Heavy rain has helped N.J., but 2 major reservoirs continue to struggle

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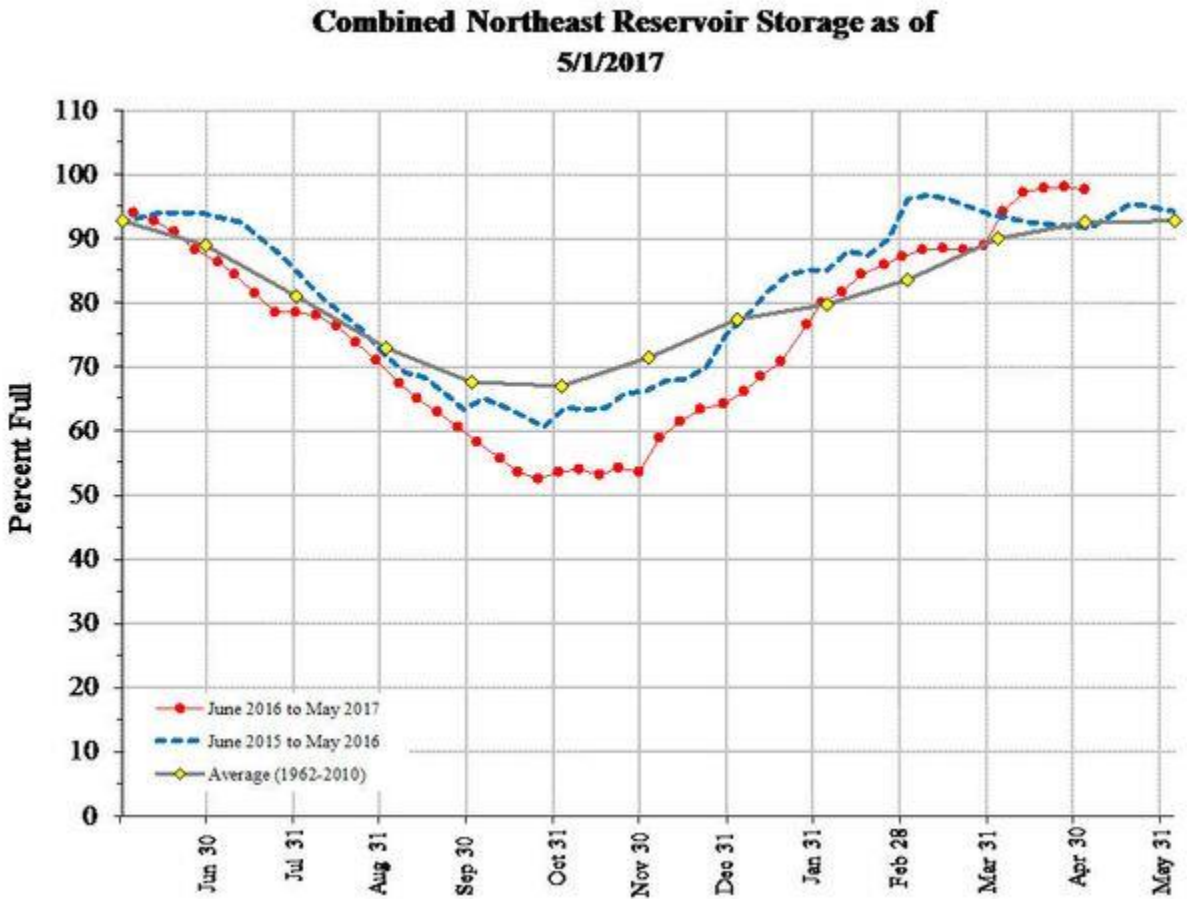
New Jersey's largest reservoir, Round Valley in Hunterdon County, fell to its lowest capacity on record in November 2016 and is still struggling to return to normal levels today. (2016 photo by New Jersey Highlands Coalition)

By Len Melisurgo | NJ Advance Media for NJ.com

All the heavy rain that fell in the Garden State in April and early May, coupled with the melted snow from a series of winter storms in February and March, has replenished most of the reservoirs that provide drinking water in northern New Jersey. However, two major reservoirs in central New Jersey are struggling to reach their full capacity, and a drought warning remains in effect in parts of that region.

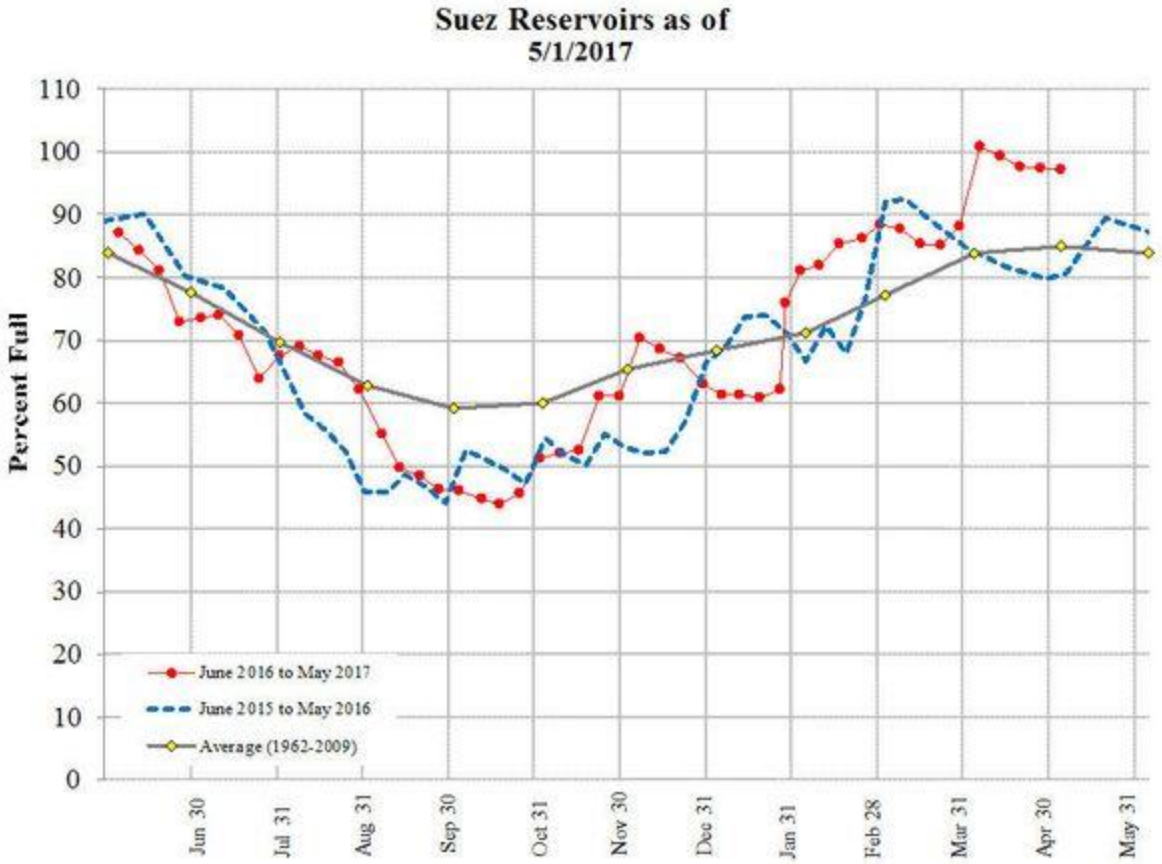
Officials who oversee the large, manmade Round Valley and Spruce Run reservoirs — both located in western Hunterdon County — say there's no shortage of water for their 1.5 million customers, but they would like to see the storage levels go up to normal volumes before the high-usage summer season starts.

Here's a look at the latest storage levels at reservoirs across the state. Data was provided by the New Jersey Department of Environmental Protection and the New Jersey Water Supply Authority.



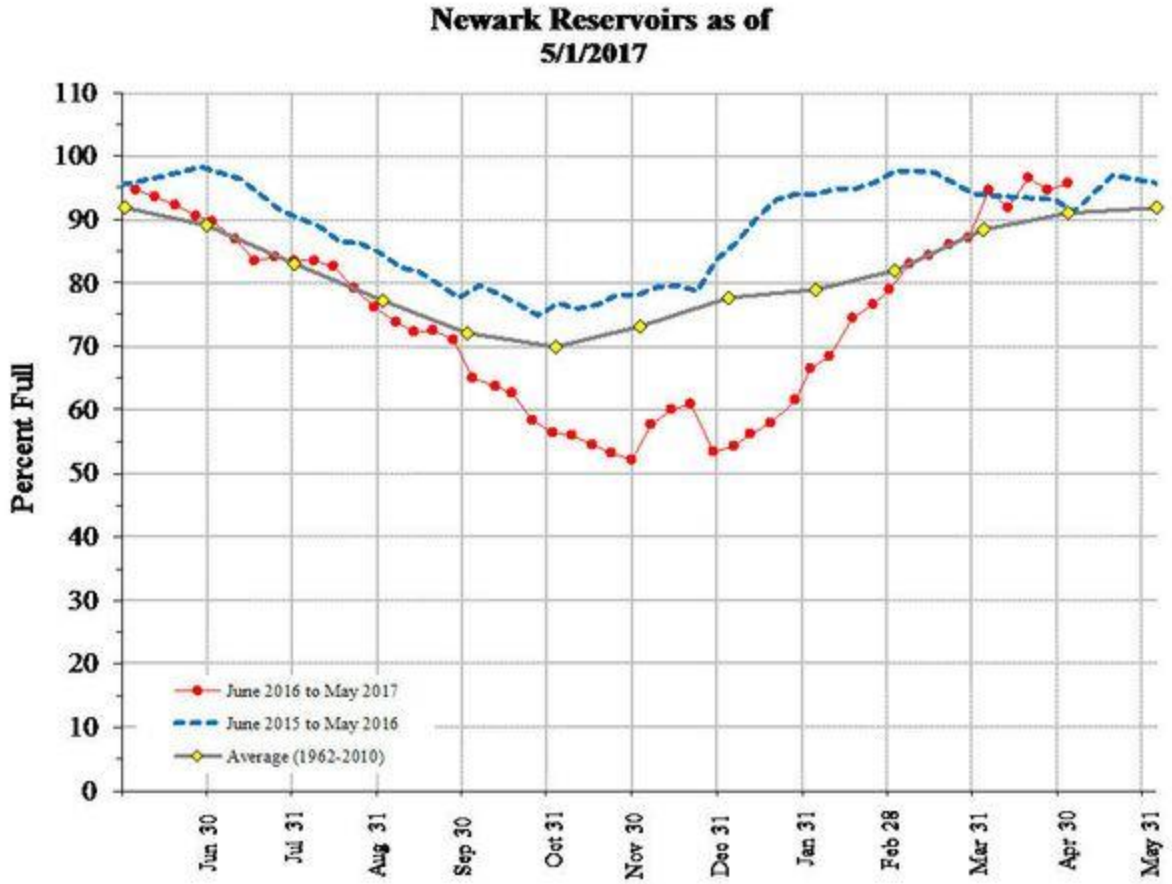
Combined reservoir storage

The combined storage of reservoirs in the northeastern region of the state was reported at 97 percent of their full capacity on May 1. This represents the total of 12 separate reservoirs, with a combined capacity of 70.6 billion gallons of water. These reservoirs are owned and operated by four major water suppliers, listed in the four charts below.



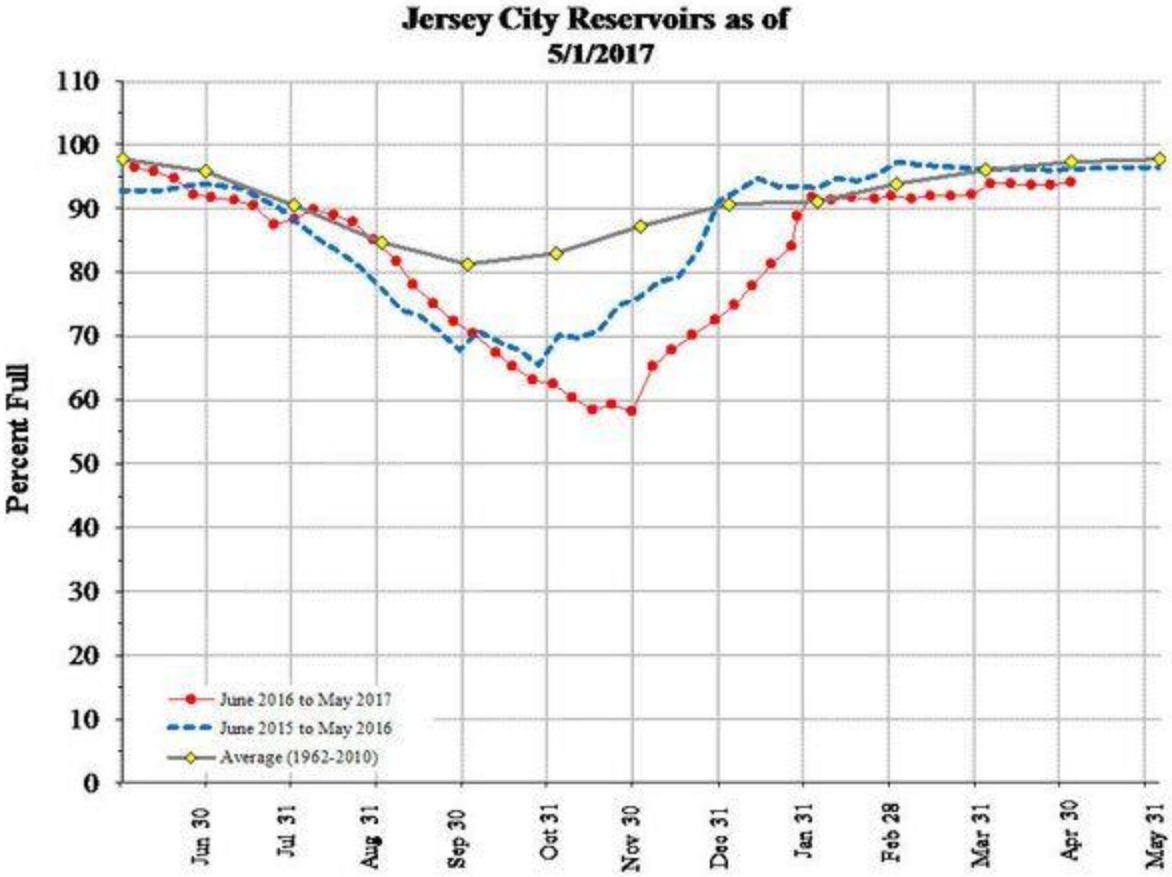
Suez reservoirs

Three reservoirs in Bergen County owned and operated by Suez-NJ — formerly called United Water New Jersey — were listed at about 97 percent of their full capacity on May 1. These reservoirs have a combined capacity of 8.2 billion gallons of water.



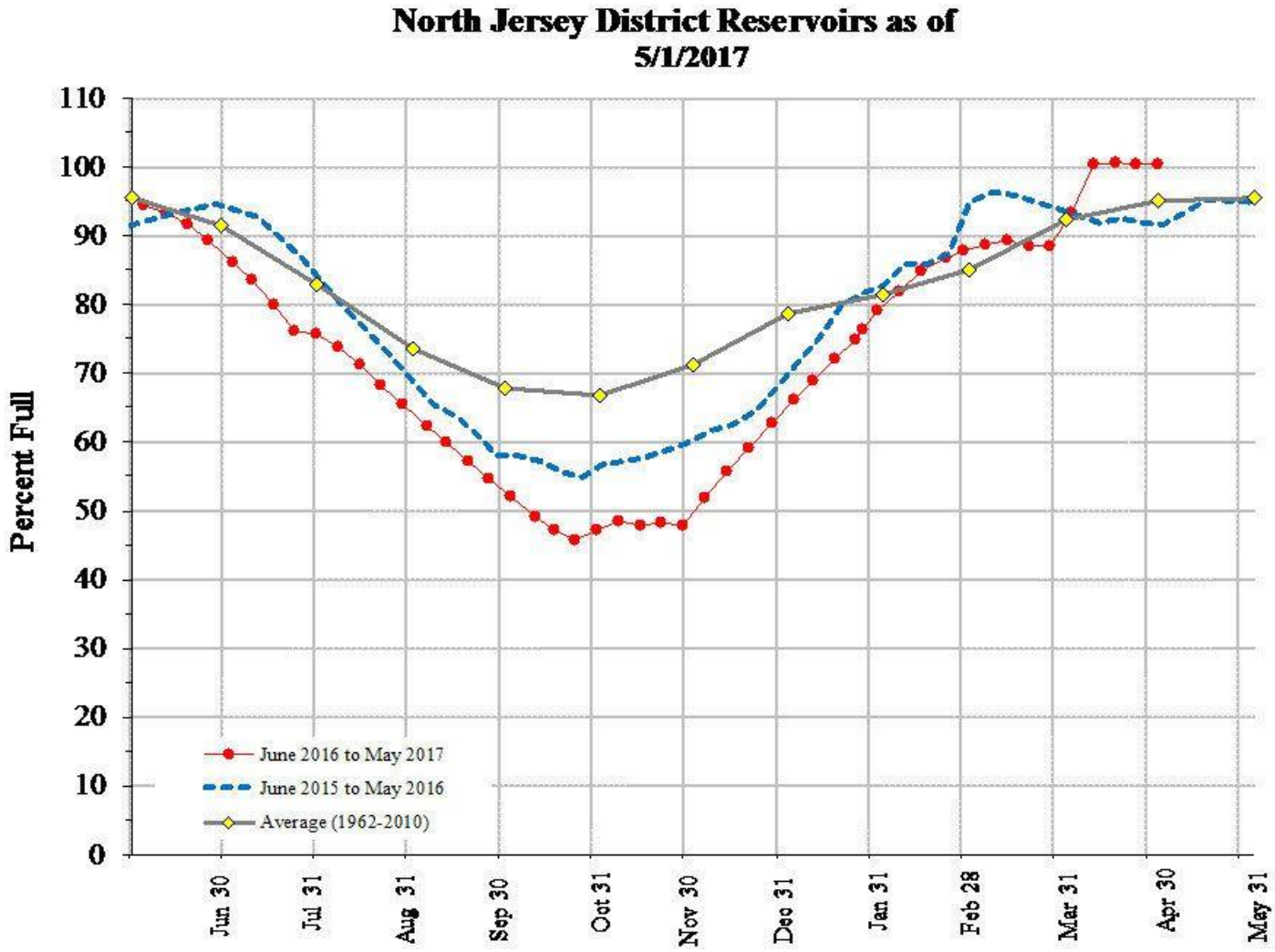
Newark reservoirs

Five reservoirs owned by the Newark Water Department in Essex County were listed at about 95 percent of their full capacity on May 1. These reservoirs have a combined capacity of 14.4 billion gallons of water.



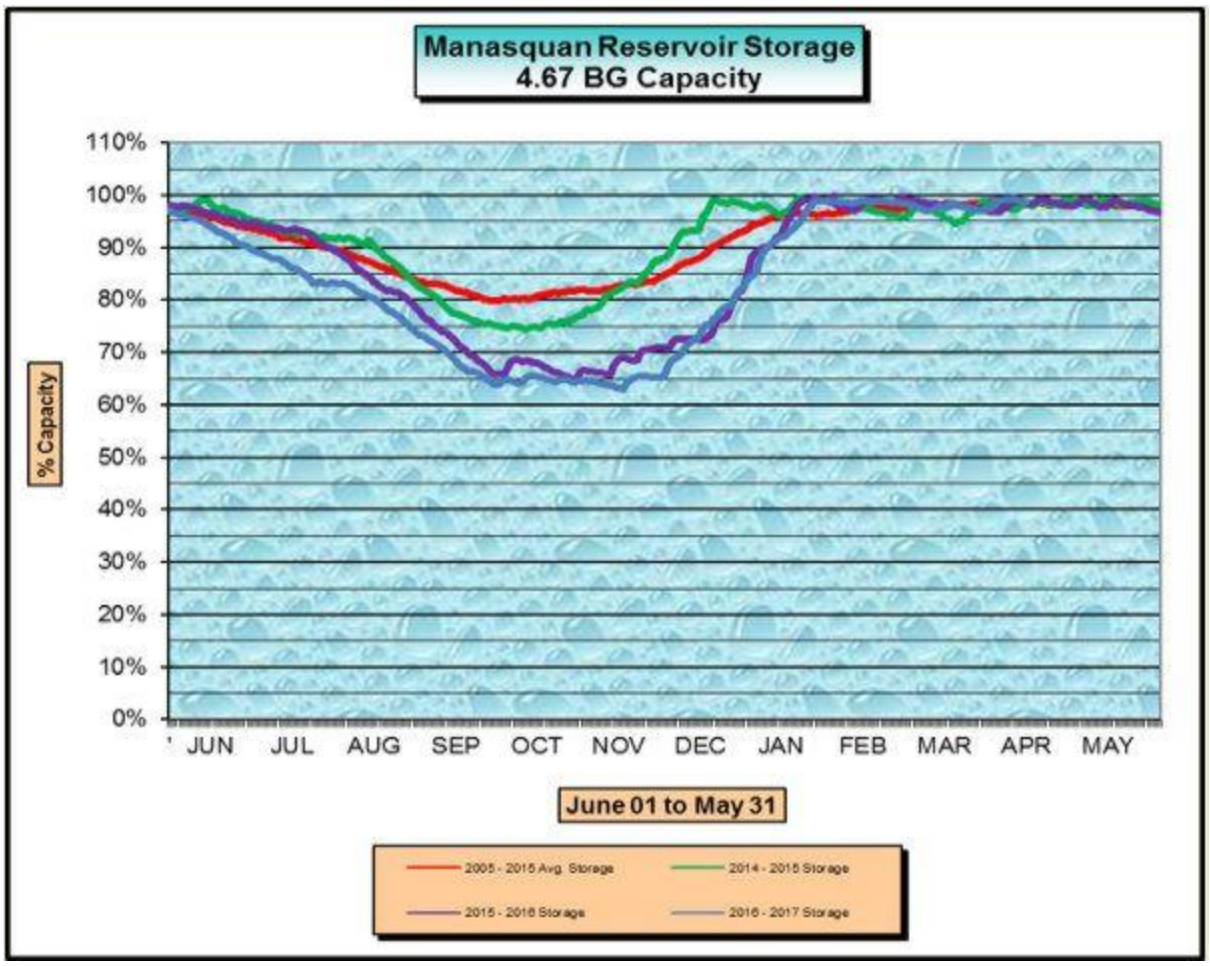
Jersey City reservoirs

Two reservoirs owned by the Jersey City Water Department in Hudson County were listed at about 95 percent of their capacity on May 1. These reservoirs have a total capacity of 11.4 billion gallons of water.



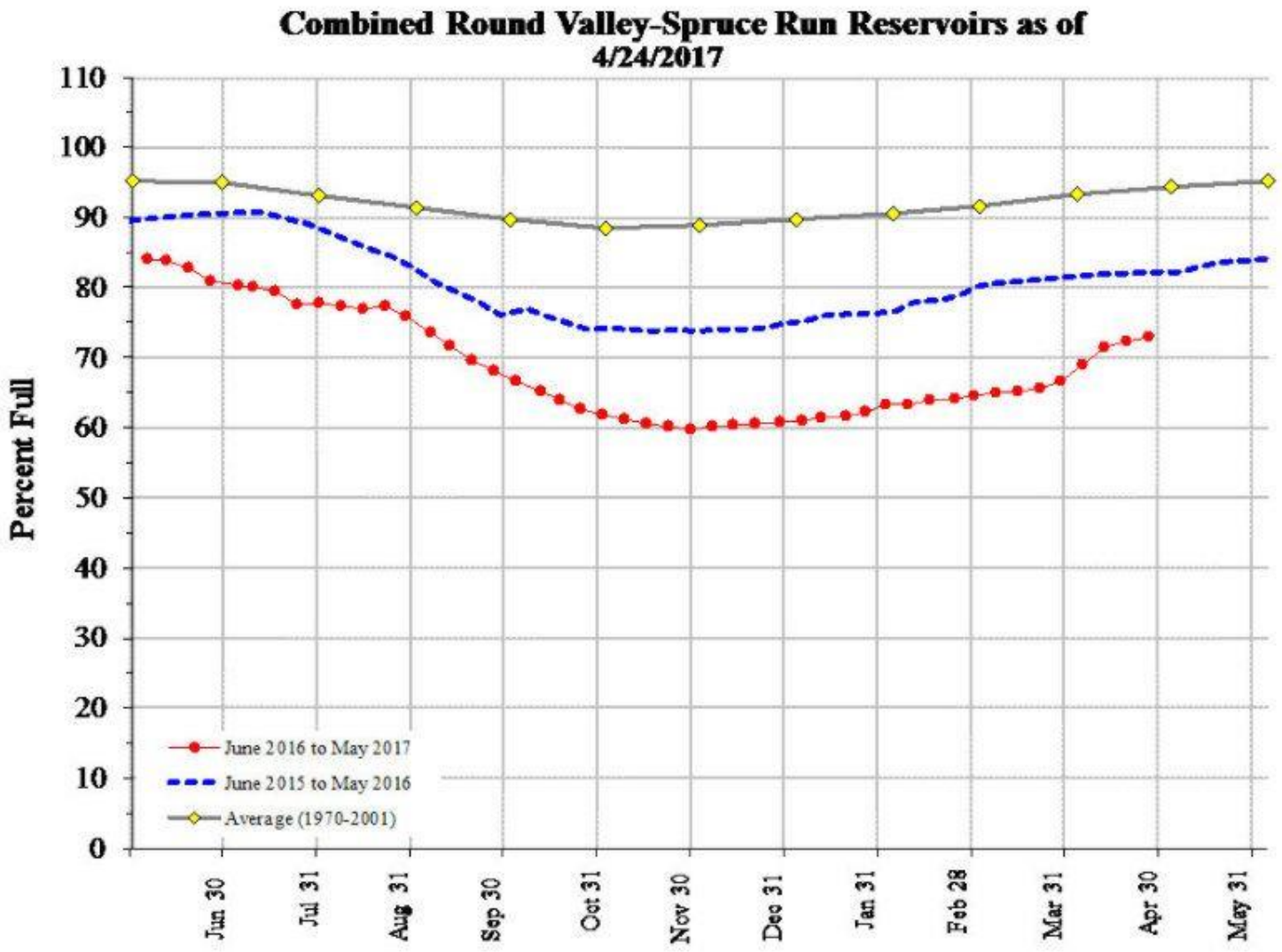
North Jersey District reservoirs

Two reservoirs owned and operated by the by the North Jersey District Water Supply Commission were listed at 100 percent capacity on May 1. These reservoirs have a total capacity of 36.6 billion gallons of water and are fed by pumping stations on the Pompton and Ramapo rivers.



Manasquan Reservoir

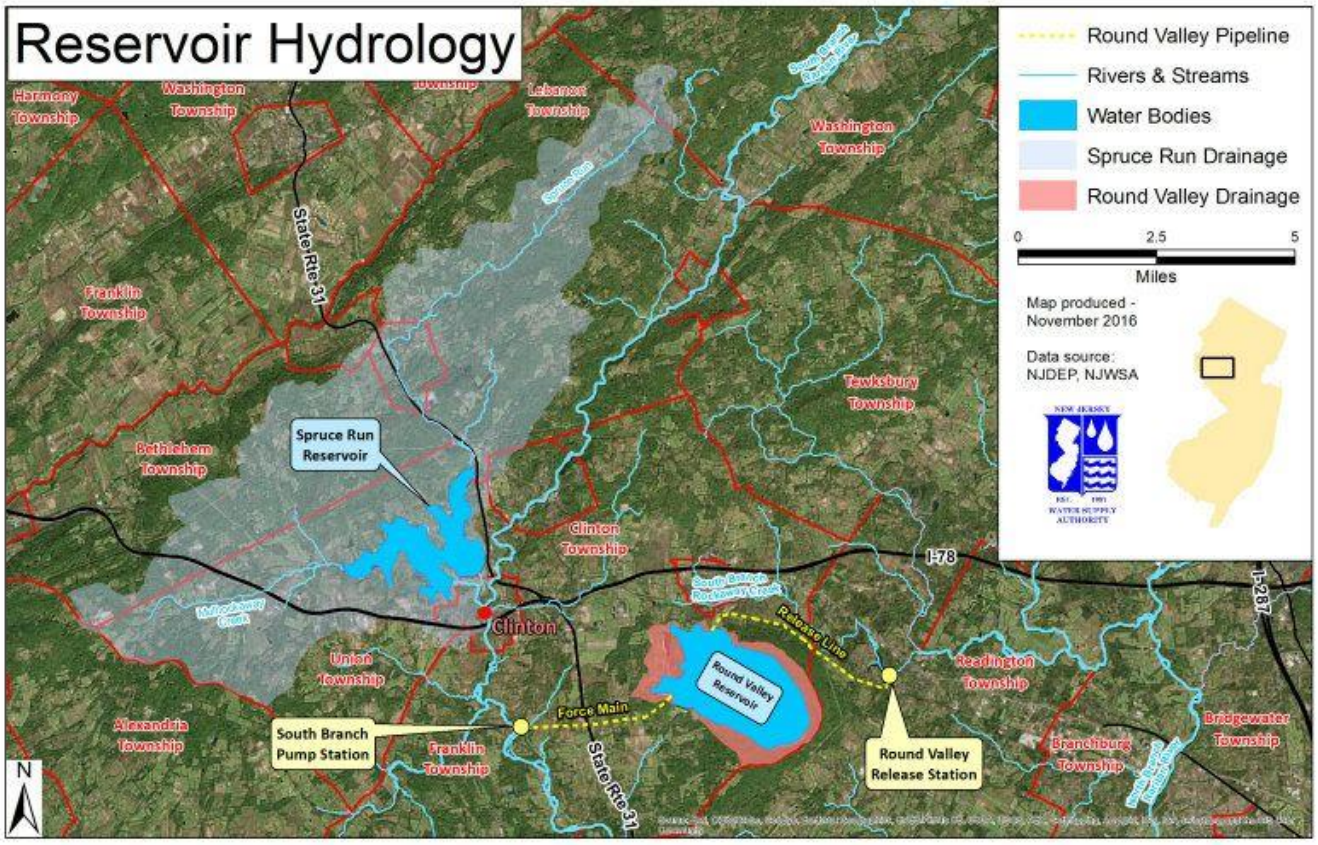
The Manasquan Reservoir in Monmouth County, owned and operated by the New Jersey Water Supply Authority, was 98 percent to 99 percent full as of May 9.



Round Valley and Spruce Run

Two reservoirs in Hunterdon County that are owned and operated by the New Jersey Water Supply Authority were listed at about 73 percent of their combined capacity on April 24. These reservoirs — Round Valley and Spruce Run — have a total capacity of 66 billion gallons of water.

As of Tuesday, May 9, the Round Valley reservoir rose slightly to 74.4 percent of its full capacity (40.9 billion gallons out of 55 billion gallons) and the Spruce Run reservoir rose to 75.7 percent of its capacity (8.3 billion gallons out of 11 billion gallons), according to the Water Supply Authority.



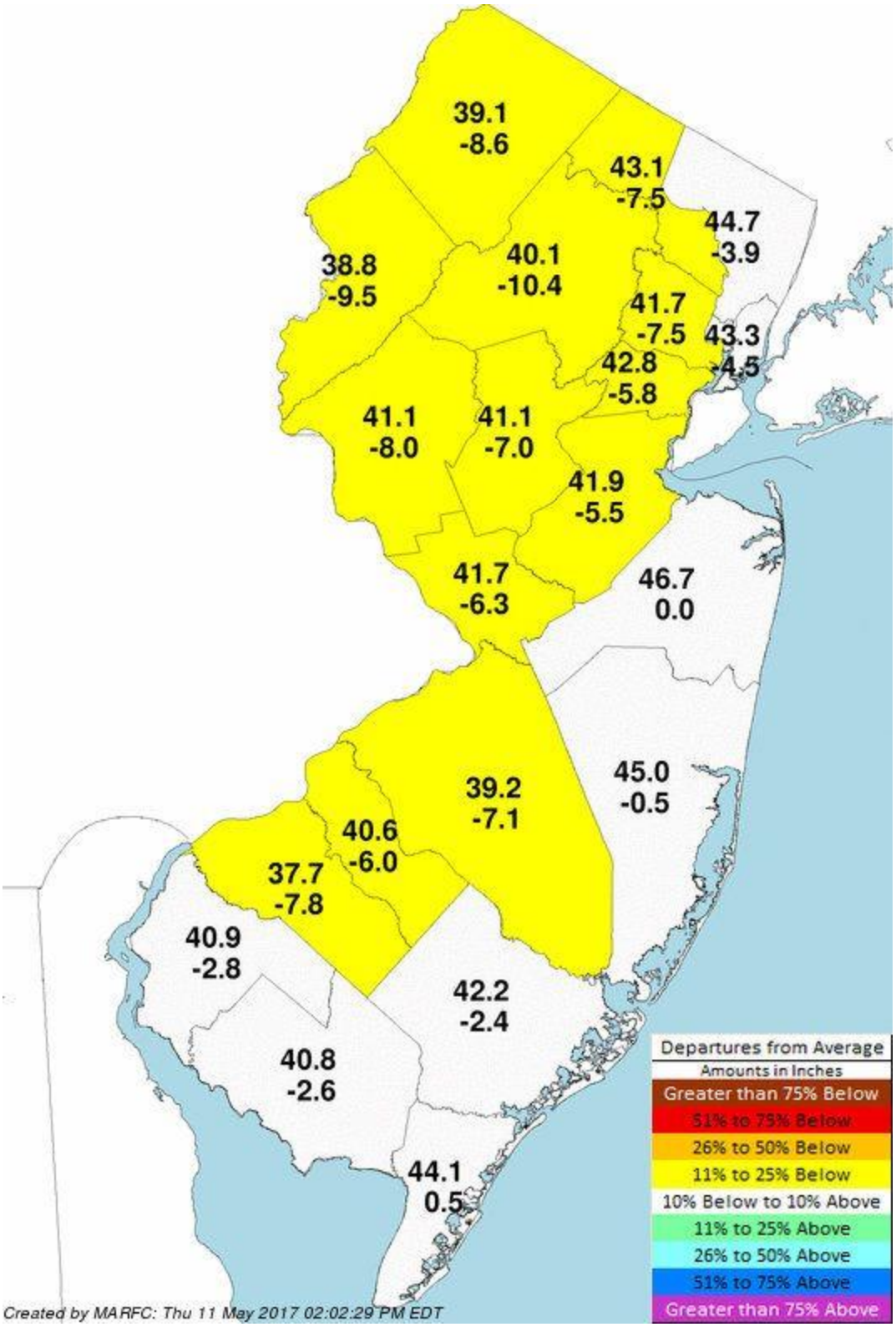
Why Hunterdon reservoirs are struggling

The two Hunterdon County reservoirs are usually 93 percent to 95 percent full in April and May, but officials from the water authority say two major factors have been keeping those numbers substantially lower this spring and during the past two summers.

First, not enough precipitation has fallen in the area. Since Round Valley is the largest reservoir in the entire state, it takes a lot of rain and melted snow to fill it up, water agency officials noted.

Second, Round Valley is slow to fill up because water has to get pumped in from the South Branch of the Raritan River. Officials said that section of the river is not so big, and during large storms in the winter and spring it didn't receive as much rain as surrounding areas.

Even though Spruce Run is smaller than Round Valley, it too has been hurt by low rainfall amounts during the past year. Spruce Run refills naturally, getting fed by two small streams that flow into the reservoir. But those streams have had a light flow because of lighter than normal precipitation.



Precipitation shortfall

The top number in each county shows how much precipitation (rain and melted snow in inches) has fallen from May 11, 2016 through May 10, 2017. The bottom number shows the departure from normal — how far below or above average the precipitation has been.

During the past 12 months, Hunterdon County has had one of the biggest precipitation deficits out of all 21 counties in New Jersey, according to statistics from the National Weather Service.

From May 11, 2016 through May 10, 2017, Hunterdon County received an average of 41.1 inches of precipitation — which is 8 inches below normal. As seen in the map above, large precipitation deficits are also occurring in Burlington, Essex, Gloucester, Morris, Passaic, Somerset, Sussex and Warren.

Drought warning status

On April 12, state environmental officials lifted the drought warning that had been in place in 12 New Jersey counties since October 2016. A drought warning, however, currently remains in place in two counties that are still struggling to get their drinking water supplies back to normal levels: Hunterdon and Somerset (shaded in orange on this map from the DEP).