

Section 10. BUFFERS

10.1. INTRODUCTION

This section describes the desired objectives, characteristics, and methods to develop and maintain vegetated buffers for the proposed Project. Vegetative buffers are important for maintaining the water quality of local surface waters by minimizing the potential for soil erosion and sedimentation to wetland and waterbodies through providing a setback from Project construction and filtering runoff and providing shading to reduce the potential for water temperature increases. Vegetated buffers reduce access for all-terrain vehicles to protected natural resources, and vegetated buffers also provide habitat and travel corridors for wildlife. Visual screening and forested buffers are addressed in Exhibit 30-1. Vegetative buffers will be actively maintained throughout the Project area throughout both the construction and post construction operations of the Project.

10.2. BASIS FOR PROJECT DESIGN

The number, size, location, and construction and maintenance restrictions associated with the various types of proposed buffers considered multiple factors. The Applicant has referenced recent buffer proposals, MDEP regulatory authority, and its consultations with resource and regulatory agencies and boards to draft buffer and vegetation management standards that adhere to regulatory guidelines and protect environmentally sensitive resources.

10.3. ACCESS ROAD, CRANE PATH, AND TURBINE PAD STORMWATER BUFFERS

Stormwater buffers for the access roads, crane paths, and turbine pads provide limited cut areas that will provide a visual break as well as stormwater and phosphorus treatment from the developed areas. In addition, the majority of the turbine pad area with the exception of the access road, gravel ring around the turbine, and crane pad at each turbine, will be allowed to revegetate, providing additional buffering capacity (Section 12). Stormwater buffers are depicted in Exhibit 1-1.

10.4. COLLECTION CORRIDOR VEGETATION MANAGEMENT

Collection lines, to the extent possible, follow new and existing roadways throughout the Project. In the few places where collection corridors deviate from roads (see Exhibit 1-1) the corridors (ranging between 50 and 95 feet in width) will remain vegetated and will be maintained and generally kept free of large woody growth so as to allow access to underground lines for maintenance and repair. In places where the corridors intersect wetlands, vernal pools, streams, populations of rare plants or other protected natural resources, cables will be installed by directional drilling beneath resource areas to avoid any impact to such resources. The directional drill workspace will be set back from the protected resource (75 feet for wetlands, 100 feet for streams, 25 feet for significant vernal pool CTH). In most cases, construction access will approach the protected natural resource crossing from either side and no clearing will be done within these setbacks during construction. There will be exceptions to no clearing within natural resources on some segments of collector corridor that contain multiple protected natural resources which cannot be accessed from either side. In these cases, the clearing is required during construction to provide access for equipment to install directional bores under protected natural resources along the corridor. Temporary crossings during construction will utilize construction mats to cross

these resources. The locations of temporary equipment crossings will be reviewed in accordance with the basic standards submission erosion and sediment control plan before equipment bridges are installed. The type and location of associated erosion and sedimentation controls will be established at that time. All equipment crossings will span the waterbody and minimize disturbance to the banks as much as possible. During construction, no refueling or maintenance of any equipment will be performed within 100 feet of streams, wetlands, or other sensitive resources and habitats. Following completion of construction, these crossings will be removed as part of restoration work and any disturbed ground will be restored to original contours and stabilized. The clearing in these areas will not be maintained after construction.

10.5. STREAM BUFFERS

A 100-foot stream buffer will be implemented along all streams in the Project area to protect Atlantic salmon habitat and other coldwater fisheries. In the 100-foot buffer area adjacent to streams, vegetative growth will be left in place and intact to the extent practicable. Where roads cross streams, clearing and grading within 100 feet of the stream crossing will be minimized. Where the collector line corridor is not co-located with a road, collector line crossings will be installed by the use of a horizontal bore, and workspace for the bore will be set back a minimum of 100 feet from the stream. Where access to collector line bore locations can be achieved from each side of the stream crossing, there will be no vegetation clearing within 100 feet of the stream. The locations of streams crossed by collections corridors, roads, and crane paths are indicated in mapping provided in Exhibit 7-1 and will be shown on final construction drawings. During construction, no refueling or maintenance of any equipment will be performed within 100 feet of streams. Herbicide use will also be prohibited within 100 feet of all streams.

10.6. VEGETATION MANAGEMENT PLAN

The Applicant has prepared a Vegetation Management Plan (VMP) to address the post-construction vegetation management requirements related to the Project (Exhibit 10-1). The VMP contains the procedures and management restrictions that apply to these buffers, as well as other protected areas, and the system that will be used to ensure that the specified buffers and other resources are properly identified in the field and protected accordingly. The Applicant will implement the VMP prior to initial vegetation management activity and will continue through all subsequent vegetation management action.



EXHIBIT 10-1: VEGETATION MANAGEMENT PLAN

Downeast Wind Project Vegetation Management Plan

March 2021

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Introduction

The primary goal of this Vegetation Management Plan (VMP) is to outline the typical procedures for vegetation management operations, primarily on and around the following components of the Downeast Wind Project (Project):

- Collection Substation
- Turbines and Crane Pads
- Access Roads and Crane Paths
- Underground Collections Corridors

In addition, the outlined methods for clearing should be generally followed, as needed, for other areas of the Project that may require vegetation maintenance during construction and operation. The Plan also addresses restoration and maintenance procedures for specific land use and vegetation types throughout the Project area, such as known locations and potentially suitable habitat areas for rare and threatened plant species, and those areas of construction activities within commercially maintained wild blueberry crop.

Vegetation Management and Procedures

Construction

Initial vegetation management prior to and during construction may consist primarily of hand and mechanized clearing of trees and other vegetation. Tree and shrub clearing may utilize manual/mechanical methods such as chainsaws, pruners, or heavy machinery. Portions of trees and other vegetation that extend into the areas designated for clearing are typically trimmed. In addition, tree clearing should be completed during the winter months, to the greatest extent practicable, to avoid the active season for bats. Dependent upon the construction activity, stumps may be removed using a weed wrench or an excavator depending on the size of the stump. Large woody vegetation that is completely within the Project area may be trimmed down, such that it is classified as low-lying growth, or may be removed completely during grubbing (up-rooting, stumping, removal, etc.).

Operation

Vegetation management will be required as an ongoing maintenance activity during operation of the Project to maintain the integrity of the Project components, provide for site access of operational staff and third-party vendors, and to facilitate safe working conditions for daily operational work tasks and inspections. Therefore, vegetation maintenance will be required for the operational life of the Project. Vegetation management measures may consist of manual trimming methods, herbicide treatments used to inhibit woody vegetation growth and maintain open Project components, physical mowing / cutting or other site-specific measures. It is anticipated that ongoing inspections may occur to inform the management of a specific targeted treatment area.

It is also envisioned that the preexisting vegetation conditions will influence site-specific treatments once the Project becomes operational and new growth occurs.

Mechanical Techniques

Routine management of woody plants within the Project may be accomplished through mechanical methods consisting primarily of hand-cutting and/or use of motorized equipment. The procedure entails removal of woody vegetation in order to maintain a low-growing plant community that allows for the intended operational use (i.e., access roads may require periodic removal of tree and shrub growth). Woody vegetation cut during routine maintenance may be removed and/or chipped or flailed on-site.

Any use of motorized equipment needed to clear woody plants within wetlands or over waterbodies will be consistent with any issued applicable permit conditions.

Use of Herbicides

Direct applications of herbicides may be used in consultation with the landowner to control targeted plant and/or woody vegetation in collections corridors. Herbicide treatments should be applied by a certified / licensed commercial pesticide applicator.

Herbicide treatment, where applicable, should be applied through targeted / selective application. Any necessary future maintenance applications should be determined through an iterative review / inspection process to limit the potential reapplication on a year over year basis.

The following general best management practices should be followed:

- Herbicides will only be used with strict observance of manufacturer's EPA-approved labeling.
- Herbicides will not be applied directly to water or used in areas where surface water is present.
- Herbicides will not be mixed, transferred, or stored within one hundred (100) feet from the highwater mark of any surface waters.
- Herbicides will not be applied within designated buffer areas or applied within 25 feet of wetlands with visible surface waters or populations of aquatic plants.
- Herbicides will not be applied, mixed, transferred or stored within 100 feet of vernal pools, including Significant Vernal Pools, in accordance with MDIFW guidance.
- Herbicides will not be applied, mixed, transferred or stored within 100 feet of known wells, springs, homes, or dwellings.
- Herbicides will not be applied, mixed, transferred, or stored within 250 feet of any residence listed on the BPC's Pesticide Notification Registry. That registry will be rechecked prior to any and all pesticide applications. There are currently no residences, listed or otherwise, within 250 feet of corridors where herbicides might be deployed.
- Herbicides will not be applied over mapped significant sand and gravel aquifers. See Section 15, Figure 15-1.

- Only herbicides with minimal potential for mobility and low persistence in the environment will be used in ecologically sensitive areas like wetlands or areas of known or potential rare plant populations (See Exhibit 9-1).
- Herbicides will not be applied during rain events or high wind conditions in excess of 15 miles per hour.
- The foreman of any crew handling or applying herbicides will be licensed by the Maine BPC and will remain in strict supervision of crews handling or applying herbicides. At least one individual from any company applying herbicides must also hold a Commercial Master License issued by the BPC and be working in consultation with crews mixing, transferring, storing, or applying herbicides in the Project area.
- Applications of herbicides will be in accordance with any and all regulations under the Maine Pesticides Control Act, including those provisions intended to minimize drift and maintain setbacks from surface waters and sensitive areas during all phases of herbicide application and handling.
- Chemical herbicides are typically mixed in truck-mounted tanks. Such vehicles will remain on access roads while application is performed by crews traveling on foot to application areas.

Vegetation Maintenance in Commercial Wild Blueberry Areas

The Project is located in proximity to an operating wild blueberry farm. Access roads and collections corridors largely correspond to an existing network of roadways that will be upgraded to support Project construction and operations. Management of vegetation in areas where roads and corridors correspond with active blueberry farming will be done in consultation with the landowner and in such a manner that it avoids and minimizes impact to active blueberry fields and farming operations.

Vegetation Maintenance within Stream Buffers

The locations of streams and wetlands crossed by collections corridors, roads, and crane paths are indicated in mapping provided in Exhibit 7-1 and will be shown on final construction drawings. Areas where herbicide use is prohibited will be identified and clearly marked such that any active treatment area will include the mapped resources and be properly delineated prior to any herbicide application to ensure any applicable buffers specific to sensitive ecological areas or other habitats are protected. In addition, any specific conditions or applicable laws, ordinances, or acts will be enacted to ensure compliance. Lastly, in areas within and adjacent to these water resources, vegetative growth may be left in place to the extent practicable with only limited maintenance to woody growth so as to maintain access to cable areas for maintenance and repair purposes.

Vegetation Management Associated with State-Listed Rare Plants

Bog Jacob's-ladder (*Polemonium vanbruntiae*), a species listed as Endangered in Maine, may occur within wetlands crossed by the underground collection corridor at the Pleasant River and Beaver Meadow Brook / Bog Stream crossings. If vegetation

clearing or herbicide applications are necessary within potentially suitable habitats or known populations either during construction or during long-term Project maintenance activities, the area will first be surveyed by a qualified botanist to locate and demarcate any bog Jacob's-ladder plants within these locations. The need to apply herbicide or initiate vegetation removal within 50 feet of bog Jacob's-ladder plants should be done in consultation with the Maine Natural Areas Program as well as applicable local and state laws.

Canada mountain-rice grass (*Piptatherum canadense*), a species listed as Special Concern in Maine, is present in several open and early successional upland habitat areas within and around the Project area, including edges of blueberry fields, inactive blueberry fields, and early successional woodlands. To protect populations of this species and encourage its reestablishment and recruitment following Project construction, any mechanized mowing activities associated with the long-term maintenance of the underground collection corridors that are not within existing commercial blueberry fields should be conducted before June 1 or after August 15 in order to allow Canada mountain-rice grass plants to develop and release mature seed. Herbicide applications may target woody plants within areas proximal to Canada mountain-rice grass populations, but measures should be implemented to limit potential herbicide overspray.

Vegetation Management for Invasive Species

Invasive species management will include those species listed as "Invasive" in the Maine Department of Agriculture, Conservation and Forestry Division of Animal and Plant Health, 01-001 Chapter 273, Criteria for Listing Invasive Terrestrial Plants, <https://www.maine.gov/dacf/php/horticulture/documents/Chapter273.pdf>.

Methods that have proven effective in controlling any individual species should be utilized for any listed Invasive species that are identified during construction of the site or colonizing the site during the operational period. Methods may include manual application of herbicides, trimming, pruning, mowing, and root removal with a weed wrench.