

APPENDIX C

Department of Transportation Pollinator Seeding Plan

MaineDOT Pilot Solar Project: Seeding Requirements for Pollinator Species

The native grasses and pollinator species required for this solar energy project will highlight both National and State commitment to creating pollinator habitat and demonstrate pollinator habitat is complementary to achieving energy independence and efficiency.

Prior to construction, a **Seeding Plan for Pollinator Species** shall be submitted to MaineDOT for review and approval. The plan shall include weed eradication, site preparation, map or description of seed mix areas, seeding methods, vegetation establishment timelines, maintenance of established vegetation and mowing requirements.

***Note:** The Department is open to creative approaches and techniques for establishing and maintaining pollinator habitat at the solar array sites.*

The following guidelines should be incorporated into the Seeding Plan

1. Prior to construction, selective eradication of noxious weeds such as oriental bittersweet, poison ivy, wild parsnip, garlic mustard, russian olive, multiflora rose, shall be completed by a licensed applicator following all applicable laws and regulations.
2. Soil preparation to incorporate existing woody debris into the topsoil layer is required by tilling, scarification-raking, disc-hoeing or other methods.
3. Use of hydroseeded soil improvements and growth medium products are encouraged. Final approval and field inspection of seed and hydroseeding mixes will be coordinated with *MaineDOT* Landscape Architect.
4. All site work shall be governed by *MaineDOT Best Management Practices for Erosion and Sedimentation Control*.
5. Maintenance shall include mowing and removal of cut vegetation as necessary between November and April.
6. 90% vegetative coverage for all areas is required throughout operation and non-conforming areas must be reseeded as necessary.
7. The MaineDOT Environmental Office and Landscape Architecture staff will conduct spring and fall inspections of vegetative cover to make sure 90% coverage is maintained.
8. Maintenance of the pollinator habitat areas shall be continued in perpetuity for as long as the solar panels are in place.
9. Meadow conditions shall be created or restored if the solar arrays are discontinued and removed.
10. All project areas shall be seeded following *MaineDOT Standard Specifications for Method 2* with the requirements for lime, liquid lime, fertilizer, and humic acid amendments removed.

The following special seed mixes shall be used for the project.

Note: The design intent is for drivers to look over the Short Pollinator Mix vegetation to larger areas of the Tall Pollinator Mix vegetation in the solar arrays and larger areas outside the highway buffer zone.

Method 2 Roadside Mix (Amended)

Substitute for Standard Method 2 Seed Mix to be used in all areas and combined with the other 3 special seed mixes. The seed will provide first season soil stabilization, be a visual aid to ensure coverage and act as cover crop for first season establishment of the pollinator species.

35 %	Festuca rubra	Red Fescue
35 %	Festuca ovina	Sheep Fescue
5.0 %	Agrostis alba	Red Top
6.0 %	Trifolium repens	White Clover
19 %	Lolium multiflorum	Annual Rye Grass

Seeding Method Number 2 (Amended) for Pollinator Display Seeding shall be spread at the rate of 1 lb. per unit when combined with the other 3 seed mixes.

Short Pollinator Mix

Used in highway buffer zones, adjacent to access and maintenance paths.

47 %	Festuca ovina duriuscula	'Jetty' Hard Fescue
24 %	Schizachyrium scoparium	Little Bluestem
12 %	Lolium multiflorum	Annual Ryegrass
10 %	Eragrostis hirsuta	Love Grass
2.5 %	Rudbeckia hirta	Black-eyed Susan
1.0 %	Oenothera perennis	Little Evening Primrose
1.0 %	Pycnanthemum tenuifolium	Virginia Mountain Mint
0.5 %	Aster divaricatus	White Wood Aster
0.5 %	Aster laevisSmooth	Blue Aster
0.5 %	Zizia aurea	Golden Alexanders
0.3 %	Penstemon hirsutus	Hairy Beardtongue
0.2 %	Monarda fistulosum	Wild Bergamot
0.2 %	Solidago nemoralis	Gray Goldenrod
0.2 %	Solidago rugosa	Wrinkleleaf Goldenrod
0.1 %	Baptisia tinctorial	Yellow False Indigo

Short Pollinator Mix shall be applied at the rate of 1 lb. per 1 lb. Method Number 2 (Amended)

Tall Pollinator Mix

Used below solar panels, along fence lines, steep slopes and areas not prescribed for the Short Pollinator or Stream Buffer mixes.

30 %	Calamagrostis canadensis	Canada Bluejoint
20 %	Elymus virginicus	Virginia Wildrye
18 %	Schizachyrium scoparium	Little Bluestem
11 %	Panicum virgatum	Switch Grass
5.0 %	Aster noviae-angliae	New England Aster
3.0 %	Asclepias syriaca	Common Milkweed
2.0 %	Penstemon hirsutus	Hairy Beardtongue
1.5 %	Aster macrophyllus	Bigleaf Aster
1.5 %	Aster novi-belgii	New York Aster
1.5 %	Rudbeckia hirta	Black-eyed Susan
1.0 %	Silphium perfoliatum	Cup plant
1.0 %	Helianthus giganteus	Giant Native Sunflower
1.0 %	Pycnanthemum tenuifolium	Virginia Mountain Mint
1.0 %	Solidago canadensis	Giant Canada Goldenrod
1.0 %	Solidago nemoralis	Gray Goldenrod
0.5 %	Eupatorium fistulosum	Joe Pye Weed
0.5 %	Solidago gigantea	Tall Goldenrod
0.5 %	Solidago juncea	Early Goldenrod

Tall Pollinator Mix shall be applied at the rate of 1 lb. per 1 lb. Method Number 2 (Amended)

Stream Buffer Mix

Used on both sides of the small stream, drainage areas and wet spots.

35 %	Panicum virgatum	Switchgrass
30 %	Schizachyrium scoparium	Little Blue Stem
23 %	Elymus virginicus	Virginia Wildrye
5 %	Panicum clandestinum	Deer Tongue
1.5 %	Rudbeckia hirta	Black-eyed Susan
1.0 %	Asclepias incarnata	Swamp Milkweed
0.5 %	Desmodium canadense	Showy Tick Trefoil
0.5 %	Lobelia cardinalis	Cardinal Flower
0.5 %	Eupatorium maculatum	Spotted Joe Pye Weed
0.5 %	Bidens aristosa	Bur Marigold
0.5 %	Boltonia asteroides	White Doll's Daisy
0.4 %	Aster umbellatus	Flat Topped White Aster
0.3 %	Lobelia syphyllitica	Great Blue Lobelia
0.2 %	Monarda fistulosum	Wild Bergamot
0.2 %	Eupatorium perfoliatum	Boneset

Stream Buffer Mix shall be applied at the rate of 1 lb. per 1 lb. Method Number 2 (Amended)

Special Seeding Notes:

- *Substitutions or modifications to the seed mixes, may be necessary due to seed availability, but will require Department approval prior to use.*
- *Hydroseeding these mixes shall be the primary method of application. Hand-seeding or other special methods may be required or used for interior slopes and rocky or wet areas.*
- *The use of hydromulch assists in seed placement and helps to reduce erosion. Native seeds may be broadcast hydraulically with 500 lb. per acre of mulch in the mix as a marker (11 lb/1,000 sq ft). That quantity must not be exceeded since the native seeds will become suspended in the mulch, have little or no seed-to-soil contact and not germinate. The balance of e mulch or hydroseed growth medium 1,000 lb. per acre may be applied on top in a secondary application.*