

## **F. WATER CONSERVATION AND PLUMBING SYSTEMS**

### **1. General**

Efficiency and conservation in water use in Wake County facilities can result in an impressive savings of both water and money – not just in water-use fees, but also in sewage treatment costs, energy use, chemical use, and capacity charges and limits.

### **2. Water-Conserving Design Strategies for Landscaping**

The demand for water will be greatly impacted by the amount of site irrigation required. By limiting new landscaped areas and considering the type of plants and vegetation installed, water needs should be reduced.

1. Minimize disruption to the existing site conditions and retain as much existing vegetation as is practical.
2. Consider Incorporating native and drought-resistant plants and xeriscape principles to minimize irrigation requirements.
3. Consider using drip irrigation technologies to minimize evaporative losses and concentrate water on plants.
4. Provide timers or controllers on watering systems to ensure that irrigation occurs during the night.
5. Consider using reclaimed water for irrigation, where available.

### **3. Conservation of Water During Construction**

By including specifications addressing water during construction, Wake County can save a considerable amount of water during the construction process.

1. Include disincentives in specifications to the general contractor for excessive water use and incentives for reducing consumption during construction.
2. Specify that the general contractor is responsible for water cost during construction.
3. Minimize watering requirements by specifying appropriate times of year when new landscaping efforts should occur.
4. At pre-bid meetings, stress to the general contractor and sub-contractors the importance of water conservation.

### **4. Water-Conserving Fixtures**

One of the most effective means to limit demand for water is to reduce the requirements associated with necessary plumbing fixtures.

1. Consider the standards of the 1992 Energy Policy Act as a minimum. Specify

low-flow toilets that use less than 1.6 gallons per flush.

2. Install showerheads that require less than 2.5 gallons per minute .
3. Use aerators to reduce flow in lavatory faucets to as low as 1 gallon per minute.
4. Specify self-closing, slow-closing, or electronic faucets where it is likely that faucets may be left running in bathrooms.
5. Consider 1.0 gallon-per-flush urinals in remote locations.