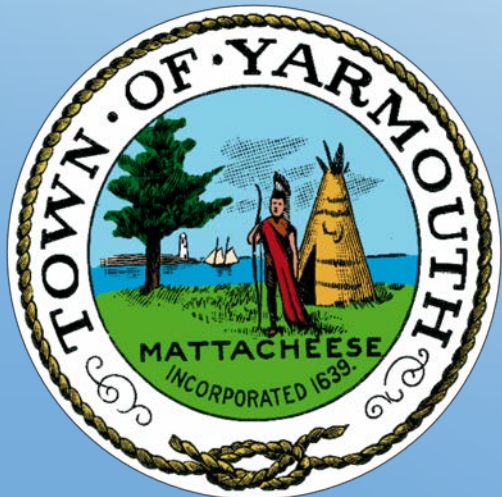


# WATER CONSERVATION PLAN YARMOUTH WATER DEPARTMENT

JEFFREY COLBY, PE – DPW DIRECTOR

LAURIE RUSZALA, PE – WATER & WASTEWATER SUPERINTENDENT

MAY 24, 2022



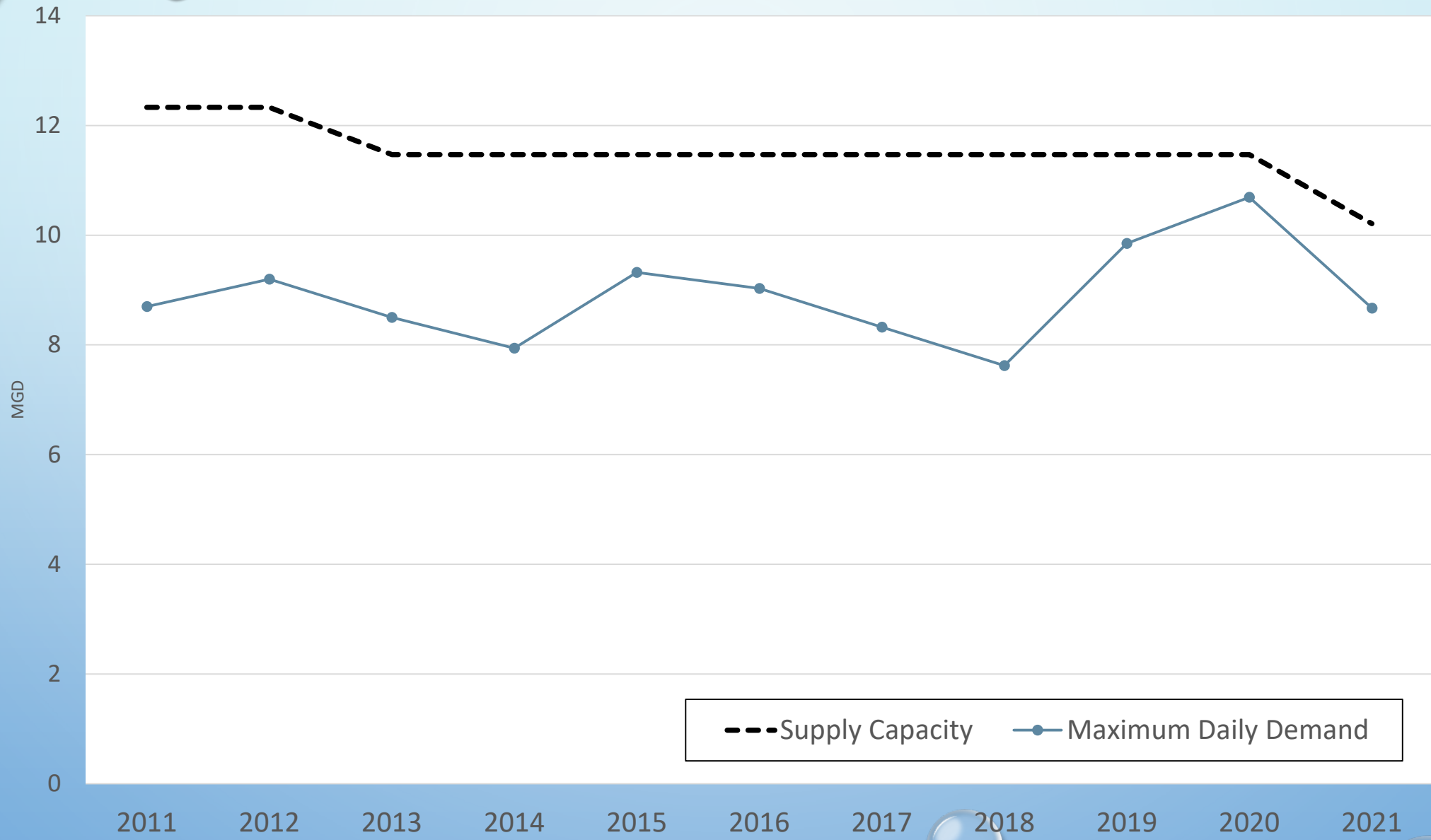
# OVERVIEW

- BACKGROUND & NEED
- WATER MANAGEMENT ACT PERMIT
- MASSACHUSETTS WATER CONSERVATION STANDARDS
- YARMOUTH'S PROPOSED WATER CONSERVATION PLAN

# BACKGROUND & NEED

- YARMOUTH CURRENTLY HAS 24 DRINKING WATER WELLS, WITH 4 CURRENTLY OFFLINE
  - WELL 9 HAS BEEN OFF SINCE 2013 DUE TO PCE
  - WELLS 4, 5 AND 10 WERE RECENTLY SHUT DOWN DUE TO PFAS6

	MGD
Design Flow – All Wells	14.07
Approved Withdrawal - All Wells	12.33
Approved Withdrawal - All Wells except 9	11.47
<b>Current Capacity - without Well 4, 5, 9, 10</b>	10.21
Potential Limited Capacity - without Well 4, 5, 9, 10, 18, 19	9.35



# ALTERNATIVES

- TREATMENT AT WELLS NO. 4 & 5
- INTERCONNECTIONS
- WELL NO. 9 REAUTHORIZATION
- WATER CONSERVATION MEASURES



# WATER MANAGEMENT ACT PERMIT

- YARMOUTH'S FIRST WMA PERMIT WAS ISSUED IN 1992 AND RENEWED IN 2007.
- YARMOUTH SUBMITTED RENEWAL APPLICATIONS IN 2010 AND 2012.
- YARMOUTH'S PERMIT IS OVERDUE FOR RENEWAL.
- BYLAW REVISIONS WILL BE REQUIRED TO CONFORM WITH WMA PERMIT REQUIREMENTS

YARMOUTH-Yarmouth Water Department  
WMA Permit #9P-4-22-351.01  
PWS ID #4351000

**WATER WITHDRAWAL PERMIT**  
MGL c 21G

This permit is issued pursuant to the Massachusetts Water Management Act for the sole purpose of authorizing the withdrawal of a volume of water as stated below and subject to the following special and general conditions. This permit conveys no right in or to any property beyond the right to withdraw the volume of water for which it is issued.

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PERMIT NUMBER: 9P-4-22-351.01      BASIN: Cape Cod

PERMITTEE: Town of Yarmouth  
1146 Route 28  
South Yarmouth, MA 02664

EFFECTIVE DATE: January 31, 1992

AMENDMENT DATE: March 7, 2007

EXPIRATION DATE: November 30, 2010

NUMBER OF WITHDRAWAL POINTS:

Groundwater: 7  
Surface Water: 0

USE: Public Water Supply

DAYS OF OPERATION: 365

LOCATIONS: Authorized Withdrawal Points

Source Name	DEP Source ID Code
Well #13	4351000-13G
Well #14	4351000-14G
Well #17	4351000-17G
Well #18	4351000-18G
Well #19	4351000-19G
Well #23	4351000-23G
Well #24	4351000-24G

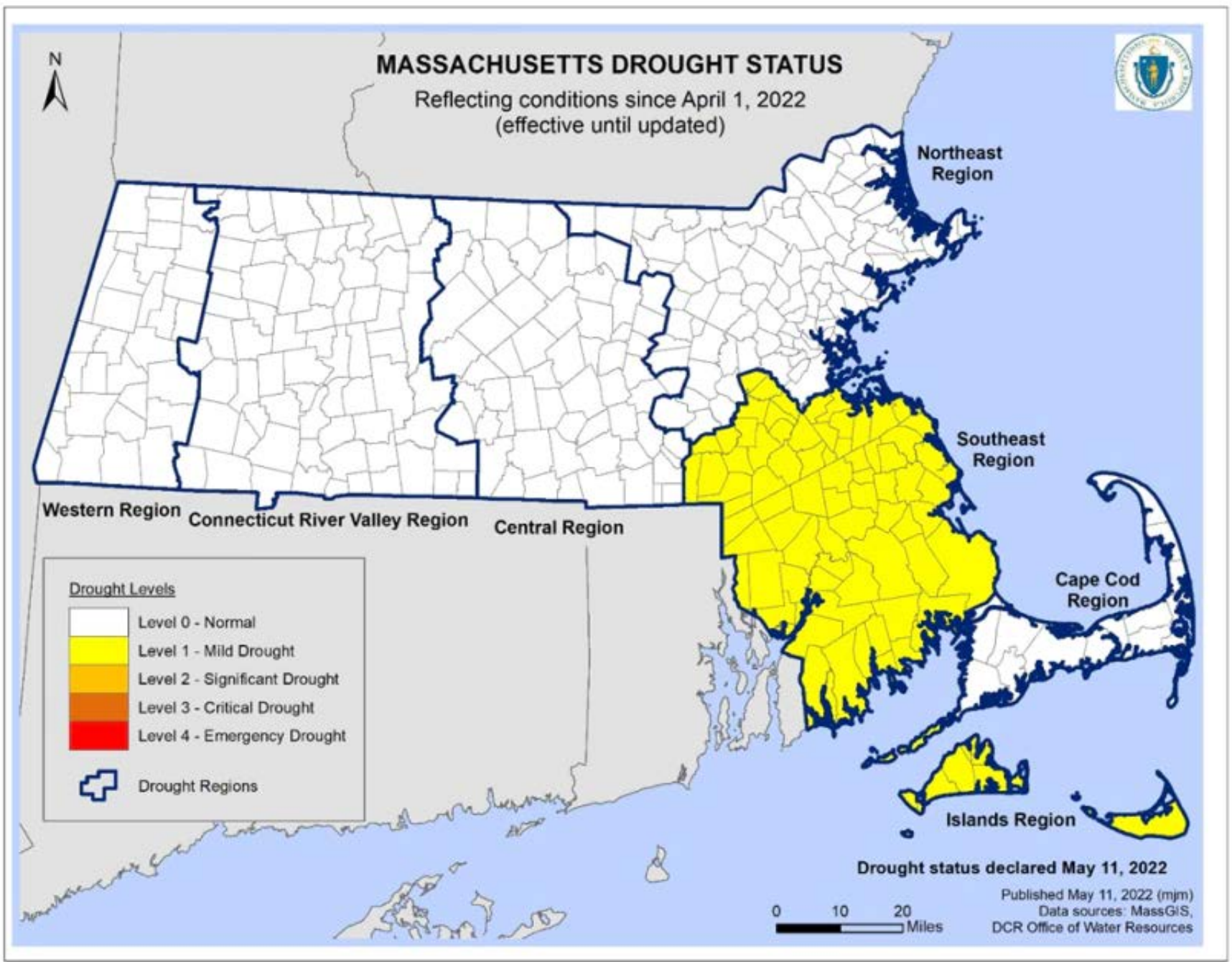
# WATER MANAGEMENT ACT PERMIT REQUIREMENTS

- RECENT WMA PERMITS INCLUDE REQUIREMENTS FOR WATER CONSERVATION:
  - UNACCOUNTED FOR WATER LESS THAN 10%
    - LEAK DETECTION
    - ANNUAL WATER AUDIT
    - MASTER METER CALIBRATIONS
  - METER ALL SERVICES, INCLUDING MUNICIPAL BUILDINGS AND FIELDS
  - WATER SAVING DEVICES IN TOWN BUILDINGS
  - OUTREACH TO LARGE WATER USERS
  - SEASONAL LIMITS ON NONESSENTIAL OUTDOOR WATER USE

# SEASONAL LIMITS ON NONESSENTIAL OUTDOOR WATER USE

- EFFECTIVE MAY 1 – SEPTEMBER 30
- RESTRICTIONS REQUIRED WHEN:
  - USGS MONITORING WELL FALLS BELOW THRESHOLD LEVEL FOR 60 CONSECUTIVE DAYS. LIFTED WHEN ABOVE THRESHOLD FOR MORE THAN 30 CONSECUTIVE DAYS, OR
  - MA DROUGHT MANAGEMENT TASKFORCE DECLARES A MILD DROUGHT.
- NONESSENTIAL WATER USE LIMITED TO 2 DAYS PER WEEK BEFORE 9 AM AND AFTER 5 PM.
- THESE ARE REQUIRED IN BARNSTABLE FIRE DISTRICT, BUZZARD'S BAY WATER DISTRICT, EASTHAM, ORLEANS, SANDWICH WMA PERMITS.





# PROPOSED CONSERVATION TRIGGERS

WATER SUPPLY MANAGEMENT STAGES:	LEVEL 0: Normal	LEVEL 1: Mild	LEVEL 2: Significant	LEVEL 3: Critical	LEVEL 4: Emergency
Supply Capacity	All Wells Online (12.33 MGD)	4 Wells Offline (10.21 MGD)	6 Wells Offline (9.35 MGD)	7 Wells Offline (9.2 MGD)	7+ Wells Offline (8.9 MGD)
7-day Demand Average		>56 MG (8 MGD)	>60 MG (8.5 MGD)	>64 MG (9 MGD)	>68 MG (9.5 MGD)
WMA Trigger - USGS Groundwater Level	< 60 days below 25 <sup>th</sup> percentile	<b>60 days below 25<sup>th</sup> percentile</b>	60 days below 20 <sup>th</sup> percentile	60 days below 10 <sup>th</sup> percentile	60 days below 2 <sup>nd</sup> percentile

# PROPOSED WATER CONSERVATION MEASURES

WATER SUPPLY MANAGEMENT STAGES:	LEVEL 0: Normal	LEVEL 1: Mild	LEVEL 2: Significant	LEVEL 3: Critical	LEVEL 4: Emergency
<b>Lawn Watering</b> In-Ground Irrigation Systems	Voluntary odd/even watering before 9am and after 5pm	<b>Max 2 days/week watering permitted before 9am or after 5pm.</b>	Max 1 day/week handheld watering permitted before 9am or after 5pm.	No nonessential outdoor water use	No nonessential outdoor water use
<b>Lawn Watering</b> Hand-Held Watering & Drip Irrigation Systems	Any time	<b>Max 2 days/week watering permitted before 9am or after 5pm.</b>	Max 1 day/week watering permitted before 9am or after 5pm.	Prohibited	Prohibited
<b>Flower Beds, Shrubs &amp; Vegetable Gardens</b>	Any time	Any time	Any time	Prohibited	Prohibited
<b>Private Residential Swimming Pools</b>	Any time Filling or Topping Off	Restricted Topping Off Only	Restricted Topping Off Only	Prohibited	Prohibited
<b>Hand Washing of Vehicles/Boats</b>	Any time	Restricted Washing Vehicles with an automatic shutoff (spring loaded nozzle) hose or bucket only	Restricted Washing Vehicles with an automatic shutoff (spring loaded nozzle) hose or bucket only	Prohibited	Prohibited
<b>Pressure Washing</b>	Any time	Restricted No use of water for cleaning of streets, driveways, sidewalks or other impervious areas.	Restricted No use of water for cleaning of streets, driveways, sidewalks or other impervious areas.	Prohibited	Prohibited



# SUMMARY OF NEXT STEPS

- IMPLEMENT WATER CONSERVATION POLICY FOR SUMMER 2022
  - CONTINUE CUSTOMER OUTREACH EFFORTS
  - REVISE WATER EMERGENCY BYLAW AT FALL TOWN MEETING
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**QUESTIONS?**