

NECPUC 2022

Achieving Water Equity in the Midst of Climate Change – May 23, 2022



“Aquarion is committed to providing our customers with safe, high-quality water and excellent customer service.”

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Agenda

1. Utility Perspective

- Water Equity – Water Service - Regulations

2. Challenges Facing a Water Utility

- Effects of Climate Change
- Emerging Contaminants

3. Efforts toward achieving Equity

- Water Conservation Programs – Twice Weekly
Watering & Rain Barrel Program

Utility Perspective

Utility Perspective

- Operation Fuel (water equity)
 - Provides year-round utility assistance
 - Manages Aquarion's "Voucher" program
- (LIHWAP) Low Income Household Water Assistance Program
- Covid-19 Payment Plan (regulations)
- Water Conservation (water service)

Challenges Facing a Water Utility

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The effects of climate change across the USA



Increased frequency of heavy rainstorms =

Increased soil erosion and nutrient loading to reservoirs =

Increased: turbidity, algae growth, taste and odor complaints, treatment costs, and treatment by-products.

... across New England



Groton, Conn., March 2010



Deans Mill Reservoir, Stonington , Nov. 2016

Common Themes:

- Increased annual precipitation
- Increasing frequency of heavy rains
- Shift in precipitation frequency
- Warming annual temperatures
- Intense periods of dry weather lasting months at a time ("flash droughts")

NOAA

...across New England

- The Northeast U.S. has become a "hot spot" for record floods and heavy rainfall in the past 10 years.
- Noticeable trends include: increased yearly rainfall, increased annual temperatures, and increased periods of intense, short-term droughts.



The effects of climate change on storm events



Westport, Conn., 2012



Blizzard 2013

More frequent intense storms =

- Increased coastal erosion and damage to coastal infrastructure (water mains, wellfields, pump stations, etc.).
- Increased road salt use in winter = increased well contamination risk (small bedrock wells are especially vulnerable).
- Increased operational costs (storm damage, snow removal, emergency overtime, etc.).

Need for consistent Water Conservation



Bargh Reservoir, Stamford, June 2016



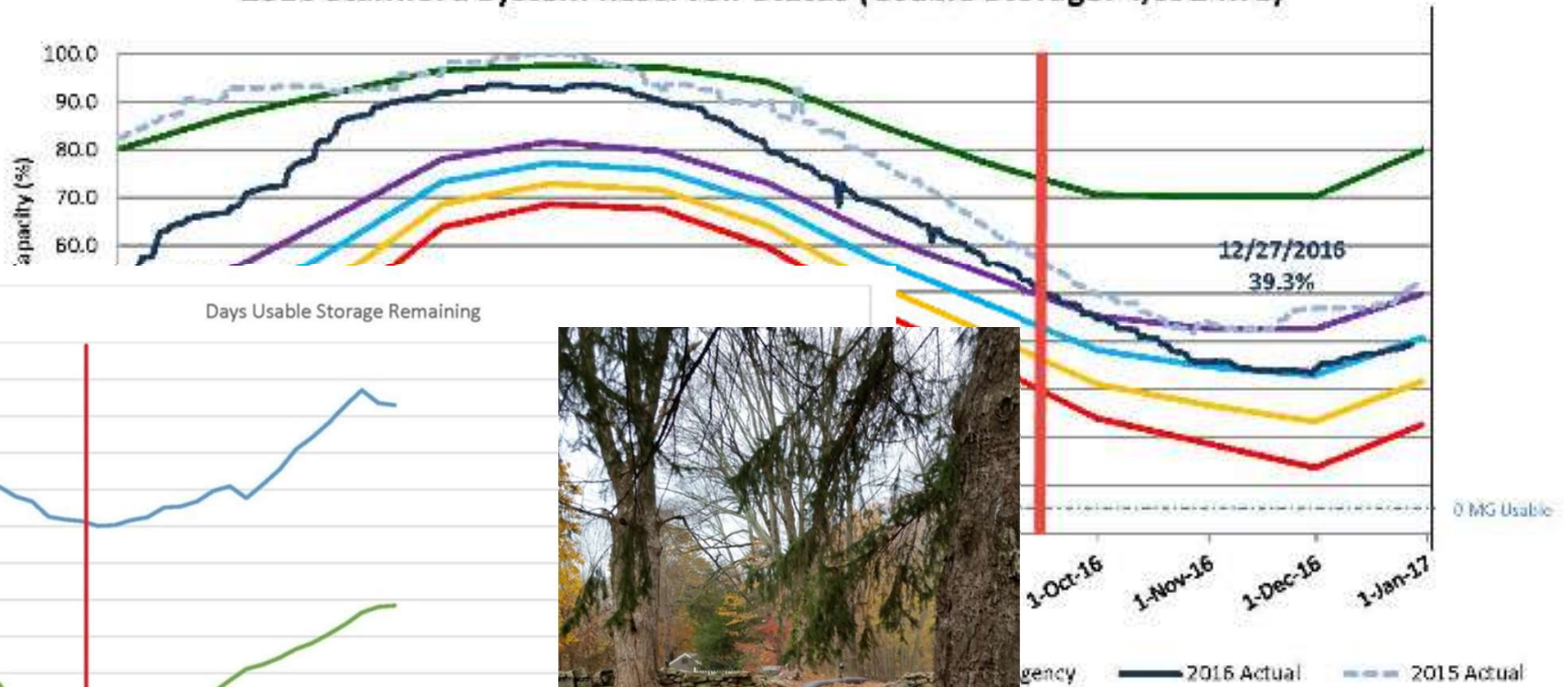
Bargh Reservoir, Stamford, December 2016

Increased periods of dry weather =

- "Flash droughts": rapid onset, lasting months at a time.
- Increased temperature and sunshine = increased algae growth.
- Falling groundwater levels.
- Increased risk of saltwater intrusion at coastal wells.
- Increased customer demand.

Avoid Outdoor Water Bans

2016 Stamford System Reservoir Status (Usable Storage: 4,692 MG)



Days Usable Storage Remaining



Usable Reservoir Storage/7-Day Average Reservoir Withdrawal
Assumes no flow into reservoirs



Third Drought Trigger Hit in 2020

Mandatory Irrigation Ban Now In Effect

For Aquarion Customers in Darien, Greenwich,
New Canaan, Stamford and Westport

Emerging Containments - PFAS

PFAS containing products and discharges of PFAS chemicals have been occurring for more than 60 years. Such chemicals are now routinely found in consumer goods and the environment worldwide. People are exposed to PFAS chemicals in a variety of ways, including using everyday products that contain PFAS, such as food containers, water repellent clothing, stain resistant furniture and carpeting, and Teflon coated cookware, in various occupations and workplaces, such as firefighting and some types of manufacturing, and in areas that have been contaminated from activities with PFAS containing substances, such as landfills, fire training schools, and brownfields sites. Given the wide range of possible contributors of PFAS in the environment, it is important to develop comprehensive strategies that include recommendations for: 1) preventing the introduction of PFAS in the environment, including the land, air, and water; and 2) determining areas that have been contaminated with PFAS compounds and remediating such areas.

Efforts Towards Achieving Equity-Twice Weekly Watering

Darien, Fairfield, Greenwich, Mystic, New Canaan, Newtown, Simsbury, Stamford and Westport

- Direct mail
- Print ads
- Radio
- Aquarion website
- Social media

Mandatory!

For Aquarion customers and all private well owners in Darien, Greenwich, New Canaan and Stamford...

Twice-Weekly Sprinkler Irrigation Schedule Now In Effect

Maximum Twice-Weekly Sprinkler Irrigation Schedule

Last Digit of Your Address Number	Water Only On:
0, 2, 4, 6 or 8 (even numbers)	Sundays and Wednesdays Before 10:00 am or After 6:00 pm
1, 3, 5, 7 or 9 (odd numbers)	Saturdays and Tuesdays Before 10:00 am or After 6:00 pm
No address number	Sundays and Wednesdays Before 10:00 am or After 6:00 pm

www.aquarionwater.com/watering

 **AQUARION**
Water Company
Stewards of the Environment™



Efforts Towards Achieving Equity- Rain Barrel Program

Message: Use Water Wisely

- The need to conserve continues
- Less water on lawns
- Changing old and acquiring new habits
- The Right Thing to do



Questions



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