

Quassaick Creek Watershed Alliance

The Washington Lake Drinking Watershed: Interim Report

11 March 2011

Summary:

Since October 2010 the Washington Lake Subcommittee of the Quassaick Creek Watershed Alliance has been observing and collecting information concerning the City of Newburgh's drinking watershed.

The watershed, which serves at minimum 28,000 people and at times as many as 50,000, is unprotected and loosely regulated.

It was brought to the attention of the Orange County Water Authority that their maps did not indicate Murphy's Ditch. Murphy's Ditch is a conduit that taps water from Patton Brook and was historically intended along with the diversion from Silver Stream to provide supplemental water to Washington Lake when needed. The omission of Murphy's Ditch from the County map indicates that Patton Brook's drainage above Murphy's Ditch was entirely excluded from their understanding of the drinking watershed.

Historic documents state that Washington Lake is fed by surface water. Its watershed varies in size depending on whether either or both sets of diversion gates (Patton Brook to Murphy's Ditch and Silver Stream to Washington Lake) are open or closed.

Thus, the Washington Lake watershed includes some of the lands west of the reservoir including those through which passes the New York State Thruway, all of the Air National Guard installation, a USMA sub-post, and a portion of Stewart International Airport.

There is no signage or fencing around any of the watercourses feeding Washington Lake: Silver Stream, its feeder streams; Patton Brook and the wetlands that drain into it above the diversion to Murphy's Ditch to indicate that these lands are part of a drinking watershed. Also along Rte. 207/300, (between Rte. 300 and Little Britain Road) there is no fencing or signage protecting the lands around the reservoir.

Observations in the Silver Stream drainage up stream from the Diversion to Washington Lake

Silver Stream Reservoir/Brown's Pond has been silted by nearby development

A fish farm is proposed in the immediate vicinity. Questions about its impact on the drinking watershed are so far unanswered.

Small streams feed Silver Stream up stream from the diversion into Washington Lake. These streams and their sources rise on the lands of Stewart International airport in the vicinity of industrial developments and are therefore entirely in the City of Newburgh's drinking water shed.

Feeder # 1 rises in a pond located between the can factory and the Air National Guard Base. In January 2011 what appeared to be cases of chemicals were located on the pavement adjacent to the watershed.

Feeder # 2 rises in a bog located just south of Rte. 207, west of the intersection of Mt Airy Road and east of the NYC aqueduct.

Between October 2010 and February 2011 it was observed that the entire flow of Silver Stream was being diverted to Washington Lake. All three gates are now partially open. Until snow began melting and surging, no water had been flowing over the dam to Silver Stream.

Question: What is the operating plan or agreement that determines the amount of water that can be diverted from Silver Stream to Washington Lake?

Observations in the Silver Stream drainage down stream of the diversion

Note this is in the Moodna Water shed not Washington Lake, but it is relevant to the allowable yield for Washington Lake.

At Vail's Gate in the months of October, November and December of 2010 small amounts of water could be seen flowing in Silver Stream, indicating other feeder sources down stream from the diversion to Washington Lake.

The wetlands downstream of the "Last Encampment" of the New Windsor Cantonment was dry during the months of January and February of 2011, the only visible water being in the main channel of Silver Stream.

Further down the stream is piped under the Shop Rite shopping Center. It sees daylight again at Rat 94 and Forge Hill Road.

Silver Stream flows into the Moodna just east of Knox's Headquarters.

Question: Does the reduced amount of water at the two federally designated historic sites affect their historic significance? Both were built in relationship to Silver Stream as a source of fresh water. Does depriving those sites of water flow constitute a negative impact on a federally recognized cultural asset?

Question: Should there be concern about changes to the marine and aquatic condition of Silver Stream due to the prolonged diversion of 100 % of the stream's water to Washington Lake?

Observations of Patton Brook, upstream from the Murphy's Ditch diversion.

Murphy's Ditch taps water from the remains of Patton Brook at a gate located on route 300 just to the south of the entrance to Adams Fair-acre Farm supermarket.

Patton Brook has no signage or fencing protecting it or identifying it as a drinking water source.

Brown foam entering Washington Lake was reported to the Encon police Report #10-02488 in December 2010.

On 29 December 2010 the gate to Murphy's Ditch was closed.

Continuous wetlands feeding Patton Brook are wedged between I-87, I-84 and broad, paved commercial development along route 300 and 17K. They are not indicated on the EPA wetlands mapper.

A fourteen acre inactive hazardous waste site is located at the end of Silver Stream Road within the watershed. It was used as an industrial waste disposal area for fourteen years. It is in the Division of Environmental Remediation program, site code 336019. The current DEC project manager is Robin Hackett, in Remedial Bureau C, Section E, in Albany, at 518-402-9636. You can call and discuss the latest monitoring at the site. An RI/FS was completed for this site, which led to a 1993 cap with gas vents and a leachate collection system. Sampling is done on site on a quarterly basis and a Site Management Plan has been approved.

The Stewart Air National Guard tarmac is located within the watershed. The ANG wastewater treatment plant is located within the Washington Lake drinking watershed.

Orange County Choppers, The Hilton Garden Inn, The Orange County Solid Waste Transfer Station, Lowes; Barnes and Noble; Cosimo's-on-Union; Hess; Wal-Mart; etc along Rtes 300 & 17K are all within the City of Newburgh's drinking watershed.

Questions:

1. Are there procedures for inter municipal management of the drinking watershed?
2. Has the City of Newburgh the ability to regulate the safety of development within its drinking watershed?
3. Are there overarching agencies to supersede and oversee development in sensitive areas?
4. Is the Patton Brook watershed properly identified as a drinking water source?
5. How has recent development affected the actual yield and safety of the watershed?

Inter-municipal concerns

Orange County Water Authority (NEOC Nov 2011) Feasibility Study projects that enhancement of Lake Washington system would be the most economical solution to providing drinking water to the communities of Northeastern Orange County.

The NEOC Study suggests that if use of the Washington Lake water supply system were to serve the entire region that a County administered Authority might be the best way to manage it. Would this result in the purchase of the Washington Lake system from the City of Newburgh?

The Town of New Windsor has contracted to purchase Brown's Pond water, owned by the City of Newburgh. The City however does not control, nor does it monitor or claim oversight of the watershed beyond the lands it owns outright.

In January 2011 Kiryas Joel has entered into an agreement with New Windsor to acquire access to the NYC aqueduct, even though NYC is trying to discourage additional connections. Could Kiryas Joel ultimately connect to the Washington Lake Watershed?

Town of Marlboro is exploring additional sources of drinking water, among them water from Washington Lake.

The EPA has ordered the Town of Newburgh to build a new treatment facility for Chadwick Lake; the reservoir that supplies 10% of its drinking water, and is the backup source for 100% of Town of Newburgh water when NYC shuts down the aquifer for repairs. The remaining 90% is normally purchased from the City of New York. NYC is trying to limit access by others to its water supply in anticipation of greater demand within the five boroughs. Will the Town of Newburgh have no choice but to acquire some of its drinking water from the Washington Lake watershed?

The Town appears to have followed the stipulations of a 2008 Consent Decree that would require the construction of a new filtration plant. Construction Documents for a new treatment plant are out to bid. Its cost is estimated to be \$20 million.

The MS4 (Municipal Separate Storm Sewer Systems) reports by the Towns of Newburgh and New Windsor are vague regarding discharge detection within the drinking watershed.

MS4 reports from Stewart Airport and the ANG base have not been studied.

Does the City of Newburgh pay property taxes to the Town of New Windsor for its water lands?

Environmental Justice Issue: Current zoning that has allowed commercial development in the towns of New Windsor and Newburgh has caused potential risk to the health and safety of the City of Newburgh's drinking watershed.

Grants

Orange County has been awarded a NYS grant to create a watershed management plan. The Washington Lake drinking water will be included in this plan.

Orange County has awarded a grant to the City to perform a Safe Yield Analysis for the Washington Lake Watershed. It has not yet been signed by the City of Newburgh.

A 2008 (?) DEC grant to the City of Newburgh required a watershed management plan for the drinking watershed. This work was never provided.

Submitted by the Washington Lake Subcommittee:

Frank Carbone, Jr.
John Gebhards
Simon Gruber
Animal Hughes
John McLoughlan
Peter Smith
Nick Tulve