



## RECOMMENDATIONS TO THE BOARD OF SUPERVISORS

**Presented by: Water Conservation Committee**

Presented on: October 25, 2000

Between 1995 and 2000, water use has increased an average of 49 percent between the lowest three months of usage and the highest three months of usage (summer peak demand months). In three years out of the past six the system surpassed its VDH Permitted Capacity during peak demand months. And, in each of the past six years, the system has surpassed its upgrade threshold capacity (see attached chart).

This peak demand usage increase has been attributed to outdoor water consumption—most of which is used for landscaping. Water production facilities are planned, designed, built, and upgraded based on peak requirements, not on average use. This excessive use not only wastes money, but also wastes high quality drinking water on landscapes.

In May 2000, the Board of Supervisors tasked the newly formed Water Conservation Committee (WCC) with developing outdoor watering restrictions to curb peak demand usage. After four months of research and consideration, the committee submits the following restrictions to the Board of Supervisors.

### **Purpose of Restrictions:**

1. Reduce the magnitude of seasonal peak water demands.
2. Reduce current and future demands on the Chickahominy-Piney Point Aquifer.
3. Establish provisions for water management practices for new and established landscapes.
4. Fully integrate water conservation into long-range water supply and land use planning and development.
5. Raise awareness of the need for outdoor water conservation and encourage year-round conservation practices.

### **Public Notice**

As an integral part of this restriction, JCSA and the WCC would develop and implement an “Information and Education Campaign” to prepare customers for May 2001 implementation. The committee considers public education the key component to voluntary compliance and is committed to a successful educational campaign. The Water Conservation Office and the Communications Office will develop a campaign that focuses on the restrictions while providing education on how to correctly water lawn and turf areas. The plan would make use of Neighborhood Connections and other County information outlets, the County channel, direct mailings, radio and TV advertising, bill stuffers, news releases, and other methods yet to be determined.

### **Timeline:**

Draft Regulation to Boards	October 25, 2000
Final Regulation to Boards	November 28, 2000
Public Education Campaign on Regulations	January 1 through May 30, 2001
Public Education Campaign on Landscaping	January 1, 2001 onward

## **Recommendation One: Outdoor Watering Restrictions**

### **I. Restrictions:**

- A. Outdoor watering of turf and lawn, by irrigation or hand, will be allowed between the hours of five p.m. to five a.m., seven days per week.
- B. This restriction will be in effect annually, beginning May 1, 2001.
- C. Future restrictions (time frame to be determined by JCSA)
  - 1. All new irrigations systems must be equipped with a moisture sensor that measures soil moisture and overrides the irrigation cycle of the system if irrigation is not necessary during that cycle. JCSA will implement a permit procedure to ensure compliance.
  - 2. JCSA will implement incentives for existing irrigation system owners to retrofit their systems with moisture sensors.

### **II. Penalties**

- A. Penalties for violating this Regulation will result in a special fine:
  - 1. First violation: warning
  - 2. Second violation: \$25
  - 3. Third and subsequent violations: \$50
- B. Suspension of service.
  - 1. Under JCSA Regulations Governing Utility Service, Section 15. Termination of Utility Service, Causes No. 8 and No. 10, the General Manager of JCSA may restrict or suspend water service to any person who JCSA determines to be a repeat violator of this regulation.

### **III. Exclusions**

- A. None

**Recommendation Two: Proposed Groundwater Regulation Authority**

The purpose of this regulation is to provide James City County the ability and authority to protect the drinking water aquifer from unrestricted use as a source of supply for turf and lawn irrigation.

**Recommendation:**

The health of the Chickahominy-Piney Point aquifers and James City County’s water supply depends on wise usage by all County residents and businesses.

In order to ensure that the County has an adequate water supply for current and future needs, the Water Conservation Committee recommends that the Board of Supervisors propose legislation during the 2001 State Legislative session granting James City County the authority to regulate all wells withdrawing water from the Chickahominy-Piney Point aquifers where the water is used directly or indirectly for outdoor irrigation. Outdoor irrigation includes water used for the maintenance and establishment of turf and lawn, but not that used for growing or irrigation of agricultural crops.

James City County’s authority would extend to all wells withdrawing water for outdoor irrigation. Any usage regulations placed on private wells would not differ from regulations placed on JCSA customers.

James City County’s authority would extend to the following private well users:

1. Residential
2. Business
3. Industrial
4. Resorts
5. Golf courses

**Requested Actions by James City County Board of Supervisors**

1. Adopt an outdoor watering restriction regulation under James City Service Authority Regulations Governing Utility Service, which will include:
  - Who is regulated;
  - What is regulated;
  - When outdoor watering is permitted; and
  - Penalties for violation of regulation (and how penalties collected).
2. Request Authority from Legislature to Regulate Irrigation from Chickahominy-Piney Point Aquifer.

Year	Lowest 3 Months	Highest 3 Months	Highest Month	VDH		Lowest to	%
				Permitted Capacity	Upgrade Threshold	Highest Increase	Increase
1995	2,248,804	3,460,920	3,920,484	3,921,600	3,137,280	1,212,116	54%
1996	2,504,635	3,125,126	3,407,137	3,921,600	3,137,280	620,491	25%
1997	2,463,869	3,801,895	3,927,073	3,921,600	3,137,280	620,491	54%
1998	2,516,845	3,977,244	4,036,726	3,921,600	3,137,280	1,460,399	58%
1999	2,772,956	4,287,052	4,359,706	4,432,800	3,546,240	1,514,096	54%
2000	3,098,253	4,532,465	4,687,956	4,432,800	3,546,240	1,434,211	46%
<b>Total</b>						6,861,804	
<b>Average Increase</b>						<b>1,143,634</b>	<b>49%</b>