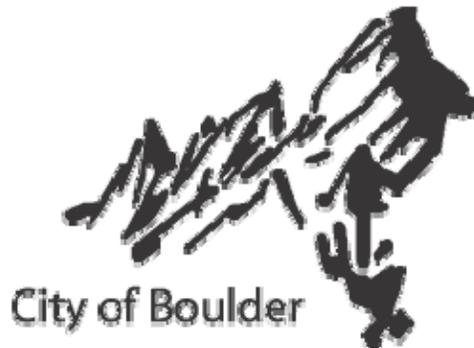


CITY OF BOULDER, COLORADO
DROUGHT PLAN

Volume I

Drought Planning and Response Plan

March 15, 2010



Public Works Department
Utilities Division

ACKNOWLEDGMENTS

This plan was originally developed in 2003 by City of Boulder (referred to as City or Boulder throughout the document) Public Works/Water Utility staff, Hydrosphere Resource Consultants, Inc., and Aquacraft, Water Engineering and Management, Inc. It reflected extensive input from several public meetings, focus groups, and from the Boulder Landscape and Water Conservation Alliance. The plan had been reviewed by and revised in response to comments from the City of Boulder's Water Resources Advisory Board and City Council. The authors wish to acknowledge the expertise and assistance of scientists at the NOAA Paleoclimatology Program regarding tree ring records and their application to stream flow reconstructions. We also appreciate the insights and cooperation of Northern Colorado Water Conservancy District staff in evaluating the operation of the Colorado-Big Thompson project during extended droughts. In addition, we would also like to acknowledge the expertise and assistance of the economists and rate consultants at Integrated Utilities Groups, Inc.

This revised Drought Planning and Response Plan is intended to update the information in the 2003 document and to incorporate the use of water budgets as a tool in drought response actions. A five (5) block, water budget rate structure was approved by City Council in 2004 and was implemented in January 2007. Included in this implementation are water budget options for the commercial, industrial and institutional (CII) customer that are based on historical or average monthly use. Council has requested that city staff continue to evaluate this customer class to determine if more individualized water budgets can be used in the future. If additional changes are made, then the Drought Planning and Response Plan will be updated accordingly.

PREFACE

The purpose of the Drought Plan is to provide a guidance document for recognizing droughts that will affect water supply availability for the City of Boulder and for responding suitably to these droughts. The Drought Plan consists of two volumes that complement each other to better serve several purposes and address various audiences. Volume I is the Drought Planning and Response Plan, which includes a categorization of drought levels according to severity, and a summary of response measures that might be taken to respond to each drought alert level. Volume II is the Drought Technical Information and Analysis that provides the supporting documentation for the Drought Planning and Response Plan. Specifically, Volume II contains the detailed background information and analysis behind the development of the drought response actions that will be of interest to those with an active role in the recognition of droughts, the assessment of Boulder's water supply system, and implementation of the drought response plan.

The Drought Planning and Response Plan is intended to integrate with and support the city's ongoing water conservation program. The City of Boulder established an extensive Water Conservation Program in 1992 to address the ongoing needs for water use reduction efforts. Ongoing water conservation efforts can ease the impact on normal activities during drought periods, but will not eliminate the need for reductions in water use during the infrequent drought periods when the municipal water supply system has reached its planned limits.

There will occasionally be droughts that will require water use limitations based on financial disincentives for water use, surcharges on excessive use, fines for wasteful water use, and/or other measures to assure the ability to satisfy the most essential water needs for all of Boulder's water customers. Throughout the Drought Planning and Response Plan, emphasis is placed on education and voluntary efforts with the more compelling response elements reserved for the most severe drought situations when a quick reduction in water use is required. Actions that take longer than a drought period to implement or have a delayed response to implementation are included in the City of Boulder Water Conservation Futures Plan (developed in July 2000) and more fully described in the city's Water Conservation Program.

This revised Drought Planning and Response Plan is intended to update information and to incorporate the use of water budgets as a tool in drought response actions. A five (5) block water budget rate structure was approved by City Council in 2004 and was implemented in January 2007.

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INTRODUCTION

Boulder's municipal water system is not expected to experience drought conditions requiring implementation of drought response strategies very often. The city is fortunate to own a diversified water rights portfolio that has a high degree of reliability. However, Boulder is located in a semi-arid climate and drought, defined as a lengthy period of below-average precipitation, is an expected part of the natural hydrologic cycle in this region. Droughts will occur regularly even though the city's municipal water system may not experience any water shortfall due to drought for several decades until a drought severe enough to affect Boulder's water supplies occurs. Although it is unknown when sufficiently severe droughts will occur to limit Boulder's water supplies and how long the limitations will last, severe droughts will eventually occur.

No municipal water supply system is drought-proof. The cost of providing facilities and water rights that might be used only once in many decades would be high and would not be a wise use of available funds. The City Council determined in 1989 that it was more prudent to reduce water demand in response to a drought whenever the available supply of water is expected to be less than the anticipated water demand for an extended period of time, usually until the next spring snowmelt occurs in the mountain areas feeding Boulder's water system. Council established reliability criteria for the acceptable number of occurrences of water demand reductions in response to drought in any period of years and the city water system is constructed and operated to achieve these reliability criteria. Therefore, it is essential to have a plan in place for responding to drought that is tailored to Boulder's water system. It is hoped that the availability of this plan will facilitate a prompt and appropriate response to droughts.

The Drought Plan, including both Volume I (Drought Planning and Response Plan) and Volume II (Drought Technical Information and Analysis), was developed to provide guidance for recognizing droughts that will affect water supply availability for the City of Boulder and for responding suitably to these droughts. The Boulder Revised Code (B.R.C.) authorizes the city manager to employ water use limitations in case of emergencies when the curtailment of water use is necessary for the protection of the public. The city manager can refer to the following Guiding Principles and the city's Drought Plan when implementing measures to curtail and reduce water use during droughts and other emergencies.

The purpose of the Guiding Principles and the Drought Planning and Response Plan is to empower the community to actively participate in reducing water use when needed due to drought and to provide flexibility and reasonableness in responding to a drought. The city will support the community in responding to a drought by providing timely information and a high degree of flexibility for individual water use choices in accordance with the severity of the drought. In non-drought periods, as part of the ongoing water conservation program, the city will continue to encourage plumbing fixture and appliance conversions to the best available water saving technologies.

GUIDING PRINCIPLES FOR DROUGHT RESPONSE

The Guiding Principles provide the overall framework for responding to a drought. The city will respond to a drought by using a variety of measures, many of which will have an educational component and/or a financial effect for the individual water user. In more severe droughts (Stages III and IV), less flexibility in types of response measures will be available since less water will be available and the repercussions for the entire community of having some residents exceed their water budget are greater. The following list includes the nine Guiding Principles for drought response:

1. **Drought declarations are to be guided by the calculation of the Projected Storage Index and other factors unique to the particular drought.** For whatever period of time this index remains in the drought ranges and other factors support maintaining the drought declaration, the corresponding drought stage will be in place and the appropriate drought response measures will be imposed.
2. **The city will investigate short-term supply augmentation strategies to employ during droughts.**
3. **The main mechanism for decreasing demands in times of drought will be to rely on informed customers, working in partnership with the city, to limit their water use to their water budgets as reduced to meet circumstances.**
4. **Reductions in water budgets are intended to be mandatory and will be supported by pricing signals.** These consist of three types:
 - a. Rate adjustments imposed on water use within the budgets needed to insure the financial stability of the Utility.
 - b. Surcharges imposed as multipliers to the normal charges for use in blocks 3, 4 and 5. These are meant to discourage excess use during droughts.
 - c. Fines imposed by Boulder Revised Code for wasting water during droughts.
5. **The city will take reasonable steps to provide its customers with the best available technology for obtaining real time water use data so that this information is in their hands to help them manage their water budgets.** This information system is to be part of the capital system and expenses for its implementation are to be built into the capital expense program, per City Council direction.
6. **In times of extreme drought, it will be necessary to limit water use to just essential purposes.** Waste, leakage and inefficient water-using technologies are all non-essential uses that require time and effort to eliminate. It will be the role of the Water Conservation Program to eliminate these, to the extent practical, prior to droughts.
7. **If information, surcharges and fines are not sufficient to prevent excess use in times of drought, the city shall impose other measures as authorized by the Boulder Revised Code to prevent exceedance of water budgets.**

8. **Pre-drought planning will be an important part of the city's drought response.** Pre-drought plans will inform the city as to how water budgets should best be adjusted in order to be fair and to match community values, and will inform customers how best to reduce their water use when necessary to minimize hardship of economic loss.
9. **The city will coordinate its Drought Planning and Response with other local, county and state government agencies in order to develop a uniform message regarding drought and response.** However, Boulder's response system will be based on its rate based enforcement and may vary from other agencies due to this approach.

PLAN PURPOSE AND ELEMENTS

The Drought Planning and Response Plan includes the following elements:

- ◆ Planning for droughts before they occur;
- ◆ Identifying and classifying a drought given knowledge of our water supply and use; and
- ◆ Responding to a drought by increasing supply and decreasing demand.

PLANNING FOR DROUGHTS BEFORE THEY OCCUR

No municipal water supply system is drought-proof. Therefore, it is important to plan for droughts before they actually occur. Drought preparation includes establishing appropriate rate structures, managing an on-going water conservation program, public education efforts and water system planning.

Implementing the water budget rate structure in 2007 was an important part of efforts to assist Boulder's customers in understanding and monitoring their water use. Another important customer outreach effort is the city's water conservation program, which helps maintain water demand levels in alignment with the city's available water supply. Conservation has long been an important component of the city's water management strategy, including outreach, education, and technical assistance programs that date back over 20 years. Any water conservation savings above the goals set by City Council will further improve the resiliency of the city's water supply during drought periods and could decrease the impact if climate change conditions result in reduced water availability for Boulder, rather than increased supplies.

The city's water management strategy also includes the completion of plans and studies such as the Water Conservation Futures Study (1999), Treated Water Master Plan (2000), Source Water Master Plan (2009) and the Water Conservation Plan (2009). The Water Conservation Futures Study led to the adoption of a Comprehensive Conservation Scenario to aggressively manage and conserve water. The Treated Water Master Plan provides guidance for improvements to the city's water system. It is anticipated that the Treated

Water Master Plan will be updated in the next few years and will include an evaluation of the role of conservation in meeting the city's water needs and responding to future conditions, such as climate change. The Source Water Master Plan was finalized in August 2009 and proposed several studies and programs for water supply planning. For instance, one recommendation of the plan was to update water demand projections to include estimates of water savings from federal mandates, advances in the manufacturing of plumbing fixtures, the city's water budget rate structure, and the water conservation plan. The Water Conservation Plan was updated and approved by the Colorado Water Conservation Board in 2009.

Preparing for droughts is an ongoing process as reflected in the water management strategy, water budget rate structure implementation, and long-term water conservation program mentioned previously. The city will continue to implement projects and evaluate programs to better plan and prepare for drought conditions. As part of this process, the Boulder Revised Code will be updated and revised to better reflect and support the Drought Planning and Response Plan. Drought preparation will continue to evolve as more information is collected and better tools are developed. For instance, as the city gains more experience and data using the water budget rate structure, further refinements regarding water use reductions (e.g., best way to reduce water budgets during a drought) may be used to update the Drought Planning and Response Plan.

IDENTIFYING AND CLASSIFYING DROUGHT

Predictions regarding future water supply availability are made based on the best information available at the time and are updated frequently as better information becomes available. Predictions will be used to identify and classify a drought. Once a drought has been declared, the city should be ready to implement the drought response plan. The extent of the intervention that will be required will depend on the actual severity of the drought.

DROUGHT RESPONSE TRIGGERS

The city monitors the snowpack levels in its Silver Lake Watershed beginning in February of each year, but the most appropriate time for final identification and classification of drought status and for planning drought responses is late April to early May. During this timeframe, knowledge of the maximum spring snowpack accumulation provides a relatively high degree of confidence regarding the amount of runoff that will occur, and the amount of water that Boulder will get for the year from the Colorado-Big Thompson (CBT) system is known. Additionally, nearly all of the irrigation season still lies ahead.

Droughts can be categorized into four stages depending on the level of severity. Drought triggers corresponding to each drought stage were developed through modeling studies of the city's water supply system and are described in more detail in Volume II. The drought triggers reflect the city water supply storage levels that require an active drought response by the city to avoid threatening the reliability of the city's water supply and to avoid serious water supply shortages. It should be noted that any drought response triggers should be

used only as a guideline. The City of Boulder should carefully evaluate these triggers along with other factors unique to the particular drought to determine the appropriate drought response.

The triggers incorporated three quantitative factors:

- ◆ Boulder’s projected mountain storage during the ensuing May-June period based on snowpack measurements and the projected resulting streamflows during the spring runoff period.
- ◆ Boulder’s portion of water projected to be available in CBT reservoirs during the ensuing May-June period.
- ◆ Boulder’s unrestrained water demand.

The triggers illustrated in Table 1 below incorporate all three of the factors listed above. Boulder’s portion of CBT storage is discounted by 40 percent because of the multi-year carryover function of this supply.

Table 1: Suggested drought response triggers for May 1

Projected Storage Index ⁽¹⁾	Drought Alert Stage
Greater than 0.85	None
Between 0.85 and 0.7	I
Between 0.7 and 0.55	II
Between 0.55 and 0.4	III
Less than 0.4	IV

⁽¹⁾Projected storage index = (projected usable Boulder mountain storage + 40% of Boulder’s portion of projected CBT storage) / Boulder’s unrestrained water demand in non-drought years.

While Boulder’s drought response can be decided upon and communicated to the public in early May, Boulder should continue to monitor trends in snowpack, runoff and reservoir filling through May and June, and should be ready to modify its drought response plan accordingly, if needed. Once conditions allow, the need for drought response measures will officially be ended by the city manager and the city will restore water budgets, remove surcharges, and remove fines for certain types of water use.

DROUGHT ALERT STAGES AND WATER USE REDUCTION LEVELS

Each of the drought stages is associated with a certain level of reduction in Boulder’s overall water use that is required to maintain the ability to supply enough water for Boulder’s most important water needs until the drought is over. The types of droughts that Boulder might have to respond to can be summarized based on alert levels in Table 2.

Table 2: Drought Stages and Water Use Reduction Levels

Drought Alert Stage	Description	Total Annual Water Use Reduction Levels	Irrigation Season (May 15-Sept 15) Water Use Reduction Levels
I	Moderate	8%	10%
II	Serious	14%	20%
III	Severe	22%	30%
IV	Extreme	40%	55%

The water use reduction levels associated with each drought stage were developed in conjunction with the drought response triggers through modeling studies of the city’s water supply system, as described in Volume II. Water use reduction levels were balanced with drought response triggers to minimize inconvenience and damage associated with demand reductions and maximize the overall reliability of the city’s water supply system. The water use reduction percentages are the amounts that pre-drought water usage must be reduced at times when the drought triggers indicate a Drought Alert Stage is occurring in order to assure that the reliability criteria for the water system are met.

In reference to Table 2, the total annual water use reduction level includes reductions in both indoor and outdoor water use and represents the required percentage of reduction that must be achieved for the entire year to assure sufficient water supplies remaining in storage to last through the drought, as determined from the modeling studies. The water use reduction levels for the irrigation season include both indoor and outdoor water use from May 15 - September 15. These reduction levels are higher because more water use takes place during the irrigation season, so a higher percentage of the total annual water use reduction must occur in these months. Outdoor irrigation use is typically the most discretionary water use and will be the area comprising the bulk of the reductions achieved, especially during the irrigation season (it is assumed that water use in the winter is almost all indoors).

Long-term conservation efforts will reduce the “unconstrained water demands” used in the calculations for Table 1 and may help to increase the “projected usable Boulder mountain storage” volumes going into a drought. As such, long-term conservation efforts would increase the calculated value for the Projected Storage Index in Table 1 for a particular year by increasing the numerator (mountain storage) or decreasing the denominator

(unrestrained water demand) in the formula. This might result in fewer declarations of Drought Alert Stages over time.

DROUGHT RESPONSE STRATEGIES

If water availability from Boulder's usual sources is insufficient to meet demand during a drought, then two approaches can be considered: one is to increase the water supply and the other is to reduce demand. Each option presents its own unique institutional and technical issues, and must be considered individually. There is an interaction between increasing the water supply and reducing demand. However, short-term demand reduction in and of itself does not necessarily increase supply. For example, a temporary reduction in irrigation water use in Boulder during a rainstorm will decrease the drawdown in city reservoir storage levels only if it occurs at a time when the city would be using reservoir water. Reductions in demand during periods when the city's direct flow rights are in priority and fully satisfying the city's entire water demand (usually from about early May to late July) will not lead to increased reservoir storage because water saved from diversion of direct flow rights cannot legally be stored. However, any reductions in demand during this period may result in an increased streamflow between the city's diversions at the Barker and/or Silver Lake watersheds to a point near the mouth of Boulder Canyon.

During a drought, the opportunity for preserving reservoir storage levels by reducing water use is greater than in non-drought periods because the number of weeks during the year that Boulder can satisfy all municipal water demands directly from streamflow by diversion under direct flow rights is reduced due to the drought and may only occur from late May to late June. Therefore, in drought years there may be an additional four to eight weeks when demand reductions will result in higher storage levels due to decreased drawdown.

INCREASING WATER SUPPLY DURING A DROUGHT

Below are a number of possible actions that may be taken to increase the supply of water in response to a drought. These actions are not listed in any prioritized order since all will be evaluated during a drought and the action(s) selected will depend on the drought situation. Each action needs to be evaluated to determine the amount of increase in water supply and if legal action is required in order to make the water supply available for Boulder's municipal use.

- ◆ Increased fall/winter season use of the Boulder Reservoir Treatment Plant.
- ◆ Elimination of all or part of the city's Colorado–Big Thompson leasing program to local farmers. Any available lease water in both drought and non-drought years is distributed based on seniority of the lease request and preference for water users diverting from Boulder Creek. In drought years, consideration could also be given to property within the Boulder Valley Comprehensive Plan area and crop contribution to Boulder's local community gardens or local produce markets.

- ◆ Elimination of agricultural leases of other types of city-owned water based on ability to use the water within the municipal system.
- ◆ Exercise of drought reservation clauses in Boulder’s instream flow agreements and other water supply agreements that allow municipal use of the water.
- ◆ Exercise of interruptible supply arrangements with local ditch companies. These arrangements are legal agreements that allow farmers to use the specified water rights most of the time, except when certain conditions, such as drought, allow the city to use these water rights (thus, the farmers’ use of the water is interrupted).
- ◆ Water trades with Baseline Reservoir.
- ◆ Exchange of Colorado-Big Thompson water for water released from Jasper Reservoir.
- ◆ Temporary use of Open Space irrigation rights (e.g. Farmers Ditch) for municipal purposes.
- ◆ Emptying of Skyscraper Reservoir.
- ◆ Lease of additional Colorado-Big Thompson supplies for city use.
- ◆ Drawdown of reserve pools in Boulder’s reservoirs to below the normal minimum levels.
- ◆ Emptying of dead storage in Boulder’s reservoirs. Dead storage is the water in the bottom of the reservoir, below the outlet, that can only be removed by pumping.
- ◆ Condemnation of irrigation water rights.

DECREASING WATER DEMAND DURING A DROUGHT

The other method for responding to a drought is to reduce the demand, or use, for water. The remainder of this document describes how to reduce water use in relation to drought stages, water use reduction goals, and various response actions for each stage. See Table 3: Drought Response Summary Table for additional information.

DROUGHT STAGES AND RESPONSE OPTIONS

This drought response plan progresses from measures for use during moderate droughts through measures applicable to increasingly more intense drought levels. The four drought stages that are discussed in this plan include the following – moderate, serious, severe, and extreme. With each drought stage, there are a number of possible response measures that may be taken to reduce water demand. The main focus of the response measures for each drought stage is summarized in Table 3. The measures described would be appropriate in most instances of the associated drought stage, but should be evaluated based on the conditions experienced during a particular drought since each drought has unique characteristics. As summarized in Table 3, water budget reductions apply to all customer classes, including municipal (city departments). Individual water budgets will be reduced by percentages specific to indoor allocations and outdoor allocations necessary to achieve the overall water use reduction levels that were shown by water modeling to be required for achieving the water system reliability criteria. Surcharges may be in the form of a penalty rate applied to the volume of water used in a given rate block. Fees might be imposed on customers who have water use in the higher rate blocks for two or more consecutive months. Water use limitations included in the table are examples and are not considered to be a complete or an obligatory list.

Some property owners in Boulder may have rights to non-potable water sources from groundwater wells or irrigation ditches that can be used for irrigation purposes. The city would encourage these property owners to use their non-potable water in an efficient and effective manner. The city may not legally restrict these non-potable water uses during a drought unless an agreement to do so is in place. All agreements would need to be reviewed during a drought in order to determine the applicability and conditions of specific agreements.

Table 3: Drought Response Summary Table

Drought Stage	Main Focus	Possible Response Measures				
		Water Budget Reductions	Surcharges and Rates	Suggested Water Use Limitations	Charges, Fee, and Fines for Violating Water Use Limitations	Penalties for Violating Water Use Limitations
Stage I Moderate (Storage Index 0.85 to 0.70)	More emphasis on basic water use reduction measures and wise water use practices implemented through public education and outreach and promoting low-flow water use fixtures and city rebate program. Enhance instructions on use of water monitors to track usage. Target high volume water users.	Required budget reductions sufficient to achieve overall 8% reduction in water use.	Consider surcharges for water use in excess of allotted budgets for blocks 3, 4 and 5. Consider rate increases for revenue stabilization.	Suggest water use limitations. Examples: recommend postponing landscape changes unless converting to xeriscape; recommend no lawn watering between 10 am - 6 pm; encourage deep root watering of tree/shrubs. Remind community to eliminate water waste, leakage, unnecessary outdoor water use.	Implement charges, fees, and fines for violating water conservation and water waste per the Boulder Revised Code. Examples: fines for sidewalk or driveway washing or sprinklers spraying streets).	None.
Stage II Serious (Storage Index 0.70 to 0.55)	Keep the following vegetation alive: Trees, shrubs, vegetable and flower gardens and lawns. Limit outdoor water use and non-essential uses. Emphasize wise water use practices through public education and outreach. Eliminate wasteful; target excessive water use.	Required budget reductions sufficient to achieve overall 14% reduction in water use.	Consider surcharges for water use in excess of allotted budgets for blocks 3, 4 and 5. Consider rate increases for revenue stabilization.	Continue to encourage Stage I water use limitations and include additional suggestions such as: recommend watering lawn less frequently.	Implement Stage I and fine block 5 water use.	Penalize block 5 water use for several months with flow restrictors.
Stage III Severe (Storage Index 0.55 to 0.40)	Keep the following vegetation alive: major trees, major shrubs, and limited vegetable gardens. Greatly reduce outdoor water use and non-essential uses. Eliminate wasteful water use and reduce excessive water use.	Required budget reductions sufficient to achieve overall 22% reduction in water use.	Implement surcharges for water use in excess of allotted budgets for blocks 3, 4 and 5. Implement rate increases for revenue stabilization.	Continue to encourage Stage I and II limitations, plus additional water use reduction suggestions such as: suggested designated tree watering days (beyond lawn watering); suggestions to businesses to follow best practices (serve water on request); no landscape changes unless xeriscape.	Implement Stage II plus fines for “more limited” uses. Examples: lawn watering between 10 am - 6 pm subject to warnings and fines; fines for repeat water waste offenders; fine blocks 4, 5 water use.	Penalize block 5 water use in consecutive months with flow restrictors.
Stage IV Extreme (Storage Index less than 0.40)	Sustain some mature trees, but recognize there may be a major die-off of lawns, trees, and shrubs. Minimize most outdoor water use and non-essential uses. Implement aggressive public education and outreach program. Eliminate wasteful water use and excessive water use.	Required budget reductions sufficient to achieve overall 40% reduction in water use.	Implement surcharges for water use in excess of allotted budgets for blocks 3, 4, and 5. Implement rate increases for revenue stabilization.	Continue to encourage suggested water use limitations as outlined in Stage I, II, and III.	Implement Stage II & III plus fines for “very limited” uses. Examples: no fountains or filling of swimming pools; fine blocks 3, 4 and 5 water use.	Stage II and III penalties and flow restrictors; consider moratorium on building permits; consider termination of water service for extreme water waste offenders.

SUMMARY

Drought is defined as a lengthy period of below-average precipitation. Boulder is located in a semi-arid climate where droughts are an expected part of the natural hydrologic cycle that occurs with regularity. The city's municipal water system may not experience any water shortfall due to drought for several decades until a drought severe enough to affect Boulder's water supplies occurs. Although it is unknown when sufficiently severe droughts will occur to limit Boulder's water supplies and how long the limitations will last, severe droughts will eventually occur. The severity of drought depends on the magnitude of the deficiencies compared to historic averages, the size of the area impacted, the duration, the ability of people to respond, and the resilience of the water supply system. Even though the City of Boulder has a reliable water supply system, there will be some drought years where Boulder's customers must reduce their water demand in response to a drought to assure sufficient water supplies are available to the community until reservoirs can be replenished.

This plan is intended to help customers, stakeholders, City Council, Water Resource Advisory Board and city staff prepare for a drought. Ultimately, our drought response decisions will be based on the specific circumstances during the drought. Therefore, this plan is also a guide for the community and decision-makers during a drought situation.

Equity, public involvement, flexibility and recognition of the differences between private and public areas provide the basis for this plan and are reflected in the Guiding Principles for drought response. The success of any drought response effort is dependent upon the willingness of our community to work together. The tools that might be useful for the community to implement in preparing for and responding to a drought are varied, as described within this plan, and can be tailored to the situation as needed when drought events occur.