



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
State Pollutant Discharge Elimination System (SPDES)
DISCHARGE PERMIT
 Special Conditions (Part 1)

Industrial Code:	4941	SPDES Number:	NY- 026 8151
Discharge Class (CL):	01	DEC Number:	3-5150-00420/00001
Toxic Class (TX):	N	Effective Date (EDP):	9/1/2006
Major Drainage Basin:	13	Expiration Date (ExDP):	8/31/2011
Sub Drainage Basin:	07	Modification Dates:	
Water Index Number:	H-171		
Compact Area:	CAT		

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: **New York City Department of Environmental Protection** Attention: **David Warne, Acting Deputy Commissioner**
 Street: **465 Columbus Avenue**
 City: **Valhalla** State: **NY** Zip Code: **10595**

is authorized to discharge from the facility described below:

FACILITY NAME AND ADDRESS

Name: **Shandaken Tunnel Outlet**
 Location (C,T,V): **Shandaken (T)** County: **Ulster**
 Facility Address: **7148 NYS Rte. 28**
 City: **Allaben** State: **NY** Zip Code: **12480**
 NYTM -E: **552.61** NYTM - N: **4 662.735**
 From Outfall No.: **001** at Latitude: **42 ° 06 ' 53 "** & Longitude: **74 ° 21 ' 49 "**
 into receiving waters known as: **Esopus Creek** Class: **A (TS)**

and; (list other Outfalls, Receiving Waters & Water Classifications)

in accordance with the effluent limitations, monitoring requirements and other conditions set forth in Special Conditions (Part I) and General Conditions (Part II) of this permit.

DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS

Mailing Name: **New York City Department of Environmental Protection**
 Street: **P.O. Box 358**
 City: **Grahamsville** State: **NY** Zip Code: **12740**
 Responsible Official or Agent: **Paul V. Rush, P.E.** Phone: **(845) 985-2275**

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:

Bureau of Water Permits
 Regional Water Engineers, Regions 3 and 4
 USEPA Region II - Jeff Gratz
 NYSDOH
 Trout Unlimited
 Greene County Soil and Water Conservation District

Permit Administrator: William R. Adriance	
Address: 625 Broadway Albany NY 12233-1750	
Signature:	Date: / /

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 standards, 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 in Note 2 on the following page, 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.

DAILY AVG or 30 DAY ARITHMETIC MEAN (30 day average): 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. 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.

Due to conflicting requirements between 6 NYCRR Parts 700-706 (Water Quality Regulations) and 6NYCRR Part 670 (Reservoir Release Regulations: Schoharie Reservoir - Shandaken Tunnel - Esopus Creek), Action Levels have been established for Turbidity and Temperature in the discharge from the Shandaken Tunnel. If levels higher than the Action Levels are detected, the permittee shall reduce the flow from the Shandaken Tunnel at the maximum allowable ramping rate until either the specified Action Level is met or the flow from the Tunnel (as measured at the portal) is at the minimum flow necessary to achieve a combined flow from the Tunnel and the Esopus Creek (as measured at the upstream monitoring location) of no less than 160 MGD in accordance with Footnotes 1 and 4 on Pages 4 through 6 of this Permit.

INTERIM PERMIT LIMITS, LEVELS AND MONITORING - TURBIDITY

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING				
001	Public Water Supply	Esopus Creek	9/1/2006	Completion of Turbidity Reduction Schedule of Compliance items				
PARAMETER	EFFLUENT LIMIT		ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Daily Avg.	Daily Max.	TYPE I	TYPE II				
Turbidity, upstream	Monitor	Monitor			NTU	Continuous	Recorder	1,2,3
Turbidity, portal	Monitor	Monitor			NTU	Continuous	Recorder	1,2,3
Turbidity, shutdown		100			NTU	Continuous	Recorder	2,3
Turbidity Increase, June-October			15		NTU	Daily	Calculated	1,2,3
Turbidity Increase, November-May			20		NTU	Daily	Calculated	1,2,3

FINAL PERMIT LIMITS, LEVELS AND MONITORING - TURBIDITY

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING				
001	Public Water Supply	Esopus Creek	9/1/2006	8/31/2011				
PARAMETER	EFFLUENT LIMIT		ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Daily Avg.	Daily Max.	TYPE I	TYPE II				
Turbidity, upstream	Monitor	Monitor			NTU	Continuous	Recorder	3
Turbidity, portal	Monitor	Monitor			NTU	Continuous	Recorder	1,2,3
Turbidity, Increase		15			NTU	Daily	Calculated	1,2,3
Turbidity, shutdown		100			NTU	Continuous	Recorder	2,3

FINAL PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING			
001	Public Water Supply	Esopus Creek	9/1/2006	8/31/2011			
PARAMETER	EFFLUENT LIMIT			UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Daily Avg.	Daily Max.	Daily Min.				
Flow, June-October, Esopus Creek, downstream		300		MGD	Daily	Calculated	4
Flow, minimum, Esopus Creek, downstream			160	MGD	Daily	Calculated	4
Phosphorus, as P	Monitor	Monitor		kg/day	Weekly	Grab	
Phosphorus, as P, 12 month rolling average	8962			kg/yr	Monthly	Calculated	5
Solids, Settleable	Monitor	Monitor		ml/l	Weekly	Grab	
Solids, Total Suspended	Monitor	Monitor		mg/l	Weekly	Grab	
Temperature, May-September		70		deg F	Continuous	Recorder	1,2
Temperature, October-April	Monitor	Monitor		deg F	Continuous	Recorder	2
Cold Water Volume, Schoharie Reservoir		Monitor		cfs-days	Annual	Estimate	6

Footnotes: see pages 4 through 6 of this Permit

FOOTNOTES:

- 1.. During low stream flow conditions in the Esopus Creek, the quantity of water releases from the Schoharie Reservoir via the Shandaken Tunnel shall take precedence over the water quality aspects of this discharge. Whenever the discharge from the Shandaken Tunnel is being reduced in accordance with the maximum ramping rates, or the sum of the daily average flow measured at the Allaben monitoring station and the daily average discharge from the Shandaken Tunnel portal is less than 176 MGD (110% of the minimum stream flow limit), this discharge is exempt from the temperature and turbidity increase limits listed above. The permittee shall note the dates of such exemptions in a summary attachment to their monthly Discharge Monitoring Report.

2. Temperature and Turbidity Exemptions:

The discharge is exempt from the temperature and turbidity increase limits and action levels when:

- A. NYCDEP, with concurrence from the Department, determines that additional resources are reasonably necessary for reservoir balancing, for refill of the Ashokan Reservoir, for proper water supply management, or in the case of drought watch, warnings or emergencies;
- B. Any action in regard to the operation of the Shandaken Tunnel is directed by this Department, including those diversions provided for special recreational events on the Esopus Creek which have been approved by the Department;
- C. The permittee takes an emergency action in regard to the operation of the Shandaken Tunnel in accordance with 6NYCRR Part 670.7;
- D. NYCDEP, with concurrence from the Department, makes releases consistent with 6NYCRR Part 670 from the Shandaken Tunnel for the purpose of field monitoring or testing, research, protecting the fishery or other natural resources of the Esopus Creek, protecting the fishery or other natural resources of Schoharie reservoir or Ashokan reservoir;
- E. Performing work that is required under the compliance schedules in this permit or otherwise approved by this Department, if such work directly causes a discharge in excess of those action levels or limits which is not reasonably preventable;
- F. NYCDEP, with concurrence from the Department, makes releases to prevent spilling of the Schoharie Reservoir when the unfilled storage capacity of the Schoharie reservoir is less than five billion gallons and the unfilled storage capacity of Ashokan reservoir is more than five billion gallons.

The discharge is exempt from the Turbidity, Shutdown limit when:

- G. NYCDEP, with concurrence from the Department, determines that additional resources are reasonably necessary in the case of drought watches, warnings or emergencies;
- H. Any action in regard to the operation of the Shandaken Tunnel is directed by this Department, including those diversions provided for special recreational events on the Esopus Creek which have been approved by the Department;
- I. The permittee takes an emergency action in regard to the operation of the Shandaken Tunnel in accordance with 6NYCRR Part 670.7;
- J. NYCDEP, with concurrence from the Department, makes releases to prevent spilling of the Schoharie Reservoir when the unfilled storage capacity of the Schoharie reservoir is less than five billion gallons and the unfilled storage capacity of Ashokan reservoir is more than five billion gallons.

These exemptions shall be in effect until the drought watch, warning or emergency is lifted, or when the action, event, or release triggering the exemption has ceased. The permittee shall notify the Department in writing at the addresses listed on Page 14 of this Permit of the onset and expected duration (if known) of such events within 72 hours, and summarize these events on its monthly Discharge Monitoring Report. The permittee shall make all reasonable efforts to be in compliance with the subject permit limit during these events.

FOOTNOTES (continued):

3. Turbidity Monitoring:

A. The permittee shall conduct turbidity reduction measures in accordance with the Turbidity Reduction Schedule of Compliance on page 8 of this Permit. The permittee shall comply with the interim Turbidity Action Levels shown during this period. The permittee shall comply with the final Turbidity Effluent Limits at the conclusion of this period.

B. The permittee shall monitor the turbidity at the Esopus Creek upstream monitoring station as defined in the Schedule of Compliance. The daily measurement shall be determined by using the calculated daily average of the hourly turbidity measurements taken at the upstream monitoring location and subtracting this measurement from calculated daily average of the hourly turbidity measurements taken at Outfall 001. The resultant increase in turbidity shall not exceed the prescribed Action Levels or Limit for Turbidity Increase. This limit is established pursuant to 40 CFR Part 122.44(d)(1)(vi)(B) and based upon factors and circumstances unique to the Shandaken Tunnel, and as such does not define "substantial visible contrast" per 6NYCRR Part 703.2 and should not be construed to establish a statewide numeric limit for the parameters of Turbidity or Turbidity Increase.

C. The reported Daily Maximum Turbidity measurement shall be determined by calculating the average of the hourly turbidity measurements over the course of a 24 hour period. The Daily Maximum Turbidity reported on the Discharge Monitoring Report shall be the highest of the daily measurements taken during that month. The reported Daily Average Turbidity measurement shall be determined by taking the sum of the Daily Maximum Turbidity measurements for that month and dividing this sum by the number of days in which the discharge was sampled for that month.

D. The permittee is exempt from continuous turbidity monitoring whenever the continuous turbidity monitoring equipment is nonfunctional due to events beyond the permittee's control. During these periods, turbidity measurements shall be collected manually on a daily basis. The permittee is exempt from continuous turbidity monitoring whenever the Esopus Creek freezes or conditions at or near the monitoring location are unsafe due to natural occurrences (i.e., flood or storm conditions).

E. The permittee shall be exempt from the Turbidity Increase action levels and limits when the surface of the Esopus Creek is frozen upstream from the Shandaken Tunnel outlet. In cases where the upstream gage is not working but the creek is not frozen, turbidity measurements shall be collected manually on a daily basis.

F. At no time shall the turbidity of the discharge from the Shandaken Tunnel exceed 100 NTU. Should the turbidity of the discharge exceed 100 NTU, the permittee shall shut down the discharge from the Tunnel in accordance with the maximum allowable ramping rate.

4. The Flow limits shall regulate the discharge from the Tunnel as follows:

A. For the minimum stream flow limit, the permittee shall subtract the streamflow at the Allaben upstream monitoring station from the 160 MGD minimum stream flow limit. The discharge from the Shandaken Tunnel portal, in millions of gallons per day, shall be no less than the determined volumetric flow rate. The combined in stream flow shall not be less than 160 MGD as a daily mean. This minimum flow limit shall not apply when the Ashokan reservoir is spilling. Minimum flows deviating from these limits may be permitted in accordance with Part 670. Every effort should be made to assure that minimum combined flows do not drop below an instantaneous calculation of 100 MGD (+/- 10 MGD).

B. For the maximum flow limit, the permittee shall subtract the streamflow at the Allaben upstream monitoring station from the 300 MGD maximum stream flow limit. The discharge from the Shandaken Tunnel portal, in millions of gallons per day, shall be no greater than the determined volumetric flow rate. The combined in stream flow may be greater than 300 MGD as a daily mean, and the maximum flow limit shall not apply, when the unfilled storage capacity of the Schoharie reservoir is less than five billion gallons and the unfilled storage capacity of Ashokan reservoir is more than five billion gallons.

C. When weather or other circumstances beyond the control of the permittee make it impossible to measure the streamflow at the Allaben monitoring station, the permittee shall estimate the upstream flow in the Esopus Creek by calculating a prorated flow based on the calculated inflow to the Neversink Reservoir and a comparison of the relative drainage areas.

D. Whenever the flow at the Allaben monitoring station meets or exceeds 300 MGD, the permittee is exempt from the 300 MGD maximum stream flow limit.

E. The City is exempt from the minimum stream flow limit whenever any action in regard to the operation of the Shandaken Tunnel as directed by this Department would cause the City to violate this limit.

FOOTNOTES (continued):

4. F. The City is exempt from the maximum stream flow limit whenever the permittee takes an emergency action in regard to the operation of the Shandaken Tunnel in accordance with 6NYCRR Part 670.7.
5. The Phosphorus, as P, 12 month rolling average limit shall be calculated by adding the daily average Phosphorus loadings, in kg/day, for the subject month to the daily average Phosphorus loadings for each of the preceding eleven months. Compliance with this limit shall be recalculated each month.
6. The permittee shall estimate the volume of cold water within the Schoharie reservoir within 7 days of June 15 of each year, in CFS-days. This estimate shall be determined by developing a thermal profile from water temperature data collected at every one-half meter of water depth until the elevation where the 62 degF (16.7 degC) temperature is found, and every three (3) meters of water depth thereafter. The 62 degF (16.7 degC) temperature elevation should then be used to determine the volume of cold water available, by reference to a table of capacity versus reservoir elevation. The permittee shall then use that information to develop a Schoharie Reservoir Releases Plan for the period from July 1-September 15. The Releases Plan shall be developed with the goal of limiting the use of the cold water supply as much as possible while still maintaining an adequate supply of water for drinking purposes and coldwater habitat releases to Esopus Creek in accordance with the flow limits and requirements in Footnote 4. The Plan shall be developed consistent with good water supply and natural resource protection practices and shall be subject to the review, approval and revision by the Department. The thermal profile, storage data calculations, and Releases Plan shall be sent to DEC so that it is received by June 30 of each year. The permittee shall make all reasonable efforts to ensure that the Schoharie Reservoir is full on June 1 of each year and shall follow the Releases Plan as much as practicable. The permittee shall notify the Department's Releases Manager as soon as the permittee becomes aware of a need to deviate from the Releases Plan. The Department may, with consideration of water supply and habitat need, direct the permittee to halt its deviations from the Releases Plan at any time.
7. The exemptions listed in Footnotes 1-4 above shall be revisited upon completion of the Schedule of Compliance activities and reviewed with respect to need and applicability.

SCHEDULE OF COMPLIANCE - MONITORING AND REPORTING

a) The permittee shall comply with the following schedule.

Action Code	Outfall Number(s)	Compliance Action	Due Date
	N/A	Upstream Monitoring Location: The permittee shall construct an upstream monitoring station to measure upstream turbidity samples. The station shall be located such that the measurements are representative of the turbidity within the Esopus Creek as close as practical to, but prior to admixture with, the discharge of the Shandaken Tunnel.	1/1/2007
	N/A	Progress Reports: The City shall, consistent with 6 NYCRR § 750-1.14(b), submit detailed periodic progress reports on the status of all requirements set forth in this schedule of compliance.	6/1/2007 and at each 9 month interval thereafter
	001	Annual Monitoring Data Summary: The permittee shall submit an annual summary of Outfall 001 monitoring data, in electronic spreadsheet format, to the Bureau of Water Permits, 625 Broadway, Albany NY 12233-3505.	9/1/2007 and annually thereafter
	N/A	Public Participation: The permittee shall hold semiannual public meetings to discuss the progress of the turbidity reduction projects to be undertaken, gather public input on improvements in stream quality, and identify management efforts that may be undertaken by volunteers and other concerned groups and individuals.	3/1/2007 and every 6 months thereafter

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."

- b) 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 as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2. 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.
- c) The permittee shall submit copies of any document required by the above schedule of compliance to NYSDEC Regional Water Engineer at the location listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS, **to the Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505**, and the Greene County Soil and Water Conservation District, 907 County Office Building, Cairo NY 12413 unless otherwise specified in this permit or in writing by the Department.

SCHEDULE OF COMPLIANCE - TURBIDITY REDUCTION PROGRAM

The permittee shall develop a program to reduce the effects of storm water runoff and other activities on turbidity through land, storm water, and stream control initiatives within the Schoharie Reservoir Basin. The goal of this program shall be to reduce to the extent practical, the impacts of current and future development on turbidity within the basin.

a) The permittee shall comply with the following schedule.

Action Code	Outfall Number(s)	Compliance Action	Due Date
	NA	The Permittee shall develop a program, which may be administered by the Catskill Watershed Corp., consisting of the creation and funding of a Program Fund in the amount of \$500,000. The fund will be distributed to municipalities within the Schoharie Watershed to fund generic environmental impact statements to address the environmental (in particular, turbidity) and infrastructure impacts from reasonably foreseeable future development. The purpose of these studies is to identify the impacts (i.e., environmental and infrastructure) from reasonably foreseeable future developments and the mitigation measures necessary to address such impacts. The funds will be allocated pursuant to one funding round and request for proposals. The funds shall be allocated based upon: (1) the quality of the proposal; (2) the applicant's demonstrated need; and (3) the area of the applicant municipality within the Schoharie watershed. Funds may be expended on planning only for areas within the Schoharie Watershed. Contracts for these projects shall be issued to municipalities within 15 months of the effective date of the permit.	12/1/2006
	NA	Submit an approvable turbidity reduction report evaluating the potential benefits of the heightened or more expansive implementation, within the Schoharie Reservoir basin, of program activities established under the 1997 New York City Watershed Memorandum of Agreement and the 2002 FAD. This report will include an evaluation of the potential benefits of increased or focused funding and implementation of whole farm, forestry, willing seller land acquisition, stream restoration, storm water retrofit, stream buffer and conservation easement programs. The report will include alternative proposals for a focused willing buyer-willing seller land acquisition and conservation easement program.	9/1/2007
	NA	Propose an implementation schedule, with specific milestones and goals, to implement the approved actions that were evaluated in the turbidity reduction report above.	1/1/2008
	NA	Commence implementation of heightened program activities in accordance with milestones and schedule approved by the Department.	9/1/2008

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."

b) 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 as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2. 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.

c) The permittee shall submit copies of any document required by the above schedule of compliance to NYSDEC Regional Water Engineer

at the location listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS, **the Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505**, and the Greene County Soil and Water Conservation District, 907 County Office Building, Cairo NY 12413, unless otherwise specified in this permit or in writing by the Department.

SCHEDULE OF COMPLIANCE - TURBIDITY REDUCTION MEASURES

A) The permittee shall develop a program consisting of structural and nonstructural measures to reduce the turbidity in the Shandaken Tunnel and maximize the volume of cold water available for discharge to the Esopus Creek. The goals of this program shall be to **protect the water supply, fishery, and recreational uses of the Esopus Creek through:**

1. Achieving consistent compliance with the turbidity limits listed on page 3 of this Permit; and
2. Providing adequate cold water volume to assure that the discharge from the Shandaken Tunnel does not exceed the water quality based effluent limit of 70 degF during the months of May through September.

The program shall include the following measures:

1. Structural Modifications:

The permittee shall identify and implement any short and long term structural measures which will achieve the above goals in accordance with the Schedule of Compliance below. These measures shall include, but are not limited to, a multi level intake structure, turbidity curtain and any alternatives identified and implemented in accordance with the **Comprehensive Analysis of Potential Alternatives at Schoharie Reservoir** that will be developed by the permittee and approved by the EPA in fulfillment of requirements contained in the November 2002 FAD. These measures shall also be reviewed and approved by the Department consistent with 6NYCRR § 750-1.2(a)(8).

2. Nonstructural Programs:

A. Filtration Avoidance Determination Schedule: The Permittee shall continue the Stream Management Program as detailed in Section 4.5 of the November 2002 FAD as approved by EPA. The DEP may continue contracts as previously developed to fulfill this requirement.

B. Stream Restoration Program: The Permittee shall continue a program to implement stream restoration programs to repair streams and streambanks that are in need of restoration based on identified addition of suspended sediment (and turbidity) to the Schoharie Reservoir. In addition to the stream restoration projects identified above under "A. Filtration Avoidance Determination Schedule", the Permittee shall repair a minimum of 5,000 linear feet of stream in the Schoharie Basin within seven years of the effective date of the permit. Plans for all stream repair shall be approved by the Department. The repair work shall include a minimum of two stream restoration projects. This work is above and beyond any requirement of the 2002 FAD.

C. Local Implementation Program: The Permittee shall provide at least \$2 million in funding, for local implementation of stream management plan recommendations, as contained in the Stream Management Plans currently developed and in the process of being developed for the entire Schoharie Reservoir basin. The Permittee shall conduct projects and/or establish contract(s) with one or more local entities to implement this local program. The Permittee shall begin implementation within 36 months of either completion of the Stream Management Plans for the Schoharie Basin, or 9/1/2006, whichever is later. The Permittee, in consultation with the Project Advisory Committee for each Stream Management Plan and the appropriate county Soil and Water Conservation District(s), shall recommend projects to be implemented based on the goals of this program. The permittee's recommendations shall be subject to the Department's review and approval.

D. Other considerations and measures: The Permittee may identify and implement any other short or long term nonstructural measures not identified above that will assist in meeting the goals of this program. All measures to be considered shall be consistent, to the extent possible, with recommendations developed in the Stream Management Plans for tributaries of the Schoharie Reservoir.

Continued on following page

SCHEDULE OF COMPLIANCE - TURBIDITY REDUCTION MEASURES (continued)

The permittee shall comply with the following schedule.

Action Code	Outfall Number(s)	Compliance Action	Due Date
	001	Submit an approvable report detailing the short and long term structural modifications to be performed as outlined in Item 1. above. The report shall include an investigation of alternatives, projected turbidity reductions and increases in available cold water volume, and recommended actions to be taken along with a schedule for implementation.	3/1/2008
	001	Submit an approvable report detailing the actions to be taken with respect to each of the measures in Item 2. above, as well as any other avenues to be investigated that will achieve the goals of turbidity reduction and cold water storage within the Schoharie Reservoir. The report shall include an investigation of alternatives, projected turbidity reductions and increases in available cold water volume, and recommended actions to be taken along with a schedule for implementation.	3/1/2008
	001	Begin implementation of identified structural alternatives in Item 1. above as approved by the Department.	Effective Date of Approval +2 months
	001	Begin implementation of identified nonstructural alternatives in Item 2. above as approved by the Department.	Within 36 months of completion of Schoharie Basin SMP
	001	Complete implementation of identified structural alternatives and achieve compliance with final effluent turbidity requirements listed on page 4 of this Permit.	9/1/2013

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."

- b) 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 as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2. 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.
- c) The permittee shall submit copies of any document required by the above schedule of compliance to NYSDEC Regional Water Engineer at the location listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS, **the Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505**, and the Greene County Soil and Water Conservation District, 907 County Office Building, Cairo NY 12413, unless otherwise specified in this permit or in writing by the Department.

EDP: 9/1/2006

DISCHARGE NOTIFICATION REQUIREMENTS

- (a) Except as provided in (c), (f) and (g) of these Discharge Notification Act requirements, the permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit. Such signs shall be installed before initiation of any discharge.
- (b) Subsequent modifications to or renewal of this permit does not reset or revise the deadline set forth in (a) above, unless a new deadline is set explicitly by such permit modification or renewal.
- (c) The Discharge Notification Requirements described herein do not apply to outfalls from which the discharge is composed exclusively of storm water, or discharges to ground water.
- (d) 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:

<p>N.Y.S. PERMITTED DISCHARGE POINT</p> <p>SPDES PERMIT No.: NY _____</p> <p>OUTFALL No. : _____</p> <p>For information about this permitted discharge contact:</p> <p>Permittee Name: _____</p> <p>Permittee Contact: _____</p> <p>Permittee Phone: () - ### - #####</p> <p>OR:</p> <p>NYSDEC Division of Water Regional Office Address :</p> <p>NYSDEC Division of Water Regional Phone: () - ### - #####</p>
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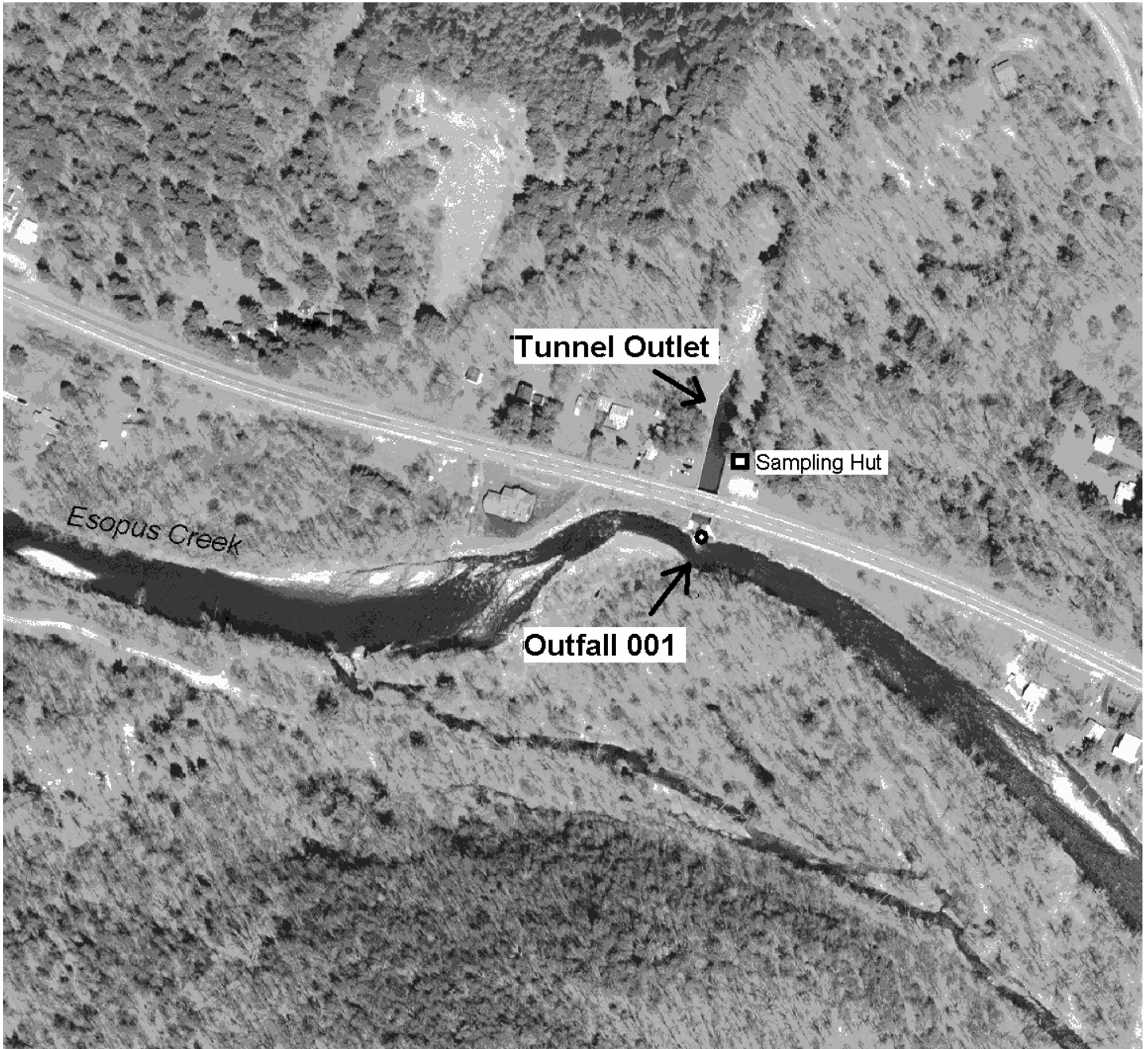
- (e) For each discharge required to have a sign in accordance with a), the permittee shall, concurrent with the installation of the sign, provide a repository of copies of the Discharge Monitoring Reports (DMRs), as required by the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page 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 three years.

(continued)

- (f) If, upon November 1, 1997, the permittee has installed signs that include the information required by 17-0815-a(2)(a) of the ECL, but do not meet the specifications listed above, the permittee may continue to use the existing signs for a period of up to five years, after which the signs shall comply with the specifications listed above.
- (g) All requirements of the Discharge Notification Act, including public repository requirements, are waived for any outfall meeting any of the following circumstances, provided Department notification is made in accordance with (h):
 - (i) such sign would be inconsistent with any other state or federal statute;
 - (ii) the Discharge Notification Requirements contained herein would require that such sign could only be located in an area that is damaged by ice or flooding due to a one-year storm or storms of less severity;
 - (iii) instances in which the outfall to the receiving water is located on private or government property which is restricted to the public through fencing, patrolling, or other control mechanisms. Property which is posted only, without additional control mechanisms, does not qualify for this provision;
 - (iv) instances where the outfall pipe or channel discharges to another outfall pipe or channel, before discharge to a receiving water; or
 - (v) instances in which the discharge from the outfall is located in the receiving water, two-hundred or more feet from the shoreline of the receiving water.
- (h) If the permittee believes that any outfall which discharges wastewater from the permitted facility meets any of the waiver criteria listed in (g) above, notification (form enclosed) must be made to the Department's Bureau of Water Permits, Central Office, of such fact, and, provided there is no objection by the Department, a sign and DMR repository for the involved outfall(s) are not required. This notification must include the facility's name, address, telephone number, contact, permit number, outfall number(s), and reason why such outfall(s) is waived from the requirements of discharge notification. The Department may evaluate the applicability of a waiver at any time, and take appropriate measures to assure that the ECL and associated regulations are complied with.
- (i) 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.

MONITORING LOCATIONS

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



Sampling Point: At South Portal discharge point of tunnel prior to admixture with the Esopus Creek.

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 three 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 Watershed 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, NY 10603-2860

Phone: (914) 428-2505

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.