



# 2017 Fall Legislative Affairs Breakfast: Water Supply Briefing

Presentation to the Central MA  
Regional Planning Commission  
December 1, 2017





## Who we are...

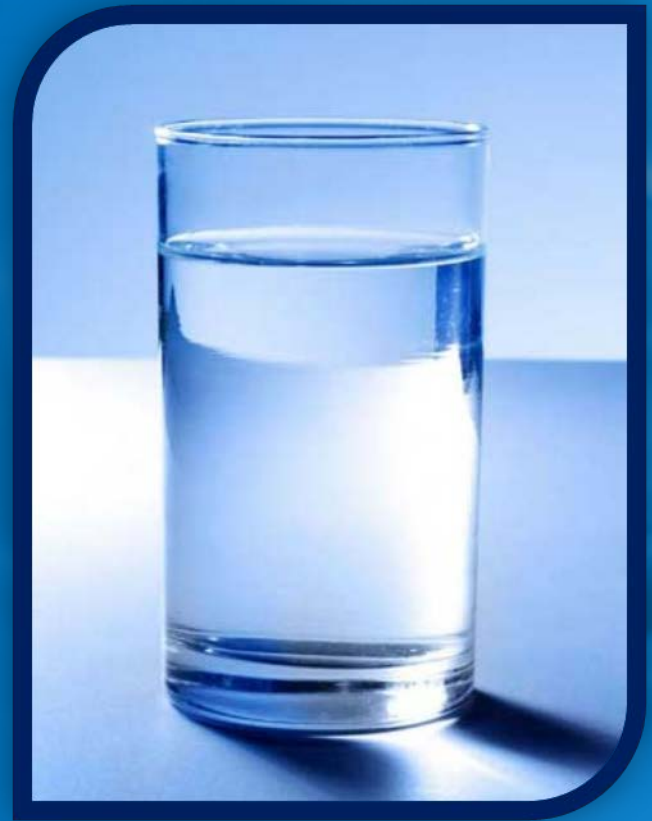
- 💧 MWWA is a non-profit based in Acton, MA.
- 💧 MWWA's 1,100 members include public officials, water system managers and operators, regulators, consulting engineers, contractors.
- 💧 MWWA members provide their expertise on a number of state committees and workgroups.

*Mission Statement:  
The Massachusetts Water Works Association is a membership organization dedicated to the advancement of the drinking water profession. Through education and advocacy, MWWA is committed to public health by promoting a safe and sufficient supply of drinking water to Massachusetts consumers.*



# What do water suppliers do?

- ◆ Support public health by maintaining water quality from the source through the distribution system to the customer.
- ◆ Construct and maintain the infrastructure needed to collect, treat, store and distribute the water.
- ◆ Provide public education and outreach.
- ◆ Enhance the economy and support the overall quality of life we enjoy in the Commonwealth.





# The Current State of Water Systems

- ◆ Water Systems are highly regulated and must comply with federal drinking water standards.
- ◆ MassDEP regulates water suppliers on water quality and water quantity.
- ◆ Water suppliers have very high compliance rates with both MassDEP's health based standards and monitoring requirements.

## *Regulatory Programs Affecting Public Water Suppliers*

### State Initiatives:

- Water Management Act
- Manganese
- Perchlorate
- MassDEP Guidelines
- Guidance for the Removal of Asbestos Cement Pipe and associated certification
- Cross Connection Control
- Water Conservation Standards
- Security – Emergency Response Plans and annual training
- Hoisting License Continuing Education Requirements
- Operator Licensing Requirements

### Federal Initiatives:

- Groundwater Rule
- Long Term 2 Enhanced Surface Water Treatment Rule
- Stage 2 Disinfection Byproduct Rule
- Lead & Copper Rule
- Consumer Confidence Reporting
- NPDES Treatment Plant Discharge Permit
- UCMR 3 — (Unregulated Contaminant Monitoring Rule)
- Revised Total Coliform Rule
- Air Pollution Requirements for Emergency Generators

### Ongoing discussions:

- Distribution System Rule
- Pharmaceutical Impacts on Water Quality



# Aging Infrastructure

- ◆ The Water Infrastructure Finance Commission (WIFC) issued a report in 2012 citing a significant gap between available funding and what is needed for infrastructure improvements over the next 20 years.
  - ◆ \$10.2 billion for drinking water
  - ◆ \$11.2 billion for wastewater
- ◆ DLM Water Study released January 17, 2017
  - ◆ Called for increased state funding in the form of grants
  - ◆ Adoption of Enterprise Funds locally to fund stormwater improvements
  - ◆ Incentives for regionalization
  - ◆ Incentives/reduction of risk for adoption of innovative technologies
  - ◆ Increased water system resiliency in light of climate change

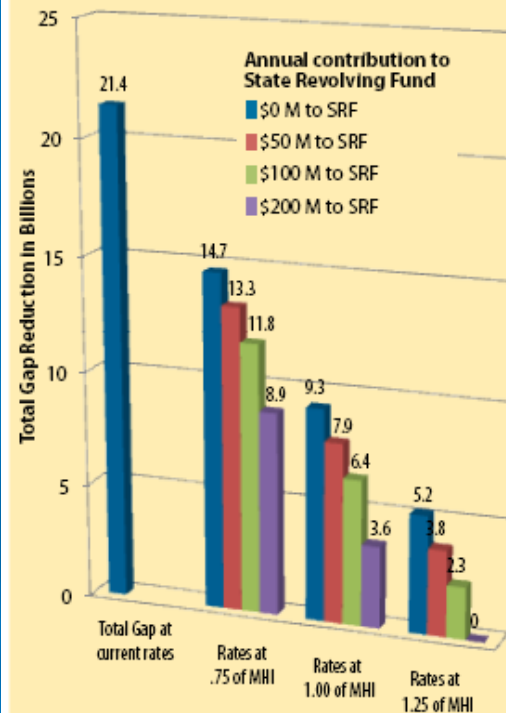




# Aging Infrastructure

- 💧 Water is undervalued and the public takes it for granted, but even if rates rise to a measure of affordability a gap will still exist.
- 💧 An approach that incorporates rate increases to 1.25% of Median Household Income with a \$200 million annual appropriation from the state, eliminates the gap entirely
- 💧 In 2012 rates across the Commonwealth averaged:
  - 💧 Water Rates = .52% of MHI
  - 💧 Sewer Rates = .75% of MHI

Gap reduction possible using rates increases and new revenues



*Increases in rates to 1.25% of MHI with a \$200 million annual appropriation from the state eliminates the Gap entirely*



## 💧 Past Legislative Action:

- 💧 Chapter 259 of the Acts of 2014
  - 💧 Increases the capacity of the State Revolving Loan Fund Program by \$50 million
  - 💧 Provides for less than 2% loans or even principal forgiveness for water systems who meet certain criteria
  - 💧 Provide mechanism at local option to assess property tax surcharge of 3% for infrastructure improvements

## 💧 Legislation Filed:

- 💧 An Act Relative to Municipal Assistance for Clean Water and Economic Development Infrastructure—House Bill 2117
  - 💧 Sponsor: Representative Carolyn Dykema—This bill authorizes creation of a \$1 Billion Water Infrastructure Bond for a capital outlay program of maintenance and improvements to municipal drinking water, wastewater and stormwater infrastructure.

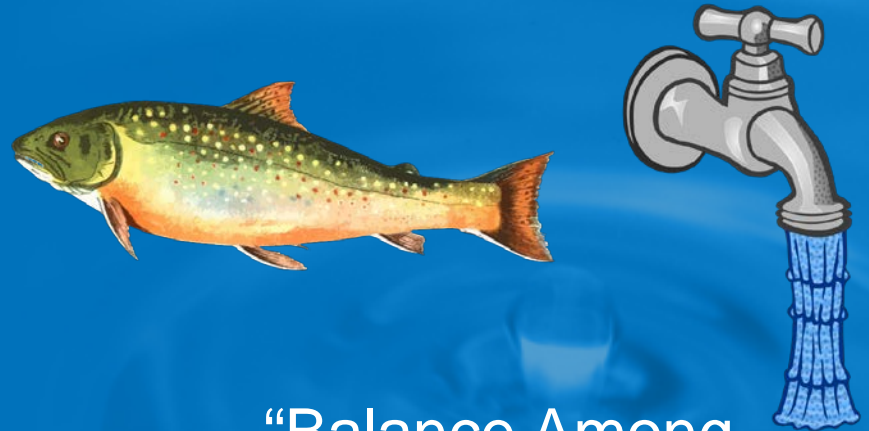
## 💧 Legislation Filed:

- 💧 An Act providing for the Establishment of Sustainable Water Resource Funds—Senate Bill 1126/House Bill 2116
  - 💧 Sponsors: Senator Jamie Eldridge; Representative Carolyn Dykema—This bill would allow cities and towns to collect a reasonable charge for new and increasing use to be used for measures to remedy and offset impacts and to deposit the charge in to a separate municipal account for drinking water, wastewater or stormwater.
- 💧 An Act improving municipal water infrastructure- Senate Bill 423
  - 💧 Sponsor: Senator Jamie Eldridge. This legislation would create a Municipal Water Infrastructure Trust Fund and would authorize a new gallon-based withdrawal assessment to be collected by municipalities and deposited into this fund. This legislation would authorize the Clean Water Trust to distribute  $\frac{3}{4}$  of the funds back to the city or town and retain  $\frac{1}{4}$  of the funds collected. It would require any city or town receiving money from the Trust to submit a report detailing the projects funded from the Trust.



# Water Management Act

- ◆ 1986—Water Management Act
  - ◆ Registration: Grandfathering of existing withdrawals
  - ◆ Permits: Conditioned increases in withdrawals
- ◆ 2004—“The Policy” introduced
  - ◆ “Baseline” – introduced
  - ◆ Conservation standards
  - ◆ Safe Yield definition reverts to statutory definition
- ◆ 2006—Blue Ribbon Panel Convened
- ◆ 2009-10—Exec. Office Energy & Enviro. Affairs launches Sustainable Water Management Initiative (“SWMI”)
- ◆ November 2014—New Water Management Act Regulations Adopted



“Balance Among  
Competing Uses”



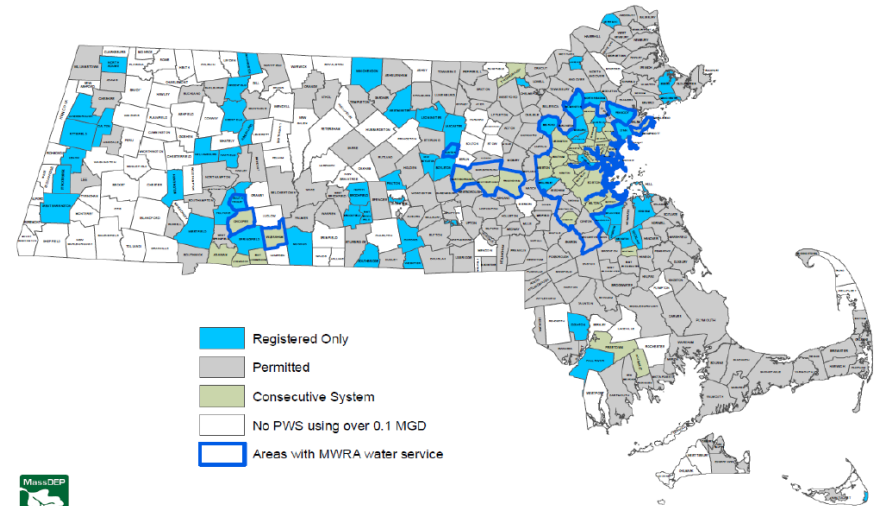




## Registered-Only Public Water Systems:

- 💧 Water use has not increased since 1986
- 💧 Not subject to conditions that permitted water systems have
- 💧 Supposed to be renewed every 10 years; MassDEP has invoked Permit Extension Act; next renewed at the end of 2021
- 💧 Towns: Brookfield, East Brookfield, North Brookfield, Northborough, Paxton, Southbridge, Webster, West Boylston, West Brookfield

TOWNS WITH REGISTERED-ONLY PUBLIC WATER SUPPLIES



MassDEP GIS Program, July 0017

| Western Region | Central Region | Northeast Region | Southeast Region |
|----------------|----------------|------------------|------------------|
| 24             | 17             | 18               | 8                |

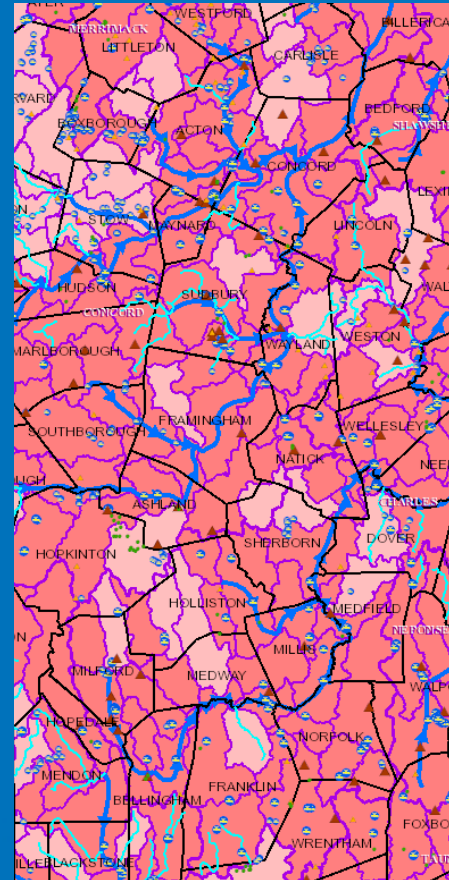


# Water Management Act

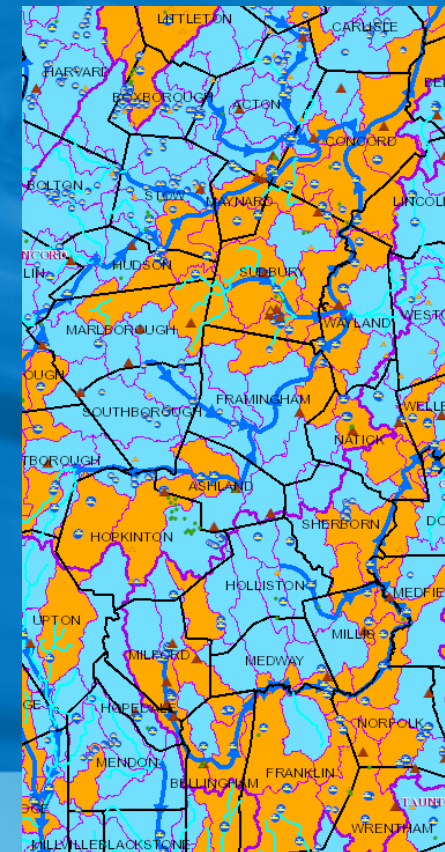
## Environmental Tenents:

- ◆ New Water Withdrawals Shall Not
  - ◆ Degrade Healthy, Natural Streams or
  - ◆ Make “Poor” Streams Worse (Backsliding)
- ◆ Basin/Sub-Basin Categorization:
  - ◆ Biological Health:(River fish abundance)
    - ◆ Biological Category 1 – Most Natural to
    - ◆ Biological Category 5 - Most Impaired
  - ◆ Flow Alteration:(Based on groundwater withdrawals in August)
    - ◆ Groundwater Withdrawal Category 1 - Least Altered to
    - ◆ Groundwater Withdrawal Category 5 – Most Altered
  - ◆ Net Depleted Sub-basins
    - ◆ Greater than 25% depletion between groundwater withdrawals and wastewater discharges back to the basin

## Biological Categories



## Net Depleted Sub-basins





# Water Management Act

## WMA Regulations (310 CMR 36.00) now include:

- 💧 Safe Yield: Environmental Protection Factor
- 💧 Streamflow Criteria

## Impacts Permitted Users, NOT Registered Users\*

- 💧 Baseline: 5% “allowance” (unless it is the registered volume)
- 💧 Minimization
- 💧 Offsets and Mitigation
- 💧 Coldwater Fisheries Consult

## Impacts Permitted Users, NOT Registered Users\*

- 💧 Non-Essential Outdoor Water Use Restrictions
  - 💧 Calendar day trigger vs. Index stream-flow trigger
  - 💧 Residential Gallon Per Day Per Capita:
    - 💧 Greater than 65 RGPCD = more restrictive restrictions
    - 💧 Less than 65 RGPCD = less restrictive restrictions
  - 💧 Only one day per week of watering allowed upon a low flow condition

***\*Will not impact any communities that are fully served by the Massachusetts Water Resources Authority (MWRA)***

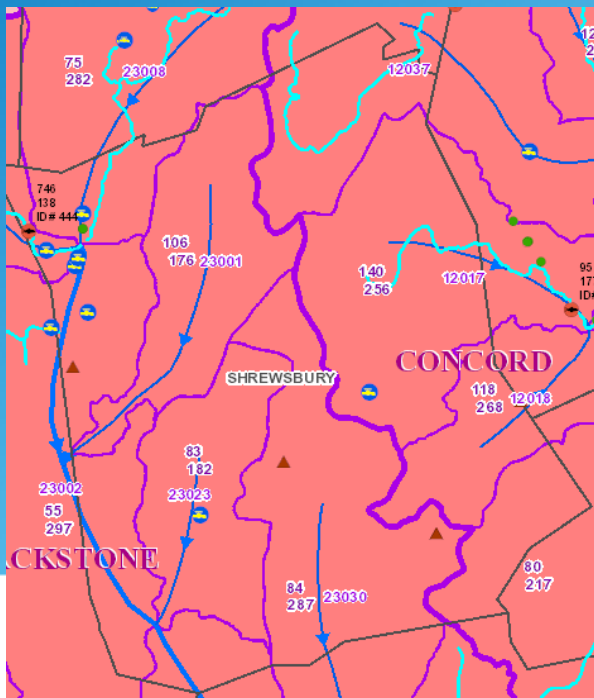


# Water Management Act

## Example:

### Shrewsbury

- ◆ Permit Issued by MassDEP on January 21, 2014 (before new regulations)
- ◆ Appealed by Blackstone River Coalition, et. Al on February 11, 2014
- ◆ Settlement agreement signed on June 17, 2015



- ◆ Total WMA Authorization = 4.35 MGD
- ◆ Baseline = 3.91 MGD (2005)
- ◆ Projected Increase above Baseline = .44 MGD
- ◆ Permit Conditions:
  - ◆ Groundwater and Streamflow Monitoring
  - ◆ Performance Standards for Residential Gallons Per Capita Day Water Use and Unaccounted for Water
  - ◆ Seasonal Limits on Non-essential Use
  - ◆ Water Conservation Requirements
  - ◆ Submission of a Mitigation Plan
    - ◆ I/I Elimination Program, Stormwater Recharge Projects, Septic Recharge, Habitat Improvement, Dam Removal, Land Purchase
    - ◆ Identified .257 MGD of credit
  - ◆ Unaccounted for Water Compliance Plan



# Water Management Act

## Water Management Act Permit Renewal Schedule:

### 💧 Nashua River Basin

- 💧 Towns: Boylston, Holden, Rutland, Worcester
- 💧 Applications were filed by Feb. 28, 2017
- 💧 Meetings with MassDEP ongoing
- 💧 Draft permits expected 2019
- 💧 Final permits expected 2020

### 💧 French River Basin

- 💧 Towns: Dudley, Leicester
- 💧 Applications were filed by May 31, 2017
- 💧 Permits expected 2020

### 💧 Concord Basin

- 💧 Towns: Westborough
- 💧 Applications filed by August 31, 2015-Existing Permits Administratively Continued
- 💧 Meetings with MassDEP ongoing
- 💧 Permits expected 2018

### 💧 Chicopee River Basin

- 💧 Towns: Spencer, Warren
- 💧 Applications were filed by May 31, 2016
- 💧 Permits expected 2019

### 💧 Quinebaug River Basin

- 💧 Town: Sturbridge
- 💧 Applications were filed by August 31, 2016
- 💧 Permits expected 2019

## Water Management Act Permits Already Renewed:

### 💧 Blackstone Basin

- 💧 Towns: Auburn, Blackstone, Douglas, Grafton, Hopedale, Whitinsville Water Co., Millbury, Shrewsbury, Upton, Uxbridge
- 💧 Renewed February 2010
- 💧 New conditions when next reviewed??



# Challenges

## Challenges Ahead:

- 💧 Aging Workforce
  - 💧 We need to attract and retain certified operators to work in our Public Water Systems
- 💧 Emerging Contaminants
  - 💧 Testing methods for contaminants are able to detect at lower levels
- 💧 Restoring Public Confidence in drinking water
- 💧 Ensuring the resiliency of our Public Water Systems from impacts of climate change





## Conservation:

- ◆ MA Water Conservation Standards:  
<http://www.mass.gov/eea/docs/eea/wrc/water-conservation-standards-rev-june-2012.pdf>

## Water Funding/Rates:

- ◆ WIFC Report:  
[https://mwwa.memberclicks.net/assets/documents/wifc\\_report.pdf](https://mwwa.memberclicks.net/assets/documents/wifc_report.pdf)
- ◆ Division of Local Mandates Water Study:  
<http://www.mass.gov/auditor/docs/dlm-municipal/011717-costs-regulation-and-financing-of-mass-water-infrastructure-implications-for-municipal-budgets.pdf>
- ◆ Tighe & Bond Rate Survey:  
<http://rates.tighebond.com/>
- ◆ UNC Environmental Finance Center Rates Dashboard:  
<http://www.efc.sog.unc.edu/reslib/item/massachusetts-water-and-wastewater-rates-dashboard#>

## Water Management Act:

- ◆ Sustainable Water Management Initiative:  
<http://www.mass.gov/eea/agencies/massdep/water/watersheds/sustainable-water-management-initiative-swmi.html>
- ◆ Water Management Act Regulations:  
<http://www.mass.gov/eea/agencies/massdep/water/regulations/310-cmr-36-00-the-water-management-act-regulations.html>
- ◆ Water Management Act Permits:  
<http://www.mass.gov/eea/agencies/massdep/water/watersheds/water-management-act-permits-and-decisions.html>



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water works  
*pride*