

Three Corners Solar Project

MDEP Site Location of Development Act Permit Application

SECTION 10: BUFFERS

10.0 BUFFERS

10.1 INTRODUCTION

The Project area primarily consists of mixed forests predominantly managed for commercial timber production, with small portions of agricultural land adjacent to Palmer Road in Unity Twp. The majority of the Project area is bordered by undeveloped forested land. Buffering between the proposed Project arrays and the combined Project parcel property boundaries approximately 100 ft at the nearest point. While several abutting parcels include year-round residences, Project arrays will be located approximately 900 ft from the closest year-round residence to the southeast of Project arrays adjacent to the collection substation. The Project O&M building and Collector are located approximately 475 ft from the closest year-round residence to the southwest. The Genlead is located approximately 75 ft from the closest year-round residence to the south on Richards Road. The Project has been designed to maintain forested buffers between the Project and abutting parcel boundaries to the extent feasible given site conditions and constraints. For further discussion of the qualitative visual assessment, please refer to Section 6.0, Visual Quality and Scenic Character.

In addition to providing visual screening, vegetated buffer strips help maintain the water quality of surface waterbodies and provide habitat and travel corridors for wildlife between habitats. The following is a summary of vegetative buffers that will be maintained in and adjacent to the Project area:

- Buffers around access roads, the collection substation, and the O&M building will be preserved to provide stormwater treatment.
- A vegetated meadow buffer underneath and throughout the fenced solar array areas will provide stormwater management.
- The overhead Collector and Genlead ROWs will be routinely maintained for shrubs and herbaceous vegetation cover.

Several methods will be used to maintain vegetated buffers within the Project area to meet the buffer objectives in a manner that provides a clear, achievable set of guidelines for construction and maintenance personnel. The Applicant will maintain these buffers according to the Vegetation Maintenance Plan (VMP) provided in Exhibit 10-1. The vegetation clearing practices proposed include a variety of techniques designed to minimize the impacts on sensitive resources. Restrictions include areas of no cutting, limited or selective clearing, hand-cutting only, and mechanized clearing with the selective use of herbicides in allowed areas.

10.2 BASIS FOR PROJECT DESIGN

Many factors were considered to determine the number, size, location, and construction and maintenance restrictions associated with the vegetated buffers proposed for the Project. The Applicant has reviewed and considered recent buffer proposals, MDEP regulatory requirements, and the Project's consultations with resource and regulatory agencies and boards to draft buffer and vegetation maintenance standards specific for this Project that adhere to established regulatory guidelines and protect environmentally sensitive and

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scenic resources. The Applicant believes its proposed buffers combine the best features of successful, existing practices while providing procedures and restrictions that are realistic to implement in the field.

10.2.1 Access Road Buffers

Vegetated roadside stormwater treatment buffers adjacent to segments of the access road will provide stormwater treatment from the developed areas (see the civil site plans in Exhibit 1-1). The road and roadside swales shall be inspected for evidence of erosion and/or clogging. These conditions shall be corrected, if observed. An additional inspection and maintenance plan specific to stormwater management features, including vegetated buffers, is included in Section 12.0, Exhibit 12-2. Vegetated roadside stormwater treatment buffers have deed restrictions for stormwater runoff treatment. The draft deed restriction language is included in Exhibit 12-3.

10.2.2 Solar Array Area – Meadow Buffer

Stormwater buffers for the solar array area will consist of a meadow buffer underneath and throughout the fenced panel areas to provide stormwater treatment. The meadow buffer shall be inspected for evidence of erosion resulting from panel drip. These conditions shall be corrected through soil reinforcements, if observed. Ground cover within the array area shall be mowed no more than twice per year. An additional inspection and maintenance plan specific to stormwater management features, including meadow buffers, is included in Section 12.0 (Exhibit 12-2).

10.2.3 Solar Array Area – Vegetation Management and Maintenance Procedures

During initial clearing activities prior to solar array construction, forested vegetation will be cleared within and around the proposed arrays to allow for construction and to prevent trees from shading solar panels. Clearing within the areas beyond the proposed solar arrays will generally involve cutting 1 to 2 ft from the ground surface, and low growing herbaceous plants less than 1-ft-tall will remain uncut. There are no streams within the Project solar array areas. Vegetation clearing will be needed within wetlands to prevent trees from shading the panels (see Section 7.0 for more information). The following practices will be implemented for vegetation clearing and management within delineated wetland boundaries:

- Removal of vegetation will be by hand-cutting or with low ground pressure tree harvesting equipment.
- Clearing will be done under dry or winter conditions to prevent wetland soil disturbance.
- No refueling or maintenance of equipment, including chain saws, will be performed within 100 ft of delineated wetlands or streams.

Temporary erosion and sediment control measures (e.g., silt fencing) and/or erosion control berms will be implemented along the edges of areas proposed for clearing. Ground disturbance caused by using harvesting equipment outside of the proposed grading limits will be repaired by returning the ground to its original contour, as needed, and seeding and mulching bare ground.

Maintenance inspections will occur twice each year and growth of trees or other vegetation that is shading the arrays will be trimmed as needed. Only trimming is anticipated within the vegetation management areas following initial clearing.

10.3 TYPICAL RIGHT-OF-WAY CLEARING AND MAINTENANCE PROCEDURES

Construction of the Collector and Genlead requires cutting vegetation to meet safety standards required by ISO-NE to prevent vegetation from contacting the wires. Buffers are designed to allow the necessary cutting but also maximize protection of natural resources encountered within the ROW.

The Applicant's typical ROW construction and maintenance procedures require retaining and promoting low ground cover to the extent possible during construction, along with the restoration and stabilization of areas affected by construction and maintenance activity. The goal is to create a utility corridor that has diverse, healthy, low-growing vegetation that minimizes the need for maintenance yet provides cover for small wildlife and browse for larger mammals. This vegetative cover also reduces soil erosion and minimizes potential for sediment transport to water resources.

Ground disturbance will be limited primarily to structure locations and equipment access ways. Necessary erosion and sediment control measures will be installed and maintained for the duration of construction to prevent adverse impacts to surface waters and other resources. The Collector and Genlead ROWs will remain vegetated with low shrub and understory species subsequent to construction. Section 14 of this application, Basic Standards, expands on the erosion and sediment control standards described in this section.

10.3.1 Typical Right-Of-Way Clearing Procedures

Prior to any construction or clearing activity, all resources (wetlands, streams, SVPs, IWWH, DWA, rare plant locations) and associated buffers will be flagged in the field to aid clearing crews with identification. A table that defines the flagging and marking methods will be provided to the clearing contractors. During active clearing, methods to reduce ground disturbance, erosion, and sedimentation will be used as applicable. Specific measures within each resource buffer are detailed in Exhibit 10-1. To the extent possible, clearing operations will be performed during frozen ground conditions.

Typically, clearing contractors begin clearing with whole-tree harvesting machines that cut larger vegetation (trees, saplings, and large shrubs) at ground level. The remaining smaller vegetation (small trees and shrubs) is removed by hand-clearing crews and/or mowing and flailing machines. Significant branches that overhang the ROW and any dead or damaged trees outside the ROW that could contact the wires or cause an arc after construction (i.e., hazard trees) are also removed. Vegetation cut during the initial clearing will be chipped on site or removed, in accordance with the Maine Slash Law.

10.3.2 Typical Right-Of-Way Vegetation Maintenance Procedures

The objective of the Applicant's ROW vegetation maintenance will be to control the growth of woody vegetation capable of contacting the electrical lines to ensure the integrity and safe operation of the lines. This will be accomplished by employing an integrated vegetation management strategy, which uses a combination of hand-cutting and selective herbicide applications. Mechanical mowing may be used in unusual circumstances to regain control of vegetation, should the typical procedures not be sufficient. Vegetation maintenance within the ROWs will typically be conducted on a 4-year or 5-year cycle, depending on growth, vegetation type, weather, and geographic location. Capable species (i.e., tree species that are capable of growing to a height to potentially contact electrical lines) will be removed. Herbaceous vegetation

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and low-growing shrubs will be allowed to persist. Herbicide use is permitted along the ROW, subject to the regulations put forth by state and federal agencies and the buffer standards. The buffer standards include restrictive maintenance and herbicide use requirements within and/or adjacent to protected resource areas (e.g., wetlands, SVPs), as detailed in the VMP (Exhibit 10-1)

10.4 VEGETATION MAINTENANCE PLAN

The Applicant has prepared a VMP containing vegetation maintenance procedures related to Project operations. The VMP, provided in Exhibit 10-1, contains descriptions of the procedures and maintenance activities that apply to vegetation management throughout the Project area, as well as equipment monitoring and maintenance. The VMP also includes specific restrictive maintenance requirements to provide buffering of protected resources within the Project area, including:

- Wetlands (Collector, Genlead, solar array areas);
- Streams (Genlead);
- Inland Waterfowl and Wading Bird (Genlead);
- Significant Vernal Pools (Genlead and solar array areas) and Potential Significant Vernal Pools (Genlead);
- Deer Wintering Areas (Genlead and solar area areas); and
- Potential Historic Sites (solar array areas).

The Applicant will implement the VMP following the start of Project operations and will continue to follow it during all subsequent vegetation maintenance action. An additional inspection and maintenance plan specific to stormwater management features, including stormwater treatment buffers, is included in Section 12.0 (Exhibit 12-2). Draft deed restriction language for vegetated roadside stormwater treatment buffers is contained in Exhibit 12-3.

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Exhibit 10-1

Vegetation Maintenance Plan

Vegetation Maintenance Plan

Three Corners Solar Project
34.5-Kilovolt Overhead Collector, 115-Kilovolt Generator Lead, and
Solar Array Area
Kennebec County, Maine

Prepared for:

Three Corners Solar LLC

Prepared by:

Stantec Consulting Services Inc.

30 Park Drive
Topsham, ME 04086

January 10, 2022

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FIGURE 1. TYPICAL ROW VEGETATION CLEARANCE/MAINTENANCE

1.0 INTRODUCTION

Three Corners Solar LLC (the Applicant) has prepared this Vegetation Maintenance Plan (VMP) as a stand-alone document containing restrictive maintenance requirements for natural resources along the approximately 1.3 miles of overhead 34.5-kilovolt (kV) collector line (Collector) and 5.2 miles of overhead 115-kV generator lead line (Genlead) for the Three Corners Solar Project (Project). The majority of the Collector for the Project runs underground along Project roads. There is one 1.3-mile-long overhead segment of the Collector between the eastern and central solar array areas. The Genlead begins at the Project collection substation north of Route 139 and ends at the existing Central Maine Power Albion Road substation. The requirements set forth in this VMP, as proposed by the Applicant and incorporated into state permits for the Project, apply to routine maintenance along the rights-of-way (ROWs) and solar array area and are not intended to apply to emergency maintenance and repair actions. Throughout this document, references to the Collector ROWs refer only to the above-ground segments of the Collector.

Throughout construction, numerous construction techniques and mitigation measures and restrictions will be implemented to minimize potential adverse effects on natural resources. The goal of the VMP is to supply the Applicant's maintenance personnel and contractors with a single, cohesive set of vegetation maintenance specifications for the collector line ROWs.

The resources subject to restrictive maintenance requirements include:

- Wetlands (Collector, Genlead, solar array area);
- Streams (Genlead);
- Inland Waterfowl and Wading Bird (Genlead);
- Significant Vernal Pools (Genlead and solar array area);
- Deer Wintering Areas (Genlead and solar array area); and
- Potential Historic Sites (solar array area).

In locations where individual restrictions or procedures overlap or multiple restrictions apply, the more stringent restrictions and all applicable procedures will be followed by the Applicant's maintenance personnel and contractors.

2.0 TYPICAL ROW VEGETATION MAINTENANCE PROCEDURES

Routine vegetation maintenance of the Collector and Genlead is required to 1) maintain the integrity and functionality of the lines, 2) maintain access in case of emergency repairs, and 3) facilitate safety inspections. The objective of the Applicant's ROW management will be to control large, woody vegetative growth to ensure the integrity and safe operation of the Collector and Genlead lines. This will be accomplished by practicing Integrated Vegetation Management, which uses a combination of hand-cutting and selective herbicide applications. Mechanical mowing may be used in unusual circumstances to regain control of vegetation should the typical procedures be insufficient.

To minimize negative environmental impacts, vegetation will remain in place to the extent practicable. The removal of large trees will be done during initial ROW preparation prior to construction of the new Collector and Genlead lines. Follow-up maintenance activities during operation of the line require only the selective removal of "capable species" and dead or "danger trees." Capable species are defined as those plant species that are capable of growing tall enough to enter the required clearance space between conductors and vegetation. Sound industry practice requires that a minimum separation be maintained between vegetation and the conductors. Due to the sag of electric transmission lines between the poles, which varies with the distance between poles, tension on the wire, electrical load, air temperature, and other variable conditions, the appropriate clearance is typically achieved by removing all capable species

and topping other vegetation exceeding 8 to 10 feet tall.

Once the vegetation in an area is brought under control (usually 3 to 4 years following construction), these practices will generally be carried out on 4-year or 5-year maintenance cycles depending on growth, weather, geographic location, and corridor width. Significant branches that overhang the ROWs and dead or damaged trees outside of the ROWs that could contact the power lines or come within 15 feet (Collector) or 20 feet (Genlead) of a conductor (“danger trees”) may be removed as soon as they are identified. Figure 1 illustrates the results of typical vegetation clearing and maintenance to provide safe operation of the Collector and Genlead lines.

The following procedures will be implemented during all vegetation maintenance activities to ensure protection of sensitive natural resources.

- All resources and their buffers will be flagged or located with a Global Positioning System prior to maintenance operations.
- All areas of significant soil disturbance will be stabilized and reseeded immediately following completion of maintenance activities in the area.
- Equipment access through wetlands or over waterbodies will be avoided to the extent practicable by utilizing existing public or private access roads, with landowner approval where required.
- Construction mats or equivalent for equipment support will be used if saturated soils are present.
- Rutting or significant damage to wetland or waterbody bank vegetation, if any, will be repaired immediately following completion of maintenance activities in the area.

2.1 MECHANICAL TECHNIQUES

During routine vegetation maintenance after construction, the mechanical means of maintaining the height of vegetation on the ROWs consists primarily of hand-cutting, with limited use of motorized equipment in areas that are directly accessible from public or private access roads.

The procedure will be to cut all capable species and any dead or danger trees at ground level except in waterbody buffer zones. All large vegetation cut during routine maintenance will be removed, chipped, or flailed on-site or otherwise handled in accordance with the Maine Slash Law.

2.2 USE OF HERBICIDES

The Applicant’s herbicide application program is consistent with most New England utilities and will be used in conjunction with the mechanical methods of vegetation maintenance. Herbicide application will consist of directional spraying on targeted species along the ROWs with a low-volume foliar application. In addition, herbicides may be applied to cut stumps and surfaces of larger trees. The direct application to individual plant species, as opposed to a broadcast application, will control only the targeted woody vegetation while leaving low-growing plant communities consisting of grasses, forbs, and shrubs to thrive. Selective herbicides will also be used, where practical, to minimize the impacts to non-target species. Aerial applications will not be performed. Only herbicides that are registered with and approved by the U.S. Environmental Protection Agency (EPA-approved) and the Maine Board of Pesticides Control (BPC) will be used.

Typically, the ROWs will receive herbicide treatment the year following construction and then again 2 to 3 years later to gain control of vegetation growth. When control is achieved, treatment occurs on the standard 4-year to 5-year cycles or as needed. By utilizing selective herbicides and application methods, the ROW will eventually become a dense, low-growing plant community and will help prevent woody vegetation from being established. Therefore, fewer woody species will require treatment in future applications.

The following procedures will be implemented during vegetation maintenance activities utilizing herbicides.

- Herbicides will be used in strict accordance with the manufacturer's EPA-approved labeling and will not be applied directly to water or areas where surface water is present.
- Herbicides will not be applied, mixed, transferred, or stored within the designated buffers (identified in Section 1.0 above) or applied by broadcast application within 25 feet of wetlands with visible surface water or wetlands dominated by emergent or aquatic plants.
- Herbicides will only be applied, mixed, transferred, or stored near vernal pool basins or streams in accordance with Maine BPC regulations.
- Herbicides will not be applied, mixed, transferred, or stored within 100 feet of any known well or spring or within 100 feet of a home or other human dwelling. Prior to performing herbicide applications, the Project area ROWs will be reviewed to make sure no new well, springs, homes, or other dwellings are present along the ROWs.
- Herbicides will not be applied, mixed, transferred, or stored within 250 feet of a residence listed on the BPC's Pesticide Notification Registry. Consistent with BPC guidelines, prior to any herbicide applications along the ROWs, the herbicide application contractor will check the latest Pesticide Notification Registry for residences or landowners that may be listed. Note that no landowners within or adjacent to the Project area are listed on the 2013 Pesticide Notification Registry.
- Herbicides with a low potential for mobility and low persistence in the environment will be utilized in sensitive areas such as wetlands.
- Herbicides will not be applied to any area when it is raining or when wind speed exceeds 15 miles per hour as measured on-site at the time of application.
- The foreman of every crew using herbicides will be licensed by the Maine BPC and will remain in eye contact and within earshot of all persons on his/her crew applying herbicides. At least one individual from any company applying herbicides for the Applicant must also hold a Commercial Master License issued by the BPC and must be in Maine during any application. Application of pesticides will be in accordance with applicable regulations promulgated under the Maine Pesticides Control Act, including those regulations to minimize drift, to maintain setbacks from sensitive areas during application, and to maintain setbacks from surface waters during the storing/mixing/loading of herbicides.
- The chemicals are typically mixed in a truck-mounted tank that stays on the access roads. The application is done by personnel with backpacks who travel along the ROW by foot or by all-terrain vehicle and spot-treat target species.
- Each target tree is sprayed just enough to wet the foliage while avoiding dripping or run-off.

As mentioned previously, application of herbicides is prohibited within designated buffers (identified in Section 1.0 above) and within 25 feet of wetlands that have water present at the surface. The location of all streams and wetlands crossed by the Collector and Genlead will be shown on final construction drawings. The presence of water on the surface will be determined prior to herbicide use in any wetland. Tables identifying the locations of other resources where herbicide application is prohibited are provided in the following sections. Crew leaders will confirm that all resources and buffers are located and properly delineated on the ground for clear identification by the applicators.

3.0 VEGETATION MAINTENANCE WITHIN STANDARD WATERBODY BUFFERS

A minimum 25-foot buffer, as measured from the top of bank on each side, will be established for all waterbodies crossed by the Genlead. None of the streams are located with mapped Atlantic salmon

(*Salmo salar*) critical habitat. No waterbodies are crossed by the Collector. Special procedures and restricted activities will apply within these waterbody buffers during construction and follow-up vegetation maintenance. Vegetation maintenance within waterbody buffers is typically conducted on a 3-year or 4-year cycle, depending on growth and vegetation. This section describes the restrictions related to vegetation cutting and maintenance that will apply within all standard waterbody buffers. The location of all waterbodies crossed by the Genlead also will be shown on the As-Built Plans.

It is important to note that the vegetation maintenance procedures and restrictions that apply to typical ROW maintenance (Section 2.0) also apply within the standard waterbody buffers. The applicable procedures and restrictions include the BPC restrictions, restoring and stabilizing disturbed soils, disposition of slash in accordance with the Maine Slash Law, ROW access, the restrictions on waterbody crossings by equipment within the ROW, and the use of construction mats, low ground pressure equipment, and/or other procedures related to work in wetlands.

3.1 ADDITIONAL VEGETATION MAINTENANCE RESTRICTIONS WITHIN STANDARD WATERBODY BUFFERS

The following additional restrictions apply to vegetation maintenance within standard waterbody buffers (25 feet for streams, 75 feet for Significant Vernal Pools).

- Prior to line construction and during vegetation maintenance after construction, only capable species vegetation greater than 8 to 10 feet will be removed. No other vegetation, other than dead or danger trees, will be removed.
- Under most terrain conditions, removal of capable species and dead or danger trees will be accomplished by hand-cutting or by traveling into the buffer zone with low ground pressure tree harvesting equipment, and mats as necessary.
- No herbicides will be used, stored, mixed, or transferred between containers within the buffer areas.
- No refueling or maintenance of equipment, including chain saws, will occur within the buffer areas.
- No accumulation of slash will be left within 50 feet of the edge of any waterbody.

The additional restrictions on vegetation maintenance within waterbody buffers will allow taller vegetation to provide additional shading of streams and reduce the warming effect of direct sunlight (insulation). Low ground cover will also remain to filter sediment in surface runoff. In addition, vegetated buffers adjacent to vernal pool maintains critical habitat that amphibian species utilize outside of the breeding season. As a result, the buffers will continue to function in a similar manner as they did before construction. The restrictions are also intended to minimize ground disturbance and ensure that herbicides and petroleum products are not able to reach the waterbody via surface runoff or groundwater transport.

4.0 VEGETATION MAINTENANCE WITHIN DESIGNATED INLAND WATERFOWL AND WADING BIRD HABITAT

The proposed Genlead crosses a mapped Inland Waterfowl and Wading Bird Habitat (IWWH; #204095) in one location. This crossing is located south of Route 139 in Benton and this IWWH area will be shown on the As-Built Plans.

The following restrictions will apply to vegetation maintenance within the mapped IWWH:

- Only those trees capable of growing to a height within 20 feet of a conductor within the next 3 to 4 years will be topped or removed. No other vegetation other than dead or danger trees will be removed.

- Tree topping is the preferred method of vegetation maintenance, unless topping will leave insufficient vegetation to sustain the tree.
- Existing dead or dying trees of capable species shall be topped at a height to provide nesting habitat (snags) for waterfowl, provided the snags do not present a safety hazard for operation of the line.
- No herbicides will be allowed within the mapped IWWH.

In addition to other applicable maintenance requirements, vegetation maintenance activity using motorized equipment (i.e., all-terrain vehicles) within moderate and high value IWWH will be prohibited between April 1 and August 15 each year to minimize the potential disruption of avian breeding and nesting activity, unless in an emergency with approval from Maine Department of Environmental Protection (MDEP) and Maine Department of Inland Fisheries and Wildlife. Hand-cutting without the use of mechanized equipment (e.g., mechanized brush saws or chain saws) is allowed.

5.0 VEGETATION MAINTENANCE AT SIGNIFICANT VERNAL POOL LOCATIONS

Vernal pool surveys and potential vernal pool surveys for the Genlead were conducted during spring 2019 and 2020 and summer 2020, respectively. Vernal pool locations will be shown on the As-Built Plans. One Significant Vernal Pool and five Potential Significant Vernal Pools were identified within 250 feet of the proposed Genlead ROW. Formal vernal pool surveys will be conducted in spring 2022 to assess whether or not the Potential Significant Vernal Pools meet the MDEP criteria for significance. Complete survey results can be seen in Section 7.0 of the MDEP Site Location of Development Act (Site Law) permit application.

Vegetation maintenance within 75 feet of all Significant Vernal Pools will consist of cutting all capable species and topping other vegetation that may interfere with the 20-foot clearance between conductors and vegetation within the next 3 to 4 years. Removal will be by hand-cutting only, with limited use of motorized equipment in areas that are directly accessible from public or private access roads or from the middle access way established during initial clearing. The use of mechanized equipment will not be allowed within the vernal pool depression. No herbicide use will be allowed within 75 feet of the pool basins.

Between April 1 and June 30, no vegetation maintenance using tracked or wheeled equipment will be performed within the 250-foot critical habitat of Significant Vernal Pools. Maintenance will be performed using hand tools only. No vegetation maintenance will occur within 75 feet of any vernal pool depression during this time period.

Additionally, the Genlead will span one Significant Vernal Pool, SAD-VP-3. To minimize impacts to the pool basin and surrounding 250-foot critical habitat buffer, significantly increased pole heights will be used and the Significant Vernal Pool and associated habitats will remain. The estimated maximum tree height to be maintained within the 75-foot buffer of SAD-VP-3 is approximately 45 feet, as depicted on the Genlead plans (Section 1.0, Exhibit 1-2 of the Site Law permit application). Trees within the 75-foot buffer of SAD-VP-3 will be maintained as necessary by hand-cutting only to top vegetation that may interfere with the 20-foot clearance between conductors and vegetation.

6.0 VEGETATION MAINTENANCE WITHIN MAPPED DEER WINTERING AREAS

The Genlead ROW intersects one moderate or high value Deer Wintering Area (DWA), DWA #023322 in Benton, at two locations. In these areas, the proposed Genlead ROW has the potential to remove contiguous softwood shelter and/or fragment existing or potential travel corridors through the DWA. The Applicant has identified further vegetative maintenance restrictions that will minimize impacts to the mapped DWA to the maximum extent allowed by ISO-NE standards. DWA locations will be shown on the As-Built Plans.

The following restrictions apply to vegetation maintenance within mapped DWAs:

- Only those trees capable of growing to a height within 20 feet of a conductor within the next 3 to 4 years will be topped or removed. No other vegetation other than dead or danger trees will be removed.
- Tree topping is the preferred method of vegetation maintenance, unless the tree is dead or dying or unless topping will leave insufficient vegetation to sustain the tree.
- Within 50 feet on either side of each pole location in the DWA, focus will be given to retain coniferous species that will provide travel corridors across the cleared ROW. Deciduous, capable species will be selectively harvested, and coniferous species will be allowed to grow to the maximum allowable height as provided in the ISO-NE standards.
- No herbicides will be allowed within the mapped DWA.

7.0 MAINTENANCE PROCEDURES FOR SOLAR ARRAYS AND ASSOCIATED SHADE MANAGEMENT AREAS

During initial clearing activities prior to solar array construction, forested vegetation will be cleared within and around the proposed arrays to allow for construction and to prevent trees from shading solar panels. Clearing within the areas beyond the proposed solar arrays will generally involve cutting 1 to 2 feet from the ground surface, and low growing herbaceous plants less than 1-foot-tall will remain uncut. There are no streams within the Project solar array area. Vegetation clearing will be needed within wetlands to prevent trees from shading the panels (see Section 7.0 of the Site Law permit application for more information). The following practices will be implemented for vegetation clearing and management within delineated wetland boundaries:

- Removal of vegetation will be by hand-cutting or with low ground pressure tree harvesting equipment.
- Clearing will be done under dry or winter conditions to prevent wetland soil disturbance.
- No refueling or maintenance of equipment, including chain saws, will be performed within 100 feet of delineated wetlands, streams, or Significant Vernal Pools.

Temporary erosion and sedimentation control measures (e.g., silt fencing) and/or erosion control berms will be implemented along the edges of areas proposed for clearing. Ground disturbance caused by using harvesting equipment outside of the proposed grading limits will be repaired by returning the ground to its original contour, as needed, and seeding and mulching bare ground. The following describes vegetation management procedures for areas within the fenced solar array area and shade management areas.

7.1 SOLAR ARRAY AREA – MEADOW BUFFER

Stormwater buffers for the solar array area will consist of a meadow buffer underneath and throughout the fenced panel areas to provide for stormwater treatment. The meadow buffer shall be inspected for evidence of erosion resulting from panel drip. These conditions shall be corrected through soil reinforcements, if observed. Ground cover within the array area shall be mowed no more than twice per year.

7.2 SOLAR ARRAY AREA – SHADE MANAGEMENT AREAS

Shade management areas include Project areas outside the solar array fence line and cleared wetlands located within the solar array fence line that will not be impacted by solar array grading/installation. Maintenance inspections will occur twice each year and growth of trees or other vegetation that is

shading the arrays will be trimmed as needed. Only trimming to maintain a vegetation height of approximately 6-8 feet is anticipated within the shade management areas following initial clearing. Due to the ongoing activity and maintenance associated with the solar array area, timing restrictions and selective cutting procedures are not proposed within shade management areas that intersect Significant Vernal Pool buffers or moderate or high value DWA. To minimize solar panel shading, selective cutting procedures (i.e., selective cutting of deciduous species) are not proposed within shade management areas that intersect Significant Vernal Pool buffers or moderate or high value DWA. No herbicides will be allowed within Significant Vernal Pool buffers or mapped DWA.

7.3 SOLAR ARRAY AREA – HISTORIC SITES

Three post contact historic archaeological sites were identified within the solar array area in Clinton. The following restrictions will apply to vegetation clearing within 82 feet of these sites. These sites (Sites F-1, F-2, and SW-9) may be eligible for listing on the National Register of Historic Places and could also contribute archaeological data significant to the potential Dickey Road Archaeological Historic District. Historic site locations will be shown on the As-Built Plans.

- Removal of vegetation will be by hand-cutting or reach-in techniques;
- An archaeological monitor with stop work authority will be present when construction occurs within 82 feet (25 meters) of these sites; and
- Permanent fencing will be maintained around these resources while the Project is in operation.

8.0 SYSTEM FOR LOCATING/MARKING RESTRICTED AREAS

The Applicant will maintain a database of the sensitive areas and buffers listed above and located along the proposed ROWs and solar array areas. The database will include the locations and types of sensitive areas along the lines and their locations relative to the nearest numbered structure, road or array block. All structures along the Collector and Genlead ROWs will be numbered at the time of construction. The structure numbers and array blocks will be included on the As-Built Plan and Profile drawings.

To aid in identifying restricted areas, buffers and restricted habitats may be located and demarcated in the field using brightly colored flagging or signage prior to the initiation of maintenance activities along the ROWs. Alternatively, use of spatial data and global positioning equipment may be suitable to provide accurate location of resources and associated buffers during maintenance activities. If desired, maintenance personnel may permanently demarcate restricted habitats to aid in long-term maintenance activities. In some instances, signage may be attached to structures to facilitate identification of the sensitive resources. Maintenance contractors working on the ROWs will be given this VMP prior to receiving the required environmental training. Use of the VMP in conjunction with the As-Built Plan and Profile drawings will enable maintenance contractors to locate and mark restricted areas in the field.

9.0 TRAINING OF MAINTENANCE PERSONNEL

This section summarizes the environmental training that will be required for personnel with maintenance responsibilities on the Collector and Genlead ROWs and within the solar array areas.

9.1 PERSONNEL AND SCHEDULE

The Applicant's personnel and contractors who will be participating in vegetation maintenance activities on the ROWs will receive appropriate environmental training before being allowed access to the ROWs.

The level of training will be commensurate with the type of duties of the personnel. The training will be given prior to the start of maintenance activities. Replacement or new employees that did not receive the initial training will receive similar training prior to performing any maintenance activities on the ROWs.

9.2 CONTENT OF TRAINING SESSIONS

Prior to receiving maintenance training, each participant will be required to review this VMP. The training session will consist of a review of all protected resources and restricted areas, the respective maintenance requirements and restrictions for each, and a review of how restricted areas and resources can be located in the field (relative to the nearest numbered structure). Training will include familiarization with the contents of this VMP, as well as basic causes and preventive and remedial measures for contamination, erosion, and sedimentation of water resources. Training will also include a review of safety, clean-up, monitoring, and reporting requirements.

FIGURES

