



DEP Reaches 10% Void in Ashokan Reservoir

Void Created as Part of New Reservoir Protocol Will Further Mitigate Flooding During Future Storms and Includes Allowance for Snowpack

Environmental Protection Commissioner Carter Strickland today announced that DEP has achieved the 10 percent void target in the Ashokan Reservoir called for in a recently enacted Interim Protocol for operating the Release Channel at the Ashokan Reservoir. The new protocol was issued by the New York State Department of Environmental Conservation and put into effect on October 18, 2011. The protocol includes minimum community releases from the release channel year round as well as monthly targets for reservoir elevations that will strive to achieve a target void in the reservoir from July through April to better mitigate flooding of the lower Esopus Creek from uncontrolled spill over the East Basin spillway. In addition to flood mitigation, the Interim Protocol helps protect the drinking water of approximately eight million New York City residents and the roughly 160,000 residents of towns that rely on the Catskill Aqueduct such as New Paltz and High Falls in Ulster County, and New Windsor in Orange County. Higher turbidity levels also increase the costs to these communities to treat the water. The Interim Protocol for maintaining voids through releases is similar to what was implemented last year for the City's Delaware system—a plan that has been credited for mitigating flooding and enhancing recreational opportunities along the Delaware River.

“The 10% void means that the Ashokan Reservoir has a much greater ability to collect water from upstream rainstorms or snowmelt with reduced spillage from the reservoir,” said Commissioner Strickland. “Maintaining voids is something that the local community has asked us to do to provide downstream flood mitigation while still meeting water supply needs, and operating the Release Channel is the only way that we can meet this community demand. The need for this protocol became even more urgent following the devastation of Hurricane Irene and Tropical Storm Lee, which caused widespread flooding upstream of the reservoir and limited flooding downstream. Unfortunately, the upstream flooding has caused high turbidity in our reservoirs and

consequently the released water has been higher in turbidity than DEP would like, but operating the Release Channel has helped reduce the risk of flooding in downstream communities through a wet summer and fall.”

The Interim Protocol provides goals for DEP to maintain a 10% void in the reservoir from October 15 to March 15 and an average 5% void from March 15 to May 1 and from July 1 to October 15. The Interim Protocol also guarantees minimum water releases throughout the year to the lower Esopus Creek from the release channel of 15 million gallons per day (MGD) in summer and 10 MGD in winter. The summertime release will be a benefit to creek recreation at a time when the lower Esopus Creek can become stagnant and warm. The protocol is possible in part because of DEP’s multi-million dollar investment in the new Operations Support Tool, a high-tech computer application which allows DEP to better predict reservoir-specific water storage levels, quality, and inflows.

At the time the Interim Protocol was put in place about one month after the hurricane, the Ashokan Reservoir was at more than 100% capacity. Under the protocol, DEP has been releasing roughly 600 MGD through the Ashokan Release Channel, as well as sending on average 220 MGD through the Catskill Aqueduct. Turbidity in the reservoir’s West Basin went from a high of roughly 2,400 NTU on August 29 to its current level of about 45 NTU which shows the trend of the system to settle out over time. The City has been treating the Catskill Aqueduct from Ashokan Reservoir with alum at the receiving basin in Kensico Reservoir since the hurricane in August to maintain public water quality standards.

Following achievement of the 10% void, releases through the Ashokan Release Channel will be reduced to the minimum rate required to maintain the void based on actual and predicted inflows into the Ashokan Reservoir, the amount of water sent down the Catskill Aqueduct required to meet water supply needs, as well as the water held in the snowpack in the watershed. DEP anticipates that the release rate will be approximately 300 MGD based on the current inflow from the upper Esopus Creek. However, at all times, a minimum release of 10 MGD will be made to comply with the protocol and the release rate will fluctuate based on changes in inflows.

The Ashokan Release Working Group (ARWG), which consists of DEP, state and federal regulators, and local stakeholders including Ulster County, towns and villages and non-profit organizations, was formed as part of DEP’s response to the turbid water releases made through the Ashokan Release Channel in late 2010 and early 2011. The group has discussed many of the issues raised by the Interim Protocol and has helped the city issue a property owner survey and

conduct site visits this past summer following turbid water releases that occurred last year. Currently, the group is providing input on an impact assessment being conducted by DEP on the effects of water releases to the lower Esopus Creek.

The Ashokan Release Channel is a concrete canal used to convey water, released in a controlled manner, from the reservoir to the lower Esopus Creek. Located in Ulster County, the Ashokan Reservoir is approximately 13 miles west of Kingston and 73 miles north of New York City. The reservoir holds 127.9 billion gallons at full capacity and was opened in 1915. It has a west and east basin on either side of the Dividing Weir and has a spillway for reservoir overflow.

DEP manages the city's water supply, providing more than one billion gallons of water each day to more than nine million residents, including eight million in New York City. The water is delivered from a watershed that extends more than 125 miles from the city, comprising 19 reservoirs and three controlled lakes. DEP employs nearly 1,000 employees in the upstate watersheds, with an annual payroll of roughly \$40 million, and pays more than \$130 million a year in taxes to upstate communities. In addition, DEP has a robust capital program for the repair of Gilboa Dam and other in-city and upstate infrastructure, with a planned \$13.2 billion in investments over the next 10 years that creates up to 3,000 construction-related jobs per year. For more information, visit us on Facebook at www.facebook.com/nycwater, or follow us on Twitter at www.twitter.com/nycwater.