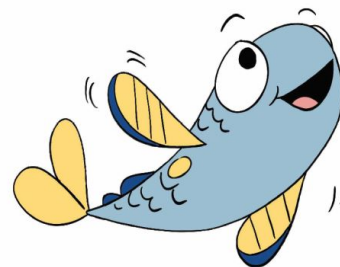

City of
Portsmouth
Department of Public Works



September 1, 2021
Portsmouth Water Supply Status Report



THINK BLUE!

The City of Portsmouth Water and Planning Departments have joined Strawberry Banke to create a major new exhibit, funded in part by the Roger A. and Theresa S. Thompson Foundation. “Water Has a Memory: Preserving Strawberry Banke and Portsmouth from Sea Level Rise” is a major contribution to the effort to educate the public about the damage already being done to the historic landscapes of the Northeast – specifically the Seacoast – from the consequences of sea level rise. The new exhibit tells that story over time, introduces the City’s “Think Blue” suggestions for ways individuals can make a difference in mitigating the effects, including water efficiency measures they can take.

Water operations staff are continuously assessing our supply conditions and will provide additional updates as needed. Please check our City’s website for the latest Water Supply Status Report:

www.cityofportsmouth.com/publicworks/water/supply-status

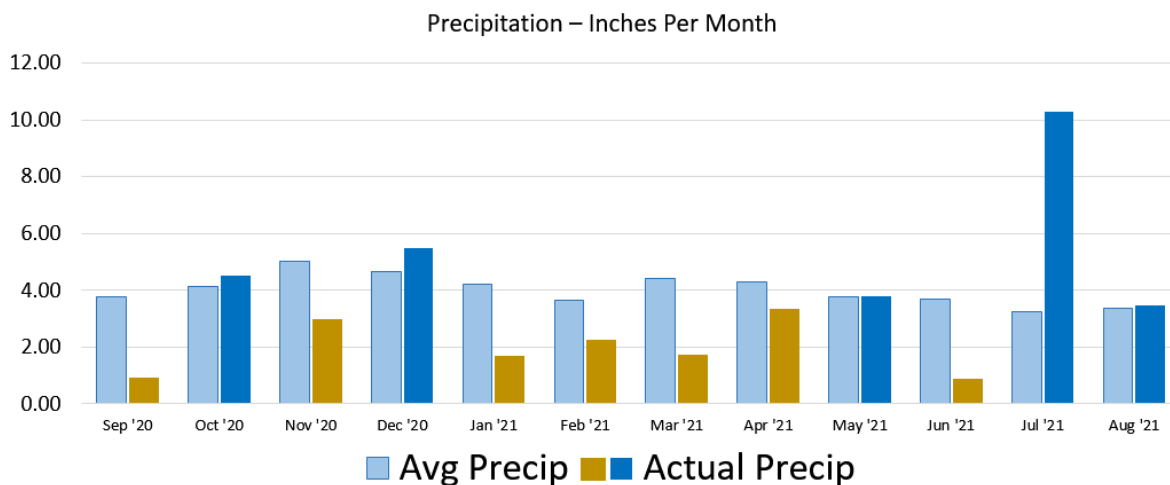
PRECIPITATION TREND

Rainfall events in July and August have improved water supply conditions considerably since their low point at the end of June 2021, when we were experiencing very dry weather. Rainfall the past two months has totaled almost 14 inches. Continued wet weather as a result of Hurricane Ida is anticipated over the next day or two. The following graphic shows the past twelve month history for precipitation:

Last 12 Months of Precipitation

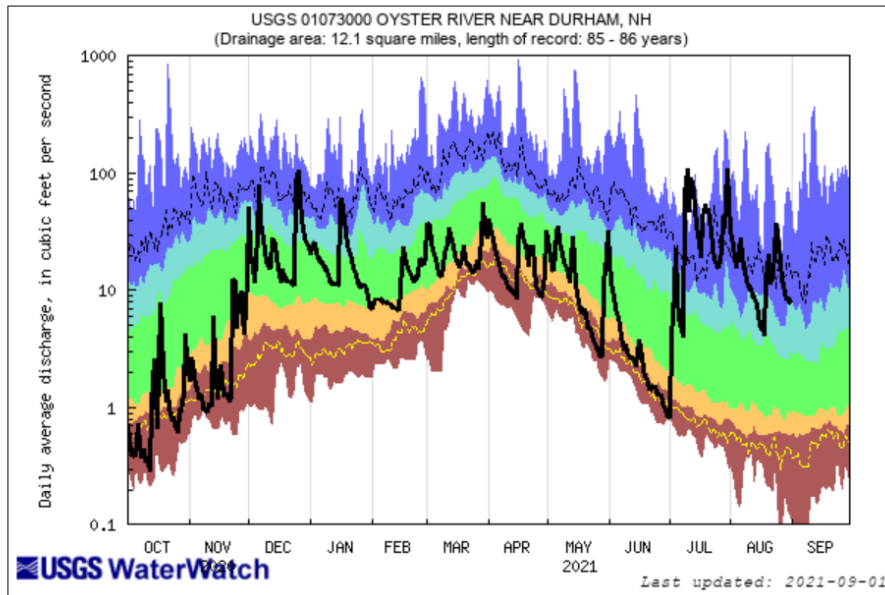
5 months at or above normal

7 month below normal



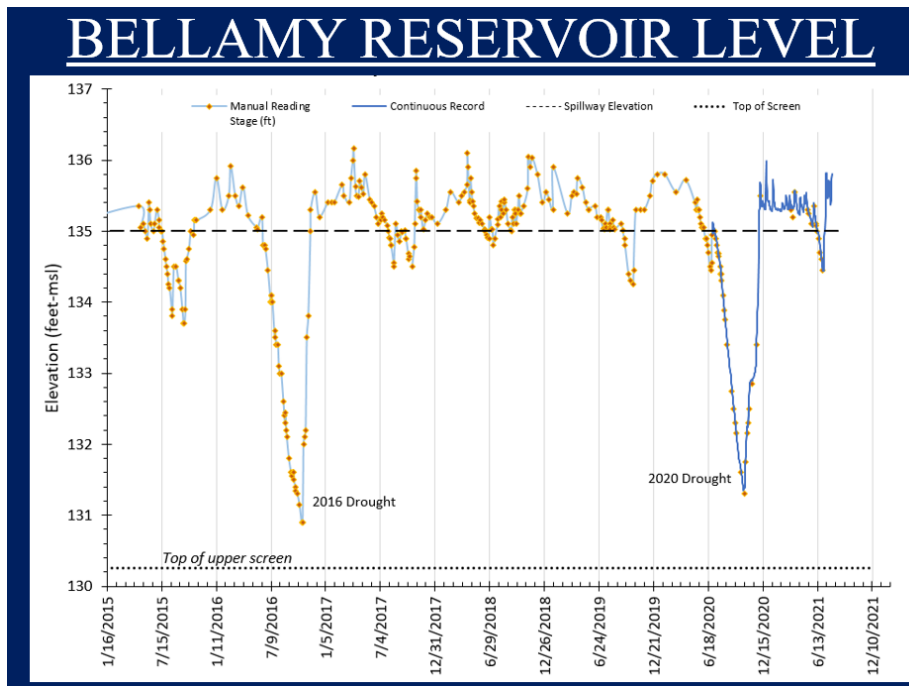
RIVER FLOW AND RESERVOIR LEVEL

Portsmouth Water System operators track the USGS stream flow gauges in the Oyster River and Lamprey River to assess flow conditions. These gauged watersheds are used to assess the relative recharge to the Bellamy Reservoir through its tributaries, the Bellamy River and Mallego Brook. The recent rains helped the reservoir recover from the dry conditions earlier this year. Water is currently flowing over the reservoir's spillway. The following graphs show how the river flow went from historic low levels in late June to near record flows after the rainfall in July. The second graphic has water level history at the Bellamy Reservoir water supply intake. It shows how low the reservoir was during the 2016 and 2020 droughts along with how it was trending that way in 2021 as well. However, with the rainfall in July and August it is now a foot above the spillway:



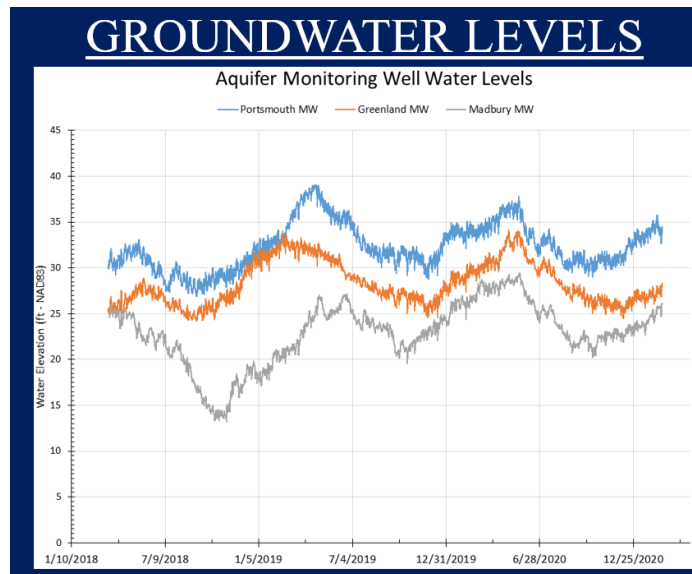
Explanation - Percentile classes

lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile-highest	Flow
Much below Normal		Below normal	Normal	Above normal		Much above normal	



GROUNDWATER LEVELS AND SUPPLY CAPABILITY

The integrated management of our water system allows our system operators the potential to utilize surface water when that source is of sufficient quantity and quality. The following graphic shows the groundwater level trends for our major aquifer zones since 2018. By utilizing and maximizing our surface water source of supply we have successfully kept the groundwater levels above their historic average, which has allowed us the ability to utilize them more when needed.



REACTIVATION OF THE HAVEN WELL



The Haven Well, one of three wells that serve the Pease Tradeport water system, was returned to service on August 3, 2021. This follows seven years of extensive work to respond to the high levels of PFAS detected in the well in May 2014. The Air Force identified releases of firefighting foam from previous use and took action in 2014 to identify drinking water wells that had the contaminants above EPA's provisional health advisory levels. The well was immediately shut down at that time. Subsequently, an aquifer treatment system was installed by the Air Force and has been in operation since 2019. The City, through agreements with the Air Force, piloted, designed and installed a water treatment system at Pease to remove the PFAS. After two years of construction, the facility was completed in April 2021. Following extensive testing of the system and the Haven

Well, the New Hampshire Department of Environmental Services approved the reactivation of the well and it was put back into service. Extensive performance testing of the well and the system will continue. This well is one of the largest water supply sources in the water system and is capable of delivering nearly 770,000 gallons of water a day.

WATER DEMAND

The wetter cycle we are in right now has helped reduce water demands in July and August. Therefore, with the end of summer upon us, we do not expect the need for any water restrictions.

WATER QUALITY

Portsmouth Water Division routinely monitors water quality parameters and performs water quality sampling and analysis as directed by the Federal Safe Drinking Water Act and the New Hampshire Department of Environmental Services. Water sources are monitored for radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. Critical water treatment parameters for turbidity, pH, chlorine, orthophosphate and fluoride are continually monitored and tracked by our system operators. The regulations require us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are reported, along with the year in which the sample was taken. Annual Water Quality Reports for both water systems detail these efforts. The reports for 2020 were recently mailed to each water system customer. They are also available at:

cityofportsmouth.com/publicworks/water/drinking-water-quality

The heavy rainfall events in July caused the reservoir to get stirred up a bit, which prompted system operators to reduce our withdrawals from that source of supply and increase water supplied by our wells. This is all part of the city's integrated water resource management strategy. Fortunately, due to past operational adjustments in the system, there has been ample groundwater to make up for the reduction of surface water supply. We anticipate turning up the surface water treatment facility's flow once the reservoir settles back down, which we anticipate will occur sometime in October.

SAFE WATER ADVISORY GROUP

The City Council voted on October 5, 2020 to create a Safe Water Advisory Group. This group meets to gather advisory input from local stakeholders, scientists and activists focused on the PFAS (Per- and Polyfluoroalkyl Substances) contamination that has impacted the City of Portsmouth with legislative, health advisory and fiscal changes. The next meeting will be held on September 1, 2021. Additional information, meeting schedules and archives can be found on the City's webpage at:

www.cityofportsmouth.com/citycouncil/safe-water-advisory-group