose with shut-off nozzle.	Not allowed. Must use certified commercial car washes.	Not allowed.
Cars – commercial car washes	N/A	N/A	Car wash efficiency certification program.	Car washes certified to recycle water must be used.	Not allowed.
Fleet vehicle washing	Must use a car wash or washing equipment certified by Denver Water.	Must use a car wash or washing equipment certified by Denver Water.	Maximum one time per week, certified car washes only.	One time per month only for health and safety at certified car washes only.	Not allowed.
Charity events (e.g. car washes)	On case-by-case basis.	On case-by-case basis.	Approval needed.	Not allowed.	Not allowed.
Street cleaning equipment	N/A	N/A	N/A	Obtain water from designated locations only.	Extreme health and safety issues only; high-efficiency equipment only.
Washing / impermeable surfaces	Use dry cleanup methods prior to washing. No waste of water.	Use dry cleanup methods prior to washing. No waste of water.	Use dry cleanup methods prior to washing. High-efficiency equipment required.	Use dry cleanup methods prior to washing. Health and safety issues only; high efficiency equipment required.	Use dry cleanup methods prior to washing. Health and safety issues only; high efficiency equipment required.

Element	Normal	Drought Watch (Customer Outreach)	Stage 1 (Mandatory Restrictions)	Stage 2 (Ban on Lawn Watering)	Stage 3 (Rationing)
<i>Commercial-Industrial Processes</i>					
Restaurants	N/A	N/A	Water served only on request.	Water served only on request. Must comply with Denver Water's signage program.	Water served only on request. Must comply with Denver Water's signage program.
Lodging	N/A	N/A	Laundry restrictions.	Laundry restrictions.	Laundry restrictions.
Construction water	N/A	N/A	Best management practices; no water waste; permit rescinded for violations.	Best management practices; no water waste; permit rescinded for violations.	On case by case basis; best management practices, no water waste; permit rescinded for violations.
Hydrant permits	N/A	N/A	Cancelation clause; intended use only, possible surcharge.	Limited uses (eliminate equipment cleaning); possible surcharge.	No hydrant use allowed.