

POLICY

DEMAND/DROUGHT MANAGEMENT

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APPROVED KCWA APRIL 16, 2003

Kent County Water Authority developed this policy as a guide for water supply management in response to demand or drought conditions within the service area. The policy will be implemented in close coordination with the State of Rhode Island Drought Management Plan Guidance and demand factors affecting KCWA operations.

Background:

Drought is a natural condition of climate that may evolve over months or years. The affects of drought can vary greatly from region to region subject to the precipitation within a particular region. Demand is a condition induced by the customers in relation to the amount of supply necessary to satisfy that demand at any given moment. Kent County Water Authority's supply structure is comprised of both purchased water from the Scituate Reservoir and groundwater supplies from various sources within our district. The amount of rainfall in either supply region can greatly impact the resource management decision making processes for maintaining adequate water supplies during a drought event and the coincidence of demand.

Responsibility:

The primary responsibility for coordination of the demand/drought management process within the district is empowered with the governing Board of Directors, as advised by the general manager/chief engineer. The general manager/chief engineer will recommend phases of operational response based on supply, demand, hydrological and meteorological indices within the district, taking into consideration any state mandated demand/drought conditions. Upon action by the Board, appropriate mitigation measures will be implemented in coordination with

changing drought indices within the district and mandates by the State.

Monitoring Predictors:

Climatic and hydrological observations, consumer demands and safe yield of current sources are key elements in the planning and mitigation processes related to demand and drought management. Precipitation, groundwater and reservoir levels must be closely monitored to help predict trends towards worsening or improving conditions and the implementation of appropriate mitigation measures that best serve all stakeholders.

Water Use Priorities:

These priorities recognize the critical importance of consumer well being and fire safety along with the economic impacts to both the residential and business sectors. Landscape irrigation use is of the least priority as it provides no benefit to health or economic well being of the customer.

1. Public Health and Safety includes residential interior use, non-residential sanitary uses and fire response.
2. Manufacturing dependant upon critical and non-delaying water usage includes sanitary uses and product production.
3. Commercial agriculture and farming includes sanitary uses and production of saleable crops.
4. Commercial uses include sanitary uses and normal commercial water use for intended purposes.
5. Recreational outdoor watering includes sanitary uses and municipal needs for recreational purposes and all commercial golf course irrigation purposes.
6. Residential, Industrial and Commercial sector outside uses including landscape irrigation, recreation, vehicle washing and all other water uses.

Mitigation:

Reduction of waste and continuous efforts in the efficient use of water are intrinsic requirements for all customers at all times.

Use of low flow showerheads, faucet aerators and appliance replacements made with conservation wise components are mandatory for all customers. An acceptable percent of water reduction and frequency of reduction must be continuously evaluated. This evaluation must recognize the ability and willingness of consumers to reduce consumption based on the communicated severity of the demand and drought conditions. The Kent County Water Authority will communicate the severity of demand and drought conditions to its' customers regarding the status of the impending conditions and any district or state mitigation efforts implemented to enforce water use reductions and control use during the drought event. All stakeholders must strictly adhere to these restrictions in order to ensure everyone's basic needs can be met. To this end, the Kent County Water Authority shall take the following actions to obtain the required results:

1. Public education and conservation are instrumental factors in assuring all stakeholders work together to reduce use during the onset of and prolonged period of drought and any demand conditions. The Kent County Water Authority will consistently communicate to the public the importance of making lifestyle adjustments that incorporate efficiency and conservation in everyday water use. During demand/drought conditions, the Kent Count Water Authority will keep the public apprised of impending conditions and conservation mandates in affect at the time.
2. Implementation of general usage reduction measures through the required use of efficient water conserving plumbing fixtures and mandatory year-

round outdoor water restriction for the supply district. This policy allows odd numbered addresses to use outdoors on odd number days and even numbered addressed to use outdoors on even numbered days. This phase incorporates public education as part of the enforcement action for first time violators and monetary penalties for additional violations.

3. As conditions worsen, a complete ban on outdoor water use will be put into effect. This phase of mitigation invokes complete elimination of outdoor uses by all customer classes and monetary penalties for first offence, followed by service shut off for repeated offences.

Precipitation and groundwater levels are the key factors in improving conditions and moving to less restrictive water use conditions. The Kent County Water Authority Board of Directors will manage and coordinate its' response to drought from the normal condition through drought emergency stages. The Board shall invoke specific actions and implement necessary strategies to strengthen enforcement of conservation efforts, as necessary, to maintain the integrity of the supply. This includes curtailing the use of private wells within the supply district for any use other than for health and sanitation. Private wells draw from the same aquifer that supplies the public sector with water and are not considered an alternative water source for outdoor use during a drought event. In emergency situations, circumstances may dictate the use of special seasonal water rates to further enforce the need to conserve water.