



May 12, 2016

Chairman John J. Degnan
Port Authority of New York and New Jersey
4 World Trade Center
150 Greenwich Street
New York, NY 10007

Col. Howard Wagner
Commander
Stewart Air National Guard Base
1 Maguire Way
Newburgh, NY 12550

**Re: Demand to CEASE AND DESIST All
Discharges of Per-fluorooctane sulfoate (PFOS)
Stewart Air National Guard Base
Stewart International Airport**

Dear Chairman Degnan and Col. Wagner:

On behalf of Riverkeeper, Inc., we are writing today to demand that all discharges from outfalls located at the Stewart Air National Guard Base and/or Stewart International Airport that have tested positive for levels of perfluorooctane sulfonate (PFOS) cease and desist, permanently. We urge you to take the opportunity in this crisis to be leaders in a comprehensive effort to prevent pollution of the City of Newburgh's drinking water supply.

On May 9, 2016, New York State Departments of Health and Environmental Conservation sent a letter to the City of Newburgh identifying results of sampling for PFOS at elevated levels from outfalls discharging stormwater originating at the Stewart Air National Guard Base, and likely from Stewart International Airport. Elevated levels of PFOS were found at all outfalls discharging to Recreation Pond, identified by the state as Outfall-2, Outfall-3, Outfall-A and Outfall-17K, as well as at the outlet of Recreation Pond, identified as Outfall-10.

The Stewart Air National Guard is covered by State Pollution Discharge Elimination System (SPDES) permit (NY0250457). It is our understanding that Outfalls 2, 3 and 10 correspond to Outfalls 002, 003 and 010 identified in the SPDES permit. On March 16, 2016, sampling measured levels of PFOS in parts per trillion (ppt) at these outfalls of 560, 5,900 and 660, respectively. On March 16, 2016, sampling measured measured PFOS at levels of 790 at Outfall A and 480 at Outfall-17K. SPDES permit NY0250457 identifies an outfall in Recreation Pond originating at Stewart International Airport, and it is our understanding that at least one other outfall in the pond originates from stormwater detention ponds at an industrial park on or near Corporate Drive and Route 17K in the Town of Newburgh, and that stormwater is conveyed via a pipe to Recreation Pond.

These results were the highest reported measures of PFOS in surface waters sampled by the state on March 16 and March 31, and point to the outfalls discharging to Recreation Pond as important sources of PFOS in Washington Lake. This lake is the primary drinking water reservoir for the City of Newburgh and the approximately 29,000 residents who rely on this source of drinking water.

Immediate Action to Protect the Water Supply is Needed

As a result of this testing, Riverkeeper is calling on Stewart Air National Guard (ANG) Base and the Port Authority of New York and New Jersey to:

- 1. Immediately and permanently prevent discharge from the outfall at Recreation pond (described as Outfall-10 and Outfall 010).**

With the public health implications clear, it is your responsibility to immediately devise and implement a system for stopping the flow of water from the pond to the stream that, through Silver Stream and the city's reservoir system, feeds Washington Lake. Put simply, the chemical contaminant pathways to the drinking water supply need to be properly contained and discharges through this outfall or others should not be permitted in Newburgh's drinking water supply watershed.

PFOS is only one contaminant of concern likely to emanate from this pond, and as Riverkeeper wrote in a letter to Department of Environmental Conservation dated Feb. 5, 2015, regarding the proposed renewal of the ANG SPDES permit: "Outfall No. 010 discharges into Class A Silver Stream, a tributary of Washington Lake. The permit labels this receiving water as a Class D stream...Since the discharges are to Class A waters currently being used as drinking water supply for a city of 29,000, all effluent limits and permit conditions should be reviewed to ensure that the drinking water supply is protected. Specifically, but not exhaustively, the Department should set limits for acetone and glycol, and tighten any other limits, consistent with state Water Quality Standards for Class A waters."

- 2. Investigate and monitor the source(s) of the contamination.**

The investigation, including thorough monitoring, must address all other stormwater outfalls on your properties, as well as off-site properties that discharge through Recreation Pond. The ANG

SPDES permit identifies Outfalls 01, 01A, 4, 5, 6, 7, 8, 9A and 9B, and two lagoons as part of the stormwater-related infrastructure on the property. At a minimum, each of these must be investigated, and monitoring results reported publicly. All of these outfalls discharge to Newburgh's drinking water supply watershed, either through connections to Patton Brook or Silver Stream. In addition, stormwater ponds on properties to the north of Stewart Air National Guard Base or Stewart International Airport, on Corporate Drive and Route 17K, are believed to discharge via a pipe to Recreation Pond. These, and any others like them, must also be investigated, and results of monitoring reported publicly.

- 3. Ensure any contaminated water undergoes full remedial treatment before its discharge.**
Chemical contaminants and PFOS concentrations have been found in detention ponds and other waters entering the drinking water reservoirs. These chemicals and contaminants must be fully removed from these waters, prior to its ultimate discharge to surface or ground waters, whether on-site or off-site, or to municipal wastewater treatment plants. Industrial treatment and remedial water treatment technologies are available to achieve these results.

- 4. Ensure that any ongoing discharges from your properties to the drinking water supply of the City of Newburgh are treated to, at minimum, standards consistent with Class A drinking water.**

On Feb. 5, 2015, Riverkeeper identified that the receiving waters of discharges from the Air National Guard Base should be Class A, as streams that feed Washington Lake, Newburgh's primary source of drinking water. We call on you to study the feasibility of eliminating all stormwater discharges to this drinking water supply. We also call on you to work with the DEC to revise all permits for Stewart Air National Guard Base and Stewart International Airport, and make necessary upgrades to treatment and stormwater systems, to ensure that any ongoing permitted discharge meets Water Quality Standards for Class A waters. In addition, recognizing that state standards may not yet be in place for emerging contaminants such as PFOS, that you proactively identify and control emerging contaminants that may be associated with current or past operations of the airport properties.

- 5. Institutionalize a spill reporting system with the City of Newburgh to assist in the protection of its drinking water.**

On February 5, 2015, Riverkeeper noted that there had been at least five spills reported by the ANG to the DEC but that these spills had not been reported to the City of Newburgh. These spills may have introduced jet fuel, hydraulic oil and other substances into the city's drinking water. Timely notification directly to the City would have allowed it to take action to close diversion gates and to protect its reservoirs from known contamination. Riverkeeper calls on you to institutionalize a spill reporting system with the City of Newburgh in revised SPDES permits and/or other legally enforceable mechanisms.

6. Fund a comprehensive planning and implementation effort to map and protect the City of Newburgh's drinking water supply.

Unfortunately, discharges from the Air National Guard Base and Stewart International Airport are not the only threat to Newburgh's drinking water supply. As then-City Manager Jean-Ann McGrane wrote to county and state officials in 2008, Newburgh has long had concerns about "threats to its own drinking water reservoir posed by intensive development in the reservoir watershed, poor stormwater management and lax enforcement." A comprehensive effort to restore and protect the watershed that 29,000 people rely on for drinking water is overdue. In addition, Washington Lake is identified in the Northeast Orange County Regional Water Supply Project Facility Plan as a key component of an interconnected water system serving the city as well as the Towns of Newburgh and New Windsor. In recognition that the properties you control have contributed to water quality degradation of this drinking water supply watershed, we call on you to fund the effort. This planning and implementation strategy should, at a minimum but not exhaustively include:

- a. Review and reclassification of all streams in the watershed as Class A, and revision of SPDES permits accordingly.
- b. Correction and revision of NYS DOH's Source Water Assessment, which fails to include significant lands that are part of the watershed, or identify significant threats to water quality.
- c. Promulgation of source water protection rules under Public Health Law Article 11 1101 to ensure that land use decisions affecting the city's drinking water are protective.
- d. Reconstitution of the Water Resources Planning Council under ECL § 15-2901, and updating of the regional water resources management strategy that includes this watershed.
- e. Comprehensive mapping of wetlands and watercourses within the watershed, to ensure all wetlands that should be regulated due to their size or importance are protected under Article 24.
- f. Implementation of an aggressive green infrastructure retrofit program for stormwater discharges in the watershed.
- g. Full implementation of relevant strategies recommended in the Quassaick Creek and Moodna Creek Watershed Management Plans.


Conclusion

The public health of the 29,000 people - families and their children - that rely upon the City of Newburgh's drinking water are put at risk when contaminants are not stopped from entering Brown's Pond and Washington Lake. The problems with the drinking water for these residents are not new, but have reached a crisis point. There has been a failure at multiple levels of government to protect Newburgh's drinking water, and as a result, degraded water quality has been the norm for a generation.

These conditions must not be allowed to continue. We urge each of you to take this opportunity to set a course starting today that will lead to improved water quality over the next generation.

We welcome the opportunity to discuss these issues with you. Please let us know if you have any questions and when you would like to schedule a meeting. Please contact John Parker at (914) 478-4501, Ext. 251.

Respectfully submitted,



Dan Shapley
Water Quality Program Manager



John Parker
Director of Legal Programs

Encl. February 5, 2015 Riverkeeper Letter to Department of Environmental Conservation

cc: Robert Schick, Director, Division of Environmental Remediation,
NYS Department of Environmental Conservation
Martin Brand, Regional Director, DEC Region 3
Shohreh Karimipour, Regional Water Engineer, DEC Region 3
Nathan Graber, Director, Center for Environmental Health, NYS Department of Health
Judy Kennedy, Mayor, City of Newburgh
Genie Abrams, Regina Angelo, Torrance Harvey, Cindy Holmes, Karen Mejia and Hillary
Rayford, council members, City of Newburgh
Michael Ciaravino, City Manager, City of Newburgh
Steven M. Neuhaus, Executive, Orange County
Eli N. Avila, Commissioner, Orange County Department of Health
David Church, Executive Director, Orange County Water Authority



Lindy Sue Czubernat
Environmental Program Specialist
Division of Environmental Permits
New York State Department of Environmental Conservation
625 Broadway, Albany, NY 12233-1750

February 5, 2015

Dear Ms. Czubernat,

Please accept these comments on behalf of Riverkeeper, Inc. about the proposed renewal of SPDES permit NY-00250457 for the Stewart Air National Guard Base in the Town of Newburgh.

The SPDES permit has significant inaccuracies that should at a minimum be corrected prior to renewing this permit. We believe the errors, as well as water quality information about the receiving waters, should prompt a full technical review of the permit to ensure effluent limits, monitoring and best practices plans are sufficient to protect receiving waters and downstream uses, particularly the drinking water supply of the City of Newburgh.

Correct Receiving Waters Classifications

The SPDES permit states that the Class D receiving waters are tributaries of the Quassaick Creek or Silver Stream. In some places the permit states that certain of these same receiving waters are also classified as Class C.

In fact, many if not all outfalls discharge to Class A tributaries of the Washington Lake and Silver Stream (also known as Brown's Pond) Reservoirs, which make up the drinking water supply for the City of Newburgh, which serves approximately 29,000 people.¹ (While Silver

¹ Newburgh Water Quality Reports,
<http://www.cityofnewburgh-ny.gov/water-department/pages/water-quality-reports>



Stream is part of the Moodna Creek watershed, diversions carry water from its reservoir, via a diversion, to Washington Lake, part of the Quassaick Creek Watershed.)

Two specific examples include:

- Outfall No. 001 discharges to a Patton Brook, a primary tributary of Washington Lake. The permit labels this receiving water as a Class D drainage ditch tributary to Quassaick Creek.
- Outfall No. 010 discharges into Class A Silver Stream, a tributary of Washington Lake. The permit labels this receiving water as a Class D stream.

Riverkeeper has not exhaustively analyzed the permit's outfalls, discharge limits and receiving waters. By identifying these errors, we expect the Department will be compelled to thoroughly analyze and map the outfalls and receiving waters and revise the permit accordingly for all outfalls from this facility.

Revise Effluent Limits

Since the discharges are to Class A waters currently being used as drinking water supply for a city of 29,000, all effluent limits and permit conditions should be reviewed to ensure that the drinking water supply is protected.

Specifically, but not exhaustively, the Department should set limits for acetone and glycol, and tighten any other limits, consistent with state Water Quality Standards² for Class A waters.

Consider Available Data About Existing Impacts to Receiving Waters

The Department should consider the available information about water quality in the receiving waters, as documented in the Quassaick Creek Watershed Plan,³ published in June 2014, which labeled as a "priority action" encouraging "local regulatory measures for water resource

² ECL Part 703, <http://www.dec.ny.gov/regs/4590.html>

³ Quassaick Creek Watershed Plan, http://waterauthority.orangecountygov.com/quassaick_watershed.html



protection, especially for drinking water, (and) stormwater reductions.”⁴ The three subwatersheds of the Quassaick Creek that are part of the drinking water supply – Patton Brook, Upper Silver Stream and Washington Lake – are receiving waters for this permit holder’s discharges, and there is evidence that portions of the watershed are already significantly stressed. Consider some facts from the plan:

- land use analysis shows that each of these subwatershed has greater than 10% impervious surface;
- both reservoirs have documented impacts from watershed pollutants, described in this way: “While the City of Newburgh owns substantial tracts of land around the borders of the (Washington Lake) reservoir, most of the watershed is unprotected and thus vulnerable to development, examples of which have recently added significant amounts of sediment to Silver Stream... Brown’s Pond also experiences elevated levels of algal growth during the growing season and as such it too is considered eutrophic”⁵;
- biomonitoring data for Patton Brook, which is a receiving water for discharge outfall No. 001 and upstream of the Silver Stream (Brown’s Pond) Reservoir, received a Biological Assessment Profile (BAP) of 4.6, corresponding to a “moderate impact” classification, and an Impact Source Determination (ISD) indicating “toxic inputs”;
- two biomonitoring sampling points on Silver Stream, which is also downstream of receiving waters for permitted discharges from this facility and part of the drinking water supply system, received BAPs of 4.2 and 3.8, corresponding to a “moderate impact” classification. The ISDs were “organic and complex inputs” and “organic and toxic inputs,” respectively⁶; and,
- the Quassaick Creek Watershed Management Plan identified as “areas for improvement” developing Total Maximum Daily Loads for Washington Lake, Patton Brook and Upper Silver Stream.⁷

⁴ Quassaick Creek Watershed Plan, Appendix E, Recommendation 2-7

⁵ Quassaick Creek Watershed Management Plan, Page II-18

⁶ Quassaick Creek Watershed Management Plan, Page II-29

⁷ Quassaick Creek Watershed Management Plan, Page II-73



Also potentially relevant to the health of the receiving waters, if not this particular discharge, is ongoing monitoring for Enterococcus, an Environmental Protection Agency-recommended fecal indicator.⁸ No site designated for primary contact recreation should exceed a geometric mean of 35 on a rolling monthly, according to the EPA's recommended water quality criteria⁹. Based on preliminary analysis of data gathered between August and October, 2014, at 13 points in the Quassaick Creek watershed, the geometric mean of six samples taken at each site biweekly ranged from 117 to 912. The geometric mean of six samples at a point in Patton Brook between the permit holder's discharge points and the Reservoir was 182. The geometric mean of six samples in Silver Stream between the discharge points and Washington Reservoir was 577.

These past and ongoing monitoring efforts suggest water quality in the receiving waters are likely not meeting Class A uses and standards, and that permits discharging to these waters should at a minimum be written with Water Quality Based Effluent Limits (WQBELs), which are necessary to control pollutants which "are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard."¹⁰ Particular attention should be paid to toxic discharges, such as benzene and xylene, given the suspected toxic impacts on macroinvertebrates documented by biomonitoring in Patton Brook and Silver Stream, and the downstream use for drinking water.

Increase Monitoring Requirements

The frequency of sampling required, particularly of toxic constituents such as benzene, toluene and xylene, should be increased from quarterly to monthly, if not daily, to ensure that these constituents are not discharged at levels that could endanger the receiving waters or the Newburgh drinking water supply. Whether or not frequency of regular monitoring is increased, or increased to the degree recommended here, event-based monitoring requirements should be

⁸ Enterococcus monitoring data for the Quassaick Creek watershed, <http://www.riverkeeper.org/water-quality/citizen-data/quassaick-creek/>

⁹ 2012 Recreational Water Criteria, <http://water.epa.gov/scitech/swguidance/standards/criteria/health/recreation/>

¹⁰ 40 C.F.R. § 122.44(d)(1)(i), http://cfr.regstoday.com/40cfr122.aspx#40_CFR_122p44



added to the frequency-based requirements. Specifically, because the highest concentration of stormwater contaminants enters receiving waters during the first flush, sampling should occur within the first hour of discharge during at least a 1-year, 24-hour storm event, or any storm event following a spill event, whenever practicable.

Additionally, monitoring requirements should be imposed on all outfalls, including 005, 006, 007, 008, 009A and 009B, if they are found to be upstream of Newburgh's drinking water supply.

Amend Management Plan to Include Downstream Notification and On-Site Education

Finally, Riverkeeper urges the Department to place conditions on the permit, as part of the condition to develop and use a Best Practices Management Plan, requiring the permit holder to develop a spills notification plan for the City of Newburgh, and to engage in an ongoing education program for facility staff and visitors.

There appear to have been at least five spills from this facility recorded in the NYS Spill Incidents Database¹¹ :

- 75 pounds of jet fuel (11/04/2009; Spill No. 090877)
- 0.10 gallon of an unnamed substance (05/07/2010; Spill No. 1001481)
- 100 gallons of jet fuel (01/31/2011; Spill No. 1011070)
- 25 gallons of hydraulic oil (11/28/2012; Spill No. 1212675)
- 16 gallons of jet fuel (07/22/2014; Spill No. 1404350)

A spill notification protocol and on-site training and education would help ensure that Newburgh officials can take any timely action necessary to protect their drinking water supply source, and that all on-site personnel are aware that stormwater runoff and other pollutants spilled or discharged from the facility may affect drinking water for 29,000 people downstream. It is our understanding that the city is working toward an overdue watershed

¹¹ Spill Incident Database, <http://www.dec.ny.gov/cfm/xtapps/derexternal/index.cfm?pageid=2>



protection and education effort for its drinking water supply, and the Department can assist meaningfully in this effort with permit conditions on this facility.

Thank you for the opportunity to comment on this proposed SPDES permit renewal. If you would like to discuss any of the points raised in this letter, please contact me at 914-478-4501 x226 or by email at dshapley@riverkeeper.org.

Sincerely,

Dan Shapley

Water Quality Program Manager