



**WATER SUPPLY CITIZENS  
ADVISORY COMMITTEE**  
to the Mass. Water Resources Authority

485 Ware Road  
Belchertown MA 01007  
(413) 213-0454  
fax: (413) 213-0537  
email: info@wscac.org

## WSCAC Virtual Meeting

February 14, 2023

### Members in Bold in Attendance:

Michael Baram  
**Whitney Beals**  
**William Copithorne, Town of Arlington**  
**Steven Daunais, Tata & Howard**  
**Kelsey Wentling, CT River Conservancy**  
**Gerald Eves, Trout Unlimited**  
**Bill Fadden, OARS**  
James Guiod, MWRA Adv. Bd.

**Bill Kiley, BWSC**  
**Paul Lauenstein**  
**Martha Morgan, Nashua River Watershed**  
**Martin Pillsbury, MAPC**  
**Janet Rothrock, League of Women Voters**  
**Bruce Spencer, retired DCR Chief Forester**

### Non-Members in Attendance:

Lexi Dewey, WSCAC staff  
Carolyn deLiefde, WSCAC staff  
Sarah Bower, Mass Rivers Alliance  
Anne Carroll, DCR Office of Water Resources  
Vanessa Curran, DCR Office of Water Resources  
Andreae Downs, WAC staff  
Steve Estes-Smargiassi, MWRA staff  
Erin Graham, DCR Office of Water Resources  
David Granados, MWRA staff  
John Gregoire, MWRA staff  
Duane LeVangie, MassDEP  
Vandana Rao, EOEEA  
Matthew Walsh, MWRA staff

### WSCAC Business

Executive Director Lexi Dewey began the meeting at 11:00. The first order of business was the introduction of the new Administrative Assistant Carolyn deLiefde.

Ms. Dewey reviewed three bills that WSCAC is currently following. The first, filed by Senator Comerford is titled "An Act Relative to the Quabbin Watershed and Regional Equity" (Bill SD.2089). All members have received a copy of the bill. The second, An Act protecting wastewater and sewerage systems through the labeling of non-flushable wipes (Bill H.897). This was also sent to members. Andreae Downs presented the members with an update on the status of this bill. Representative Garballey from Arlington and Senator Eldridge from Acton are cosponsoring the bill. The third bill, titled "An Act relative to maintaining adequate

water supplies through effective drought management”, is co-sponsored by Rep. Joan Meschino & Sen. Jamie Eldridge (H.1557/S.142). Currently, each town decides their own water conservation measures during drought. Some municipalities impose stringent measures, while others do nothing at all. The drought bill would change that by giving EEA the authority to require regional water conservation measures during a declared drought, affecting only nonessential outdoor watering, as recommended in the state's 2019 Drought Management Plan. Water use for agriculture or business would be exempt.

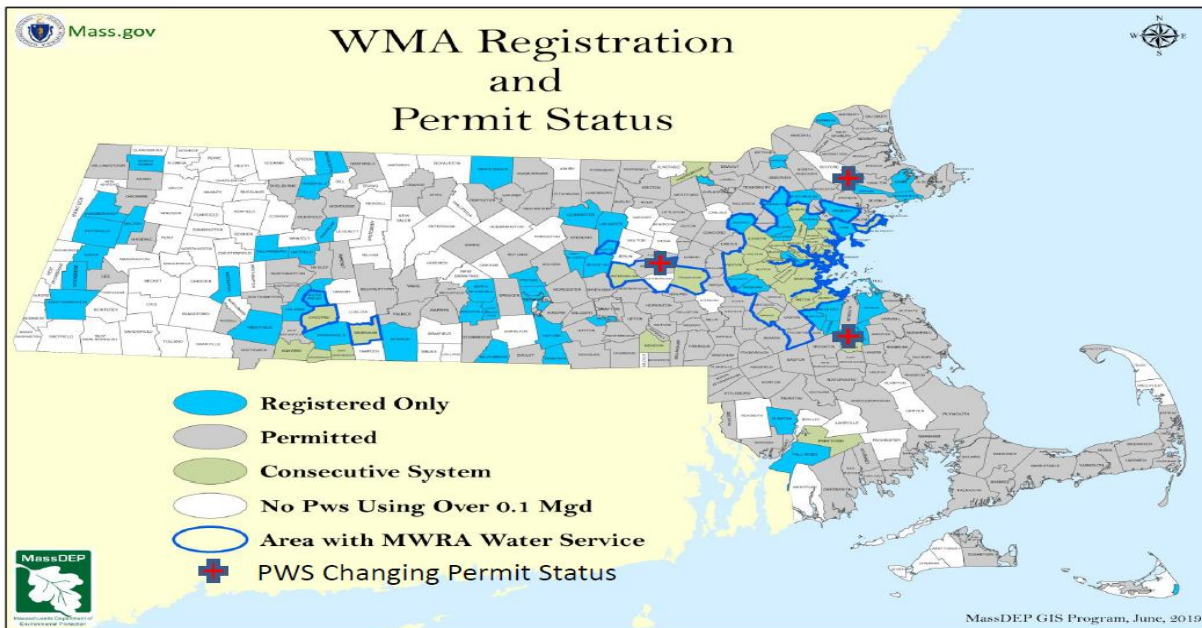
An article regarding the ban on plastic water bottles in Concord, MA was in the Boston Globe on February 13, 2023. A copy of the article was forwarded to all committee members. Committee member Janet Rothrock was interviewed by the Boston Globe for the article and presented an update on the ban. If anyone is interested in learning more about a plastic water bottle ban for their town, please contact Janet directly and she will be able to assist.

At this time, Ms. Dewey called roll to see who was in attendance.

Ms. Dewey noted that the next WSCAC meeting will be a joint meeting with the MWRA Advisory Board and WAC to be held virtually on March 16<sup>th</sup> at 10:00.

**MWRA Advisory Board Briefs-James Guid** – not present

**Presentation – Water Management Act Regulations (310 CMR 36.00) Revisions**- Duane LeVangie, MassDEP Director of Water Management presented a review of the Water Management Act regulations. A similar presentation was given to the Water Resources Commission on January 3<sup>rd</sup> for a vote on the proposed revisions. The regulations were approved.



Number of Registered only PWS (based on July 2022 Permit Status)			
Western Region	Central Region	Northeast Region	Southeast Region
22 + MWRA	17 + MWRA	19	5

- Gray – permitted public water systems
- Blue – registered only public water systems
- Green – MWRA only communities
- White – No public water systems
- Red crosses – Communities that were once permitted

Ms. Dewey asked for clarification on the towns in gray – do they all have restrictions on outdoor watering in May? Mr. LeVangie noted that May restrictions do not include all towns in gray. Mr. LeVangie noted that approximately 70-80% of the towns follow the restriction guidelines.



## 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

- Recommendations during a drought are made by the Drought Management Task Force after reviewing statewide data. The Secretary of Energy and Environmental Affairs reviews the recommendations and issues a press release declaring the appropriate level of drought.

# Drought Management Plan Elements

Must present an accepted 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; or a functionally equivalent method.
- Actions triggered at each drought stage;
- Protocols for communicating drought stages & actions to public & officials;
- Plan for local enforcement authority & penalties for violations;
- A system to monitor and document water use reductions

- Plans submitted by surface water suppliers such as the MWRA must meet MassDEP criteria
- Updated drought plans are due to MassDEP for review by April 2025

# Summary of Changes from Draft to Final

- **More details in the definition of Nonessential Outdoor Water Use**
  - Ballfield and Park Watering
    - including schools, colleges, universities and athletic associations
    - Hourly limits
  - Splash Pads
  - Street Trees
  - Marina
- **“Multi-Year Drought Storage” criteria for developing a system-specific analysis**
  - Needed Storage Volumes
  - Emergency Sources
- **Process for developing nonessential use restrictions based on accepted Drought Management Plan (DMP)**

- Accommodations were made for public parks including splash pads, playing fields, and street trees.
- No watering should be done between the hours of 9:00 a.m. to 5:00 p.m.

WSCAC member Bill Kiley asked if these regulations applied to private wells. Mr. LeVangie explained that they have no authority over private wells unless they are drawing over 100,000 gallons per day.

Ms. Dewey thanked Mr. LeVangie. See link below to view the presentation.

<https://www.mwra.com/monthly/wscac/2023/021423-WMARrevisions.pdf>

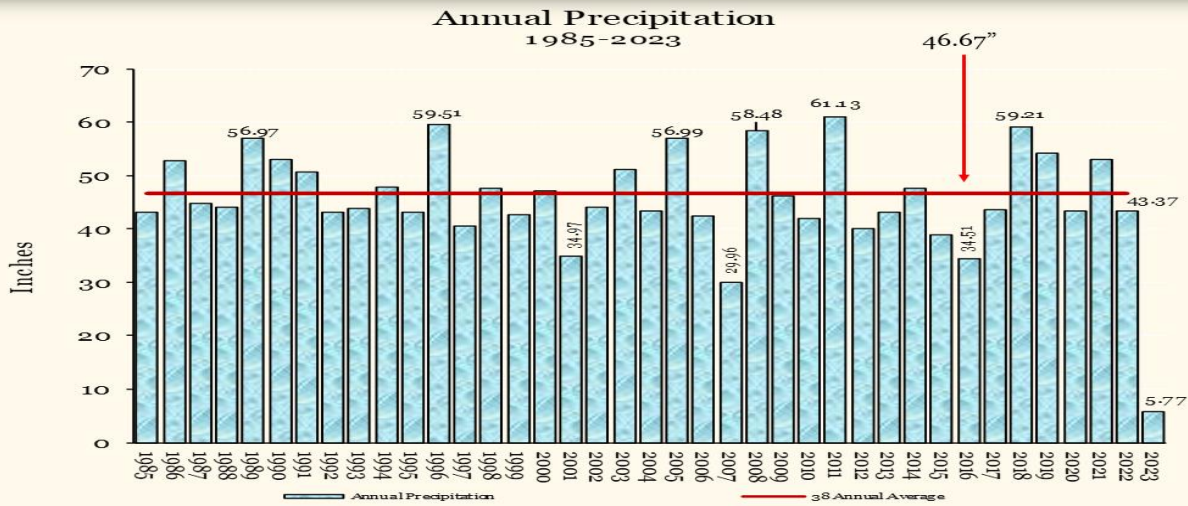
**Presentation-Update on Reservoir Management & Aquatic Invasive Control** - John Gregoire, Program Manager, Reservoir Operations & Matt Walsh, MWRA Project Engineer

Matt Walsh began by presenting a PowerPoint highlighting a number of areas including –

- Annual precipitation
- Annual yield
- Reservoir levels
- Daily release amounts
- Daily withdrawal amounts



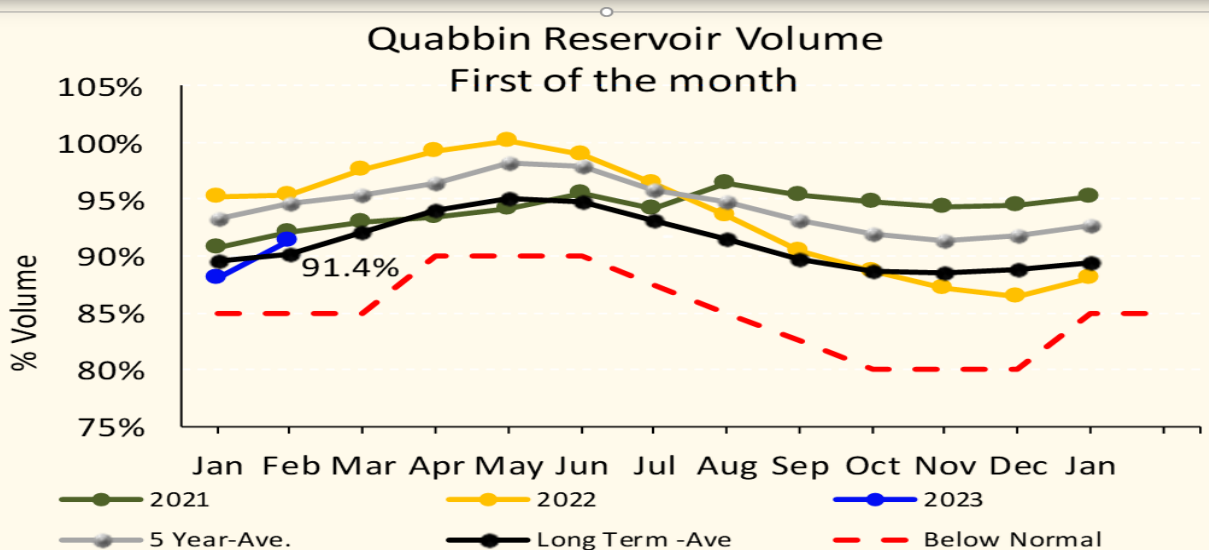
## Precipitation



- Last year was 3.3" below the long term average
- 2001, 2007, 2016 were the lowest years on record



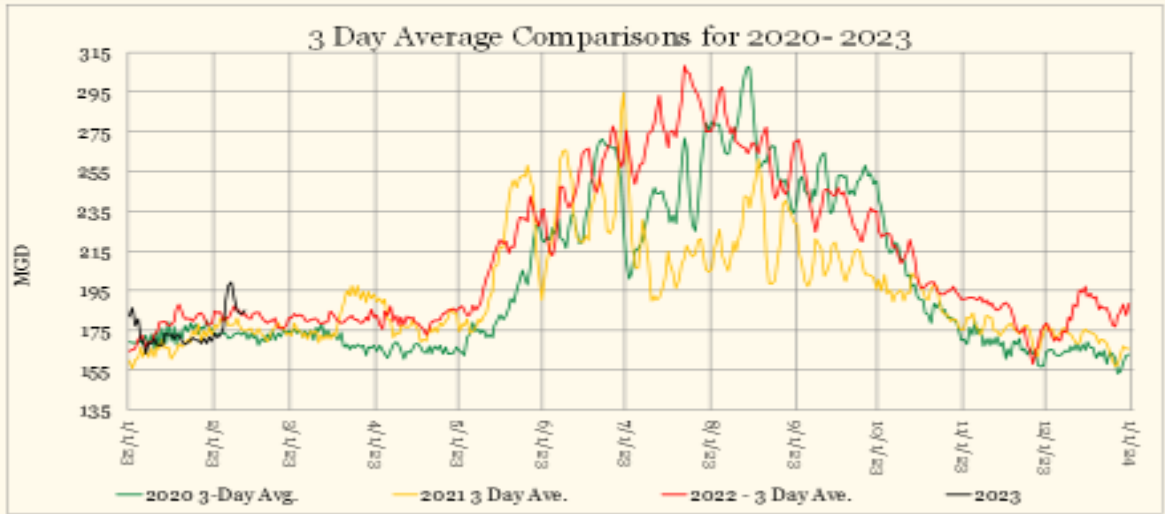
## Quabbin Reservoir



- As of February 14, the 2023 water level is below the five year average but above the long term average



## Daily Withdrawal

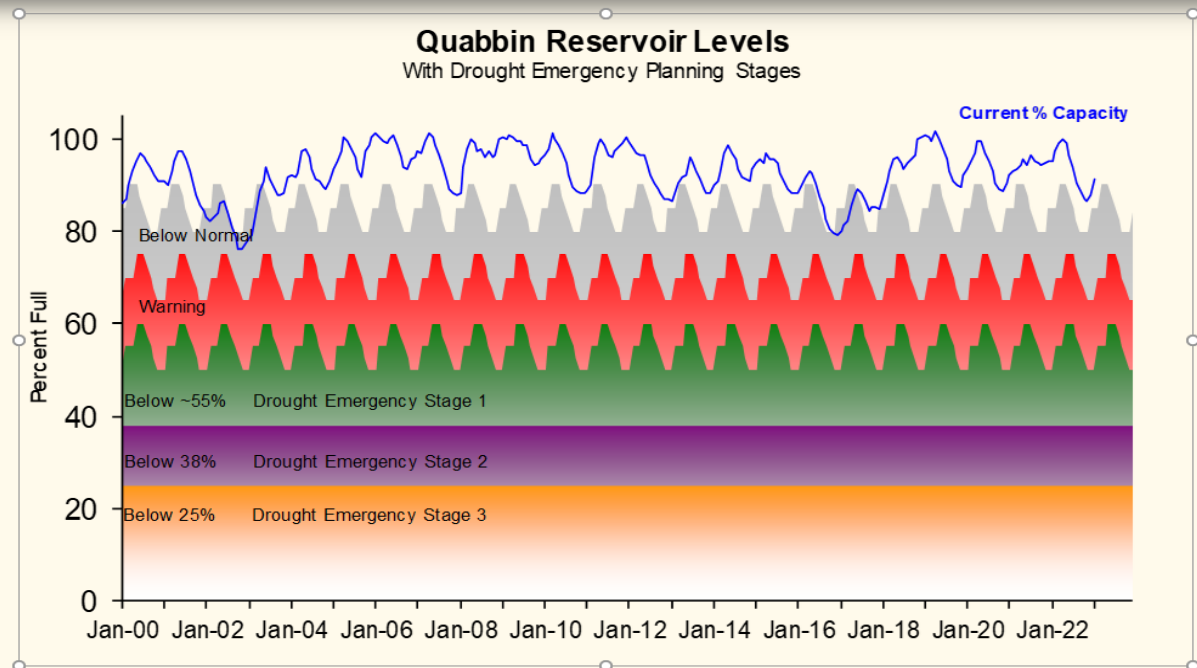


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The three day average comparison shows a large demand during a recent cold snap. Ms. Dewey asked why that would happen. Mr. Walsh explained that people let their faucets run to avoid frozen pipes and water breaks. This can explain the jump in usage.



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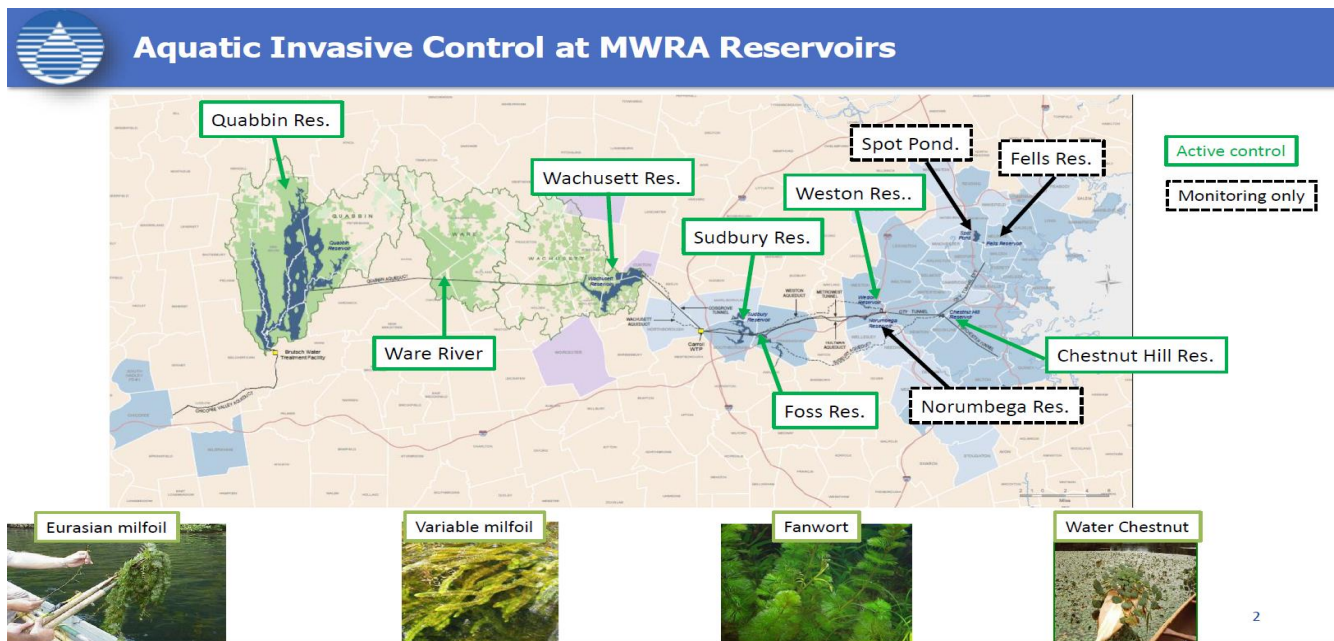


MWRA diverted from the Ware River for several days in December and in early January 2023. This is done annually to make sure the infrastructure is in good working order.

WSCAC member Bruce Spencer asked if the methods being used today include historical information. Mr. Estes-Smargiassi responded that historical information is analyzed.

Ms. Dewey thanked Mr. Walsh. See link below to view the presentation.  
<https://www.mwra.com/monthly/wscac/2023/021423-system-status.pdf>

John Gregoire presented a PowerPoint outlining the work being done to control the spread of aquatic invasives in DCR reservoirs. He noted that the four major invasive plants in the reservoirs, rivers and ponds are Eurasian and variable milfoil, fanwort and water chestnut. Annual removal via the DASH boat has been successful in removing large amounts of these plants.



- Locations where invasive plants are being controlled
- Four primary plants being dealt with – Eurasian and Variable milfoil, Fanwort and Water Chestnut





## Wachusett Reservoir: Most intensive efforts to date

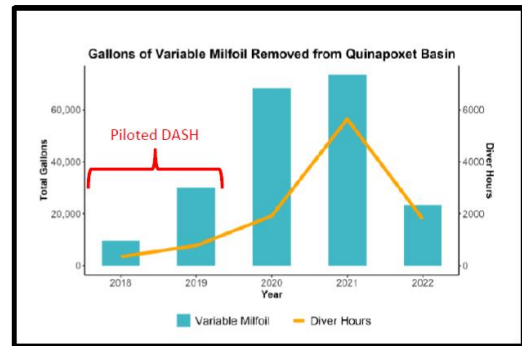
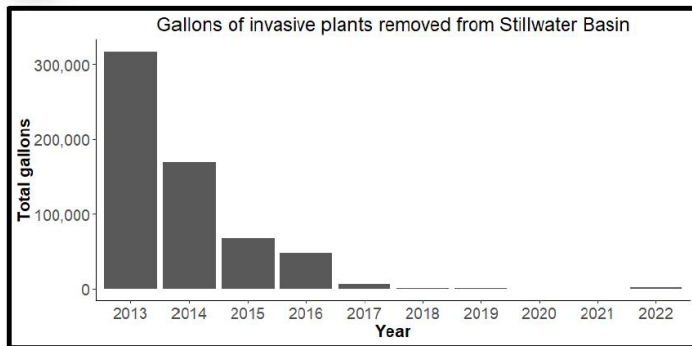


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- Annual DASH operations are used to clear invasive plants from various reservoir locations.



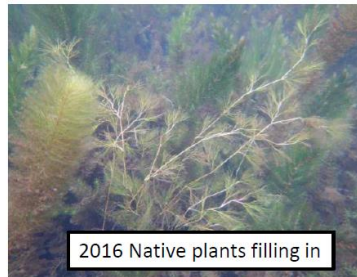
## Wachusett Reservoir Stillwater and Quini Basins DASH progress and return of native plants



Before DASH – Heavy EWM



Post-DASH removal



2016 Native plants filling in



2022 Abundant return of natives

WSCAC member Bruce Spencer asked if plastic sheets were ever put on the bottom to stop the invasive plant growth. Mr. Gregoire responded that a pilot program was started at Oakdale basin which included a few different options such as putting down a poly material to smother the plants. This worked at Oakdale but would not work on a larger scale. This material was not removed and plant life has begun to grow over the material.

Ms. Dewey requested an update on the Quinapoxet Dam removal project. The obsolete dam will be removed to restore fish passage in a natural river environment. The plan is to remove the structure and regrade the channel. Most of the permitting is complete. Final permitting and grant approval are pending before work can begin. The hope is to start construction in October 2023.

Mr. Gregoire was asked where the funding for this project will come from if grant money is not acquired. He explained that there is money in MWRA’s Capital Improvement Program if necessary.


WSCAC member Bruce Spencer noted that he is impressed with the work Mr. Gregoire has done regarding the invasives. Mr. Gregoire thanked him for his kind words and made note that it was all started with Dave Warden, former DCR Aquatic Biologist who has since passed away.

Ms. Dewey thanked Mr. Gregoire for the presentation. See link below to view the presentation.  
<https://www.mwra.com/monthly/wscac/2023/021423-invasives.pdf>

**MWRA Briefs**

Steven Estes-Smargiassi presented two PowerPoints, one which highlighted the 2022 Water Use Trends and Reservoir Status and the other which highlighted the Background on MWRA Drought Response Planning. A number of items were highlighted and discussed including the following:

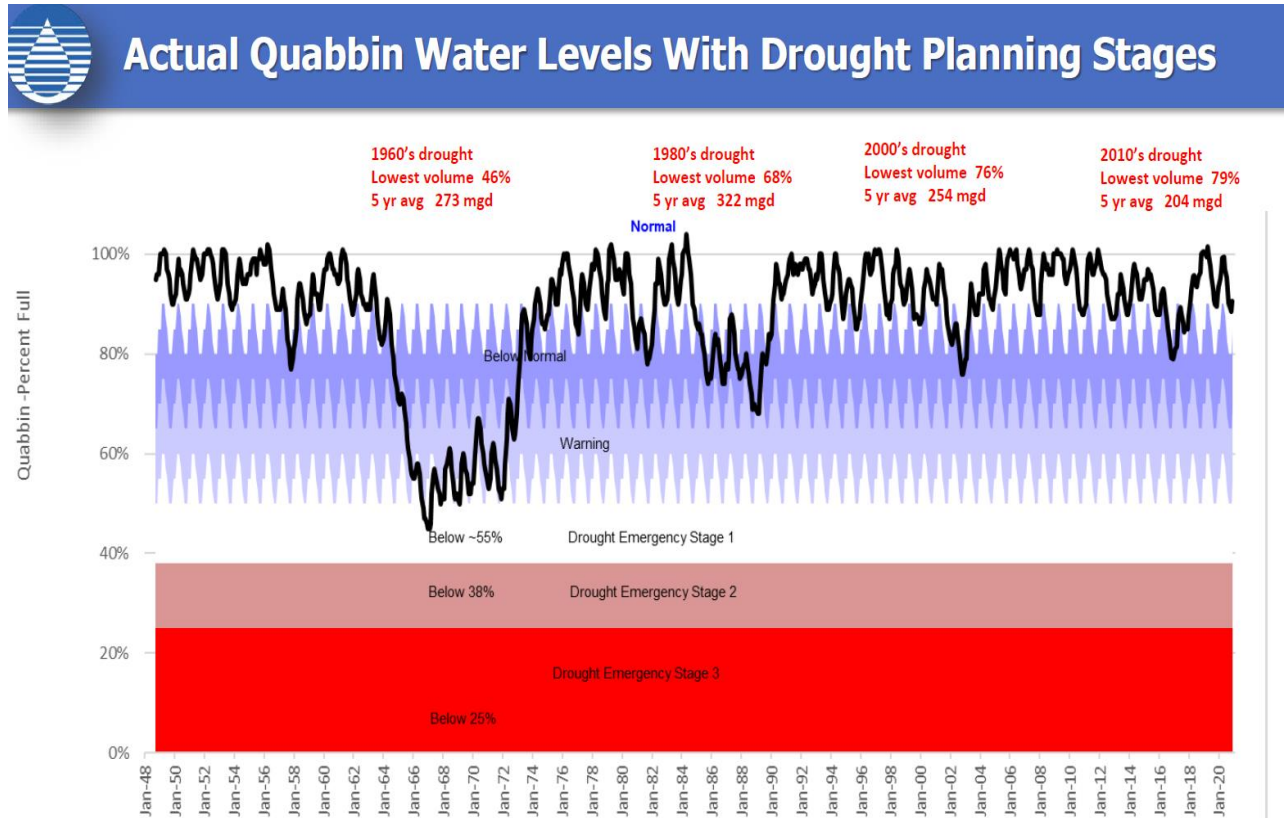
- Total consumption by MWRA communities from 1980 to present day
- Daily system demand usage from 2004 to present day
- Boston’s water usage from 1900 to present day
  - Usage is less today than it was back in 1900.
  - WSCAC member Bruce Spencer noted that when he started back in 1965, water rates did not cover operating costs and no improvements were made because the funding was not available. Pay as you go rate changed that.
- Indoor demand versus seasonal demand
  - Indoor base demand continues to drop
  - Approximately 15% of total water usage is used for outdoor watering. This is not true nationwide – there are areas where 50% of the water usage is used for outdoor watering.

 **1989 Drought Plan Demand Reduction Targets**

Stage	Trigger Range Quabbin Reservoir	Target Water Use Reduction
Normal Operation	80-100%	Regular Conservation, Coordinated w State
Below Normal	65-75%	More Aggressive Conservation Messages
Drought Warning	50-60%	5% (mostly voluntary)
Drought Emergency Stage 1	38-60%	10%
Drought Emergency Stage 2	25-38%	15%
Drought Emergency Stage 3	Below 25%	30%

Steve noted:

- If there is a state drought, communications are coordinated with state agencies
- Drought warning stage will most likely include water reductions/bans



- The only time the reservoir has dropped below warning was during the 1960's drought
- If the usage during that time was the same as it is today, (200 mgd), the reservoir would not have dropped into the warning stage

WSCAC member Bruce Spencer thanked Mr. Estes-Smargiassi for all his hard work.

WSCAC member Paul Lauenstein commented on the water rates and how they are structured. The rates are currently structured to put the onus on people who use the most water. Individuals who conserve water usage normally pay at a lower rate.

WSCAC member Whitney Beals asked if the data presented can be translated into gallons per person per day. Mr. Estes-Smargiassi said he would like to do that going back to the 1980's, unfortunately there were too many variables back then such as meters not being read to rely upon the data. On average, we are in the 50 gallon per person per day range which is very efficient compared to other parts of the country.

Ms. Dewey asked if the MWRA expects additional communities to request MWRA water due to contamination of public drinking water sources. Mr. Estes-Smargiassi noted that conservative contingency planning is in place for scenarios such as this.

Ms. Dewey thanked Mr. Estes-Smargiassi for the presentation which can be viewed at:

<https://www.mwra.com/monthly/wscac/2023/021423-drought.pdf>

A motion to adjourn was made by Janet Rothrock and seconded by Bruce Spencer. A roll call was taken and the meeting was adjourned at 1:20 p.m.

**THE NEXT VIRTUAL JOINT ADVISORY BOARD, WAC & WSCAC MEETING WILL BE  
HELD ON**

**Thursday, March 16, 2023 AT 10:00 A.M.**

**TOPIC: MWRA's proposed Fiscal Year 2024 Current Expense Budget & Capital Improvement  
Program**