Print Form

COUNTY DEPARTMENT AGENDA REQUEST

Department/Division: Fayette County Water System

Department Head: Tony Parrott

Presenter, if needed: Tony Parrott

Preferred Meeting Date: January 2, 2008

TOPIC:

Water Committee recommendation to the Board of Commissioners purchase of 500 water saver kits to be provided free to Water System customers in homes built prior to 1994.

Background/History/Details:

The North Metropolitan North Georgia Planning District (District) has proposed these water saving kits. Providing them will help in meeting the governor's 10% reduction. Customers can pick up a kit at the Water System office on McDonough Road or Peachtree City City Hall. The cost for 500 of these will be approximately $3,500.00. Niagara Conservation has prepared these kits for purchase by communities in North Georgia due to the drought situation. They have worked with the District to make them available at the discounted rate.

These kits contain devices that detect leaks and change the amount of water needed for flushing, showering and using the kitchen sink.

What action are you seeking from the Board of Commissioners?

Approval to purchase 500 water saver kits to be distributed free of charge to Water System customers in homes built prior to 1994, at a cost of approximately $3,500, as suggested by the Metropolitan North Georgia Water Planning District for use in Georgia's drought-stricken counties.

If this item requires funding, please describe:

Funding will be provided through the water revenue collected for usage above 19,999 gallons.

Has this issue come before the Commissioners in the past? No

If so, when?

Do you need audio-visual for the presentation? No

STAFF USE ONLY

Wording for the Agenda:

Approval to purchase 500 water saver kits to be distributed free of charge to Water System customers in homes built prior to 1994, at a cost of approximately $3,500., as suggested by the Metropolitan North Georgia Water Planning District for use in Georgia's drought-stricken counties.

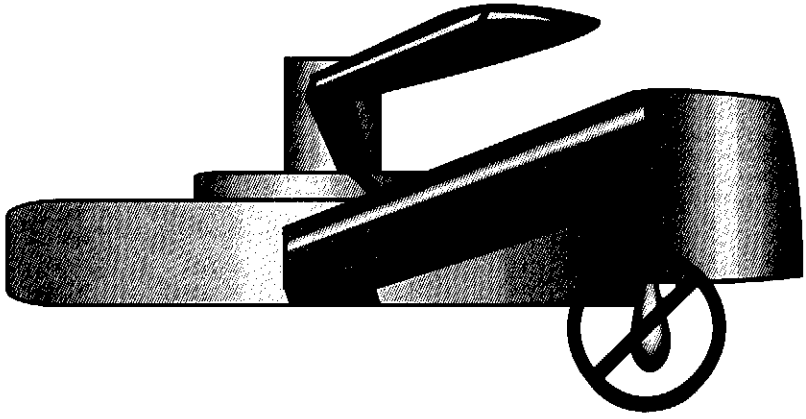
○ Finance Review Complete ○ Legal Review Complete ◉ Administrative Staff Review Complete

Administrator's Approval Yes

Confirmed Meeting Date Wednesday, January 2, 2008

○ Recognition/ Presentation ○ Public Hearing ○ Old Business ○ New Business ◉ Consent ○ Report ○ Other

INDOOR



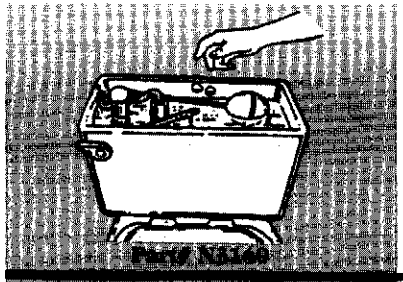
WATER SAVER KIT

CONSERVE WATER 4 EASY WAYS

- Reduce flow from showers
- Reduce flow from faucets
- Use less water per flush
- Detect toilet tank leaks

Use this indoor water conservation kit to save water, energy and money.

Make every drop count!

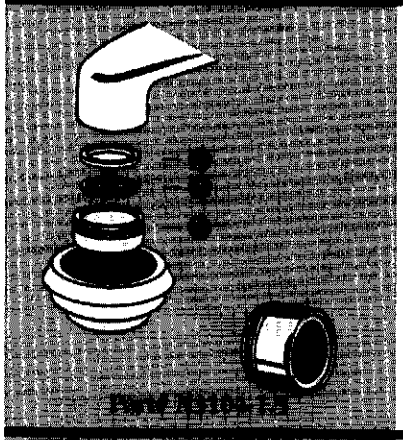


LEAK DETECTION TABLETS

Savings: Finding and repairing toilet leaks, which can waste over 100 gallons a day (often without making a sound), can be a rewarding experience – worth as much as $100 a year in water bill savings!

Just Follow These Simple Directions:

1. Remove cover from top of toilet tank.
2. Drop tablets into tank and replace cover.
3. Wait ten minutes.
4. If colored water appears in bowl, you have a leak.



SINK AERATOR

A sink aerator uses an average of four gallons of water per minute. This easy to install aerator attachment reduces the flow by two gallons a minute, and saves energy too by reducing the amount of hot water used.

Just Follow These Simple Directions:

1. Remove old aerator.

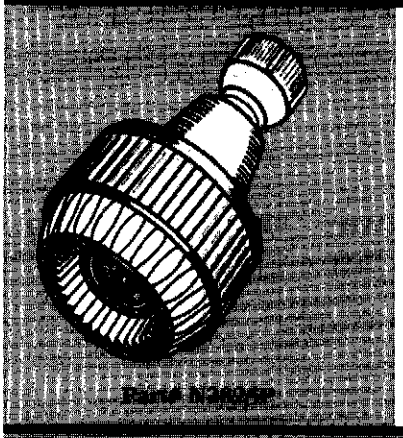
Internal Threads:*

1. Place screen ❶ and washer ❷ into aerator ❸.
2. Thread aerator into spout.
3. Tighten and check for leaks.

External Threads:

1. Place screen ❶ into aerator ❸.
2. Thread aerator into spout.
3. Tighten and check for leaks.

*Pull down for shower spray.

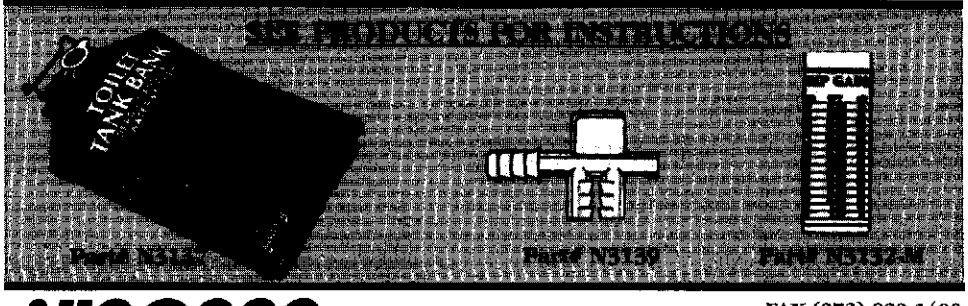


SHOWERHEAD

Savings: Hot showers cost you money, both for the water and the energy you use to heat it. This modern, efficient showerhead will help you to enjoy a full force shower while you SAVE WATER, cut your energy bill and REDUCE SEWER FLOWS!

Just Follow These Simple Directions:

1. Remove old showerhead from the shower arm. If you need to use a wrench to remove it, use a second wrench to hold the shower arm while you loosen the old showerhead. Use pieces of cloth to protect the finish.
2. Before installing new showerhead, turn on the water to wash out the pipe.
3. TURN OFF WATER. Screw on the new showerhead and hand tighten.
4. Test showerhead. If it leaks, use teflon tape on the threads of the shower arm and tighten by hand.



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Section 8
Water Conservation Program

Water conservation is essential to meeting projected District water demands. By the year 2030, the planned level of water conservation could reduce demands by approximately 136 MGD, or 11 percent District-wide. This can be achieved through more efficient indoor and outdoor water use, and reduction of water losses by utilities through system leakage.

Recommended Actions and Milestones

Implementing the recommended plan for water conservation requires new policies, new laws, and new responsibilities for utilities and consumers. Successful implementation will be facilitated by broad education and public awareness. A phasing plan for the water conservation measures is given in Section 17. Several actions must be initiated immediately and closely monitored for their effectiveness. These actions are shown in Figure 8-1. If the District is not completely successful in attaining the planned level of conservation in the early years, then additional conservation actions may be needed, or additional water supplies will need to be secured. The goal of the water conservation programs described in this section is to reduce water use without being punitive. With this in mind, it should be noted that other water conservation actions, not included in the WS Plan, may be implemented by District water providers, at the discretion of the District.

The water conservation actions outlined in this section are intended to apply to water consumers within the 16 District counties. Some areas outside the District will be served from water sources within District. The water consumers in these areas outside of the District will not be required by the District to fulfill the conservation requirements outlined here.

Water Conservation Action No. 1 - Establish conservation pricing by all District utilities.

All District utilities are required by EPD Planning Standards to implement water conservation pricing by January 1, 2004. In order to meet this requirement, all utilities must, at a minimum, institute a uniform pricing structure. A uniform pricing structure requires charging a uniform rate for every gallon purchased. The goal of conservation pricing is to reduce excessive discretionary water use, especially outdoor irrigation, by making water use increasingly more expensive. Some key elements of conservation pricing are low fixed monthly charges and high commodity use charges, as well as informative monthly billing, to ensure that customers are aware of their water use in time to make changes to their behavior.

Seven of the District's utilities will need to convert their rate structures from declining block to uniform or tiered pricing by 2004. To meet year 2030 conservation goals, all District utilities should implement at least a 3-tiered rate structure by 2006. The following guidelines should be used to define this multi-tier rate for residential and commercial customers:

- The first tier is typically designed to include up to 125 percent of the average winter use. For example, single-family residential winter use would typically be approximately 200 gallons per account per day, or 6,000 gallons per account per month. The specific use will vary by provider across the District.
- The second tier is defined by the bounds of the first and third tiers, and the rate for this tier should be at least 25 percent above the first tier rate.
- The third tier would be determined by a rate study, and would contain the highest 5-10 percent of customers, who typically use 10-20 percent of the total volume of water used. The billing rate for this tier should be at least 200 percent of the billing rate for the first tier.
- Certain industrial / commercial / institutional water users may need to have their individual systems analyzed to determine appropriate base and tier levels.

In order to meet the 2006 milestone, each water provider should perform a rate analysis that includes conservation pricing, to determine what percent of customers and volume will fall into each tier. A revenue analysis will also be needed, for the following reasons:

- To determine the rates to assign each tier
- To determine the effect on the revenue stream
- To maintain fair and equitable billing rates

Utilities may elect to use additional revenues generated from conservation pricing for implementation of other water conservation measures.

Water Conservation Action No. 2 - Enact legislation to require plumbing retrofits on home resales.

To speed the conversion toward efficient plumbing fixtures, upon the sale of a home (resale), new state legislation is needed to require that water-saving plumbing fixtures be installed and that a certification be completed to show the plumbing meets current codes for new buildings. These codes require:

- Toilets not to exceed 1.6 gallons per flush
- 2.5 gallon per minute showerheads
- 2.2 gallon per minute faucet aerators

The certificates will be a part of the home sale closing process. One option to avoid interference with escrow closure, in the event the seller did not complete the certification, is to require the buyer or seller to submit a fixed dollar amount per bathroom to the appropriate water provider at the time of closure. Upon completion of the certification of low flow fixtures by the buyer, refund of the deposit to the buyer occurs. If the retrofit were not accomplished within 6 months, the buyer's water bill would carry a surcharge until the work is done. This method has been implemented successfully elsewhere.

A new state law is needed to implement this requirement across the District.

Water Conservation Action No. 3 - Enact legislation to require low-flush urinals for new industrial, commercial and institutional buildings.

To speed the installation of ultra low-flow plumbing fixtures, additional or revised plumbing codes are needed that require new institutional, commercial, and industrial buildings to install 0.5 gpf urinals in new construction. A new state law is needed to implement this requirement across the District.

The State should lead by example in this measure, by retrofitting all State buildings in the District, where the type of existing fixture makes this feasible. Local governments and federal agencies should consider following suit.

Water Conservation Action No. 4 – Enact legislation to require rain sensor shut-off switches on new irrigation systems.

To reduce wasted irrigation water, establish regulations requiring rain sensor irrigation shut-off switches on all new irrigation systems – both residential and non-residential. A new state law is needed to implement this requirement across the District.

Water Conservation Action No. 5 – Require sub-unit meters in new multi-family buildings.

Local ordinances should be adopted to require that all new multi-family buildings (i.e. apartments, town homes, condominiums) be built with individual water meters that bill for water service, based on volume of use. Local ordinances for this purpose are authorized by the Official Code of Georgia, § 12-5-180.1. The billing for water use can be accomplished by either the water provider or by a private, third party, such as the development owner. This measure could also be enacted through legislation. However, if implemented locally, the District could develop model ordinances for consideration by jurisdictions, so there is consistency in this requirement across the District.

Water Conservation Action No. 6 - Assess and reduce water system leakage.

Water providers must identify methods to reduce leakage in their systems, and to reduce unbilled water. Each water provider should perform a distribution system water audit based on the International Water Association (IWA) methodology, in order to maintain uniform assessments of leakage and set targets at the economic level of leakage. Further information on the IWA Methodology can be found at the IWA website, http://www.iwahq.org.uk/.

Water Conservation Action No. 7 - Conduct residential water audits.

Water providers will begin or expand a program to provide water audits (indoor and outdoor use) to residential customers, following the adoption of conservation pricing and subsequent rate increases. The largest 25 percent of water users should be targeted to evaluate water-saving measures, and audits should be made available to customers who complain about high water bills. The Pollution Prevention Assistance Division (P2AD) of the DNR can be used to train and/or certify auditors in performing the water audits. Water providers could use pre-qualified contractors to perform the audits, which could reduce the providers' long-term costs.

Water Conservation Action No. 8 - Distribute low-flow retrofit kits to residential users.

Water providers will begin or expand a program to distribute low-flow retrofit kits to customers. These kits could include low-flow showerheads, faucet aerators, and other applicable retrofit items. The kits would be distributed to the portion of the service areas that have pre-1992 homes.

Water Conservation Action No. 9 - Conduct commercial water audits.

Water providers will begin or expand a program to provide water audits (indoor and outdoor use) to commercial customers. This audit will include a feasibility report that outlines changes to process and operations to reduce water usage. The Pollution Prevention Assistance Division (P2AD) of the DNR can be used to train and/or certify auditors in performing the water audits. Pre-qualified contractors could be identified that the water providers could use to perform the audits, which could reduce the providers' long-term costs.

Water Conservation Action No. 10 – Implement education and public awareness plan.

Public education is critical to achieving public cooperation and support of water conservation goals. The District and each water provider must increase their public information programs. The education and public awareness plan, as described in Section 16, is the means to solicit the support. District-wide public outreach and education will be necessary to meet the legislated mandate to reach 75 percent to 90 percent of the District's population in the first 5 years.

Water Conservation Action No. 11 – Establish review and oversight of water conservation implementation and performance.

Because of the importance of successful implementation of timely conservation measures and the economies of scale from working together, the District can be very helpful in facilitating, guiding, and managing the implementation process by water providers and others. The goal is to achieve the water savings projected in this plan in a cost-effective manner. Regional coordination of water conservation efforts, tracking water conservation progress, providing technical assistance to District water providers, bulk purchasing of conservation materials, coordinating outsourcing contractor bids for lower bulk costs, conducting public education, and researching and evaluating new water conservation measures are among the roles the District could provide.

Specific duties the District could perform include:

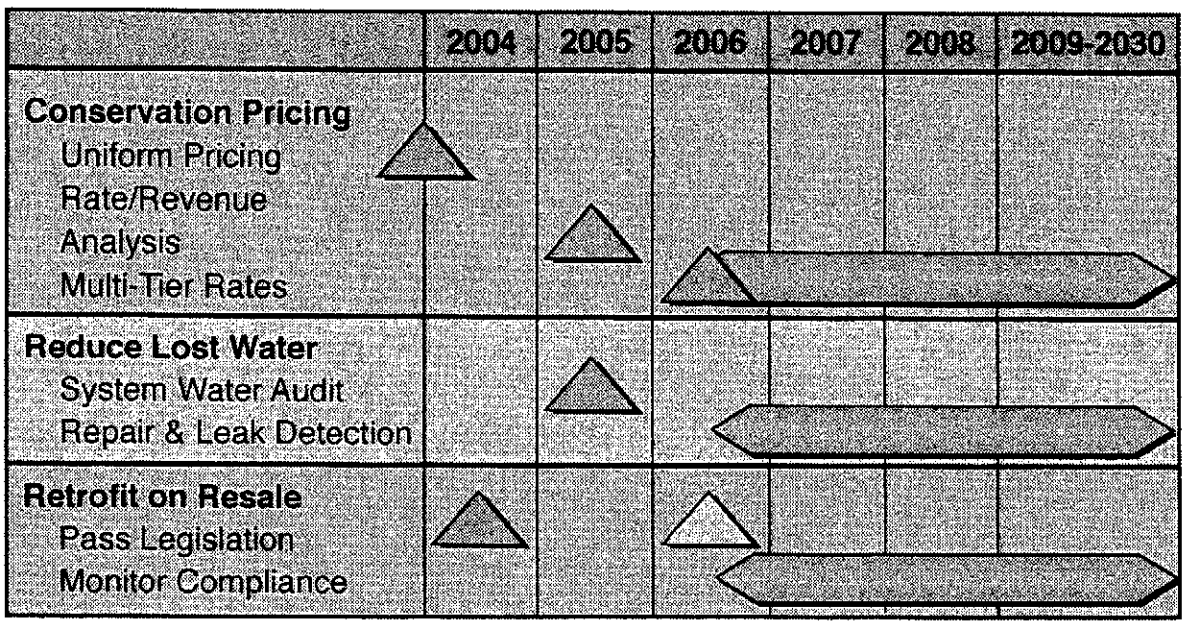
- The District could assist in developing water use models for water providers to track their water use over time by customer class. Providers could use monthly summary water billing data to show demand reductions over time. Water use reductions and/or increases would be explained. They could make this information public.
- The District could develop a reporting system to gauge implementation activities and progress for measures by the water providers. An Internet-based reporting system could be used. Water providers could use this system to report annual progress to the District. After information is checked and verified, it could be made public.
- The District could provide a forum for negotiated changes to the list, scope, and implementation schedule for recommended measures. They could approve the replacement of currently recommended measures with those that are "at least as

effective as" where the needs arise, on a case-by-case basis. They could also approve exemptions where implementation of a certain measure is found not to be cost-effective.

- The District could research and evaluate new and innovative conservation measures, and periodically update and modify the recommended measures to maintain water use reduction goals.
- The District could offer implementation guidance on measures, and provide or arrange for technical assistance and training to water provider conservation staff.
- The District could develop a list of qualified contractors and make them available to retail providers for measures such as audits.
- The District could procure materials, such as retrofit kits or public education materials, which would enable lower unit costs due to volume discounts.
- The District could publish an annual report that documents progress, explains program changes and variations, lists needed resources, recommends actions by other agencies, and recommends goals for the next year.

The District should use a dual approach to funding the conservation activities. The District should aggressively pursue state and federal funding and use in-kind services, such as donated staff, as much as possible. For remaining expenses, the District could establish a dues structure, so that those who benefit from this coordination and assistance would pay a fair share. It has been clearly established that conserving water, in the amount projected in the WS Plan, is much less expensive than building treatment capacity; therefore, these activities should be funded along with the conservation measure themselves.

FIGURE 8-1
Priority Water Conservation Measures



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