

STORMWATER POLLUTION CONTROL PLAN

Prepared in accordance with:

Connecticut Department of Energy & Environmental Protection,
Bureau of Materials Management & Compliance Assurance, Water
Permitting & Enforcement Division

General Permit for the Discharge of Stormwater and Dewatering
Wastewaters from Construction Activities at:

Norfolk Landfill Solar

599 Greenwoods Rd E
Norfolk, Connecticut

Prepared for:

Lodestar Energy
40 Tower Lane, Suite 201
Avon, CT 06001

October 2022

Prepared by:



J.R. Russo & Associates

Land Surveyors & Professional Engineers

P.O. Box 938, East Windsor, Connecticut 06088

P: (860) 623-0569, F: (860) 623-2485

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

TABLE OF CONTENTS

- I. Project Directory
- II. Executive Summary
- III. Design Standards
- IV. Site Plan
- V. Site Description
 - A. Construction Narrative
 - B. Total Area of Disturbance
 - C. Average Runoff Coefficient
 - D. Receiving Waters
 - E. Wetland Acreage
 - F. Endangered Species
- VI. Construction Sequencing
- VII. Control Measures
 - A. Stabilization Practices
 - B. Structural Practices
 - C. Maintenance
- VIII. Dewatering Wastewaters
- IX. Post-Construction Stormwater Management
- X. Other Controls
 - A. Waste Disposal
 - B. Washout Areas
 - C. Dust Control
 - D. Final Cleaning
 - E. Chemical/Petroleum Storage
- XI. Inspections
 - A. SWPCP Implementation Inspections
 - B. Routine Inspections
 - C. Post Construction Inspections

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

- XII. Keeping Plans Current
 - A. SWPCP Changes
 - B. Contractors

XIII. Record Keeping

XIV. Certifications

APPENDICES

- A. State of Connecticut, Department of Energy & Environmental Protection, Bureau of Materials Management & Compliance Assurance, Water Permitting & Enforcement Division: General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, Effective Date: December 31, 2020.
- B. Drainage Report
- C. Endangered Species Information
- D. Inspection Log Sheets
- E. Contractor Certification Statement
- F. Construction Plan Set (Under Separate Cover)

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

I. Project Directory

Registrant/
Permittee: Lodestar Energy
40 Tower Lane, Suite 201
Avon, CT 06001
Contact: Kevin Midei
(401) 274-2716
kmidei@lodestarenergy.com

Preparer/
Engineer: J.R. Russo & Associates, LLC
P.O. Box 938
East Windsor, CT 06088
Contact: Timothy Coon, P.E.,
860-623-0569
tcoon@jrrusso.com

General _____
Contractor: _____

Sub- _____
Contractor: _____

Sub- _____
Contractor: _____

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

II. Executive Summary

Lodestar Energy and the Town of Norfolk are proposing the construction of a 4.5 MW AC ground mounted solar photovoltaic electric generating facility at the site of the Town of Norfolk Transfer Station at 599 Greenwoods Rd E (Rte. 44) in Norfolk, Connecticut. The Project Site consists of approximately 19.0 acres of the larger 181 acre parcel owned by the Town of Norfolk. A portion of the proposed solar array is proposed to be located on an existing capped landfill.

The proposed project is a locally exempt project which falls under the jurisdiction of the Connecticut Siting Council. As a locally exempt project that will disturb less than 20 acres, in order to become eligible for coverage under the General Permit for the Discharge of Stormwater & Dewatering Wastewaters from Construction Activities effective December 31, 2020 (GP), the permittee is required to file a complete registration and Stormwater Pollution Control Plan (SWPCP) with the Connecticut Department of Energy and Environmental Protection (DEEP) at least 60 days prior to initiation of the construction activity.

This document, including all appendices and attachments constitutes a complete SWPCP as required by the GP. The permittee and his/her designated agents (i.e. contractors) are responsible for implementing, inspecting, and maintaining all measures identified in the SWPCP and complying with all conditions and requirements outlined in the GP. The permittee shall retain an updated copy of the complete SWPCP at the job site from the date construction is initiated at the site until the date construction at the site is completed. Since the SWPCP is a living document, it will require continual and consistent maintenance (updates) and additional information from the permittee and contractors/subcontractors.

All contractors and subcontractors are required to familiarize themselves with the contents of the SWPCP and shall sign the certification statement contained herein.

All erosion and sediment control measures shall be installed and maintained in accordance with the SWPCP and the Connecticut Guidelines for Soil Erosion and Sediment Control, latest edition ("Guidelines"). The permittee is responsible for insuring that proper inspection and monitoring records are kept on site and submitted for review by governing authorities.

Following cessation of construction activities and once all post construction stormwater measures have been installed and cleaned, the

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar

599 Greenwoods Rd E, Norfolk, Connecticut

permittee shall have the site inspected by a qualified inspector to confirm final stabilization and compliance with the post construction management measures of the GP. At that time, a Notice of Termination shall be prepared and submitted to the DEEP. For five (5) years following the Notice of Termination, the permittee shall retain copies of the SWPCP and all reports required by this GP, and records of all data used to complete the registration for this GP, unless the DEEP specifies another time period in writing.

The provisions of the GP shall expire on December 31, 2025.

III. Design Standards

This SWPCP is designed to minimize 1) pollution caused by soil erosion and sedimentation during and after construction; and 2) stormwater pollution caused by use of the site after construction is complete.

The SWPCP, including the Construction Plan Set latest revision, has been prepared in accordance with sound engineering practices and is consistent with the Guidelines and the 2004 Connecticut Stormwater Quality Manual ("Manual"). In addition, the SWPCP and Plans have been prepared to meet the additional requirements for Solar Developments outlined in Appendix I of the GP. In addition to registration under the GP, an application for a Landfill Disruption Permit will be submitted to the Solid Waste Section of the CTDEEP .

IV. Site Plan

The Construction Plan Set (Appendix F), particularly Sheet 5 and 6, provides an overview of the key components of the SWPCP. Drainage patterns can be perceived from the available topographic contours, and watershed areas are depicted on the Drainage Area Maps found in the attached Drainage Report (Appendix B). Limits of soil disturbance are defined by sediment barriers and/or limits of proposed contours. Major structural and non-structural controls are indicated by abbreviations noted on the E&S Legend. The plan also indicates locations where stabilization practices are expected to occur, areas which will be vegetated following construction, surface waters, and surrounding wetlands and watercourses, if they exist.

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

V. Site Description

A. Construction Narrative

The Project Site consists of approximately 181 acres owned by the Town of Norfolk at 599 Greenwoods Rd E in Norfolk, Connecticut. The property is the current location of the Norfolk's Transfer Station and materials storage areas. The Transfer Station is located atop the municipal landfill that was closed and capped in the 1990s.

The Project Site will consist of three individually fenced Arrays totaling approximately 13.5 acres. Array 1A will consist of 5,788 modules within a 7.26 acre fenced area located on the capped landfill to the east and north of the existing transfer station. Array 1B will consist of 2,411 modules within a separate 3.15 acre fenced area located on the northern portion of the capped landfill north of the transfer station. The existing brush storage area will be eliminated in order to construct Array 1B; however, a gravel access road will remain between the transfer station and the earth material storage area further to the north. The access road will separate Array 1A from Array 1B. Array 2 will consist of 2,542 modules within a 3.11 fenced area located south of the earth materials storage area. The creation of Array 2 will require clearing approximately 5.23 acres of existing woods. However, approximately 0.9 acres of this clearing will be limited to the removal of large trees for shade management. Stumps and underbrush in the shade management area will remain.

Construction activities will include layout and placement of foundation systems, racking, solar PV panels, and string inverters; installation of utility pads and associated electrical equipment; installation of electrical conduit, conduit supports; installation of underground and aboveground transmission lines; installation of security fencing, and construction of stormwater management facilities. The array will be completely enclosed with a 7-foot chain-link security fence with gated access elevated 8" off the ground to allow for small animal movement into and out of the array areas. Where racking, fencing and transmission lines are proposed on the existing capped landfill, ballasted supports will be utilized to avoid any penetration into the existing landfill cap.

The PV panels and inverters will be mounted on a driven or ballast mounted supported post racking system at a 25-degree tilt facing due south. Inverters will be mounted to the

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

racking system, underneath the PV panels. The minimum and maximum height of the panels above grade will be two feet (2') and ten feet (10'), respectively. The aisle width between rows of panels will be 12.67 feet, which exceeds the width of the panels.

The panels will be installed at existing grades while maintaining existing vegetation. Additional berms of woody debris generated from tree clearing activities will be constructed and maintained at intervals along the contours throughout the arrays to encourage and maintain runoff as sheet flow. The stormwater management basins will collect the runoff and provide groundwater recharge and retention of the stormwater. The basins have been designed in accordance with the Manual and the DEEP's Stormwater GP. Basins 1, downgradient of Array 1A will discharge to the east toward the Mill Brook. Basins 2 and 3, downgradient of Array 2, will discharge to the surrounding wetlands that are ultimately culverted under Greenwoods Rd E to the west.

B. Total Area of Disturbance

The subject site and area of disturbance consists of approximately 19.0 acres, including approximately 13.5 acres of a fenced area surrounding the solar arrays. The overall size of the parcel at is 181 acres.

C. Average Runoff Coefficient

The pre-development runoff curve number at the project site is approximately 71. As discussed above, the array will be installed at existing grades and maintaining existing vegetation and sheet flow drainage patterns. The proposed arrays will also be installed on elevated racks to promote the continued growth of the existing vegetative cover and allow for infiltration. Thus, the panels and surrounding areas were analyzed as pervious vegetated cover. However, as required by Appendix I of the GP for solar development and detailed in the Drainage Report, the curve number for the vegetated area within the security fence was adjusted by one-half of a curve number to adjust for soil compaction during construction. The resulting post development runoff curve number at the site is estimated to be approximately 73.

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

D. Receiving Waters

Runoff from Array 1A and the eastern portion of Array 1B flows westerly toward Mill Brook. Runoff from the western portion of Array 1B and the southern portion of Array 2 flows into a wetland that discharges through a culvert under Greenwoods Rd E but ultimately returns to Mill Brook. Runoff from the northern portion of Array 2 flows into a separate wetland that discharges through another culvert under Greenwoods Rd E and ultimately into Beckley Pond Brook.

E. Wetland Acreage

The Mill Brook is located at the eastern edge of the subject parcel approximately 1,100 feet downgradient from the capped landfill. The landfill itself creates a high point in the topography. The southern end of the landfill generally slopes and drains to the east and southeast, and the northern portion of the landfill generally slopes to the west. Two small wetlands were delineated on the side hill east of the landfill that ultimately drain to Mill Brook. A large wetland area was also delineated to the north of the capped landfill area, located centrally on the parcel between the landfill and earth material storage area (central wetland). This wetland drains southerly and ultimately crosses through a culvert under Greenwoods Road East. An additional wetland system was delineated to the southwest of the earth materials storage area along the western driveway. This wetland also drains southerly and crosses through a separate culvert under Greenwoods Road East. A ridge runs north-south through the earth material storage area and divides the watershed between the central wetland and the wetland along the western driveway. Another large wetland that was not delineated, is located further north on the other side of the western driveway.

F. Endangered Species

An initial request for review of the Natural Diversity Database (NDDDB) was submitted to the Connecticut Department of Energy and Environmental Protection (DEEP) during the fall of 2021. DEEP responded with a letter on October 18, 2021 (Appendix C). The NDDDB review identified five species and one natural community that may be influenced by activities within the project area. In order to prevent any negative impacts, DEEP recommended 1) take measures to ensure that activities will not change water quality, turbidity, temperature, or chemistry of the

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

wetland complex, 2) maintain early successional habitats and limitation of broad spectrum herbicides, 3) do not remove trees between May 1-July 21,) preserve pastures and fields, 5) promote native vegetation growth in the area under the solar panels, and 6) use fencing that allows for movement of wildlife through the solar development. These recommendations have been incorporated in the development of the Site Plans and post construction maintenance plans. As a result, the Project is not anticipated to have an adverse impact on any DEEP listed species.

VI. Construction Sequencing

The following Construction Sequence is also provided on Sheet 7 of the Construction Plan Set in Appendix F.

1. Conduct a pre-construction meeting on-site with the contractor to review the design and requirements of the Stormwater Pollution Control Plan.
2. Install perimeter silt fence (GSF) downgradient of the construction activities as shown on the project plans.
3. Clear trees & grub stumps within security fence. Stumps outside of fence to remain.
4. Grind brush & stumps and spread woody debris along contours across site as intermediate sediment barriers as shown on plans.
5. Strip topsoil in the vicinity of the proposed stormwater management basins. Stockpile suitable amount of topsoil for reuse on-site in areas shown. Stockpiles shall be surrounded by sediment barriers (GSF).
6. Construct stormwater management basin. Seed & mulch to establish vegetation as soon as practicable.
7. Construct access road.
8. Install foundations and solar panels.
9. Install electrical equipment and distribution lines.
10. Install security fence.
11. Restore all disturbed areas with topsoil, seed mix and mulch as soon as practicable.
12. Remove silt fence after site is fully stabilized.

Construction is anticipated to begin in the spring of 2023 and be completed by January 2024.

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

VII. Control Measures

A. Stabilization Practices

Prior to earthwork, a row of perimeter sediment barriers (GSF) shall be installed in areas downgradient of the construction activities as shown on the design plans. Care shall be taken to ensure that existing vegetation is preserved where attainable and that disturbed portions of the site are stabilized as soon as possible. Sediment barriers shall be maintained until the disturbed areas are stabilized with vegetative cover.

As discussed above, the panels will be installed at existing grades while maintaining existing vegetation. This will minimize the soil disturbance and potential for sedimentation and erosion. In addition, woody debris generated during tree clearing activities in Array 2 shall be spread in 6'-8' wide rows along the contours at intervals within the array areas as intermediate sediment barriers. These will also act to promote and maintain the existing sheet flow across the site. Furthermore, where trees are removed outside of the perimeter fence at Array 2, the stumps will be left in place to minimize soil disturbance and keep the existing soils stable.

Where construction activities have permanently ceased or have temporarily been suspended for more than seven days, or when final grades are reached in any portion of the site, additional stabilization practices shall be implemented within three days. Practices shall include temporary seeding (TS), permanent seeding (PS), and mulch for seed (MS) as shown on the Construction Plans. If field conditions warrant, the Engineer may require additional control measures such as erosion control blankets (ECB), permanent turf reinforcement mats (TRM) or sodding (SO) for soil stabilization.

Areas which remain disturbed but inactive for at least thirty (30) days shall receive temporary seeding (TS) in accordance with the Guidelines.

B. Structural Practices

The existing paved entrance shall be utilized during construction to minimize off-site tracking and control dust.

As discussed above, the disturbance at the site will essentially be limited to the construction of the stormwater management basins.

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

These will be constructed and seeded as soon as practicable. The array will be constructed on existing grades while maintaining the existing vegetation. Thus, the runoff from other areas of the site will consist of clean runoff resulting from sheet flow. As a result of the limited disturbed area and absence of a source of significant sediment no additional sediment traps or basins are warranted.

C. Maintenance

All erosion and sediment control measures, including vegetation, and all other protective measures identified on the plans, shall be maintained by the Permittee or his/her designated agent (Contractor) in accordance with the Guidelines and the Construction Plans. Specific details regarding maintenance of erosion and sediment control measures are provided on Sheet 7 of the Construction Plans.

VIII. Dewatering Wastewaters

If required, dewatering shall be performed in accordance with section 5-13 of the Guidelines. Dewatering wastewater shall be discharged to temporary settling basins (PSB) or portable sediment bags to allow sediment to settle before discharging to vegetated areas. Pumping settling basins, if required, shall be constructed in accordance with the Guidelines.

IX. Post Construction Stormwater Management

Appendix I of the DEEP Stormwater GP requires that all solar panels in the array be considered effective impervious cover for the purposes of calculating Water Quality Volume if the proposed post-construction slopes at a site are 15% or more or if slopes less than 15% do not meet the four listed conditions:

- a) The vegetated area receiving runoff between rows of solar panels is equal to or greater than the average width of the row of solar panels draining to the vegetated area;
- b) Overall site conditions and solar panel configuration within the array are designed so stormwater runoff remains as sheet flows across the entire site towards the intended stormwater management controls;
- c) The following conditions are satisfied regarding the design of the post-construction slope of the site:
 - i. Slopes less than or equal to 5%:

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

- Appropriate vegetation shall be established that will ensure sheet flow conditions and that will provide sufficient ground cover throughout the site.
- ii. Slopes between 5% and 10%:
Practices such as level spreaders, terraces, or berms shall be used to ensure long term sheet flow conditions.
 - iii. Slopes greater than or equal to 10% and less than 15%:
The plan must include specific engineered stormwater control measures with detailed specifications that are designed to provide permanent stabilization and non-erosive conveyance of runoff downgradient from the site.
 - iv. Slopes greater than or equal to 8%:
Erosion control blankets, stump grindings, erosion control mix mulch, or hydroseed with tackifier shall be applied within 72 hours of final grading, or when a rainfall of 0.5 inches or greater is predicted within 24 hours of final grading, whichever time period is less.
- d) The solar panels shall be designed as to allow the growth of native vegetation beneath and between the panels.

The existing slope of the capped landfill at Array 1A ranges from 5% to 10%, with only the slopes at the very eastern end exceeding 8%. The existing slope of the capped landfill at Array 1B is less than 5%. The existing slope at Array 2 ranges from 5% to 10%, again with only the slopes at the very western edge exceeding 8%. These slopes require that conditions (a)-(d) be met in order to avoid treating the panels as impervious area. To satisfy condition (a), the proposed row spacing of 12.67' will exceed the 12.64' width of the panels. To satisfy condition (b), berms of coarse woody debris generated from clearing activities at Array 2 will be installed and maintained along the contours at regular intervals throughout the arrays to capture and redistribute runoff as sheet flow. For condition (c), because the existing vegetation at Array 1A and 1B will be maintained throughout construction, the need for additional erosion control measures to provide stabilization of the slopes in addition to the woody debris berms are not necessary, and this condition is considered to be met. At Array 2, tree clearing is proposed. However, disturbance will be limited to grubbing and filling stump holes within the fenced area. The entire area will be over-seeded with a pollinator seed mix and mulched immediately to establish a vegetated cover. This, in addition to the placement and maintenance of the woody debris berms, will provide the necessary slope protection to satisfy condition c. Finally, to satisfy condition (d), the proposed fixed panel solar arrays will be installed on elevated racks that provide adequate height above the ground to promote the continued growth of the existing vegetative cover and allow for infiltration.

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

As a result of satisfying the conditions above, the panels need not be considered as impervious coverage for the calculation of the WQV. Thus, the only proposed surfaces required to be included in the calculation of the WQV are the equipment pads and adjacent gravel access drives. However, these are very small areas in relation to the overall sites (1,155 square feet for equipment pad at Array 1 and 1,050 square feet for equipment pad at Array 2). In addition, these areas are not directly connected to the stormwater collection system. Thus, runoff from the equipment pad areas will sheet flow over long distances through the established vegetation which will provide adequate filtering to treat and remove any pollutants that may be generated in these areas.

The stormwater basins will provide sufficient detention to ensure that the post development peak rate of runoff from the site is less than the pre-development discharge rate.

To provide energy dissipation, stormwater outfalls from the stormwater management basins will include stone splash pads and riprap aprons.

Details of the post construction BMPs are provided on the Construction Plans in Appendix F, and sizing calculations are provided in the Drainage Report in Appendix B. A post construction maintenance schedule for the proposed drainage system is provided on the Construction Plans (Sheet 7).

The site is not located within 500 feet of a tidal wetland.

X. Other Controls

A. Waste Disposal

Best Management Practices (BMP's) shall be utilized at the site to ensure that no litter, debris, building materials, or similar materials are discharged to waters of the State. The site shall be kept neat and clean after each workday. A construction waste dumpster shall be provided for proper disposal of waste materials. A portable sanitary facility shall be provided and maintained at the site during construction activities.

B. Washout Areas

The Contractor shall provide a designated washout area for concrete trucks. The washout area shall consist of an excavated

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

pit sized such that waste materials will be contained and allowed to solidify in place with no surface discharge of washout wastewaters from the area. A sign shall be installed adjacent to each washout area to inform concrete equipment operators to utilize the proper facilities. Washout areas shall be inspected weekly to assess the holding capacity and functionality of the area. Hardened concrete shall be removed when the concrete has reached $\frac{1}{2}$ the height of the pit or as necessary to avoid overflows. Hardened concrete may be buried in fill areas beyond the limits of solar panel foundations and required utilities.

C. Dust Control

The existing paved driveway shall be installed at the site entrance to prevent sediment from tracking onto town roads. Dust control (DC) measures, including but not limited to sweeping and water application, shall be implemented as required to limit dust on the site.

D. Final Cleaning

Prior to filing a termination notice pursuant to Section 5 of the GP, the site shall be cleaned of all debris and rubbish. The sediment barrier and all accumulated sediment shall be removed. All vegetated areas shall be inspected to verify that they are properly stabilized and that the vegetation is fully established.

E. Chemical/Petroleum Storage

No chemicals or petroleum shall be stored on-site (excluding those contained in vehicles and equipment).

XI. Inspections

A. Plan Implementation Inspections

The site shall be inspected at least once within the first thirty (30) days of the initiation of construction activity and at least three times, within seven (7) or more days between inspections, within the first ninety (90) days of construction activity to confirm compliance with the GP and proper implementation of all control measures designated in the Plan. Plan Implementation Inspections shall be conducted by the designing qualified professional, qualified inspector, and appropriate local Conservation District Personnel.

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

Once all of the measures have been installed and stabilized, the designing qualified professional shall certify in writing to their completion in the applicable inspection report.

B. Routine Inspections

The designing qualified professional or a qualified inspector (as defined in Section 2 of the GP and approved by the designing qualified professional) shall perform routine inspections at the site to evaluate the effectiveness of erosion and sediment controls, structural controls, stabilization practices, and any other controls implemented to prevent pollution. At a minimum, the qualified inspector shall inspect disturbed areas, erosion and sediment control measures, structural control measures, soil stockpile areas, washout areas and areas where vehicles enter and exit the site for evidence of, or the potential for, pollutants and impacts to receiving waters. Construction entrances and exits shall also be inspected for evidence of off-site sediment tracking.

Inspections shall be performed at least once a week and within 24 hours of the end of a storm event that generates a discharge. In the event of a rain event that ends on a weekend, holiday or other time after which normal working hours will not commence within 24 hours, an inspection is required within 24 hours only if the storm event is equal to or exceeds 0.5 inches. For storms less than 0.5 inches, an inspection shall occur immediately upon the start of the normal working hours. A rain gauge shall be installed on-site to document rainfall amounts.

The attached Inspection Log Sheets (Appendix D) or their equivalent shall be used for each inspection. Each report shall be maintained as part of the SWPCP, and a copy shall be submitted electronically within 5 days of the inspection in accordance with Section 5(c)(2) of the GP, as well as to the DEEP email (DEEP.stormwaterstaff@ct.gov), and the appropriate district. The inspection log sheets shall be signed by the qualified inspector and certified by the designing qualified professional.

If the site inspection indicates that the site is out of compliance, the inspection report shall include a summary of the remedial actions required to bring the site back into compliance. Non-engineered corrective actions (as identified in the Guidelines) shall be implemented on site within 24 hours and incorporated into the revised SWPCP within 3 calendar days of the date of the inspection

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

unless another schedule is specified in the Guidelines. Engineered corrective actions (as identified in the Guidelines) shall be implemented on site within seven (7) days and incorporated into a revised SWPCP within ten (10) days of the date of the inspection, unless another schedule is specified in the Guidelines or is approved by the Commissioner.

C. Post Construction Inspections

Once all post construction stormwater measures have been installed in accordance with Section 5(b)(2)(C) of the GP, Post-Construction Stormwater Management, and cleaned of any construction sediment or debris, the permittee shall ensure that the appropriate qualified soil erosion and sediment control professional or a qualified professional engineer and District Representative inspects the site to confirm compliance with the post construction stormwater management requirements. A report shall be prepared and certified in accordance with Section 6(a) and (b) of the GP to indicate compliance with this requirement on the Notice of Termination form.

D. Final Stabilization Inspection

Monthly post-construction inspections shall be conducted by the qualified inspector or qualified design professional following final stabilization until the Notice of Termination is submitted. Once the site has achieved final stabilization for at least two full growing seasons (April-October) in the year following the end of construction, the permittee shall have the site inspected by a qualified design professional and appropriate District personnel to confirm such stabilization is maintained. At this time, the Permittee shall submit a Notice of Termination in accordance with GP Section 6(a) and (b).

XII. Keeping Plans Current

A. SWPCP Changes

The permittee shall amend the SWPCP if the actions required by the SWPCP fail to prevent pollution or fail to otherwise comply with any other provision of the GP. The SWPCP shall also be amended whenever there is a change in contractors or subcontractors at the site, or a change in design, construction, operation, or maintenance at the site which has the potential for the discharge of pollutants to

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

the waters of the state and which has not otherwise been addressed in the SWPCP.

If notified by the commissioner that the SWPCP and/or site do not meet one or more of the minimum requirements of this GP, the permittee shall make the required changes to the SWPCP and perform all actions required by the revised SWPCP within 7 days, or such timeframe as the commissioner may allow. Within 15 days, or such timeframe as the commissioner may allow, the permittee shall submit written certification to the commissioner that the requested changes have been implemented.

B. Contractors

All contractors and subcontractors who will perform actions on the site, which may reasonably be expected to cause or have the potential to cause pollution of the waters of the State, shall sign the attached Contractor Certification Statement (Appendix E). All signed statements shall be included with and made a part of the SWPCP.

XIII. Record Keeping

The permittee shall retain copies of the SWPCP and all reports required by the GP, and records of all data used to complete the registration for a period of at least five years from the date of Notice of Termination is accepted by the Commissioner, unless the commissioner specifies another time period in writing. Inspection records must be retained as part of the SWPCP for a period of 5 years after the date of inspection.

The permittee shall retain an updated copy of the SWPCP at the construction site from the date construction is initiated at the site until the date construction is completed.

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

XIV. Certifications

Permittee Certification:

I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with section 22a-6 of the Connecticut General Statutes, pursuant to section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute.

Signature: _____ **Date:** _____

Printed Name of Person Signing: _____

Title: _____

The required SWPCP Preparer Certification and SWPCP Reviewer Certification are provided on the GP Registration Form.

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar

599 Greenwoods Rd E, Norfolk, Connecticut

APPENDIX A

General Permit

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

APPENDIX B

Drainage Report

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

APPENDIX C

Endangered Species Information

October 18, 2021

Timothy A. Coon
J. R. Russo & Associates, LLC
PO Box 938
East Windsor, CT 06088
tcoon@jrrusso.com

NDDB DETERMINATION NUMBER: 202110495

Project: Site assessment/feasibility study; Installation of ground-mounted solar PV on capped landfill; NORFOLK TRANSFER STATION, 599 GREENWOODS ROAD EAST, NORFOLK, CT

Expiration: October 18, 2023

I have reviewed Natural Diversity Database (NDDB) maps and files regarding this project. According to our records, there are State-listed species (RCSA Sec. 26-306) that may be influenced by activities within the proposed project area.

Invertebrates

- **Lace-winged horse fly (*Haematopota rara*)- State Endangered**
- **Yellow-banded bumble bee (*Bombus terricola*)- State Threatened**

Bats

- **Hoary bat (*Lasiurus cinereus*)- State Special Concern**
- **Red bat (*Lasiurus borealis*)- State Special Concern**

Reptiles

- **Smooth green snake (*Opheodrys vernalis*)- State Special Concern**

Natural communities

- Poor fen

Species information and management recommendations are included below. Apply recommendations where appropriate or potential habitat exists.

Invertebrates

The state endangered **lace-winged horse fly** is found in Beckley Bog. This site is part of the watershed of Beckley Bog. Beckley Bog is a Poor Fen natural community. Poor fens are natural peatlands (bogs) occupying topographically defined basins; influenced by acidic ground water; on deep, poorly decomposed peats; dominated primarily by ericaceous shrubs. Poor fens are primarily threatened by inputs of salts, minerals, and nutrients in both stormwater runoff and groundwater.

- **Ensure that activities will not change water quality, turbidity, temperature, or chemistry of wetland complex.**

Yellow-banded bumble bee (*Bombus terricola*)- State Threatened

Habitat: Bumble bees are important pollinators of flowering plants and agricultural crops. The yellow-banded bumble bee is a generalist forager that gathers pollen and nectar from many different flowering plants. This bumble bee requires early successional habitats such as agricultural fields, grasslands, meadows and shrublands.

Threats: The Yellow-banded bumble bee has declined precipitously throughout most of its range in the U.S. since 1999. Threats to the yellow-banded bumble bee include transfer of pests and diseases from the commercial bumble bee industry, habitat destruction or alteration, pesticides, and loss of floral diversity due to invasive plant species.

The conversion of early successional habitats and adjacent shrubby edges to buildings, structures, turf and pavement equates to a loss of habitat for this species. Maintaining and enhancing early successional habitats in areas where this bumble bee occurs may aid in its conservation by providing quality foraging and nesting habitats. Additionally, limit use of broad-spectrum herbicides which can have a negative impact to the floral resources available, and manage invasive plant infestations to maximize floral diversity.

Bats

Hoary bat (*Lasiurus cinereus*)- State Special Concern

Hoary bats are found in Connecticut during the spring and summer seasons and migrate south to overwinter. They prefer to roost in large diameter coniferous and deciduous trees. They forage in openings and around water. This species may be at risk from wind development. Silver-haired, hoary, and red bats account for the majority of bat fatalities from wind turbines.

Red bat (*Lasiurus borealis*)- State Special Concern

Red bats are a migratory “tree bat” species that is found throughout Connecticut between April-October in a variety of forested habitats. They roost out in the foliage of deciduous and coniferous trees, camouflaged as dead leaves or cones. Red bats are primarily solitary roosters. They can be found roosting and feeding around forest edges and clearings. Typically, larger diameter trees (12-inch DBH and larger) are more valuable to these bats. Additionally, trees with loose, rough bark such as maples, hickories, and oaks are more desirable than other tree species due to the increased cover that the loose bark provides. Large trees with cavities are also utilized by this species.

Forested areas of Connecticut’s coastal towns may also serve as important migratory habitat for red bats. Numbers of bats utilizing these areas can increase dramatically as bats from other northeast locations pass through Connecticut during spring and autumn migration.

This species may be at risk from wind development. Silver-haired, hoary, and red bats account for the majority of bat fatalities from wind turbines.

- Do not remove trees between May 1- July 31 to avoid disturbing breeding bats.

The following activities will benefit bats:

- Preserve natural roosting resources (safety permitting) including snags, trees with cavities, cracks or crevices, trees with exfoliating bark (e.g. shagbark hickory), coniferous trees (e.g. tamarack, hemlock, white pine) as well as preserving talus slopes
- Identify and protect summer roosts in man-made structures, such as barns

- Provide artificial roost structures (i.e., bat houses) and promote their use in the surrounding community
- Minimize erosion and maintaining clean and open water resources free of siltation
- Protect native vegetation which promotes insect availability and diversity
- Avoid the use of pesticides that will affect their invertebrate food source
- Preserve open, edge of forest habitat corridors to allow bats to freely move among roosting, watering and foraging areas

Reptiles:

Smooth greensnakes favor moist, open habitats, such as old fields, meadows, pastures, fens, coastal grasslands, and edges of wetlands. Occasionally, this snake may inhabit sparsely forested areas with scattered shrubs and trees, such as mountaintop balds. Rural, undisturbed locations appear to be preferred, but smooth greensnakes have been found in urban and suburban areas as well. Greensnakes can be found basking on rocks, logs, or other debris. Smooth greensnakes are insectivores; they feed on a variety of insects and spiders. Preserving pastures and fields will benefit this species.

You are encouraged to report incidental observations to the Natural Diversity Database using the [appropriate survey form](#) . Field surveys should be conducted in order to evaluate potential habitat. Field surveys should be performed by a qualified biologist with the appropriate scientific collecting permits at a time when these target species are identifiable. A report summarizing the results of such surveys should include:

- Survey date(s) and duration
- Site descriptions and photographs
- List of component vascular plant and animal species within the survey area (including scientific binomials)
- Data regarding population numbers and/or area occupied by State-listed species
- Detailed maps of the area surveyed including the survey route and locations of State listed species
- Statement/résumé indicating the biologist's qualifications
- **Protection plan for state listed species that may occur on the property or be influenced by the project activities.**

General Site Design Recommendations:

If planned properly, you can increase the value of the habitat for wildlife and state listed species with your development.

- **Create a site management plan to promote native vegetation growth in the area under the solar panels.** Restoring native vegetation will attract pollinators and avoid the need for constant mowing. Reduced need for mowing will reduce the risk for reptiles and amphibians.
- Provide habitat for wildlife and allow for connectivity for wildlife movement. Use wildlife-friendly fencing to allow movement through the solar development.
- More specific management suggestions can be found here: <https://ag.umass.edu/clean-energy/services/pollinator-friendly-solar-pv-for-massachusetts>

Natural Diversity Database information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Bureau of Natural Resources and cooperating units of DEEP, independent conservation groups, and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the NDDB should not be substituted for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated in the NDDB as it becomes available.

Please contact me if you have any questions (shannon.kearney@ct.gov). Thank you for consulting with the Natural Diversity Database and continuing to work with us to protect State-listed species.

Sincerely,

/s/ Shannon B. Kearney
Wildlife Biologist

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

APPENDIX D

Inspection Log Sheets

Overall Site Issues

Below are some general site issues that should be assessed during inspections. Customize this list as needed for conditions at your site.

	BMP/activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
1	Are all slopes and disturbed areas not actively being worked properly stabilized?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2	Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
3	Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	Are receiving waters free of any sediment deposits?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	Is the construction exit preventing sediment from being tracked into the street?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	Is trash/litter from work areas collected and placed in covered dumpsters?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	Are materials that are potential stormwater contaminants stored inside or under cover?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
9	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
10	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Non-Compliance

Describe any incidents of non-compliance not described above:

Describe any interim measures recommended and/or implemented to address non-compliance issues until such time as a permanent corrective action can be designed and implemented:

Inspector's Signature: _____ **Date:** _____

Designing Qualified Professional Certification

I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with section 22a-6 of the Connecticut General Statutes, pursuant to section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute.

Print name and title: _____

Signature: _____ **Date:** _____

Permittee Certification

I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with section 22a-6 of the Connecticut General Statutes, pursuant to section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute.

Print name and title: _____

Signature: _____ **Date:** _____

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

APPENDIX E

Contractor Certification Statement

Stormwater Pollution Control Plan

Norfolk Landfill Solar

Contractor Certification

<p>Each contractor and subcontractor working on this project must sign the following certification</p>			
<p>CERTIFICATION</p> <p>“I certify under penalty of the law that I have read and understand the terms and conditions of the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities. I understand that as a contractor or subcontractor at this site, I am authorized by this general permit, and must comply with the terms and conditions of this permit, including but not limited to the requirements of the Stormwater Pollution Control Plan prepared for this site.”</p>			
Contracting Firm	Printed Name and Title of Person Signing Certification		
Street	Signature		
City, State, Zip	Location of Work Area		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding: 2px;">Telephone () -</td> <td style="padding: 2px;">Date</td> </tr> </table>	Telephone () -	Date	
Telephone () -	Date		
Contracting Firm	Printed Name and Title of Person Signing Certification		
Street	Signature		
City, State, Zip	Location of Work Area		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding: 2px;">Telephone () -</td> <td style="padding: 2px;">Date</td> </tr> </table>	Telephone () -	Date	
Telephone () -	Date		
Contracting Firm	Printed Name and Title of Person Signing Certification		
Street	Signature		
City, State, Zip	Location of Work Area		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding: 2px;">Telephone () -</td> <td style="padding: 2px;">Date</td> </tr> </table>	Telephone () -	Date	
Telephone () -	Date		

STORMWATER POLLUTION CONTROL PLAN

Norfolk Landfill Solar
599 Greenwoods Rd E, Norfolk, Connecticut

APPENDIX F

**Construction Plan Set
(Bound Separately)**