



Vincent Saplenza, P.E.
Acting Commissioner

Angela Licata
Deputy Commissioner of
Sustainability

59-17 Junction Blvd
Flushing, NY 11373

December 15, 2016

**New York City's Long-Term Plan in support of Renewal of its
Filtration Avoidance Determination for the Catskill/Delaware
System**

CEQR No. 17DEP012U

As lead agency, the New York City Department of Environmental Protection has completed an Environmental Assessment for New York City's 2016 Long-Term Plan in support of renewal of its Filtration Avoidance Determination for the Catskill/Delaware Water Supply System.

Parts I and II of the Environmental Assessment Form and the Environmental Assessment have been enclosed for your review. If you have any comments or questions, please contact Susan Darling at (718) 595-4614 or sdarling@dep.nyc.gov.

Angela Licata
Deputy Commissioner

Enclosures

cc: Town Supervisors and Village Mayors within the Catskill/Delaware System
Gale Brewer, Manhattan Borough President
Eric L. Adams, Brooklyn Borough President
Ruben Diaz, Jr., Bronx Borough President
Melinda Katz, Queens Borough President
James Oddo, Staten Island Borough President
Raju Mann, City Council
Michael McSweeney, City Clerk
Dean Frazier, Delaware County Department of Watershed Affairs
Eoin Wrafter, Dutchess County Planning and Development Department
Warren Hart, Greene County Department of Planning and Economic Development
Sandra Fusco, Putnam County Department of Planning/Development
Alicia Terry, Schoharie County Planning and Development Agency
Freda Eisenberg, Sullivan County Division of Planning and Environmental
Management
Dennis Doyle, Ulster County Planning Department
Edward Buroughs, Westchester County Department of Planning
Craig Cashman, Watershed Agricultural Council
Alan L. Rosa, Catskill Watershed Corporation
Rick Weidenbach, Delaware County Soil and Water Conservation District
Brian Scoralick, Dutchess County Soil and Water Conservation District
Jeff Flack, Greene County Soil and Water Conservation District
Lauri Taylor, Putnam County Soil and Water Conservation District
Peter Nichols, Schoharie County Soil and Water Conservation District
Brian Brustman, Sullivan County Soil and Water Conservation District
Gary Cappella, Ulster County Soil and Water Conservation District
Robert Doscher, Westchester County Soil and Water Conservation District
Bruce Dolph, Coalition of Watershed Towns
Lisa Melville, Watershed Protection and Partnership Council
Katie Lynch, USEPA Region 2
Pam Young, NYSDOH
Thomas Snow, Jr., NYSDEC
Kenneth Kosinski, NYSDEC
Steven Zahn, NYSDEC Region 2
Kelly Turturro, NYSDEC Region 3
Keith Goertz, NYSDEC Region 4
Mike Dulong, Riverkeeper, Inc.
Eric Goldstein, NRDC
Rebecca J. Weber, NYPIRG
Susan Amron, NYC Corporation Counsel
Hilary Meltzer, NYC Corporation Counsel
Paul Rush, DEP
David Warne, DEP
John Schwartz, DEP
Kimberlee Kane, DEP
Robin Levine, DEP

Pinar Balci, DEP
Mark Page, Jr., DEP
Sangamithra Iyer, DEP
Susan Darling, DEP

**Full Environmental Assessment Form
Part 1 - Project and Setting**

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: 2016 Long-Term Watershed Protection Program		
Project Location (describe, and attach a general location map): Counties of Delaware, Greene, Schoharie, Ulster, Sullivan, Dutchess, Putnam, and Westchester		
Brief Description of Proposed Action (include purpose or need): The New York City Department of Environmental Protection (NYCDEP) is proposing to revise and enhance its Long-Term Watershed Protection Program (or Program) for the Catskill and Delaware Water Supply System in support of renewal of its Filtration Avoidance Determination. The purpose of the Program is to protect and improve existing water quality in the Catskill and Delaware water supply system by engaging in or funding various activities that serve protective and/or remedial water quality functions in the watershed. This Program would also allow New York City to avoid the high cost of filtering a majority of its potable water supply by qualifying for filtration avoidance under the federal Surface Water Treatment Rule (SWTR) and the Interim Enhanced Surface Water Treatment Rule. The Program, as proposed, is a comprehensive watershed protection strategy that focuses on implementing both protective and remedial initiatives through a number of individual programs and activities. Activities under the Program would take place throughout those parts of the New York counties that fall within the Catskill and Delaware water supply system plus two basins within the Croton system. These counties are Delaware, Dutchess, Greene, Putnam, Schoharie, Sullivan, Ulster, and Westchester.		
Name of Applicant/Sponsor: New York City Department of Environmental Protection	Telephone: 914-742-2099	E-Mail: dwarne@dep.nyc.gov
Address: 465 Columbus Avenue		
City/PO: Valhalla	State: NY	Zip Code: 10595
Project Contact (if not same as sponsor; give name and title/role):	Telephone:	
	E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor):	Telephone:	
	E-Mail:	
Address:		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Council, Town Board, <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No or Village Board of Trustees		
b. City, Town or Village <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Planning Board or Commission		
c. City Council, Town or <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Village Zoning Board of Appeals		
d. Other local agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
e. County agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
f. Regional agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NYSDOH	Dec. 2016
h. Federal agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	EPA	Dec. 2016
i. Coastal Resources.		
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
iii. Is the project site within a Coastal Erosion Hazard Area?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? Yes No

- If Yes, complete sections C, F and G.
- If No, proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? Yes No
If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? Yes No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) Yes No

If Yes, identify the plan(s):

Multiple throughout subject watershed counties _____

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? Yes No

If Yes, identify the plan(s):

Multiple throughout subject watershed counties _____

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. Yes No
If Yes, what is the zoning classification(s) including any applicable overlay district?
Multiple throughout subject watershed counties

b. Is the use permitted or allowed by a special or conditional use permit? Yes No

c. Is a zoning change requested as part of the proposed action? Yes No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Multiple throughout watershed

b. What police or other public protection forces serve the project site?
Multiple throughout watershed

c. Which fire protection and emergency medical services serve the project site?
Multiple throughout watershed

d. What parks serve the project site?
Multiple throughout watershed

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? residential, rural, agricultural

b. a. Total acreage of the site of the proposed action? 1,078,105 acres
b. Total acreage to be physically disturbed? n/a acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? -220,000 acres

c. Is the proposed action an expansion of an existing project or use? Yes No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? Yes No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types) _____

ii. Is a cluster/conservation layout proposed? Yes No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will proposed action be constructed in multiple phases? Yes No
i. If No, anticipated period of construction: N/A months
ii. If Yes:
• Total number of phases anticipated _____
• Anticipated commencement date of phase I (including demolition) _____ month _____ year
• Anticipated completion date of final phase _____ month _____ year
• Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? Yes No
 If Yes, show numbers of units proposed.

	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	_____	_____	_____	_____
At completion	_____	_____	_____	_____
of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)? Yes No
 If Yes,

i. Total number of structures _____
 ii. Dimensions (in feet) of largest proposed structure: _____ height; _____ width; and _____ length
 iii. Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? Yes No
 If Yes,

i. Purpose of the impoundment: _____
 ii. If a water impoundment, the principal source of the water: Ground water Surface water streams Other specify: _____
 iii. If other than water, identify the type of impounded/contained liquids and their source. _____
 iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres
 v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length
 vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? Yes No
 (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)
 If Yes:

i. What is the purpose of the excavation or dredging? _____
 ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?
 • Volume (specify tons or cubic yards): _____
 • Over what duration of time? _____
 iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

 iv. Will there be onsite dewatering or processing of excavated materials? Yes No
 If yes, describe. _____

 v. What is the total area to be dredged or excavated? _____ acres
 vi. What is the maximum area to be worked at any one time? _____ acres
 vii. What would be the maximum depth of excavation or dredging? _____ feet
 viii. Will the excavation require blasting? Yes No
 ix. Summarize site reclamation goals and plan: _____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? Yes No
 If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will proposed action cause or result in disturbance to bottom sediments? Yes No
 If Yes, describe: _____

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation? Yes No
 If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____
- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

c. Will the proposed action use, or create a new demand for water? Yes No
 If Yes:

i. Total anticipated water usage/demand per day: _____ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? Yes No

If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? Yes No
- Is the project site in the existing district? Yes No
- Is expansion of the district needed? Yes No
- Do existing lines serve the project site? Yes No

iii. Will line extension within an existing district be necessary to supply the project? Yes No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____
- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? Yes No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

vi. If water supply will be from wells (public or private), maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? Yes No
 If Yes:

i. Total anticipated liquid waste generation per day: _____ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

iii. Will the proposed action use any existing public wastewater treatment facilities? Yes No

If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? Yes No
- Is the project site in the existing district? Yes No
- Is expansion of the district needed? Yes No

Do existing sewer lines serve the project site? Yes No
 Will line extension within an existing district be necessary to serve the project? Yes No
 If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? Yes No
 If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? Yes No
 If Yes:

- How much impervious surface will the project create in relation to total size of project parcel?
 _____ Square feet or _____ acres (impervious surface)
 _____ Square feet or _____ acres (parcel size)
- Describe types of new point sources. _____
- Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

 - If to surface waters, identify receiving water bodies or wetlands: _____
 - Will stormwater runoff flow to adjacent properties? Yes No

iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? Yes No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? Yes No
 If Yes, identify:

- Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

- Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

- Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? Yes No
 If Yes:

- Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) Yes No
- In addition to emissions as calculated in the application, the project will generate:
 - _____ Tons/year (short tons) of Carbon Dioxide (CO₂)
 - _____ Tons/year (short tons) of Nitrous Oxide (N₂O)
 - _____ Tons/year (short tons) of Perfluorocarbons (PFCs)
 - _____ Tons/year (short tons) of Sulfur Hexafluoride (SF₆)
 - _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydrofluorocarbons (HFCs)
 - _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? Yes No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? Yes No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): _____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? Yes No

If Yes:

i. When is the peak traffic expected (Check all that apply): Morning Evening Weekend
 Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of semi-trailer truck trips/day: _____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? Yes No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: _____

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? Yes No

vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? Yes No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? Yes No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? Yes No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): _____

iii. Will the proposed action require a new, or an upgrade to, an existing substation? Yes No

l. Hours of operation. Answer all items which apply.

<p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ N/A • Saturday: _____ • Sunday: _____ • Holidays: _____ 	<p>ii. During Operations:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ N/A • Saturday: _____ • Sunday: _____ • Holidays: _____
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m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? Yes No

If yes:

i. Provide details including sources, time of day and duration: _____

ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? Yes No

Describe: _____

n. Will the proposed action have outdoor lighting? Yes No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures: _____

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? Yes No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? Yes No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? Yes No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally describe proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? Yes No

If Yes:

i. Describe proposed treatment(s): _____

ii. Will the proposed action use Integrated Pest Management Practices? Yes No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? Yes No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____
- Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____
- Operation: _____

s. Does the proposed action include construction or modification of a solid waste management facility? Yes No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? Yes No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? Yes No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility: _____

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

Urban Industrial Commercial Residential (suburban) Rural (non-farm)

Forest Agriculture Aquatic Other (specify): _____

ii. If mix of uses, generally describe: _____

The geographical area that falls within the NYC Watershed encompasses numerous land uses. _____

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	N/A	N/A	N/A
• Forested			
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)			
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: _____			

c. Is the project site presently used by members of the community for public recreation? Yes No
i. If Yes: explain: Large portions of the New York City Watershed are utilized by the public for recreational purposes.

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? Yes No
 If Yes,
i. Identify Facilities:
Multiple throughout the watershed

e. Does the project site contain an existing dam? Yes No
 If Yes:
i. Dimensions of the dam and impoundment:
 • Dam height: _____ N/A feet
 • Dam length: _____ feet
 • Surface area: _____ acres
 • Volume impounded: _____ gallons OR acre-feet
ii. Dam's existing hazard classification: _____
iii. Provide date and summarize results of last inspection:
Multiple throughout the watershed

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? Yes No N/A
 If Yes:
i. Has the facility been formally closed? Yes No
 • If yes, cite sources/documentation: _____
ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? Yes No N/A
 If Yes:
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? Yes No N/A
 If Yes:
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: Yes No
 Yes – Spills Incidents database Provide DEC ID number(s): _____
 Yes – Environmental Site Remediation database Provide DEC ID number(s): _____
 Neither database
ii. If site has been subject of RCRA corrective activities, describe control measures: _____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? Yes No
 If yes, provide DEC ID number(s): _____
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

v. Is the project site subject to an institutional control limiting property uses? Yes No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? Yes No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? _____ Varies feet

b. Are there bedrock outcroppings on the project site? Yes No
 If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %

c. Predominant soil type(s) present on project site: _____ %
 _____ %
 _____ % N/A

d. What is the average depth to the water table on the project site? Average: _____ Varies feet

e. Drainage status of project site soils: Well Drained: _____ % of site
 Moderately Well Drained: _____ % of site N/A
 Poorly Drained _____ % of site

f. Approximate proportion of proposed action site with slopes: 0-10%: _____ % of site
 10-15%: _____ % of site N/A
 15% or greater: _____ % of site

g. Are there any unique geologic features on the project site? Yes No
 If Yes, describe: Many of the areas within the New York City Watershed contain unique geologic features.

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? Yes No

ii. Do any wetlands or other waterbodies adjoin the project site? Yes No

If Yes to either i or ii, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? Yes No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name Multiple throughout watershed Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? Yes No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? Yes No

j. Is the project site in the 100 year Floodplain? Yes No

k. Is the project site in the 500 year Floodplain? Yes No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? Yes No

If Yes:

i. Name of aquifer: Only adjacent to the New Croton Reservoir

<p>m. Identify the predominant wildlife species that occupy or use the project site: _____ Numerous throughout watershed _____ _____</p>	
<p>n. Does the project site contain a designated significant natural community? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes: i. Describe the habitat/community (composition, function, and basis for designation): _____ Numerous throughout watershed _____ ii. Source(s) of description or evaluation: _____ iii. Extent of community/habitat: <ul style="list-style-type: none"> • Currently: _____ acres • Following completion of project as proposed: _____ acres • Gain or loss (indicate + or -): _____ acres </p>	
<p>o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Multiple throughout watershed</p>	
<p>p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Multiple throughout watershed</p>	
<p>q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, give a brief description of how the proposed action may affect that use: _____ _____</p>	
<p>E.3. Designated Public Resources On or Near Project Site</p>	
<p>a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, provide county plus district name/number: <u>Applicability varies</u></p>	
<p>b. Are agricultural lands consisting of highly productive soils present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No i. If Yes: acreage(s) on project site? <u>Applicability varies</u> ii. Source(s) of soil rating(s): _____</p>	
<p>c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes: i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____ <u>Applicability varies</u></p>	
<p>d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes: i. CEA name: <u>Applicability varies</u> ii. Basis for designation: _____ iii. Designating agency and date: _____</p>	

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If Yes:	
i. Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> Historic Building or District	
ii. Name: _____	
iii. Brief description of attributes on which listing is based: Applicability varies	
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
g. Have additional archaeological or historic site(s) or resources been identified on the project site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If Yes:	
i. Describe possible resource(s): <u>Applicability varies</u>	
ii. Basis for identification: _____	
h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If Yes:	
i. Identify resource: <u>Applicability varies</u>	
ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____	
iii. Distance between project and resource: _____ miles.	
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If Yes:	
i. Identify the name of the river and its designation: <u>Applicability varies</u>	
ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

F. Additional Information

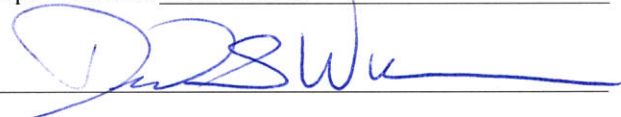
Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name David S. Warne Date 9/29/16

Signature  Title Assistant Commissioner, Bureau of Water Supply

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Agency Use Only [If applicable]

Project :
 Date :

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer “**Yes**” to a numbered question, please complete all the questions that follow in that section.
- If you answer “**No**” to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box “Moderate to large impact may occur.”
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the “whole action”.
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1) <i>If “Yes”, answer questions a - j. If “No”, move on to Section 2.</i>				<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur		
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	<input type="checkbox"/>	<input type="checkbox"/>		
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	<input type="checkbox"/>	<input type="checkbox"/>		
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	<input type="checkbox"/>	<input type="checkbox"/>		
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	<input type="checkbox"/>	<input type="checkbox"/>		
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	<input type="checkbox"/>	<input type="checkbox"/>		
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	<input type="checkbox"/>	<input type="checkbox"/>		
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	<input type="checkbox"/>	<input type="checkbox"/>		
h. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>		

2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g)

NO

YES

If "Yes", answer questions a - c. If "No", move on to Section 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____ _____	E2g	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	<input type="checkbox"/>	<input type="checkbox"/>
c. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h)

NO

YES

If "Yes", answer questions a - l. If "No", move on to Section 4.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	<input type="checkbox"/>	<input type="checkbox"/>
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	<input type="checkbox"/>	<input type="checkbox"/>
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	<input type="checkbox"/>	<input type="checkbox"/>
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	<input type="checkbox"/>	<input type="checkbox"/>
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	<input type="checkbox"/>	<input type="checkbox"/>

I. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
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4. Impact on groundwater
 The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer. NO YES
 (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t)
If "Yes", answer questions a - h. If "No", move on to Section 5.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	<input type="checkbox"/>	<input type="checkbox"/>
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	<input type="checkbox"/>	<input type="checkbox"/>
h. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

5. Impact on Flooding
 The proposed action may result in development on lands subject to flooding. NO YES
 (See Part 1. E.2)
If "Yes", answer questions a - g. If "No", move on to Section 6.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in development within a 100 year floodplain.	E2j	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in development within a 500 year floodplain.	E2k	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	<input type="checkbox"/>	<input type="checkbox"/>
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	<input type="checkbox"/>	<input type="checkbox"/>

g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
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6. Impacts on Air			
The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D.2.h, D.2.g) <i>If "Yes", answer questions a - f. If "No", move on to Section 7.</i>		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels: i. More than 1000 tons/year of carbon dioxide (CO ₂) ii. More than 3.5 tons/year of nitrous oxide (N ₂ O) iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs) iv. More than .045 tons/year of sulfur hexafluoride (SF ₆) v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions vi. 43 tons/year or more of methane	D2g D2g D2g D2g D2g D2h	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	<input type="checkbox"/>	<input type="checkbox"/>
f. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

7. Impact on Plants and Animals			
The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) <i>If "Yes", answer questions a - j. If "No", move on to Section 8.</i>		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	<input type="checkbox"/>	<input type="checkbox"/>

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	<input type="checkbox"/>	<input type="checkbox"/>
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____	E1b	<input type="checkbox"/>	<input type="checkbox"/>
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	<input type="checkbox"/>	<input type="checkbox"/>
j. Other impacts: _____		<input type="checkbox"/>	<input type="checkbox"/>

8. Impact on Agricultural Resources			
The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.)		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
<i>If "Yes", answer questions a - h. If "No", move on to Section 9.</i>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	E1 a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	<input type="checkbox"/>	<input type="checkbox"/>
h. Other impacts: _____		<input type="checkbox"/>	<input type="checkbox"/>

9. Impact on Aesthetic Resources The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.) <i>If "Yes", answer questions a - g. If "No", go to Section 10.</i>				<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur		
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	<input type="checkbox"/>	<input type="checkbox"/>		
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	<input type="checkbox"/>	<input type="checkbox"/>		
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>		
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>		
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	<input type="checkbox"/>	<input type="checkbox"/>		
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile 1/2 -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	<input type="checkbox"/>	<input type="checkbox"/>		
g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>		

10. Impact on Historic and Archeological Resources The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.) <i>If "Yes", answer questions a - e. If "No", go to Section 11.</i>				<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur		
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on or has been nominated by the NYS Board of Historic Preservation for inclusion on the State or National Register of Historic Places.	E3e	<input type="checkbox"/>	<input type="checkbox"/>		
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	<input type="checkbox"/>	<input type="checkbox"/>		
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	<input type="checkbox"/>	<input type="checkbox"/>		

d. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
e. If any of the above (a-d) are answered “Moderate to large impact may occur”, continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	<input type="checkbox"/>	<input type="checkbox"/>
ii. The proposed action may result in the alteration of the property’s setting or integrity.	E3e, E3f, E3g, E1a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	<input type="checkbox"/>	<input type="checkbox"/>

11. Impact on Open Space and Recreation			
The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan. (See Part 1. C.2.c, E.1.c., E.2.q.) <i>If “Yes”, answer questions a - e. If “No”, go to Section 12.</i>		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or “ecosystem services”, provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	<input type="checkbox"/>	<input type="checkbox"/>
e. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

12. Impact on Critical Environmental Areas			
The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d) <i>If “Yes”, answer questions a - c. If “No”, go to Section 13.</i>		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	<input type="checkbox"/>	<input type="checkbox"/>
c. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

13. Impact on Transportation The proposed action may result in a change to existing transportation systems. <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES (See Part 1. D.2.j) <i>If "Yes", answer questions a - f. If "No", go to Section 14.</i>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action will degrade existing transit access.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
f. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

14. Impact on Energy The proposed action may cause an increase in the use of any form of energy. <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES (See Part 1. D.2.k) <i>If "Yes", answer questions a - e. If "No", go to Section 15.</i>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	<input type="checkbox"/>	<input type="checkbox"/>
e. Other Impacts: _____ _____			

15. Impact on Noise, Odor, and Light The proposed action may result in an increase in noise, odors, or outdoor lighting. <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES (See Part 1. D.2.m., n., and o.) <i>If "Yes", answer questions a - f. If "No", go to Section 16.</i>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in routine odors for more than one hour per day.	D2o	<input type="checkbox"/>	<input type="checkbox"/>

d. The proposed action may result in light shining onto adjoining properties.	D2n	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	<input type="checkbox"/>	<input type="checkbox"/>
f. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.)
If "Yes", answer questions a - m. If "No", go to Section 17.

NO

YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	<input type="checkbox"/>	<input type="checkbox"/>
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	<input type="checkbox"/>	<input type="checkbox"/>
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	<input type="checkbox"/>	<input type="checkbox"/>
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	<input type="checkbox"/>	<input type="checkbox"/>
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	<input type="checkbox"/>	<input type="checkbox"/>
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	<input type="checkbox"/>	<input type="checkbox"/>
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	<input type="checkbox"/>	<input type="checkbox"/>
m. Other impacts: _____ _____			

17. Consistency with Community Plans The proposed action is not consistent with adopted land use plans. (See Part 1. C.1, C.2. and C.3.) <i>If "Yes", answer questions a - h. If "No", go to Section 18.</i>			
		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, E1b	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	<input type="checkbox"/>	<input type="checkbox"/>
h. Other: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

18. Consistency with Community Character The proposed project is inconsistent with the existing community character. (See Part 1. C.2, C.3, D.2, E.3) <i>If "Yes", answer questions a - g. If "No", proceed to Part 3.</i>			
		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	<input type="checkbox"/>	<input type="checkbox"/>
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	<input type="checkbox"/>	<input type="checkbox"/>
g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

ENVIRONMENTAL ASSESSMENT

Purpose and General Description of the Program

As required by its 2007 Filtration Avoidance Determination, DEP has prepared its 2016 Long-Term Plan (LTP) for the Catskill/Delaware Water Supply System. The purpose of the LTP is to protect and improve existing water quality in the Catskill/Delaware water supply system by engaging in or funding various activities that serve protective and/or remedial water quality functions in the watershed. This LTP is submitted in support of New York City's request to continue to operate the Catskill/Delaware water supply without filtration, avoiding the high cost of filtering a majority of its potable water supply. Accordingly, the City seeks a filtration avoidance determination under the Surface Water Treatment Rule (SWTR), regulations administered by the New York State Department of Health (NYSDOH) in consultation with the United States Environmental Protection Agency (EPA). The LTP, as proposed, is a comprehensive watershed protection strategy that focuses on implementing both protective and remedial initiatives through a number of individual programs and activities. These activities are discussed further below.

Activities under the LTP would take place throughout those parts of the New York counties that fall within the Catskill/Delaware water supply system plus two basins within the Croton system. These counties are Delaware, Dutchess, Greene, Putnam, Schoharie, Sullivan, Ulster, and Westchester.

The DEP Bureau of Environmental Planning and Analysis (BEPA) has concluded that the overall proposed LTP is classified as a Type I action since it effectively falls under 6 NYCRR § 617(b) (1), "the adoption by any agency of a comprehensive resource management plan" and affects such a broad geographic area.

Background

In 1989, the federal SWTR was promulgated requiring filtration of all public surface water supplies unless the water supplier could meet certain water quality, disinfection, and control criteria that would allow the water supplier to obtain a waiver of the filtration requirement from EPA. To demonstrate a basis for a filtration waiver for the Catskill/Delaware water supply system, DEP advanced a program in the early 1990s, which was enhanced and agreed to in 1997, to assess and address water quality threats in the Catskill/Delaware system. This program has provided the basis for a series of waivers from the filtration requirements of the SWTR. DEP has operated the Catskill/Delaware system under this series of Filtration Avoidance Determinations (FADs) since January 1993. The 1997 FAD reflects the framework for long-term watershed protection and partnership reflected in the 1997 New York City Watershed Memorandum of Agreement, agreed to by New York City, New York State, EPA, counties, towns, and villages in the watershed, and several environmental advocacy and land conservation organizations (MOA).

In 2001, DEP conducted a comprehensive assessment of the effectiveness of its watershed protection efforts through that time. Based on that assessment and the knowledge gained by the City during more than a decade of watershed protection, DEP enhanced its comprehensive water protection program, which incorporated two guiding principles in its overall program. First, DEP maintains a long-term commitment to watershed protection

programs. Second, DEP would collaborate with watershed partners (such as the Catskill Watershed Corporation and the Watershed Agricultural Council) to enhance program acceptance and implementation. Based on that 2001 water protection program, EPA issued a Filtration Avoidance Determination in November 2002.

Program enhancements in the 2001 Long-Term Water Protection Program and the corresponding 2002 FAD included expansion of the agricultural program to include small farms in the Catskill and Delaware watersheds and east of the Hudson River portions of the Catskill/Delaware watershed; commitment to several new wastewater projects for communities; an expanded stream management program; study of Catskill turbidity and evaluation of control alternatives; and commitment to construction of an ultraviolet light disinfection plant for the Catskill/Delaware water supply.

Similar to its efforts in 2001, DEP conducted an assessment of the effectiveness of its watershed protection programs in March 2006. The resulting report summarized the City's protection programs and included results of a status and trends analysis of water quality throughout the watershed. Following publication of this report, EPA began substantive discussions with DEP and New York State (NYS) about the 2007 FAD. In addition, EPA and NYSDOH reached out to watershed stakeholders and the public in an effort to gain input about various issues and programs. Discussions were held with watershed stakeholders and four public meetings were conducted.

In August of 2006, EPA, with assistance from NYSDOH, issued its "Report on the City of New York's Progress in Implementing the Watershed Protection Program, and Complying with the Filtration Avoidance Determination." The Report found that the City had "successfully satisfied the obligations specified in the 2002 FAD." Highlighted strengths included the land acquisition and small farm programs, while certain delays were noted in the wastewater and stream management programs.

In December 2006, DEP submitted its report to EPA and NYSDOH on its 2006 Long-Term Plan (2006 LTP). In this report, the City confirmed its long-term commitment to safeguard and improve the water supply, and its continuing commitment to partnership programs. In its 2006 LTP, the City proposed to continue virtually all of the existing program components, and included enhancements to many of them. On September 4, 2007, DEP issued a Negative Declaration for the 2006 Long-Term Plan.

Subsequent to submission of the City's 2006 LTP, and based on further discussions among the City, EPA, and the State, as well as input received from interested stakeholders, the City, EPA, and NYSDOH agreed that the 2007 FAD should cover a term of ten years, consisting of two five-year periods: (i) 2007-2012 ("First Five Year Period"), and (ii) 2012-2017 ("Second Five Year Period"). The final 2007 FAD was issued on July 30, 2007.

As part of the 2007 FAD, there is a requirement to assess the success of the First Five Year Period and establish a plan for the Second Five Year Period.

DEP submitted the Revised 2011 Long-term Watershed Protection Plan in December 2011 (Revised 2011 LTP). Since then, DOH issued a Draft Revised FAD in August 2013, which was subject to a public review period. An addendum to the Revised 2011 LTP was developed to include new and revised elements as a result of this process leading up to the Final Revised 2007 FAD. On 2014, DEP issued a Negative Declaration for the Revised 2011 LTP.

On December 15, 2016, DEP submitted its 2016 Long-Term Plan (2016 LTP). This environmental review evaluates DEP's 2016 LTP.

Proposed 2016 Long-Term Plan

The 2016 LTP, as noted above, builds upon the solid foundation of previous Long-Term Plans. The LTP as a whole was last reviewed under SEQRA/CEQR in 2014. A significant number of the individual programs and activities within the overall watershed protection program have been ongoing since at least 1997, if not longer, in some form or manner. Most program activities under the 2016 LTP would continue, both in functional and geographical scope, as they have been.

The majority of the program activities in the 2016 LTP continue activities that underwent prior environmental review; the proposed minor modifications to the Program are not anticipated to result in a change to those environmental determinations. The few program activities that do not fall within that category with respect to environmental review are analyzed below. Some of those program activities would result in discreet projects that vary site-by-site in scope, such as stream restoration projects and structural best management practices (BMPs). As the actual extent of any potential adverse environmental impacts due to these discreet projects cannot, at this time, be fully evaluated in the absence of more thorough design consideration and siting information, they would be subject to site-specific environmental assessments as applications for permits and approvals are considered on a project-by-project basis. Similarly, as noted below, DEP, with NYSDEC serving as lead agency, is undertaking an environmental review in connection with proposed modifications to the NYSDEC permit that authorizes periodic additions of alum to the Catskill Aqueduct. That environmental review is assessing, among other things, the impacts of DEP's use of the Ashokan Release Channel, which is a component of DEP's Phase III Catskill Turbidity Control Study Implementation Plan under the FAD. Other programs' activities would be typically classified as Type II actions under 6 NYCRR Part 617.5, such as replacement in-kind, data collection, studies, regulatory interpretation and enforcement, program administration, and reporting, and would not be subject to further environmental review.

Description and evaluation of program modifications and proposed new elements for the 2016 LTP are further described below. The following sections provide such analysis for both the benefits and potential adverse impacts of the 2016 LTP.

Long-Term Plan Benefits

The 2016 LTP reflects the City's comprehensive efforts to protect and improve water quality within its water supply system. The water supply system is an essential and irreplaceable resource, drawing water from approximately twenty-nine thousand miles of streams and over forty-three thousand acres of surface water in City's upstate watersheds. It provides water to the approximately 8.5 million residents of New York City and one million residents in the watershed and other upstate counties, as well as for industry and commerce and the millions of tourists and commuters who visit New York City and the watershed counties.

The 2016 LTP would protect this valuable resource from potential sources of pollution. Protecting the City's watershed would ensure the continued availability of high quality drinking water for generations to come, and would contribute substantially to the quality of life for all New Yorkers.

Water Quality

The 2016 LTP would continue to provide water quality benefits by reducing pollutants entering the water supply through the remediation of existing water quality problems, such as failed septic systems and areas in need of stormwater retrofits, and the prevention of future sources detrimental to water quality through, among other things, acquisition of land and conservation easements. The City realized and expects to continue to see localized improvements in water quality in the Catskill/Delaware water supply systems. In general, the 2016 LTP prevents and reduces pollution from contaminants such as coliform bacteria, other waterborne pathogens, phosphorus, and other nutrients through a variety of mechanisms. Land acquisition provides long-term anti-degradation benefits to water quality through the preservation of sensitive lands such as wetlands and undeveloped lands near water resources. Agricultural farm plans and BMPs help to manage nonpoint sources of agricultural pollution and prevent it from entering watercourses. Implementation of forestry management plans helps maintain well-managed forests as a beneficial land cover for watershed protection. Improvement or construction of stormwater infrastructure reduces nonpoint source pollution carried in stormwater runoff. The rehabilitation and upgrades of existing sewage treatment infrastructure and the construction of new sewage treatment infrastructure reduce water quality impacts associated with wastewater sources.

The 2016 LTP would be a positive influence on water quality since it would incorporate activities that serve protective and/or remedial water quality functions for the watershed. Therefore, no potential significant adverse water quality impacts are anticipated.

Additional Environmental Benefits

The 2016 LTP would continue to protect wildlife living in habitats in or adjacent to water bodies and/or State-designated wetlands because the Watershed Rules and Regulations limit development in these areas and additional land buffers would be gained through acquisition. Endangered species, such as the bald eagle, which nest in these areas, as well as other vertebrates and invertebrates that live in or near water bodies would be further protected. Existing open space in the watershed, including both public and some private lands, offers opportunities for a variety of recreational activities such as fishing, hunting, and hiking. The Land Acquisition Program supports and enhances opportunities for these recreational activities where consistent with water quality protection. In addition, by ensuring that septic systems, hazardous materials, and impervious surfaces would be located further from wetlands and other sensitive lands, the 2016 LTP would continue to protect these land resources.

Program Descriptions and Assessment of Potential Adverse Impacts

A summary of the 2016 LTP and an environmental assessment is provided below for each category of the program:

Surface Water Treatment Rule Objective Compliance

Under the SWTR, to qualify for a waiver from the filtration requirement, the City must meet certain objective water quality criteria. The SWTR requires compliance with certain source water criteria (coliforms and turbidity levels) and disinfection standards (inactivation requirements, maintenance of chlorine residual, disinfection system redundancy and other

requirements). In addition, the City must meet the Total Coliform Rule and the Stage 1 Disinfectant and Disinfection Byproducts Rule. Furthermore, as an unfiltered public water supply, the City must comply with the Long Term 2 Enhanced SWTR.¹

SWTR compliance consists of a continuation of previous activities. In addition, the National Research Council (NRC) will conduct an independent, comprehensive review of the City's watershed protection plan. It is expected that the expert review would be completed in time to inform LTP implementation. The activities for this category would be considered a Type II action under 6 NYCRR Part 617 and not subject to further environmental review.

Environmental Infrastructure

Since 1997, DEP has worked closely with the Catskill Watershed Corporation² (CWC) and local communities to develop and implement core environmental infrastructure programs in the WOH reservoir basins, including rehabilitation of septic systems, extension of existing sewer systems, construction of new wastewater facilities and implementation of stormwater controls. These core environmental infrastructure programs together address some of the most significant anthropogenic sources of pollution in the watershed. Control of the pollution sources in these areas has required creation or rehabilitation - and requires continued management - of pollution control infrastructure systems. DEP's continuing support of these activities is intended to result in reduction and remediation of pollution at the source, offering long-term watershed protection. The elements for the 2016 LTP for these core programs are discussed below. They are a continuation of previous programs. Any new environmental infrastructure projects, including a new WWTP and collection system proposed for the hamlet of Shokan in the Town of Olive, would be evaluated for the need to conduct an individual site-specific review prior to construction.

Septic and Sewer Programs

DEP is committing funding for the continuation of the basic Septic Remediation and Replacement Program, the Cluster System Program and the Septic Maintenance Program. The Small Business Program is expanding to include governments and not-for-profits and alterations/modifications as well as repairs. Further, DEP would continue its ongoing efforts to complete design and construction of sewer extensions at two City-owned wastewater treatment plants (WWTPs), which are Pine Hill-Shandaken (Pine Hill WWTP) and Margaretville-Middletown (Margaretville WWTP), to collect wastewater in certain priority areas where existing septic systems are failing or likely to fail. DEP would also support the Alternate Design Septic Program. This program funds the eligible incremental costs for new septic systems to comply with the Watershed Rules and Regulations. Finally, DEP would also continue to use its regulatory authority to approve design and construction of new

¹ In late August 2011, EPA announced that it would review LT2 as part of a periodic review of existing regulations to evaluate effective and practical approaches to protect uncovered finished water storage reservoirs, such as Hillview Reservoir. In light of EPA's announcement, DOJ and the City have agreed to defer negotiations over revised dates until EPA completes its review.

² The Catskill Watershed Corporation was established as an independent locally-based and locally administered not-for-profit corporation to manage certain Watershed Partnership and Protection Programs that were created as the result of the 1997 NYC Watershed Memorandum of Agreement (MOA).

septics and remediation of failed septic systems. Studies would be considered Type II actions under 6 NYCRR Part 617. Implementation of any new system would be subject to a subsequent site-specific environmental review.

Community Wastewater Management Program

DEP developed a Community Wastewater Management Program with CWC to implement community wastewater solutions, such as the development of septic maintenance districts and/or construction of community or cluster septic systems, in 15 specified villages and hamlets.³ Ten communities have been completed. The goals of the current program are to approve CWMP block grants for Shandaken and West Conesville to proceed to design and construction following completion of Study Phase and complete the study, design, and construction of projects for the final three communities (Claryville, Halcottsville, and New Kingston). As discussed above, a new WWTP proposed for the hamlet of Shokan in the Town of Olive would be evaluated. Studies would be considered a Type II action under 6 NYCRR Part 617. Implementation of any new system would be subject to a subsequent site-specific environmental review.

Stormwater Program

DEP would continue to fund the Stormwater Retrofit Program, which implements stormwater best management practices (BMPs) at existing sites throughout the WOH watershed, thereby reducing the loading of suspended solids, pathogens, excessive nutrients, and other pollutants into watercourses and the reservoir systems through stormwater runoff. As part of this program, the City also funds stormwater assessments and planning efforts that yield specific proposed stormwater retrofit projects and management practices in the context of an overall plan. The resulting recommended projects from these assessments and plans would then be given funding priority by DEP and CWC. A companion program, the Future Stormwater Controls Program, funded by the City, would continue to fund the incremental costs of stormwater measures required solely by the NYC Watershed Regulations above the state and federal requirements.

This program consists of a continuation of previous activities and would be considered a Type II action under 6 NYCRR Part 617 and not subject to further environmental review.

Protection and Remediation Program

Waterfowl Management Program

The Waterfowl Management Program includes avian population monitoring and avian deterrence and/or displacement activities. First implemented at Kensico Reservoir in 1992, this program has been one of the most successful and cost-effective watershed protection programs developed by the City. The 2006 Program expanded the Waterfowl Management Program to include avian harassment and deterrent activities for the Hillview Reservoir as well as for other City reservoirs. This program would be continued on an “as needed” basis

³ These fifteen communities are located in Delaware, Greene, Schoharie, and Ulster Counties and were identified as priority communities 8 through 22 in the MOA New Infrastructure Program. In order, they are: Bloomville, Boiceville, Hamden, Delancey, Bovina Center, Ashland, Haines Falls, Trout Creek, Lexington, South Kortright, Shandaken, West Conesville, Claryville, Halcottsville, and New Kingston (Article V, paragraph 122 (c) of NYC Watershed MOA).

using a prescribed set of criteria. DEP developed an environmental impact statement for this program in May 2004 (CEQR No. 03DEP054U). These activities are a continuation of DEP programs from the previous FAD that were already evaluated and are not subject to further environmental review.

Land Acquisition Program

The City, under its Land Acquisition Program, seeks to prevent future degradation of water quality by acquiring real property interests in sensitive undeveloped lands and by managing uses on these lands. The City offers interested landowners fair market value to acquire either conservation easements or fee simple. Landowner participation in the program is completely voluntary. The City pays property taxes as assessed on all real property interests acquired.

DEP would continue to implement its Land Acquisition Program (LAP) under the 2016 LTP. The City would also continue its efforts to use land trusts and other non-government organizations to identify and help the City acquire eligible lands. In 2010, DEP conducted and issued a strategic review to help establish the shape of the Extended Land Acquisition Program. In December 2010, DEP received a 15-year Water Supply Permit from NYSDEC authorizing land acquisition through 2025. The Permit includes a cap on authorized acquisitions: not to exceed 106,712 acres in total City acquisitions in fee title and Watershed Conservation Easements across the entire Watershed which are acquired (i.e. executed contract to purchase) from January 1, 2010 forward, of which no more than 105,043 acres shall be located in the West of Hudson watershed.

The activities of this program were fully evaluated and described in the Final Environmental Impact Statement for the Extended New York City Land Acquisition Program issued December 10, 2010 (CEQR No. 10DEP046U).

The City would continue to work with and support partners to secure properties and CEs pursuant to the Farm and Forest Conservation Easement Programs, the NYC-Funded Flood Buyout Program (NYCFFBO Program), and the Streamside Acquisition Program. Under the 2016 LTP the City would also continue the NYCFFBO Program. On August 17, 2015, DEP completed an analysis of this NYCFFBO Program to support the modification of the WSP which was issued on June 15, 2016.

Because the existing WSP expires during the period of this 2016 LTP, DEP is putting forth a solicitation plan that coincides with the term of the existing WSP. If and when the WSP is renewed, DEP would propose additional solicitation based on LAP status. Subsequent SEQRA review would be required to support the renewal of the WSP and future solicitations and acquisitions.

Land Management

The City has made a significant investment in purchasing water supply lands and conservation easements. To maximize the utility of these lands in protecting the long-term water supply for the City, they must be monitored, managed, and secured properly. Effective and routine monitoring of lands and easements is vital to discovering encroachments, timber trespass and overuse of fee lands, and potential violations for easements. In addition, the City supports and provides for many uses of its lands, such as recreation and agriculture. City lands can also be an important economic asset to local communities and the City continues to

allow various uses of its lands for various recreational activities, and also by issuing revocable land use permits that allow a variety of public and private uses, including agriculture.

This program consists of a continuation of previous activities and would be considered a Type II action under 6 NYCRR Part 617 and not subject to further environmental review. Each individual land use permit application to allow for uses of City lands would be subject to separate individual environmental review.

Watershed Agricultural Program (WAP)

The Watershed Agricultural Program (WAP) strives to protect the City's water supply from agricultural pollution while keeping farms in operation. It is a comprehensive effort to develop and implement pollution prevention plans ("Whole Farm Plans") on small and large farms in the City's Catskill/Delaware watersheds. The program is a voluntary partnership funded primarily by DEP, with particular emphasis on water-borne pathogens, nutrients, and sediment. The WAP's primary activities include the voluntary development of Whole Farm Plans and the implementation of both new and replacement/repaired agricultural best management practices (BMPs), along with the establishment of riparian buffers through the federal Conservation Reserve Enhancement Program (CREP). The WAP also supports nutrient management planning, precision feed management, and diverse educational programs that collectively provide farmers with a comprehensive suite of technical assistance and financial incentives to improve farm management and reduce pollution risks. To date, the WAP has developed nearly 410 Whole Farm Plans and implemented nearly 7,100 Best Management Practices (BMPs) on large and small farms West-of-Hudson as well as a number of East-of-Hudson farms and enrolled nearly 2,000 acres of riparian buffers in the CREP. Nearly 120 farms participate in the Nutrient Management Credit Program and up to 60 farms are being recruited for the Precision Feed Management Program. Numerous agencies and organizations directly support the WAP through local and federal staffing arrangements, including the United States Department of Agriculture, Cornell Cooperative Extension, and Soil and Water Conservation Districts.

This would largely be a continuation of previous activities in the 2016 LTP. Prioritization of projects would be geared toward those with maximum water quality benefit. This program, as discussed in the 2016 LTP, would be considered a Type II action under 6 NYCRR Part 617 and not subject to further environmental review.

In addition, as described in the 2016 LTP, DEP would provide funding to support implementation of Precision Feed Management (PFM) on up to 60 eligible farms in the watershed. Precision Feed Management is a program that formulates nutritional management plans for dairy herds based upon dietary needs to reduce overfeeding of nutrients. This results in fewer nutrients being brought into the farm, reducing nutrients excreted by the cows, hence reducing nutrient release in the watershed.

Funding PFM would support continuation of existing activities. This would be considered a Type II action under 6 NYCRR Part 617 and fall under Section 617.5(c)(20) "routine or continuing agency administration and management, not including new programs or major

reordering of priorities that may affect the environment,” and not subject to further environmental review.

Watershed Forestry Program

The Watershed Forestry Program (also referred to as the WAC Forestry Program because it is administered by the Watershed Agricultural Council) supports and maintains well-managed forests as a beneficial land cover for watershed protection. The program is a voluntary partnership that provides funding to private landowners to develop 10-year forest management plans, and conducts various educational programs and outreach activities targeted to forest landowners, water consumers, environmental groups, and other audiences. The Watershed Forestry Program has developed hundreds of forest management plans, in addition to training hundreds of loggers and foresters, and educating thousands of landowners, teachers, students, and other upstate/downstate audiences.

In recent years, the WAC Forest Management Planning Program was updated which resulted in a new eligibility requirement that all future WAC-funded plans and plan updates must enroll in New York’s forest tax abatement program. DEP also developed a new interactive website for watershed landowners. This program largely consists of a continuation of previous activities, and as described in previous environmental reviews, would be considered a Type II action under 6 NYCRR Part 617 and not subject to further environmental review.

As described in the 2016 LTP, DEP would continue to support the Croton Trees for Tribes Program. Trees for Tribes engages volunteers in planting riparian areas with trees and shrubs, thereby creating forested buffers, which help protect water quality. At the same time, watershed residents learn about the valuable role of riparian forests and develop a vested interest in watershed protection. This activity would be considered maintaining landscaping and natural growth, which would be considered a Type II action under 6 NYCRR Part 617 and not subject to further environmental review.

Stream Management Program

The goal of the Stream Management Program (SMP) is to protect and restore achievable levels of stream system stability and ecological integrity by facilitating the long-term stewardship of streams and floodplains with the Catskill/Delaware watersheds. The 2016 LTP would continue the program strategy. Stream management plans have been completed for all main stem river corridors, and the recommendations within each stream management plan define a ‘road map’ for achieving the program’s mission.

As described in the 2016 LTP, program components include annual action planning based on stream assessments and stakeholder input; water-quality-driven Stream Projects; stakeholder-driven Stream Management Implementation Program projects; the Catskill streams Buffer Initiative; Flood Hazard Mitigation projects; and Education, Outreach and Training.

The City would also continue to work with the United State Geological Survey to conduct the ongoing turbidity and suspended sediment source and yield monitoring study beginning in October 2016 in the upper Esopus Creek and Stony Clove Creek watersheds. This study evaluates stream management projects’ effectiveness in turbidity reduction and its findings would be used to prioritize site selection for future stream management projects. At least

three turbidity reduction stream projects would be identified in the Stony Clove watershed and implemented as part of the study.

Stream Management Plans or programs in the 2016 LTP would be subject to individual reviews by local towns or conservation districts adopting these plans or programs.

Riparian Buffer Protection Program

The Riparian Buffer Protection Program (RBP) was initiated under the 2007 FAD, committing the City to continue its riparian buffer protection efforts through the existing programs (e.g. Land Acquisition, Watershed Agricultural, Stream Management, and Forestry programs) as well as initiating selected program enhancements. The primary programmatic enhancement has been the Catskill Streams Buffer Initiative (CSBI), a component of the Stream Management Program, which targets improved riparian buffer protections along privately-owned and primarily non-agricultural streamside areas. The CSBI is anticipated to provide technical assistance and conservation guidance to riparian landowners, facilitate the supply of native materials, complete revegetation of at least 5 streambank miles West of Hudson, implement a marketing, education, and outreach plan, and convene annual meetings of the Riparian Buffer Working Group.

The focus of CSBI has been on non-agricultural lands and has complemented the Conservation Reserve Enhancement Program (CREP) which restores riparian buffers on agricultural lands. CREP eligibility criteria expanded recently to allow CREP to be implemented on non-agricultural lands that have a past history of agricultural use. In this FAD period, a partnership between CSBI and CREP would be explored to enable CREP to be implemented through the CSBI on these non-agricultural lands.

As discussed in previous environmental reviews, the RBP consists of minor enhancements to existing programs and not subject to further review. For the 2016 LTP, RBP efforts through existing WAC, Stream Management and Forestry programs would continue.

The RBP implemented under land acquisition was reviewed under the 2010 Final Environmental Impact Statement for the Extended New York City Land Acquisition program (CEQR No. 10DEP046U). The RBP is not expected to have a significant impact on the supply of developable land in towns where it is implemented.

Ecosystem Protection Program

The Ecosystem Protection Program combines goals and activities for three programs: Forestry, Wetlands and Invasive Species.

1. Forest Management

The overarching goal of the Forest Management Program is to preserve water quality by increasing diversity of species and age structure of City forest lands to enhance forest vigor and forest resiliency. The Forest Management Plan includes the use of silvicultural activities such as: harvesting, following resource conservation guidelines set forth by DEP, and

enhanced best management practices. DEP issued a Negative Declaration of the Forest Management Program in November 2011 (CEQR No. 12DEP023U).

2. Wetlands

Wetlands moderate peak runoff and improve water quality through sediment retention, chemical transformations, and biotic uptake. Wetlands also detain floodwaters, recharge groundwater, and maintain base flow in watershed streams. Recognizing these important water quality functions, DEP has long targeted protection of wetland resources through a variety of regulatory and non-regulatory means. This program largely consists of a continuation of previous activities, as described in previous environmental reviews, and would be considered a Type II action under 6 NYCRR Part 617 and not subject to further environmental review. DEP would also explore the use of Light Detection and Ranging (LIDAR)-derived data to detect wetlands and assess wetland connectivity and reference wetland monitoring. This would also be considered a Type II action under 6 NYCRR Part 617 and not subject to further environmental review.

3. Invasive Species

The Invasive Species Program was formed to develop and implement a comprehensive strategy to identify, prioritize and address invasive species threats to the water supply and coordinate monitoring and management. Invasive species can cause direct harm to water supply infrastructure through clogging of intakes and pipes potentially costing millions of dollars of damage. Invasive species also can impact biodiversity and water quality potentially through degradation of the natural ecosystems that the water supply relies on. The Invasive Species Management Strategy covers the topics of prevention and pathway risk mitigation, early detection and rapid response to new invasive species, control and management of existing invasive species where appropriate, mitigation of the impacts from the species that can't be controlled, restoration of areas that have been heavily impacted by invasive species, intra-agency and external partnership collaborations to address these issues.

Activities under this plan would fall within the scope of a Type II action under 6 NYCRR § 617.5, such as "maintenance of existing landscaping or natural growth," Section 617.5(c)(6) or "maintenance or repair involving no substantial changes in an existing structure or facility," Section 617.5(c)(1).

Nonpoint Source Pollution Strategy for East of Hudson Catskill/Delaware Basins

DEP developed, as part of its 2001 Long-Term Plan, a plan to address non-point source pollution in the Catskill/Delaware basins located EOH. The plan, based upon watershed surveys, water quality monitoring, and the Croton Watershed Strategy, was designed to reduce known non-point sources of pollution and identify and eliminate other sources of non-point pollution. DEP would continue its EOH Non-Point Source Program to ensure that the projects implemented to date achieve the intended goals and acquire additional sources of data to guide future decision-making.

Under the 2016 LTP, DEP would complete prior DEP projects designed for this program, which have been subject to their own individual environmental reviews. A condition of the 2010 Water Supply Permit also included funding for the East of Hudson Non-Point Source Pollution Control Program. As discussed in the 2010 LAP FEIS, this would fall in the

category of continuing administration and management of an existing regulatory program not including a reordering of priorities.

In addition, DEP would continue an East-of-Hudson Septic Repair Program for the West Branch, Boyd Corners, Cross River and Croton Falls basins. This program would help protect these unfiltered supplies from contamination by human pathogens resulting from failing septic systems. These activities would be considered maintenance and repair involving no substantial changes in an existing structure or facility and fall under a Type II action under 6 NYCRR Part 617 and not subject to further environmental review.

Kensico Water Quality Control Program and Related Programs

DEP developed a multi-faceted program to protect and improve water quality in Kensico Reservoir. This reservoir serves as the final impoundment for more than a billion gallons of potable water that enters from the Catskill/Delaware watersheds each day. Maintaining high quality water in Kensico Reservoir is one of the highest priorities for DEP. Major ongoing elements of the Kensico Water Quality Control Program include active stormwater and waterfowl management programs, a septic repair program, periodic maintenance dredging at intake channels, and maintenance of stormwater retrofits, turbidity curtains, and hazardous spill containment facilities. The program also includes the Westlake Sewer Extension monitoring program and a Video Sanitary Sewer Inspection Program. The 2016 LTP would be a continuation of these elements, which have been previously reviewed or would be categorized as maintenance activities and considered a Type II action under 6 NYCRR Part 617 and not subject to further environmental review.

As discussed in the 2016 LTP, DEP would complete a project to stabilize a section of the Kensico Reservoir shoreline in the vicinity of Shaft 18. The goal of the project is to minimize erosion of the shoreline, which can result from wind and wave action, and associated water quality impacts. DEP has completed an environmental review of this project and issued a Negative Declaration on August 15, 2016 (CEQR No. 16DEP014U).

Catskill Turbidity Control

Due to the hydrology, topography, and underlying geology, the Catskill water supply system is prone to elevated levels of turbidity in streams and reservoirs. High turbidity levels are associated with high flow events, which mobilize the streambeds and suspend the glacial clays that underlie the streambed armor. The Catskill system was designed to address this endemic turbidity, and provides for settling within Schoharie, Ashokan, and the upper reaches of Kensico Reservoir. Usually, this extended detention time in the reservoirs is sufficient to allow turbidity-causing particles to settle out, and the system is well within turbidity compliance limits at the Kensico effluents. Periodically, however, following extreme runoff events, DEP has used chemical treatment (alum) to control high levels of turbidity.

To assess possible strategies for controlling turbidity, DEP conducted the Catskill Turbidity Control Study (CTCS). CTCS evaluated a range of structural and non-structural (operational) alternatives for managing turbidity in the Catskill system. Alternatives were evaluated using linked water quantity/water quality models. The CTCS assessment determined that selected infrastructure improvements, along with “Modified Operations” using the linked models as part of a decision support system, would be the most effective and cost-effective method of

controlling turbidity levels. Accordingly, in November 2009, DEP initiated development of the Operations Support Tool (OST). This tool utilizes near-real-time (NRT) data from a network of water quality sensors on streams, in reservoirs, and at aqueduct and tunnel monitoring sites, as well as USGS stream flow and DEP reservoir and snowpack data. By assimilating probabilistic stream inflow forecasts from the National Weather Service and NRT data, the linked models can provide projections of reservoir water quality and quantity at various points in the future. DEP uses this information to help guide decisions on individual reservoir operations and overall water supply system management.

Pursuant to the approved CTCS Phase II and Phase III implementation plans, DEP completed additional projects designed to improve operational flexibility and enhance turbidity control. Such projects include improvements to the Catskill Aqueduct stop shutters, a connection between the Catskill and Delaware Aqueducts at Delaware Shaft 4, and operation of the Ashokan Release Channel. DEP issued a Negative Declaration in 2010 on the Shaft 4 Interconnection (CEQR No. 10DEP065U), and the Stop Shutter Improvements along the Catskill Aqueduct would be considered a Type II action under 6 NYCRR Part 617 and not subject to further environmental review. The use of the Ashokan Release Channel in accordance with an interim release protocol (IRP) developed by NYSDEC is subject to separate environmental review associated with the proposed modifications to the NYSDEC State Pollutant Discharge Elimination System (SPDES) Permit for the Catskill Influent Chamber (Catalum SPDES Permit No. NY0264652, CEQR No. 14DEC001).

In particular, as part of the NYSDEC Order of Consent dated October 4, 2013, DEP is required to submit a Draft Environmental Impact Statement that analyzes the environmental and socioeconomic impacts of operating the Ashokan Release Channel in accordance with the IRP and assesses alternative methods of operating the Catskill System. NYSDEC is serving as Lead Agency for this review.

The results of this environmental review may result in the City's modifying its selection or use of the options for Catskill turbidity control defined in its Phase III Catskill Turbidity Control Study Implementation Plan. The National Research Council (NRC) would conduct an expert panel review of the City's use of OST for water supply operations, to evaluate the proposed modifications to the Catalum SPDES Permit and the alternatives that would be considered in the environmental review. As noted in the 2016 LTP, the City would meet with NYSDOH/EPA, NYSDEC, and the Watershed Inspector General to discuss the findings of the DEIS and potential alternatives for operating the Catskill water supply system to control turbidity. In addition, the expert panel may provide recommendations on the use of OST for water supply operations. The 2016 LTP also outlines additional reports and plans that would be required. These reporting activities would be considered a Type II action under 6 NYCRR Part 617 and not subject to further environmental review.

Watershed Monitoring, Modeling, and GIS

New York City's watershed monitoring, modeling, and GIS programs form the basis for the City's ongoing assessment of watershed conditions and changes in water quality, and ultimately any modifications to the strategies and management of the Long-Term Plan. DEP would continue to support and enhance these programs.

Watershed Monitoring Program

DEP conducts extensive monitoring throughout the watershed. The monitoring framework is defined by the Watershed Water Quality Monitoring Plan (Plan). This Plan describes the DEP's comprehensive watershed monitoring programs, which supports regulatory compliance, FAD program evaluation, modeling, and surveillance for reservoir operations. Further, DEP submits monthly reports that describe its compliance with the objective regulatory requirements for filtration avoidance, such as turbidity and coliform bacteria levels in source water, and disinfection.

This program consists of ongoing activities from the previous FAD that were already evaluated in previous environmental reviews. The program would be considered a Type II action under 6 NYCRR Part 617 and not subject to further environmental review.

Multi-Tiered Water Quality Modeling Program

DEP has developed a Multi-Tiered Water Quality Modeling Program (Modeling Program) that consists of integrated reservoir and terrestrial models. The Modeling Program develops and applies simulation models for understanding and quantifying the effects of watershed management, reservoir operations, and climate (floods and drought) on the quality and reliability of the water supply system. The models encapsulate the key processes and interactions that control generation and transport of water, sediment, and nutrients from the land surface, throughout the watersheds, and within the reservoirs. A wide variety of data are integrated, including land cover, land use, soils, topography, population, wastewater treatment, stream flow, stream water chemistry, reservoir bathymetry, reservoir operations, and reservoir chemistry and thermal structure. The models are useful for predicting the effects of changing land use, population, watershed management, and reservoir operations on water supply quantity and quality.

The overall goals of the program include using models to evaluate the various watershed management programs, reservoir operations, and long-term water supply planning. Specifically, models have been used to evaluate the effectiveness of various watershed programs to control eutrophication⁴ in the Delaware water supply system, and to predict turbidity transport in the Catskill water supply system and Kensico Reservoir.

This program consists of a continuation of previous activities, and as described in previous environmental reviews, would be considered a Type II action under 6 NYCRR Part 617 and not subject to further environmental review.

GIS Program

DEP maintains an extensive Geographic Information System (GIS) to manage the City's interests in the lands and facilities of the upstate water supply system, and to display and evaluate the potential efficacy of watershed protection programs through maps, queries, and spatial analyses. The GIS is also used to support watershed and reservoir modeling of water quantity and quality, as well as modeling of water supply system operation. Under the 2006 Long-Term Plan, DEP further developed the GIS program into a mature enterprise solution

⁴ Eutrophication is caused by the increase of chemical nutrients, typically compounds containing nitrogen or phosphorus that may occur on land or in water.

that is widely accessible through native GIS software and through its integration into other database applications. The GIS provides visualization and analysis tools that assist in the design, implementation, and evaluation of water quality monitoring and watershed protection programs in a unique spatial and temporal context.

This program consists of a continuation of previous activities, and as described in previous environmental reviews, would be considered a Type II action under 6 NYCRR Part 617 and not subject to further environmental review.

Regulatory Program

Watershed Rules and Regulations and Other Enforcement/Project Review

New York City's Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and Its Sources, 10 NYCRR Part 128; 15 Rules of the City of New York Chapter 18 (Watershed Regulations or WR&Rs) give DEP regulatory authority over certain activities that, if improperly carried out, could threaten to add nutrients, pathogens, and other contaminants into the water supply. The WR&Rs are directed primarily toward controlling sewage collection and treatment, stormwater discharges, and impervious surfaces, but also govern such activities as petroleum storage, winter highway sand and salt storage facilities, and solid waste management and disposal. In general, they require that persons proposing to engage in a regulated activity in the watershed meet stringent standards set out in the regulations and, in many cases, obtain prior DEP review and approval of the activity.

The WR&Rs were amended in 2010 and the Negative Declaration for those amendments was issued October 26, 2009 (CEQR No. 04DEP207U). DEP is working towards revising the WR&Rs to provide greater consistency with the State's regulatory program for stormwater and wastewater, and also in response to concerns raised by west-of-Hudson stakeholders. Among other things, DEP is planning to amend the provisions relating to noncomplying regulated activities, subsurface sewage treatment systems, holding tanks, stormwater pollution prevention plans, and variances. DEP would continue to discuss the proposed revisions with stakeholders before beginning the rulemaking process which will be subject to further environmental review.

Wastewater Treatment Plant Compliance and Inspection

The Wastewater Treatment Plant (WWTP) Compliance and Inspection Program is comprised of onsite inspections, sample monitoring, compliance assistance, and enforcement of State Pollutant Discharge Elimination System (SPDES) permits for all WWTPs discharging in the New York City watershed. The program is coordinated through an EPA-approved Memorandum of Understanding (MOU) between NYSDEC and DEP. To ensure that watershed WWTPs are operated and maintained in accordance with their SPDES permits, DEP inspects all year-round operating wastewater facilities every quarter, and inspects seasonal operating facilities, groundwater remediation sites, or industrial permits two out of every four quarters. DEP's sampling program includes regular monitoring of the effluent parameters of all treatment plants in the watershed. The City uses the results of the sampling to assist plant operators or to initiate enforcement activities as necessary.

This program consists of a continuation of previous activities, and as described in previous environmental reviews, would be considered a Type II action under 6 NYCRR Part 617 and not subject to further environmental review.

Catskill/Delaware Filtration Plant Design

Although water from the Catskill/Delaware supplies currently meets all water quality regulations, DEP, in accordance with EPA requirements, began to plan in the late 1990s for the filtration of its Catskill/Delaware water supplies. DEP prepared preliminary designs and a preliminary draft environmental impact statement, and completed several other planning and engineering tasks. The commitment to update the preliminary filtration designs every two years was memorialized in the 2002 FAD that would be continued with each subsequent Long-Term Plan and corresponding FAD.

DEP had begun to assess the use of ultraviolet light (UV) for the Catskill/Delaware water supplies during the late 1990s. In its 2001 Long-Term Plan, DEP included a commitment to design and construct a UV disinfection facility. That commitment continued with the 2006 Program. The UV disinfection facility, which began operation in 2012, fulfills DEP's obligation under EPA regulations to provide enhanced treatment for cryptosporidium.

The addition of UV disinfection to the Catskill/Delaware water supply provides an additional disinfection barrier enhancing the City's water supply protection efforts. The Catskill/Delaware Ultraviolet Light Disinfection Final Environmental Impact Statement was issued on November 30, 2004 (CEQR No. 04DEP05U).

Updates every two years to the preliminary design for the Catskill/Delaware filtration plant ensure that the existing design documents do not become obsolete, thereby minimizing the overall time to commence filtration in the event that it is determined later that filtration is necessary. Accordingly, DEP is proposing to contract for a comprehensive review and study of filtration technologies and pilot testing to support the creation of a new conceptual design. The existing Catskill/Delaware filtration conceptual design documents are largely based on work completed nearly 25 years ago. The project is expected to include bench-scale and full-scale pilot studies and independent review and input from water treatment experts in the engineering community. This would minimize the overall time to commence filtration in the event that DEP or the primacy agency later determines that filtration is necessary. These studies would be considered a Type II action under 6 NYCRR Part 617. If DEP were to construct a Cat/Del filtration plant, that project would be subject to a separate environmental review.

Waterborne Disease Risk Assessment Program

The City's Waterborne Disease Risk Assessment Program (WDRAP) was established in the early 1990s and is managed by both DEP and the NYC Department of Health and Mental Hygiene (DOHMH). Among other things, the objectives of the WDRAP going forward include continuing to implement programs established to determine rates of giardiasis and cryptosporidiosis in New York City.

This program consists of a continuation of previous activities, and as described in previous environmental reviews, would be considered a Type II action under 6 NYCRR Part 617 and not subject to further environmental review.

Administration

Beginning in the early 1990s, to support its comprehensive watershed protection program, DEP hired hundreds of professionals in a variety of fields, including hydrology, limnology, engineering, wastewater treatment, project management and administration. The efforts of this dedicated staff have allowed DEP to successfully implement the elements of the overall protection effort. DEP is committed to maintaining the level of staffing, funding and expertise necessary to support all elements of the Long-Term Plan.

This program consists of a continuation of previous activities, and as described in previous environmental reviews, would be considered a Type II action under 6 NYCRR Part 617 and not subject to further environmental review.

Education and Outreach

Public education and outreach efforts have been a component of DEP's watershed protection strategy since the early 1990s. DEP's activities are built on the principle that an informed base of watershed residents and water consumers facilitates development and implementation of protection strategies. An effective outreach program enhances consumer confidence in the safety and quality of the water supply, while teaching watershed residents and consumers alike the importance of watershed protection and conservation.

DEP's efforts have included, and would continue to include, both program-specific education efforts and broad-based outreach. In many cases, program-specific outreach efforts are conducted in coordination with DEP's partner agencies and organizations – the Catskill Watershed Corporation, the Watershed Agricultural Council, Soil and Water Conservation Districts, and the watershed towns and counties, to name a few. It is important to acknowledge the contributions of these locally-based groups in spreading the word about the links between land use activities and water quality.

This program consists of a continuation of previous activities, and as described in previous environmental reviews, would be considered a Type II action under 6 NYCRR Part 617 and not subject to further environmental review.