Inspection Report for North Sturbridge Road Solar Facility
NPDES ID No.: MAR10031G
Inspection Date: 6/20/2022

General Information					
Weather conditions during inspection	66°F, Fair	**Inspection start**	9:45 AM	Inspection end	10:45 AM
Inspector Name, Title & Contact Information	Danny Rebelo, Senior Engineer (BETA Group, Inc.) drebelo@beta-inc.com 4132442245				
Present Phase of Construction	Phase 1. NOTE: The access road and stabilized construction entrance has been established pursuant to the Phase 1 scope of work. However, the entirety of the Site has been cleared of trees. No grubbing/stumping has occurred other than that required to establish the Site access road.				
Inspection Location	North Sturbridge Road Solar Facility – Entirety of Site (0 North Sturbridge Road, Charlton, MA 01507)				

Inspection Frequency *(Note: you may be subject to different inspection frequencies in different areas of the site. Check all that apply)*
Standard Frequency:

☐ Every 7 days

☒ Every 14 days and within 24 hours of a 0.25" rain or the occurrence of runoff from snowmelt sufficient to cause a discharge

Increased Frequency:

☐ Every 7 days and within 24 hours of a 0.25" rain (for areas of sites discharging to sediment or nutrient-impaired waters or to waters designated as Tier 2, Tier 2.5, or Tier 3)

Reduced Frequency:

☐ Twice during first month, no more than 14 calendar days apart; then once per month after first month; (for stabilized areas)

☐ Twice during first month, no more than 14 calendar days apart; then once more within 24 hours of a 0.25" rain (for stabilized areas on "linear construction sites")

☐ Once per month and within 24 hours of a 0.25" rain (for arid, semi-arid, or drought-stricken areas during seasonally dry periods or during drought)

☐ Once per month (for frozen conditions where earth-disturbing activities are being conducted)

Was this inspection triggered by a 0.25" storm event? ☒ Yes ☐ No

If yes, how did you determined whether a 0.25" storm event has occurred?

☐ Rain gauge on site ☒ Weather station representative of site. Specify weather station source: Worcester Regional Airport

Total rainfall amount that triggered the inspection (inches): 0.38"

Was this inspection triggered by the occurrence of runoff from snowmelt sufficient to cause a discharge? ☐ Yes ☒ No

Unsafe Conditions for Inspection

Did you determine that any portion of your site was unsafe for inspection per CGP Part 4.1.5? ☐ Yes ☒ No

If "yes", complete the following:

- Describe the conditions that prevented you from conducting the inspection in this location: N/A
- Location where conditions were found: N/A

Condition and Effectiveness of Erosion and Sediment (E&S) Controls (CGP Part 2.2)				
Type/Location of E&S Control	Maintenance Needed?*	Corrective Action Required?*	Date on Which Maintenance or Corrective Action First Identified?	
1. Silt Fence and Straw Wattles	Yes	No	6/20/2022	On 6/20/2022 BETA observed fallen treet damage to the silt fence on the western perimeter of the Site. On 6/9/2022 BETA observed damage to the wattles in the northeast and eastern corners of the Site, damage was first observed on 3/15/2022. BETA also observed the silt fence to be partly torn in the southeastern corner of the Site, damage was first observed on 3/27/2022. General maintenance is needed for the entire silt fence. No evidence of discharge was observed.
2. Stabilized Construction Entrance (Site Entrance – Access Road)	No	No		
3. Stump and Soil Stockpile Area	No	No		
4. Dust Controls	N/A	N/A		
5. Jute Mesh (Steep Slopes)	N/A	N/A		
6. Temporary Seeding	No	No		

7. Topsoil Re-Use	N/A	N/A		
8. Storm Drain Inlets	N/A	N/A		
(North Brookfield Road)				
9. Temporary Drainage Swales	N/A	N/A		
(Throughout Site)				
10. Temporary Sediment Basins (Throughout Site)	N/A	N/A		

Condition and Effectiveness of Pollution Prevention (P2) Practices (CGP Part 2.3)

Type/Location of P2 Practices [insert additional rows if applicable]	Maintenance Needed?*	Corrective Action Required?*	Date on Which Maintenance or Corrective Action First Identified?	Notes
1. Equipment Refueling Staging Area	☐Yes ☒No	☐Yes ☒No	[Enter date]	
2. Hydraulic Lines Staging/Work Areas	☐Yes ☒No	☐Yes ☒No	[Enter date]	
3. Equipment Maintenance Staging Area	☐Yes ☒No	☐Yes ☒No	[Enter date]	
4. Sanitary Toilets Staging Area	☐Yes ☒No	☐Yes ☒No	[Enter date]	
5. Vehicle Accident Entire Site	☐Yes ☒No	☐Yes ☒No	[Enter date]	

Staging/Work Areas 8. Concrete Washout	☐Yes☒No	☐Yes☒No	[Enter date]	

* Note: The permit differentiates between conditions requiring routine maintenance, and those requiring corrective action. The permit requires maintenance in order to keep controls in effective operating condition. Corrective actions are triggered only for specific conditions, which include: 1) A stormwater control needs repair or replacement (beyond routine maintenance) if it is not operating as intended; 2) A stormwater control necessary to comply with the permit was never installed or was installed incorrectly; 3) You become aware that the stormwater controls you have installed and are maintaining are not effective enough for the discharge to meet applicable water quality standards or applicable requirements in Part 3.1; 4) One of the prohibited discharges in Part 1.3 is occurring or has occurred; or 5) EPA requires corrective actions as a result of a permit violation found during an inspection carried out under Part 4.8. If a condition on your site requires a corrective action, you must also fill out a corrective action form found at https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources. See Part 5 of the permit for more information.

Stabilization of Exposed Soil (CGP Part 2.2.14)			
Stabilization Area [insert additional rows if applicable]	Stabilization Method	Have You Initiated Stabilization?	Notes
1. Earthen access road leading to stockpile area	Straw mulch or hydroseed	☒Yes 7/30/2021 ☐No	The stockpile area and associated access road have been hydroseeded and grass has been established.
2. Informal access road along northern portion of the Site	Straw mulch or hydroseed	☐Yes ☒No	Erosion channels are beginning to form within upgradient portions of the informal access road (Figure 1). The contractor indicated that stabilization by smoothing out soils and seeding or spreading mulch would occur on 7/30/2021. Stabilization of this area has not been initiated. After inspection of the area on 8/24/2021, it was determined that

			temporary swales would likely alleviate the issue of channelization in this area; however, these swales will not be constructed until work resumes at the Site in the spring (pending local approval). This area will continue to be monitored; however, stabilization is not required since the area is not discharging sediment beyond the limits of work.
3. Area beyond the limits of work at Discharge 1	Hand application of seed	☒Yes 8/24/2021 ☐No	The sediment deposit previously observed has been removed from beyond the limits of work and the area has been seeded. No sediment migrated within 50 feet of a "water of the US". Straw and additional seed was applied on 8/24/2021. On 10/2/2021 BETA verified that grass seed had been successful established at Discharge 1 and 2. BETA will continue to monitor grass growth.
4. Area beyond limits of work at Discharge 2	Hand application of seed	☒Yes 8/24/2021 ☐No	On 4/8/2022 BETA observed the recently seeded grass to be thriving.

Description of Discharges (CGP Part 4.6.6)	
Was a stormwater discharge or other discharge occurring from any part of your site at the time of the inspection? ☐No ☒Yes If "yes", provide the following information for each point of discharge:	
Discharge Location	Observations
Discharge 1	Describe the discharge: NA At points of discharge and the channels and banks of surface waters in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? ☒No ☐Yes If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue: NA

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Contractor or Subcontractor Signature and Certification

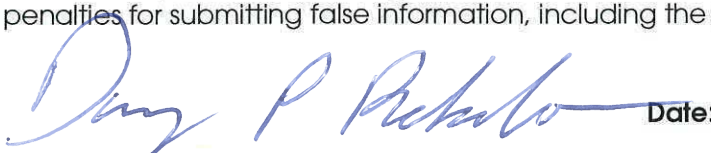
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature of Contractor or Subcontractor: _____ **Date:**

Printed Name and Affiliation: _____

Operator Signature and Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature of Operator or "Duly Authorized Representative":  **Date:**

Printed Name and Affiliation: Danny Rebelo 6/20/2022

CONCEPTUAL CONSTRUCTION SEQUENCE

PHASE 0
- INSTALL SITEWIDE PERIMETER EROSION CONTROLS AND STABILIZED CONSTRUCTION ENTRANCE
- CONFIRM AND MARK LIMITS OF PROPERTY LINES AND RESOURCE AREA BUFFER ZONES.

FOR EACH OF THE FOLLOWING PHASES 1 THROUGH 5: COMPLETE THE LISTED WORK WITHIN THE ASSOCIATED "ZONE."

PHASE 1:
- VERIFY INTEGRITY OF PERIMETER CONTROLS WITHIN ZONE
- CLEAR AND GRUB (SEE NOTE 2)
- ESTABLISH STOCKPILE AND STAGING AREAS (UTILIZE TEMPORARY AREAS AS NEEDED PRIOR TO ACCESS ROAD INSTALLATION)
- INSTALL GRASSED SEDIMENT CONTROL SWALES.
- INSTALL UPGRADIENT SWALE, CULVERT, AND LEVEL SPREADER.
- INSTALL GRAVEL ACCESS ROAD AND UTILITY POLES.
- STABILIZE/RESTORE ZONE (SEE NOTES 3 THROUGH 5)

PHASES 2 - 5
- VERIFY INTEGRITY OF PERIMETER CONTROLS WITHIN ZONE
- INSTALL SEDIMENT FOREBAYS, EARTHEN SWALES, GRASSED SEDIMENT CONTROL SWALES, AND CHECK DAMS (CLEAR AND GRUB AS NEEDED)
- CLEAR AND GRUB ZONE
- INSTALL ACCESS/PERIMETER ROAD
- INSTALL SOLAR ARRAY COMPONENTS, EXCEPT WITHIN FOOTPRINT OF TEMPORARY BASINS.
- STABILIZE/RESTORE ZONE.
- FOR ZONES 2 AND 5, WHEN ZONE IS STABILIZED, CONVERT SWALES/BASINS TO FINAL STORMWATER BMPS.
- FOR ZONES 3 AND 4, RETAIN SWALES/BASINS UNTIL DOWNGRADIENT SWALES/BASINS ARE CONSTRUCTED FOR SUBSEQUENT PHASE. THEN, REMOVE THE UPGRADIENT SWALES/BASINS AND INSTALL SOLAR ARRAY COMPONENTS WITHIN FOOTPRINT.

PHASE 6 (SITEWIDE)
- CONVERT ZONE 2 AND ZONE 5 BASINS/SWALES INTO FINAL DESIGN (SEE SHEETS 6-8 AND SHEET 13). RETAIN GRASSED SEDIMENT CONTROL SWALES. REMOVE (BACKFILL) REMAINING EXTRANEOUS SEDIMENT FOREBAYS, EARTHEN SWALES, AND CHECK DAMS.
- INSTALL REMAINING BASIN COMPONENTS, GRASSED SWALES, AND OTHER STORMWATER MANAGEMENT SYSTEMS.
- INSTALL ANY REMAINING COMPONENTS OF ARRAY AND ELECTRICAL SYSTEMS.
- INSTALL PERIMETER FENCE, GATES, KNOX BOX, AND APPROPRIATE SIGNAGE.
- INSTALL LANDSCAPE PLANTINGS. ADJUST STONE WALL NEAR SITE ENTRANCE.
- COMPLETE PERMANENT STABILIZATION OF ALL AREAS NOT YET RESTORED.
- REMOVE EROSION CONTROLS ONCE FINAL STABILIZATION IS ACHIEVED.

TOWN OF EAST BROOKFIELD
TOWN OF CHARLTON

NORTH STURBRIDGE ROAD

PROPOSED STABILIZED CONSTRUCTION ENTRANCE. SEE DETAIL ON SHEET 12

PROPOSED CULVERT, WITH FLARED END, SWALE, LEVEL SPREADER, AND RIPRAP APRON. SEE SHEETS 6-8.

PROPOSED 18' WIDE GRAVEL ACCESS ROAD AT SITE ENTRANCE WITH STONE BERM

EXISTING TREELINE (TYP.)

PROPOSED CONSTRUCTION STAGING AREA ALONG GRAVEL ROADWAY AT SITE ENTRANCE. INSTALL TEMPORARY CONSTRUCTION FENCE AS DIRECTED BY ENGINEER.

PROPOSED STUMP AND SOIL STOCKPILE AREA AT SITE ENTRANCE. STOCKPILES TO BE SURROUNDED WITH SILT FENCE

PROPOSED 14' WIDE GRAVEL ACCESS ROAD WITHIN SITE

LIMIT OF PROPERTY

Discharge 1: ADDRESSED

ZONE 1

Fallen tree on silt fencing

WETLANDS

Discharge 2: ADDRESSED

Damaged silt fence and wattle

Damaged wattle

Location of channelization within machinery tracks

ZONE 2

Torn silt fence

100-FOOT WETLAND BUFFER ZONE

50-FOOT WETLAND BUFFER ZONE

25-FOOT NO DISTURB ZONE

PROPOSED 14' WIDE GRAVEL PERIMETER ROAD COORDINATED WITH CHARLTON FIRE DEPARTMENT

Localized

25-FOOT NO DISTURB ZONE

50-FOOT WETLAND BUFFER ZONE

WETLAND ZONE

Channelization observed throughout lower portion of Site

ZONE 3

ZONE 4

ZONE 5

Torn silt fence

WETLANDS

PROPOSED PERMANENT GRASSED SWALE FOR SEDIMENT CONTROL (TYP.) INSTALL ADDITIONAL SWALES ALONG ACCESS ROAD AS DIRECTED BY ENGINEER. SEE DETAIL ON SHEET 13.

A

B

C

D

E

WETLANDS

ALL SEDIMENT TO BE REMOVED FROM BASINS PRIOR TO TRANSITIONING TEMPORARY SEDIMENT BASIN TO PERMANENT DETENTION BASIN (TYP.).

LIMIT OF TREE CLEARING AND LIMIT OF WORK (TYP.)

SILT FENCE WITH STRAW WATTLES. SEE DETAIL ON SHEET 12 (TYP.)

PANELS TO BE INSTALLED IN THE FOOTPRINT OF TEMPORARY BASINS ONLY AFTER ALL OTHER PANELS HAVE BEEN INSTALLED AND UPGRADIENT AREAS STABILIZED.

STUMPS TO REMAIN IN UNDEVELOPED AREAS BETWEEN FENCE AND PROPOSED TREELINE (TYP.)

PROPOSED 7'-6" HIGH CHAIN-LINK PERIMETER FENCE 6" OFF GROUND. LIMIT OF GRUBBING AND TOPSOIL REMOVAL AT FENCELINE (TYP.)

TEMPORARY EARTHEN SWALE (TYP.). SLOPE NOT TO EXCEED 5%

STONE CHECK DAM SPACED AT MAXIMUM 100' INTERVAL (TYP.)

RIPRAP APRON (TYP.)

TEMPORARY SEDIMENT BASIN (TYP.)

NOTES:
1. THIS SEQUENCING PLAN IS FOR CONCEPTUAL PURPOSES ONLY. THE ACTUAL SEQUENCE OF WORK IMPLEMENTED FOR THIS PROJECT MAY DEVIATE FROM THIS PLAN SO LONG AS IT MEETS THE REQUIREMENTS OF THE PROJECT SITE PLANSET, PROJECT STORMWATER MANAGEMENT REPORT, AND TOWN REGULATIONS. ADDITIONAL CONSTRUCTION ACTIVITIES MAY BE REQUIRED AT THE SITE BEYOND THOSE PRESENTED ON THIS PLAN.
2. NO GRUBBING OR TOPSOIL REMOVAL SHALL BE CONDUCTED OUTSIDE OF THE PROPOSED FENCELINE EXCEPT AS NEEDED FOR INSTALLATION OF SITE FEATURES.
3. ALL DISTURBED AREAS SHALL BE STABILIZED NO LATER THAN 14 DAYS AFTER A CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED ON THAT PORTION OF THE SITE. ANY DISTURBED AREA EXPOSED FOR MORE THAN SEVEN DAYS SHALL BE STABILIZED WITH PERENNIAL RYE GRASS SEEDING OR APPROVED EQUIVALENT.
4. ALL EXISTING AND PROPOSED STEEP SLOPES (2:1 OR STEEPER, OR AS DIRECTED BY ENGINEER) TO BE STABILIZED WITH JUTE MESH EROSION CONTROL MAT OR APPROVED EQUIVALENT.
5. ALL CATCH BASINS AND DRAIN INLETS WITHIN THE VICINITY OF THE PROJECT LIMITS TO BE FITTED WITH SILT SACK (OR APPROVED EQUAL) AS DIRECTED BY ENGINEER. REFER TO DETAIL ON SHEET 12.
6. LOCATIONS AND CONFIGURATION OF STAGING AREAS, STOCKPILES, EARTHEN SWALES, AND SEDIMENT BASINS ARE PRELIMINARY ONLY. FINAL CONFIGURATION OF EROSION CONTROL DEVICES SHALL BE DETERMINED BY A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED PRIOR TO CONSTRUCTION.
7. SEDIMENT BASINS SHALL BE DESIGNED TO MEET A STORAGE VOLUME OF 3,600 CU. FT. PER ACRE OF DISTURBANCE OR SIZED BASED ON APPROPRIATE HYDROLOGIC CALCULATIONS. BASINS MUST BE FULLY DEWATERED WITHIN 72 HOURS AFTER A STORM EVENT.
8. NO WORK SHALL BE CONDUCTED WITHIN RESOURCE AREAS OR THEIR ASSOCIATED BUFFER ZONES, AND EXTREME CARE SHALL BE TAKEN TO ENSURE NO SEDIMENTATION OCCURS TO THESE AREAS.
9. ALL STOCKPILES AND DISTURBED AREAS SHALL BE STABILIZED IF EXPOSED FOR MORE THAN 30 DAYS.

BOARD APPROVAL _____

DATE _____

PREPARED BY

BETA
www.BETA-Inc.com

PREPARED FOR:

NEXTera ENERGY RESOURCES

Nextera Energy, Inc.
700 Universe Blvd.
Juno Beach, FL, 33408

NORTH STURBRIDGE ROAD SOLAR FACILITY

North Sturbridge Road
Charlton, MA

FIGURE 1: SWPPP INSPECTION SKETCH 6/9/2022

NO.	REVISIONS	DATE
9	ADJUSTED BASIN DESIGN	8/17/2021
8	ADJUSTED NOTES	7/23/2021
7	ADJUSTED ARRAY LAYOUT	4/9/2021
6	ADJUSTED ARRAY LAYOUT	3/10/2021
5	REVISED ARRAY LIMITS. ADDED SEQUENCING INFORMATION.	1/6/2021
4	ADDED PERIMETER ACCESS ROAD AND REVISED ARRAY LIMITS	3/5/2020
3	ADDED STONE BERM AND LEVEL SPREADER	9/19/2018
2	ADDED BAR GATE AT ROAD ENTRANCE AND CULVERT BENEATH ACCESS ROAD. ADJUSTED FRONT GATE DESCRIPTION.	10/31/2018
1	ADJUSTED FENCE. ADDED RELOCATED STONE WALL TO SITE ENTRANCE.	9/19/2018

DRAWN BY:	SLB
DESIGNED BY:	SLB
CHECKED BY:	DPR
ISSUE DATE:	SEPTEMBER 12, 2018
BETA JOB NO.:	5989

Owner:

Sturbridge Road Solar Farm, LLC.

Land Development Permit Number:

_____

80 0 80 160
SCALE IN FEET: 1"=80'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

SHEET NO.

4

8/20/2018 11:51 AM O:\5900S\5989 - SUNPIN SOLAR - CHARLTON\DRAWING FILES\PLANSET\NORTHSTURBRIDGEROADSOLARFACILITY-EROSIONCONTROLPLAN.DWG

Photo 1

View of damaged silt fence in eastern portion of the Site — facing east

Photo 2

View of damaged silt fence in southeast portion of the Site — facing southwest

PHOTOGRAPHIC DOCUMENTATION
North Sturbridge Road Solar Facility
Charlton, Massachusetts
Photographs Documented 6.20.2022

Photo 3

View of fallen tree damaged to silt fence in northern portion of the Site — facing east

Photo 4

View of haybales and silt fence in northern portion of the Site — facing north

PHOTOGRAPHIC DOCUMENTATION
North Sturbridge Road Solar Facility
Charlton, Massachusetts
Photographs Documented 6.20.2022