



# CITY OF NEWBURGH

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City Hall - 83 Broadway  
Newburgh, New York 12550  
Phone: 845-569-7301  
Facsimile: 845-569-7370

Michael G. Ciaravino, City Manager

July 1, 2016

Kelly Turturro  
Acting Regional Director  
New York State Department of Environmental Conservation  
21 South Putt Corners Road  
New Paltz, NY 10561

Re: State Pollutant Discharge Elimination System  
("SPDES") Permit Review for Discharges to  
Silver Stream and Washington Lake

Dear Ms. Turturro:

I am writing to you on behalf of the City of Newburgh to request your attention to several watershed issues affecting Silver Stream, Brown's Pond and Washington Lake, the City of Newburgh's primary sources of drinking water. Although these issues may involve different timetables and require separate actions by your department, I am grouping them under the heading of SPDES permit issues to enable the City to work together with your agency to protect the City's watershed in the most cost effective and efficient manner possible to ensure the health and safety of the residents of our community.

## **1. Misclassification of Tributaries to Newburgh's Water System**

Of highest priority in my opinion is the apparent misclassification of tributaries to Washington Lake, Silver Stream and Brown's Pond as Class C or D streams. This error appears in SPDES Permit #NY-00250457 for the Stewart Air National Guard Base **attached as Exhibit "A"**, for which a renewal application is awaiting action by the New York State Department of Environmental Conservation ("NYSDEC"). Although I am

not certain regarding the number of years this critical oversight has occurred, please be advised that the existing permit incorrectly recites that the receiving waters for the Air National Guard discharges as either Class C or Class D, despite the fact that most, if not all of the discharges which feed into Washington Lake and Silver Stream constitute the primary source of drinking water supply for our residents in the City of Newburgh. In addition, there are some direct tributaries to Silver Stream upstream of the diversion to Washington Lake that are incorrectly classified as Class B.

These misclassifications are puzzling, because although the permits erroneously granted in the past contain the abovementioned serious inaccuracies, Silver Stream and Patton Brook *are correctly identified on the NYSDEC's Environmental Mapper as Class A streams*. How did these critical permitting errors occur, given NYSDEC's knowledge of the location and classification of our Class A drinking water streams delineated in the NYSDEC Environmental Mapper?

It is of great concern to the City that this error was not corrected in 2015 when it was first pointed out, and that the renewal has yet to be issued with the appropriate correction which could have an immediate profound improvement on the permitted discharge levels in the Air National Guard permit. We further believe that this correction would then provide the appropriate classification of the receiving streams, thereby radically increasing the level of protection available to our residents by ultimately providing a healthier drinking water. We also are concerned that if this error is found in one permit, it might show up in other SPDES permits granted by your agency which are presently discharging to receiving waters that directly or indirectly feed the City of Newburgh drinking water system.

Our request at this time is two-fold. First, we ask that you give your immediate attention to correcting the misclassification in the Air National Guard permit. Second, we ask that your staff check existing SPDES permits issued by the NYSDEC which discharge to Washington Lake, Brown's Pond and Silver Stream watersheds to verify that this serious health threatening error does not appear in other permits. If it does, we ask of course that it immediately be corrected, given the potential health impacts to the residents of our community.

## **2. Correction, revision and reissuance of the Stewart Air National Guard Base SPDES permits**

We ask that you give your attention to revising and reissuing the Air National Guard SPDES permit. Given the change in the classification of the receiving waters and the emerging need to address PFOS in the stormwater discharges, we propose that the existing SPDES permit cannot be simply renewed. The City would like to be notified when a new draft SPDES permit is issued and given the opportunity to attend a public hearing and submit comments on the draft permit.

Although the NYSDEC has been sent the enclosed letters previously, I am enclosing for your reference two letters from Riverkeeper which have come to our attention. The first letter, dated February 5, 2015, from Dan Shapley to the Department, and the second dated May 12, 2016, from Dan Shapley and John Parker to the Port Authority and the Air National Guard **both attached as Exhibit “B”**. Permit changes as well as other needed actions are detailed in these letters.

### **3. Enforcement action against New York Granite**

On June 19, 2016, City of Newburgh Engineering Department staff discovered a cloud of white material flowing from a stormwater outfall on the east side of Route 300. The spill was reported to NYSDEC by our City Engineer, and was given Spill No. 1602799. The contaminated discharge was traced by City staff from the discharge point adjacent to Washington Lake and Silver Stream, to a catch basin located within the parking lot of New York Granite located to the west of Route 300.

On the morning of June 20, 2016, NYSDEC staff arrived and conducted an investigation. **Attached as Exhibit “C”**, are the photographs and short email provided by Chad Wade, Assistant City Engineer, to NYSDEC after the inspection. It is my understanding that the source of the contamination was an intentional illicit discharge of industrial waste, in this case the liquid slurry of cuttings from the granite operation, into the catch basin located behind the granite factory building. We do not know what contaminants may be present in this waste stream or the duration in which this discharge may have been occurring, but the City is concerned about the possible presence of radioactive material, metals, and other contaminants such as *strontium, which have been detected in previous water samples taken by the City’s Water Department and reported in the City’s Annual Water Quality Reports.*

We understand you must now decide whether to proceed with a civil or criminal penalty. In making this decision, please take into consideration that the discharge was apparently intentional, illicit and potentially a threat to the drinking water supply of a City of approximately 30,000 people. I also ask that you notify the City of any hearings or other actions on this matter and that you copy the City on your final determination. As you are aware, the City has extremely limited enforcement capabilities within the City’s watershed due to its presence outside of the City’s municipal borders.

### **4. Investigation of the storm water outfalls feeding Washington Lake**

The illicit discharge from New York Granite highlights a concern we have with the number of outfalls discharging storm water to Washington Lake originating on the west side of Route 300. I am **attaching as Exhibit “D”** a photomap of Washington Lake and Route 300 showing the locations of five outfalls discharging stormwater. We ask for the Department’s assistance in making sure that the stormwater coming from those outfalls is not contaminated, and that appropriate maintenance and inspections of this

stormwater collection system is performed in a timely manner by the responsible entity. The City is aware that NYSDEC staff are very busy and working with limited staffing, but we would appreciate any increase in priority given to proactively investigating these outfalls and their permits to ensure that there are no other illicit discharges that may be reaching the City's drinking water source.

**5. Creation of an accurate Washington Lake watershed map**

My final concern with SPDES permits affecting Washington Lake, Brown's Pond, Silver Stream and all the contributing tributaries is that we do not have an accurate and comprehensive up-to-date map of the City's drinking water watershed. It is difficult to design an effective watershed protection strategy without having such a map in hand. Simply put, we must establish common ground in our understanding of the land that constitutes our precious watershed and its importance to the health of our community who rely upon it for its drinking water.

**6. Request New York State Department of Health to assess the current threats to our surface drinking water sources**

We are aware that the New York Department of Health's Source Water Assessment Program was not funded on a continuing basis. Given the current PFOS related damage and the increased vulnerability and sensitivity of our watershed which include the mounting threats posed by surrounding development, we believe a focused, detailed and updated plan is needed, and an enforcement mechanism must be immediately identified.

In 2005, The New York State Department of Health was tasked in the Source Water Assessment Program under the Safe Drinking Water Act with assessing threats to surface drinking water sources. The assessment provided to the City of Newburgh, a copy of which is **attached as Exhibit "E"**, is both inaccurate and badly out of date. The City would deeply appreciate your assistance and that of the Department of Health in immediately performing an update to that assessment for use as a critical tool as we navigate forward together through this drinking water contamination crisis.

Our request is that you work with the City not only to update the watershed map, but also that you continue to work with us in an effort to develop a comprehensive watershed protection plan that will guaranty a safe supply of healthful drinking water for the people of the City of Newburgh for the next century. We believe that the first critical step is to ensure that the following occur as soon as possible:

- 1.) that all the SPDES permits for dischargers in the watershed are properly **permitted;**
- 2.) that the receiving waters are **properly classified and;**
- 3.) that the permit conditions are **strictly enforced.**

I thank you very much for your attention to all these issues. Please feel free to call me any time. I look forward to working with you.

Sincerely,

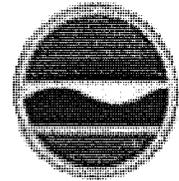


Michael G. Ciaravino  
City Manager, Newburgh, New York

cc: Thomas Scaglione, Governor's Office  
Judith Enck, Regional Administrator, USEPA  
Basil Seggos, Commissioner, NYSDEC  
Kenneth Lynch, Executive Deputy, NYSDEC  
Martin Brand, Acting Deputy Commissioner, NYSDEC  
Dr. Nathan Graber, Director of the Center of Environmental Health, NYSDOH  
Catherine McCabe, Regional Administrator, USEPA  
Pat Evangelista, Region 2, USEPA  
Mark Maddaloni, Region 2, USEPA  
Paul Simon, Region 2, USEPA  
Angela Carpenter, Region 2, USEPA  
John Martin, Region 2, USEPA  
Cecilia Echols, Region 2, USEPA  
Robert Schick, Division Director of Environmental Remediation, NYSDEC  
George Heitzman, Director, Environmental Remediation Region 3& 6, NYSDEC  
James Tierney, Division of Water, NYSDEC  
Jeffrey R. Conway, Region 3, NYSDEC  
Dr. Howard Zucker, Commissioner, NYS Department of Health, (NYSDOH)  
William Gilday, Bureau of Water Supply Protection, NYSDOH  
Dr. Eli N. Avila, Commissioner, Orange County Department of Health, OCDOH  
Keith Miller, Orange County Department of Health, OCDOH  
Daniel Shapley, Water Quality Program Manager, Riverkeeper

**EXHIBIT “A”**

New York State Department of Environmental Conservation  
Division of Water  
625 Broadway, Albany, 12233-3505  
Phone: (518) 402-8111 . Fax: (518) 402-9029  
Website: www.dec.ny.gov



State Pollutant Discharge Elimination System (SPDES)  
NOTICE / RENEWAL APPLICATION

10/15/2014

NICOLAS CAPUTO

~~MONA JOHNSON~~  
NEW YORK AIR NATIONAL GUARD  
1 MAGUIRE WAY  
NEWBURGH NY 12550

Facility: STEWART AIR NATIONAL GUARD BASE  
Ind. Code: 9711 County: ORANGE  
DEC ID: 3334600085 SPDES No.: NY0250457  
Permit Expiration Date: 08/31/2015  
Renewal Application Due By: 03/04/2015

Dear Permittee,

The State Pollutant Elimination System (SPDES) permit for the facility referenced above expires on the date indicated. You are required by law to submit a renewal application at least 180 days prior to the expiration date of your current permit.

Please sign the Certification on this page and return it with the attached questionnaire. Refer to the attached instructions for who may sign this application. If there are any corrections to the above name or address, please write in those corrections above.

If there are changes to your discharge, or to operations affecting the discharge, then in addition to this renewal application you must also submit a separate permit modification application to the Regional Permit Administrator for the DEC region where the facility is located. See the attached instructions for information regarding filing an application for permit modification.

Please contact me if you have any questions.

Sincerely,  
Cheri Jamison.

Permit Coordinator

NYSDEC

OCT 31 2014

Division of  
Environmental Permits

SPDES PERMIT RENEWAL APPLICATION CERTIFICATION

**CERTIFICATION:** I hereby affirm that under penalty of perjury that the information provided on this form and all attachments submitted herewith is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Timothy J LaBarge      Commander      105<sup>th</sup> Air Ld Wing  
Name of Authorized Applicant      Title      Company  
Timothy J. LaBarge      30 Oct 2014  
Signature of Authorized Applicant      Date

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
State Pollutant Discharge Elimination System (SPDES) Permit  
RENEWAL APPLICATION QUESTIONNAIRE  
For Industrial & Municipal discharges only (Class 01, 03, 04, 05, 07 & 10)



Please enter the numbers from your current permit:	DEC ID Number: <u>3-3346-00085 / 00024</u>
	SPDES Number: NY <u>025 0457</u>

**THIS PAGE MUST BE COMPLETED AND RETURNED WITH YOUR RENEWAL APPLICATION**

Please TYPE or PRINT neatly. Keep a copy for your records.

Has the SPDES permit for your facility been modified in the past 5 years?  YES  NO

Please indicate which of the following best describes the situation at your facility:

- None of the concerns on the "Self Evaluation List" (see page 2) apply to my facility at this time and I will not be applying for a modification of the SPDES permit in the foreseeable future.
- Yes, some of the items on the "Self Evaluation List" have led me to believe that the permit for this facility may need to be modified. I have provided an explanation below. (Note that such an explanation does not constitute an application for permit modification. An application for permit modification must be submitted separately to the Department's regional office.)
  - I previously submitted a permit modification application to the Department's regional office.
  - I will submit a permit modification application to the Department's regional office.
- The items on the "Self Evaluation List" have left me unable to conclude whether my permit needs to be modified at this time. I am reporting the following general concerns about my permit:

It is requested that verbiage in our permit be modified.  
The formal request is enclosed and was sent to the Division  
of Water, White Plains and Division of Environmental Permits,  
New Paltz.

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New York State Department of Environmental Conservation

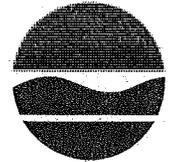
Division of Environmental Permits

Programs and Systems, 4<sup>th</sup> Floor

625 Broadway, Albany, NY 12233-1750

Phone: (518) 402-9167 • Fax: (518) 402-9168

Website: [www.dec.ny.gov](http://www.dec.ny.gov)



Alexander B. Grannis  
Commissioner

JAN 22 2010

(CW)

FACILITY INFORMATION

NAME: Stewart Air National Guard Base

LOCATION: New Windsor (T)

COUNTY: Orange

SPDES NO: NY 025 0457

DEC ID NO.: 3-3346-00085/00024

Mona Johnson  
New York Air National Guard  
One Maguire Way  
Newburgh, NY 12550

Dear SPDES Permittee:

Enclosed please find a validated NOTICE/RENEWAL APPLICATION/PERMIT form renewing your State Pollutant Discharge Elimination System (SPDES) permit for the referenced facility. This validated form, together with the previously issued permit (see issuance date of this permit in Part 3 of the NOTICE/RENEWAL APPLICATION/PERMIT form), and any subsequent permit modifications constitute authorization to discharge wastewater in accordance with all terms, conditions and limitations specified therein.

The instructions and other information that you received with the NOTICE/RENEWAL APPLICATION/PERMIT package fully described procedures for renewal and modification of your SPDES permit under the Environmental Benefit Permit Strategy (EBPS). As a reminder, SPDES permits are renewed at a central location in Albany in order to make the process more efficient. All other concerns with your permit such as applications for permit modifications, permit transfers to a new owner, name changes, and other questions should be directed to the Regional Permit Administrator at the following address:

Alec Ciesluk  
NYSDEC - Region 3  
21 South Putt Corners Road  
New Paltz, NY 12561-1696  
(845)256-3054

If you have already filed an application for modification of your permit, it will be processed separately through our regional office. If you have questions concerning this permit renewal, please contact Lindy Sue Czubernat at (518) 402-9165.

Sincerely,

*William R. Alvine*

Chief Permit Administrator

Enclosure

cc: RPA  
RWE  
BWP

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
State Pollutant Discharge Elimination System (SPDES)  
NOTICE / RENEWAL APPLICATION / PERMIT



Please read ALL instructions on the back before completing this application form. Please TYPE or PRINT clearly in ink.

PART 1 - NOTICE 10/13/2009

Permittee Contact Name, Title, Address

Facility and SPDES Permit Information

NEW YORK AIR NATIONAL GUARD  
MONA JOHNSON  
ONE MAGUIRE WAY  
NEWBURGH NY 12550

Name: STEWART AIR NATIONAL GUARD BASE  
Ind. Code: 9711 County: ORANGE  
DEC No.: 3-3346-00085/00024  
SPDES No.: NY 025 0457  
Expiration Date: 08/31/2010  
Application Due By: 03/04/2010

Are these name(s) & address(es) correct? if not, please write corrections above.

The State Pollutant Discharge Elimination System Permit for the facility referenced above expires on the date indicated. You are required by law to file a complete renewal application at least 180 days prior to expiration of your current permit. Note the "Application Due By" date above.

CAUTION: This short application form and attached questionnaire are the only forms acceptable for permit renewal. Sign Part 2 below and mail only this form and the completed questionnaire using the enclosed envelope. Effective April 1, 1994 the Department no longer assesses SPDES application fees.

If there are changes to your discharge, or to operations affecting the discharge, then in addition to this renewal application, you must also submit a separate permit modification application to the Regional Permit Administrator for the DEC region in which the facility is located, as required by your current permit. See the reverse side of this page for instructions on filing a modification request.

PART 2 - RENEWAL APPLICATION

CERTIFICATION: I hereby affirm that under penalty of perjury that the information provided on this form and all attachments submitted herewith is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to section 210.45 of the Penal Law.

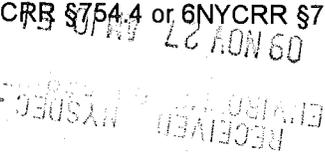
Verle L. Johnston, Jr., Brigadier General, Commander  
Name of person signing application (see instructions on back) Title  
Signature Date  
20 Nov 09

PART 3 - PERMIT (Below this line - Official Use Only)

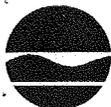
Effective Date: 9/1/10 Expiration Date: 8/31/15  
William R. Adrance  
Permit Administrator Address: NYSDEC - Division of Environmental Permits  
Bureau of Environmental Analysis  
625 Broadway, Albany, NY 12233-1750  
Signature Date  
JAN 22 2010

This permit together with the previous valid permit for this facility issued 9/1/05 and subsequent modifications constitute authorization to discharge wastewater in accordance with all terms, conditions and limitations specified in the previously issued valid permit, modifications thereof or issued as part of this permit, including any special or general conditions attached hereto. Nothing in this permit shall be deemed to waive the Department's authority to initiate a modification of this permit on the grounds specified in 6NYCRR §621.14, 6NYCRR §754.4 or 6NYCRR §757.1 existing at the time this permit is issued or which arise thereafter.

Attachments: General Conditions dated







NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
**State Pollutant Discharge Elimination System (SPDES)**  
**DISCHARGE PERMIT**

First3.99

Industrial Code:	<b>9711</b>	SPDES Number:	<b>NY- 0250457</b>
Discharge Class (CL):	<b>01</b>	DEC Number:	<b>3-3346-00085/0024</b>
Toxic Class (TX):	<b>T</b>	Effective Date (EDP):	<b>Sept 1, 2005</b>
Major Drainage Basin:	<b>13</b>	Expiration Date (ExDP):	<b>Aug 31, 2010</b>
Sub Drainage Basin:	<b>01</b>	Modification Dates: (EDPM)	<b>May 24, 2007; July 12, 2007</b>
Water Index Number:	<b>H-89-2</b>		
Compact Area:			

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. §1251 et.seq.)(hereinafter referred to as "the Act").

**PERMITTEE NAME AND ADDRESS**

Name:	<b>New York Air National Guard</b>	Attention:	<b>Mona Johnson, Lt Col, Env. Mgr.</b>
Street:	<b>One Maguire Way</b>		
City:	<b>Newburgh</b>	State:	<b>NY</b>
		Zip Code:	<b>12550</b>

is authorized to discharge from the facility described below:

**FACILITY NAME AND ADDRESS**

Name:	<b>Stewart Air National Guard Base</b>		
Location (C,T,V):	<b>New Windsor (T)</b>	County:	<b>Orange</b>
Facility Address:	<b>105 MAG/DEE One Militia Way</b>		
City:	<b>Newburgh</b>	State:	<b>NY</b>
		Zip Code:	<b>12550</b>

NYTM -E: From Outfall No.: **010** at Latitude: **41 ° 29 ' 42 "** & Longitude: **74 ° 5 ' 10 "**  
 NYTM - N:  
 into receiving waters known as: **Tributary to Silver Stream** Class: **D**

and; (list other Outfalls, Receiving Waters & Water Classifications)  
 See list on page 2.

in accordance with: effluent limitations; monitoring and reporting requirements; other provisions and conditions set forth in this permit; and 6 NYCRR Part 750-1.2(a) and 750-2.

**DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS**

Mailing Name:	<b>New York Air National Guard</b>		
Street:	<b>One Militia Way</b>		
City:	<b>Newburgh</b>	State:	<b>NY</b>
		Zip Code:	<b>12550</b>
Responsible Official or Agent:	<b>Mona Johnson, Lt Col, Env. Mgr.</b>	Phone:	<b>(845) 563-2366</b>

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed, or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal not less than 180 days prior to the expiration date shown above.

**DISTRIBUTION:**

CO BWP - Permit Coordinator  
 RWE  
 RPA  
 EPA Region II - Jeffrey Gratz  
 Cheryle Webber

Permit Administrator: <b>William R. Adriance</b>	
Address: <b>625 Broadway</b> <b>Albany, NY 12233-1750</b>	
Signature: <i>William R. Adriance</i>	Date: <b>7/12/07</b>

**ADDITIONAL OUTFALLS**

Outfall No.	Description	Latitude/Longitude	Receiving Stream/Class
001 ✓	Stormwater from POL area	41°30'19"/74°04'55"	Trib. to Quassaic Creek/ Class D
01A ✓	Internal - Hydrostatic Testing	Various within the POL area	Via 001
002 ✓	Internal - Stormwater into Recreation Pond	41°29'47"/74°05'11"	Via 010
003 ✓	Internal - Stormwater into Recreation Pond	41°29'46"/74°05'13"	Via 010
004 ✓	Stormwater from interior base area	41°29'58"/74°04'53"	Trib. to Silver Stream/Class D
005 ✓	Stormwater from parking areas near Bldgs 207 and 213	41°30'02"/74°04'51"	Trib. to Silver Stream/Class D
006 ✓	Stormwater from area around Bldg. 108 and water tanks	41°29'48"/74°05'02"	Trib. to Silver Stream/Class D
007 ✓	Stormwater from flight simulator facility and USMC van pad	41°30'15"/74°04'54"	Trib. to Quassic Creek/Class D
008 ✓	Stormwater from 213 EIS parking lot	41°30'11"/74°04'50"	Trib. to Quassic Creek/Class D
009A ✓	Stormwater from covered landfill area	41°29'47"/74°04'51"	Trib. to Quassic Creek/Class D
009B ✓	Stormwater from covered landfill area	41°29'53"/74°04'49"	Trib. to Quassic Creek/Class D

**PERMIT LIMITS, LEVELS AND MONITORING DEFINITIONS**

OUTFALL	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING		
	This cell describes the type of wastewater authorized for discharge. Examples include process or sanitary wastewater, storm water, non-contact cooling water.	This cell lists classified waters of the state to which the listed outfall discharges.	The date this page starts in effect. (e.g. EDP or EDPM)	The date this page is no longer in effect. (e.g. ExDP)		
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQ.	SAMPLE TYPE	
e.g. pH, TRC, Temperature, D.O.	The minimum level that must be maintained at all instants in time.	The maximum level that may not be exceeded at any instant in time.	SU, °F, mg/l, etc.			
PARA-METER	EFFLUENT LIMIT	PRACTICAL QUANTITATION LIMIT (PQL)	ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE
	Limit types are defined below in Note 1. The effluent limit is developed based on the more stringent of technology-based limits, required under the Clean Water Act, or New York State water quality standards. The limit has been derived based on existing assumptions and rules. These assumptions include receiving water hardness, pH and temperature; rates of this and other discharges to the receiving stream; etc. If assumptions or rules change the limit may, after due process and modification of this permit, change.	For the purposes of compliance assessment, the analytical method specified in the permit shall be used to monitor the amount of the pollutant in the outfall to this level, provided that the laboratory analyst has complied with the specified quality assurance/quality control procedures in the relevant method. Monitoring results that are lower than this level must be reported, but shall not be used to determine compliance with the calculated limit. This PQL can be neither lowered nor raised without a modification of this permit.	Type I or Type II Action Levels are monitoring requirements, as defined below in Note 2, that trigger additional monitoring and permit review when exceeded.	This can include units of flow, pH, mass, Temperature, concentration. Examples include µg/l, lbs/d, etc.	Examples include Daily, 3/week, weekly, 2/month, monthly, quarterly, 2/yr and yearly.	Examples include grab, 24 hour composite and 3 grab samples collected over a 6 hour period.

**Note 1: DAILY DISCHARGE:** The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants expressed in units of mass, the 'daily discharge' is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the 'daily discharge' is calculated as the average measurement of the pollutant over the day.

**DAILY MAX.:** The highest allowable daily discharge. **DAILY MIN.:** The lowest allowable daily discharge.

**MONTHLY AVG:** The highest allowable average of daily discharges over a calendar month, calculated as the sum of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

**7 DAY ARITHMETIC MEAN (7 day average):** The highest allowable average of daily discharges over a calendar week.

**30 DAY GEOMETRIC MEAN:** The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of : the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

**7 DAY GEOMETRIC MEAN:** The highest allowable geometric mean of daily discharges over a calendar week.

**RANGE:** The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown.

**Note 2: ACTION LEVELS:** Routine Action Level monitoring results, if not provided for on the Discharge Monitoring Report (DMR) form, shall be appended to the DMR for the period during which the sampling was conducted. If the additional monitoring requirement is triggered as noted below, the permittee shall undertake a short-term, high-intensity monitoring program for the parameter(s). Samples identical to those required for routine monitoring purposes shall be taken on each of at least three consecutive operating and discharging days and analyzed. Results shall be expressed in terms of both concentration and mass, and shall be submitted no later than the end of the third month following the month when the additional monitoring requirement was triggered. Results may be appended to the DMR or transmitted under separate cover to the same address. If levels higher than the Action Levels are confirmed, the permit may be reopened by the Department for consideration of revised Action Levels or effluent limits. The permittee is not authorized to discharge any of the listed parameters at levels which may cause or contribute to a violation of water quality standards. **TYPE I:** The additional monitoring requirement is triggered upon receipt by the permittee of any monitoring results in excess of the stated Action Level.

**PERMIT LIMITS, LEVELS AND MONITORING**

OUTFALL NUMBER	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
001	Stormwater from Petroleum, Oils and Lubricants Storage Area	Trib. to Quassaic Creek	May 24, 2007	Aug 31, 2010

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH	6.0	9.0	SU	1/month	grab	

PARAMETER	EFFLUENT LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow		Monitor			GPD	1/month	Calculated	
Oil & Grease		15			mg/l	1/month	Grab	
Benzene			0.10		mg/l	1/quarter	Grab	
Toluene			0.10		mg/l	1/quarter	Grab	
Xylenes, Total			0.10		mg/l	1/quarter	Grab	
Ethylbenzene			0.10		mg/l	1/quarter	Grab	

OUTFALL NUMBER	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
01A	Hydrostatic Test Water	Internal	(1)	(1)

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH	6.0	9.0	SU	1/month	grab	

PARAMETER	EFFLUENT LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow		Monitor			GPD	See Footnote	Calculated	(3)
Oil & Grease		15			mg/l	See Footnote	Grab	(1) (4)
Chlorine, Total Residual		0.10			mg/l	See Footnote	Grab	(2)
Benzene		0.02			mg/l	See Footnote	Grab	(1)
Toluene		0.02			mg/l	See Footnote	Grab	(1)
Xylenes, Total		0.02			mg/l	See Footnote	Grab	(1)
Ethylbenzene		0.02			mg/l	See Footnote	Grab	(1)

**PERMIT LIMITS, LEVELS AND MONITORING**

OUTFALL NUMBER	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
002 & 003	Stormwater from Interior Base Area, Aircraft Parking Ramp & Under Drain System Flows	Internal	May 24, 2007	Aug 31, 2010

PARAMETER	EFFLUENT LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow		Monitor			GPD	1/month	Calculated	
BOD, 5-day		Monitor			mg/l	1/month	Grab	(5)
Glycol		Monitor			mg/l	1/month	Grab	(5)

OUTFALL NUMBER	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
004	Stormwater from interior base area	Trib. to Silver Stream	July 12, 2007	Aug 31, 2010

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH	6.0	9.0	SU	1/year	grab	

PARAMETER	EFFLUENT LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow		Monitor			GPD	1/year	Calculated	
Oil & Grease		15			mg/l	1/year	Grab	

OUTFALL NUMBER	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
005 - 009B	Stormwater runoff	Trib to Silver Stream and Trib to Quassic Creek	May 24, 2007	Aug 31, 2010

**NO MONITORING REQUIRED**

**FOOTNOTES on page 7**

**PERMIT LIMITS, LEVELS AND MONITORING**

OUTFALL NUMBER	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
010	Stormwater from Interior Base Area, Aircraft Parking Ramp & Groundwater Under Drain System Flows	Trib. to Silver Stream	May 24, 2007	Aug 31, 2010

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH	6.0	9.0	SU	1/month	grab	

PARAMETER	EFFLUENT LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow		Monitor			GPD	1/month	Metered	(6)
BOD, 5-day (May 1 - Sept 30)		40			mg/l	1/month	Grab	
BOD, 5-day (Oct 1 - Apr 30)		80			mg/l	1/month	Grab	
Oil & Grease		15			mg/l	1/month	Grab	
Benzene			0.10		mg/l	1/month	Grab	
Toluene			0.10		mg/l	1/month	Grab	
Xylenes, Total			0.10		mg/l	1/month	Grab	
Ethylbenzene			0.10		mg/l	1/month	Grab	
Glycol, Total		Monitor			mg/l	1/month	Grab	

**FOOTNOTES** on page 7

**FOOTNOTES:****(1) Hydrostatic Test Water Discharges:**

If hydrostatic testing of tanks with water is performed, the following requirements apply:

- Limits are in effect during periods of hydrostatic testing of piping systems and tanks and expire when discharge of test waters is complete.
- Discharges of hydrostatic test water shall be via outfall 001. Samples must be taken from the tank, and/or pipe contents and then analyzed for all parameters independent of the normal monthly 001 storm water sampling. The hydrostatic test sampling must be done at three levels within a tank; the bottom, middle and top, and submitted to the Regional Water Engineer at least 2 business days prior to discharge of the tank contents. Submission of analytical results prior to discharge may be waived at the discretion of the Regional Water Engineer or his representative.
- Unless specifically authorized otherwise by the Regional Water Engineer, analytical results of hydrostatic test sampling must be reviewed by base personnel for compliance with limits before initiation of the discharge of tank contents. If effluent limitations are not attained, measures to achieve compliance must be implemented.
- Any discharge of hydrostatic test water must be done under the direct supervision of base personnel. A visual check for the presence of oil and floating substances must be made of the discharge.

(2) Required when chlorinated water is used for tank testing water, e.g., water from a municipal system.

(3) Flow shall be calculated by determining the volume of water used during hydrostatic testing.

(4) A visual check for oil or floating substances must be made and logged prior to the initiation of a discharge from the Petroleum, Oils and Lubricants (POL) Storage Area secondary containment. The log of visual observations shall be maintained at the facility for a period of at least five years and must be made available to department personnel upon request.

(5) Sampling shall be conducted once per month during a precipitation or runoff event. If no such event occurs, the sample shall be taken anyway and a note that the sample consists of groundwater from only the underdrain system shall be made on the DMR.

(6) The flow monitoring requirement shall be effective beginning EDPM + 6 months in accordance with the Flow Monitoring compliance schedule in this permit.

**ADDITIONAL CONDITIONS:**

1- Consistent with Department policy, dilution is prohibited as a substitute for treatment. Except where expressly authorized to do so by an applicable Categorical Standard or the Commissioner or his duly authorized representative, no Industrial User shall ever increase the use of process water or, in any other way, attempt to dilute a Discharge as a partial or complete substitute for adequate treatment to achieve compliance with an Effluent Limitation.

2- The Aircraft deicing chemical Propylene glycol is approved for aircraft deicing. No other chemical is approved for the deicing of aircraft. Prior to use of any chemical other than Propylene glycol for the purpose of aircraft deicing the written approval of the Region 3 Regional Water Engineer must be obtained.

**SPECIAL CONDITIONS - INDUSTRY BEST MANAGEMENT PRACTICES**

1. General - The permittee shall develop, maintain, and implement a Best Management Practices (BMP) plan to prevent releases of significant amounts of pollutants to the waters of the State through plant site runoff; spillage and leaks; sludge or waste disposal; and stormwater discharges including, but not limited to, drainage from raw material storage.

The BMP plan shall be documented in narrative form and shall include the 13 minimum BMPs and any necessary plot plans, drawings, or maps. Other documents already prepared for the facility such as a Safety Manual or a Spill Prevention, Control and Countermeasure (SPCC) plan may be used as part of the plan and may be incorporated by reference. A copy of the current BMP plan shall be submitted to the Department as required in item (2.) below and a copy must be maintained at the facility and shall be available to authorized Department representatives upon request.

2. Compliance Deadlines - A complete BMP/SWPPP plan was submitted to the Department on April 17, 2006. The BMP plan shall be reviewed annually and shall be modified whenever: (a) changes at the facility materially increase the potential for releases of pollutants, (b) actual releases indicate the plan is inadequate, or (c) a letter from the Department identifies inadequacies in the plan. The permittee shall certify in writing, as an attachment to the December Discharge Monitoring Report (DMR), that the annual review has been completed. All BMP plan revisions (with the exception of SWPPPs - see item (4.B.) below) must be submitted to the Regional Water Engineer within 30 days. Note that the permittee is not required to obtain Department approval of the BMP plan (or of any SWPPPs) unless notified otherwise. Subsequent modifications to or renewal of this permit does not reset or revise these deadlines unless a new deadline is set explicitly by such permit modification or renewal.

3. Facility Review - The permittee shall review all facility components or systems (including but not limited to material storage areas; in-plant transfer, process, and material handling areas; loading and unloading operations; storm water, erosion, and sediment control measures; process emergency control systems; and sludge and waste disposal areas) where materials or pollutants are used, manufactured, stored or handled to evaluate the potential for the release of pollutants to the waters of the State. In performing such an evaluation, the permittee shall consider such factors as the probability of equipment failure or improper operation, cross-contamination of storm water by process materials, settlement of facility air emissions, the effects of natural phenomena such as freezing temperatures and precipitation, fires, and the facility's history of spills and leaks. The relative toxicity of the pollutant shall be considered in determining the significance of potential releases.

The review shall address all substances present at the facility that are identified in Tables 6-10 of SPDES application Form NY-2C (available at <http://www.dec.state.ny.us/website/dcs/permits/olpermits/form2c.pdf>) or that are required to be monitored for by the SPDES permit.

4. A. 13 Minimum BMPs - Whenever the potential for a release of pollutants to State waters is determined to be present, the permittee shall identify BMPs that have been established to prevent or minimize such potential releases. Where BMPs are inadequate or absent, appropriate BMPs shall be established. In selecting appropriate BMPs, the permittee shall consider good industry practices and, where appropriate, structural measures such as secondary containment and erosion/sediment control devices and practices. USEPA guidance for development of stormwater elements of the BMP is available in the September 1992 manual *Storm Water Management for Industrial Activities*, EPA 832-R-92-006 (available on-line at <http://nepis.epa.gov/pubtitleOW.htm>). As a minimum, the plan shall include the following BMPs:

- |                                     |  |                                 |
|-------------------------------------|--|---------------------------------|
| 1. BMP Pollution Prevention Team    | 6. Security  | 10. Spill Prevention & Response |
| 2. Reporting of BMP Incidents       | 7. Preventive Maintenance                                | 11. Erosion & Sediment Control  |
| 3. Risk Identification & Assessment | 8. Good Housekeeping                                     | 12. Management of Runoff        |
| 4. Employee Training                | 9. Materials/Waste Handling,<br>Storage, & Compatibility | 13. Street Sweeping             |
| 5. Inspections and Records          |  |                                 |

Note that for some facilities, especially those with few employees, some of the above BMPs may not be applicable. It is acceptable in these cases to indicate "Not Applicable" for the portion(s) of the BMP Plan that do not apply to your facility, along with an explanation.

B. Stormwater Pollution Prevention Plans (SWPPPs) Required for Discharges of Stormwater From Construction Activity to Surface Waters - As part of BMP #11, a SWPPP shall be developed prior to the initiation of any site disturbance of one acre or

more of uncontaminated area. Uncontaminated area means soils or groundwater which are free of contamination by any toxic or non-conventional pollutants identified in Tables 6-10 of SPDES application Form NY-2C. Disturbance of any size contaminated area(s) and the resulting discharge of contaminated stormwater is not authorized by this permit unless the discharge is under State or Federal oversight as part of a remedial program or after review by the Regional Water Engineer; nor is such discharge authorized by any SPDES general permit for stormwater discharges. SWPPPs are not required for discharges of stormwater from construction activity to groundwaters.

The SWPPP shall conform to the *New York Standards and Specifications for Erosion and Sediment Control* and *New York State Stormwater Management Design Manual*, unless a variance has been obtained from the Regional Water Engineer, and to any local requirements. The permittee shall submit a copy of the SWPPP and any amendments thereto to the local governing body and any other authorized agency having jurisdiction or regulatory control over the construction activity at least 30 days prior to soil disturbance. The SWPPP shall also be submitted to the Regional Water Engineer if contamination, as defined above, is involved and the permittee must obtain a determination of any SPDES permit modifications and/or additional treatment which may be required prior to soil disturbance. Otherwise, the SWPPP shall be submitted to the Department only upon request. When a SWPPP is required, a properly completed *Notice of Intent* (NOI) form shall be submitted (available at [www.dec.state.ny.us/website/dow/toolbox/swforms.html](http://www.dec.state.ny.us/website/dow/toolbox/swforms.html)) prior to soil disturbance. Note that submission of a NOI is required for informational purposes; the permittee is not eligible for and will not obtain coverage under any SPDES general permit for stormwater discharges, nor are any additional permit fees incurred. SWPPPs must be developed and submitted for subsequent site disturbances in accordance with the above requirements. The permittee is responsible for ensuring that the provisions of each SWPPP is properly implemented.

5. Required Sampling For "Hot Spot" Identification - Development of the BMP plan shall include sampling of waste stream segments for the purpose of pollutant "hot spot" identification. The economic achievability of effluent limits will not be considered until plant site "hot spot" sources have been identified, contained, removed or minimized through the imposition of site specific BMPs or application of internal facility treatment technology. For the purposes of this permit condition a "hot spot" is a segment of an industrial facility (including but not limited to soil, equipment, material storage areas, sewer lines etc.) which contributes elevated levels of problem pollutants to the wastewater and/or stormwater collection system of that facility. For the purposes of this definition, problem pollutants are substances for which treatment to meet a water quality or technology requirement may, considering the results of waste stream segment sampling, be deemed unreasonable. For the purposes of this definition, an elevated level is a concentration or mass loading of the pollutant in question which is sufficiently higher than the concentration of that same pollutant at the compliance monitoring location so as to allow for an economically justifiable removal and/or isolation of the segment and/or B.A.T. treatment of wastewaters emanating from the segment.
6. Facilities with Petroleum and/or Chemical Bulk Storage (PBS and CBS) Areas - Compliance must be maintained with all applicable regulations including those involving releases, registration, handling and storage (6NYCRR 595-599 and 612-614). Stormwater discharges from handling and storage areas should be eliminated where practical.
  - A. Spill Cleanup - All spilled or leaked substances must be removed from secondary containment systems as soon as practical and for CBS storage areas within 24 hours, unless written authorization is received from the Department. The containment system must be thoroughly cleaned to remove any residual contamination which could cause contamination of stormwater and the resulting discharge of pollutants to waters of the State. Following spill cleanup the affected area must be completely flushed with clean water three times and the water removed after each flushing for proper disposal in an on-site or off-site wastewater treatment plant designed to treat such water and permitted to discharge such wastewater. Alternately, the permittee may test the first batch of stormwater following the spill cleanup to determine discharge acceptability. If the water contains no pollutants it may be discharged. Otherwise it must be disposed of as noted above. See *Discharge Monitoring* below for the list of parameters to be sampled for.
  - B. Discharge Operation - Stormwater must be removed before it compromises the required containment system capacity. Each discharge may only proceed with the prior approval of the permittee staff person responsible for ensuring SPDES permit compliance. Bulk storage secondary containment drainage systems must be locked in a closed position except when the operator is in the process of draining accumulated stormwater. Transfer area secondary containment drainage systems must be locked in a closed position during all transfers and must not be reopened unless the transfer area is clean of contaminants. Stormwater discharges from secondary containment systems should be avoided during periods of precipitation. A logbook shall be maintained on site noting the date, time and personnel supervising each discharge.
  - C. Discharge Screening - Prior to each discharge from a secondary containment system the stormwater must be screened for

contamination\*. All stormwater must be inspected for visible evidence of contamination. Additional screening methods shall be developed by the permittee as part of the overall BMP Plan, e.g. the use of volatile gas meters to detect the presence of gross levels of gasoline or volatile organic compounds. If the screening indicates contamination, the permittee must collect and analyze a representative sample\*\* of the stormwater. If the water contains no pollutants it may be discharged. Otherwise it must either be disposed of in an on site or off site wastewater treatment plant designed to treat and permitted to discharge such wastewater or the Regional Water Engineer can be contacted to determine if it may be discharged without treatment.

D. Discharge Monitoring - Unless the discharge from any bulk storage containment system outlet is identified in the SPDES permit as an outfall with explicit effluent and monitoring requirements, the permittee shall monitor the outlet as follows:

(i) *Bulk Storage Secondary Containment Systems:*

(a) The volume of each discharge from each outlet must be monitored. Discharge volume may be calculated by measuring the depth of water within the containment area times the wetted area converted to gallons or by other suitable methods. A representative sample shall be collected of the first discharge\* following any cleaned up spill or leak. The sample must be analyzed for pH, the substance(s) stored within the containment area and any other pollutants the permittee knows or has reason to believe are present\*\*.

(b) Every fourth discharge\* from each outlet must be sampled for pH, the substance(s) stored within the containment area and any other pollutants the permittee knows or has reason to believe are present\*\*.

(c) This SPDES permit is not to be construed as altering obligations of the permittee under 6NYCRR Part 613, i.e. 613.3(c) (iii) Storm water which collects within the secondary containment system must be controlled by a manually operated pump or siphon, or gravity drain ... dike valves... All pumps, siphons and valves must be properly maintained and kept in good condition. If gravity drain pipes are used, all dike valves must be locked in a closed position except when the operator is in the process of draining ... water from the diked area.

(ii) *Transfer Area Secondary Containment Systems:*

The first discharge\* following any spill or leak must be sampled for flow, pH, the substance(s) transferred in that area and any other pollutants the permittee knows or has reason to believe are present\*\*.

E. Discharge Reporting - Any results of monitoring required above, excluding screening data, must be submitted to the Department by appending them to the corresponding DMR. Failure to perform the required discharge monitoring and reporting shall constitute a violation of the terms of the SPDES permit.

F. Prohibited Discharges - In all cases, any discharge which contains a visible sheen, foam, or odor, or may cause or contribute to a violation of water quality in the receiving water is prohibited. The following discharges are prohibited unless specifically authorized elsewhere in this SPDES permit: spills or leaks, tank bottoms, maintenance wastewaters, wash waters where detergents or other chemicals have been used, tank hydrotest and ballast waters, contained fire fighting runoff, fire training water contaminated by contact with pollutants or containing foam or fire retardant additives, and unnecessary discharges of water or wastewater into secondary containment systems. Waste or wastewater generated at locations other than at this facility are not permitted to be treated at or discharged from this facility.

\* Discharge includes stormwater discharges and snow and ice removal. If applicable, a representative sample of snow and/or ice should be collected and allowed to melt prior to assessment.

\*\* If the stored substance is gasoline or aviation fuel then sample for oil & grease, benzene, ethylbenzene, naphthalene, toluene and total xylenes (EPA method 602). If the stored substance is kerosene, diesel fuel, fuel oil, or lubricating oil then sample for oil & grease and polynuclear aromatic hydrocarbons (EPA method 610). If the substance(s) are listed in Tables 6-8 of SPDES application form NY-2C then sampling is required. If the substance(s) are listed in NY-2C Tables 9-10 sampling for appropriate indicator parameters may be required, e.g. BOD5 or toxicity testing. Contact the facility inspector for further guidance. In all cases flow and pH monitoring is required.

## MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permits, at the location(s) indicated below:

For Outfall 001, the petroleum, oils & lubricants storage area - from the effluent flow prior to exiting the airport property via the roadside ditch tributary to Quassaic Creek;

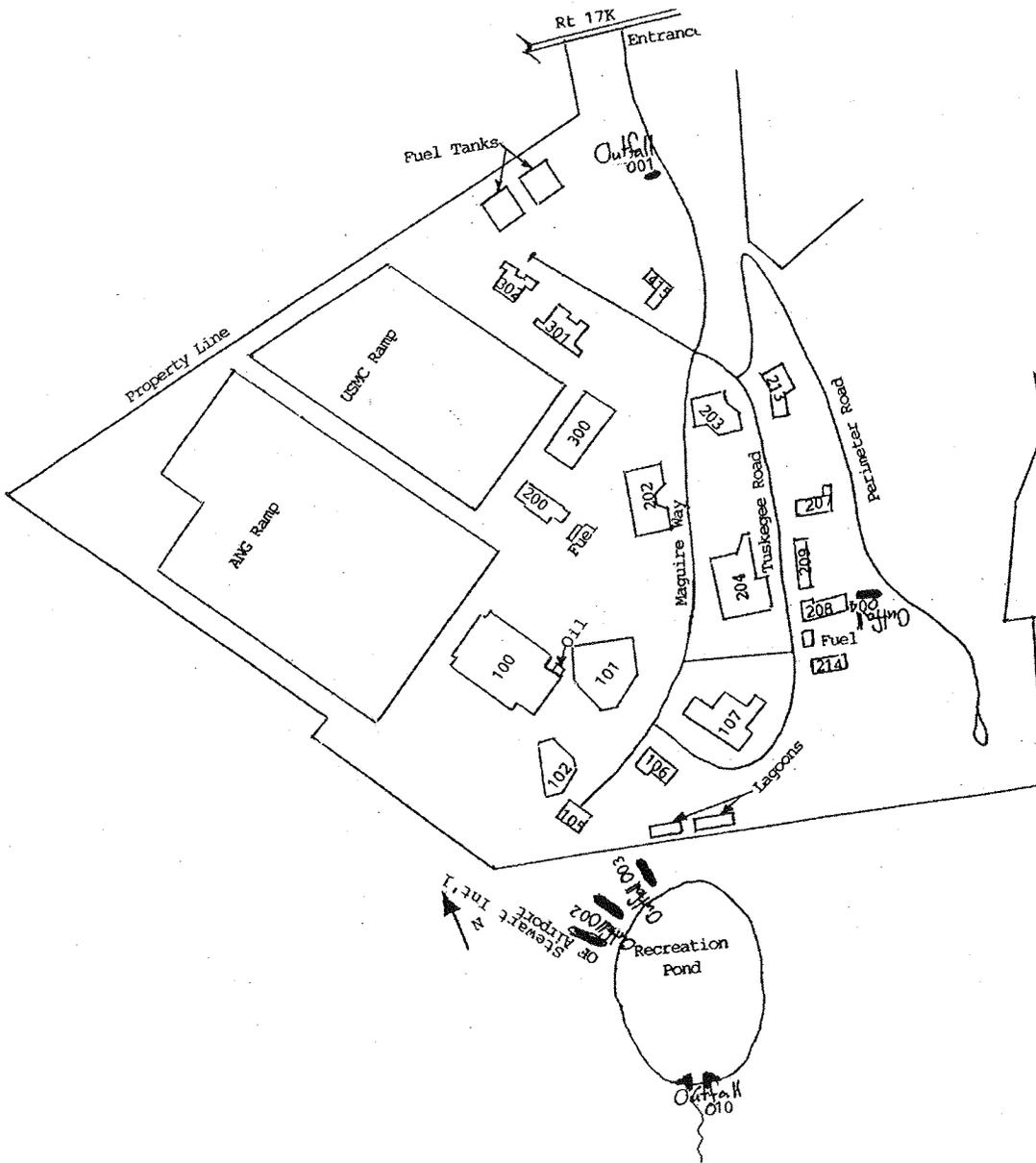
For Outfall 01A - from the tank, pipe, etc., contents prior to discharge;

For Outfall 002 - stormwater from aircraft parking and deicing area - from culvert just prior to Recreation Pond;

For Outfall 003 - stormwater from interior base area - from culvert just prior to Recreation Pond;

For Outfall 004 - the swale behind Building 208, north of Perimeter Road;

For Outfall 010, the aircraft parking ramp runoff and underdrain system flows as well as interior base area runoff - at the discharge end of Recreation Pond.



**SCHEDULE OF COMPLIANCE**

**a) Hi-Intensity Sampling for Acetone**

Action Code	Outfall Number(s)	Compliance Action	Due Date						
	010	<p>The permittee shall conduct sampling for the following parameters detected in the WWTP effluent and listed in the permit application. Sampling shall be once per week for a period of 3 months. The permittee shall submit the results of the analyses along with the daily flow:</p> <table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;"><u>Parameter</u></td> <td style="text-align: center;"><u>EPA Method of Analysis Required</u></td> <td style="text-align: center;"><u>Sample Type</u></td> </tr> <tr> <td style="text-align: center;">Acetone</td> <td style="text-align: center;">8260</td> <td style="text-align: center;">Grab</td> </tr> </table> <p>The Department may reopen and modify the permit upon review of the sampling results.</p>	<u>Parameter</u>	<u>EPA Method of Analysis Required</u>	<u>Sample Type</u>	Acetone	8260	Grab	<p>May 24, 2007 + 6 month</p>
<u>Parameter</u>	<u>EPA Method of Analysis Required</u>	<u>Sample Type</u>							
Acetone	8260	Grab							

**b) Flow Monitoring**

Action Code	Outfall Number(s)	Compliance Action	Due Date
	010	<p>The permittee shall submit a report identifying the method or device that will be used to measure flow from Outfall 010.</p> <p>The permittee shall complete construction/development of a flow measurement device or method and begin reporting flow measurements from Outfall 010</p>	<p>May 24, 2007 + 2 months</p> <p>May 24, 2007 + 6 month</p>

**The above compliance actions are one time requirements. The permittee shall comply with the above compliance actions to the Department's satisfaction once. When this permit is administratively renewed by NYSDEC letter entitled "SPDES NOTICE/RENEWAL APPLICATION/PERMIT", the permittee is not required to repeat the submission. The above due dates are independent from the effective date of the permit stated in the letter of "SPDES NOTICE/RENEWAL APPLICATION/PERMIT."**

- c) The permittee shall submit a written notice of compliance or non-compliance with each of the above schedule dates no later than 14 days following each elapsed date, unless conditions require more immediate notice in accordance with 6NYCRR Part 750-2.7. All such compliance or non-compliance notification shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance shall include the following information:
1. A short description of the non-compliance;
  2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
  3. A description or any factors which tend to explain or mitigate the non-compliance; and
  4. An estimate of the date the permittee will comply with the elapsed schedule requirement and an assessment of the probability that the permittee will meet the next scheduled requirement on time.
- d) The permittee shall submit copies of any document required by the above schedule of compliance to NYSDEC Regional Water Engineer and to the Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505, unless otherwise specified in this

permit or in writing by the Department.

**DISCHARGE NOTIFICATION REQUIREMENTS**

- a) The permittee shall maintain the existing identification signs at all outfalls to surface waters, which have not been waived by the Department in accordance with 17-0815-a. The sign(s) shall be conspicuous, legible and in as close proximity to the point of discharge as is reasonably possible while ensuring the maximum visibility from the surface water and shore. The signs shall be installed in such a manner to pose minimal hazard to navigation, bathing or other water related activities. If the public has access to the water from the land in the vicinity of the outfall, an identical sign shall be posted to be visible from the direction approaching the surface water.

The signs shall have **minimum** dimensions of eighteen inches by twenty four inches (18" x 24") and shall have white letters on a green background and contain the following information:

**N.Y.S. PERMITTED DISCHARGE POINT**

SPDES PERMIT No.: NY \_\_\_\_\_

OUTFALL No. : \_\_\_\_\_

For information about this permitted discharge contact:

Permittee Name: \_\_\_\_\_

Permittee Contact: \_\_\_\_\_

Permittee Phone: (    ) - ### - ####

OR:

NYSDEC Division of Water Regional Office Address :

NYSDEC Division of Water Regional Phone: (    ) - ### - ####

- b) For each discharge required to have a sign in accordance with a), the permittee shall provide for public review at a repository accessible to the public, copies of the Discharge Monitoring Reports (DMRs) as required by the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of this permit. This repository shall be open to the public, at a minimum, during normal daytime business hours. The repository may be at the business office repository of the permittee or at an off-premises location of its choice (such location shall be the village, town, city or county clerk's office, the local library or other location as approved by the Department). In accordance with the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of your permit, each DMR shall be maintained on record for a period of five years.
- c) The permittee shall periodically inspect the outfall identification signs in order to ensure that they are maintained, are still visible and contain information that is current and factually correct.

**RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS**

- a) The permittee shall also refer to 6 NYCRR Part 750-1.2(a) and 750-2 for additional information concerning monitoring and reporting requirements and conditions.
- b) The monitoring information required by this permit shall be summarized, signed and retained for a period of at least five years from the date of the sampling for subsequent inspection by the Department or its designated agent. **Also, monitoring information required by this permit shall be summarized and reported by submitting;**

(if box is checked) completed and signed Discharge Monitoring Report (DMR) forms for each 1 month reporting period to the locations specified below. Blank forms are available at the Department's Albany office listed below. The first reporting period begins on the effective date of this permit and the reports will be due no later than the 28th day of the month following the end of each reporting period.

(if box is checked) an annual report to the Regional Water Engineer at the address specified below. The annual report is due by February 1 and must summarize information for January to December of the previous year in a format acceptable to the Department.

(if box is checked) a monthly "Wastewater Facility Operation Report..." (form 92-15-7) to the:

Regional Water Engineer and/or  County Health Department or Environmental Control Agency specified below

Send the **original** (top sheet) of each DMR page to:

Department of Environmental Conservation  
Division of Water  
Bureau of Water Compliance Programs  
625 Broadway  
Albany, New York 12233-3506

Phone: (518) 402-8177

Send the **first copy** (second sheet) of each DMR page to:

Department of Environmental Conservation  
Regional Water Engineer  
100 Hillside Avenue, Suite 1W  
White Plains, New York 10603-2860  
Phone: (914) 428-2505 x350

Send an **additional copy** of each DMR page to:

- c) Noncompliance with the provisions of this permit shall be reported to the Department as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2.
- d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
- e) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculations and recording of the data on the Discharge Monitoring Reports.
- f) Calculation for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- g) Unless otherwise specified, all information recorded on the Discharge Monitoring Report shall be based upon measurements and sampling carried out during the most recently completed reporting period.
- h) Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section five hundred two of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be sent to the Environmental Laboratory Accreditation Program, New York State Health Department Center for Laboratories and Research, Division of Environmental Sciences, The Nelson A. Rockefeller Empire State Plaza, Albany, New York 12201.

## FACT SHEET NARRATIVE

Stewart Air National Guard Base

SPDES No.:NY0250457

May 2007

Cheryle Webber, permit writer

This draft permit is a Department-initiated modification under the Environmental Benefit Permit Strategy; undertaken pursuant to 6NYCRR Part 750-1.18(b)(1) and 750-1.19. The following changes have been made to the permit:

### Permit pages -

- Updated permit pages are used, based on current Department guidance, format and nomenclature. These include a page of definitions.
- Permit pages are renumbered and reordered.
- The addresses of the Bureau of Water Compliance and the Regional Water Engineer on the Recording, Reporting and Monitoring page have been changed.
- The Interstate Sanitation Commission has changed its name to the Interstate Environmental Commission and is referenced thus in the permit.
- All mention of the General Conditions have been removed from the permit pages, as these conditions have been replaced by regulations at 6NYCRR Part 750.

### Outfalls -

- The permittee requested that the monitoring location for outfalls 002 and 003 be moved to the discharge side of the manmade pond called Recreation Pond. This new outfall is designated as Outfall 010. The outfalls 002 and 003 remain as internal outfalls.
- Existing outfalls 005, 006, 007, 008, 009A and 009B were added to the permit. No monitoring of these outfalls is required.
- **Limits** - The flow monitoring requirement for outfalls 001, 01A, and 004 has been changed from instantaneous to calculated.
- Flow shall be *measured* at outfall 010.
- Outfall 01A - The action levels for benzene, toluene, ethylbenzene, and xylene (BTEX) for hydrostatic testing of tanks were changed to BTEX limits of 0.02 mg/l.
- Monthly monitoring of flow, BOD and glycol will be required at internal outfalls 002 and 003.
- Outfall 010 requirements include:
  - ▶ A 15 mg/l limit for oil and grease;
  - ▶ BTEX action levels of 0.10 mg/l;
  - ▶ Monitoring of glycol levels; and
  - ▶ Seasonal limits for BOD. Allowable BOD concentrations were calculated at 40 mg/l for May - September and 80 mg/l October - April. In the absence of site specific flow data for runoff and the receiving stream, a 1:1 stream flow to waste flow ratio was applied. Conservative input parameters were used in the application of the Streeter - Phelps dissolved oxygen model,

although the deoxygenation rate was adjusted after review of information supplied by the permittee's consultant. This information provided a parameter-specific deoxygenation rate for propylene glycol from a study, TMDL for Dissolved Oxygen ... in Columbia Slough, Oregon Department of Environmental Quality, Northwest Region, September 1998. Adjustments to input parameters were also made for the cooler October - April period. It is recognized that the model calculations are conservative and may be adjusted in the future if the permittee chooses to provide site-specific information to the Department for review. This adjustment may result in either higher limits (in accordance with pertinent antibacksliding regulations) or lower limits. The Department chose to apply BOD limits during two seasons only as there is no evidence that the permittee will have difficulty with the limits for the two seasons and in the interests of simplifying the permit.

#### **Compliance schedules -**

- A compliance schedule requiring three months of acetone monitoring was added to the permit as this parameter was detected in the effluent. Review of the monitoring data may result in addition of a limit or action level for acetone.
- The old compliance schedule was removed from the permit as it has been completed.
- A compliance schedule requiring identification and implementation or construction of the flow monitoring method or device that will be used to measure flow from Outfall 010 is included in the permit.

#### **Other -**

- Language for footnote 5 was modified so that monitoring of BOD and glycol at outfalls 002 and 003 is required once per month in either dry or wet weather.
- Updated Best Management Practices (BMP) language was added to the permit. Some of the additional conditions in the current permit were incorporated into the BMP language.
- Hydrostatic testing requirements were updated.
- Discharge notification act requirements were included in the permit.
- A new diagram, identifying monitoring locations, was included in the permit.



(3) Individual Outfall Data Summaries and Permit Limit Development:

**Outfall** 001

Source(s) of Wastewater	Stormwater from Petroleum, Oils, and Lubricants Storage Area
Existing Wastewater Treatment Facilities	Oil/Water Separator

Effluent Parameter (Units) <small>(concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)</small>	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)
	concentration		mass		conc.	mass	Type	PQL conc.	Basis	AWQC conc.	Effluent		Type	
	Avg/Max	95%/99%	Avg/Max	95%/99%							conc.	mass		
WET TESTING					NA					Recommended?		NO		
Flow Rate, units = gpd	Average	7,156	Maximum	61,036	Monitor		DM	NA	BPJ					
pH (su)	Minimum	6.7	Maximum	9.9	6.0 - 9.0		Range		TOGS 1.2.1	6.5-8.5				T
Oil and Grease, mg/l	5.9/6.6				15		DM		TOGS 1.2.1	Narr.				T
Benzene, mg/l	ND				0.10		AL		BPJ, TOGS 1.2.1	0.01				T
Toluene, mg/l	ND				0.10		AL		BPJ, TOGS 1.2.1	0.1				T
Xylenes, Total, mg/l	ND				0.10		AL		BPJ, TOGS 1.2.1	0.065				T
Ethyl Benzene, mg/l	ND				0.10		AL		BPJ, TOGS 1.2.1	0.017				T



(3) Individual Outfall Data Summaries and Permit Limit Development:

Outfall 010

Source(s) of Wastewater	Stormwater from Aircraft Parking Ramp and Underdrain system flows and Stormwater from roads and parking lots in interior of air base
Existing Wastewater Treatment Facilities	Oil/Water Separator & Stormwater detention pond

Effluent Parameter (Units)  (concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)
	concentration		mass		conc.	mass	Type	PQL conc.	Basis	AWQC conc.	Effluent		Type	
	Avg/Max	95%/99%	Avg/Max	95%/99%							conc.	mass		
WET TESTING					NA					Recommended?		NO		
Flow Rate, units = gpd	Average		Maximum		Monitor		DM	NA	BPJ					
pH (su)	Minimum		Maximum		6.0 - 9.0		Range		TOGS 1.2.1	6.5-8.5				T
BOD, 5-day, mg/l (May 1 - Sept 30)							DM		BPJ, TOGS 1.2.1	D.O.	40			WQ
BOD, 5-day, mg/l (Oct 1 - Apr 30)										D.O.	80			WQ
Oil and Grease, mg/l					15		DM		TOGS 1.2.1	Narr.				T
Acetone, mg/l					Monitor		DM		BPJ	0.05				T
Benzene, mg/l					0.1		AL		BPJ	0.01				T
Toluene, mg/l					0.1		AL		BPJ	0.1				T
Xylenes, Total, mg/l					0.1		AL		BPJ	0.065				T
Ethyl Benzene, mg/l					0.1		AL		BPJ	0.017				T
Glycol, Total, mg/l					Monitor		DM		BPJ					WQ

**(4) Additional Issues:**

**Water Quality Based Effluent Limits (WQBELs):**

New York State water quality regulations (for surface waters) are implemented by applying the Total Maximum Daily Load (TMDL) process to watersheds, drainage basins or waterbody segments on a pollutant specific basis. The analysis determines if there is a "reasonable potential" that the discharge of a pollutant will result in exceedance of ambient water quality criteria (AWQC). If there is a reasonable potential for an exceedance of AWQC, the TMDL is used to establish waste load allocations for point sources and load allocations for nonpoint sources of the pollutant. For point sources, the waste load allocations are translated to WQBELs for inclusion in SPDES permits. Reference - TOGS 1.3.1, USEPA Guidance for Water Quality - Based Decisions: The TMDL Process, 40 CFR 130 and the Clean Water Act 303(d).

The following table has been completed only for those parameters for which WQBELs were determined to be necessary.

Parameter					
Amount to be Allocated (TMDL)					
Number of Sources					
Allocation to this Permit					

**Statistics:**

The statistical methods utilized are consistent with TOGS 1.2.1 and the USEPA, Office of Water, Technical Support Document For Water Quality-based Toxics Control, March 1991, Appendix E. Generally based on lognormal analysis. If other data distributions such as normal or delta-lognormal are utilized it is noted below. Statistical calculations were not performed for parameters with insufficient data. Generally, ten or more data points are needed to calculate percentiles. Two or more data points are necessary to calculate an average and a maximum. Non-detects were included in the statistical calculations at the reported detection limit unless otherwise noted.

Monitoring data collected during the following time period was used to calculate statistics: 5/31/03 - 5/31/06

This data was taken from the following source(s): DMRs and application

**Internal Waste Stream Monitoring:**

40 CFR 122.45(h)(1) allows the permit authority to monitor and limit parameters at internal locations when controlling them solely at the final outfall is impractical or infeasible. Dilution of a process wastewater with large volumes of cooling water and/or storm water is one example of when the use of an internal monitoring point is justified. Monitoring at the following internal outfalls is necessary for the reasons specified:

01A - Hydrostatic Test Water.

002 and 003 - Monitoring of BOD, glycol and flow into Recreation Pond.

**(5) Summary of Proposed Permit Changes:**

Compared to the issued permit this draft is intended to replace, the following significant changes are proposed -

See the Fact Sheet Narrative.

**(6) Explanatory Notes:**

Please note that some of these terms are not applicable to every fact sheet.

AL -	Action level calculated in accordance with TOGS 1.2.1 (non POTWs) and TOGS 1.3.3 (POTWs). See the permit for a complete definition.
AVG or Av -	Average. The arithmetic mean.
AWQC -	Ambient water quality criteria for the receiving water. The applicable standard, guidance value or estimated value in accordance with TOGS 1.1.1, TOGS 1.3.1 and 6NYCRR 700-705.
Basis -	The technical analysis, internal guidance, regulation and/or law upon which an effluent limit or monitoring requirement is proposed.
BAT -	Best Available Technology Economically Achievable in accordance with TOGS 1.2.1 (non POTWs) and TOGS 1.3.3 (POTWs), 40 CFR 125, 6NYCRR 754, ECL 17-0811 and the Clean Water Act.
BCT -	Best Conventional Control Technology in accordance with TOGS 1.3.4, 40 CFR 125, 6NYCRR 754, ECL 17-0811 and the Clean Water Act.
BPJ -	Best Professional Judgement in accordance with TOGS 1.2.1 (non POTWs) and TOGS 1.3.3 (POTWs), 40 CFR 122 and 125, 6NYCRR 754.1, ECL 17-0811 and the Clean Water Act.
BPT -	Best Practicable Control Technology in accordance with TOGS 1.2.1, 40 CFR 125, 6NYCRR 754, ECL 17-0811 and the Clean Water Act.
Conc. -	Concentration in units of mg/l, ug/l or ng/l.
Design Flow -	Treatment system design capacity as noted in an approved engineering report.
Final -	Final permit period requirements. A level of performance that must be achieved according to a schedule specified in either the permit or a consent order.
g/d -	Grams per day discharged.
GW -	Groundwater effluent limitation developed in accordance with TOGS 1.2.1 (nonPOTWs), TOGS 1.3.3 (POTWs), TOGS 1.1.2 and 6NYCRR 703.
Ind -	Indicated parameter. See definition in section (4).
Interim -	Interim permit period requirements. A level of performance that must be achieved while improvements are being implemented in order to achieve final permit period requirements.
lbs/d or #/d -	Pounds per day discharged.
Mass -	Mass discharge in units of #/d or g/d discharge.
Max or Mx -	The maximum value.
MGD -	Million gallons per day.
mg/l -	Milligrams per liter.
Dilution/Mixing -	Used to determine dilution available in receiving waters. For lakes, estuaries and slowly flowing rivers and streams, mixing zone dilution is generally assumed to be 10:1 unless data is available to indicate otherwise.
Model -	Calibrated water quality model applied in accordance with TOGS 1.3.1.
Mon -	Monitor only.
NA -	The characteristics of this parameter and the reported discharge levels do not justify routine monitoring or a limit. Also indicates "not applicable".
ng/l -	Nanograms per liter. 1000 ng/l = 1 ug/l = 0.001 mg/l.
PQL -	The DEC published or site specific practical quantitation limit; the concentration in wastewater at which analytical results are thought to be accurate to within approximately plus or minus thirty percent.
R -	"Rolled Over", i.e. the specific requirement in this permit is equivalent to the previous permit. R(T) is roll over of a technology based requirement and R(WQ) is roll over of a QBEL.
Range -	The discharge is limited to a range of effluent values, e.g. a pH limit of (6.0-9.0) SU.
RREL -	EPA's Risk Reduction Engineering Laboratory treatability database.
T -	Technology based effluent limit or requirement.
TOGS -	Technical and Operational Guidance Series. Internal guidance to permit drafters used by the NYSDEC Division of Water to aid in permit drafting. Copies of these guidance documents may be obtained from the internet at <a href="http://www.dec.state.ny.us/website/dow/togs/index.htm">http://www.dec.state.ny.us/website/dow/togs/index.htm</a> .
ug/l -	Micrograms per liter. 1000 ug/l = 1 mg/l.
WET -	Whole Effluent Toxicity (testing). See TOGS 1.3.2.
WQ -	Water quality.
QBEL -	Water quality-based effluent limit. See information in section (4).
7Q10 -	The minimum average 7 consecutive day flow at a recurrence interval of 10 years. Applicable to evaluations involving aquatic health based AWQC.
30Q10 -	The minimum average 30 consecutive day flow at a recurrence interval of 10 years. Applicable to evaluations involving human health based AWQC.
95% -	The 95th percent confidence interval for the historical effluent data used to draft the permit.
99% -	The 99th percent confidence interval for the historical effluent data used to draft the permit.
133 -	Secondary treatment requirements in accordance with TOGS 1.3.3, 40 CFR 133, 6NYCRR 754, ECL 17-0509 and the Clean Water Act.
+ -	These parameters represent scans. Detections vary among the compounds which are included in the scans. The listed value represent the maximum detected level of any compound in the scan.

**EXHIBIT “B”**



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.

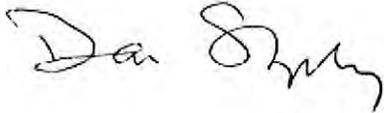
**Conclusion**

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.

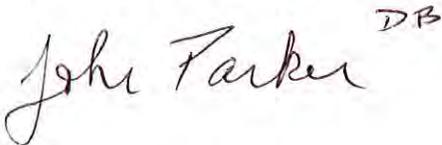
These conditions must not be allowed to continue. We urge each of you to take this opportunity to set a course starting today that will lead to improved water quality over the next generation.

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.<sup>1</sup> (While Silver

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<sup>1</sup> 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 Standards<sup>2</sup> 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,<sup>3</sup> published in June 2014, which labeled as a "priority action" encouraging "local regulatory measures for water resource

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

<sup>3</sup> Quassaick Creek Watershed Plan, [http://waterauthority.orangecountygov.com/quassaick\\_watershed.html](http://waterauthority.orangecountygov.com/quassaick_watershed.html)



protection, especially for drinking water, (and) stormwater reductions.”<sup>4</sup> 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”<sup>5</sup>;
- 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,” respectively <sup>6</sup>; 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.<sup>7</sup>

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<sup>4</sup> Quassaick Creek Watershed Plan, Appendix E, Recommendation 2-7

<sup>5</sup> Quassaick Creek Watershed Management Plan, Page II-18

<sup>6</sup> Quassaick Creek Watershed Management Plan, Page II-29

<sup>7</sup> 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.<sup>8</sup> 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 criteria.<sup>9</sup> 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."<sup>10</sup> 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

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

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

<sup>10</sup> 40 C.F.R. § 122.44(d)(1)(i), [http://cfr.regstoday.com/40cfr122.aspx#40\\_CFR\\_122p44](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 Database <sup>11</sup> :

- 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

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<sup>11</sup> Spill Incident Database, <http://www.dec.ny.gov/cfm/EXTAPPS/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](mailto:dshapley@riverkeeper.org).

Sincerely,

Dan Shapley

Water Quality Program Manager

**EXHIBIT “C”**

## Morris, Jason

---

**From:** Wade, Chad  
**Sent:** Tuesday, June 21, 2016 7:02 PM  
**To:** 'jrconway@dec.ny.gov'; 'dawn.galvin@dec.ny.gov'  
**Cc:** Morris, Jason  
**Subject:** Illicit Discharge Washington Lake  
**Attachments:** NewYorkGraniteIllicitDischarge\_June202016.pdf

Attached please find the images that I took yesterday afternoon. The three (3) images looking in the catch basins are from west to east starting with the catch basin the parking lot of New York Granite, then the two on Route 300. The other three (3) images are of the outfall location, again west to east. Above the outfall, where we were standing this morning, the side of the outfall pool, and the downstream of the pool looking towards the outfall.

Thank you both for your time today and it was a pleasure to meet and work with you both this morning. Please let us know if you ever need anything when in the City.

Chad M. Wade, R.L.A.  
Assistant City Engineer

83 Broadway  
Newburgh, New York 12550  
Phone: (845) 569.7446  
Fax: (845) 569.7349  
Email: [cwade@cityofnewburgh-ny.gov](mailto:cwade@cityofnewburgh-ny.gov)















**EXHIBIT “D”**



# Washington Lake

Storm Sewer Utilities

- Outfall
- Manhole

1 Inch = 400 Feet

Sheet 1 of 1

FOR VISUAL REFERENCE ONLY  
 02/23/2015: City of Newburgh makes no representation and provides no warranty, expressed or implied, concerning the accuracy, completeness, or availability of this map for any particular purpose, and/or for this information, and assumes no liability for the use or misuse of such data.

City of Newburgh

Engineering Department

4/20/15

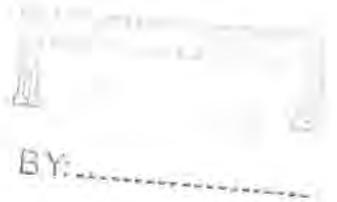
LFF

**EXHIBIT “E”**



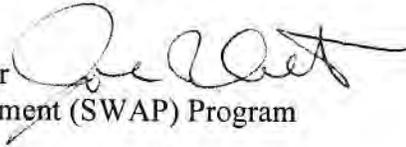
# CITY OF NEWBURGH

WATER DEPARTMENT  
NEWBURGH, NEW YORK 12550  
(845)565-3356



JOHN PLATT  
SUPERINTENDENT OF WATER

## Memorandum

To: Jean McGrane, City Manager  
From: John Platt, Superintendent of Water   
Subject: NYS DOH Source Water Assessment (SWAP) Program  
Date: April 14, 2005

Please find attached and returned for your review, the NYS DOH Source Water Assessment (SWAP) Program report. This program has been in the works by the State DOH for the last couple of years. The report assesses the risks associated with the potential for pollution and/or contamination of our source water (both City Reservoirs: Washington Lake and Brown's Pond). We tested for unregulated contaminants over the last two years at our expense at both water sources and supplied the results to the DOH. Using this information, the report findings indicate that they did not identify any significant contamination existing within our water shed at this time and the risk of future contamination was found to be at a medium level for microbial contamination.

As required by DOH regulation, this report and findings were included in our Consumer Confidence Report that we mail to all of our customers. I would recommend that a copy of this report be forwarded to Bill Hauser for his knowledge and possible review. Additionally, I believe this would serve as a base starting point for our anticipated and proposed source water safe yield investigation and water shed protection program that we plan to undertake with the Town of New Windsor as part of our on-going negotiations with our inter-municipal water agreement.

If you have any questions or need additional information, please feel free to call on me.

John Platt  
Superintendent of Water



## DEPARTMENT OF HEALTH

Jean M. Hudson, M.D., M.P.H.  
Commissioner of Health  
124 Main Street  
Goshen, New York 10924-2199

M.J. Schleifer, P.E.  
Assistant Commissioner

Edward A. Diana  
County Executive

Environmental Health (845) 291-2331  
Fax: (845) 291-4078

March 2, 2005

JEAN-ANN MCGRANE  
CITY OF NEWBURGH  
CITY HALL  
83 BROADWAY  
NEWBURGH, NY 12550-

Re: NEWBURGH CITY  
CWS - ID#3503549  
T. NEWBURGH  
AWQR SWAP Summaries

Dear JEAN-ANN MCGRANE:

This department has completed the attached SWAP summary for the Annual Water Quality Report (AWQR). This three paragraph summary is required to be included in your 2004 AWQR and all subsequent reports. However, if you have already completed the 2004 AWQR then this summary must be included in your 2005 AWQR. Please be reminded that the 2004 AWQR must be submitted to your consumers prior to May 31, 2005, it may also be submitted to this office for review prior to distribution.

If you would like me to email you the electronic version to incorporate into your AWQR you can email me at [sgagnon@co.orange.ny.us](mailto:sgagnon@co.orange.ny.us). If you have any questions please feel free to call me at the number above.

Very truly yours,

Steven Gagnon  
Public Health Engineer

cc: REY SANTIAGO  
file

City of Newburgh  
NY3503549  
AWQR Summary

The NYS DOH has evaluated this PWS's susceptibility to contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the paragraph below. It is important to stress that these assessments were created using available information and only estimate the potential for source water contamination. Elevated susceptibility ratings do not mean that source water contamination has or will occur for this PWS. This PWS provides treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards.

The analysis of available information for this source water assessment did not find any significant sources of contamination in this watershed. Statewide and local databases of permitted facilities were used to identify discrete potential sources of contamination. No discrete sources were identified within the assessment area. Land use within the watershed was evaluated by contaminant category to rate the likely prevalence of contamination associated with the various types of land use. The contaminant category ratings for land use types were determined to be medium for microbial contamination due to agricultural practices in the watershed. The overall susceptibility of this watershed to potential sources of contamination was found to be medium for microbial contamination.

A copy of the assessment, including a map of the assessment area, can be obtained by contacting us, as noted in this report.



# STATE OF NEW YORK DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H., Dr.P.H.  
*Commissioner*

Dennis P. Whalen  
*Executive Deputy Commissioner*

April 5, 2005

NY3503549  
NEWBURGH CITY  
Ms. Jean Ann McGrane - City Manager  
CITY OF NEWBURGH  
83 BROADWAY  
NEWBURGH  
NY 12550

Re: Source Water Assessment (SWAP) Report

Dear Ms. Jean Ann McGrane:

A copy of the source water assessment report for your source(s) is enclosed.

Each assessment report includes the following elements

**Report:** This includes narrative text, results tables, a summary table, and a summary of the contents of the SWAP SDWIS add-on database for your source(s).

**Map:** This map illustrates the location of your intake(s), the land area draining to your source(s), and potential contaminant sources.

**CI List:** A list of potential contaminant sources within the delineated assessment area for your source that do not have permitted discharges.

**PD list:** A list of potential contaminant sources within the delineated assessment area for your source that has permitted discharges.

This report contains an Executive Summary in the narrative text that was used as the basis for creating a SWAP summary for your Annual Water Quality Report (AWQR). A SWAP summary must be included in your AWQR. As a reminder, by May 31, 2005, your AWQR should be distributed to your customers, and must be submitted to the NYS DOH and the Orange County Department of Health. Guidance to assist you in writing your 2005 AWQR is available on our website: [http://www.health.state.ny.us/nysdoh/water/annual\\_water\\_quality\\_report.htm](http://www.health.state.ny.us/nysdoh/water/annual_water_quality_report.htm).

Please be advised that you are not required to share information from the SWAP report, beyond the summary enclosed in your AQWR, with the general public. However, please feel free to share portions of this report that you do not think pose a security threat to your water supply.

If you have any questions regarding your SWAP report, please contact Mr. Jim Hyde of the NYS DOH at (518) 402-7711 or [jbh01@health.state.ny.us](mailto:jbh01@health.state.ny.us).

Sincerely,

A handwritten signature in black ink, appearing to read "Lloyd Wilson", with a long horizontal flourish extending to the right.

Lloyd Wilson, Ph.D.  
Section Chief  
Source Protection Section

Enclosures

cc: Mr. D. Kirkcaldy - Orange Co. Health Dept.

2005  
NYS DOS "SWAP"  
Report of Source Water  
Assessment Program

## 1.0 Executive Summary

The analysis of available information for this source water assessment did not find any significant sources of contamination in this watershed. Statewide and local databases of permitted facilities were used to identify discrete potential sources of contamination. No discrete sources were identified within the assessment area. Land use within the watershed was evaluated by contaminant category to rate the likely prevalence of contamination associated with the various types of land use. The contaminant category ratings for land use types were determined to be medium for microbial contamination due to agricultural practices in the watershed. The overall susceptibility of this watershed to potential sources of contamination was found to be medium for microbial contamination.

## 2.0 Introduction

This report was completed under the NYS DOH's Source Water Assessment Program (SWAP). The purpose of this program is to compile, organize, and evaluate information regarding possible and actual threats to the quality of public drinking water sources (PWSs). The information contained in assessment reports will assist the State in overseeing public water systems and help local authorities in protecting their source water quality. It is important to note that source water assessment reports estimate the potential for untreated drinking water sources to be impacted by contamination. These reports do not address the safety or quality of treated finished tap water.

The source water assessment reports are based on reasonably available information, primarily from statewide databases. Although efforts have been made to check these reports for accuracy, the nature of the available data makes the elimination of all error from these reports nearly impossible.

The following steps were performed for each assessment of each drinking water source:

**Delineation of the source water assessment area(s)** – A topographic watershed border was created defining the land area that contributes water to the drinking water source. In most cases the overall assessment area contains only one zone. However, a second zone was created where flow barriers and/or large geographic distances decrease the likelihood of contaminants in portions of the overall watershed from impacting drinking water quality at the intake. A drinking water source's natural sensitivity ratings are also assigned during the delineation phase. These ratings are conceptually based on water body size and flow characteristics, along with general fate and transport characteristics of contaminant categories. Ultimately, natural sensitivity ratings are used along with contaminant prevalence ratings (described below) to define a drinking water source's susceptibility to contamination.

**Inventory of Potential Contaminant Sources (PCSs)** – This inventory compiles the areal land cover percentages and a listing of specific facilities, (e.g. landfills, Superfund sites) within the assessment area(s). In addition to data on specific facilities, the

contaminant inventory includes SWAP rating values (i.e. Major/Minor/NP ratings). Information contained in contaminant inventories is used to create Contaminant Prevalence ratings in the next step.

Susceptibility Determination – SWAP susceptibility ratings are defined using the drinking water source's sensitivity and contaminant prevalence ratings. Sensitivity is defined using the water body type classification during the delineation phase. Contaminant prevalence values are assigned based on the nature of the potential contaminant sources (i.e. Major/Minor/NP ratings described in Appendix 3) present in the assessment area and the location (Zone 1 Vs Zone 2) of these potential contaminant sources relative to the drinking water intake.

### 3.0 The Watershed

#### 3.1 Delineation and Basic Assessment Area Attributes

The topographic watershed delineation for this drinking water source is presented in Figure 1. Details on the overall SWAP delineation methodology is presented in Appendix 3. Some additional identification information and general watershed information is presented in Table 1.

Ongoing watershed management programs are the best way to identify, understand, manage, and control water quality problems. While the SWAP program is useful in identifying and describing potential threats to drinking water quality, it cannot replace a local watershed management program. It is also important to state that all watershed management programs are not equal, active programs with regulatory authority are generally best at protecting water quality.

Additional information on this water system and sources is contained in the NYS DOH SWAP Database in Appendix 1. The NYS DOH SWAP Database contains information and contamination concerns noted during sanitary surveys of public water systems, and in some cases, information provided by the public water system.

#### 3.2 Watershed SWAP Sensitivity Rating

This drinking water source's water body type (in this case: Small Lake) and SWAP natural sensitivity rating are presented in Table 2.

SWAP natural sensitivity rating are assigned using the table presented in Appendix 3. The rationale for these ratings are based on the size and flow characteristics of the water body types, along with the fate and transport characteristics of the contaminant categories in each contaminant type classification.

Water bodies classified as small lakes are assigned medium natural sensitivity ratings for the microbial, other chemical, and phosphorus contaminant categories. This is due

to the tendency for these contaminant to undergo sedimentation or inactivation in small lakes. The volatile nature of the organic chemicals makes these categories rate low for small lakes.

#### 4.0 Contaminant Inventories and Susceptibility

Once a watershed assessment area for a particular water supply has been delineated and natural sensitivity ratings are assigned, contaminant inventories and contaminant prevalence and susceptibility ratings are created. To simplify these analyses and the presentation of results, these tasks are treated separately for the different types of available data.

The overall contaminant inventory task in the assessment for surface drinking water sources consists of the compilation of land cover and discrete facilities within delineated assessment area(s). First, the percentages of land cover types within the assessment area(s) are calculated. Next, contaminant inventories are created separately for those facilities with permitted discharges (Permitted Discharge PCSs) and other potential contaminant sources (Other GIS PCSs). This distinction was made because facilities with permitted discharges tend to be more important potential sources of contamination for surface waters, and these facilities have more useful information contained in their GIS databases. Additional PCSs are the final category of potential contaminants included in this report. This category includes potential sources of contamination that are depicted as lines in GIS (e.g. roads, pipelines) and those potential sources of contamination in the NYS DOH SWAP Database (or other available data, e.g. AEM data, PWL list, etc) that are not accounted for in the Other GIS PCSs inventories.

In order to simplify the process, and allow for the clear presentation of results, contaminant inventories utilize contaminant categories, rather than individual contaminant names. These contaminant categories are based on similarities in origin, fate and transport in the environment, and consequences in drinking water. The contaminant categories that have been identified as important to surface drinking water sources are presented in the Glossary in Appendix 4.

Once contaminant inventories are compiled, Susceptibility ratings are separately created for each of the above mentioned data types. This is done by first creating contaminant prevalence ratings for each contaminant category based on the types of land cover discrete PCSs present in the assessment area. These values are then used along with natural sensitivity ratings to assign susceptibility ratings for each contaminant category.

##### 4.1 Land Cover

Land cover within the assessment area is inventoried and compiled to calculate contaminant prevalence ratings, and these ratings are used along with the watershed's natural sensitivity ratings to create the drinking water source's susceptibility ratings.

More details on this methodology are presented in the SWAP plan and Appendix 3.

The MRLC data set is used to obtain land cover data in the SWAP. This data set was derived using Landsat images obtained between 1988 and 1993. The images used were primarily collected during the spring leaves-off period, but fall leaves-off images, and various leaves-on images were also used. While this data set is generally considered to be a very good general land cover classification product, some inaccuracies still exist. The major problem with this data set's use in SWAP is that it sometimes does not make accurate distinctions between row crops and pasture.

#### 4.1.1 Contaminant Inventory

Land cover percentages within this assessment area are presented in Table 3. These percentages were compiled using the MRLC land cover data, and specific details on the SWAP Landuse methodology is presented in Appendix 3.

#### 4.1.2 Contaminant Prevalence and Susceptibility

Contaminant prevalence and susceptibility ratings based on land cover are presented in Table 4. Pasture land cover within this watershed results in medium ratings for protozoa

### 4.2 Discrete Potential Contaminant Sources (PCSs)

The purpose of this section of the SWAP report is to describe and rate potential sources of contamination associated with individual facilities, rather than land cover. Additional PCSs evaluated in this section includes contamination risks listed in the NYS DOH SWAP Database (see Appendix 1), roadways, railways, and pipelines. There are no permitted discharges or other GIS PCSs located in this watershed. However, the DOH SWAP database lists the presence of local roadways in close proximity to the water supply intake.

### 5.0 Overall Susceptibility Discussion

No discrete sources were identified within the assessment area. Contaminant prevalence ratings for land use types were determined to be medium for microbial contaminants (protozoa). The overall susceptibility of this watershed to potential sources of contamination was found to be medium for microbial contamination.

SUMMARY of SIGNIFICANT FINDINGS		
Potential Sources of Contamination	Potential Impacts to Water Source	Contaminants of Concern
Agricultural Land Cover	Medium	Protozoa

NY3503549

C

NEWBURGH CITY

ORANGE

SMALL LAKE

BROWN'S POND

2571314

NY3503549 C NEWBURGH CITY  
 SMALL LAKE BROWN'S POND

ORANGE  
 2571314

**Table 1: System and Source Information**

System Information	
System Name	NEWBURGH CITY
Federal ID	NY3503549
County Served	ORANGE
Source Information	
TINWSF Number	2571314
External System Number	47601
Source Name	BROWN'S POND
Water Body Area (acres)	189.79
	Zone 1 Zone 2
Watershed Area (sq miles)	1.91
Watershed Area (acres)	1224.89

\*-99 means area could not be calculated in GIS

**Table 2: Natural Sensitivity Ratings**

Waterbody type: SMALL LAKE

Contaminant Types and Categories	Sensitivity Ratings
Organics =	Low
Halogenated Solvents	
Petroleum Products	
Other Industrial Organics	
Other Chemicals =	Medium
Pesticides Herbicides	
Metals	
Nitrates	
Sediments Turbidity	
Disinfection Byproduct Precursors	
Phosphorus =	Medium
Phosphorus	
Microbials =	Medium
Protozoa	
Enteric Bacteria	
Enteric Viruses	

**Table 3: Land cover Percentages**

Land Use Class	Zone 1	Zone 2
Water	16.72932	0
Low Intensity Residential	3.66583	0
High Intensity Residential	0.453632	0
High Intensity Commercial	0.822352	0
Pasture	19.91288	0
Row Crops	1.706421	0
Other Grasses	1.380655	0
Evergreen Forest	4.493051	0
Mixed Forest	37.27906	0
Deciduous Forest	13.55679	0
Woody Wetland	0	0
Emergent Wetland	0	0
Barren; Quarries, Strip Mines, and Gravel Pits	0	0
Barren; Bare Rock and Sand	0	0
Barren; Transitional_including clear cut areas	0	0

NY3503549

C

NEWBURGH CITY

ORANGE

SMALL LAKE

BROWN'S POND

2571314

**Table 4: Land Use Susceptibility Analysis Summary**

Contaminant Categories	CP Rating	Dominant land cover causing rating Z1	Dominant land cover causing rating Z2	Land cover notes	Susceptibility Rating
<b>Organics</b>					
Halogenated Solvents	LOW				
Petroleum Products	LOW				
Other Industrial Organics	LOW				
<b>Other Chemicals</b>					
Pesticides Herbicides	LOW				
Metals	LOW				
Nitrates	LOW				
Sediments_Turbidit	LOW				
Cations/Anions, Salts, Sulfate	LOW				
DBP Precursors	LOW				
<b>Phosphorus</b>					
Phosphorus	LOW				
<b>Microbials</b>					
Protozoa	MEDIUM	Pasture			MEDIUM
Enteric Bacteria	LOW				
Enteric Viruses	LOW				

NY3503549

C

NEWBURGH CITY

ORANGE

SMALL LAKE

BROWN'S POND

2571314

NY3503549 C NEWBURGH CITY  
SMALL LAKE BROWN'S POND

ORANGE  
2571314

## Appendix 1

### NYS DOH SWAP Database

#### I. System Level Info

##### A. Protection

1. *Watershed Rules and Regulations?* Yes      *Details:* See WR&R
2. *Existing Protection Description*      Watershed Area inspected approx. 72 times/year, plus locked gates on access to intakes
3. *Jurisdiction of Source?*      Limited to areas directly adjacent to reservoirs which are under the ownership of the City of Newburgh

##### B. Water Quality Concerns

1. *Concerns of LHU*      Yes      Washington Lake is surrounded by commercial usages.
2. *SWTR/DBP Issues*      No
3. *System Treatment Concerns*      Yes
4. *Significant Public Concern - Water Quality*      No
5. *Significant Public Concern - Contaminants*      No

##### C. Other Available Information

1. Currently, all sources for this system flow into Washington Lake which is vulnerable to contamination.

#### II. Source Information

##### A. Delineation

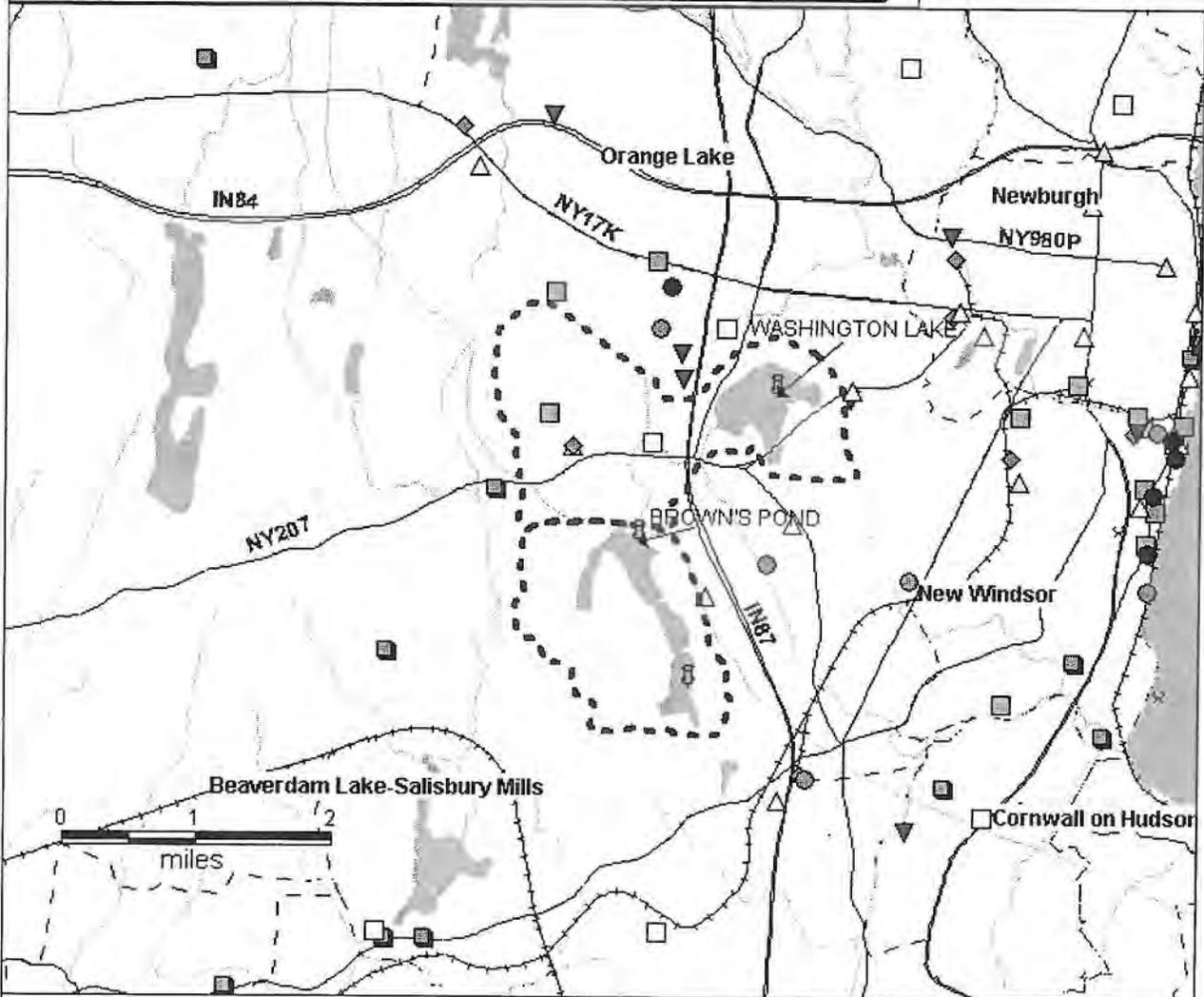
1. *Delineation Description*
2. *Zones*
3. *Date*      1/3/2002
4. *Intake to Shore*      100 *Depth*      16 *Units*

##### B. Potential Contamination

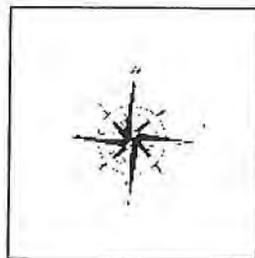
1. *Significant Sum Survey Findings*      Mt. Airy Rd. is approx. 50' from shore of Brown's pond.  
Moores Hill Rd. is approx. 1000' to the intake of Brown's Pond.  
Nursery and greenhouses are located in watershed approx. 3500' from intake.
2. *Water Quality Concerns*      No
3. *Existing Contaminant Inventory Date*      11/20/2002
4. *Surface Water Body Influence*      No      *Distance*      5000
- Description*      Brown's pond is located approx. 5000' from Washington Lake. Brown's Pond currently flows into Washington lake.
5. *Waterbody Quality*      Shallow source susceptible to taste and odor problems
6. *Source Structural or Locational Concerns*

System_#	System_Name	County_Served
NY3503549	NEWBURGH CITY	ORANGE

Report_ID#	External_#	Source_Name	Waterbody_type
2,571,314	47,601	BROWN'S POND	SMALL LAKE



- Railroads
- Petroleum Pipelines
- Major Roads
- Surface Waters
- Watersheds
- Urban Areas
- PWS intake



**Permitted Discharge Potential Contaminant Sources**

- Surface Water Sanitary Waste Discharge
- Non-Sanitary Waste Discharge
- Groundwater Sanitary Discharge

**Other GIS Potential Contaminant Sources**

- △ Chemical Bulk Storage
- ▲ Cerclis Sites
- △ Hazardous Substance Spills
- ▼ Hazardous Waste Sites
- Landfills
- × Mines
- Petroleum Bulk Storage
- ⊗ Oil and Gas Wells
- RCRA facilities
- ◆ TRI facilities



**STATE OF NEW YORK  
DEPARTMENT OF HEALTH**

<b>Message</b>
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There are no known potential sources of contamination at this point in time
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<b>Message</b>
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There are no known permitted discharges at this point in time
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