

DROUGHT MITIGATION PLAN

Town of Superior, CO

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Town of Superior Drought Mitigation Plan

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Town of Superior Drought Mitigation Plan

Introduction, Stakeholders, Objectives, and Principles

This Drought Mitigation Plan (Plan) is a guide for the Town of Superior (Town). This document identifies conditions that define a drought, the Town's response, and a framework for communicating that response.

Drought Definition

Droughts are a natural phenomenon of Colorado's climate. They can vary in duration and severity; a function of both the length of time that normal water supplies (e.g., snowpack) do not materialize and the duration of the precipitation shortage. Winter 2025-2026 brought one of the lowest snowpacks on record in Colorado, and the 2026 drought is among the most severe on record statewide for streamflow. River administration is tight, with senior calls much earlier in the season than normal. The 2002 statewide drought was considered one of the worst in the past 40 years, but 2026 has already brought record-low snowpack to the state. Most water scientists, including the Colorado Climate Center, classify the 2002 drought as rarer than a once-in-350-year event.

The Town desires its water system to withstand a 2-year drought with a 50-year frequency. The aforementioned 2002 drought was more severe than this one and was accommodated by the Town's water system, with no impacts on health and safety needs and some cutbacks to landscaping.

Water Supply System and Summary of Water Rights

The Town has water rights on South Boulder Creek (through two separate diversions) and Colorado River Water [via the Colorado-Big Thompson Project or Windy Gap Project]. Colorado River Water is provided to the Town via the Northern Colorado Water Conservancy District (NCWCD) Pump Station. This is shown schematically in **Figure 1**.

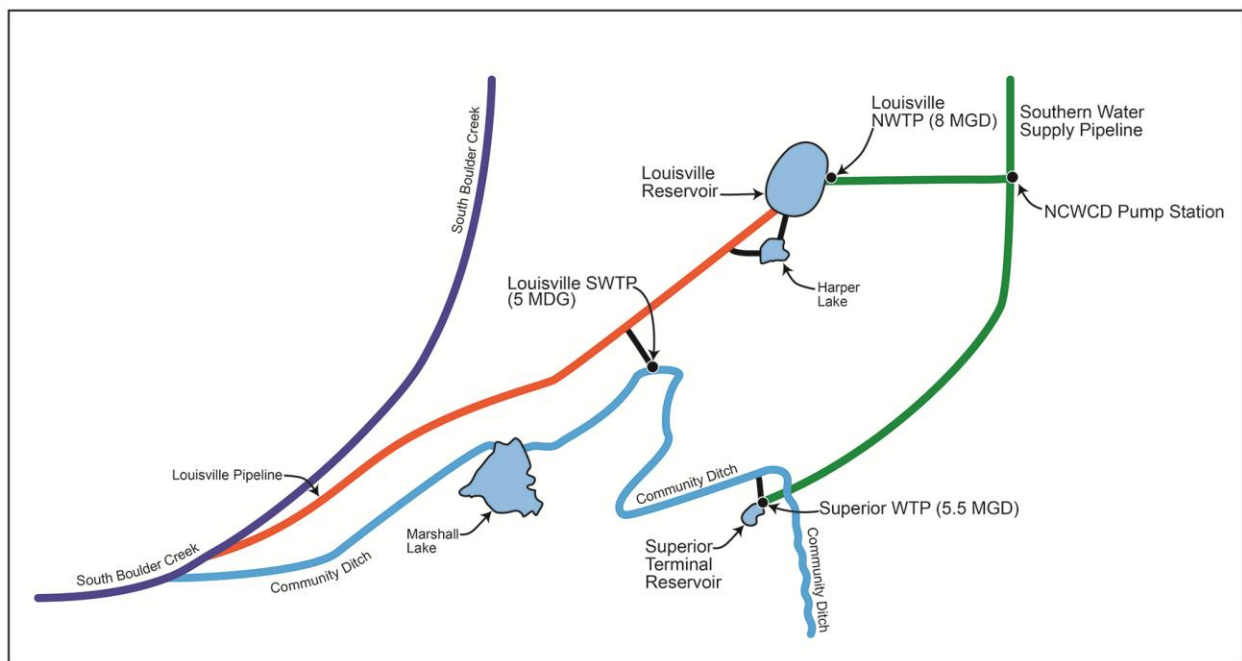


Figure 1 - Town of Superior Schematic of Raw Water Delivery System

The Town has a water rights portfolio comprising surface and groundwater. However, in recent years, the Town has utilized only surface water. **Table 1** provides a brief description of surface water rights and the projected average and firm yields. The Town is also currently participating in the Windy Gap Firming project, which will increase the Town's projected yield given in **Table 1**. The completion of the Windy Gap firming project is expected to increase water yield.

Table 1 – Surface Water Rights Summary

Water Right	Average Annual Yield, Acre-feet	Dry (Firm) Yr. Annual Yield, Acre-feet
Transbasin Source - Colorado Big Thompson (2,080 Units)	1,456	1,040
Transbasin Source - Windy Gap Project, current Windy Gap Firming Project (15 Units - current) (4,726 Units Windy Gap Firming project)	750 1,380 - 1,500 ² (total after firming)	0
Irrigation Company Source - FRICO/Marshall Diversion (54.47 Shares)	245.1	41
Irrigation Company Source - South Boulder Creek and Coal Creek Ditch Company	37.5	37.5
Irrigation Company Source - Goodhue Ditch Company	4.5	4.5
Total Surface Water Supply ¹	2,493.1 (current) 3,243.1 (with WG Firming)	1,123

Notes:

¹ Total surface water supply includes water rights from the Windy Gap Firming project. It does not include reusing water.

² Windy Gap Firming production is currently estimated based upon discussions with the Water Attorney.

Plan Objectives

The objectives of the Plan are as follows:

- Provide a comprehensive yet flexible framework to guide Town staff on the drought mitigation and monitoring efforts, as well as on procedures to follow for declaring a drought and implementing the drought response.
- Preserve essential public services during any level of drought severity from mild to critical emergency conditions.
- Minimize the adverse drought-related impacts on public health and safety, economic activity, environmental resources, and individual lifestyles during a drought event.
- Effective communication of drought awareness and response information to the water customers.
- Provide an efficient means to monitor and improve the effectiveness of the Plan over time.
- Closely coordinate the drought mitigation and response with the Town's water supply reliability planning efforts, as well as with other Town and regional-level policies and planning efforts. This includes Town, County, and State policy as well as Boulder County's multi-hazard and emergency operations plans.

- Provide sufficient contextual information in the Plan to convey the importance of drought preparedness and management to the public and how the actions set forth in this Plan are relevant to reducing future drought-related impacts.

Historic Drought and Impact Assessment

Historical Drought Impact, Mitigation, and Response Assessment

Utilities experienced a variety of drought-related impacts during the 2002 drought and are currently experiencing many of the same impacts due to the 2026 drought. These impacts and their severity are outlined in **Table 2**. These impacts were generally moderate to minor. In 2002, the impacts did not extend beyond the drought.

Table 2 - Historical Impacts on the Utility Department

Historical Impact	Severity
Loss of revenue from a reduction in water sales	Moderate
Reduction in storage reserves	Moderate
Degraded water quality	Minor
Higher per-gallon water treatment costs	Moderate
Increased costs and staff time to implement the drought response	Minor
Increased data/information is needed to monitor and implement drought response	Minor
Public's favorable/unfavorable perception of the provider regarding drought response	Minor

The Town community also experienced a variety of impacts in 2002. The lack of rainfall stressed the surrounding environment, resulting in increased wildfire risk, lower stream flows and reservoir levels, stress on wildlife, and an overall reduction in the area's aesthetics. At the time, the Town Board voted to implement watering restrictions.

Drought Vulnerability Assessment

Water Supply Reliability and Drought Mitigation Planning

The Town's reliability planning efforts focus on the Town's water supply system's ability to meet customer needs during times of stress. This reliability depends on a multitude of factors, including the Town's water source(s), seniority of water rights, storage capacities, and rate of customer demand growth. Water supply reliability planning is an important component of ensuring sufficient supplies during droughts and, to some extent, overlaps with this drought mitigation planning process. However, this Plan focuses on drought within the context of monitoring, mitigation actions, and response measures to lessen its impacts. Consequently, this Plan does not take the place of water supply reliability planning but rather is closely coordinated with the Town's water supply reliability planning efforts. The Town's water rights are reviewed annually.

Drought Impact Assessment

Utilities could experience a variety of future drought-related impacts. These potential impacts are outlined in **Table 3**. The potential severity of many of these impacts could be significant, depending on the magnitude and duration of the drought, as well as on how effectively drought mitigation and response efforts reduce their impact.

Table 3 - Potential Future Impacts on the Utility Department

Potential Future Drought Impacts	Potential Severity
Loss of revenue from a reduction in water sales	Moderate
Reduction in storage reserves	Moderate
Disruption of water supplies	Moderate
Degraded water quality	Moderate
Higher per-gallon water treatment costs	Moderate
Sediment and fire debris loading to reservoirs following a wildfire	Significant
Increased costs and staff time to implement the drought plan	Minor
Increased data/information is needed to monitor and implement the drought mitigation plan	Minor
Increased costs of acquiring additional supplies during times of drought	Moderate
Inability to acquire water during a drought	Significant
Favorable/unfavorable public perception of the provider regarding drought response	Moderate

The Town could also experience a variety of future drought-related impacts. Some of the more significant impacts include:

- Damage to public and private landscaping.
- Degraded drinking water quality.
- Unequal impacts of water restrictions and other drought response measures upon certain businesses/individuals/facilities. For example, landscaping companies and park facilities that depend on irrigation may be more vulnerable. Furthermore, demand reductions achieved by reliance upon surcharges would be disproportionately borne by lower-income customers.
- Increased risk of wildfire that not only threatens the water supply but also the safety and overall environment of the surrounding area.
- Increased public awareness on drought response efforts, the importance of water conservation and positive reduction in water usage.
- Loss of use of public and private swimming pools.

While some of these impacts are beyond the Town's immediate control, drought mitigation activities and daily operational adjustments during future droughts may help alleviate them.

Drought Monitoring, Stages, and Trigger Points

Drought monitoring is a science. It should be kept in mind that a drought will likely begin with a small event and become more severe. Droughts may last a month or several years. With this plan, the Town should be able to escalate the drought severity ratings as a drought continues. When projecting water supply for the Town, one typically looks at the critical period of March, April, and May. Historically, this is the time when the reservoirs approach their lowest levels, while snowpack measurements provide reasonable projections of runoff for the coming season. The amount of water in storage and the projected runoff determine the Town's ability to meet water demands.

At best, drought indicators are only a guideline. It takes detailed analysis and extensive experience to understand, within a given set of circumstances, the amount of water likely to be available to the community. In many cases, the same amount of snowpack can yield significantly different runoff patterns, leading to large variations in usable water.

Numerical indicators alone, such as the amount of water currently in storage, are not always accurate indicators of a drought event. When used in conjunction with more predictive indicators, such as projections of the amount of water stored as snowpack, numeric indicators are more realistic. Confidence in the projections of the water supply will vary throughout the year, with the projections most reliable during late Spring, when quotas are set, and runoff is more predictable and least reliable in November, when only the amount of water in storage is known. A quota is the amount of water the Town can obtain from a share of a storage water right. These amounts are set based on shareholders' needs and water availability. Therefore, the Town established a predictive tool incorporating both numerical and predictive indicators to determine when the Town's water supply may not meet the demand.

Droughts can vary significantly in spatial extent, severity, and duration. The drought stages in **Table 4** were developed to capture this variability and to identify an appropriate level of response based on drought severity. The four stages increase in intensity from watch to warning to severe to emergency. The response target (targeted water savings) also increases with each stage, with a 10% water savings target under the watch drought stage and a 50% water savings target under the emergency drought stage.

Table 4 - Drought Stages, Trigger Point Guidelines, and Response Targets

Drought Stage	WSI Index	Annual Reduction Target
Stage I – Watch	0.85 to 0.95	10% water savings
Stage II – Warning	0.75 to 0.85	20% water savings
Stage III – Severe	0.65 to 0.75	30% water savings
Stage IV – Emergency	< 0.65	50% water savings

Severe droughts don't always start out that way; they may begin light due to a lack of precipitation and then expand to severe over time. Typically, water supply and drought impacts are evaluated during spring and early summer (March through May). At that time, reservoirs are typically at their lowest levels, and runoff estimates based on snowpack measurements are known. The sum of water in storage plus the projected runoff needs to exceed the projected Town's water demands. One relatively easy way to calculate this is to use a Water Supply Index.

A Water Supply Index (WSI) is utilized to compare water storage amounts, projected supplies, and demands for the Town. The basic form of the WSI is as follows:

$$WSI = \frac{Supply}{Demand} = \frac{Carryover_{(last)} + SBCdirects + NCWCD + Marshall}{Demand - Carryover_{(next)}}$$

Where the Supply and Demand components are defined as follows:

Supply

Carryover_(last) = the volume of water in local storage carried over from the last year.

SBCdirects = projected total direct diversions from South Boulder Creek in the current year. Prior to the runoff, projected flows are based on historical relationships between snowpack and streamflow.

NCWCD = projected or actual water available from the Northern Colorado Water Conservancy District for the current year, including Colorado-Big Thompson (C-BT) and Windy Gap allocations.

Marshall = projected or actual storage water in Marshall Lake for the current year from the yields of the Town's shares in Farmers Irrigation and Reservoir Company (FRICO) and South Boulder & Coal Creek Irrigating Ditch Company (SB&CCD).

Demand

Demand = projected Town water usage for the current year.

Carryover_(next) = targeted amount of carryover water in local storage determined necessary to reasonably buffer the Town for the next year.

The WSI equation yields an index indicating the expected amount of water available to meet current demands. A WSI of one (1.0) on April 1st would mean that the supply would meet the demand, including designated reserves. A value greater than or less than 1 indicates an excess or a shortage of water, respectively. The Town calculates its WSI after receiving its projected water quotas from NCWCD.

The WSI can be used to indicate the potential severity of a water shortage and to guide the Town's response. A WSI in the range of 0.95 to 0.85 would trigger a Stage I response. The trigger for a Stage II response would be a WSI between 0.85 and 0.75. A WSI between 0.75 and 0.65 would indicate a Stage III drought, and a WSI less than 0.65 would trigger a Stage IV response. Other factors may influence the level of response and vary from the response dictated by the WSI. The WSI will tend to fluctuate throughout the year, with the highest values just after spring runoff and the lowest in November, before snowpack is known. The WSI can also fluctuate rapidly over the course of a month in response to precipitation events.

Drought Declaration and Predictability

Drought can appear quickly or slowly, last for a season or many years, and can occur locally, regionally, or statewide. Furthermore, a drought typically lacks a clear beginning or end and is difficult to predict.

In addition to the WSI, the Town monitors other drought indicators throughout the year to better understand watershed hydrology and how to manage the Town's water supply system. These drought indicators include the following:

- Snowpack
- Precipitation records
- Stream flows
- River calls
- Reservoir levels
- US Drought Monitor

The Town may also rely on other data in addition to the drought monitoring data listed above to predict and declare a drought. This may include regional weather/hydrologic data, drought indices, information from other nearby water users, long-term weather forecasts, etc.

It is important to ensure that the official drought declaration and corresponding drought stage designation occur in a timely manner. If a drought is declared too late or actions are not taken early enough to reduce water use, supplies can be severely depleted, and strict water restrictions and economic impacts may be required that could have been avoided. Conversely, premature drought declarations can result in unnecessary mandatory water restrictions and associated impacts, while customers can lose confidence in the declaration.

Drought declarations are further complicated by the unpredictability of drought and storm events. Droughts may extend over multiple years, which could result in response targets exceeding those provided in **Table 4**. The declaration of a drought and the corresponding drought stage will be made in real time using the drought trigger guidelines in **Table 4**, historical experience, and other drought indicators.

The drought stage may also be de-escalated (i.e., changed from the critical to the warning stage) and/or the drought declaration may be terminated if storm events or other hydrologic conditions sufficiently reduce stress to the Town's water supplies. This decision will be based on drought monitoring data and the Town staff's historical experience and professional judgment in managing the water supplies.

Drought Mitigation and Response Strategies

Drought mitigation refers to actions taken in advance of a drought that reduce potential drought-related impacts when the event occurs. Whereas drought response planning concerns the conditions under which a drought-induced water supply shortage occurs and specifies the actions to be taken in response.

Mitigation and response strategies that focus on managing the water supply system are generally referred to as supply-side actions; demand-side mitigation and response strategies focus on actions the Town can take to promote or enforce reductions in customer water demand. This section presents the mitigation and response strategies selected following a screening process.

Water Use Prioritization

The operating principles provide guidance criteria used to develop the Plan. These criteria are also intended to provide guidance on implementing the drought response during drought. These operating principles are as follows:

- The screening and final implementation of mitigation and response measures should effectively address stressed water supplies during periods of drought by either improving the water supply system efficiency/reliability or promoting/enforcing water savings. They should also reflect the community's general values and water-use priorities in Table 5 below.
- The development and implementation of the Plan should not be conducted in a vacuum. Feedback from Town staff, surrounding jurisdictions, and the public is crucial to developing and implementing a well-rounded and effective Plan.
- Response measures that limit and/or restrict water use of certain end-users should be implemented in a manner to reflect the priorities listed above, with the highest priority being the preservation of water for health and safety purposes during periods of drought.
- When possible, efforts should be taken to preserve the environmental and recreational value of the surrounding lands, which are important to the values and livelihood of Town residents.
- Where possible, efforts should be made to allocate the costs associated with water use restrictions among all customers in an equitable manner.
- Effective coordination/collaboration with Town staff is crucial to the success of the Plan. This Plan provides a comprehensive framework for implementing the drought response based on the information available to date. Exceptions/adjustments to this framework may be necessary during a drought if proven to be of greater benefit.
- The Plan objectives and operating principles are reflective of the Town's water use priorities and play an important role in guiding the development of the Plan. This plan was developed with input from the Town and its Water Attorney. **Table 5** shows the Town's water usage prioritization across five categories.

Table 5 - Water Use Priorities

Priority	End Use	Description
1	Health and safety	Single-family residential, multi-housing, water treatment plant, hydrants (for emergency use), and wastewater treatment plant.

Priority	End Use	Description
2	Business	Indoor use by the commercial and public sector, including schools, stores, offices, hotels, restaurants, etc., and outdoor use on golf courses.
3	Public outdoor irrigation	Parks, sports fields, and open spaces.
4	Construction water	Water used for construction purposes.
5	Outdoor irrigation	Outdoor irrigation in the single- and multi-family residences, and public and commercial sectors.

Drought Mitigation Measures

The drought mitigation measures were selected by developing a preliminary list of potential measures and conducting a screening process to identify those most conducive to the Town. The preliminary list was developed using regional drought management best practices and incorporating the Town's water supply reliability and conservation planning efforts. Potential impacts were also used to generate new ideas for mitigation options. The preliminary mitigation list was screened and further refined using the following criteria:

- Technical feasibility – Is the selected mitigation or response strategy technically feasible, and will it work as intended? Can implementation occur in a timely manner? Is there staff to implement the action?
- Perceived benefits – Will the selected mitigation or response strategy provide an adequate amount of water supplies and/or water savings?
- Cost effectiveness – How does the implementation cost compare with the benefits? This may simply be a qualitative assessment or a quantitative comparison of the ratios of implementation costs to the water-savings cost-benefit.
- Public acceptance – How favorably will the public react to the selected mitigation/response strategy? A review of alternative means to engage the public would be beneficial for assessing general public acceptance.
- Environmental sensitivity and other impacts – What are the environmental benefits/costs to implementing the mitigation and/or response strategy? Is there an environmental issue or other impacts that should be further considered?

The final step of the screening process assessed the selected group of mitigation actions to ensure that the final combination collectively met the following criteria:

- Compatible with the Town's water supply system and is feasible from an implementation standpoint;
- Consistent with the operating principles and objectives of the Drought Mitigation Plan;
- Fairly represents the needs of affected individuals and groups; and
- Sufficiently addresses potential water shortages and future impacts.

The final mitigation measures are provided below.

Mitigation Measures:

- Drought mitigation planning – The Town developed this plan to publicly document its plan of action and communications in the case of a drought.
- Ongoing monitoring of drought indicators.

- Development of new water supplies. The Town is constantly seeking to improve its water rights position.
- Develop cooperative sharing agreement opportunities with neighboring communities during periods of drought.
- Continuing existing operation and maintenance activities that improve water distribution efficiency. The Town currently conducts annual audits on its water distribution system, routinely repairs leaks on an as-needed basis, calibrates and replaces inaccurate meters, and strategically operates its water supply system.
- New operation and maintenance activities that improve water distribution efficiency.
- Conservation measures specified in the Conservation Plan.
- Standard practices of the Town – Many of the Town’s standard operations focus on water conservation, providing multi-year water savings, and drought mitigation during dry periods. These include annual irrigation audits on Town-owned parks and open spaces, removal of turf grass where appropriate, routine education of Town staff on how to save water, and use of low-volume irrigation (i.e., drip irrigation) instead of sprinklers and misters where appropriate.

Response Strategies

The same process and screening criteria used to develop the mitigation measures were used to identify and select the final supply-side and demand-side response strategies.

The final supply-side response strategies in **Table 6** include technical and financial assistance opportunities, water rights management and cooperative agreements, and improvements in water distribution efficiency.

Table 6 - Supply-Side Response Strategies

Category	Response Strategy
Seek technical and financial assistance opportunities	• Research and identify state, federal, county, and private entity assistance. This could include grants or loans for emergency drought-related planning, drought relief, water use efficiency improvements, etc.
Execution of existing water rights management and cooperative agreements, and development of new opportunities	• Purchase or lease water from other entities (i.e., neighboring cities, federal projects). • Arrangement and/or execution of exchanges. • Utilize emergency interconnections with other providers’ systems. • Lease irrigation rights from farmers. • Negotiate purchases or “options”. • Jointly develop water transfers with other entities. • Trade water supplies with other entities to increase yield. • Pay upstream water user to allow diversion of more water.
Improvements to water use efficiency	• Change pattern of water storage and release operations to reduce net evaporation, optimize efficiencies in the Town’s water supply system, and reduce drought-related impacts.

The final demand-side response strategies shown in **Table 7** consist of actions available to Town staff to conserve water and to place water-use limitations on residential and commercial customers.

Table 7 - Demand-Side Response Strategies

Category	Response Strategy*
Town operations and maintenance activities (actions taken by Town staff to conserve water)	• Implement drought surcharges. • Eliminate/reduce irrigation on Town-owned parks and landscaping. • Educate Town staff on how to save water. • Prohibit watering during fall, winter, and early spring. • Limit/prevent washing of Town fleet vehicles. • Limit hydrant washing and flushing. • Limit use of water for fire training. • Eliminate all fire hydrant uses except those required for public safety. • Turn off ornamental fountains in Town-owned buildings and parks. • Conduct indoor water audits.
Residential	• Enforce landscape watering restrictions. • Limit the number of watering days per week and the duration of watering time. • Prohibit lawn watering during fall, winter, and early spring. • Limit watering to a hand-held hose or a low-volume non-spray device. • Limit/prohibit installation of new sod, seeding, and/or other landscaping. • Enforce restrictions on the spraying of impervious surfaces. • Prohibit/limit vehicle washing. • Prohibit/limit non-recirculating fountains. • Prohibit/limit filling and use of swimming pools. • Enforce indoor water restrictions. • Promote/enforce reduction of water-cooled air conditioning.
Commercial	• Prohibit/limit use of construction water. • Enforce policy guidelines/limitations for installation of new sod and/or other landscaping. • Enforce outdoor landscape watering restrictions. • Promote/require indoor and outdoor water audits where applicable. • Turn off indoor and outdoor ornamental fountains. • Prohibit/limit filling and use of swimming pools. • Turn off public drinking fountains. • Prohibit/limit dealership washing of vehicles. • Enforce water use restrictions on commercial car washes. • Promote/enforce service of water in restaurants only upon request. • Promote/enforce reduction in frequency of linen and towel washing in hotels.

Notes:

*The response strategies are activities Town staff can perform during drought periods to save water in addition to the standard practices and conservation measures specified in the Conservation Plan.

Drought Public Information Campaign

The public drought education campaign (public drought campaign) will be one of the Town's largest drought management efforts.

The public drought campaign will be a partnership between Public Works and Utilities, which provides subject matter expertise and messaging direction, and the Communications and Community Engagement (CCE) Department, which manages channels, production and distribution, in coordination with Town Council. This campaign will promote the importance of conserving water and achieving water savings in drought years. During non-drought years, the drought campaign component will simply provide a general overview of drought and the importance of drought preparedness. During a drought, the drought messages will increase in frequency and intensity and will be expanded to include information on the staged drought response program and the necessity to conserve supplies.

The objectives of the public drought campaign are:

- Provide concise, effective drought information to the Town's customers and the media.
- Adjust the intensity of the public outreach effort in accordance with the severity of the drought (drought stage).
- Coordinate campaign efforts with nearby municipal and conservation-oriented entities to keep drought messaging consistent across the region.

The public drought campaign will provide the basic foundational drought information during non-drought periods, outlined in **Table 8**. The Town will monitor the drought messages and information conveyed by other local providers to ensure that differences in drought-related messages may be explained, if necessary. Information from other providers may also help generate new ideas for improving the Town's public drought campaign and overall drought response.

Table 8 - Public Drought Campaign Messages (Pre-Drought and Continuing during Drought Periods)

Drought Information	Coordination with Other Entities
Status of current drought conditions and corresponding drought stage	Be aware of messages conveyed by neighboring providers to explain, if necessary, why there are differences in their messages and in the overall drought response.
Long-term sustainability of the water supply system	NCWCD and water rights engineer/attorney
Location of where customers may access the Drought Mitigation Plan	Town's website
Factors that could influence water supply services and the cost of services	NCWCD and neighboring communities.
Water provider's actions to save water and/or acquire new water	Be aware of other local providers' drought mitigation efforts. This may help generate new ideas to improve the Town's public drought campaign and overall mitigation efforts.
Drought policies, requirements, and penalties	Be aware of messages conveyed by neighboring providers to explain, if necessary, why there are differences in their messages and in the overall drought response.

During drought periods, the intensity of both the conservation public education program and public drought campaign will increase. Particular messages, as well as the means of conveying information to the public, will be tailored to the severity of the drought and public informational needs at that time. Information the Town intends to convey to the public during drought periods includes educating customers about drought policies (i.e., water restrictions), enforcement, and landscaping tips.

Coordination with other entities will be an important component of the public drought campaign during drought periods. The Town will coordinate with neighboring providers to keep drought messaging consistent and contribute to a regional outreach effort. The Town will also monitor neighboring providers' drought response activities, water-use restrictions, and enforcement measures. This will enable the Town to explain any differences among their drought response efforts and maintain integrity with the public. Additionally, other entities may be able to help promote drought-related information.

Table 9 - Public Drought Campaign Response Information to Convey During a Drought

Drought Information	Coordination with other Entities
Measures and/or impacts that customers can expect if drought continues or intensifies	Be aware of the drought response measures implemented by other local providers. This will help address public concerns and questions.
Increase advertisement of water conservation promotion and incentives specified in the conservation and drought plans	Identify synergies/benefits of working with other entities on this advertisement campaign.
Landscaping tips during a drought (i.e., which plants to convert to drip, which to save, which to let die)	Research the information currently available and identify whether other entities can assist with this effort.
Post-drought landscape revival information	Research the information currently available and identify whether other entities can assist with this effort.
Encourage intense public discussion and media involvement concerning ways to reduce water use while minimizing impacts (i.e., landscaping impacts)	Research opportunities to collaborate with neighboring communities on shared outreach.
Explanation of rate increases/drought surcharge (this can apply to both drought and post-drought years)	Be aware of other providers' rates and drought surcharges, and be prepared to explain why Superior's rates/drought surcharges are different.
Publicize the efforts of individuals and businesses as examples of how to reduce water use	Research and publicize positive efforts from neighboring communities that are also experiencing drought conditions

The Town will coordinate efforts among departments to ensure that accurate information is conveyed to the media and customers. The CCE Department, with subject matter input from PW&U, will develop stage-based messaging packages (declaration, restriction schedules, enforcement, surcharge explainer) so messaging can deploy quickly when a drought is declared. This will be an evolving process that may change seasonally, depending on the weather and public concerns. The target audiences and communication tools intended for use by the Town are shown in **Table 10**. Outreach during non-drought periods will mainly consist of website communications, social media, and GovDelivery email bulletins. During a drought, outreach expands to the Town's full channel mix: GovDelivery email bulletins (including the Public Works and Utilities topic), the Superior Sentinel, Weekly Happenings, Channel 8, ShapeSuperior.com, screens in municipal buildings, the Town Hall message board, utility bill inserts, press releases, and physical signage.

Table 10 - Public Drought Campaign Audiences and Communication Tools

Targeted Audience	Communication Tools for Long-term Mitigation	Communication Tools for Short-term Response Strategy
Decision/policy makers, Town departments (i.e., parks, finance, etc.)	Email	- Email - Meetings
Media	- Website - Social media (Facebook, Instagram, X) - Interviews	- Website - Press releases/media relations - Social media (Facebook, Instagram, X) - Interviews

Targeted Audience	Communication Tools for Long-term Mitigation	Communication Tools for Short-term Response Strategy
Water customers (single and multi-family, HOAs, commercial)	- Website - GovDelivery email bulletins - Social media (Facebook, Instagram, X)	- Website - GovDelivery email bulletins - Social media (Facebook, Instagram, X) - Public meetings - Bill inserts - Press releases/media relations - Booths at special events
Targeted business owner customers (recreation facilities, nurseries, health facilities, schools)	- Website - Social media (Facebook, Instagram, X)	- Website - Emails targeted for business owners - Social media (Facebook, Instagram, X)
Large water users (golf courses, water-intensive industrial customers)	- Website - Social media (Facebook, Instagram, X)	- Website - Emails targeted for large water users - Social media (Facebook, Instagram, X) - Meetings
Commercial business employees	- Website - GovDelivery email bulletins - Social media (Facebook, Instagram, X)	- Website - GovDelivery email bulletins - Social media (Facebook, Instagram, X)
School children	- Water educational curricula for teachers - Water educational programs for students - Water festivals	- School programs - Booths at special events for children

Staged Drought Response Program

The Town's drought response program by severity is provided in **Table 11**. The specifics on how each measure would be implemented, timing, and details of the public drought campaign would be identified at the onset of the drought.

Table 11 - Staged Drought Response Program

Response Program	Demand	Stage I - Watch	Stage II - Warning	Stage III - Severe	Stage IV - Emergency
Drought Trigger Points, WSI	-	0.85 to 0.95	0.75 to 0.85	0.65 to 0.75	< 0.65
Irrigation Season Water Use Reduction Target, %	-	10	20	30	50 with additional savings during the non-irrigation season
Measure Type	-	Voluntary	Mandatory	Mandatory	Mandatory
Enforcement Procedures	-	Voluntary practices will not be enforced at this stage. Town staff will communicate internally to ensure that best practices for municipal operations outlined in this plan are followed.	Refer to Table 13	Refer to Table 13	Refer to Table 13
Supply-Side Response Measures	-	Refer to Table 6	Refer to Table 6	Refer to Table 6	Refer to Table 6
<i>Irrigation of Town-owned property (parks and open spaces)</i>	Town of Superior Demand – Side Response Measures	Enforce standard practices, including water audits at the start of the irrigation season and efficient water use.	Enforce standard practices, including water audits at the start of the irrigation season and efficient water use.	Restrict turf irrigation on Town parks and open spaces. Sports fields, trees, and shrubs may be irrigated on a pre-determined, limited basis. Preferred 'green spaces' specified through a public outreach survey on ShapeSuperior.com may also be irrigated on a pre-determined, limited basis, if there is sufficient time and budget.	Eliminate all turf irrigation on Town parks and open spaces until the drought has ceased. Limited irrigation of trees with a handheld hose or non-spray device is allowed to help ensure survival.
<i>Washing of Town-owned vehicles</i>	Town of Superior Demand – Side Response Measures	Field vehicles (i.e., park vehicles) are limited to once every two weeks, and all other vehicles are limited to once per month.	Field vehicles are limited to once every two weeks, and all other vehicles are limited to once per month.	Washing of Town-owned vehicles is prohibited.	Washing of Town-owned vehicles is prohibited.
<i>Fountains</i>	Town of Superior Demand – Side Response Measures	Ornamental fountains and drinking fountains in Town-owned parks are turned off from 10:00 am to 4:00 pm.	All ornamental and drinking fountains in Town-owned parks are turned off.	All ornamental fountains and drinking fountains on Town-owned property and Town-owned buildings are to be turned off.	All ornamental fountains and drinking fountains on Town-owned property and Town-owned buildings are to be turned off.
<i>Fall, winter, and spring turf irrigation</i>	Town of Superior Demand – Side Response Measures	-	All turf irrigation on Town-owned property from September 30 to May 1 is prohibited.	All turf irrigation on Town-owned property from September 30 to May 1 is prohibited.	Eliminate all turf irrigation on Town parks and open spaces until the drought has ceased.

Response Program	Demand	Stage I - Watch	Stage II - Warning	Stage III - Severe	Stage IV - Emergency
Hydrants	Town of Superior Demand – Side Response Measures	-	Reduce frequency of hydrant washing and flushing.	Reduce frequency of hydrant washing and flushing.	Hydrant washing and flushing are prohibited unless necessary for public safety reasons.
Water for fire training and use of fire hydrant	Town of Superior Demand – Side Response Measures	-	-	Use of all water for fire training and of water from the hydrant is prohibited unless essential for public safety.	Use of all water for fire training and of water from the hydrant is prohibited unless essential for public safety.
Drought surcharge	Town of Superior Demand – Side Response Measures	-	-	Assess and design a drought surcharge to support water-use restrictions and targeted water savings. Surcharges will be applied to all customers.	Assess and design a drought surcharge to support water-use restrictions and targeted water savings. Surcharges will be applied to all customers.
Outdoor water restrictions	Residential Demand – Side Response Measures	Residents are encouraged to follow the voluntary outdoor water restrictions according to the following schedule (2 days/week): - Single-family residential with an even-numbered address: Saturday & Wednesday - Single-family residential with an odd-numbered address: Sunday & Thursday - All other residential properties (multi-family, HOAs, etc.): Monday and Friday	Residents must follow the mandatory outdoor water restrictions according to the following schedule (2 days/week): - Single-family residential with an even-numbered address: Saturday & Wednesday - Single-family residential with an odd-numbered address: Sunday & Thursday	Irrigation is limited to the use of a hand-held hose or non-spray device (drip system) and must adhere to the following schedule (1 day/week): - Single-family residential with an even-numbered address: Saturday - Single-family residential with an odd-numbered address: Thursday - All other residential properties (multi-family, HOAs, etc.): Monday	All outdoor irrigation is prohibited, except for watering trees with a hand-held hose on the first and third Wednesdays of June through December.

Response Program	Demand	Stage I - Watch	Stage II - Warning	Stage III - Severe	Stage IV - Emergency
			All other residential properties (multi-family, HOAs, etc.): Monday and Friday		
<i>Impervious surfaces (driveways, sidewalks, patios, etc.)</i>	Residential Demand – Side Response Measures	Recommend minimizing power washing and spraying on impervious surfaces. A broom or mop may be used as a replacement.	Power washing and spraying on impervious surfaces is prohibited. A broom or mop may be used as a replacement.	Power washing and spraying on impervious surfaces is prohibited. A broom or mop may be used as a replacement.	Power washing and spraying on impervious surfaces is prohibited. A broom or mop may be used as a replacement.
<i>Personal vehicles</i>	Residential Demand – Side Response Measures	Should be washed at commercial car washes or washed using a bucket and a hand-held hose with an automatic shut-off nozzle.	Should be washed at commercial car washes or washed using a bucket and a hand-held hose with an automatic shut-off nozzle.	Washing personal vehicles is prohibited except at commercial car washes.	Washing personal vehicles is prohibited except at commercial car washes.
<i>Private swimming pools and hot tubs</i>	Residential Demand – Side Response Measures	All swimming pools and hot tubs should be covered when not being used to reduce evaporation. Regular maintenance should minimize leaks and reuse the water for irrigation when emptying the pool/hot tub.	All swimming pools and hot tubs should be covered when not being used to reduce evaporation. Regular maintenance should minimize leaks and reuse the water for irrigation when emptying the pool/hot tub.	The filling of private swimming pools and hot tubs is prohibited.	The filling of private swimming pools and hot tubs is prohibited.

Response Program	Demand	Stage I - Watch	Stage II - Warning	Stage III - Severe	Stage IV - Emergency
<i>Water-cooled air conditioning, swamp coolers, and humidifiers</i>	Residential Demand – Side Response Measures	Adjust room temperatures to reduce water-cooled air conditioning use. Use room-size humidifiers and swamp coolers in the most-used rooms rather than whole-house units.	Adjust room temperatures to reduce water-cooled air conditioning use. Use room-size humidifiers and swamp coolers in the most-used rooms rather than whole-house units.	Adjust room temperatures to reduce water-cooled air conditioning use. Use room-size humidifiers and swamp coolers in the most-used rooms rather than whole-house units.	Adjust room temperatures to reduce water-cooled air conditioning use. Use room-size humidifiers and swamp coolers in the most-used rooms rather than whole-house units.
<i>Fall, winter, and spring turf irrigation</i>	Residential Demand – Side Response Measures	-	Residents are encouraged to reduce turf irrigation from September 30 to May 1.	Residents are restricted from irrigating turf from September 30 to May 1.	Residents are prohibited from irrigating turf.
<i>Installation of new sod, seeding, and other landscaping</i>	Residential Demand – Side Response Measures	-	Residents are encouraged to defer installing new sod, seeding, and landscaping until the drought has ended.	Residents are to forego the installation of new sod, seeding, and landscaping until the drought has ceased.	Residents are to forego the installation of new sod, seeding, and landscaping until the drought has ceased.
<i>Fountains</i>	Residential Demand – Side Response Measures	-	All non-recirculating outdoor fountains must be turned off.	All outdoor and indoor fountains must be turned off.	All outdoor and indoor fountains must be turned off.
<i>Indoor water restrictions</i>	Residential Demand – Side Response Measures	-	-	-	Residents are limited to 30 gallons per person per day.
<i>Indoor water audits</i>	Residential Demand – Side Response Measures	-When requested by Residents and Commercial Properties	-When requested by Residents and Commercial Properties	-Recommended for all residential and commercial properties	Required for the top 10 percent of water users.

Response Program	Demand	Stage I - Watch	Stage II - Warning	Stage III - Severe	Stage IV - Emergency
Construction water	Commercial and Institutional Demand – Side Response Measures	Appropriate best management practices should be employed to conserve and prevent the wasting of construction water.	Appropriate best management practices should be employed to conserve and prevent the wasting of construction water.	Appropriate best management practices should be employed to conserve and prevent the wasting of construction water.	Use of all construction water is prohibited unless necessary for air quality and construction reasons. This must be negotiated beforehand with the Town.
Outdoor water restrictions	Commercial and Institutional Demand – Side Response Measures	Commercial businesses are encouraged to follow the voluntary outdoor water restrictions according to the following schedule (2 days/week): • Businesses with an even-numbered address: Saturday & Wednesday • Businesses with odd-number address: Sunday & Thursday • Large irrigators (golf courses, schools, athletic fields, etc.): Monday and Friday	Commercial businesses must follow the mandatory outdoor water restrictions according to the following schedule (2 days/week): • Businesses with an even-numbered address: Saturday & Wednesday • Businesses with odd-number address: Sunday & Thursday • Large irrigators (golf courses, schools, athletic fields, etc.): Monday and Friday	Irrigation is limited to the use of a hand-held hose or non-spray device (drip system) and must adhere to the following schedule: (1 day/week): • Businesses with an even-numbered address: Saturday • Businesses with odd-number address: Thursday • Large irrigators (golf courses, schools, athletic fields, etc.): Monday	All outdoor irrigation is prohibited, except for watering trees with a hand-held hose on the first and third Wednesdays of June through September.

Response Program	Demand	Stage I - Watch	Stage II - Warning	Stage III - Severe	Stage IV - Emergency
Outdoor water audits	Commercial and Institutional Demand – Side Response Measures	For properties that volunteer, conduct visual inspections, work with property owners to optimize irrigation controls, and review water use records.	Randomly conduct audits on 5 percent of properties, including visual inspections, work with property owners to optimize irrigation controls, and review water use records.	Randomly conduct audits on 10 percent of properties, including visual inspections, work with property owners to optimize irrigation controls, and review water use records.	
Commercial swimming pools and hot tubs	Commercial and Institutional Demand – Side Response Measures	All swimming pools and hot tubs should be covered when not being used to reduce evaporation. Regular maintenance should minimize leaks and reuse the water for irrigation when emptying the pool/hot tub.	All swimming pools and hot tubs should be covered when not being used to reduce evaporation. Regular maintenance should minimize leaks and reuse the water for irrigation when emptying the pool/hot tub.	The filling of swimming pools and hot tubs is discouraged.	The filling of commercial swimming pools and hot tubs is prohibited.
Commercial car washes	Commercial and Institutional Demand – Side Response Measures	All commercial car washes are encouraged to implement best management practices to reduce water use by 10% where technically feasible.	All commercial car washes are encouraged to implement best management practices to reduce water use by 20% where technically feasible.	All commercial car washes are required to implement best management practices and limit water use to 40 gallons per vehicle.	All commercial car washes are required to implement best management practices and limit water use to 20 gallons per vehicle.
Car dealership vehicles	Commercial and Institutional Demand – Side Response Measures	They should only be washed using a bucket and a hand-held hose with an automatic shut-off nozzle.	They should only be washed using a bucket and a hand-held hose with an automatic shut-off nozzle.	All washing of vehicles on the car dealership property is prohibited.	All car dealerships are prohibited from using water for vehicle washing.

Response Program	Demand	Stage I - Watch	Stage II - Warning	Stage III - Severe	Stage IV - Emergency
Restaurants	Commercial and Institutional Demand – Side Response Measures	All restaurants are encouraged not to serve water unless customers specifically ask for it.	All restaurants are encouraged not to serve water unless customers specifically ask for it, and to reduce the number of service dishes (to conserve water used for washing).	All restaurants are not to serve water unless customers specifically ask for it, and to reduce the number of service dishes (to conserve water used for washing).	All restaurants are not to serve water unless customers specifically ask for it, and to reduce the number of service dishes (to conserve water used for washing).
Lodging	Commercial and Institutional Demand – Side Response Measures	All lodging establishments are encouraged to place water conservation cards in every room, promoting water conservation (e.g., short showers) and encouraging not changing linens or towels unless a customer specifically requests the service.	All lodging establishments are encouraged to place water conservation cards in every room, promoting water conservation (e.g., short showers) and encouraging not changing linens or towels unless a customer specifically requests the service.	All lodging establishments must place water conservation cards in every room, promoting water conservation (e.g., short showers) and encouraging not changing linens or towels unless a customer specifically requests the service.	All lodging establishments must place water conservation cards in every room, promoting water conservation (e.g., short showers) and encouraging not changing linens or towels unless a customer specifically requests the service.
Installation of new sod, seeding, and other landscaping	Commercial and Institutional Demand – Side Response Measures	-	Businesses are encouraged to defer installing new sod, seeding, and landscaping until the drought has ceased.	Businesses are to defer installing new sod, seeding, and landscaping until the drought has ceased.	Businesses are to defer installing new sod, seeding, and landscaping until the drought has ceased.
Fountains	Commercial and Institutional Demand – Side Response Measures	-	All non-recirculating outdoor fountains must be turned off.	All indoor and outdoor fountains must be turned off.	All indoor and outdoor fountains must be turned off.

Monitoring and Implementation

Monitoring of Drought Indicators

Utilities is responsible for recording and evaluating drought indicator data. Monitoring data are collected throughout the year. These data are critical in characterizing the Town's water supplies under various hydrologic conditions and predicting drought in a timely manner. **Table 12** summarizes the main drought indicators used to monitor drought. Typically, these data are recorded and assessed at the beginning of each week; however, the frequency may increase during dry periods and in the spring when runoff and water rights conditions are crucial to the overall availability of the Town's supplies. This data is processed weekly and stored electronically on the Town's server in accordance with the Town's standard electronic filing protocol. Downloaded raw data is saved independently of other processed files to maintain the integrity of the original monitoring data.

Table 12 - Monitoring of Drought Indicators

Drought Indicator	Type of Data
Reservoirs	Elevation of the water surface level and corresponding storage volume
Snowpack content	Percent accumulation relative to normal conditions/moisture content
Precipitation records	Inches of rainfall from five weather gages in the central Front Range near Superior
River calls and stream flows	CDSS data
NCWCD	Yield on CBT and Windy Gap shares
Additional tools in CWCB toolkit	See website

Drought Declarations

Utilities does not have a pre-defined method or approach for forecasting drought. The drought triggers shown in **Table 12** serve as a general guideline for action. However, the additional drought monitoring data, in addition to the experience and skill of Utilities staff, also plays a large role in determining the severity and corresponding action or declaration of a drought.

As previously mentioned, it is important for the Town to officially declare a drought and adjust corresponding drought stage in a timely manner. If a drought is declared too late or actions are not taken early enough to reduce water use, supplies can be severely depleted and strict water restrictions may be required, leading to economic impacts that could have been avoided. Conversely, premature drought declarations can result in unnecessary mandatory water restrictions and associated impacts while customers can lose confidence in the declaration. The Public Works and Utilities Director (PW Director) is ultimately responsible for providing final recommendations on the timing of drought declaration and corresponding stage of a drought to the decision-makers.

The following protocol will be followed to officially declare a drought:

1. Utilities staff discusses the drought monitoring data with the PW Director providing recommendations on the timing of the drought declaration and the appropriate drought stage (severity).
2. The PW Director provides recommendations to the Town Manager and Town Council.
3. Town Council members have an opportunity to ask questions and comment on recommendations in an official public Town Council meeting that is either regularly scheduled or scheduled as an emergency specifically to discuss drought conditions.

4. The Town Council may decide to declare a drought (and corresponding drought stage) based on the water attorney's and the PW Director recommendations.
5. If a drought is declared, direction is given to the CCE Department to convey the drought declaration to Town and County Emergency Management, CWCB, Colorado Department of Emergency Management, and to the public.

The same protocol is followed to change a drought stage (i.e. water shortages are increased from a warning to a critical drought stage or reduced from a critical to a warning level) and to call an end to the drought, returning to normal operating conditions. If, for emergency reasons, the declaration or adjustment of a drought stage is necessary within a shorter timeframe than allowed for above, the Mayor has the authority to officially declare a drought and corresponding stage. This is limited to circumstances when the safety and health of the community are at risk due to stressed drought-related water supply conditions. A thorough review of supply conditions and implementation of the drought response program shall be conducted by following such declaration.

Implementation of Staged Drought Response Program

The staged drought response program requires actions to be taken by the Utilities, Parks, Communications and Finance Departments. In addition, Town staff are expected to follow water use restrictions imposed by the staged drought response program. The roles and responsibilities are provided below.

- **Public Works & Utilities Department** – administer, implement, and enforce the staged drought response program. The Director is ultimately responsible for facilitating necessary communication and coordination with other departments.
- **Parks Department** – coordinate outdoor irrigation efforts on Town-owned property closely with the PW&U Department.
- **Communications and Community Engagement Department** – communicate with appropriate state and federal agencies regarding drought conditions and response, convey the drought declaration and key messages to the public, and implement the public drought campaign.
- **Finance Department** – closely monitor revenue and coordinate with the PW&U Department to develop a drought surcharge if necessary.
- **All Town Departments** – follow water use restrictions imposed by staged drought response program.

Weekly staff meetings will be initiated by the PW Director at the onset of a drought among key departments and Town staff to ensure that the program is properly carried out. The initial staff meetings will focus on implementation of the staged drought response program and public drought campaign and will include:

- Review of Town budget and funds available for implementation of the Plan.
- Actions necessary to initiate the designated staged drought response measures to achieve the appropriate response target.
- Specific drought messages to convey to the public and methods used for education using the framework provided in this Plan.
- Actions necessary for enforcement.
- Review of roles and responsibilities of each staff member.

Enforcement of Staged Drought Response Program

The staged drought response program requires a means of enforcement beyond simply educating the public. The Town's enforcement level will be tailored to the severity of the drought (drought stage) and to the public's responsiveness to mandatory drought response measures. During the Watch drought stage, no enforcement will be necessary, given that the majority of drought response is voluntary. However, for the remaining drought stages, enforcement may consist of a call-in service where customers have an opportunity to report infractions, patrol of neighborhood and business districts to identify owners/residents that are in violation of mandatory restrictions/requirements, and issuing citations and appropriate penalties based on the drought stage and number of violations. It is anticipated that at least one Utility staff member will be needed part-time for patrol; however, this could increase depending on the severity of the drought stage and public response. Each staff member responsible for patrol will be trained to ensure that a consistent drought message is conveyed and that conflicts are handled in a responsible, orderly fashion.

Table 13 provides the pre-defined penalties associated with each drought stage and the number of infractions per resident/business owner per calendar year. This will be posted on the Town's website and conveyed to the public through the public drought campaign. All citations and monetary fines will be issued through the mail and/or email. If inclined, residents/occupants will have an opportunity to appeal citations. Written appeals may be mailed/mailed to Utilities, providing justification for why the citation should be appealed. Reasons for appeal may include:

- The citation mistakenly included the wrong address.
- Irrigation is necessary for extraordinary circumstances.
- A new resident has moved into a house that had received multiple previous citations through no fault of the new resident.

Utilities will review each citation and determine whether sufficient justification has been provided to forfeit the citation and penalty. Isolated exemptions to water restrictions may also be made in certain cases upon review and approval of Town staff.

Table 13 - Enforcement of the Staged Drought Response Program

Violation	Watch	Warning	Severe	Emergency
First Violation	N/A	Warning	Warning	Warning
Second Violation	N/A	Warning followed by a required education session with Town staff	Warning followed by a required education session with Town staff	\$200 fine
Third Violation	N/A	\$100 fine	\$200 fine	\$300 fine
Fourth Violation	N/A	\$200 fine	\$300 fine	Service Shut Off ¹

Note: ¹Implementation and duration subject to Board discussion and approval.

The Town Manager and staff will ensure that appropriate enforcement messages are conveyed to the public through the Communications and Community Engagement Department in coordination with Finance and other departments, as needed. Roles and responsibilities of each department are as follows:

- **Public Works and Utilities Department** – facilitation of call-in service for reports on infractions and follow-up, patrol of service area, issuing written citations, facilitating the appeals process, and installing flow restrictors to cut off service until the violation is corrected.
- **Finance Department** – issuing fines on water bills and recording and tracking the number of citations and associated fines.

- **Communications and Community Engagement Department** – conveying accurate, consistent information on enforcement to the public through the public drought campaign.

Revenue Implications and a Financial Budgeting Plan

A reduction in customer water use during drought periods reduces water sales and, consequently, could result in a revenue shortfall for the Town of Superior. Increased costs associated with implementing the staged drought response program, the public drought campaign, and enforcement could further intensify the shortfall. During the 2002 drought, several neighboring water providers had to increase customer water rates to compensate for the shortfall. These increases were unexpected, and the general public perceived that they were penalized for conserving water during the drought. Some providers have begun raising rates in response to the 2026 drought.

Funds for the implementation of Superior's staged drought response program may be set aside in a reserve drought account at the beginning of the fiscal year in January. These funds may be used to implement the public drought campaign and staged drought response program at a level necessary for the declaration of a drought watch stage. Additional emergency funds may be set aside for drought if Utilities can justify the potential need for additional funds in the near future.

In addition to this drought reserve account, Superior plans to seek financial assistance for drought-related purposes (e.g., public drought-related loans, grants, etc.) if available. The staged drought response program for the critical and emergency drought stages also calls for a temporary drought surcharge. The main objective of this surcharge is to provide an additional financial incentive to conserve water; however, as a secondary benefit, the drought surcharge could also help compensate for reduced water sales and increased drought response costs. If drought conditions and corresponding water sales reductions are severe enough to warrant an increase in water rates, an intensive public outreach campaign would be implemented to explain the rationale for the rate increase and the Town's financial condition.

Monitoring of Plan Effectiveness

Monitoring provides the information and data necessary to improve the effectiveness of updates to the Town's Drought Mitigation Plan. This process is key to improving the Town's ability to prepare and respond to drought. Monitoring is both an ongoing and post-drought evaluation process. Ongoing monitoring includes testing components of the Drought Mitigation Plan when a drought is not occurring, as well as tracking and following through with the drought mitigation measures.

Each April, upon receipt of the CBT and Windy Gap yields, it is recommended that an annual drought monitoring meeting be held, attended by staff responsible for carrying out the drought mitigation and response actions specified in this Plan. The meeting will entail the latest status of potential drought conditions in the upcoming irrigation year based on current drought monitoring data, the status of the drought mitigation measures specified in this Plan, an overview of the public drought campaign efforts, and a review of individual staff members' roles and responsibilities if a drought does occur. The meeting will also provide a forum for educating new staff members on their drought-related responsibilities, as well as "testing" the Plan's implementation by enabling staff members to question and discuss potential challenges and solutions that could arise during its implementation.

Utilities staff will also present the results from monitoring data collected to assess the effectiveness of the drought mitigation, response measures and enforcement (if applicable), and the public drought campaign. The following monitoring data will be collected and presented by Utilities staff on an annual basis (some of these data may not be applicable if a drought has not occurred):

- **Demands** – Comparison of the demands during historical droughts relative to the current year's annual demands. These demand data include monthly water usage by high water users, customer types, total per capita water usage, residential per capita water usage, and the Parks Department's monthly irrigation per acre on Town parks and open space. Also, records of new developments that affect water demand (e.g., new housing developments, parks, commercial

buildings) will be maintained annually. If a drought occurred, information would also be provided on how effectively the water-savings target response was achieved.

- Lessons Learned – Key issues, challenges, and concerns that arose during implementation of the staged drought response program (if applicable), drought monitoring, mitigation activities, and public drought campaign. Utilities staff will also interview Town staff members from other departments involved in the plan implementation to capture a full interdepartmental spectrum of lessons learned.
- Conditions of the Water Supply System – This will include the drought indicator data, such as precipitation, reservoir levels, water treatment plant production, call data, water obtained from direct flow rights, storage rights, etc.
- Drought Mitigation Measures – Status of the mitigation-related activities to date and other relevant factors (i.e., budget).
- Public Perceptions and Response to the Drought – This will include documenting comments provided at public meetings and electronic emails/letters sent to Public Works regarding the drought response. Formal public surveys may also be used to gather public input, depending on the magnitude of the drought and the town budget available for the survey. These surveys will be developed in advance of a drought to ensure sufficient time for a well-thought-out survey.
- Administrative Staged Drought Response Program Data – This will include the number of citations delivered to customers, the number of incentives distributed, the number of hotline calls received, etc. Records will also be maintained of the level of effort staff put into facilitating the staged drought response measures and the public education campaign.

These monitoring data provide a means to assess the effectiveness of the Plan, adjust mitigation and response measures if necessary, and develop recommendations for updating and improving the Plan.

Formal Plan Approval and Updates

Periodic Review and Update

Drought mitigation planning is most effective when viewed as an ongoing process rather than a discrete one that results in a shelved document reviewed only at the onset of a drought. The Town's Plan will be updated every five years. **The next update is scheduled for June 2031.** The PW Director, in conjunction with the Utilities Superintendent, will be responsible for initiating the update.