

#### MASSACHUSETTS

100 Fifth Avenue, 5th Floor Waltham, Massachusetts 02451 p 781.419.7696

#### **RHODE ISLAND**

401 Wampanoag Trail, Suite 400 East Providence, Rhode Island 02915 p 401.434.5560

#### VIRGINIA

4410 E. Claiborne Square, Suite 334 Hampton, Virginia 23666 p 757.251.3790

October 17, 2014

Ms. Kathryn C. Serra Project Engineer C.T. Male Associates 50 Century Hill Drive Latham, NY 12110

Re: National Grid Mohican – Battenkill Rebuild Project

Town of Ft. Edward SWPPP MS4 Approval

Dear Ms. Serra:

ESS, on behalf of National Grid, is providing responses to your September 17, 2014 comments on the SWPPP which were provided to the Town of Fort Edward and forwarded by Mr. Brockaway.

Please feel free to contact Lauren Caputo at 781-419-7726 or me at 401-330-1206 with any questions.

Sincerely,

**ESS GROUP, INC.** 

Stephen Wood Vice President

Cc: Brian Brockaway, Town of Fort Edward

Frank Sciortino, National Grid Lauren Caputo, PE, ESS



### MEMORANDUM

TO: Kathryn Serra, P.E., C.T. Male DATE: October 17, 2014

Lauren Caputo, PE, ESS Group ESS

FROM: Roger Hill, Senior Designer, ESS Group PROJECT N461-001

NO.:

Response to C.T. Male Assoc. Peer Review

SUBJECT: For Town of Fort Edward, NY (MS4)

SWPPP for National Grid 115kV Transmission Line Mohican-Battenkill #15-#3

COPY TO: Frank Sciortino, National Grid Steve Wood, ESS Group

N461-001 Qp and Qf Analysis.pdf (sent via email on 10/15/14)

GI Worksheets\_MoBatt.zip (sent via email on 10/14/14)

ATTACHMENTS: GI\_Worksheets\_MoBatt\_Overviews.xlsx (sent via email on 10/14/14)

**NRCS Soil Boundaries Map** 

NOI Form

ESS has provided the following responses to comments.

### CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN

1. Per GP-0-10-001, this project requires preparation of a full Stormwater Pollution Prevention Plan that includes both and Erosion and Sediment Control Plan and Post- Construction Stormwater Management Practices. The Post-Construction Stormwater management Practices shall be designed in accordance with the NYS Stormwater Management Design Manual last revised in 2010. Section 12.0 of the CSPPP references this requirement. The CSPPP, however, does not provide any calculations that substantiate that the project meets the Design Manual.

Furthermore, the Notice of Intent states that the Runoff Reduction Volume (RRv) requirements are met; however, there are no calculations in the CSPPP to support this assertion. At a minimum, the RRv calculations worksheets available through NYSDEC shall be provided in the CSPPP. The NOI also states that the Qp/Qf requirements do not need to be met since a downstream analysis reveals that controls are not required, however the CSPPP does not include calculations that support this assertion. The CSPPP shall be updated to include information on Qp and Qf requirements and any downstream analyses.

If the applicant intends to move forward with a project that does not meet all the requirements of GP-0-10-001, and specifically the Design Manual, then a waiver of the requirements would need to be obtained from NYSDEC Region 5, since the project is located in multiple municipalities. For reference, if the project were located entirely within the Town of Fort Edward, the Town, as the MS4, would have the jurisdiction to approve the deviations, but this is not applicable for this project.

RESPONSE: The minimum RRv requirements have been met and documented in the Green Infrastructure (GI) Worksheets (see the GI Worksheets\_MoBatt.zip). All stream and water bodies based on USGS hydrography at 1:24,000 scale that crossed the project right-of-way were identified and listed. From this list, a new list was created that identified the streams and water bodies that receive stormwater runoff from the proposed gravel road. Each of these crossings became a design point to create a total of eleven design points, although some design points receive runoff from more than one section of gravel road and some design points proposed more than four of the same RRv





practice which increased the number of worksheets to a total of twenty. The worksheets document that the minimum RRv requirement is met for each design point.

The GI\_Worksheets\_MoBatt\_Overview spreadsheet provides a list of the design points with notes on the drainage to each design point and a description of the site constraints the project identified in meeting the WQv requirement. The updated NOI form provides a summarized explanation on the site constraints.

GI worksheets were not completed for smaller, seasonal drainage crossings or any water bodies that are not included in the USGS hydrography dataset as discussed with C.T. Male. However, all runoff from gravel roads draining to a drainage crossing is managed with a vegetated swale with berm to provide mitigation. Riparian buffers are also identified throughout the project right-of-way and can be viewed on the NRCS Soil Boundaries Map figures. The RRv was not quantified for areas outside of a design point even though RRv practices are proposed because the vegetated swale design is consistent throughout the project.

Vegetated swales were chosen and designed for the project to meet all NYSDEC quantity control sizing criteria, specifically the overbank flood (Qp) and extreme storm (Qf) requirements. See the attached Qp and Qf Analysis memo (N461-001 Qp and Qf Analysis.pdf) for details. Due to the linear nature of the project, an analysis at each discharge point where runoff entered a stream crossing or wetland was not an ideal methodology to show compliance with the requirements, especially since the vegetated swales are designed consistently throughout the project. Instead, a representative 50-foot length of gravel access road was chosen to be analyzed to quantify the mitigation that the vegetated swales provide. Because the gravel access road is 15 feet in width, stormwater impacts can be considered localized in nature and will have negligent impacts on larger downstream bodies of water. This analysis can effectively be considered the "downstream analysis" of the Qp and Qf requirements for the NOI.

2. Per GP-0-10-001 Part II.B.2.b, in order to comply with the Uniform Procedures Act construction cannot commence until all other State and Federal permits are obtained. The CSPPP and Notice of Intent indicate that an Army Corps of Engineers Permit is necessary for impacts to federal wetlands, and permits from NYSDEC, such as the Water Quality Certificate and Freshwater Wetlands/Article 24 are required to be obtained. The CSPPP references that these permits are in the process of being obtained. It is recommended that the Applicant include copies of these permits and/or approval in the CSPPP.

RESPONSE: This project is certificated under Article VII of the Public Service Law which supersedes all state permits. The 401 water quality Certificate was also issued under the Certificate. The Article VII Certificate and Water Quality Certificate are attached. The Army Corps of Engineers (ACE) wetlands permit is in process and can be provided upon issuance. No construction work on the transmission line can commence until the ACE permit is issued.

3. Per GP-0-10-001, Part I.D lists projects that are ineligible for coverage under the general permit. Item 4 includes "Discharges from construction activities that adversely affect a listed, or proposed to be listed, endangered or threatened species, or its critical habitat."

Sections 11.1 and 11.1.1 of the CSPPP state that critical habitats for threatened or endangered species are located within the project limits. The CSPPP references mitigative measures to prevent impact and are summarized in the CSPPP. The CSPPP shall also include correspondence from US Fish and Wildlife and/or the NY Natural Heritage Program stating that the proposed mitigative measures are acceptable to prevent impact to endangered and threatened species.





RESPONSE: Proposed mitigation measures as proposed in the Article VII application are covered under the Certificate issued under Article VII and relevant ordering clauses which incorporate input from the DEC Natural Heritage Program. No separate approval by DEC is required under Article VII. Information provided by the US Fish and Wildlife was also incorporated into the measures authorized in the Certificate. US Fish and Wildlife will provide any additional input under the ACE wetland permit application review process.

4. Per GP-0-10-001, Part I.D.8 states "Construction activities that adversely affect a property that is listed or is eligible for listing on the State or National Register of Historic Places (Note: includes Archaeological sites), unless there are written agreements in place with the NYS Office of Parks, Recreation and Historic Preservation (OPRHP) or other governmental agencies to mitigate the effects..." Section 11.2 of the CSPPP references that there are two areas of historical and cultural significant identified in the project ROW and that National Grid has consulted with OPRHP on these areas. The applicant shall include this correspondence in the CSPPP consistent with the above-references permit requirements.

RESPONSE: No properties listed or eligible for listing on the National Register of historic sites will be adversely affected and OPRHP has been provided with the appropriate Phase 1, 2 and 3 assessments reports. Final concurrence will be received from OPRHP once the Section 106 consultation processes has been completed by the ACE for the wetlands permit and can be provided at that time.

5. GP-0-10-001 requires that the SWPPP and NOI for projects requiring Post- Construction Stormwater Controls (such as this project) have the SWPPP prepared by a "Qualified Professional" such as a NYS licensed Professional Engineer or Landscape Architect. The CSPPP and Notice of Intent are signed by a Certified Professional in Erosion and Sediment Control (CPESC), which is not considered a Qualified Professional.

RESPONSE: The proposed vegetated swales to manage stormwater along the gravel access road are considered a "green infrastructure practice" according to the *New York State Stormwater Management Design Manual* rather than a "standard stormwater management practice (SMP)". The other BMPs proposed are erosion control BMPs that are not post-construction stormwater controls. Therefore, it is not necessary for the SWPPP to be prepared by a NYS licensed Professional Engineer or Landscape Architect as the "Qualified Professional".

## **ENVIRONMENTAL MANAGEMENT AND CONSTRUCTION PLAN**

6. It does not appear as though a complete plan set was provided to the Town for review. The plan set is missing Sheet 2 (index), Sheets 6 through 18 (detail sheets), and Sheets 22C and 22D (which are indicated as pending). Sheets 19A through 21B and 29A through 31B were not included, however, those sheets are for lands outside the limits of the Town of Fort Edward, and are not needed for our review.

RESPONSE: The index sheet (Sheet 2) was inadvertently left out of the package. A copy is attached herewith. Sheets 6 through 18 were provided in the SWPPP and therefore were not duplicated as full size drawings. The plan set for Ft. Edwards was provided. Sheets 19A through 21B and 29A through 31B were not included since they cover areas outside the town of Ft. Edward.





7. On several the plan sheets, there is a green "polyline" feature surrounding many of the wetlands within the ROW, and may be intended to represent installation of silt socks. This feature is not shown on the legend and should be added for clarification.

RESPONSE: The green poly line indicate areas where invasive plant species are present.

8. References to "grading plans" are made on several of the plan sheets. It is not clear where these grading plans are located. The grading plans should be included in the submission.

RESPONSE: Grading plans are included in the SWPPP in Appendix B3.

9. The plan sheets should indicate areas of wetlands that will be temporary or permanently disturbed or filled in, consistent with the required ACOE and NYSDEC permits.

RESPONSE: The text explains where the temporary and permanent disturbance in wetlands occur i.e structures (poles) or permanent access roads which are permanent disturbance mat roads or work pads which are temporary impacts. The plan sheets indicate wetland areas and the location of any of these permanent or temporary structures.

10. Sheets 24A and 24B: Located between poles 59 and 60 is a large wetland complex and the intersection of the Moses Kill and Dead Creek. The plan indicates that Type II clearing will occur in this area, but the plans do not show any proposed access measures or erosion and sediment control measures along this environmentally sensitive area. The plans should clarify how the clearing will occur in this area and if any additional erosion and sediment control measures are needed.

RESPONSE: Sheet 24 A and B. There is no construction access required in the area between structures 59 and 60 and no erosion control measures are required. Any clearing required is noted on the plan sheets and will be either A type which is an assessment of merchantable timber or D which is drop and lop.

11. Sheets 26A and 26B: The construction work pads for poles 76 and 77 are shown on or immediately adjacent to wetland areas. It is not clear why no timber matting is shown for these construction work areas, since other poles within wetland areas have this feature.

RESPONSE: The work pads for structures 76 and 77 do not require matting as they are not in wetlands.

12. Sheets 27A and 27B: It is not clear how clearing will be accomplished between poles 93 and 94 in the area of Stream 31. No access or erosion and sediment control features are shown on the plans.

RESPONSE: Sheet 27 A and B. There is no construction access required in the area between structures 93 and 94 and no erosion control measures are required. Any clearing required is noted on the plan sheets and will be either A type which is an assessment of merchantable timber or D which is drop and lop.

13. Sheets 28A and 28B: Consistent with the previous comment, it is not clear how clearing will be accomplished between poles 98 and 99 in the area of Stream 37. The proposed new gravel access road is located a significant distance from the ROW that would limit equipment access to the clearing zone.





RESPONSE: Sheet 28 A and B. There is no construction access required in the area between structures 98 and 99 and no erosion control measures are required. Any clearing required is noted on the plan sheets and will be either A type which is an assessment of merchantable timber or D which is drop and lop.



## **SWPPP Preparer Certification**



I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-10-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Lauren	R	Caputo
First Name	MI	Last Name
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Janua Coprita		Oct 17, 2014
Signature		Date/Time Field

LAUREN R. CAPUTO CIVIL NO. 50603

## NOTICE OF INTENT



## New York State Department of Environmental Conservation Division of Water

## 625 Broadway, 4th Floor Albany, New York 12233-3505

NYR					
	(for	DEC	use	onl	у)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-10-001 All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

# -IMPORTANTRETURN THIS FORM TO THE ADDRESS ABOVE

OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information														
Owner/Operator (Company Name/Private Owner Name/Municipality Name)														
Owner/Operator Contact Person Last Name (NOT CONSULTANT)														
Owner/Operator Contact Pe	erson First Name													
Owner/Operator Mailing Ad	ldress													
City														
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State Zip														
Phone (Owner/Operator)	Fax (Owner/Op	erator)												
Email (Owner/Operator)														
FED TAX ID														
	not required for indivi	duals)												

Project Site Information
Project/Site Name
Street Address (NOT P.O. BOX)
Side of Street  O North O South O East O West
City/Town/Village (THAT ISSUES BUILDING PERMIT)
State Zip County DEC Region
Name of Nearest Cross Street
Distance to Nearest Cross Street (Feet)  Project In Relation to Cross Street  North O South O East O West
Tax Map Numbers Section-Block-Parcel  Tax Map Numbers  Under the section of the s
1. Provide the Geographic Coordinates for the project site in NYTM Units. To do this you <u>must</u> go to the NYSDEC Stormwater Interactive Map on the DEC website at:
www.dec.ny.gov/imsmaps/stormwater/viewer.htm
Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located your project site, go to the tool boxes on the top and choose "i"(identify). Then click on the center of your site and a new window containing the X, Y coordinates in UTM will pop up. Transcribe these coordinates into the boxes below. For problems with the interactive map use the help function.
X Coordinates (Easting) Y Coordinates (Northing)
2. What is the nature of this construction project?
O New Construction
O Redevelopment with increase in impervious area
O Redevelopment with no increase in impervious area

3. Select the predominant land use for both pre and post development conditions. SELECT ONLY ONE CHOICE FOR EACH

Pre-Development Existing Land Use	Post-Development Future Land Use
○ FOREST	O SINGLE FAMILY HOME Number of Lots
O PASTURE/OPEN LAND	O SINGLE FAMILY SUBDIVISION
O CULTIVATED LAND	O TOWN HOME RESIDENTIAL
○ SINGLE FAMILY HOME	O MULTIFAMILY RESIDENTIAL
○ SINGLE FAMILY SUBDIVISION	○ INSTITUTIONAL/SCHOOL
O TOWN HOME RESIDENTIAL	○ INDUSTRIAL
○ MULTIFAMILY RESIDENTIAL	○ COMMERCIAL
○ INSTITUTIONAL/SCHOOL	O MUNICIPAL
○ INDUSTRIAL	○ ROAD/HIGHWAY
○ COMMERCIAL	○ RECREATIONAL/SPORTS FIELD
○ ROAD/HIGHWAY	O BIKE PATH/TRAIL
O RECREATIONAL/SPORTS FIELD	○ LINEAR UTILITY (water, sewer, gas, etc.)
○ BIKE PATH/TRAIL	O PARKING LOT
○ LINEAR UTILITY	O CLEARING/GRADING ONLY
O PARKING LOT	O DEMOLITION, NO REDEVELOPMENT
○ OTHER	○ WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
	OTHER
*Note: for gas well drilling, non-high volume	hydraulic fractured wells only
4. In accordance with the larger common plan of enter the total project site area; the total existing impervious area to be disturbed (factivities); and the future impervious area disturbed area. (Round to the nearest tenth	l area to be disturbed; or redevelopment constructed within the
	ting Impervious Area Within To Be Disturbed Disturbed Area
5. Do you plan to disturb more than 5 acres of	soil at any one time? O Yes O No
6. Indicate the percentage of each Hydrologic  A  B  W	Soil Group(HSG) at the site.  C D %
7. Is this a phased project?	$\bigcirc$ Yes $\bigcirc$ No
8. Enter the planned start and end dates of the disturbance activities.	te

area?

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9.	Identify the nearest surface waterbody(ies) to which construction site discharge.	run	off	will		
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9a	a. Type of waterbody identified in Question 9?					
	○ Wetland / State Jurisdiction On Site (Answer 9b)					
	○ Wetland / State Jurisdiction Off Site					
	○ Wetland / Federal Jurisdiction On Site (Answer 9b)					
	O Wetland / Federal Jurisdiction Off Site					
	O Stream / Creek On Site					
	O Stream / Creek Off Site					
	O River On Site	d e	-1	040		
	$\bigcirc$ River Off Site	uen	LIII	ea?		
	O Lake On Site O Regulatory Map					
	O Lake Off Site O Delineated by Consult	ant				
	Other Type On Site Opelineated by Army Co	rps	of	Engi	nee	rs
	Other Type Off Site Other (identify)					
10	Has the surface waterbody(ies) in question 9 been identified as a 303(d) segment in Appendix E of GP-0-10-001?	0	Yes	0:	No	
11	Is this project located in one of the Watersheds identified in Appendix C of GP-0-10-001?	0	Yes	0:	No	
12	2. Is the project located in one of the watershed areas associated with AA and AA-S classified waters?  If no, skip question 13.	0	Yes	0:	No	
13	Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey?  If Yes, what is the acreage to be disturbed?	0	Yes	0:	No	
14	4. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent	0	Yes	0:	No	

15.	Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?														
16.	What is the name of the municipality/entity that owns the separate storm sewer system?														
17.	Does any runoff from the site enter a sewer classified as a Combined Sewer?														
18.	Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law? $ \bigcirc \textbf{Yes}  \bigcirc \textbf{No} $														
19.	Is this property owned by a state authority, state agency, federal government or local government?														
20.	Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Yes O No Agreement, etc.)														
21.	Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Yes O No Standards and Specifications for Erosion and Sediment Control (aka Blue Book)?														
22.	Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)?  If No, skip questions 23 and 27-39.														
23.	Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Ores Ores Stormwater Management Design Manual?														

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## SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-10-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First Name Lauren	MI LAUREN R. CAPUTO
Last Name Caputo	CIVIL No. 50603
Signature	10-17-14
January Caput	Date 10/17/2014

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Post-construction Stormwater Management Practice (SMP) Requirements

Important: Completion of Questions 27-39 is not required
 if response to Question 22 is No.

- 27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.
  - O Preservation of Undisturbed Areas
  - O Preservation of Buffers
  - O Reduction of Clearing and Grading
  - O Locating Development in Less Sensitive Areas
  - O Roadway Reduction
  - O Sidewalk Reduction
  - O Driveway Reduction
  - O Cul-de-sac Reduction
  - O Building Footprint Reduction
  - O Parking Reduction
- 27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).
  - O All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).
  - O Compacted areas were considered as impervious cover when calculating the **WQv Required**, and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.
- 28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout).

Total	$\mathbf{W}\mathbf{Q}\mathbf{v}$	Requ:	ired	
			acre-feet	

29. Identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity in Table 1 (See Page 9) that were used to <a href="reduce">reduce</a> the Total WQv Required(#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

# Table 1 - Runoff Reduction (RR) Techniques and Standard Stormwater Management Practices (SMPs)

	Total Contributing		rota.	I Cor	ıtr	1but1	ng
RR Techniques (Area Reduction)	Area (acres)	Im	erv.	ious	Ar	ea(ac	res)
○ Conservation of Natural Areas (RR-1)		and/or					
O Sheetflow to Riparian Buffers/Filters Strips (RR-2)		and/or			•		
○ Tree Planting/Tree Pit (RR-3)		and/or					
O Disconnection of Rooftop Runoff (RR-4)		and/or			•		
RR Techniques (Volume Reduction)					Г		$\neg$
$\bigcirc$ Vegetated Swale (RR-5) $\cdots\cdots$	• • • • • • • • • • • • • • • • • • • •	• • • • •			•		_
○ Rain Garden (RR-6) ······	• • • • • • • • • • • • • • • • • • • •	• • • • •			•		_
○ Stormwater Planter (RR-7)	• • • • • • • • • • • • • • • • • • • •	• • • • •			•		
○ Rain Barrel/Cistern (RR-8)	• • • • • • • • • • • • • • • • • • • •	• • • • •			•		
O Porous Pavement (RR-9)	• • • • • • • • • • • • • • • • • • • •				<b>-</b>		
○ Green Roof (RR-10)	• • • • • • • • • • • • • • • • • • • •	• • • • •			-		
Standard SMPs with RRv Capacity							_
O Infiltration Trench (I-1) ······	• • • • • • • • • • • • • • • • • • • •				-		
O Infiltration Basin (I-2) ·····					-		
Opry Well (I-3)					-		
<pre>Underground Infiltration System (I-4)</pre>							
© Bioretention (F-5) ·······							
Opry Swale (0-1)							
Obly braile (O 1)							
Standard SMPs					_		
O Micropool Extended Detention (P-1)	• • • • • • • • • • • • • • • • • • • •				•		
○ Wet Pond (P-2) · · · · · · · · · · · · · · · · · · ·		• • • • •					
○ Wet Extended Detention (P-3) ······	• • • • • • • • • • • • • • • • • • • •						
○ Multiple Pond System (P-4) ······					-		
O Pocket Pond (P-5) ······							
○ Surface Sand Filter (F-1) ······							
○ Underground Sand Filter (F-2) ······							
O Perimeter Sand Filter (F-3) ······	• • • • • • • • • • • • • • • • • • • •	• • • • •					
Organic Filter (F-4)							
○ Shallow Wetland (W-1)							
© Extended Detention Wetland (W-2)					_	1	
O Pond/Wetland System (W-3)			$\Box$				1
			$\Box$				-
O Pocket Wetland (W-4)  O Wet Swale (O-2)					$\vdash$	++	-
$\sim$ Het Dware (U-2)			1 1		•		1

## Table 2 -Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY) Total Contributing Alternative SMP Impervious Area(acres) ○ Hydrodynamic ..... $\bigcirc$ Wet Vault ..... O Media Filter ..... Other Provide the name and manufacturer of the Alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment. Name Manufacturer Note: Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project. 30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29. Total RRv provided acre-feet 31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28). O Yes O No If Yes, go to question 36. If No, go to question 32. 32. Provide the Minimum RRv required based on HSG. [Minimum RRv Required = (P)(0.95)(Ai)/12, Ai=(S)(Aic)] Minimum RRv Required acre-feet 32a. Is the Total RRv provided (#30) greater than or equal to the O Yes O No Minimum RRv Required (#32)? If Yes, go to question 33. Note: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv(=Total WQv Required in 28 - Total RRv Provided in 30). Also, provide in Table 1 and 2 the total impervious area that contributes runoff to each practice selected. Note: Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects. 33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question 29. WQv Provided acre-feet Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - RRv provided by the practice. (See Table 3.5 in Design Manual) 34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a). Is the sum of the RRv provided (#30) and the WQv provided 35. (#33a) greater than or equal to the total WQv required (#28)? O Yes O No If Yes, go to question 36. If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria. Provide the total Channel Protection Storage Volume (CPv) required and 36. provided or select waiver (36a), if applicable. CPv Required CPv Provided acre-feet acre-feet 36a. The need to provide channel protection has been waived because: O Site discharges directly to tidal waters or a fifth order or larger stream. O Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems. 37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (37a), if applicable. Total Overbank Flood Control Criteria (Qp) Pre-Development Post-development CFS CFS Total Extreme Flood Control Criteria (Qf) Post-development Pre-Development

CFS

CFS

37a. 38.	The need to meet the Qp and Qf criteria has been waived because:  Osite discharges directly to tidal waters or a fifth order or larger stream.  Downstream analysis reveals that the Qp and Qf controls are not required  Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been  Oyes Ono developed?					
	If Yes, Identify the entity responsible for the long term Operation and Maintenance					
39.	Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required(#28). (See question 32a) This space can also be used for other pertinent project information.					

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40.	Identify other DEC permits, existing and new, that are required for the project/facility.	nis	
	O Air Pollution Control		
	○ Coastal Erosion		
	○ Hazardous Waste		
	○ Long Island Wells		
	○ Mined Land Reclamation		
	○ Solid Waste		
	O Navigable Waters Protection / Article 15		
	○ Water Quality Certificate		
	○ Dam Safety		
	○ Water Supply		
	○ Freshwater Wetlands/Article 24		
	○ Tidal Wetlands		
	○ Wild, Scenic and Recreational Rivers		
	O Stream Bed or Bank Protection / Article 15		
	○ Endangered or Threatened Species(Incidental Take Permit)		
	○ Individual SPDES		
	○ SPDES Multi-Sector GP		
	Other		
	○ None		
41.	Does this project require a US Army Corps of Engineers Wetland Permit?  If Yes, Indicate Size of Impact.	○ Yes	O No
42.	Is this project subject to the requirements of a regulated, traditional land use control MS4? (If No, skip question 43)	O Yes	O No
43.	Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI?	○ Yes	O No
44.	If this NOI is being submitted for the purpose of continuing or transf coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned.		

#### Owner/Operator Certification

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

MI
Data
Date

Path: G:\GIS-Projects\National-Grid-Mohican\00-mxd\W461-000\_Figure\_2\_NRCS Soil Boundaries Map\_Cover.mxd

## Mapped Soil Units Within the Mohican-Battenkill Project Area

County	Soil Symb	pol Soil Name	Hydric
Saratoga	CIB	Claverack loamy fine sand, 3 to 8 percent slopes	Yes
Saratoga	HuB	Hudson silt loam, 3 to 8 percent slopes	No
Saratoga	HuD	Hudson silt loam, hilly	No
Saratoga	HuD	Hudson silt loam, hilly	No
Saratoga	HuD	Hudson silt loam, hilly	No
Saratoga	HuE	Hudson silt loam, 25 to 35 percent slopes	No
Saratoga	HuE	Hudson silt loam, 25 to 35 percent slopes	No
Saratoga	RhA	Rhinebeck silt loam, 0 to 3 percent slopes	Yes
Saratoga	SeB	Scio silt loam, 3 to 8 percent slopes	No
Saratoga	Te	Teel silt loam	Yes
Saratoga	Ud		Yes
Saratoga	UnB	Unadilla very fine sandy loam, 3 to 8 percent slopes	No
Saratoga	W	Water	No
Saratoga	WnB	Windsor loamy sand, undulating	No
Washington	BnC	Bernardston gravelly silt loam, 8 to 15 percent slopes	Yes
Washington	BnD	Bernardston gravelly silt loam, 15 to 25 percent slopes	No
Washington	BUF	Bernardston soils, steep and very steep	No
Washington	CIB	Claverack loamy fine sand, 2 to 6 percent slopes	No
Washington	Cv	Covington silty clay loam	Yes
Washington	Hb	Hamlin silt loam	Yes
Washington	HcA	Hartland very fine sandy loam, 0 to 2 percent slopes	No
Washington	HoA	Hoosic gravelly sandy loam, 0 to 3 percent slopes	Yes
Washington	HSDK	Hoosic gravelly sandy loam, rolling and hilly	Yes
Washington	HTF	Hoosic and Otisville soils, steep and very steep	No

County	Soil Symbol	Soil Name	Hydric
Washington	HTF	Hoosic and Otisville soils, steep and very steep	No
Washington	HvB	Hudson silt loam, 2 to 6 percent slopes	No
Washington	HvC	Hudson silt loam, 6 to 12 percent slopes	No
Washington	HWE	Hudson and Vergennes soils, steep and very steep	Yes
Washington	KbA	Kingsbury silty clay, 0 to 2 percent slopes	Yes
Washington	KbA	Kingsbury silty clay, 0 to 2 percent slopes	Yes
Washington	KbB	Kingsbury silty clay, 2 to 6 percent slopes	Yes
Washington	KbB	Kingsbury silty clay, 2 to 6 percent slopes	Yes
Washington	Ма	Madalin silty clay loam	Yes
Washington	NAC	Nassau shaly silt loam, undulating through hilly	Yes
Nashington	NBF	Nassau-Rock outcrop association, steep and very steep	No
Washington	OaB	Oakville loamy fine sand, 0 to 5 percent slopes	No
Washington	OaC	Oakville loamy fine sand, 5 to 15 percent slopes	No
Washington	OtA	Otisville gravelly sandy loam, 0 to 3 percent slopes	Yes
Washington	RhA	Rhinebeck silt loam, 0 to 2 percent slopes	Yes
Washington	RhB	Rhinebeck silt loam, 2 to 6 percent slopes	Yes
<i>N</i> ashington	RPC	Rock outcrop-Vergennes association, gently sloping through moderately steep	Yes
<i>N</i> ashington	SDC	Scriba very stony soils, nearly level through sloping	Yes
<i>N</i> ashington	Те	Teel silt loam	Yes
<i>N</i> ashington	VeB	Vergennes silty clay loam, 2 to 6 percent slopes	Yes
Nashington	VeC	Vergennes silty clay loam, 6 to 12 percent slopes	No
Nashington	VeD	Vergennes silty clay loam, 12 to 20 percent slopes	No
Nashington	W	Water	No
Washington	Wa	Wallington silt loam, sandy substratum	Yes



NRCS Soil Boundaries Map Soils Key





























































