Welcome
Thanks to the NCCOGs for setting up the workshops and for assisting with logistics of the workshops
Thanks to the municipalities for allowing us to use the facilities
Facilities locations, lunch places, etc.
PDHs for Water Certifications 5-hours (Must stay to end of workshop to receive credit)
Introductions (Name, Water System & Job Title)
Workshop will cover the following presentations. Please ask questions as we go through the presentations instead of holding all question to the end of each presentations.
Jurdy is a spunky, witty and universal creature who is non-gender, -age, -culture or -race specific. Jurdy has a smart grasp on our frenzied world where there is little time to care for you, others and the environment… and after observing us now for 50 years, Jurdy can be silent no more!
HB609 approved June 27, 2011.
Primary Sponsors: Representative Chuck McGrady (Rep) Henderson; Representative Paul Stam (Rep) Wake;
Representative Mitch Gillespie (Rep) Burke, McDowell; & Representative Becky Carney (Dem) Mecklenburg

Water Efficiency & Conservation

- In 2011, NCGA passed HB609 (SL 2011-374)
  - Law mandates improved efficiency of the use of North Carolina’s water resources.
  - Water systems are required to include a plan for the reduction of long-term per capita demand for potable water.
Use per Residential Connection:
1997: 221 gallons per capita per day
2011: 187 gallons per capita per day

Use per Connection:
1997: 417 gallons per capita per day
2011: 298 gallons per capita per day

Reason may be economy, manufacturing downturn, retrofitting and updating water use fixtures, etc.
Although used interchangeably, water efficiency and conservation can have different contextual meanings. Simply put, water efficiency should be thought of as the practice of optimizing the use of available water supply, and water conservation as behavioral practices that result in consumption reduction. Help extend water supply, get more use of current supply and may make more revenue with existing water sources.
DENR was required to develop BMPs for community water systems (LWSPs)
Statewide outreach and technical assistance through workshops throughout the State with 8 locations: Washington, Pembroke, Enfield, Jacksonville, Thomasville, Wilkesboro, Rutherfordton, & Asheville.
The required best management practices include:
In addition to developing these, the N.C. Division of Water Resources also included best management practices (BMPs) for:
School Education and Outreach & Water Purchasing Contracts

This BMP also serves to help water systems become eligible for state water infrastructure funds from the Drinking Water State Revolving Fund, the Drinking Water Reserve, or any other grant or loan of funds allocated by the General Assembly that require incorporating consumer education as mandated by Section 3.2. G.S. 143-355.4(b).
Water Efficiency BMP Manual

Purpose

- To assist water system managers in determining which BMPs would be most effective in reducing their long-term **per capita demand** for potable water.
- Per capita demand is calculated by using a water system's annual residential demand and year-round population.
- Water systems are not required to implement any specific best management practice.
The most important is conducting regular water audits to identify revenue and nonrevenue water and water losses. As part of conducting these water audits, metering of all connections is essential to account for all water used. Adopting leak detection and water loss abatement programs allows systems to act on the water audit information to reduce water loss and lost revenue. Conducting an initial water audit allows a water system to determine baseline efficiencies and set realistic goals for improvement. Subsequent water audits enable a water system to measure milestone achievements and performance of BMPs implemented. Case Studies
Each BMP will contain the following components:
As efficiency and conservation practices are implemented, new insights, technological advances and information will become available.

In addition, future technologies may improve water savings and reduce costs.

NCDWR encourages utility managers, efficiency/conservation specialists, planners, policy makers, and others to provide comments and feedback regarding this document, so it can be continually improved to better serve the water systems of NC.
By completing the following BMPs, a water system can fulfill several requirements under Section 9 of the Drought Bill. Fulfilling these requirements also will help the water system be eligible for loans under the N.C. Division of Water Resources State Revolving Fund (DWRSRF).

1. Has established a water rate structure that is adequate to pay the cost of maintaining, repairing, and operating the system, including reserves for payment of principal and interest on indebtedness incurred for maintenance or improvement of the water system during periods of normal use and periods of reduced water use due to implementation of water conservation measures. The funding agency shall apply guidelines developed by the State Water Infrastructure Commission in determining the adequacy of the water rate structure to support operation and maintenance of the system.

2. Has implemented a leak detection and repair program.

3. Has an approved water supply plan pursuant to G.S. 143-355.

4. Meters all water use except for water use that is impractical to meter, including, but not limited to, use of water for firefighting and to flush waterlines.

5. Does not use a rate structure that gives residential water customers a lower per-unit water rate as water use increases.

6. Has evaluated the extent to which the future water needs of the water system can be met by reclaimed water.

7. Has implemented a consumer education program that emphasizes the importance of water conservation."
LWSP is an assessment of a water system's current and future water needs and its ability to meet those needs. In Section 5 of the LWSP will track long-term per capita water demand based on year-round population and water demand projections entered by the user. The chart will also be equipped to show a history of per capita water demand.
Integrating Water Efficiency into the LWSP

➢ In LWSP, Section 5: Tracking Chart reads:
  • Your long-term water demand is ### gallons per capita per day. What demand management practices do you plan to implement to reduce the per capita water demand (i.e. conduct regular water audits, implement a plumbing retrofit program, employ practices such as rainwater harvesting or reclaimed water)?
Projecting long term per capita demand is different than the approach we took in the past; we asked water systems to take their current per capita demand and multiply it by your projected residential population. This will change due to implementation of the bmps.
Raleigh's residential population is projected to more than double in water use by year 2060; going from 30MGD to over 65MGD.
North Carolina’s population is projected to grow from 9.5 million in 2011 to almost 12 million by 2032.
Contact Information

QUESTIONS?

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PLEASE USE WATER WISELY