

# Water for RI – Today & Tomorrow Meeting the Challenge



Susan Licardi

North Kingstown Director of Water Supply

- Managing a Municipal Water Supply
- Coordinating Water Supply Management
  - Sharing a Water Resource
- Water Conservation
  - Can Customers be convinced to use water wisely?

# Managing a Water Supply

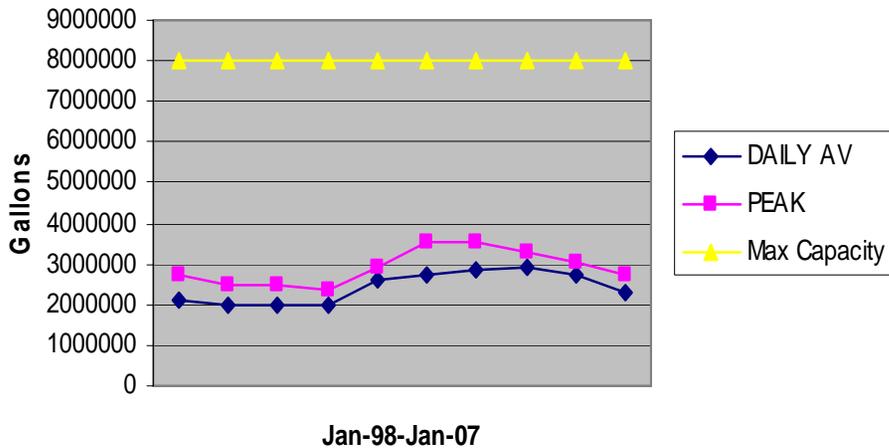
- Water Quality
  - Source Water Protection
  - Distribution System Water Quality
  - Regulatory Issues
  - Infrastructure
    - Aging Infrastructure
    - \$\$\$

# Managing a Water Supply

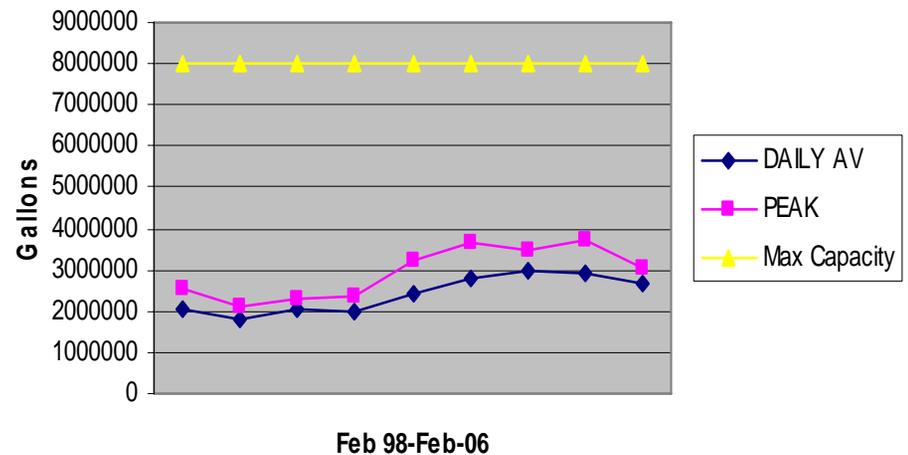
- Water Quantity
  - Managing seasonal water demand

# North Kingstown Water Monthly Pumping Data

## January Daily Average and Peak Usage

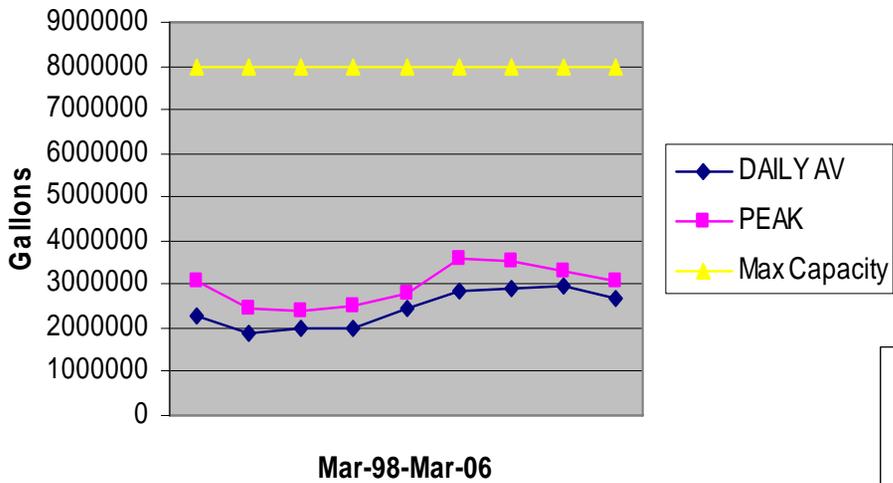


## February Daily Average and Peak Usage

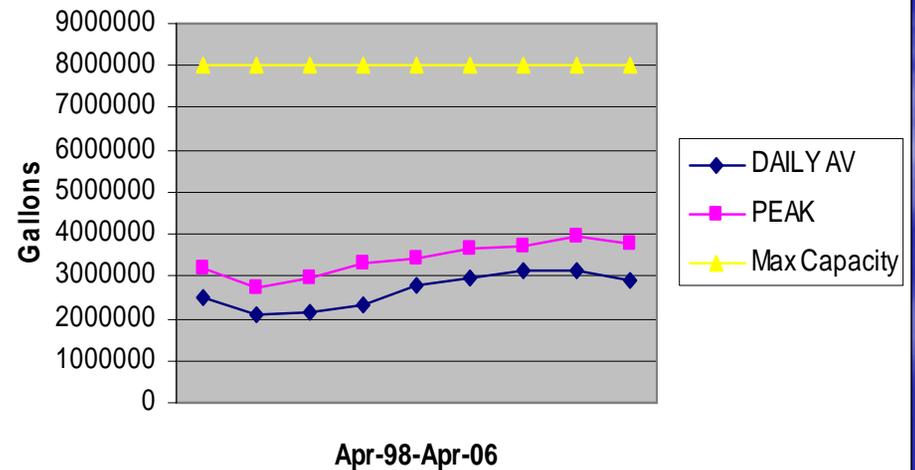


# North Kingstown Water Monthly Pumping Data

## March Daily Average and Peak Usage



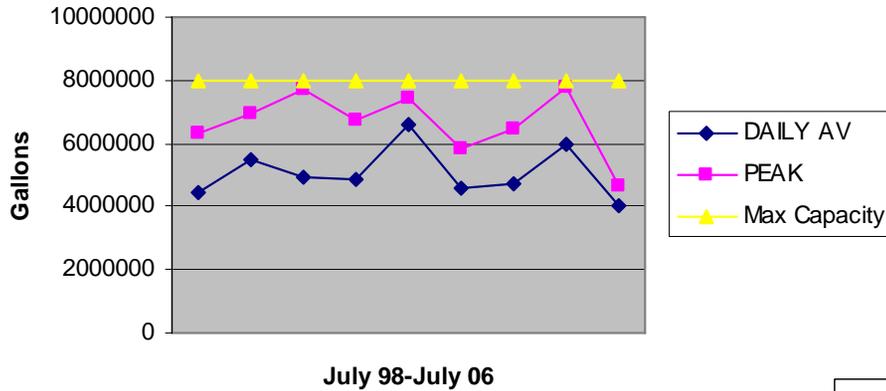
## April Daily Average and Peak Usage



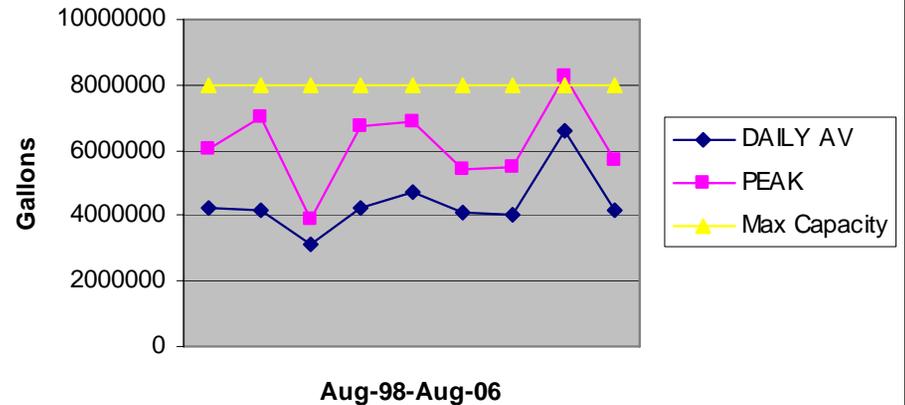


# North Kingstown Water Monthly Pumping Data

## July Daily Average and Peak Usage

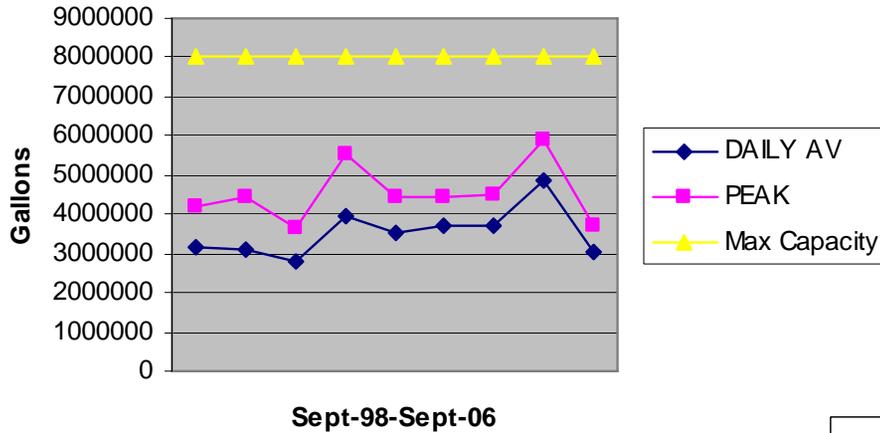


## August Daily Average and Peak Usage

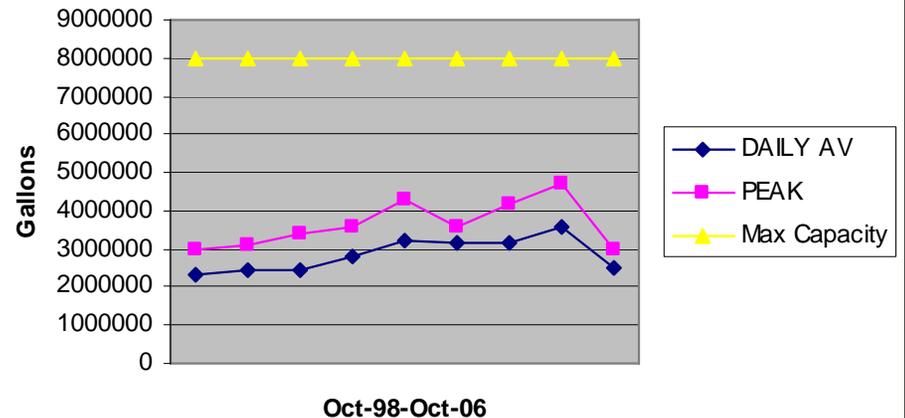


# North Kingstown Water Monthly Pumping Data

## September Daily Average and Peak Usage

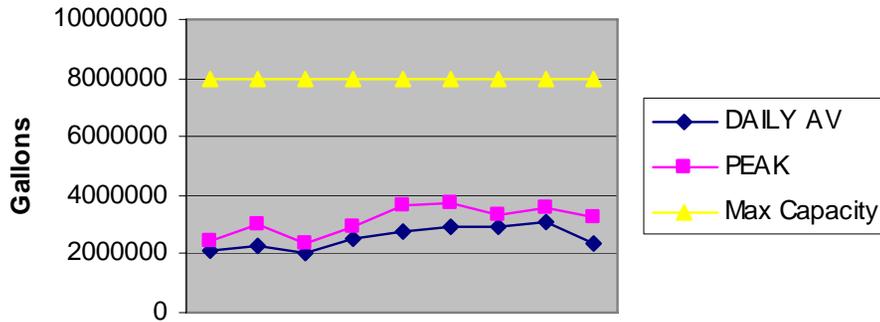


## October Daily Average and Peak Usage



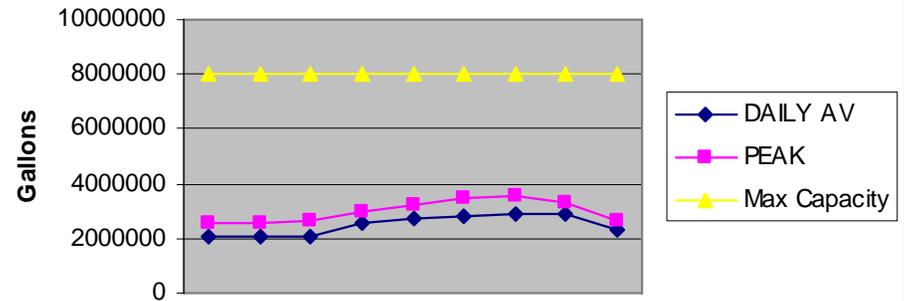
# North Kingstown Water Monthly Pumping Data

## November Daily Average and Peak Usage



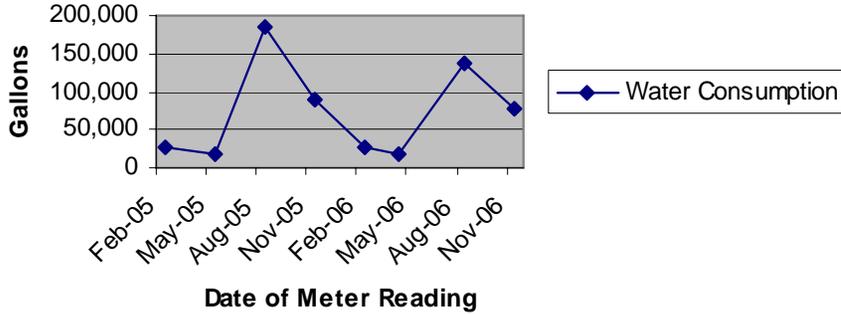
Nov-98-Nov-06

## December Daily Average and Peak Usage

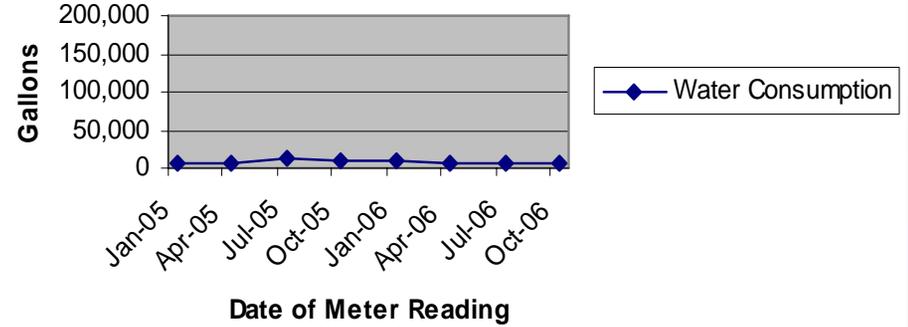


Dec-98-Dec-06

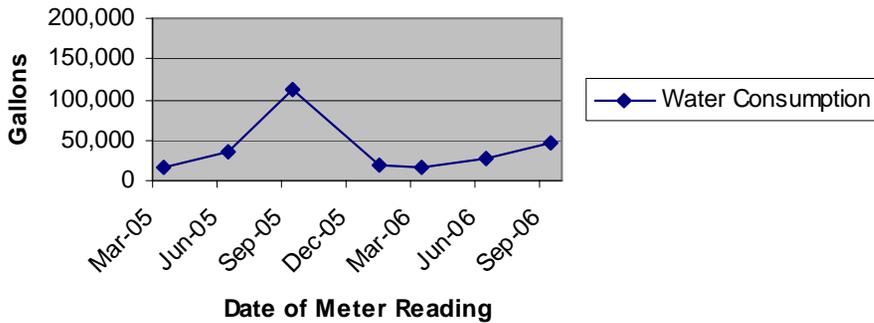
**Water Consumption - Newer Conventional Lot Subdivision**



**Water Consumption - Older Densely Settled Subdivision**



**Water Consumption - Newer Cluster Development**



## Comparison of Quarterly Billed Water Usage

Newer development has significantly higher seasonal water use



# Why is this a problem?

- Health and safety issue
- Lower tank levels = less fire flow and lower pressures in the distribution system





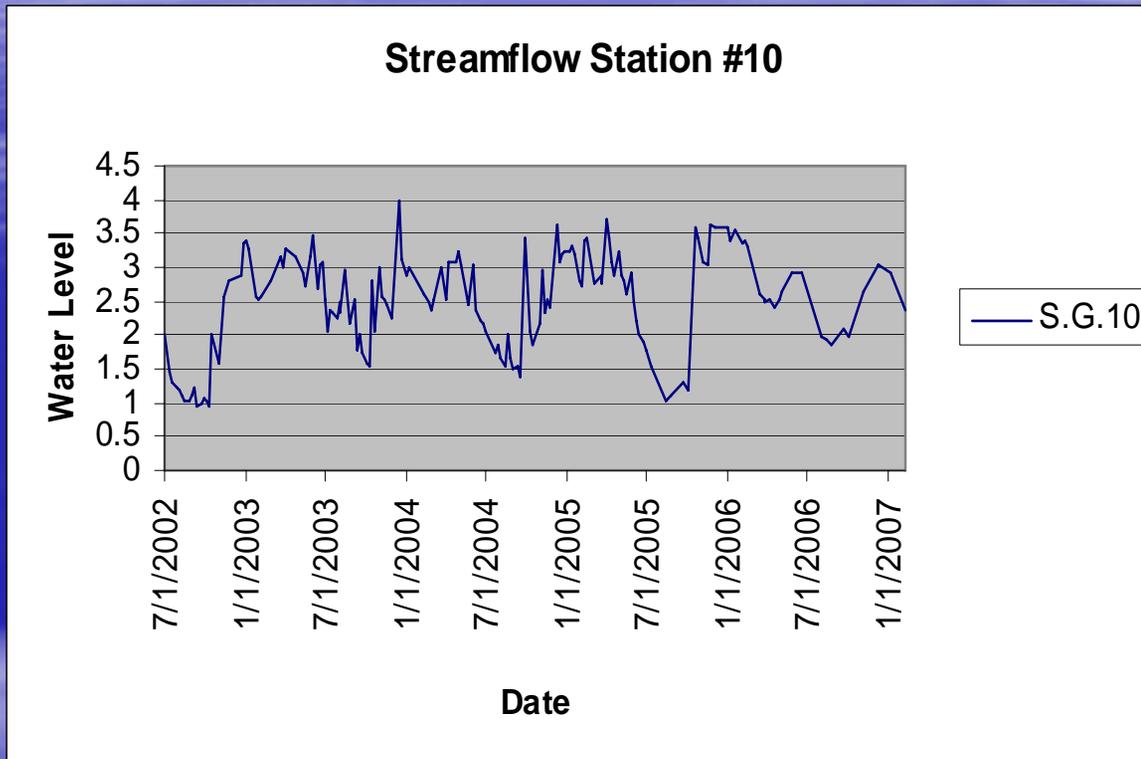
# Coordinating Water Supply Management

## Sharing a Water Resource

### Protecting Source Water Quality

- Hunt Aquifer is a shared resource and a shared source of drinking water
- Effective protection and management requires a regional approach
- A plan for protecting the Hunt Aquifer has been developed cooperatively
- Have not been able to effectively implement the plan

# Streamflow in the Hunt River



- Focus now on water withdrawal and maintaining streamflow
- Water Suppliers are currently working with the WRB on an Interim Management Plan for the Hunt

# Ongoing Planning

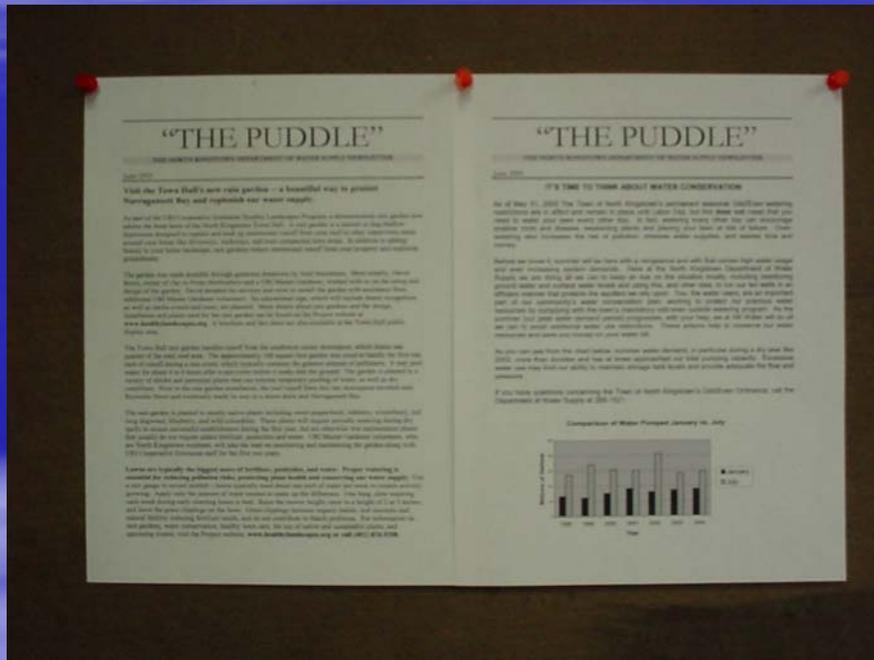
- Water rates that promote conservation or wise use of water
- Consistent statewide message on seasonal water use
- Land use regulations that limit irrigation and promote reuse or use of water other than potable drinking water for irrigation
- Private Wells

# Water Conservation

Can Customers be convinced to use water wisely?



# EDUCATION and more Education!



- Water Department has a quarterly newsletter that is distributed with every quarterly water bill

# EDUCATION and more Education!



- URI Healthy Landscapes Program
  - Engaging community participation in water quality protection



# EDUCATION and more Education!



- Town of North Kingstown Web Site:
  - [www.northkingstown.org](http://www.northkingstown.org)

# EDUCATION and more Education!



- North Kingstown Spirit Day
  - Groundwater Committee sponsors an Environmental Fair as a component of Spirit Day



# And in Conclusion...

Effective water supply management in southern RI will require:

- Reduction in seasonal water demand is a necessity (or figure out a way to control the weather)
- Drought and hot, dry weather – both result in excessive water demand
- Limits on lawn irrigation
- Consistent message regarding water use
- Reduction in seasonal demand while maintaining adequate revenue stream
- Protection of future water supply sources

