

DAVIDSON WATER, INC. CONSERVATION PLAN

August 27, 2018

Water Shortage Response Plan

In order to be better prepared in the event of a drought, water treatment problems, major catastrophe to distribution lines or supply tanks, the inability to resupply the water plant with raw water from the Yadkin River or to our raw water lakes occur, Davidson Water, Inc. has developed a water conservation plan. Davidson Water, Inc. has fourteen distinct zones and may ask all or just a particular zone or zones, to comply with it's conservation plan.

The Yadkin River has an abundant water supply, but is not immune to a prolonged drought. Davidson Water, Inc. has emergency interconnects with Winston-Salem, Lexington, Thomasville, High Point, Archdale and Handy Sanitary District, which could help supply water during most emergencies, except drought, which would effect most water utilities in the basin.

W Kerr Scott Dam is a manmade lake located upstream on the Yadkin River. It is operated by the US Army Corps of Engineers, primarily for the purpose of flood control and water supply. A minimum release is required year round, which helps during drought conditions. The City of Winston Salem can request additional release above the minimum if needed.

Davidson Water, Inc. has a 27 million gallon a day water plant located on the Yadkin River. This is the only source for water except the emergency interconnects mentioned above. The average daily demand on our system is 9.37 million gallons a day, with summertime use as high as 12.7 million gallons a day. Davidson Water Inc.'s system is basically residential with very little demand from industry. When water demand increases in the summertime it is due primarily to watering lawns & gardens, swimming pools and increased washing of vehicles.

Davidson Water, Inc. Water Shortage Response Procedure

All municipalities or water companies purchasing water from Davidson Water, Inc.'s water system will, at a minimum, adopt and enforce water use reduction measures contained in this plan as a condition of water sales. When each threshold established in this plan is reached the Board of Directors or an agent designated by the Board of Directors, shall declare a water shortage and institute the provisions of this plan. Upon each declaration of a water shortage, a press release outlining required responses, will be forwarded to the following media outlets by Davidson Water, Inc.: The Dispatch, Winston Salem Journal, Thomasville Times, High Point Enterprise, Archdale Trinity Gazette and Channel 2, 8 and 12 TV. Notice will also be printed on the water bills, email notification will be utilized and door hangers will be used as needed. Reverse 911 may be utilized in special situations. Employees will after each declaration be notified by employee meetings, emails, memos, cell phone and direct contact if needed giving proper information on responses required.

Year-Round Water Conservation Policy for Davidson Water, Inc.

Davidson Water, Inc. encourages all member supplied water users to use water efficiently at all times. Davidson Water, Inc.'s Water Plant Superintendent will monitor regional water resource conditions through the North Carolina Drought Monitor (<http://www.ncwater.org/drought/>) When the Drought Monitor indicates impending drought conditions the Water Plant Superintendent will increase monitoring of water demand and the available supply of water. The findings will be reported to the General Manager. In the event of a declaration of a water shortage by the Board, the General Manager will submit a weekly report on water supply conditions to the President of the Board.

Phase I. Voluntary Conservation

When weekly demand reaches 80% of treatment capacity, (an average of 21.6 mgd over any 7 day period) or any of the conditions listed, we will ask our membership to voluntarily conserve water. Other factors to trigger restrictions may include 7 day average flow in Yadkin River below 400 cfps or storage capacity of lakes below 85%.

Recommendations for Voluntary Conservation

1. Use showers for bathing and limit to four minutes.
2. Limit toilet flushing by multiple usage when possible.
3. Do not leave faucets running while shaving, rinsing dishes, or brushing teeth.
4. Limit use of clothes washers and dishwashers. If used, they should be fully loaded.
5. Limit lawn watering to that which is necessary for plant survival.
6. Water shrubbery the minimum required.
7. Limit washing of vehicles.
8. Do not wash down outside areas such as sidewalks, patios, and driveways.
9. Use disposable and biodegradable dishes.
10. Install water saving devices in toilets and showers.
11. Delay landscape work until water shortage has ended.

Phase II. Mandatory Conservation

When water demand reaches 85% of treatment capacity (an average of 22.95 mgd over any 7 day period) or any of the other conditions exist. Along with the voluntary conservation measures recommended, we will limit our membership to one hour of outdoor watering between the hours of 7:00 am to 9:00 am or 7:00 pm to 9:00 pm on the following days, Tuesday, Thursday, Saturday. Other factors to trigger restrictions may include river below 350 cfps or storage capacity of lakes below 80%.

Phase III. Mandatory Conservation

When water demand reaches 90% of treatment capacity (an average of 24.30 mgd over any 7 day period) or any of the other conditions exist. Along with the voluntary conservation measures recommended, we will limit our membership to one hour of outdoor watering by handheld garden hose only, between the hours of 7:00 am to 9:00 am or 7:00 pm to 9:00 pm on the following days, Tuesday, Thursday, Saturday. Other factors to trigger restrictions may include river below 300 cfs or storage capacity of lakes below 75% and the following additional items will be enforced:

No water shall be used for the following purposes:

1. To fill new or used swimming pools or ornamental fountains
2. To wash any vehicles, except at a commercial car wash
3. To wash down driveways, patios, sidewalks or other outside areas or use for dust control.
4. To serve drinking water in restaurants, except by request
5. Use of fire hydrants for firefighting only.
6. To use water for unnecessary purposes.

Phase IV. Emergency Conservation

Phase IV would be implemented when a serious water shortage exists or when the water supply system is unable to meet demand of our users. No outside use of water, except emergency use involving fire or accident. Other triggers of Emergency Conservation measures may include 7 day average flow in Yadkin River below 250 cfs or lakes below 60% storage capacity, weekly demand reaches 95% of treatment capacity. As water conditions improve the same implementation measures and triggers used to reduce water use will be utilized to reverse implementation.

Water Loss Reduction Program

Davidson Water, Inc. monitors our unaccounted for water loss on a monthly basis.

We also have a SCADA system to monitor our pump run times and tank levels which can help in determining a leak in the system. We monitor 24/7.

Water Use Efficiency Program

Davidson Water, Inc. currently has a conservation rate schedule. The high use bracket now has the highest cost in order to encourage conservation. We are currently metering all of our water users.

Current Rate Schedule

<u>Gallons Used</u>	<u>Rate per Month</u>
0-2,000	13.25
2,001-10,000	4.50/1,000 gallons
10,001-50,000	5.05/1,000 gallons
Over 50,000	4.60/1,000 gallons

Public Education and Outreach Program

We make use of our website as well as our CCR report and periodically mail newsletters to our customers in order to educate them on the benefits of conservation. We are members and participate in the Yadkin-Pee Dee Water Management Group (YPDWMG). YPDWMG was developed through a collaborative effort by a work group of 18 Governmental, public water utility and reservoir operator parties providing service within the Yadkin-Pee Dee basin. The group has a goal of defining the basin's role in a long term sustainable and secure regional water supply for the Yadkin-Pee Dee region.

Notification & Authority

The Davidson Water, Inc. Board of Directors would approve going to each stage of our water shortage response plan. Management would be responsible for enforcement and notification to users. Notification will be given for each phase of the Water Shortage Response Plan. The Board of Directors has given the General Manager and in his/her absence the Vice President Construction & Engineering or in his/her absence the Vice President Administration, the authority to enact Davidson Water, Inc. Conservation Plan without Board approval if the situation dictates as outlined in the plan. Management will be responsible for enforcement and notification to users. Notification will be given for each phase of the Water Shortage Response Plan.

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All municipalities or water companies purchasing water from Davidson Water, Inc. will at a minimum adopt and enforce.

Enforcement:

Phase I Voluntary

Door Hanger – Giving notice of concern

Phase II Mandatory

Door Hanger – Giving notice of violation

Letter Mailed – Giving notice of 2nd violation

Letter Mailed – Giving notice of 3rd violation

Disconnect water service with a service charge required to reconnect – On the 4th violation

Phase III Mandatory

Door Hanger – Giving notice of violation

Letter Mailed – Giving notice of 2nd violation

Disconnect water service with a service charge required to reconnect – On the 3rd violation

Phase IV Emergency

Door Hanger – Giving notice of violation
Registered letter – Giving notice of 2nd violation with requirement to respond
If no response, disconnect water service with a service charge required to reconnect

Public Comment & Notification of Plan

Copy of plan is on our website. Notification of update will be printed on bills.

Revision

Management will take to the Board of Directors at least every five years for review and more often if necessary. Changes in reservoir capacity, plant capacity, flow patterns of the river or significant usage change would necessitate a review by the Board of Directors. Implementation of Phase IV Emergency would also require a review of plan. The General Manager is responsible for Plan review/revision.

Variance Protocols

Request for variance should be made in written form with name, address and phone number included if possible. Management will take all variance requests to the Board of Directors for approval, but management at its own discretion may allow for variance until the Board meets. Health factors and water used for livelihood may be determining factors.

Effectiveness

Comparison of records of water plant production measuring output for the same 30 day time frame the previous year as current period, taking into consideration population growth. We would also look at percentage of water reduction produced at the plant on a daily basis, along with the actual gallon reduction.