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# DAVIDSON WATER INC. WATER CONSERVATION PLAN

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APRIL 14, 2025

NEXT SCHEDULED REVIEW: 04/01/2030

Davidson Water Inc.

# DAVIDSON WATER, INC.

## WATER CONSERVATION PLAN

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## **I. Purpose**

Davidson Water Inc. has developed a Water conservation Plan. A Water Conservation plan is a useful tool in managing water supply issues and emergencies. This plan can be utilized in any number of situations, such as drought, water supply disruption, distribution or water quality issues. It can also aid in response to man-made and natural disasters (acts of terrorism, contamination, flood, hurricanes, etc.). Davidson Water, Inc. has fourteen distinct zones and may direct all or just a particular zone or zones, to comply with the Water Conservation Plan.

The Yadkin River is 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, all or some of which could help supply water during most emergencies, with the exception of drought, which would affect all water utilities in the Yadkin River basin. Some of the interconnects may require the use of temporary pumping to facilitate the transfer of an adequate water supply thru the interconnection.

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. Any scheduled releases can be located here:

<https://www.duke-energy.com/community/lakes/flow-releases>.

Davidson Water, Inc. has two water treatment plants with a total capacity of 27 million gallons a day located on the Yadkin River. The Yadkin River is the only water source for the water treatment plants. The emergency interconnects supply water treated by the municipalities or districts listed above directly into the Davidson Water Inc. distribution system. The average daily demand on our system is approximately 11 million gallons a day, with summertime use as high as 17 million gallons a day. Davidson Water Inc.'s system is basically residential with little demand from industry. When water demand increases in the summertime it is primarily due to the watering of lawns and gardens, filling and maintaining of swimming pools and increased vehicle washing.

## **II. Water Shortage Response Procedure**

All municipalities or water companies purchasing water from Davidson Water Inc. will, at a minimum, adopt and enforce the water use reduction measures contained in this plan as a condition of water sales. As each threshold established in this plan is reached, the Board of Directors or an agent designated by the Board of Directors, shall declare the appropriate restrictions based on the provisions of this plan. Upon each declaration, a press release outlining the required responses, will be forwarded to the following media outlets by Davidson Water, Inc.:

1. The Dispatch
2. Winston Salem Journal
3. Thomasville Times
4. High Point Enterprise
5. Archdale Trinity News
6. TV Channels 2, 8 and 12

Notice of the declaration and restrictions will also be printed on the water bills. Davidson Water Inc. will also use email notifications and /or door hangers as needed. Reverse 911 may be utilized in special situations. Employees of Davidson Water Inc. will be notified of the proper responses required after each declaration.

## **III. Year-Round Water Conservation Policy**

Davidson Water, Inc. encourages all of its members to use water efficiently at all times. Davidson Water, Inc.'s Director of Water Plant Operations will monitor regional water resource conditions utilizing the North Carolina Drought Monitor (<http://www.ncwater.org/drought/>). When the Drought Monitor indicates impending drought conditions, the Director of Water Plant Operations will increase the monitoring of water demand versus source water supply. 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, generated by the Director of Water Plant Operations, to the board. This report will include current conditions and drought level.

## **IV. Levels of Response**

The four levels of water shortage responses are: Voluntary Conservation, Mandatory conservation, Stringent conservation and Emergency Conservation. A detailed description of each response level and corresponding water reduction measures follows below:

### **A. Phase I Voluntary**

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 cfs or storage capacity in plant reservoirs below 85% capacity.

#### **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 1" of water per week
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 on toilets and in showers.
11. Delay landscape work until water shortage has ended.

### **B. Phase II Mandatory**

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 cfs or storage capacity of plant reservoirs below 80% capacity.

### **C. Phase III Stringent**

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 plant reservoirs below 75% and the following additional items will be enforced:

#### **No water shall be used for the following purposes:**

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

### **D. Phase IV Emergency**

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 plant reservoirs below 60% storage capacity and/or 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 conservations phases.

## **V. Water Loss Reduction Program**

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

We have a SCADA system to monitor our pump run times and flows. The tank levels are also monitored. When the pumped water is compared to tank levels, it can help in determining if there is a leak in the system. We monitor 24/7 plant operations and distribution system 24/7.

## **VI. Water Use Efficiency Program**

Davidson Water, Inc. water rates are designed to encourage conservation by offering a low minimum rate and no discount to large volume users. We are currently metering all of our water users.

Current Rate Schedule	
<u>Gallons Used</u>	<u>Rate per Month</u>
0-2,000	15.00
Over 2,000 gallons	5.75/1,000 gallons

## **VII. Public Education and Outreach Program**

Davidson Water Inc. makes use of our website ([www.Davidsonwater.com](http://www.Davidsonwater.com)), as well as the CCR (Consumer Confidence Report), and company newsletters to help educate our members about the importance and benefits of water conservation. We are active members of the Yadkin-Pee Dee Water Management Group (YPDWMG). YPDWMG was developed and is maintained through a collaborative work group of 18 municipalities, regional water utilities, and reservoir operator parties that provide service within the Yadkin-Pee Dee River basin. The Yadkin-Pee Dee Water Management Group has a goal of defining the Yadkin River basin's role in a long term, sustainable and secure regional water supply.

## **VIII. 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 Director of Construction & Engineering or in his/her absence the Director of Water Plant Operations, 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.

- 1. Jonathan Ray, CEO/General Manager**  
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**3. Terry Crowe, Director of Water Plant Operations**

Phone: 336 731-2554 Cell: Phone 704-201-3857

Email: [tcrowe@davidsonwater.com](mailto:tcrowe@davidsonwater.com)**IX. Enforcement**

All municipalities or water companies purchasing water from Davidson Water, Inc. will, at a minimum, adopt and enforce the conservation methods enacted by Davidson Water Inc.

Please see below for enforcement Steps for each phase of water restrictions:

Phase	1 <sup>st</sup> violation	2 <sup>nd</sup> violation	3 <sup>rd</sup> violation	4 <sup>th</sup> violation
Voluntary - I	<u>Door Hanger</u> Notice of concern			
Mandatory - II	<u>Door Hanger</u> Notice of Violation	<u>Letter Mailed</u> Notice of 2 <sup>nd</sup> Violation	<u>Letter Mailed</u> Notice of 3 <sup>rd</sup> Violation	Disconnection of Water Service **
Stringent - III	<u>Door Hanger</u> Notice of Violation	<u>Letter Mailed</u> Notice of 2 <sup>nd</sup> violation	Disconnection of Water Service **	
Emergency - IV	<u>Door Hanger</u> Notice of Violation	Registered Mail *		

\* Register Letter will give notice of second violation, with a requirement to respond.  
If no response, disconnect water service with a service charge to reconnect.

\*\* A service charge will be required to reconnect



## **X. Plan Evaluation and Effectiveness**

The effectiveness of this Plan will be determined by measuring system-wide water use reductions during declared water shortage stages. All Mandatory drought activities undertaken by the participating members of the Yadkin-Pee Dee Water Management Group (TPDWMG), as directed by the Low Inflow Protocol will also serve as an expansive and detailed examination of the effectiveness of measures enacted. In addition to water supply and usage, the frequency of implementing water shortage stages within the parameters set forth in the Plan will also be evaluated. If the frequency of implementation of water shortage stages is found to be too great, or if the duration is found to be excessive, then modifications to the Plan, or adjustments to the water supply infrastructure will be considered and proposed. The number of citations issued during a water shortage may also be used to determine if the level and severity of citations is sufficient to achieve the water usage reductions necessary.

## **XI. Variance Protocols**

A. Davidson Water Inc.'s General Manager or the General Manager's duly authorized designee is authorized to grant variances from prevailing water conservation measures. In order to qualify for a variance, a Consumer must apply, in writing, to the General Manager or the General Manager's duly authorized designee, identifying:

1. The physical address of the location where the water will be used and the billing address for the water usage.
2. The basis for the variance from prevailing water restrictions
3. Duration of the requested variance

Davidson Water Inc. reserves the right to request additional information and records regarding the requested variance and to reject the variance if such information and records are not promptly delivered.

B. Until such time as the variance is approved, if it is, the Consumer shall continue to comply with the restrictions. If and when a variance is granted, the Consumer must retain the written variance approval and make it available for inspection immediately upon request by any Davidson Water employee. The Consumer must at all times abide by all conditions and provisions of the variance or it will be subject to immediate revocation.

C. Variance requests will be evaluated on the basis of all factors deemed relevant by Davidson Water Inc., acting in its discretion, including, but not be limited to, impact on water supply, existence of one (1) or more alternative supply sources, social or economic importance, and prevention of structural damage.

**XII. Public Comment & Notification of Plan**

A Copy of the plan is on our website ([www.Davidsonwater.com](http://www.Davidsonwater.com)). Notification of procedure or enforcement changes will be printed on members water bills.

**XIII. Revision**

Management will take the Conservation Plan 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. After the board review of the revision, if required by section XIII, or by review of the Management team, if not required for board review, the General Manager will sign below (On behalf of the board, if board approval is required) to acknowledge revision:

Revision history

Date of Revision	Reason for Revision	Signed
4/15/2025	Plan Update	