



# **Water Resources Management Advisory Committee Meeting**

**July 13, 2022**

**1- 3 pm**

**via**

**Zoom**

# Agenda

## **Item 1: Meeting Minutes**

## **Item 2: Regulation Revisions**

- a) Definitions
- b) Registration Conditions
- c) Permit Expiration Dates
- d) Orders, Violations, and Penalties

## **Item 3: Next Steps**

# Proposed Regulation Revisions

- Two definitions
  - Multi-Year Drought Storage
  - Nonessential Outdoor Water
- 36.07 Registration Conditions
- 36.17 Effective Dates and Expiration Dates for Permitting by Water Source
- 36.43 Orders, Violations and Penalties



# Registration Renewal Proposal

- During drought- condition nonessential water use
  - Align registrations with Drought Management Plan using drought status

| State Drought Plan         | Nonessential Outdoor Water-Use Restrictions                          |
|----------------------------|----------------------------------------------------------------------|
| <b>Level 1-Mild</b>        | 1 day per week watering, before 9 a.m. or after 5 p.m.               |
| <b>Level 2-Significant</b> | Hand-held hoses or watering cans only, before 9 a.m. or after 5 p.m. |
| <b>Level 3-Critical</b>    | Ban on all nonessential outdoor water use                            |
| <b>Level 4- Emergency</b>  | Ban on all nonessential outdoor water use                            |



# Golf Conditions

87 Registered  
vs.  
62 permitted

Registered Golf Courses would be required to implement Seasonal Demand Management Plan with graduated reductions in nonessential irrigation based on drought levels.

**Irrigation can be reduced either by reducing irrigation times, or by irrigating fewer acres**  
**Watering allowed up to designated percent**

| MA Drought Level       | Tees & Greens             | Fairways | Roughs | Landscape & Ornamentals                                                                                                                                                  |
|------------------------|---------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Normal                 | 100%<br><br>Essential Use | 100%     | 100%   | 100%                                                                                                                                                                     |
| Level 1 (Mild)         |                           | 80%†     | 50%†   | Courses whose core business includes a special event venue may continue to irrigate gardens, flowers and ornamental plants by means of hand-held hose or drip irrigation |
| Level 2 (Significant)  |                           | 60%†     | 0%     |                                                                                                                                                                          |
| Level 3 (Critical)     |                           | 40%†     |        |                                                                                                                                                                          |
| Level 4 (Emergency) ** | TBD                       | 0%       |        | 0%                                                                                                                                                                       |

† Irrigation use shall not occur between the hours of 9 a.m. and 5 p.m., except that hand-watering of hot spots may occur at any time

\*\* Additional actions to be determined by the Governor's Emergency Proclamation.

# Alternative Restrictions Criteria

- Registered only systems supplied entirely by surface water reservoirs
- Multiple years of Reservoir Storage
  - Useable Reservoir Storage greater than 3 times the sum of registered volume plus any required releases
    - Useable Reservoir Storage applies only to active water supply reservoirs that do not need further MassDEP approval for use



# Drought Management Plan Elements

Must present an approved plan that demonstrates systems can meet the following criteria:

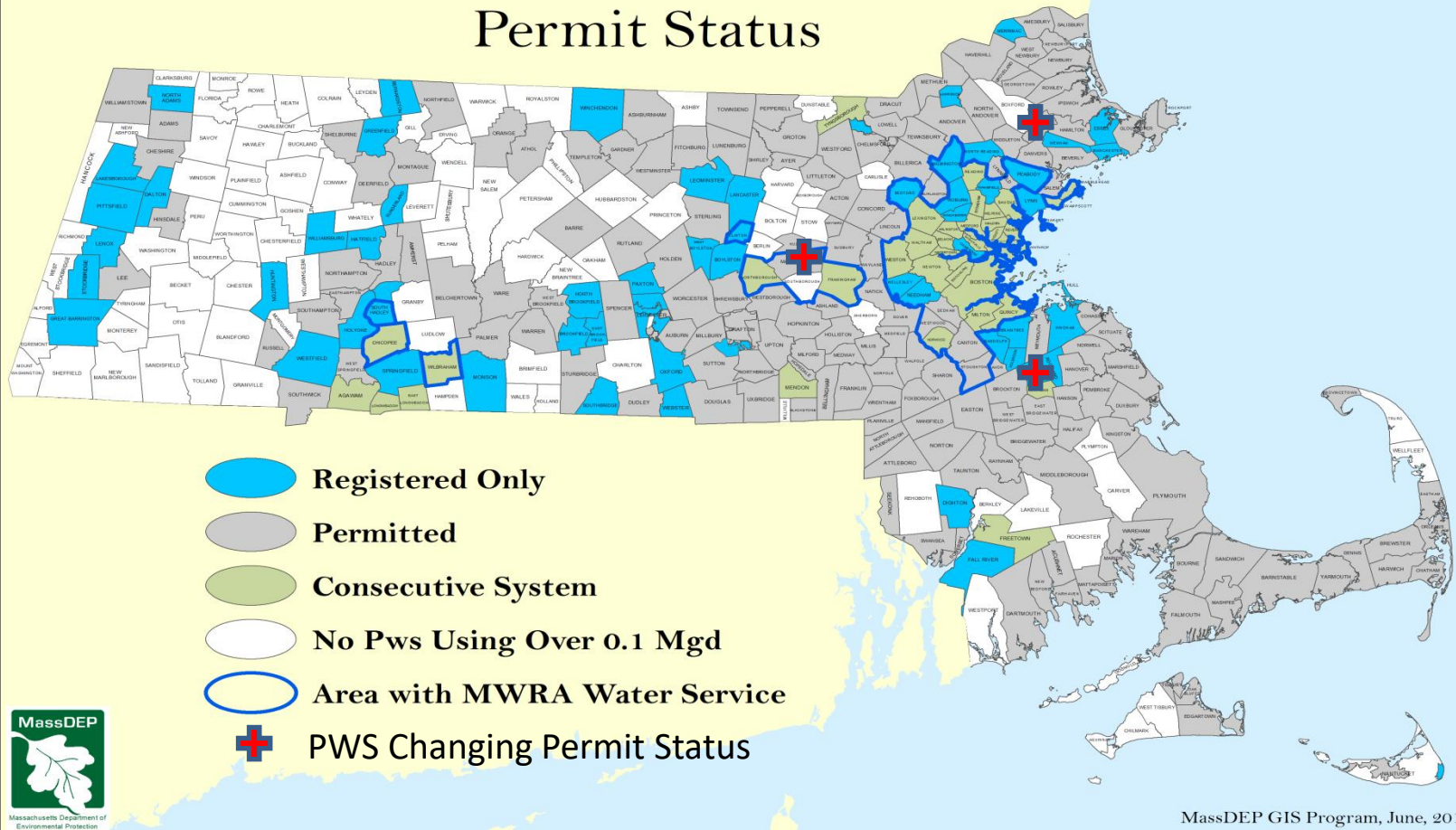
- Drought stages determined by:
  - actual or modeled historical levels to set triggers shall include the drought of record;
  - days of supply remaining and seasonal levels of demand;
  - predicted drawdown and refill probabilities using appropriate models; or
  - a functionally equivalent method.
- Menu of actions triggered at each drought stage including restrictions;
- Protocols for communicating drought stages & actions to public, and officials;
- A strategy for establishing local enforcement authority & penalties for violations;
- A system to monitor and document water use reductions





Mass.gov

# WMA Registration and Permit Status

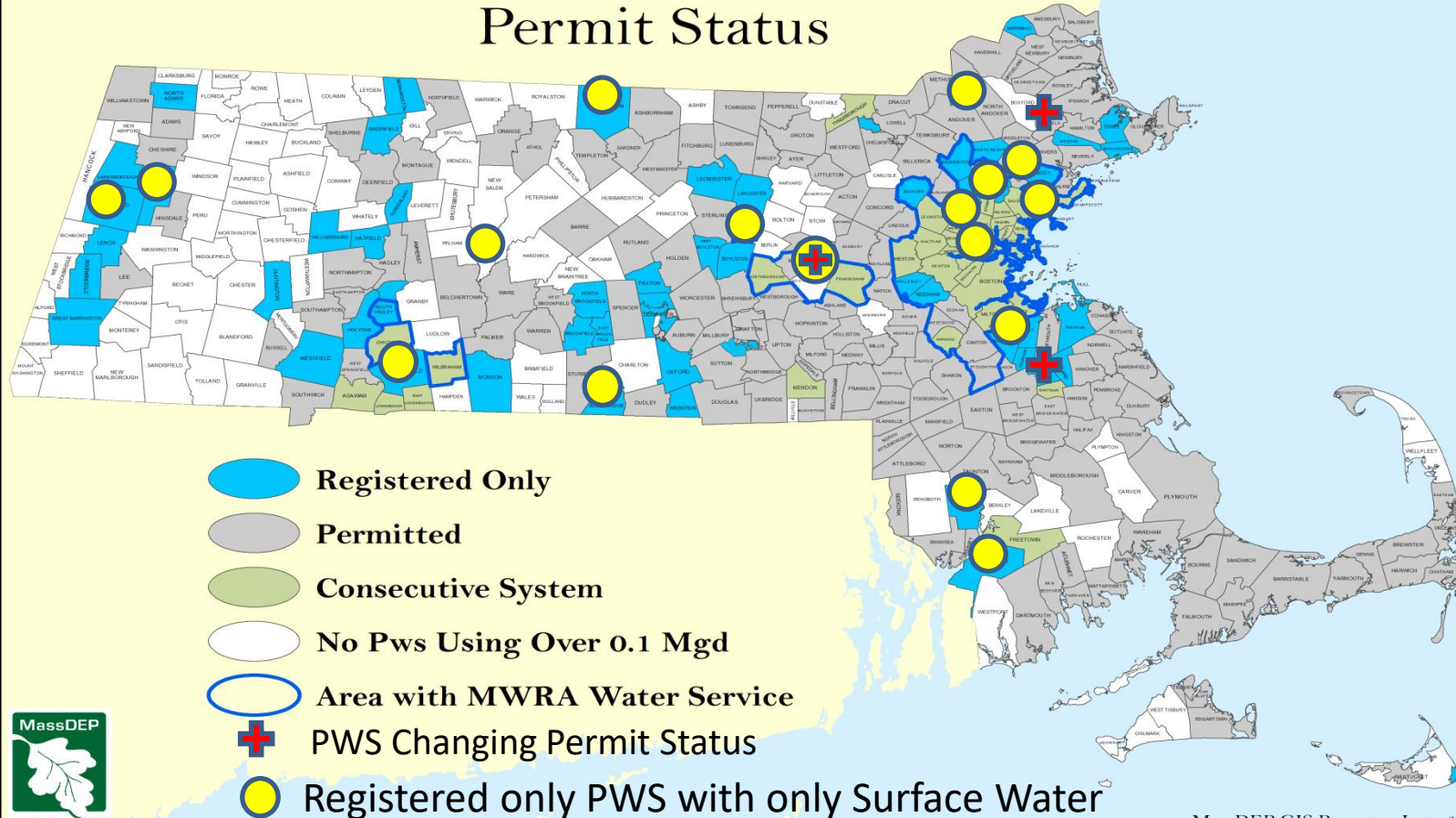


## Number of Registered only PWS (based on July 2022 Permit Status)

| Western Region | Central Region         | Northeast Region | Southeast Region |
|----------------|------------------------|------------------|------------------|
| 22 + MWRA      | <del>16</del> 17+ MWRA | <del>18</del> 19 | <del>6</del> 5   |



# WMA Registration and Permit Status



MassDEP GIS Program, June, 2019

## # Registered Only PWS with only Surface Water (based on July 2022 Permit Status)

| Western Region | Central Region | Northeast Region | Southeast Region |
|----------------|----------------|------------------|------------------|
| 3 + MWRA       | 4 + MWRA       | 6                | 2                |

# Nonessential Outdoor Water Use Restrictions

## Permit vs. Registration

Non-Essential: Uses not required for health or safety reasons, by regulation, for production of food or fiber, for maintenance of livestock, or to meet the core function of a business

### Permits

| RGPCD for prior year | Calendar               |                        | STREAMFLOW     |                |                        |
|----------------------|------------------------|------------------------|----------------|----------------|------------------------|
|                      | May 1 to Sept 30       | 7 day Low-Flow Trigger | Flow above ABF | Flow below ABF | 7 day Low-Flow Trigger |
|                      | < 65                   | 7 days*                | 1 day*         | 7 days*        | 1 day*                 |
|                      | >65 or Minim. subbasin | 2 days*                | 1 day*         | 7 days         | 2 days*                |

\* No watering 9 am to 5 pm on any day

Note: Cape and Island requirements are based on GW and Drought Triggers

## Proposed Registration Conditions

| State Drought Plan  | Nonessential Outdoor Water-Use Restrictions                          |
|---------------------|----------------------------------------------------------------------|
| Level 1-Mild        | 1 day per week watering, before 9 a.m. or after 5 p.m.               |
| Level 2-Significant | Hand-held hoses or watering cans only, before 9 a.m. or after 5 p.m. |
| Level 3-Critical    | Ban on all nonessential outdoor water use                            |
| Level 4- Emergency  | Ban on all nonessential outdoor water use                            |

# Drought Status vs 7-Day Low-Flow

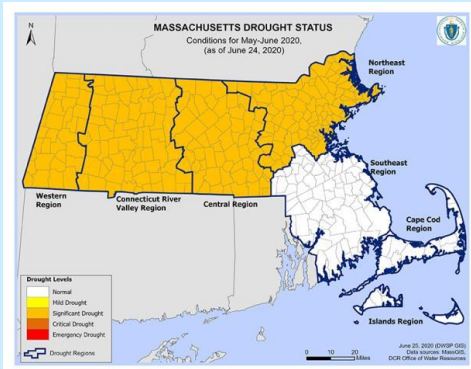
**Level 1-Mild Drought**

1 day per week watering

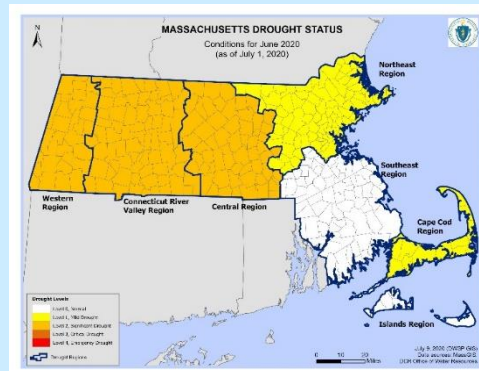
**Level 2-Significant Drought**

Hand-held hoses or watering cans only

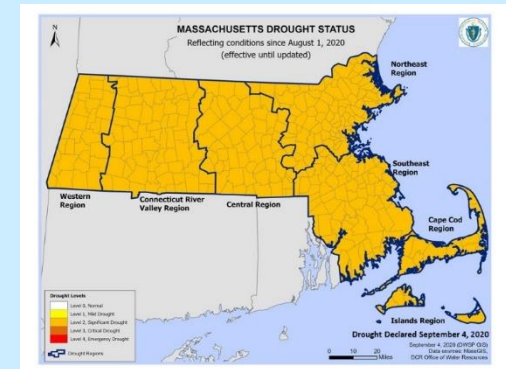
June 24, 2020



July 9, 2020



Aug. 12 & Sept. 4, 2020



## 7 DAY LOW FLOW TRIGGER 2018 - 2021

1<sup>st</sup> time trigger hit for 3 consecutive days each year = 1 day per week watering

| Basin                       | 2018 | 2019 | 2020 | 2021                         |
|-----------------------------|------|------|------|------------------------------|
| Concord River (Lowell)      |      |      | 8/12 |                              |
| Indian Head River (Hanover) | 8/3  |      | 7/28 |                              |
| Mill River (Northampton)    |      | 8/28 | 8/13 |                              |
| State Drought Declared      | NO   | NO   | Yes  | YES-West,<br>CT,Central,Cape |

# Restriction Triggers 2020 & 2022

| Year             | Basin      | Triggers, Dates and Watering allowed (thru 7/12/2022) |                          |                 |                 |                 |
|------------------|------------|-------------------------------------------------------|--------------------------|-----------------|-----------------|-----------------|
|                  |            | Permit-ABF                                            | Permit 7-Day LF          | Drought Level 1 | Drought Level 2 | Drought Level 3 |
| Watering allowed |            | 2-Days wk                                             | 1-day                    | 1-day           | Hand only       | none            |
| 2020             | Charles R. | 5/29-7/5 off<br>7/15-8/9 →<br>8/31-9/10 →             | 8/10-8/30 ←<br>9/11-9/30 | NE 7/9          | NE 6/24<br>8/12 | 10/9            |
| 2020             | Taunton R. | 6/5-6/14 off<br>6/18-7/5 off<br>7/24-8/9 →            | 8/10-9/30                |                 | 8/12            | 10/9            |
| 2022             | Charles R. | 5/18-7/12                                             |                          | NE 5/11         | 6/15            |                 |
| 2022             | Taunton R. | 5/21-7/12                                             |                          | 5/11            | 6/15            |                 |

| USGS Gage                   | May-June (ABF- cfs) | July – Sept. (ABF) | 7-Day Low Flow (cfs) |
|-----------------------------|---------------------|--------------------|----------------------|
| Charles River @ Dover       | 170                 | 62                 | 30 (32 on 7/12/22)   |
| Taunton River @ Bridgewater | 265                 | 119                | 47 (64.5 on 7/12/22) |

# 36.17 Permit Term Expiration Dates

| Water Source | Effective Date  | First Expiration | Second Expiration |
|--------------|-----------------|------------------|-------------------|
| XXXXX Basin  | August 31, 1988 | August 31, 2008  | August 31, 2028   |

| A. Basins Renewed for a second term prior to PEA              | B. Basins Renewed for a second term after PEA     | C. Basins with permits both renewed and not before Covid Order                          | D. Basins with no permits renewed from first term             |
|---------------------------------------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------|
|                                                               | PEA Extended first expiration date                |                                                                                         |                                                               |
| PEA & Covid Order both extend 2 <sup>nd</sup> expiration date | Covid Order applied to 2 <sup>nd</sup> expiration | 2 <sup>nd</sup> expiration date adjusted to original schedule + Covid Order added       | Covid Order not applicable because administrative continuance |
| Hudson<br>Blackstone<br>Charles<br>North Coastal              | Deerfield                                         | Boston Harbor,<br>South Coastal,<br>Taunton; Cape;<br>Islands; Concord,<br>Buzzards Bay | 15 Remaining basins                                           |

# Comments Received in 2021

- 373 Total Comments Received
  - 21 Public Water Suppliers\*
  - 13 Environmental Organizations\*
  - 6 Business or Industry Representatives
  - 1 Legislator
  - 11 Individual Residents
  - 317 Emails

\* a few submitted multiple comments

# Summary of Comments Received Opposed

- **Process concerns**
  - Did not follow procedures outlined in MGL c. 21G requiring regs be developed after consultation & advice from WMA Advisory Committee
  - Were not developed with representatives of PWS
  - A more detailed definition of Nonessential Outdoor Water Use was proposed
  - Amend to ensure that every PWS has a system-specific drought plan within 5 yrs
  - “Multi-Year Drought Storage” criteria for developing a system-specific analysis is not based on science or water resources practice
  - What planning, recording, and reporting requirements are expected
- **Impact to registered water rights**
  - would infringe upon Registrants’ entitlement by limiting their ability to sell that water during a drought
- **Change not needed, use not only not going up but in some cases decreasing**
- **Potential Health Impacts**
  - Could increase water age in the system, cited are Disinfection Bio-Products and Total Trihalomethanes (TTHM)



# Summary of Comments Received

## Opposed – 2

- **Costs**
  - PWS have unmet needs to fund repair and replacement of aging infrastructure. Restrictions will further lower funds
  - Exacerbate socioeconomic inequities - raising rates will disproportionately impact lower income customers
  - If adopted, the state must develop a new funding to make up for shortfall
- **Implementation Timeline is too Quick (24 Months)**
  - Changes to bylaws/ordinances often require approvals beyond the purview of the PWS and 24 months to implement may not be possible
- **Linkage to the MA Drought Management Plan (DMP) & Climate Change**
  - Tying restrictions to the DMP is not appropriate. DMP is based on many indices that are not water supply related
  - Permitting new sources & eliminating downstream releases will do more to protect water systems from climate change



# Summary of Comments Received

## Supporting

- **Expand to include < threshold withdrawals & private wells**
- **Good first step.**
- **Impact to registered water rights**
  - would not deny registrants their entitlement - registrants could withdraw full volume over the course of the year.
  - there should be consistency between to registrants and permittees
- **Should apply to permittees to**
  - promote equity among PWS and
  - address Climate change and water resource needs
- **Implementation Should be Immediate, not 24 Months**
  - Regulations should take effect sooner than 24 months, should be asap
- **Linkage to the MA Drought Management Plan (DMP) & Climate Change**
  - The 2019 DMP was updated to address climate issues. Linking drought restrictions is appropriate and important



# Next Steps for Registration Renewals (and Regulation Change Steps)

- **July 2022 - Convene Advisory/Stakeholder Group**
- **Fall/Winter 2022/2023**
  - Internal development and review
  - Initial presentation to Water Resources Commission
  - Draft regulations released
  - Public comment and Public hearing Process
  - **Registration Renewal Request forms distributed in May-June 2021**
  - **June 1, 2021 – MassDEP sent a renewal reminder notice to all Registrants**
  - **October 6, 2022 – Last day for Registrants to file Renewal Request forms**
  - Prepare response to comments and revise draft regulations accordingly
  - Water Resources Commission approval
- **February – April 6, 2023 – Prepare & issue Registration Renewals**

# Questions and Comments

