



New York City Department of Environmental Protection
Bureau of Environmental Planning and Analysis

FINAL ENVIRONMENTAL ASSESSMENT GILBOA DAM RECONSTRUCTION

JULY 2008

Prepared By:



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**FINAL ENVIRONMENTAL ASSESSMENT
GILBOA DAM RECONSTRUCTION**

ACRONYMS and DEFINITIONS

½ PMF	Half of the Probable Maximum Flood
ADT	Average Daily Traffic
ANSI	American National Standards Institute
AST	Avian Survey Transect
ASTM	American Society for Testing and Materials
ATR	Automatic Traffic Recorder
bgd	Billion gallons per day
BMPs	Best Management Practices
BWS	Bureau of Water Supply
°C	Degree celsius
CEQR	(New York) City Environmental Quality Review
CFR	Code of Federal Regulations
cfs	cubic feet per second
CNR	Construction Noise Rules
CO	Carbon Monoxide
CP	Conifer Plantation
CR	Country Road
CSD	Conesville School District
CY	Cubic yards
dB	Decibel
dBA	Decibels scaled to the human range of hearing
dbh	Diameter at breast height (trees)
DCA	Detrended Correspondence Analysis
DRP	Data Recovery Plan
EA	Environmental Assessment
ESAL	Equivalent Single Axle Load
ESWTR	Enhanced Surface Water Treatment Rule
FAC	Facultative
FACU	Facultative Upland
FACW	Facultative Wetland
FERC	Federal Energy Regulatory Commission
FF	Floodplain Forest
FHWA	Federal Highway Administration
GIS	Geographic Information System
gpd	Gallons per day
GPS	Global Positioning System
HCM	Highway Capacity Manual
HEC-HMS	Hydraulic Engineering Center Hydrologic Modeling System
HP	Horsepower
H-NHF	Hemlock-Northern Hardwood Forest
I-87	New York Thruway
I-88	Interstate 88
IV	Importance Values
L	Long-term

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L ₁₀	Noise level exceeded 10 percent of the time in the period of interest
L1UBHh	lacustrine, limnetic, unconsolidated bottom, permanent, diked/impounded wetland
L _{eq}	Energy-equivalent noise level
L _{max}	Maximum sound level during a given period
LLO	Low Level Outlet
LOS	Level of Service
m	Meter
mg/l	Micrograms per Liter (Equal to parts per million)
mg/m ³	Micrograms per cubic meter
mgd	Million gallons per day
MOA	Memorandum of Agreement
MP	Medium Pressure
mph	Miles per hour
MSE	Mechanically Stabilized Earth
NAAQS	National Ambient Air Quality Standards
NO _x	Nitrogen oxides
NO ₂	Nitrogen dioxide
NWI	National Wetlands Inventory (U.S. Fish and Wildlife Service)
NYC	New York City
NYCDEP	New York City Department of Environmental Protection
NYCRR	New York Code of Rules and Regulations (Official Compilation of Codes, Rules, and Regulations of the State of New York)
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOT	New York State Department of Transportation
NYSEG	New York State Electric and Gas
NYSM	New York State Museum
NYSNHP	New York State Natural Heritage Program
NYSOPRHP	New York State Office of Parks, Recreation, and Historic Preservation
O ₃	Ozone
OBL	Obligate Wetland
OHMs	Other Hazardous Materials
OSHA	Occupational Safety and Health Administration
Pb	Lead
PCE	Passenger Car Equivalents
PCQ	Point-Centered Quarters
PEM	Palustrine emergent wetlands
PFO1	Palustrine Forested Wetland
pH	Potential hydrogen – acid/base measurement
PLC	Programmable logic controller
PM	Particulate Matter
PM ₁₀	Particulate Matter less than 10 microns in diameter

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PM _{2.5}	Particulate Matter less than 2.5 microns in diameter
PMF	Probable Maximum Flood
ppm	Parts per million
PSS1	Palustrine Shrub-Scrub
PVC	Polyvinyl chloride
R2USA	Temporarily flooded wetland
RMHS	Red Maple Hardwood Swamp Wetland
S	Short-term
SDF	Spillway Design Flood
SDWA	(Federal) Safe Drinking Water Act
SEM	Shallow Emergent Marsh
SEM/SS	Shallow Emergent Marsh/Shrub Swamp
SEQRA	(New York) State Environmental Quality Review Act
SO ₂	Sulfur dioxide
SNH	Successional Northern Hardwoods
SNH/CP	Successional Northern Hardwoods/Conifer Plantation
SPDES	State Pollutant Discharge Elimination System
SPL	Sound Pressure Level
SRCW/CP	Successional Red Cedar Woodland/Conifer Plantation
SS	Shrub Swamp Wetland
SSH	Successional Southern Hardwoods
SSH/CP	Successional Southern Hardwoods/Conifer Plantation
SSCP	Sedimentation and Stormwater Control Plan
SUNY	State University of New York
SUV	Sports Utility Vehicle
SWPPP	Stormwater Pollution Prevention Plan
S/NR	State & National Register of Historic Places
SO ₂	Sulfur dioxide
TBM	Tunnel Boring Machine
TMS	Timed Meander Survey
TS	Targeted Search
TSP	Total Suspended Particulates
μmhos/cm	Siemens per centimeter
ug/m ³	microgram/ cubic meter
UPL	Upland
USACOE	United States Army Corps of Engineers
USBR	United States Bureau of Reclamation
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
V	Volt
v/c	Volume-to-capacity ratio (traffic)
VP	Vernal Pool

**The City of New York
Department of Environmental Protection**

**Emily Lloyd
Commissioner**

Bureau of Environmental Planning & Analysis



www.nyc.gov/dep

**STATE ENVIRONMENTAL QUALITY REVIEW
FULL ENVIRONMENTAL ASSESSMENT FORM**

JULY 2008

Prepared by:

 **Gannett Fleming / HAZEN AND SAWYER**

A Joint Venture

617.20
Appendix A
State Environmental Quality Review
FULL ENVIRONMENTAL ASSESSMENT FORM

Purpose: The full EAF is designed to help applicants and agencies determine, in an orderly manner, whether a project or action may be significant. The question of whether an action may be significant is not always easy to answer. Frequently, there are aspects of a project that are subjective or unmeasurable. It is also understood that those who determine significance may have little or no formal knowledge of the environment or may not be technically expert in environmental analysis. In addition, many who have knowledge in one particular area may not be aware of the broader concerns affecting the question of significance.

The full EAF is intended to provide a method whereby applicants and agencies can be assured that the determination process has been orderly, comprehensive in nature, yet flexible enough to allow introduction of information to fit a project or action.

Full EAF Components: The full EAF is comprised of three parts:

- Part 1:** Provides objective data and information about a given project and its site. By identifying basic project data, it assists a reviewer in the analysis that takes place in Parts 2 and 3.
- Part 2:** Focuses on identifying the range of possible impacts that may occur from a project or action. It provides guidance as to whether an impact is likely to be considered small to moderate or whether it is a potentially-large impact. The form also identifies whether an impact can be mitigated or reduced.
- Part 3:** If any impact in Part 2 is identified as potentially-large, then Part 3 is used to evaluate whether or not the impact is actually important.

THIS AREA FOR LEAD AGENCY USE ONLY

DETERMINATION OF SIGNIFICANCE -- Type 1 and Unlisted Actions

Identify the Portions of EAF completed for this project:



Part 1



Part 2



Part 3

Upon review of the information recorded on this EAF (Parts 1 and 2 and 3 if appropriate), and any other supporting information, and considering both the magnitude and importance of each impact, it is reasonably determined by the lead agency that:

- A. The project will not result in any large and important impact(s) and, therefore, is one which **will not** have a significant impact on the environment, therefore a **negative declaration will be prepared**.
- B. Although the project could have a significant effect on the environment, there will not be a significant effect for this Unlisted Action because the mitigation measures described in PART 3 have been required, therefore a **CONDITIONED negative declaration will be prepared**.*
- C. The project may result in one or more large and important impacts that may have a significant impact on the environment, therefore a **positive declaration will be prepared**.

*A Conditioned Negative Declaration is only valid for Unlisted Actions

Gilboa Dam Reconstruction

Name of Action

New York City Department of Environmental Protection

Name of Lead Agency

Angela Licata

Print or Type Name of Responsible Officer in Lead Agency



Signature of Responsible Officer in Lead Agency

Deputy Commissioner

Title of Responsible Officer



Signature of Preparer (If different from responsible officer)

7/10/08

Date

PART 1--PROJECT INFORMATION

Prepared by Project Sponsor

NOTICE: This document is designed to assist in determining whether the action proposed may have a significant effect on the environment. Please complete the entire form, Parts A through E. Answers to these questions will be considered as part of the application for approval and may be subject to further verification and public review. Provide any additional information you believe will be needed to complete Parts 2 and 3.

It is expected that completion of the full EAF will be dependent on information currently available and will not involve new studies, research or investigation. If information requiring such additional work is unavailable, so indicate and specify each instance.

Name of Action Gilboa Dam Reconstruction

Location of Action (include Street Address, Municipality and County)

Town of Gilboa, Schoharie County, NY

Name of Applicant/Sponsor Paul D. Smith, P.E., Chief, Upstate Water Supply Treatment and Facilities, NYCDEP

Address 96-05 Horace Harding Expressway, 5th Floor

City / PO Corona

State NY

Zip Code 11368

Business Telephone (718) 595-6080

Name of Owner (if different) NYCDEP, Bureau of Water Supply

Address P.O. Box 370

City / PO Shokan

State NY

Zip Code 12481

Business Telephone _____

Description of Action:

The proposed project involves the reconstruction of the Gilboa Dam and its appurtenances to ensure its safety and compliance with NYSDEC guidelines. The Gilboa Dam, part of the Catskill Water Supply System, is located within Schoharie County at the northern point of the Schoharie Reservoir. The proposed project would involve reconstruction of the Dam's façade, construction of a new Low Level Outlet to provide emergency drawdown of Schoharie Reservoir, installation of crest gates to enhance downstream flood attenuation through snowpack-based reservoir management and improvements to the Dam Side Channel, Plunge Pool and other associated structures.

For further information please see Attachment 1, Project Description.

Please Complete Each Question--Indicate N.A. if not applicable

A. SITE DESCRIPTION

Physical setting of overall project, both developed and undeveloped areas.

1. Present Land Use: Urban Industrial Commercial Residential (suburban) Rural (non-farm)
 Forest Agriculture Other Gilboa Dam

2. Total acreage of project area: 85.9 acres.

APPROXIMATE ACREAGE	PRESENTLY	AFTER COMPLETION
Meadow or Brushland (Non-agricultural)	<u>4.6</u> acres	<u>4.1</u> acres
Forested	<u>58.1</u> acres	<u>52.0</u> acres
Agricultural (Includes orchards, cropland, pasture, etc.)	<u>0</u> acres	<u>0</u> acres
Wetland (Freshwater or tidal as per Articles 24,25 of ECL)	<u>0*</u> acres	<u>0**</u> acres
Water Surface Area	<u>9.1</u> acres	<u>9.1</u> acres
Unvegetated (Rock, earth or fill)	<u>0</u> acres	<u>0</u> acres
Roads, buildings and other paved surfaces	<u>1.2</u> acres	<u>7.8</u> acres
Other (Indicate type) <u>Gilboa Dam Spillway, Side channel and Embankment</u>	<u>12.9</u> acres	<u>12.9</u> acres

* There are no NYSDEC regulated wetlands in the project area. However, there are 2.6 acres of wetlands in the project area as defined by the U.S. Army Corps of Engineers (USACOE) 1987 Wetlands Delineation Manual. This wetland acreage is included in the "Forested" category.

** There will be 5.0 acres of wetlands created as part of the project. These wetlands will not be NYSDEC regulated wetlands so this acreage is included in the "Forested" category.

3. What is predominant soil type(s) on project site?
- a. Soil drainage: Well drained 3 % of site Moderately well drained 12 % of site.
 Poorly drained 79 % of site 6% surface water
- b. If any agricultural land is involved, how many acres of soil are classified within soil group 1 through 4 of the NYS Land Classification System? N/A acres (see 1 NYCRR 370).
4. Are there bedrock outcroppings on project site? Yes No
- a. What is depth to bedrock Variable (in feet) See Attachment A following page 10 of 20
5. Approximate percentage of proposed project site with slopes:
 0-10% 64 % 10- 15% 2 % 15% or greater 34 %
6. Is project substantially contiguous to, or contain a building, site, or district, listed on the State or National Registers of Historic Places? Yes No
7. Is project substantially contiguous to a site listed on the Register of National Natural Landmarks? Yes No
8. What is the depth of the water table? Variable (in feet) See Attachment B following page 10 of 20
9. Is site located over a primary, principal, or sole source aquifer? Yes No
10. Do hunting, fishing or shell fishing opportunities presently exist in the project area? Yes No

11. Does project site contain any species of plant or animal life that is identified as threatened or endangered? Yes No

According to:

NYSDEC has record of known Timber rattlesnake hibernacula (over wintering den) within 2 miles of the project study area. Detailed surveys of the project study area during 2005 and 2006 did not indicate any critical habitat nor the presence of timber rattlesnakes.

Identify each species:

12. Are there any unique or unusual land forms on the project site? (i.e., cliffs, dunes, other geological formations?)

Yes No

Describe:

13. Is the project site presently used by the community or neighborhood as an open space or recreation area?

Yes No

If yes, explain:

The Reservoir and surrounding area provides recreational fishing and hunting opportunities.

14. Does the present site include scenic views known to be important to the community? Yes No

The Scenic Public Overlook Area would be temporarily closed during reconstruction activities but would be replanted with original vegetation, restored to its original condition and reopened to the public following completion of the proposed project.

15. Streams within or contiguous to project area:

Schoharie Creek (Class B), two unnamed perennial streams and seventeen unnamed intermitent streams.

a. Name of Stream and name of River to which it is tributary

Schoharie Creek is tributary to the Mohawk River.

16. Lakes, ponds, wetland areas within or contiguous to project area:

Schoharie Reservoir (Class AA) is within and contiguous to the project area. There are 8.8 acres of wetlands within and contiguous to the project area. None of these wetlands are regulated by the NYSDEC and approximately 3.7 acres fall under the jurisdiction of the USACOE (2.6 acres are in the project area and 1.1 acres of wetlands in contiguous area).

b. Size (in acres):

The Schoharie Reservoir is 1,145 acres when the water level is at the spillway elevation (1,130 feet above mean sea level).

17. Is the site served by existing public utilities? Yes No
- a. If **YES**, does sufficient capacity exist to allow connection? Yes No
- b. If **YES**, will improvements be necessary to allow connection? Yes No
18. Is the site located in an agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? Yes No
19. Is the site located in or substantially contiguous to a Critical Environmental Area designated pursuant to Article 8 of the ECL, and 6 NYCRR 617? Yes No
20. Has the site ever been used for the disposal of solid or hazardous wastes? Yes No

B. Project Description

1. Physical dimensions and scale of project (fill in dimensions as appropriate).

- a. Total contiguous acreage owned or controlled by project sponsor: 3,481 acres.
- b. Project acreage to be developed: 14.1 acres initially; 20.7 acres ultimately.
- c. Project acreage to remain undeveloped: 65.2 acres.
- d. Length of project, in miles: N/A (if appropriate)
- e. If the project is an expansion, indicate percent of expansion proposed. N/A %
- f. Number of off-street parking spaces existing N/A ; proposed N/A
- g. Maximum vehicular trips generated per hour: 1 (upon completion of project)?
- h. If residential: Number and type of housing units:

NYCDEP owned land surrounding Schoharie Reservoir and Gilboa Dam is 2,336 acres, including that acquired since 1997. Remaining acreage (1,145) is occupied by Schoharie Reservoir.

	One Family	Two Family	Multiple Family	Condominium
Initially	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Ultimately	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

- i. Dimensions (in feet) of largest proposed structure: 20 height; 48 width; 76 length. This corresponds to the proposed LLO Gate House.
- j. Linear feet of frontage along a public thoroughfare project will occupy is? 76 ft.

2. How much natural material (i.e. rock, earth, etc.) will be removed from the site? 14,500 cubic yards.

This includes rock and earth to be removed from the project site. An additional amount of approximately 130,600 CY will be placed in an onsite spoils area. These amounts do not include materials from the Dam and Spillway structures.

3. Will disturbed areas be reclaimed Yes No N/A

a. If yes, for what intended purpose is the site being reclaimed?

A Natural Resources Restoration Plan would be implemented to restore upland and wetland habitats disturbed by the proposed project.

b. Will topsoil be stockpiled for reclamation? Yes No

c. Will upper subsoil be stockpiled for reclamation? Yes No

*This represents the final amount to be removed. Initially 62.7 acres would be disturbed.

4. How many acres of vegetation (trees, shrubs, ground covers) will be removed from site? 6.6* acres.

5. Will any mature forest (over 100 years old) or other locally-important vegetation be removed by this project?

Yes No

6. If single phase project: Anticipated period of construction: N/A months, (including demolition)

7. If multi-phased:

a. Total number of phases anticipated 5 (number)

b. Anticipated date of commencement phase 1: 12 month 2008 year, (including demolition)

c. Approximate completion date of final phase: 12 month 2014 year.

d. Is phase 1 functionally dependent on subsequent phases? Yes No

8. Will blasting occur during construction? Yes No TBD by Contractor. May occur in conjunction with LLO installation.

9. Number of jobs generated: during construction 120; after project is complete 0

10. Number of jobs eliminated by this project 0.

11. Will project require relocation of any projects or facilities? Yes No

If yes, explain:

12. Is surface liquid waste disposal involved? Yes No

a. If yes, indicate type of waste (sewage, industrial, etc) and amount _____

b. Name of water body into which effluent will be discharged _____

13. Is subsurface liquid waste disposal involved? Yes No Type _____

14. Will surface area of an existing water body increase or decrease by proposal? Yes No

If yes, explain:

15. Is project or any portion of project located in a 100 year flood plain? Yes No

16. Will the project generate solid waste? Yes No During reconstruction only

a. If yes, what is the amount per month? 0.94 tons Reconstruction Employee Waste

b. If yes, will an existing solid waste facility be used? Yes No

c. If yes, give name TBD by Contractor; location _____

d. Will any wastes not go into a sewage disposal system or into a sanitary landfill? Yes No

e. If yes, explain:

17. Will the project involve the disposal of solid waste? Yes No

a. If yes, what is the anticipated rate of disposal? _____ tons/month.

b. If yes, what is the anticipated site life? _____ years.

18. Will project use herbicides or pesticides? Yes No

19. Will project routinely produce odors (more than one hour per day)? Yes No

20. Will project produce operating noise exceeding the local ambient noise levels? Yes No

21. Will project result in an increase in energy use? Yes No

If yes, indicate type(s)

During reconstruction, there would be a temporary increase in energy use. Once the proposed project is completed, there would be a minimal and intermittent increase in energy required onsite due to operation of the crest gates and Low Level Outlet.

22. If water supply is from wells, indicate pumping capacity N/A gallons/minute.

23. Total anticipated water usage per day 0 gallons/day.

24. Does project involve Local, State or Federal funding? Yes No

If yes, explain:

Funding for the reconstruction would be paid by the City of New York through the NYCDEP

25. Approvals Required:

			Type	Submittal Date
City, Town, Village Board	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	_____	_____
			_____	_____
			_____	_____
City, Town, Village Planning Board	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	_____	_____
			_____	_____
			_____	_____
City, Town Zoning Board	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	_____	_____
			_____	_____
			_____	_____
City, County Health Department	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	_____	_____
			_____	_____
			_____	_____
Other Local Agencies	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	NYCDEP Watershed Lands Permit NYCDEP Protection of NYC Water Supply Permit NYCDEP SWPPP Approval	_____
			_____	_____
Other Regional Agencies	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	_____	_____
			_____	_____
State Agencies	<input type="checkbox"/> Yes	<input type="checkbox"/> No	NYSDOT Highway Work Permit NYSDOT Traffic Enhancement Permit	_____
			NYSDEC Navigable Waters and Stream Disturbance Permits NYSDEC Water Quality Certification NYSDEC 5-acre Waiver, SPDES General Permit NYSDEC Air Registration	_____
			NYSDEC Construction, Reconstruction or Repair of Dams Permit NYS OPRHP Memorandum of Agreement	_____
			NYSDOH Certification for NYS Revolving Fund Program NYSDOH Certification to Construct and Operate Potable Water Works	_____
Federal Agencies	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	USACOE Section 404 Permit	_____

C. Zoning and Planning Information

1. Does proposed action involve a planning or zoning decision? Yes No

If Yes, indicate decision required:

<input type="checkbox"/> Zoning amendment	<input type="checkbox"/> Zoning variance	<input type="checkbox"/> New/revision of master plan	<input type="checkbox"/> Subdivision
<input type="checkbox"/> Site plan	<input type="checkbox"/> Special use permit	<input type="checkbox"/> Resource management plan	<input type="checkbox"/> Other

2. What is the zoning classification(s) of the site?

The Town of Gilboa does not have zoning classifications.

3. What is the maximum potential development of the site if developed as permitted by the present zoning?

N/A

4. What is the proposed zoning of the site?

N/A

5. What is the maximum potential development of the site if developed as permitted by the proposed zoning?

N/A

6. Is the proposed action consistent with the recommended uses in adopted local land use plans? Yes No

Activities during and following reconstruction would comply with New York City watershed rules and regulations for action within the reservoir. There are no known adopted local land use plans.

7. What are the predominant land use(s) and zoning classifications within a ¼ mile radius of proposed action?

The land use within a 1/4 mile of the project site consists of water supply properties, forested lands, municipal facilities and single family residences.

8. Is the proposed action compatible with adjoining/surrounding land uses with a ¼ mile? Yes No

9. If the proposed action is the subdivision of land, how many lots are proposed? N/A

a. What is the minimum lot size proposed? _____

10. Will proposed action require any authorization(s) for the formation of sewer or water districts? Yes No

11. Will the proposed action create a demand for any community provided services (recreation, education, police, fire protection)?

Yes No

a. If yes, is existing capacity sufficient to handle projected demand? Yes No

12. Will the proposed action result in the generation of traffic significantly above present levels? Yes No

a. If yes, is the existing road network adequate to handle the additional traffic. Yes No

D. Informational Details

Attach any additional information as may be needed to clarify your project. If there are or may be any adverse impacts associated with your proposal, please discuss such impacts and the measures which you propose to mitigate or avoid them.

E. Verification

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

Applicant/Sponsor Name Paul D. Smith, P.E. Date 7/10/08

Signature 

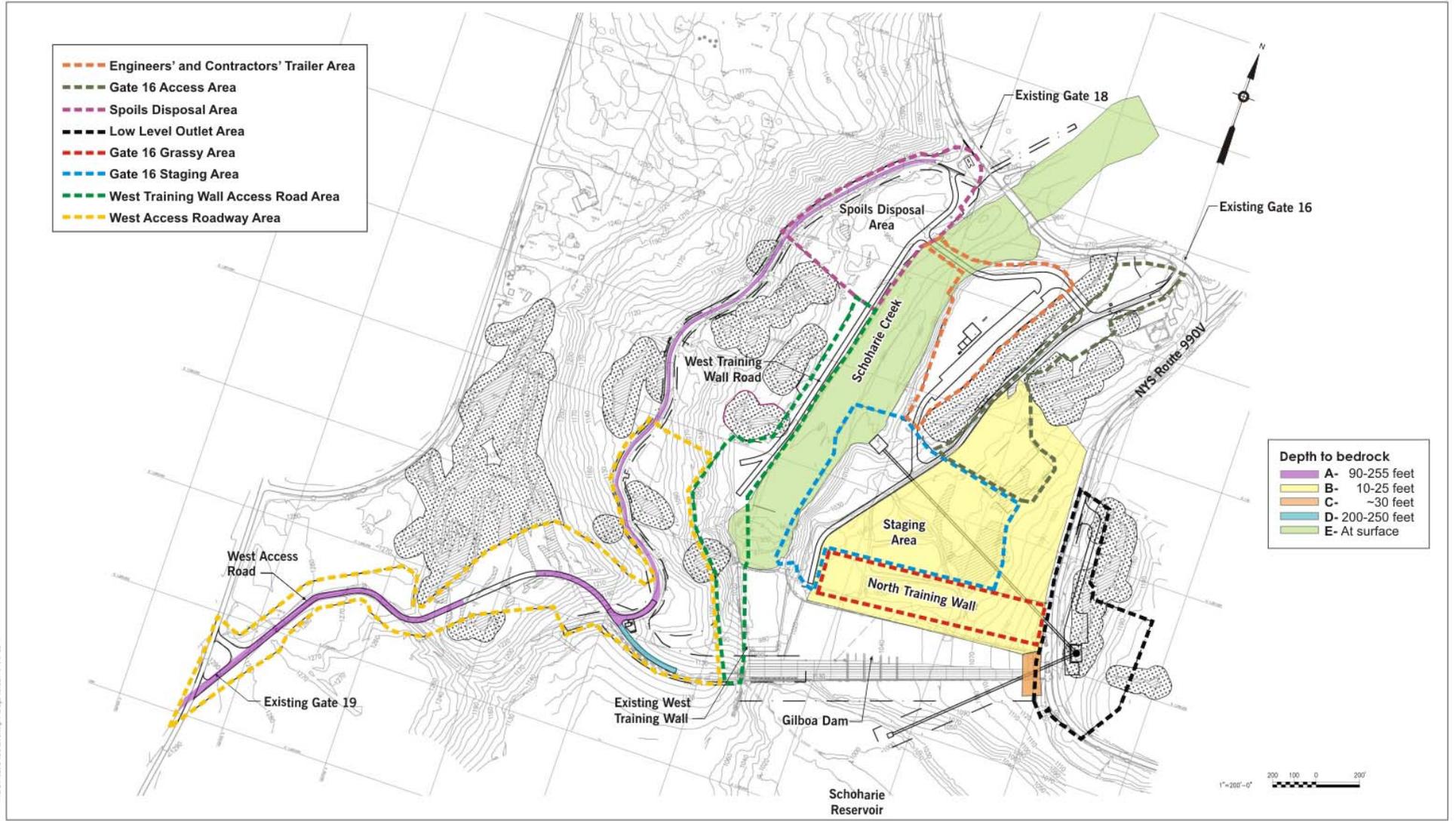
Title Chief, Upstate Water Supply Treatment and Facilities, NYC Department of Environmental Protection

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

SEQR Environmental Assessment Form
Part I
Attachment A
EAF Question A4

Depth to Bedrock throughout Proposed Project Site	
<i>Location*</i>	<i>Depth to bedrock</i>
A. Landslide Prone Area along Road Eight	90 – 255 feet
B. Grassy Area north of Side Channel Spillway (CAT-212A Staging Area)	10 – 25 feet
C. Right (East) Abutment / Overlook Area	~ 30 feet
D. Embankment Centerline	200 – 250 feet
E. Schoharie Creek	At surface

* Please see attached Figure A4 for locations.

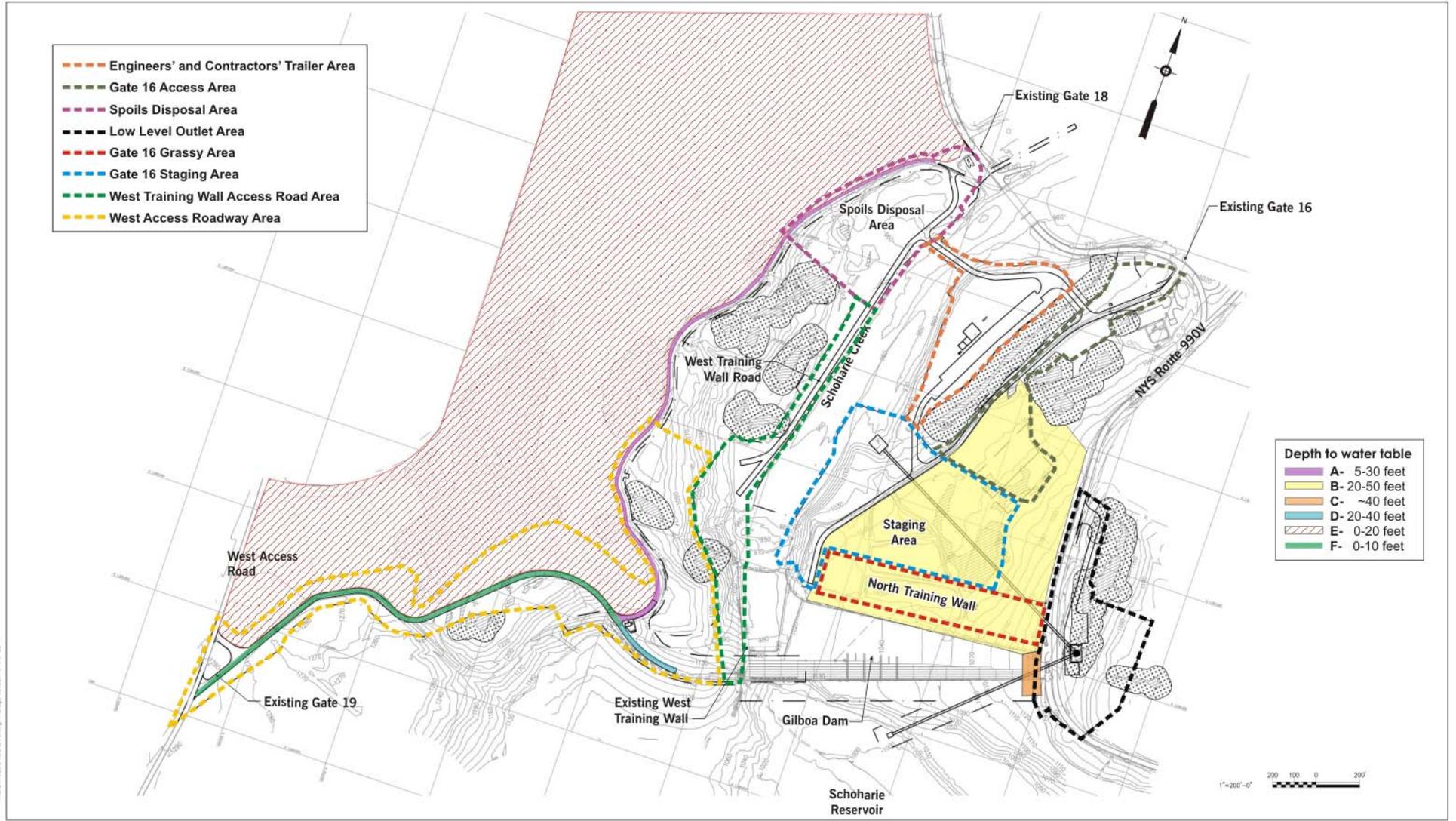


MS File: 94633101Map1_Dept.kwd: 7-11-08

SEQR Environmental Assessment Form
Part I
Attachment B
EAF Question A8

Depth to Groundwater throughout Proposed Project Site	
<i>Location*</i>	<i>Depth to Water Table</i>
A. Landslide Prone Area along Road Eight	5 – 30 feet
B. Grassy Area north of Side Channel Spillway (CAT-212A Staging Area)	20 – 50 feet
C. Right (East) Abutment / Overlook Area	~ 40 feet
D. Embankment Centerline	20 – 40 feet
E. West of Road Eight	0 – 20 feet
F. Proposed Access Road	0 – 10 feet

* Please see attached Figure A8 for locations.



MS File: 94633101Map1 Depth to water 7-11-08

Depth to Groundwater

Figure B

PART 2 - PROJECT IMPACTS AND THEIR MAGNITUDE

Responsibility of Lead Agency

General Information (Read Carefully)

- In completing the form the reviewer should be guided by the question: Have my responses and determinations been **reasonable**? The reviewer is not expected to be an expert environmental analyst.
- The **Examples** provided are to assist the reviewer by showing types of impacts and wherever possible the threshold of magnitude that would trigger a response in column 2. The examples are generally applicable throughout the State and for most situations. But, for any specific project or site other examples and/or lower thresholds may be appropriate for a Potential Large Impact response, thus requiring evaluation in Part 3.
- The impacts of each project, on each site, in each locality, will vary. Therefore, the examples are illustrative and have been offered as guidance. They do not constitute an exhaustive list of impacts and thresholds to answer each question.
- The number of examples per question does not indicate the importance of each question.
- In identifying impacts, consider long term, short term and cumulative effects.

Instructions (Read carefully)

- a. Answer each of the 20 questions in PART 2. Answer **Yes** if there will be **any** impact.
- b. **Maybe** answers should be considered as **Yes** answers.
- c. If answering **Yes** to a question then check the appropriate box(column 1 or 2)to indicate the potential size of the impact. If impact threshold equals or exceeds any example provided, check column 2. If impact will occur but threshold is lower than example, check column 1.
- d. Identifying that an Impact will be potentially large (column 2) does not mean that it is also necessarily **significant**. Any large impact must be evaluated in PART 3 to determine significance. Identifying an impact in column 2 simply asks that it be looked at further.
- e. If reviewer has doubt about size of the impact then consider the impact as potentially large and proceed to PART 3.
- f. If a potentially large impact checked in column 2 can be mitigated by change(s) in the project to a small to moderate impact, also check the **Yes** box in column 3. A **No** response indicates that such a reduction is not possible. This must be explained in Part 3.

1	2	3
Small to Moderate Impact	Potential Large Impact	Can Impact Be Mitigated by Project Change

Impact on Land

1. Will the Proposed Action result in a physical change to the project site?

NO YES

Examples that would apply to column 2

- | | | | | |
|--|-------------------------------------|-------------------------------------|------------------------------|--|
| ● Any construction on slopes of 15% or greater, (15 foot rise per 100 foot of length), or where the general slopes in the project area exceed 10%. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| ● Construction on land where the depth to the water table is less than 3 feet. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| ● Construction of paved parking area for 1,000 or more vehicles. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| ● Construction on land where bedrock is exposed or generally within 3 feet of existing ground surface. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| ● Construction that will continue for more than 1 year or involve more than one phase or stage. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| ● Excavation for mining purposes that would remove more than 1,000 tons of natural material (i.e., rock or soil) per year. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

	1	2	3
	Small to Moderate Impact	Potential Large Impact	Can Impact Be Mitigated by Project Change

- Construction or expansion of a sanitary landfill. Yes No
- Construction in a designated floodway. Yes No
- Other impacts: Yes No

2. Will there be an effect to any unique or unusual land forms found on the site? (i.e., cliffs, dunes, geological formations, etc.)

NO YES

- Specific land forms: Yes No

Impact on Water

3. Will Proposed Action affect any water body designated as protected? (Under Articles 15, 24, 25 of the Environmental Conservation Law, ECL)

NO YES

Examples that would apply to column 2

- Developable area of site contains a protected water body. Yes No
- Dredging more than 100 cubic yards of material from channel of a protected stream. Yes No
- Extension of utility distribution facilities through a protected water body. Yes No
- Construction in a designated freshwater or tidal wetland. Yes No
- Other impacts: Yes No

4. Will Proposed Action affect any non-protected existing or new body of water?

NO YES

Examples that would apply to column 2

- A 10% increase or decrease in the surface area of any body of water or more than a 10 acre increase or decrease. Yes No
- Construction of a body of water that exceeds 10 acres of surface area. Yes No
- Other impacts: Yes No

During reconstruction, Schoharie Reservoir and Schoharie Creek and/or other streams within the project area would be protected with an extensive erosion and sediment control plan. Post reconstruction a stormwater quality and quantity control plan would be implemented as per NYSDEC requirements.

1	2	3
Small to Moderate Impact	Potential Large Impact	Can Impact Be Mitigated by Project Change

5. Will Proposed Action affect surface or groundwater quality or quantity?

NO YES

Examples that would apply to column 2

- | | | | | |
|--|-------------------------------------|--------------------------|------------------------------|--|
| <ul style="list-style-type: none"> • Proposed Action will require a discharge permit. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <ul style="list-style-type: none"> • Proposed Action requires use of a source of water that does not have approval to serve proposed (project) action. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <ul style="list-style-type: none"> • Proposed Action requires water supply from wells with greater than 45 gallons per minute pumping capacity. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| <ul style="list-style-type: none"> • Construction or operation causing any contamination of a water supply system. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <ul style="list-style-type: none"> • Proposed Action will adversely affect groundwater. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <ul style="list-style-type: none"> • Liquid effluent will be conveyed off the site to facilities which presently do not exist or have inadequate capacity. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <ul style="list-style-type: none"> • Proposed Action would use water in excess of 20,000 gallons per day. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| <ul style="list-style-type: none"> • Proposed Action will likely cause siltation or other discharge into an existing body of water to the extent that there will be an obvious visual contrast to natural conditions. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <ul style="list-style-type: none"> • Proposed Action will require the storage of petroleum or chemical products greater than 1,100 gallons. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <ul style="list-style-type: none"> • Proposed Action will allow residential uses in areas without water and/or sewer services. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <ul style="list-style-type: none"> • Proposed Action locates commercial and/or industrial uses which may require new or expansion of existing waste treatment and/or storage facilities. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <ul style="list-style-type: none"> • Other impacts: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

Condensate from the air pumps associated with operation of the crest gates would be discharged to a infiltration structure (dry well).

1	2	3
Small to Moderate Impact	Potential Large Impact	Can Impact Be Mitigated by Project Change

6. Will Proposed Action alter drainage flow or patterns, or surface water runoff?

NO YES

Examples that would apply to column 2

- | | | | | |
|--|-------------------------------------|--------------------------|---|-----------------------------|
| • Proposed Action would change flood water flows | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action may cause substantial erosion. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action is incompatible with existing drainage patterns. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action will allow development in a designated floodway. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Other impacts: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |

Stormwater runoff would be slightly altered from current conditions as a result of the final site conditions. The proposed project has an extensive erosion and sedimentation control plan as well as a quality and quantity stormwater control plan as per NYSDEC requirements.

IMPACT ON AIR

7. Will Proposed Action affect air quality?

NO YES

Examples that would apply to column 2

- | | | | | |
|---|--------------------------|--------------------------|------------------------------|-----------------------------|
| • Proposed Action will induce 1,000 or more vehicle trips in any given hour. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action will result in the incineration of more than 1 ton of refuse per hour. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Emission rate of total contaminants will exceed 5 lbs. per hour or a heat source producing more than 10 million BTU's per hour. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action will allow an increase in the amount of land committed to industrial use. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action will allow an increase in the density of industrial development within existing industrial areas. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Other impacts: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

IMPACT ON PLANTS AND ANIMALS

8. Will Proposed Action affect any threatened or endangered species?

NO YES

Examples that would apply to column 2

- | | | | | |
|---|--------------------------|--------------------------|------------------------------|-----------------------------|
| • Reduction of one or more species listed on the New York or Federal list, using the site, over or near the site, or found on the site. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
|---|--------------------------|--------------------------|------------------------------|-----------------------------|

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
• Removal of any portion of a critical or significant wildlife habitat.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Application of pesticide or herbicide more than twice a year, other than for agricultural purposes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Other impacts:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

9. Will Proposed Action substantially affect non-threatened or non-endangered species?

NO YES

Examples that would apply to column 2

• Proposed Action would substantially interfere with any resident or migratory fish, shellfish or wildlife species.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Proposed Action requires the removal of more than 10 acres of mature forest (over 100 years of age) or other locally important vegetation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Other impacts:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Trees would be removed from the site during reconstruction but replaced through the implementation of a Natural Resources Restoration Plan, see section 2.6 , Natural Resources for further discussion.

IMPACT ON AGRICULTURAL LAND RESOURCES

10. Will Proposed Action affect agricultural land resources?

NO YES

Examples that would apply to column 2

• The Proposed Action would sever, cross or limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Construction activity would excavate or compact the soil profile of agricultural land.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• The Proposed Action would irreversibly convert more than 10 acres of agricultural land or, if located in an Agricultural District, more than 2.5 acres of agricultural land.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
• The Proposed Action would disrupt or prevent installation of agricultural land management systems (e.g., subsurface drain lines, outlet ditches, strip cropping); or create a need for such measures (e.g. cause a farm field to drain poorly due to increased runoff).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Other impacts:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

IMPACT ON AESTHETIC RESOURCES

11. Will Proposed Action affect aesthetic resources? (If necessary, use the Visual EAF Addendum in Section 617.20, Appendix B.)
 NO YES

Examples that would apply to column 2

• Proposed land uses, or project components obviously different from or in sharp contrast to current surrounding land use patterns, whether man-made or natural.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Proposed land uses, or project components visible to users of aesthetic resources which will eliminate or significantly reduce their enjoyment of the aesthetic qualities of that resource.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Project components that will result in the elimination or significant screening of scenic views known to be important to the area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Other impacts:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

The intake tower associated with the LLO would be visible from the Scenic Public Overlook Area but would be consistent with the architecture of the surrounding structures.

IMPACT ON HISTORIC AND ARCHAEOLOGICAL RESOURCES

12. Will Proposed Action impact any site or structure of historic, prehistoric or paleontological importance?
 NO YES

Examples that would apply to column 2

• Proposed Action occurring wholly or partially within or substantially contiguous to any facility or site listed on the State or National Register of historic places.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Any impact to an archaeological site or fossil bed located within the project site.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
• Proposed Action will occur in an area designated as sensitive for archaeological sites on the NYS Site Inventory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

• Other impacts:

IMPACT ON OPEN SPACE AND RECREATION

13. Will proposed Action affect the quantity or quality of existing or future open spaces or recreational opportunities?

NO YES

Examples that would apply to column 2

- | | | | | |
|---|--------------------------|--------------------------|------------------------------|-----------------------------|
| • The permanent foreclosure of a future recreational opportunity. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • A major reduction of an open space important to the community. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Other impacts: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

IMPACT ON CRITICAL ENVIRONMENTAL AREAS

14. Will Proposed Action impact the exceptional or unique characteristics of a critical environmental area (CEA) established pursuant to subdivision 6NYCRR 617.14(g)?

NO YES

List the environmental characteristics that caused the designation of the CEA.

Examples that would apply to column 2

- | | | | | |
|---|--------------------------|--------------------------|------------------------------|-----------------------------|
| • Proposed Action to locate within the CEA? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action will result in a reduction in the quantity of the resource? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action will result in a reduction in the quality of the resource? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action will impact the use, function or enjoyment of the resource? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Other impacts: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

1	2	3
Small to Moderate Impact	Potential Large Impact	Can Impact Be Mitigated by Project Change

IMPACT ON TRANSPORTATION

15. Will there be an effect to existing transportation systems?

NO YES

Examples that would apply to column 2

- | | | | | |
|--|--------------------------|--------------------------|------------------------------|-----------------------------|
| • Alteration of present patterns of movement of people and/or goods. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action will result in major traffic problems. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Other impacts: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

IMPACT ON ENERGY

16. Will Proposed Action affect the community's sources of fuel or energy supply?

NO YES

Examples that would apply to column 2

- | | | | | |
|---|--------------------------|--------------------------|------------------------------|-----------------------------|
| • Proposed Action will cause a greater than 5% increase in the use of any form of energy in the municipality. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • 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 major commercial or industrial use. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Other impacts: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

NOISE AND ODOR IMPACT

17. Will there be objectionable odors, noise, or vibration as a result of the Proposed Action?

NO YES

Examples that would apply to column 2

- | | | | | |
|--|--------------------------|--------------------------|------------------------------|-----------------------------|
| • Blasting within 1,500 feet of a hospital, school or other sensitive facility. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Odors will occur routinely (more than one hour per day). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action will produce operating noise exceeding the local ambient noise levels for noise outside of structures. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action will remove natural barriers that would act as a noise screen. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Other impacts: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
• Proposed Action will set an important precedent for future projects.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Proposed Action will create or eliminate employment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Other impacts:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

20. Is there, or is there likely to be, public controversy related to potential adverse environment impacts?

NO YES

If Any Action in Part 2 Is Identified as a Potential Large Impact or If you Cannot Determine the Magnitude of Impact, Proceed to Part 3