

**WATER SHORTAGE
CONTINGENCY PLAN**



Little Thompson Water District

December 2021

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1 Declaration of Policy, Priorities, Purpose, and Objectives

1.1 Policy

The Board of Directors of Little Thompson Water District (the District) hereby adopts the following regulations and restrictions on the delivery and consumption of water, to conserve the available water supply and protect the integrity of water supply facilities, with particular regard for potable water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions.

This plan will be reviewed and updated, as necessary, every five years.

1.2 Priorities Statement

The risks to public health and safety from water shortages could be high and include issues of water quality, water quantity, sanitation, and hygiene for personal use and food preparation. As a result, this Plan establishes the following priorities for water use during a water shortage emergency.

1. Health and safety: residential home interior uses, medical needs, sanitation, and firefighting.
2. Commercial, industrial, agricultural, and governmental: maintain jobs and economic base.
3. Existing high value landscaping: trees and shrubs.
4. Existing low value, high demand landscaping: sod and native grasses.
5. Construction water.
6. New landscaping.

1.3 Purpose and Objectives

The purpose of this document is to provide guidance for water supplies to ensure the public health, safety, and welfare of the District customers while meeting the following objectives:

- Working within the resources and guidelines of the District's 2020 Water Supply and Demand Study.
- Maintain customer economic security.
- Determine water supply drought stages.
- Provide authority to implement action plan and to enforce restrictions.
- Establish flexibility and preparedness for District directors, managers, and staff.
- Establish the difference between long term demand reduction through water conservation and short-term demand reduction for water shortage conditions.
- To identify methods for the District to impact demand reduction and notification to customers.

Water use regulated or prohibited under this Water Shortage Contingency Plan (the Plan) are non-essential and continuation of such use during times of water shortage or other emergency water supply condition are deemed to constitute a waste of water which subjects the offender(s) to penalties as defined on the Action Summary Table and Enforcement section of this Plan.

1.4 Authorization

The District Manager or their designee is hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary to protect public health,

safety, and welfare. The District Manager or their designee shall have the authority to initiate or terminate water shortage or other water supply emergency response measures as described in this Plan.

1.5 Application

The provisions of this Plan shall apply to all persons, customers, and property utilizing water provided by the District. The terms “person” and “customer” as used in the Plan include individuals, corporations, partnerships, associations, and all other legal entities.

1.6 Public Involvement

Opportunity for the public to provide input into the preparation of the Plan was provided by the ***District*** by means of ***two public hearings held November 11, 2021 and December 9, 2021.*** *The Document was also posted to the District website and advertised on Facebook on November 15, 2021.*

The District will periodically provide the public with information about the Plan, including information about the conditions under which each stage of the Plan is to be initiated or terminated and the water shortage response measures to be implemented in each stage. This information will be provided by means of quarterly and/or monthly newsletters, billing inserts, postcards, door hangs, web site, social media, posted public notice when appropriate, and/or press releases.

2 Definitions

For the purposes of this Plan, the following definitions shall apply:

Aesthetic water use: water use for ornamental or decorative purposes such as fountains, reflecting pools, and water gardens.

Average Yield: the amount of water attributable to one unit or one share of water averaged over the records of the water right.

Bulk Water: Any water delivered through a fire hydrant for uses other than firefighting.

Customer: any person, company, or organization using water supplied by the District.

Even number address: street addresses, box numbers, or rural postal route numbers ending in 0, 2, 4, 6, or 8 and locations without addresses.

Firm Yield: the lowest amount of water attributable to one unit or one share of water in the records of the water right.

Landscape irrigation use: water used for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including residential and commercial lawns, gardens, golf courses, parks, and rights-of-way and medians.

Non-essential water use: water uses that are not essential nor required for the protection of public, health, safety, and welfare, including:

- irrigation of landscape areas, including parks, athletic fields, and golf courses, except otherwise provided under this Plan;
- use of water to wash any motor vehicle, recreational vehicle, motorbike, boat, trailer, airplane or other vehicle;
- use of water to wash down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas except as needed for health and safety reasons;
- use of water to wash down buildings or structures for purposes other than immediate fire protection;
- flushing gutters or permitting water to run or accumulate in any gutter or street;
- use of water to fill, refill, or add to any indoor or outdoor swimming pools or jacuzzi-type pools;
- use of water in a fountain or pond for aesthetic or scenic purposes except where necessary to support aquatic life;
- failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s); and
- use of water from hydrants for construction purposes or any other purposes other than fire fighting.

Odd numbered address: street addresses, box numbers, or rural postal route numbers ending in 1, 3, 5, 7, or 9.

Potable water use: treated water that is safe to use for personal needs or for household or sanitary purposes such as drinking, bathing, heating, cooking, sanitation, or for cleaning a residence, business, industry, or institution.

Water Conservation: those practices, techniques, and technologies that reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water or increase the recycling and reuse of water so that a supply is conserved and made available for future or alternative uses.

Water Shortage Condition: Any situation where water supplies are inadequate to meet water demands.

3 System Overview and Utility Profile

The District provides potable water service to customers in its 250 square mile service area in Northern Colorado along the Front Range. The climate in this area is semi-arid and annual water supplies are highly variable. General increases in the District's number of customers and their irrigated landscape areas greatly affect the demands on the District's water supplies as most customers use one-half of their water on irrigated landscape. Because of this, outdoor water use is the focus of this guidance.

Currently the District's available water supplies all come from the Western Slope of Colorado, specifically, the Upper Colorado River and the Fraser River. This water is delivered through the Colorado-Big Thompson (C-BT) Project. The District uses water from the C-BT Project (C-BT units) to meet existing demands as C-BT water may be used by the District immediately at the Carter Lake Filter Plant. The annual water supply from the C-BT Project is based on the number of fixed and variable yield units in the project that the District owns. Generally, the fixed units provide a steady supply of water in both wet and average years while the variable yield units provide more water in dry years on the Front Range. In a drought on the Western Slope and Front Range, the water supply from both units will be reduced. The District is susceptible to low water supplies in years where either the Upper Colorado River watershed is very dry or where the service area of the District has significant moisture prior to Northern Colorado Water Conservancy District (Northern) declaring the yield (quota) in April. Since C-BT is a "supplemental water," the quota (yield) is lower during years of high precipitation on the Front Range watersheds.

The District also owns Windy Gap water, which is based upon a water right on the Fraser and Upper Colorado Rivers and is delivered, when available, through the C-BT Project. The District does not receive water from this source every year. However, the District is participating in the Chimney Hollow Reservoir Project. The storage in the reservoir, once constructed and filled, will enable a more efficient and reliable method to capture the water from the Windy Gap water right and deliver it to the Carter Lake Filter Plant which will increase the yield of this water right.

The District plans for and accepts water for dedication based upon the firm yield of the water rights. The firm yield is the annual water the District can rely on during a drought year or year(s). The average yield considers deliveries over a significant period of time, which includes wet and dry years. The District accepts water from a variety of sources including local ditch water and C-BT units.

The District owns water in local ditch companies such as the Big Thompson Ditch and Manufacturing Company, the Consolidated Home Supply Ditch, and Handy Ditch. The District anticipates using water from these ditches; however, the water is not available for municipal use at this time. The District also owns shares in the Boulder and Larimer Ditch (Old Ish Ditch), the Supply Ditch, and the Highland Ditch which are also not available for municipal use but should be kept in the portfolio for other opportunities. All of these ditch shares were dedicated to serve taps currently in use.

The District owns approximately 5,000 acre-feet of storage in Dry Creek Reservoir, a facility it jointly owns with another water district. The District also utilizes storage space in the C-BT system, Northern's carryover program. The storage helps regulate the District's annual water supply between wet and dry years.

4 Water Shortage Response

4.1 Declaring and Terminating Emergency Response Stages

A Water Shortage Watch, Level I – Low, Level II – Medium, or Level III– High action level may be issued before or after reaching the respective listed triggers. In addition, the District shall consider compounding issues of soil conditions, short- or long-term weather forecasts, water supplies, water quality concerns, or infrastructure conditions on water demands and shall adjust the response stage accordingly. Additionally, significant consideration should be given specifically to production capacity at Carter Lake Filter Plant.

4.2 Authorization to Declare or Terminate Drought Stages

The District Manager or their designee shall monitor water supply and demand conditions monthly or as operational conditions require. The District Manager shall determine when conditions warrant initiation or termination of each stage of the Plan, that is, when the specified requirements for initiation are reached and make the declaration of Action Level.

4.3 Establishing Water Shortage States and Initiation and Termination Requirements

The triggering criteria described below are based on projected yield of each water source, historical water demand patterns, and the District’s ability to meet the projected water demands.

4.3.1 Action Level - Water Shortage Watch

This action level shall be normal operating conditions of the District. This level will allow customers to adhere to the District’s Wasting of Water and Voluntary Outside Watering Schedule (Resolution 2020-11) through widely accepted best practices for landscape watering and non-landscape water usage. No additional water rate changes shall be implemented, and no enforcement action is required because there are no restrictions on landscape and non-landscape watering.

4.3.2 Action Level I – Low: Minor Shortage Conditions

The goal of the enactment of the Minor Shortage Condition is to achieve a ten percent (10%) reduction in overall water use or average daily water demand.

4.3.2.1 Requirements for Initiation (Triggers)

Customers shall be required to conserve water and adhere to the prescribed restrictions shown on the Action Summary Table, when one or more of the following events occur:

- Northern Water declares a C-BT fixed quota of 70%
- Northern Water declares a C-BT variable quota of 70%
- The expected Northern Water C-BT quota for the subsequent year is 70%
- When total system storage (combination of Dry Creek storage and Carryover storage) is projected to between 85% and 95% by October 31
- At any time when expected demand is 5% greater than the expected supply

4.3.2.2 Requirements for Termination

Action Level I of the Plan may be rescinded by the District Manager when all of conditions listed as triggering events have ceased to exist and the District's projected total storage volume for October 31 is greater than 95%. Upon termination of Action Level I – Low: Minor Shortage Conditions, the Water Shortage Watch is implemented.

4.3.3 Action Level II – Medium Water Shortage Conditions

The goal of the enactment of the Action Level II – Medium Shortage Condition is to achieve a fifteen percent (15%) reduction in overall water use or average daily water demand.

4.3.3.1 Requirements for Initiation (Triggers)

Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses for Action Level II of this Plan when one or more of the following events occur:

- Northern Water declares a C-BT fixed quota of 66%
- Northern Water declares a C-BT variable quota of 60%
- The expected Northern Water C-BT quota for the subsequent year is 60%
- When total system storage (combination of Dry Creek storage and Carryover storage) is 51% to 85%
- At any time when expected demand is 10% greater than the expected supply

4.3.3.2 Requirements for Termination

Action Level II of the Plan may be rescinded by the District Manager when all of the conditions listed as triggering events have ceased to exist and the total District's projected total storage volume for October 31 is greater than 85%. Upon termination of Action Level II, Action Level I becomes operative.

4.3.4 Action Level III – High Water Shortage Conditions

The goal of the enactment of the Action Level III – High Shortage Condition is to achieve a twenty percent (20%) reduction in overall monthly water use or average daily water demand.

4.3.4.1 Requirements for initiation (Triggers)

Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses for Action Level III of this Plan when one or more of the following events occur:

- Northern Water declares a C-BT fixed quota of 50% or less
- Northern Water declares a C-BT variable quota of 50% or less
- The expected Northern Water C-BT quota for the subsequent year is 50%
- When total system storage (combination of Dry Creek storage and Carryover storage) is less than 50%
- At any time when expected demand is 15% or greater than the expected supply

4.3.4.2 Requirements for termination

Action Level III of the Plan may be rescinded as determined when all of the conditions listed as triggering events have ceased to exist and the total District's projected total storage volume for October 31 is greater than 50%. Upon termination of Action Level III, Action Level II becomes operative.

4.4 Water Shortage Response Measures

The District will implement requirements of its customers and adjustments of District rates and charges to assist in reducing overall water usage according to the goal of the action level. The requirements and steps taken by the District are used to help ensure sufficient water supplies are available to meet water demands with particular regard to public health, safety, and welfare and the priorities identified above. The response measures for each water shortage condition are shown in the attached Action Summary Table.

4.5 Public Notification

The District Manager or their designee shall notify the public in as many means as deemed necessary including the following general guidelines:

- District Website updates (all stages)
- Facebook posts (all stages)
- Bill stuffer (start at Level I – Low Water Shortage)
- Postcard mailings (start at Level II – Medium Water Shortage)
- Direct mail to each customer (start at Level II – Medium Water Shortage)
- Door hanger for each customer (start at Level III – High Water Shortage)
- Press releases to local newspapers (start at Level III – High Water Shortage)
- Public service announcements – radio (start at Level III – High Water Shortage)

The District Manager, at their discretion, shall notify directly, or cause to be notified directly, the following individuals and entities:

- District Board of Directors
- Carter Lake Filter Plant Manger
- Master Meter Customers
- Long’s Peak Water District
- North Carter Lake Water District
- Town of Mead
- City of Loveland
- Town of Berthoud
- Town of Johnstown
- Fire Chiefs of all nine Fire Districts
- Central Weld County Water District
- Fort Collins/Loveland Water District
- Thompson School District and St. Vrain School District
- Boulder, Larimer and Weld County Emergency Management Coordinators
- Northern Colorado Water Conservancy District
- Select water users (dairies, feedlots, etc.)

4.6 Procedures for Granting Variances

The District Manager, or their designee, may, in writing, grant temporary variance for existing water uses otherwise prohibited under this Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance and if one or more of the following conditions are met:

- Compliance with this Plan cannot be practically accomplished during the duration of the water supply shortage or other condition for which the Plan is in effect.
- Alternative methods can be implemented which will achieve the same level of reduction in water use.

Persons requesting an exemption from the provisions of this Ordinance shall file a petition for variance with the District within 5 days after the Plan or a particular water shortage response stage has been invoked. All petitions for variances shall be reviewed by the District Manager, or their designee, and shall include the following:

- Name and address of the petitioner(s).
- Purpose of water use.
- Specific provision(s) of the Plan from which the petitioner is requesting relief.
- Detailed statement as to how the specific provision of the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Plan.
- Description of the relief requested.
- Period of time for which the variance is sought.
- Alternative water use restrictions or other measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date.
- Other pertinent information.

Variances granted by the District shall be subject to the following conditions, unless waived or modified by the District Manager or their designee:

- a) Variances granted shall include a timetable for compliance.
- b) Variances granted shall expire when the Plan is no longer in effect unless the petitioner has failed to meet specified requirements.

No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance.

4.7 Enforcement

The District Manager, or their designee, may issue warnings, assess fines, insert water restrictors, and/or discontinue water service for customers who fail to observe water use restrictions during the action levels of a water shortage. At increasing action levels of water shortage, compliance with the water use restrictions becomes more critical and it is necessary to have measures in place to force compliance.

The following is a list of steps the District is authorized to utilize to achieve timely customer compliance. The fines in step 2 will increase as action levels become more severe.

1. The customer will be issued a warning upon the first violation.
2. The customer will be fined the following amounts for each subsequent violation.
 - a. Action Level I (Yellow):
 - i. Second Violation - \$75.00
 - ii. Third Violation - \$150.00
 - iii. Fourth Violation – \$300.00
 - b. Action Level II (Orange):
 - i. Second Violation - \$100.00
 - ii. Third Violation - \$250.00
 - iii. Fourth Violation - \$500.00
 - c. Action Level III (Red):
 - i. Second Violation - \$150.00
 - ii. Third Violation - \$300.00
 - iii. Fourth Violation - \$750.00
3. The customer's service will be restricted such that water deliveries are reduced if fines do not remedy the compliance.
4. The customer's water service will be shutoff if flow restrictions and fines do not remedy compliance.

ACTION SUMMARY TABLE					
Little Thompson Water District					
Action Level		Water Shortage Watch	I-Low	II-Medium	III-High
Landscape Watering	Non-Watering Hours	Watering before 10 am or after 6 pm	Watering before 10 am or after 6 pm	Watering before 10 am or after 6 pm	Watering before 10 am or after 6 pm
	Number of Watering Days per week (even and odd refers to last digit of street address)	Even - Mon, Wed & Sat Odd - Tue, Thurs & Sun	Mandatory Even - Mon, Wed & Sat Odd - Tue, Thurs & Sun	Mandatory Even - Wed & Sat Odd - Thurs & Sun	Not allowed
	Trees and Bushes	Limited to drip system, hand watering with shut off nozzle, deep root needle, or arbor bag	Limited to drip system, hand watering with shut off nozzle, deep root needle, or arbor bag	Limited to drip system, hand watering with shut off nozzle, deep root needle, or arbor bag	Limited to drip system, hand watering with shut off nozzle, deep root needle, or arbor bag
	Residential Gardens and Greenhouses	Limit watering by sprinkler system to scheduled 3 days per week before 10 am or after 6 pm. If watering by hand, deep root needle, or drip water system - not limited to watering days	Limit watering by sprinkler system to scheduled 3 days per week before 10 am or after 6 pm. If watering by hand, deep root needle, or drip water system - not limited to watering days	Limit watering by sprinkler system to scheduled 2 days per week before 10 am or after 6 pm. If watering by hand, deep root needle, or drip water system - not limited to watering days	May only watered by hand, deep root needle or drip water system
Non-Landscape Water Use	Residential Vehicle Washing	Must use shutoff nozzle	Must use shutoff nozzle before 10 am or after 6 pm	Must use shutoff nozzle before 10 am or after 6 pm	Not allowed
	Spraying Impervious Surfaces	Whenever possible, use dry methods	Whenever possible, use dry methods	Not allowed except for commercial power washing. Whenever possible, use dry methods	Not allowed except for commercial power washing. Whenever possible, use dry methods
	Water for construction use or other bulk water uses	Contractor must provide water for projects that will use more than 1 million gals - can lease water from District if available	Contractor must provide water for projects that will use more than 500,000 gals	Contractor must provide water for projects that will use more than 250,000 gals	Contractor must provide water for all projects
	Hydrant Flushing and Testing for LTWD and Fire Districts	Normal operating schedule and critical situations	Normal operating schedule and critical situations	Limited to critical operations	Limited to critical operations
	Water Features	Unrestricted	Can fill on scheduled watering days before 10 am or after 6 pm	Can fill on scheduled watering days before 10 am or after 6 pm	Not allowed
	Ponds	Customers must provide water for use for more than 1 million gals - can lease water from District if available	Customer must provide water for use for more than 500,000 gals	Customer must provide water for use for more than 250,000 gals	Customer must provide water
	Individual swimming pools, jacuzzi	Unrestricted	Unrestricted	Pools unrestricted if filled before restrictions are implemented. Top off allowed.	No topping off. Pools should be covered to help with water loss.
Exceptions by Permit	New lawns by seed or sod	Not Applicable	Water anytime of the day, any day of the week as defined in permit from partners	September to April - water anytime of the day, any day of the week as defined in permit from partners	Not allowed
Enforcement	Residential Fines or Violations	Not Applicable	1st offense - written warning; 2nd offense - \$75; 3rd offense - \$150; 4th offense - \$300; If fines do not remedy compliance flow restrictor in the meter pit Last measure - termination of water service at the discretion of the District Manager	1st offense - written warning; 2nd offense - \$100; 3rd offense - \$250; 4th offense - \$500; If fines do not remedy compliance flow restrictor in the meter pit Last measure - termination of water service at the discretion of the District Manager	1st offense - written warning; 2nd offense - \$150; 3rd offense - \$300; 4th offense - \$750; If fines do not remedy compliance flow restrictor in the meter pit Last measure - termination of water service at the discretion of the District Manager
Water Rates	Adjusted Water Rates	Not Applicable	10% Increase top tier rate	20% Increase top two tier rates	50% Increase top two tier rates