

Water Pricing and the Drought

Jeff Hughes

jhughes@sog.unc.edu

Environmental Finance Center University of North Carolina at Chapel Hill 919 843-4956

www.efc.unc.edu



Water Pricing and the Drought

- Pricing and Revenue Considerations
- Pricing and Revenue Response Options
 - Short Term
 - Medium Term
 - Long Term

Limitations and Restrictions on Utility Pricing

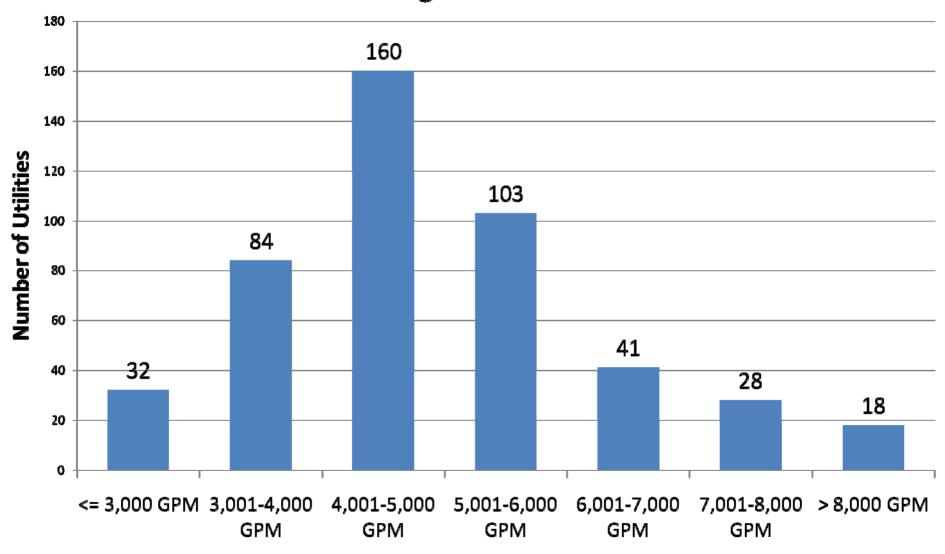
- 1. Government Owned Utilities
 - a) No or low debt
 - b) Revenue bond debt
- 2. Investor Owned Utilities
- 3. Non-profit water corporations

Drought Response Handicaps

- Public perception of monopolies
- Capital intensity leads to fixed costs
- Limited reserves

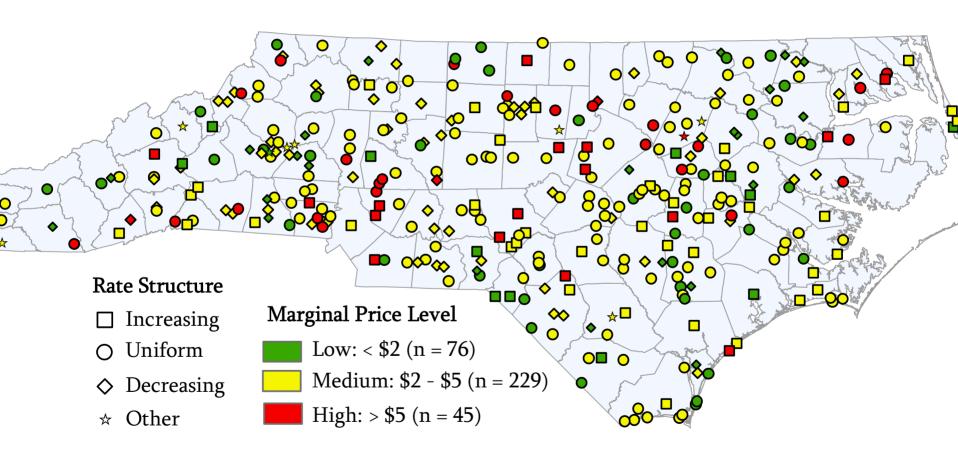


Average Residential Consumption in 2002 Among 466 Utilities



Source: Data collected by DWR, NCDENR Local Water Supply Plans

Rate Structures and Pricing Signals Across North Carolina



Source: 2007 NCLM/SOG Rate Survey, Price is \$/1,000 for Customer using 14,000 gal./mo.

Considerations

- Sudden usage reductions often lead to significant revenue reductions but only modest cost reductions
- Relationship between usage and price may be difficult to predict
- Some utility rates are artificially low
- A utility's starting point will influence difficulty of meeting uniform reduction targets

Considerations

- Current billing practices often limit the ability of price to influence demand
 - Time lag
 - Disconnections between usage and payment
- One size does not fit all

Short Term Options

- Expand usage monitoring
- Expand customer usage research
- Increase volume charges
- Increase base charges
- Increase enforcement of usage restriction penalties

Medium Term Options

- Move towards "full cost" pricing by limiting artificially low rates
- Expand pricing and consumption information included on bills
- Move to monthly billing
- Consider alternative rate structures (seasonal, water budget, uniform block, increasing block)
- Establish emergency assistance fund for water services customers

Longer Term Options

- Invest in meter technology
- Invest in reuse systems
- Fund credit program for installation of water efficiency devices/fixtures
- Fully funded capital improvement programs (CIPs) with significant conservation, efficiency, and rehabilitation investments
- Establish rate stabilization fund
- Maintain significant undesignated reserves (utility fund balance)

Supplemental Information

OCIM, Hillsborough begin water assistance program

The Herald-Sun

By Emily Coakley: The Herald-Sun

GREENSBORO U R B A N MINISTRY

305 West Lee Street Greensboro, NC 27406 336.271.5959

Upcoming Events

16th Annual Feast of Caring -November 15, First Baptist Church

NSBORO AN AVERAGE DAY AT GREENSBORO URBAN MINISTRY

God to people in need through practical action in the greater Greensboro area.

Receive Assistance

Donate /Volunteer

Annual Events / Fundraisers

About Greensboro Urban Ministry

town has set.

Emergency Assistance Program

General Guidelines

Hours of Operation:

Financial interv
 Times and availa

Assistance is

- Past due rent not assist with b recovery facilitie
- 2. Past due mort Mortgage Compa

COUNCIL APPROVES EMERGENCY ASSISTANCE PROGRAM
"People have had few places to turn for help to pay for the most basic

requirement of life"

ina

will

t th

en f

pro



cil approved Council Bill 115636 which will provide

to a

COMMUNITY

en its efforts ng shut-off of

Emergency Utility Assistance Program

This program assists homeless shelter providers with utility expenses in emergency situations. It pays for current utility bills and is limited to four time per year.



Rates Dashboard: NC Water Services

1. Select Your Utility Rate Structure:

Example: Low OR, Low Rates

V

2. Select Type of Bill (5,000 Gallons/Month):

Water Bills

Sewer Bills

\$13.47

Rates: FY 2006-07

3. Select Your Comparison Criterion:

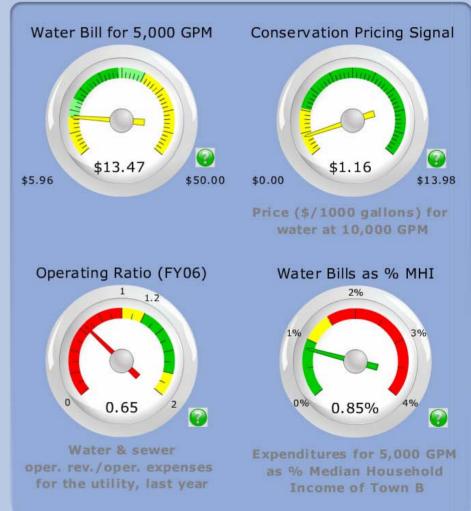
All Systems

All Systems

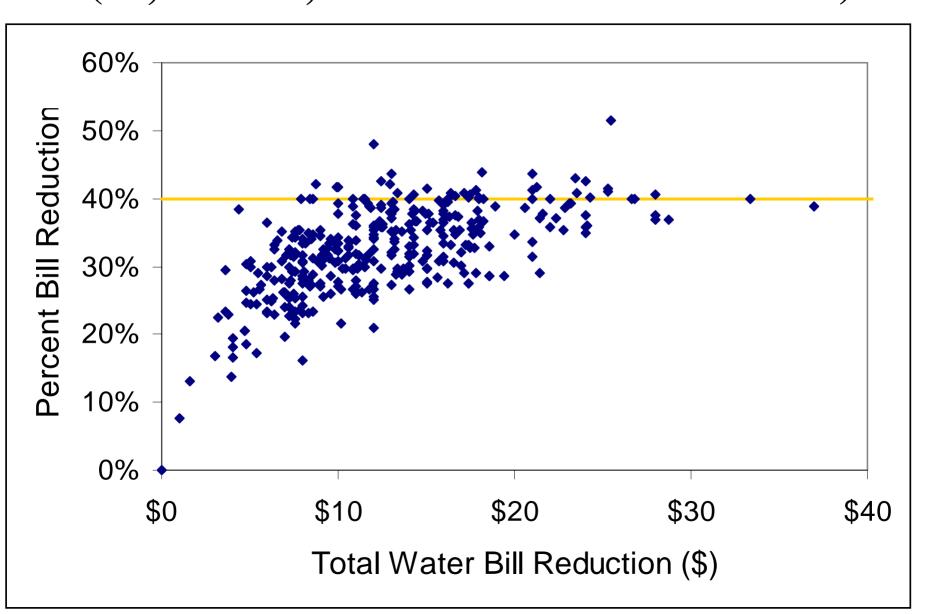
Example: Low OR, Low Rates

378 rate structures compared

Customer profile & utility characteristics



Impact of Usage Reductions (10,000 to 6,000 GPM -- 40% Reduction)



For More Information:

Jeff Hughes
Environmental Finance Center
School of Government
University of North Carolina at Chapel Hill
919 843-4956

<u>jhughes@sog.unc.edu</u> <u>www.efc.unc.edu</u>

