

Water Shortage Response Plan (WSRP)

Town of Montreat (PWSID: 01-11-484)

Section I. Introduction

This plan provides guidelines for the Town of Montreat to manage water supply and demand in the event of a supply problem or water shortage. Such problems could include imminent supply disruptions resulting from a major pipeline failure as well as forecasted water supply shortages due to droughts. The plan enables Montreat to maintain essential public health and safety and minimize adverse impacts on economic activity, environmental resources and the area's lifestyle. "Water shortage" as is discussed in this document means that Montreat will not have the normal amount of water to provide to its customers. It is extremely improbable that Montreat would ever run out of water. The stages noted in the plan will be implemented depending on the magnitude of the water shortage. All water systems purchasing water from the Town of Montreat water system will, at a minimum, adopt and enforce water use reduction measures contained in this plan or a similar plan as a condition of water sales.

Section II. Authorization

The Mayor of Montreat is authorized to enact the water shortage response provisions when the thresholds established in Section VII or Section VIII of this plan are met. In the Mayor's absence, the Town Administrator will assume this responsibility.

Section III. Notification

The following notification methods will be used to inform water system employees and customers of a water shortage declaration: employee e-mail announcements, notices at municipal buildings, notices in water bills and on the Town of Montreat website at www.townofmontreat.org. Required water shortage response measures will be communicated through a press release that will be forwarded to the following media outlets: **Black Mountain News** (828) 669-8727, **Asheville Citizen-Times** (828) 232-5883, **WLOS News 13** (828) 684-1340, **570 WWNC** (828) 257-2700, **BCTV** (Buncombe County Government Access Channel) (828) 250-4109, **Montreat Conference Center** (828) 669-2911 and **Montreat College** (828) 669-8012. The Montreat Public Works Director will notify the Asheville Regional Office of the North Carolina Department of Environment and Natural Resources, **Division of Water Resources** (828) 296-4500.

Section IV. Relationship of Plan to Other Municipalities

The Town of Montreat will assist and support emergency restriction measures required to manage water demand during an emergency or water shortage. This plan has been developed in consultation with the Town of Black Mountain and the City of Asheville based on the premise that an effective demand management strategy must be regionally

consistent. This is based on several considerations: 1) Public support and cooperation is likely to be higher if actions are equitable, i.e., all water users are experiencing the same service level and degree of hardship; 2) A unified message and approach is easier to understand and distribute through the media, which is key in communicating information to the public; and 3) Consistency makes it easier to forecast demand reductions, which is essential to effectively manage the system during a water shortage. The Town of Montreat water system will, at a minimum, adopt, implement and enforce water use reduction measures contained in this plan and the plan and all subsequent revisions adopted by the Town of Black Mountain as a condition of water purchased from the Town of Black Mountain.

Section V. Year-Round Water Conservation Policy in Montreat

The Town of Montreat Board of Commissioners encourages all municipally supplied water users to use water efficiently at all times. Montreat's Public Works Director will monitor water demand and the available supply of water. The findings will be reported to the Town Administrator. In the event of a declaration of water shortage by the Mayor, the Public Works Director will submit a weekly report on water supply conditions to the Town Administrator.

Public education and outreach will consist of any or all of the following activities:

- Independent Mailings to Major Users
- Website
- Press Releases or Public Service Announcements
- Flyers/Handouts/Newsletters
- Bill Announcements to all Customers
- Signs and Posters
- Presentations
- Water Audits

Section VI. Montreat Water Use Classification

To aid implementation of this plan the following classes of water use have been established:

Class I: Essential Potable Water Uses for Montreat

- **Domestic** – Water to sustain human and domestic pet life; minimum standards of hygiene and sanitation.
- **Patient Care** – Patient care and rehabilitation, including swimming pools used for patient care and rehabilitation.
- **Public Use** – Firefighting and approved flushing of sewers and hydrants to ensure public health and safety.

Class II: Socially/Economically Important Potable Water Uses for Montreat

- **Domestic** – Minimal use for kitchen, bathroom and laundry. Minimal watering of vegetable gardens and trees to preserve them.

- **Public Use** – Filling and operation of public swimming pools.
- **Commercial** – Commercial Laundromats; restaurants and hotels, minimum amount required to maintain essential cooling operations.
- **Agricultural** – Minimum amount required to maintain crops, livestock and associated activities.
- **Institutional** – Efficient use by schools, churches and government facilities.

Class III: Non-Essential Potable Water Uses for Montreat

- **All** – Ornamental uses (i.e. fountains, reflecting pools, artificial waterfalls); Residential lawn irrigation; Non-commercial washing of motor vehicles; Washdown of impervious surfaces; Filling and operation of recreational swimming pools.
- **Public Use** – Gardens, lawns, parks, playing fields and recreational areas.
- **Commercial** – Serving water in restaurants except by request.

Section VII. Drought Response Triggers and Phased Water Use Reductions

When one of the following water supply thresholds (triggers) are reached, the Mayor shall initiate the following Phase reduction measures as outlined under the corresponding Response heading. For the purpose of this ordinance, Montreat's winter pumping times include the dates from October 1st through May 31st and summer pumping times include the dates from June 1st through September 30th.

Phase I: Voluntary Water Use Reduction for Montreat

Triggers

- Twenty percent (20%) increase in normal seasonal pumping times (measured annually) to maintain storage and meet demand.
- Pumping times required to maintain storage and meet daily demand exceed ten (10) hours per day in winter and sixteen (16) hours per day in summer.
- Average daily use greater than 250,000 gallons per day for seven (7) consecutive days.
- Static Water Level (*Additional data is needed before an appropriate trigger is established.*)
- Pumping Water Level (*Additional data is needed before an appropriate trigger is established.*)
- Rain Levels (*Additional data is needed before an appropriate trigger is established.*)
- When voluntary water use reductions have been requested by the Town of Black Mountain.

Response

- The Mayor shall declare a **Water Shortage Advisory**.

- Begin public notification as previously outlined and distribute water conservation tips.
- Request Voluntary Conservation for all users of the Montreat water system as outlined in distributed information.
- Request Class III non-essential uses to be reevaluated.
- Request individual users reduce water consumption by ten percent (10%).
- Large water users (greater than annual average of 50,000 gallons) are required to prepare a fifteen percent (15%) Water Use Reduction Plan to be submitted within thirty (30) days of a water shortage advisory declaration.

Phase II: Mandatory Water Use Reduction Measures for Montreat

Triggers

- Forty percent (40%) increase in normal seasonal pumping times (measured annually) to maintain storage and meet demand.
- Pumping times required to maintain storage and meet daily demand exceed twelve (12) hours per day in the winter and eighteen (18) hours per day in the summer.
- Average daily use greater than 275,000 gallons per day for seven (7) consecutive days.
- Static Water Level *(Additional data is needed before an appropriate trigger is established.)*
- Pumping Water Level *(Additional data is needed before an appropriate trigger is established.)*
- Rain Levels *(Additional data is needed before an appropriate trigger is established.)*
- When mandatory water use reduction measures have been requested by the Town of Black Mountain.

Response

- The Mayor shall declare a **Water Shortage Alert**.
- All voluntary measures become mandatory measures.
- Enforce a system-wide twenty-five percent (25%) water use reduction goal.
- Notify water use customers by any or all methods as previously outlined.
- Non-commercial car washing and residential outdoor watering is limited to two days per week between 6 p.m. and 8 a.m.
- Ban all non-commercial pressure washing and washdown of impervious surfaces.
- Ban the filling of newly constructed or recently drained pools.
- Public recreational areas are limited to watering on Monday between the hours of 6 p.m. and 8 a.m.
- Institutional automatic toilet flushing systems will operate only during business hours.

- All non-public hydrant use by permit only.
- Ban ornamental uses (i.e. fountains, reflecting pools, artificial waterfalls).
- May authorize additional water use restrictions or bans to be enforced ten days after public notification.

Phase III: Emergency Water Use Reduction Measures for Montreat

Triggers

- Sixty percent (60%) increase in normal seasonal pumping times (measured annually) to maintain storage and meet demand.
- Pumping times required to maintain storage and meet daily demand exceed fourteen (14) hours per day in winter and twenty (20) hours per day in summer.
- Average daily use greater than 300,000 gallons per day for seven (7) consecutive days.
- Static Water Level *(Additional data is needed before an appropriate trigger is established.)*
- Pumping Water Level *(Additional data is needed before an appropriate trigger is established.)*
- Rain Levels *(Additional data is needed before an appropriate trigger is established.)*
- When emergency water use reduction measures have been requested by the Town of Black Mountain.

Response

- The Mayor shall declare a **Water Shortage Emergency**.
- Enforce a system wide fifty percent (50%) water use reduction goal.
- In addition to the above measures the following measures will also be imposed:
 - Notify water use customers by any or all methods as previously outlined.
 - Ban Class III non-essential uses.
 - Request additional conservation from Class 1 (essential) users as may be possible.
 - Enact advanced restriction pricing with fines for overuse.
 - Limit garden irrigation to two days per week between 6 p.m. and 8 a.m.
 - Ban all landscape irrigation (including greens, public areas, school grounds, residential lawns).
 - Ban all recreational water use including but not limited to wading pools and outdoor water toys.
- May authorize additional water use restrictions or bans to be enforced ten days after public notification.

Phase IV: Rationing Measures for Montreat

Whenever the Mayor has declared a Water Shortage Emergency and finds a need to provide for the equitable distribution of critically-limited treated water or water supplies to ensure that sufficient treated water is available to preserve public health and safety of the citizens, the Mayor shall enforce a water rationing policy. Such rationing policy may be developed at the time of the declaration of the Water Shortage Emergency and should be reflective of the following criteria:

- a) It is imperative that water customers achieve an immediate further reduction in water use in order to extend existing water supplies and, at the same time, assure that sufficient water is available to preserve the public health and sanitation and to provide fire protection service.
- b) The policy must provide for equitable reductions in water usage and for equal sacrifice on the part of each water customer. The success of this policy depends on the cooperation of all water customers in the emergency area.
- c) The policy must ensure that fire protection is maintained. Where possible, tank trucks shall use non-potable water.
- d) The policy shall make it unlawful to fail to act in accordance with the restrictions on treated water use or to attempt to evade or avoid such water rationing restrictions.
- e) The policy may include additional measures of mandatory conservation controls such as a percentage reduction in consumption, termination of service to specific areas in the water system on a rotating basis, prohibition of all institutional uses of potable water, etc., or whatever is necessary to protect the health and safety of the customers of the water system.

In addition to other measures authorized by this ordinance, the minimum water rationing policy will provide as follows:

1. Water Use Rationing for Residential Users – The number of permanent residents in each dwelling unit (household) will determine the amount of water that each household will be allowed. Each dwelling unit (household) shall be allotted sixty five (65) gallons per day for each resident of the household. If it is found that the residential water allotment provided under this section would create an extraordinary hardship for individual customers, as in the case of special health-related requirements, a revised allotment for the particular customer may be established by the Town Administrator and Public Works Director.
2. Water Use Rationing for Non-Residential Water Users – Non-residential customers include commercial, industrial, institutional, public and all other such users. Non-residential water customers shall further reduce their water usage to the lower of (i) sixty-five (65) gallons per person per day or (ii) to fifty percent (50%) of use levels during the last metered recording. It is the primary responsibility of each non-residential water customer to meet the mandate water use reduction goal in whatever manner possible, including limitation of operating

hours or days if necessary. The Town of Montreat will work with each non-residential customer to establish a water allotment for each service. If the mandated further reduction in water usage cannot be obtained without imposing extraordinary hardship which threatens health and safety, the non-residential customer may apply to the Town of Montreat for a variance. For these purposes, “extraordinary hardship” means a permanent damage to property or an economic loss which is substantially more severe than the sacrifices borne by other water users subject to this water rationing policy. If the further reduction would cause an extraordinary hardship or threaten health or safety, a variance may be granted by the Board of Commissioners, and a revised water use reduction requirement for the particular customer may be established.

The Town of Montreat may implement more restrictive water rationing policies if the mandated water reduction has failed to sufficiently extend limited water supplies.

Water Use Rationing Enforcement – The Town of Montreat Public Works Department with the assistance of the Montreat Police Department will have primary responsibility for monitoring compliance with the water rationing policy. Any residential or non-residential water customer who exceeds the allotments established pursuant to this water rationing will be subject to an excess-use administrative penalty of \$100.00 for each violation. Each day a water customer exceeds its allotment shall be a separate violation. In addition to the excess-use administrative penalty, non-compliance with the water rationing provisions of this ordinance will result in the maximum penalties provided for by this ordinance or the North Carolina General Statutes. Meter reading schedules are authorized to be altered to assure adequate monitoring of compliance with this ordinance. Any customer or other person aggrieved by a decision or action imposing an excess-use civil penalty or other remedy for non-compliance with the requirements of this ordinance may file a letter of appeal to the Board of Commissioners within ten (10) days of action to rebut the finding of a violation, or provide evidence of circumstances beyond the customer’s control that resulted in the violation. A record of evidence regarding disputed violation shall be kept and a written notice of the Board’s final decision and action in such cases shall be provided to the customer or aggrieved party within thirty (30) days of the Town receiving the letter of appeal.

Implementation of Temporary Service Interruptions – In order to effectuate compliance with this ordinance, the Mayor, or an agent designated by the Mayor is hereby authorized to plan and implement temporary service interruption to all or part of its water supply system, as may be deemed appropriate, when any/or all of the following conditions are determined to exist: 1) the mandated reduction in system-wide water usage has not been achieved; and/or 2) the mandated reduction in system-wide water usage has been achieved, but has failed to have a significant impact in extending limited water supplies; and/or 3) temporary service interruptions are necessary in order to further extend limited and/or dwindling water supplies. In the event it is determined that temporary service interruptions are necessary, the Town of Montreat shall notify its customers through the public media listed in Section One of this ordinance at least one day prior to the temporary service interruptions that a planned, temporary service interruption is to be

imposed. Such notice shall: 1) state the day or days when the planned, temporary service interruption will occur; 2) state the time(s) when such planned, temporary service interruptions will commence and the time(s) such interruption will cease; 3) state whether the planned, temporary service interruptions are to be imposed on the entire system or part thereof, and, if only part(s) of the system will experience planned, temporary service interruption, state the part(s) of the system where the planned, temporary service interruption will occur; and 4) advise all customers within the areas affected by planned, temporary service interruptions how to treat any water received from the system, for human consumption, during the period(s) of such interruptions and for such additional time as may be necessary until full pressure is restored to the system.

Summary Responses to Water Use Classes at Different Phases

	Voluntary Phase	Mandatory Phase	Emergency Phase
Class 1: Essential	Voluntary Conservation	Voluntary Conservation	Additional Conservation
Class 2: Socially or Economically Important	Voluntary Conservation	Voluntary Conservation Mandatory Restrictions	Mandatory Restrictions
Class 3: Non-Essential	Voluntary Conservation	Mandatory Restrictions	Mandatory Restrictions

Section VIII. Civil Emergency Response Triggers and Emergency Rationing Plan

The Town of Montreat maintains a mutual assistance agreement with other municipalities through the North Carolina League of Municipalities to share equipment, personnel and supplies in times of an emergency.

As part of the General Emergency Response Plan, the Water Department's primary objectives in an emergency is to 1) maintain water service for domestic and firefighting purposes; 2) protect the water supply from possible contamination; 3) control the loss of water, and; 4) keep the public informed. This Section of the Ordinance along with the General Emergency Response Plan describes general actions to be taken to 1) assess situation status and extent of damage to the water system, 2) prevent contamination and loss of water, and 3) restore water service in response to the following types of civil emergencies: earthquake, flood, fire, contamination of water supply, civil disorder, power outage, mechanical failure, damage to distribution water tanks or booster pumping station, and telecommunications failure.

The civil emergency water rationing plan is intended to preserve treated water supplies in the event a catastrophe results in impairment of the water system. The civil emergency rationing plan has two states, which are defined as follows:

- 1) **Serious Shortage:** This condition exists when the system is unable to meet normal demand, but can supply enough water for basic public health and safety needs. In this situation, not taking swift action to ration water could jeopardize available water in storage, or could leave the Town vulnerable in the event of further outages.

- 2) **Critical Shortage:** This condition exists when production facilities are rendered incapable of meeting fifty percent (50%) or less of normal daily production levels and the current rate of consumption poses an immediate threat of draining the storage tanks.

The restrictions that would be instituted in a serious or critical shortage are summarized below:

Serious Shortage	
Prohibited Uses:	Permitted Uses:
1. Watering lawns, gardens or landscaping	1. Normal domestic uses: drinking, cooking (paper plates and plastic utensils requested)
2. Washing cars, boats, building exteriors	2. Toilet flushing, only when necessary
3. Washing sidewalks, driveways, or any exterior surfaces	3. Limit showers to three minutes
4. No outdoor use for any reason	4. Bathing only if absolutely necessary (no more than half full)
5. Car washes closed	5. Minimize clothes and dish washing
6. Filling of swimming pools, hot tubs, decorative pools, or fountains (must be turned off)	

Critical Shortage	
Prohibited Uses:	Permitted Uses:
1. Outdoor water use for any reason	1. Water limited to health and safety only: drinking and cooking (paper plates and plastic utensils required)
2. Clothes washing and commercial laundering, except for health reasons	2. Toilet flushing for solid waste only
3. Janitorial cleaning	3. Shower/bathing should be limited to every other day
4. Businesses and institutions that use water in their operations may be forced to close or restrict operations (i.e. restaurants, coffee shops, laundromats, public and private schools, gyms)	4. Use water only when absolutely necessary
5. No water for construction	
6. No water for crop irrigation	

Section IX. Montreat Enforcement Penalties

Offense	Phase I: Voluntary	Phase II: Mandatory	Phase III: Emergency
First	Notice of Violation	Notice of Violation and \$50.00 Fine	\$100.00 fine
Second	Notice of Violation	\$100.00 Fine	\$350.00 Fine
Third	Notice of Violation	\$250.00 Fine	Water Service Disconnection and Associated Reconnect Fees
More than Three Offenses	Notice of Violation	Water Service Disconnection and Associated Reconnect Fees	Water Service Disconnection and Associated Reconnect Fees

The Town of Montreat Police Department, with assistance from the Public Works Department, will have responsibility for monitoring compliance and enforcing the requirements of this plan. Water service disconnection and reconnect fees shall be set by the Board of Commissioners annually. In the event of continued gross non-compliance of this ordinance, the meter shall be removed, service shall be discontinued and all tap fees and deposits forfeited. Reconnection shall only be made by payment of current due amounts and payment of new tap fees and deposits.

Section X. Montreat Residential and Non-Residential Conservation Rates

Conservation pricing is an important tool for water conservation. Conservation pricing is a rate structure that encourages consumers to reduce water use by charging more for increased water use. Increased water rates have proven to be a strong incentive for water users to reduce excessive outdoor water use. Conservation pricing is a critical conservation measure that will help to ensure enough water is available for all our citizens.

Water System Operating Status	Conservation Rates
Normal Conditions or Phase I Advisory	Normal Rate

Declaration of Phase II Alert	2 x Normal Rate
Declaration of Phase III Emergency	4 x Normal Rate

Section XI. Public Comment

Customers will have multiple opportunities to comment on the provisions of the Water Shortage Response Plan. First, a draft plan will be published on the Town of Montreat website. A public hearing will be scheduled with notice printed on all customer water bills to collect comments on the draft. All subsequent revisions to the draft plan will be published at least 30 days prior to an adoption vote by the Montreat Board of Commissioners.

Section XII. Variance Protocols

Applications for water use variance requests are available from the Town of Montreat website and Town Services Building. All applications must be submitted to the Public Works Department at the Town Services Building for review. A decision to approve or deny individual variance requests will be determined within three business days of submittal after careful consideration of the following criteria: impact on water demand, expected duration, alternative source options, social and economic importance, purpose (i.e. necessary use of drinking water) and the prevention of structural damage.

Section XIII. Effectiveness

The effectiveness of the Water Shortage Response Plan will be determined by comparing the stated water conservation goals with observed water use reduction data. Other factors to be considered include frequency of plan activation, any problem periods without activation, total number of violation citations, desired reductions attained and evaluation of demand reductions compared to the previous year's seasonal data. In the event of a declaration of water shortage, water use reduction data and a water supply condition report will be compiled by the Public Works Director and submitted weekly to the Mayor and Town Administrator.

Section XIV. Revisions

The Water Shortage Response Plan will be reviewed and revised as needed to adapt to new circumstances affecting water supply and demand, following implementation of emergency restrictions, and at a minimum of every five years, as required by the provisions of G.S. 143-355 (I). Further, a water shortage response planning work group will review procedures following each emergency or rationing stage to recommend any necessary plan improvements to the Board of Commissioners. The Town of Montreat's Public Works Director is responsible for initiating all subsequent revisions.

Section XV. Taking Water from Streams

Any person or entity who wishes to draw water from any river, stream, lake or similar body of water shall only be permitted to do this during the months of June through September, for a maximum duration of four hours per day, three days per week and only after receiving authorization from the Town Administrator.

Section XVI. Return to Normal Operations in Montreat

Phase conservation measures and restriction will expire incrementally when the Mayor, after consultation with the Town Administrator and Public Works Director, finds that the water supply has returned to normal.