

Appomattox River Water Authority

Drought Management Plan

Summary Overview

On November 1, 2013 the ARWA received an approved Virginia Water Protection (VWP) Individual Permit No. 01-1719 from the Virginia Department of Environmental Quality (DEQ). This permit required that ARWA develop a Drought Management Plan and submit it to DEQ for review and approval within one-hundred and eighty days (by April 29, 2014) of the permit issuance. The Plan was developed and submitted to DEQ on April 28, 2014 and the DEQ approved the ARWA Drought Management Plan on July 24, 2014.

The Drought Management Plan was required to include, at a minimum, the following:

- ✓ Development of drought stages consistent with the safe yield modeling evaluation. The water elevations of the Chesdin Reservoir at which each drought stage shall be initiated.
- ✓ Description of the conservation measures to be implemented during each drought stage.
- ✓ Procedure to assess vulnerability to drought conditions and adjust water usage to prolong available supply.
- ✓ Method to project water needs and available water supply for a ninety day period from the declaration of a Drought Emergency stage.

The Drought Management Plan presents water conservation elements to be achieved during different drought stages, through voluntary efforts of the ARWA member's communities and, if needed, mandatory restrictions on water use. The water elevations as shown in Table 1 on page five of the Drought Management Plan are considered to be the triggers to enter the specific drought stages.

The three stages of drought in the Plan correspond to the Commonwealth of Virginia Local and Regional Water Supply Planning Regulations. A drought **Watch** (Voluntary Water Conservation Reductions) is issued as a means to increase public awareness that climatic conditions and stream flows are such that there is concern of an impending drought. A drought **Warning** (Mandatory Public Water Use Restrictions) is issued when all indications show that the onset of a drought is imminent. A drought **Emergency** (Emergency Public Water Use Restrictions) is issued during a drought as a means of curtailing demand and extending raw water supply through the duration of the drought.

- ❖ A unique feature of the Drought Management Plan is the implementation of Seasonal Chesdin Water Wise Conservation Measures effective annually from

Memorial Day to Labor Day. The Stage 1-Drought Watch (Voluntary Water Conservation Reductions) is requested to be observed by all Citizens.

The ARWA Executive Director will notify the ARWA Board of Directors that entry into Drought Stage 1 (Drought Watch), Drought Stage 2 (Drought Warning) or Drought Stage 3 (Drought Emergency) is required upon reaching the Plan's Table 1 page 5 Water Elevation levels. Drought Stages can also be declared due to unusual events that threaten the available supply of water from the Chesdin Reservoir, such as acute contamination of the reservoir water or a failure causing significant loss of stored reservoir water from the dam.

The drought stage restrictions will remain in effect until such time that the Chesdin Reservoir storage capacity reaches the Drought Stage water elevation levels shown in the Plan's Table 1 on page 5 and maintains this level or a higher elevation for a minimum of fourteen consecutive days, and the ARWA Board of Directors approves either a return to an earlier drought stage or the total release from water restriction. For example, if it's in the month of June and member jurisdictions are presently in Stage 2 –Drought Warning, then to reduce down to Stage 1-Drought Watch, the Chesdin Reservoir water elevation level would need to reach a water elevation of 156 ft., and maintain this level or a higher for fourteen consecutive days.

Because ARWA is a wholesaler of water and has no retail customers of its own, the specific water conservation restrictions that will be implemented are the responsibility of the five member jurisdiction's retail service providers. The stage-specific restrictions listed in the Drought Management Plan apply to all member jurisdictions. For enforcement purposes, however, each jurisdiction has its own Water Conservation Restriction Ordinance. These jurisdiction-specific ordinances are presented in Appendix A of the Drought Management Plan. The member jurisdiction will implement and enforce their water restriction use ordinances during periods of time in which drought stages are declared to be in effect.

- ❖ For more specific information, please refer to the Appomattox River Water Authority Drought Management Plan.