

Water Supply Conditions - May 2, 2006

By the end of September 2005 reservoirs, stream flows, and ground water were at low levels due to several months of below-average precipitation and above-normal water supply demands. Earlier in the month, a Drought Watch had been issued for the State. But then a record 11.91 inches of rain in October 2005 – the most ever in one month in New Jersey (fig. 1) – filled reservoirs, restored stream flows, and significantly recharged depleted ground water levels.

Unfortunately, the wet weather did not persist, and the New Year began with drier than average conditions. February 2006 precipitation was 1.18 inches below normal and March was even drier, with only 0.86 inches on average across the State (fig. 2). This is 3.13 inches less than normal, making it the driest March on record.

Spring rains typically recharge aquifers. At the same time, stream flows usually increase, which, in turn, replenish water-supply reservoirs. This has not occurred this year, and stream flows and ground water levels remain low. Fortunately, reservoir levels remain in the normal range due to the runoff captured following last October's record rainfall.

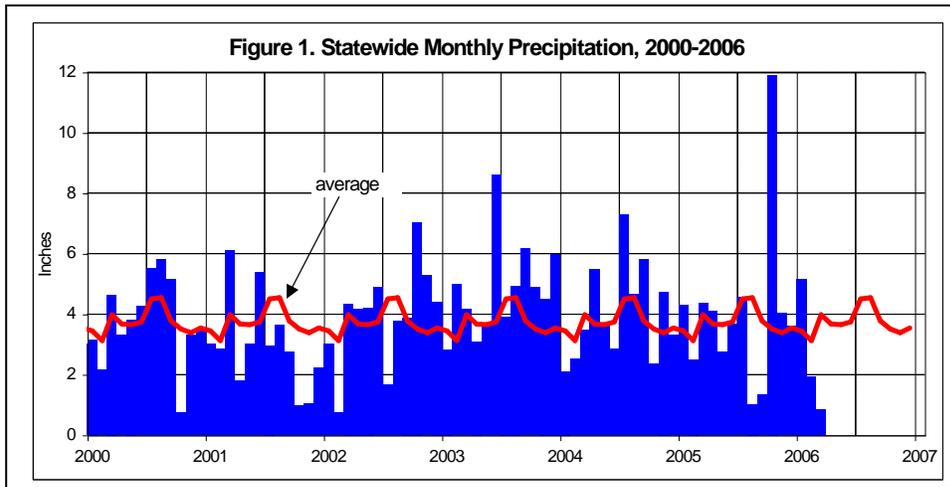
Although near-average rainfall in April provided temporary relief from the dry winter, more significant rain events are needed to restore ground-water levels and stream flows to within the normal range. This is particularly important as the growing season emerges and trees and plants begin to take up more of the available moisture before it can recharge aquifers or run off to streams. Moreover, as the days lengthen and temperatures begin to rise, evaporative losses increase further limiting water availability. While this is normal, it means a smaller portion of late spring and summer rainfall is available for water supplies.

Consequently, the State's water supplies are in less than ideal condition as the peak demand season approaches. As of this writing, the Department anticipates the possible issuance of a Drought Watch for affected drought regions or the entire State, as conditions warrant.

With the promise of the summer season's increased water demands looming, prudent water use is essential to allow recovery of the State's depleted water resources and to possibly avoid restrictive drought measures if more plentiful rainfall does not materialize.

Web sites with more information:

- New Jersey Drought Information: <http://www.njdrought.org/>
- New Jersey State Climatologist: <http://climate.rutgers.edu/stateclim/>
- National Weather Service precipitation maps:
<http://www.erh.noaa.gov/er/marfc/Maps/precip.html>
- U.S. Drought Monitor: <http://www.drought.unl.edu/dm/monitor.html>



The blue bars on Figure 1 show average monthly precipitation in New Jersey for January 2000 - March 2006. These data are from New Jersey's State Climatologist. The red line shows the average precipitation for each month.

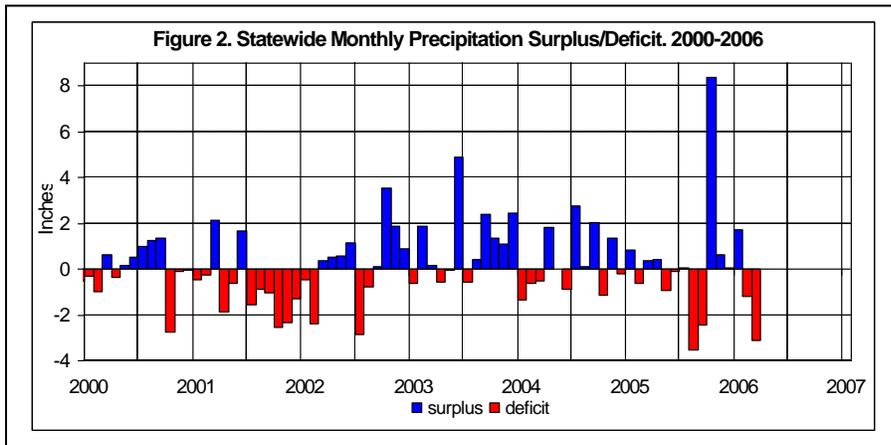


Figure 2 shows how much monthly precipitation was greater than or less than normal for January 2000 - March 2006. Blue bars indicate a surplus of precipitation and red bars a deficit. The longer the bar, the greater the difference from normal.