

City of Portsmouth



Water Supply Update Portsmouth City Council September 6, 2016

Brian Goetz – Deputy Director of Public Works
Al Pratt – Water Resources Manager

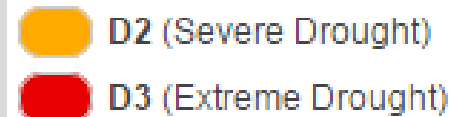
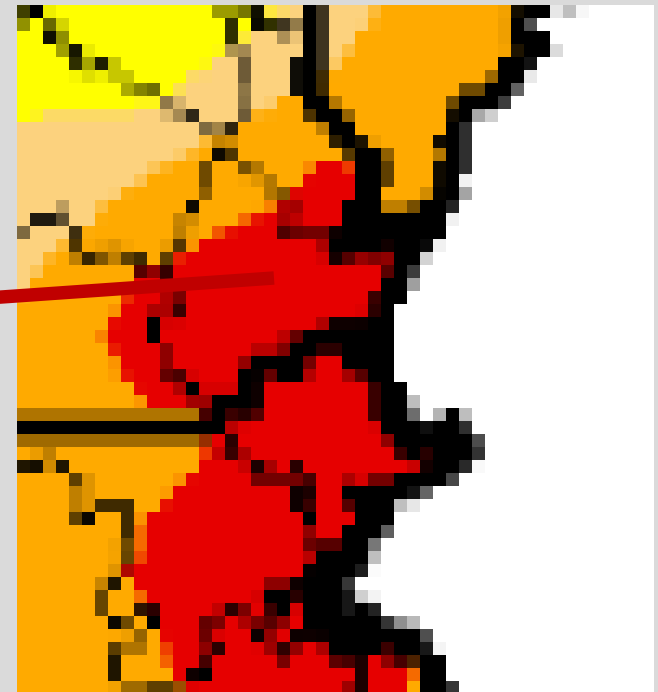
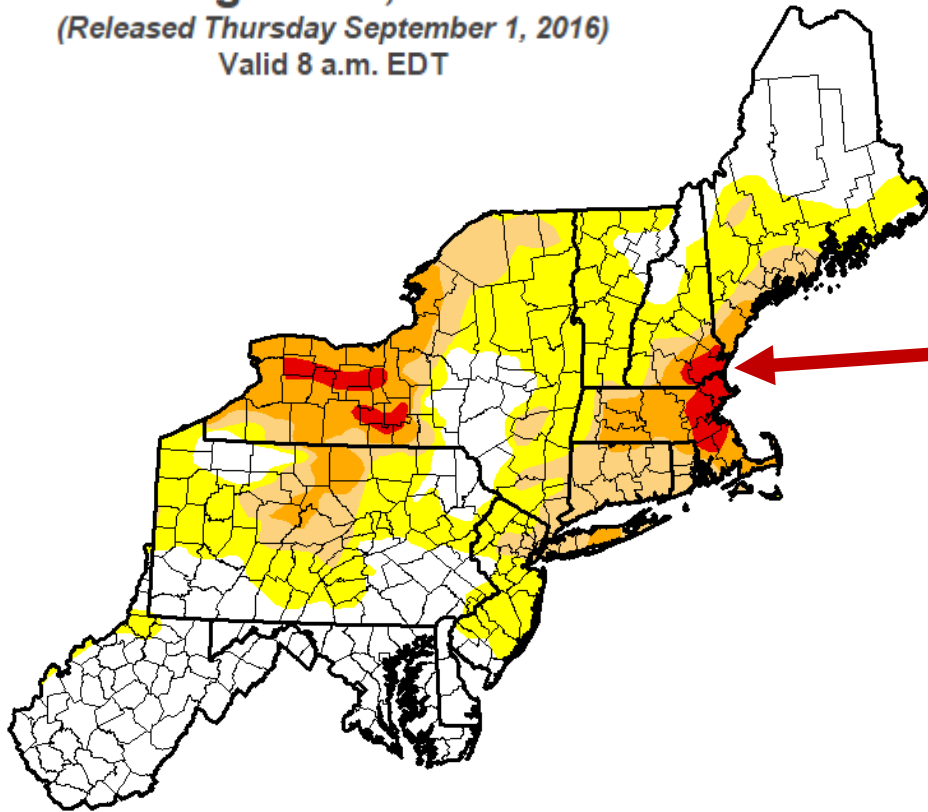
U.S. Drought Monitor

Northeast

August 30, 2016

(Released Thursday September 1, 2016)

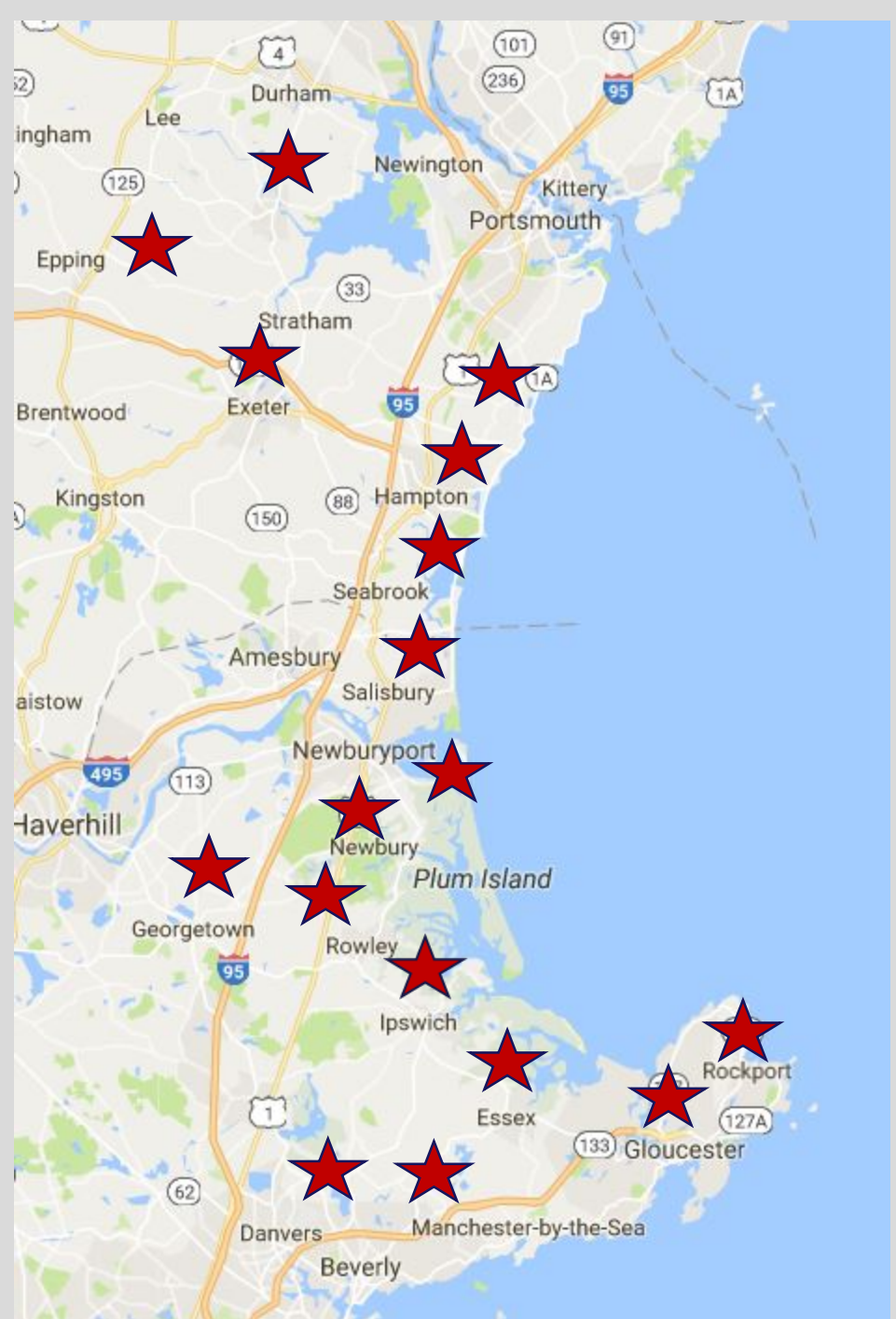
Valid 8 a.m. EDT



Severe/Extreme Drought Area Water Restrictions

as of September 6, 2016

- Danvers – Two days/week
- Manchester by the Sea – Hand-held
- Rockport – Hand-held only
- Gloucester – Hand-held only
- Essex – Hand-held only
- Ipswich – No outdoor use
- Rowley – No outdoor use
- Georgetown – No outdoor use
- Newbury – One day/week
- Newburyport – Hand-held only
- Salisbury – Odd/Even
- Seabrook – Hand-held only
- Hampton – Hand-held only
- North Hampton – Hand-held only
- Exeter – No outdoor use
- Epping – No outdoor use
- Newmarket – Two days/week

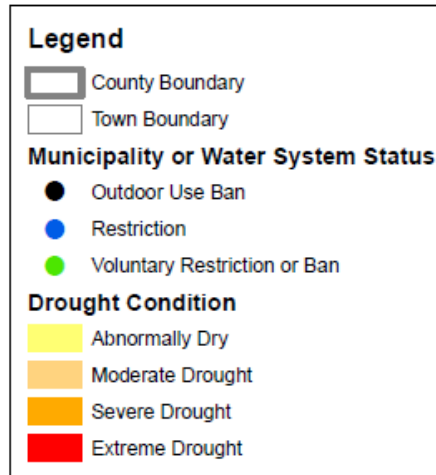


New Hampshire Water System Restrictions

as of September 1, 2016

Known Water Use Restrictions and Bans

Last Update: September 1, 2016

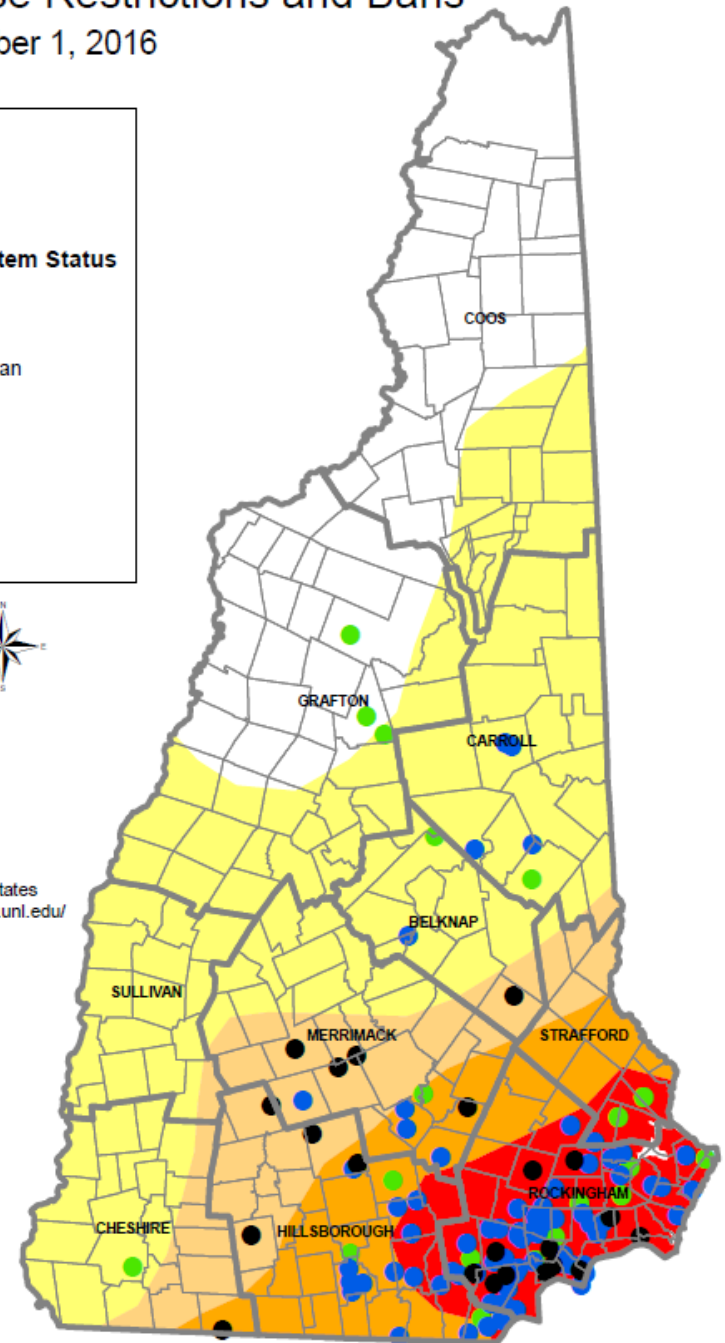


0 5 10 20
Miles



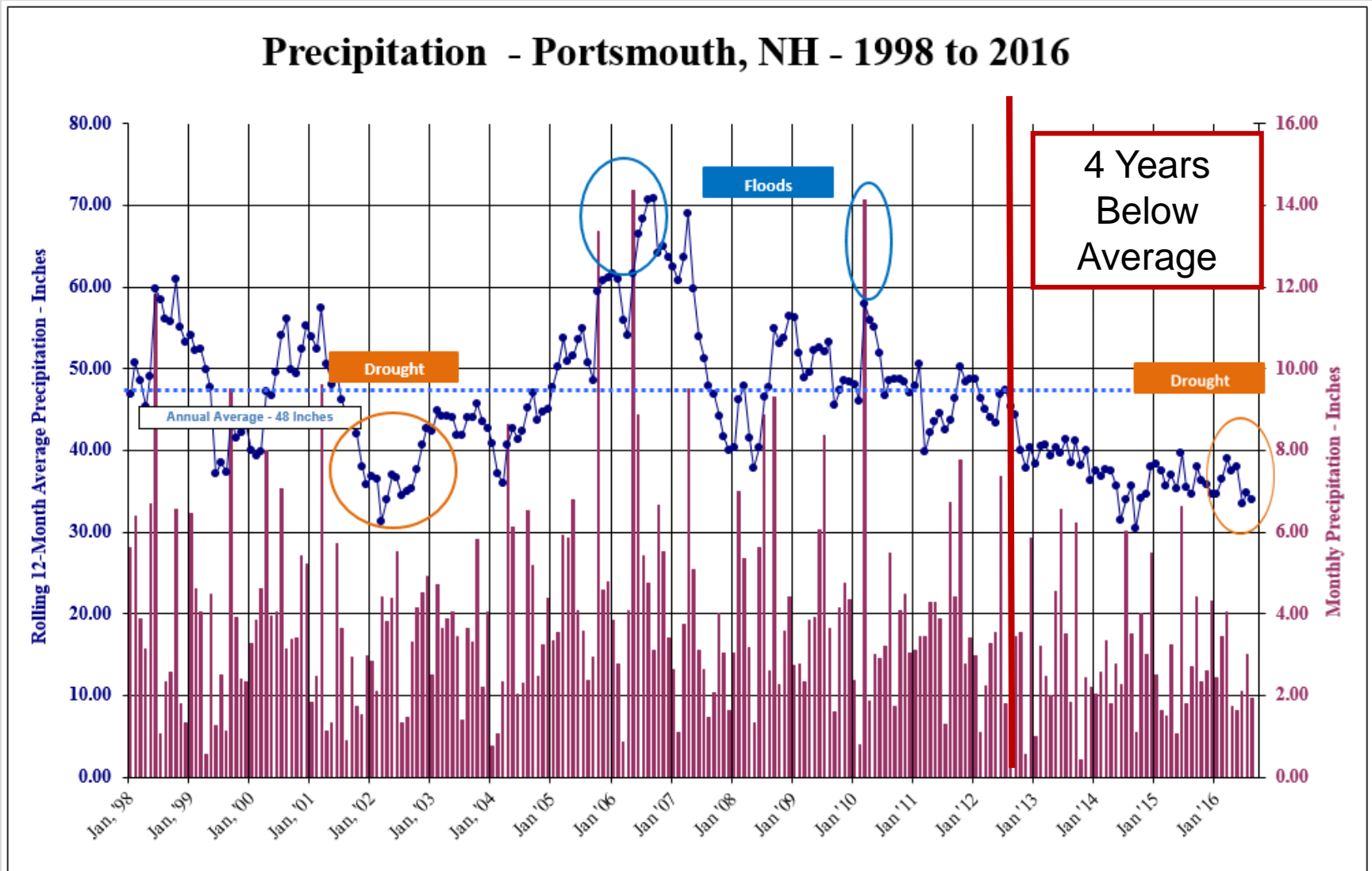
Drought Conditions based on United States Drought Monitor (<http://droughtmonitor.unl.edu/Home/StateDroughtMonitor.aspx?NH>)

Disclaimer: The status of water use restrictions and bans is based on information submitted to the New Hampshire Department of Environmental Services and may not be comprehensive.

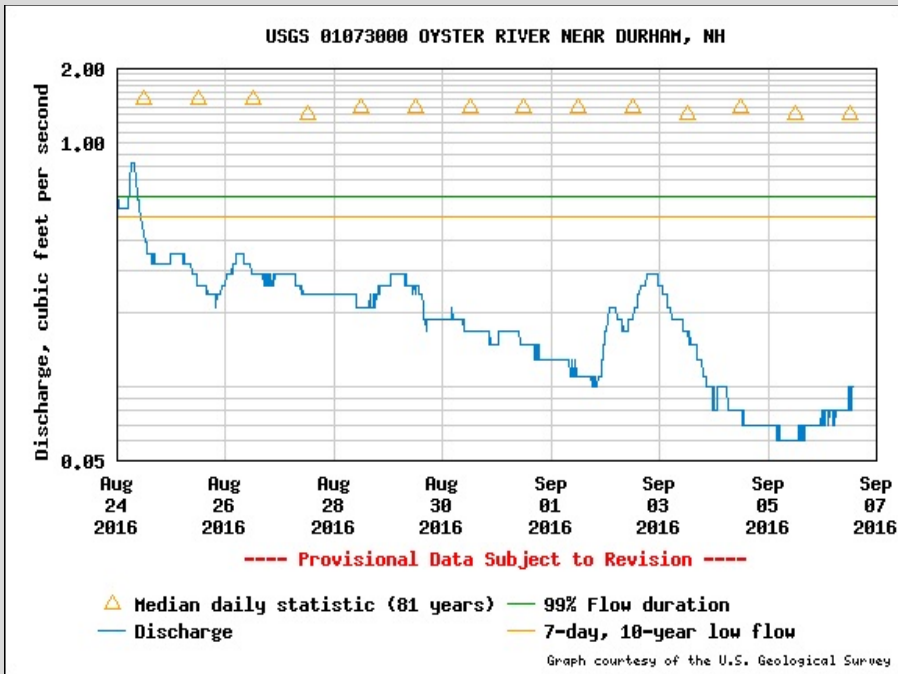


Precipitation History

Precipitation - Portsmouth, NH - 1998 to 2016



Bellamy Watershed Flow and Reservoir Level

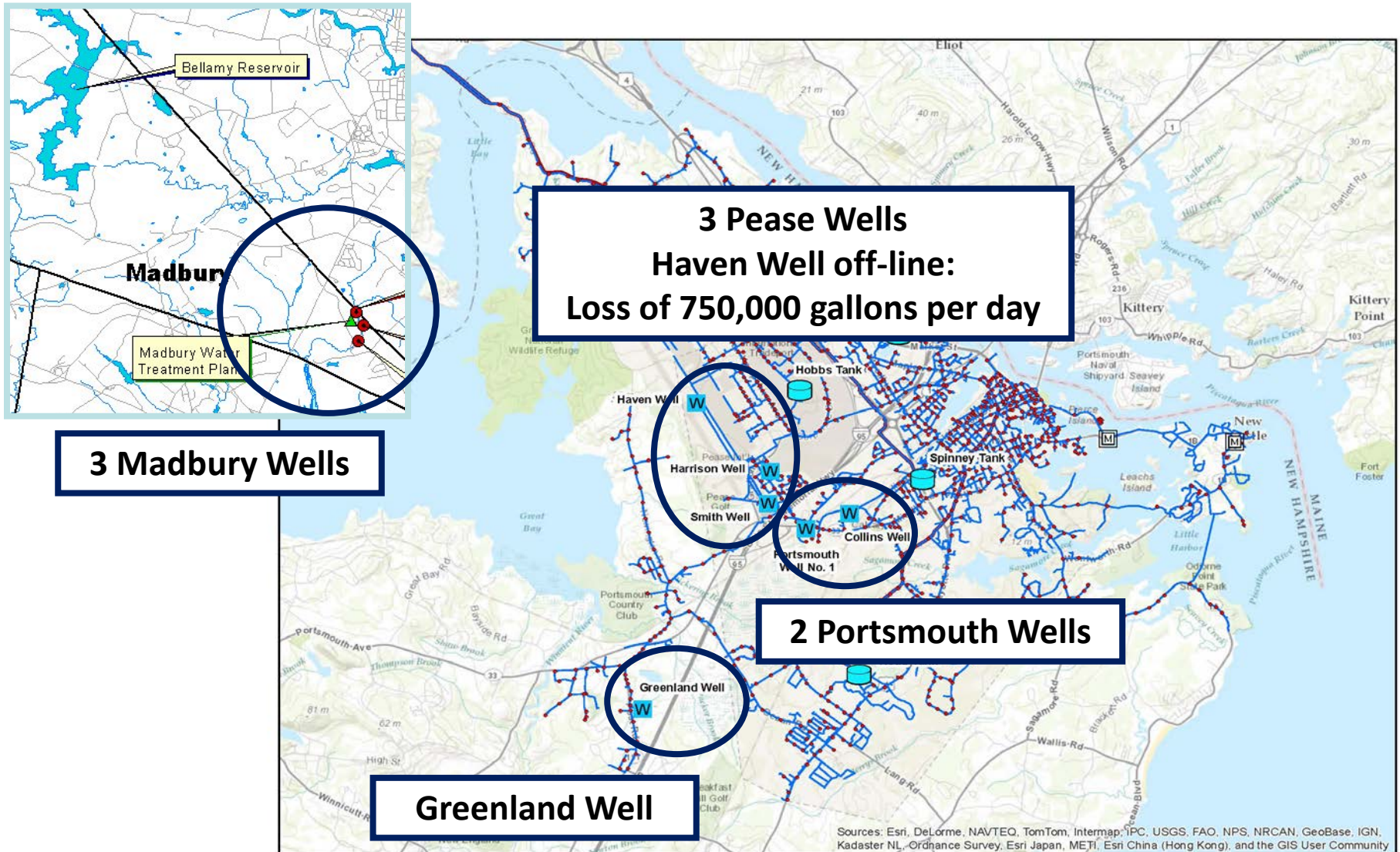


- Historic Low Flow in Rivers
- (81 years of record)

- Reservoir is down 3 feet from overflow
- Better than 2002 when it was 5 feet down
- Current withdrawal of 3 million gallons/day

9 Groundwater Sources

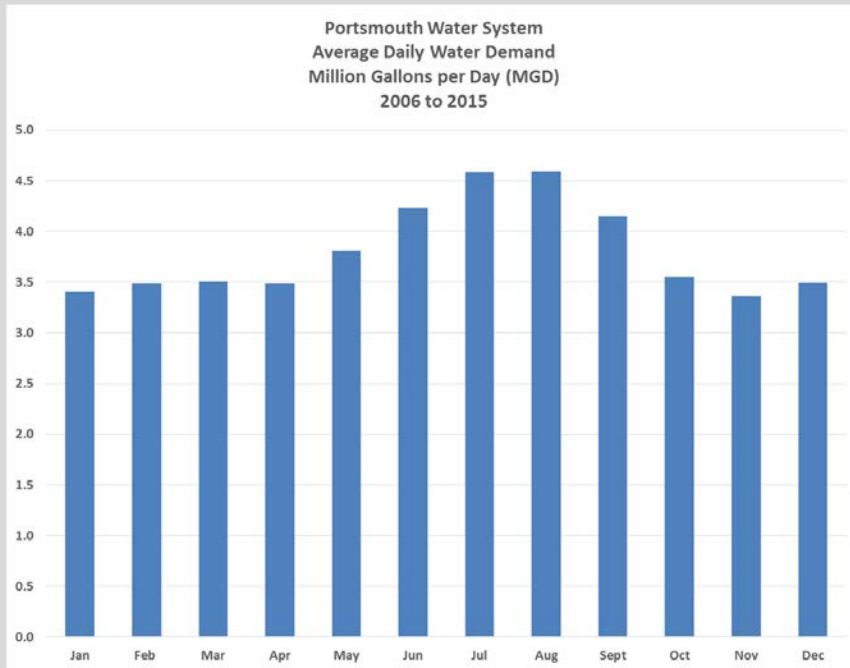
- Combined Capability of 3.5 million gallons/day



Current Water Supply Management and Contingencies

- Increase use of wells and tracking groundwater levels
- Decrease water from reservoir
 - Tracking reservoir levels and water quality
 - Warmer water - harder to treat
- Working with consultant to activate the new Madbury Well #5 as an emergency source of supply
 - 400 gallons/minute ~ 576,000 gallons/day
- Finalize Scope of Work for Test Well Program
 - Test well drilling this Fall/Winter
- Harrison and Smith Well Carbon Filters – End of September
- Haven Well Treatment Design and Construction (~ 2 years)

Water Demands



- July average – 6.1 Million Gallons per Day (MGD)
- August average – 5.7 MGD
- Labor Day weekend – 4.7 MGD
- Winter demand is 3.5 to 4.0 MGD

Water Efficiency Rebates

- \$100 rebate per low-flow toilet and \$150 per high-efficiency washing machine.
- Program introduced in December 2014
- As of September 1, 2016:
 - 366 toilet rebates issued (18/month)
 - 82 washing machine rebates issued (4/month)
- Initial analysis of water savings:
 - 30% reduction for toilets
 - 18% reduction for washing machines
- Portsmouth Housing Authority
 - 97 toilet rebates in April 2016
 - 17% reduction in usage (2,795 gallons/day = 3.73 units/day)

Water Supply Updates and Restriction Notices

City of
Portsmouth
Department of Public Works



August 16, 2016

Portsmouth Water Supply Status Report

Overview

The following Portsmouth Water Supply Status Report provides the Portsmouth Water customers an assessment of the current water supply conditions. This report is distributed routinely via the City of Portsmouth's website at: www.cityofportsmouth.com/publicworks - water

Odd/Even Water Use Restrictions

Customer Water Restrictions
N/A
None
Voluntary Measures
Odd/Even Watering
Two-Days per Week Watering
No Outdoor Use

Based on current supply and demand conditions, mandatory Odd/Even Water Restrictions are in effect:

- i. Restrict irrigation water use as follows:
- Odd-numbered days – Outdoor watering allowed between midnight and 10:00 AM;
 - Even-numbered days – No Outdoor watering allowed.

Water use restrictions are requested at this time due to the continued severe drought conditions on the Seacoast and water system demands that are higher than normal for this time of year. As the accompanying information shows, the recent weather conditions continue to be very dry. This has caused lower than typical reservoir levels, stream flow, and in some locations below average groundwater levels.

Additional information and tips regarding water efficiency can be accessed at the cityofportsmouth.com website or by calling the water/snow ban hotline at: 603-766-7669

- May 2015 – Dry Conditions
- June 27, 2016 – Voluntary Water Ban
- August 16, 2016 – Odd/Even Water Ban

Public Notice and Enforcement

City of
Portsmouth
Department of Public Works



August 30, 2016

Portsmouth Water Supply Status

Overview

The following Portsmouth Water Supply Status Report provides the assessment of the current water supply conditions. This report is available on the City of Portsmouth's website at: www.cityofportsmouth.com/publicworks-water

Odd/Even Water Use Restrictions

Customer Water Restrictions
N/A
None
Voluntary Measures
Odd/Even Watering
Two-Days per Week Watering
No Outdoor Use

Due to current supply and demand conditions, Water Use Restrictions began on August 16th; drought conditions persist, additional restrictions and a watering ban may be required.

Odd/Even Water Use Restriction requires as follows:

- Odd-numbered days – Outdoor watering from midnight and 10:00 AM;
- Even-numbered days – No Outdoor watering.

Water use restrictions are requested at this time due to drought conditions on the Seacoast. As the report shows, the recent weather conditions continue to cause lower than typical reservoir levels, stream and groundwater levels.

Compliance with this water use restriction is required. Warning notifications and fines of \$100 per violation.

Additional updates and tips regarding water efficiency are available on the cityofportsmouth.com website or by calling them at: 603-766-7669.

CITY OF PORTSMOUTH



PRESS RELEASE

FOR IMMEDIATE RELEASE

August 16, 2016

Portsmouth Water Division Enforces Water Restrictions

PORTSMOUTH, NH – Due to ongoing dry conditions, the Department of Public Works – Water Division will now be restricting irrigation use. The Water Division is requesting customers refrain from outdoor watering on even-numbered days, and to only water lawns and gardens on odd-numbered days from midnight to 10:00 a.m. (see attached Water Use Restriction sign).

"According to data tracked by the City's water operations staff, river levels are very low for this time of year and the reservoir is also lower than normal," states Brian Goetz, Deputy Director of Public Works. "This is an issue that has grown beyond the Seacoast. The entire state is now experiencing exceptionally dry to severely dry water conditions, according to New Hampshire's Department of Environmental Services. While we have experienced recent rain events, the amount will need to be substantial in order to recover from drought conditions. In turn, it is very important that our customers take this seriously and cooperate in being efficient with their water use." City staff will continue to monitor these conditions, but it is likely these measures will be in effect until substantial rainfall occurs and the Seacoast recovers from the current severe drought conditions.

Customers can read the full Water Supply Status Report and details behind the current status at www.cityofportsmouth.com/publicworks (click on "water"), and view current State conditions at <http://tinyurl.com/nhwatereban>. For more information, please contact Brian Goetz, Deputy Director of Public Works at 766-1420.



Public Notice and Enforcement

- Press Releases
- News Articles and Interviews with television stations
- 4 variable message boards (we move them to new locations each week)
- 8 fixed road signs (where Snow Ban signs were located)
- Water Ban Update Message: 766-7669
- City Website postings - Postings are also on Greenland, New Castle and Newington's webpages
- Staff out on even days posting customers not complying with restrictions
- Letters to irrigation customers that show metered water use on even days

News Coverage

Seacoastonline.com

By Austin McGuigan
news@seacoastonline.com
August 18, 2016 11:06AM

Print Page

Extreme drought expanding across Northeast

PORTSMOUTH – A drought affecting much of southeastern New Hampshire this summer is worsening.

According to the National Drought Mitigation Center, parts of Rockingham and Hillsborough counties are the most at risk for an extreme drought. Surrounding counties are still being classified as severe.

If the region doesn't see appreciable rainfall, the drought could be upgraded to an exceptional drought, the worst of the five drought classifications.

Southern New Hampshire residents haven't seen a drought like this in the last 15 years.

The U.S. Drought Monitor's latest assessment shows about 57 percent of the Northeast is in drought, down from 60 percent last week. The monitor is a collaboration of federal agencies and the University of Nebraska's National Drought Mitigation Center

The monitor expanded its extreme drought classification across most of northeastern Massachusetts and into southern New Hampshire. Two areas of New York, from the Buffalo area east to the Finger Lakes, and a portion of the state's Southern Tier, are also in extreme drought.

Extreme is the fourth worst of five drought categories.



Electronic signs around the city, like this one on Grafton Drive at Peace International Tradeport, remind Portsmouth water district customers of mandatory restrictions banning people from watering their lawns on even numbered days. Photo by Rich Beauchesne/Seacoastonline

By Cherise Leclerc
By Hayley LaPoint

Extreme drought declared for part of southern New Hampshire

Governor requests drought declarations

UPDATED 10:49 PM EDT Aug 18, 2016

Text Size: A A



47 minutes 14 seconds ago



Water bans on the seacoast as NH drought continues

NHI NEW HAMPSHIRE IN EVERY WAY

Concord, NH

71°

Nashua, NH

74°

NEWS WEATHER POLITICS SPORTS VIDEO

FIND NH1 ABOUT US



Water bans on the seacoast as NH drought continues

No Lawn Watering

- Effective September 8, 2016
- Hand-held watering of vegetable gardens, perennial flowers and nurseries allowed
- Golf course watering of Tees and greens. No fairways or rough.
- Bulk water for vector trucks and street cleaning equipment

May 12, 2006 – Mother's Day Storm (14 inches of rain in May '06)

